National Green Building Standard™ 2018 UPDATE

Proposed Changes

April 12, 2017

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TG-2: Site and Lot Development

Chapter 4: Site Design and Development

Proposal ID TBD	LogID 1501 400.0 Intent (Site Design and Development)
Submitter:	David S. Collins, FAIA
Requested Action:	Revise as follows
Proposed Change:	Sites located within 100-year floor plains shall not be permitted to use this rating system.
Reason:	What about eliminating eligibility of sites located within 100-year flood plains? Add the following text. Disagreement with previous committee action: Committee should reconsider and vote for approval. Rationale: Construction in a flood plain may undermine the performance of the building altogether and place the ability to meet other site and community resource credits, among many other credits, at risk. Consider the risk associated with the life of the building. Responsible site selection should be a precursor to every green building program.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6460 401.0 Intent (Site Selection)	
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Add new as follows	
Proposed Change:	401.4 Wildland-Urban Area Site Avoided. A site in the wildland-urban interface is not selected. - (Only applicable where the legislative Authority Having Jurisdiction has declared a wildland-urban interface area in accordance with the International Wildland-Urban Interface Code).	<u>6</u>
Reason:	There are seriously negative environmental impacts from the spread of fire between buildings and wildlands. If it is known that a site is in a wildland-urban interface area (declared by the AHJ, avoiding building on that site mitigates an environmental risk.	9
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6147 403.0 Intent (Site Design)	
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Revise as follows	
Proposed Change:	403.0 Intent. The project is designed to avoid detrimental environmental impacts, minimize any unavoidable impacts, and mitigate for those impacts that do occur. The project is designed to minimize environmental impacts and to protect, restore, and enhance the natural features and environmental quality of the site. The project is designed to increase human health and well-being.	

Reason:	"Urban green spaces provide environmental benefits through their effects on negating urban heat, offsetting greenhouse gas emissions, and attenuating storm water. They also have direct health benefits by providing urban residents spaces for physical activity and social interaction, and allowing psychological restoration to take place." Abstract: Value of urban green spaces in promoting healthy living and wellbeing: prospects for planning; Lee, Jordan, & Horsley; Risk Management and Healthcare Policy 2015:8 131-137 Obesity and mental illness are increasing in developed countries around the world. Our built exterior environments; our green spaces and public open spaces, can and should help mitigate these threats to human well-being. The standard already recognizes the value of open space in Sec. 405.9. The intent of Section 403 should explicitly state that human health and well-being benefits are goals of the standard.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6462 403.1 Natural resources	
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Add new as follows	
Proposed Change:	(7) Developer has a plan to design and construct the site in accordance with the International Wildland-Urban Interface Code (IWUIC). - (Only applicable where the AHJ has not declared a wildland-urban interface area, but a fire protection engineer, certified fire marshal, or other qualified party has determined and documented the site as hazarded per the IWUIC).	
Reason:	It is unrealistic to believe that building will not occur on sites that could qualify as hazarded by the International Wildland-Urban Interface Code, but that have not been legally identified as such by the Al Good environmental policy on those sites is to develop according to the provisions of the IWUIC to mitigate the negative consequences of fire spread between wildlands and buildings. (see documentatic a letter from the International Association of Fire Chiefs Life Safety Section). Requiring a qualified party establish whether a site qualifies as hazarded keeps this provision from being a points giveaway.	on-
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 1514 403.5 Stormwater management
Submitter:	Heather Dylla, National Asphalt Pavement Association
Requested Action:	Delete without substitution
Proposed Change:	Permeable materials are used for driveways, parking areas, walkways and patios according to the following percentages: (a) less than 25 percent 2 (b) 25 50 percent 5 (c) Greater than 50 percent 10
Reason:	Giving points specifically to permeable materials may encourage their use where they are not practical or not even the best solution for stormwater management. Their efficacy depends on site limitations such as soil permeability, depth to impermeable layers and water table, and topography. It is recommended that

	permeable materials are evaluated together with all other low impact development practices (question 2) to encourage the best stormwater management solution.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6297	403.10 Existing and recycled materials
Submitter:	Susan Gitlin, US	Environmental Protection Agency
Requested Action:	Revise as follows	
Proposed Change:	recycled asphalt (Points awarded the criteria of this aggregates reinco awarded for ever project above the volume, or cost b 50% of E-existing development.	nts, curbs, and aggregates are salvaged and reincorporated into the development or or concrete materials are used as follows. for every 10 percent of total materials used for pavement, curb and aggregate that met practice. One point is awarded for every 10% of existing pavements, curbs or or proporated into the development above the threshold amount of 50%. Additional point is y 10% of recycled asphalt or concrete with at least 50% recycled content utilized in the threshold amount of 50%. The percentage is consistently calculated on a weight, asis.) pavements, curbs, and aggregates are reincorporated into the dasphalt or concrete with at least 50 percent recycled content is utilized in the 2
Reason:	even practices th aggregates will be existing pavement incorporating 30% utilizing recycled- points. High reus system should at attained. Maintain that incorporate: amount of pavements	amount is not established and a number of points for that threshold amount limited, at achieve a relatively modest reuse of asphalt and concrete road materials and a awarded a considerable number of points. For example, reincorporating 50% of this, curbs and aggregates into the development will achieve the maximum 15 points, or 6 of existing existing pavements, curbs and aggregates into the development and content asphalt or concrete for 30% of the new materials will achieve the maximum 15 the rates for asphalt, concrete and aggregates are readily achievable, and the point this time, foremost incentivize practices that yield benefits beyond those commonly in the 15-point maximum, but clarify that the available 3+2 points are awarded to projects and some threshold amount of existing pavements (3 points); and, b) some threshold eight materials with recycled content (2 points); while additional points are awarded for asses above those threshold amounts.
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6547 403.4 Soil disturbance and erosion
Submitter:	Ben Edwards, Spindale NC
Requested Action:	Delete without substitution
Proposed Change:	Delete only item (3) from section 403.4 Limits of clearing and grading are staked out prior to construction.
Reason:	This comment is intended to highlight a larger issue in this document: double counting. 404.3(1) awards 5 points for flagging the site under Site Development and Construction. 403.4(3) awards 4 points for the same action under Site Design (points are awarded when "the intent of the design is implemented." While flagging a site is important, does the committee believe 9 points should be awarded for a fundamental

	construction practice? Further, 5 more points are awarded in 404.1 On-site Supervision and Coordination if someone watches the flagged clearing and grading. The potential for 14 points for a standard practice is not appropriate in an above-code document. Points should be awarded based on outcome, and should clearly indicate the relative weight in compliance. Note: Similar issues are found in Chapters 5 and 11, and the topic of soil disturbance is illustrative. Philosophically, if points are to be awarded for planning, construction, and verification, the greatest weight should be on verification.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6571 403.6 Landscape plan	
Submitter:	Jack Karlin, Turfgrass Water Conservation Alliance	
Requested Action:	Revise as follows	
Proposed Change:	GREEN BUILDING PRACTICES 403.6 Landscape plan. A landscape plan is developed to limit water and energy use in comwhile preserving or enhancing the natural environment utilizing one or more of the fo	
	(4) EPA WaterSense Water Budget Tool or equivalent is used when implementing the maximum any percentage of turf areas.	2 5
	(5) For landscaped vegetated areas in landscape areas receiving less than twelve (12) inches precipitation per year, the maximum percentage of all turf areas is:	
	(a) 0 percent	5
	(b) Greater than 0 percent to less than 20 percent (c) Greater than 0 percent to less than 20 percent using third party qualified water officient greaces	4 <u>3</u>
	efficient grasses (d) 20 percent to less than 40 percent	3
	(e) 20 percent to less than 40 percent using third party qualified water efficient grasses	3
	(f) 40 percent to 60 percent	2
	(g) 40 percent to 60 percent using third party qualified water efficient grasses	<u>3</u>
Reason:	The Turfgrass Water Conservation Alliance® (TWCA®) is a 501c3 nonprofit committed to water conservation and preserving the ecological services provided by turfgrass in the managed environment. Representing 93 members around the world in academia, government, and private sector, TWCA's coalition reaches beyond our industry members. TWCA® provides education based on scientific information which contradicts many of the opinions and much of the misinformation about turfgrass. Further, the TWCA® recognizes that water and plants are necessary to sustain life, and strive to protect the environment in which we live. Destruction of the environment by the removal of plant materials, including turfgrass is detrimental to the health and wellbeing of our society. Turf serves as an important sink for Carbon; nationwide, single family detached homes with yards sequester enough carbon to take 44,000 cars off the road each year1. That is the same as every person in Coachella CA not driving for a year. Turf filters fine particulate and dust out of the air2 improving air quality, reduces noise and glare3 and cools the air to help mitigate the heat island effect caused by the ever-expanding blanket of hard, impervious surfaces covering large swathes of the United States. Green spaces in general, and turf in particular, are linked to large scale improvements in the physical and mental health of the population4 as well as attenuating the health gaps between the richest and poorest citizens of communities5. The removal of plant matter from any environment, managed or natural, should be considered long and with great care. Decisions made today to remove or limit turf may conserve water in the short term. It may take years or decades, even, for the long term negative consequences to be felt. However, when the consequences are felt it will be in the form of higher cooling costs, louder, dirtier cities, and shorter, less healthy, less happy lives. Further, to treat turf as a monolith is to ignore the broad spectrum of genetic diversity r	

contractors and end-users to learn more about their landscapes and engage with both the design and maintenance processes. TWCA proposes raising the awarded points for using a Water Budgeting Tool to incentivize engagement with and understanding of the landscaped areas surrounding houses. We believe this engagement and understanding will significantly contribute to water savings over the life of the development. Incentivizing the use of literally any other landscape plant for vegetated areas does not ensure responsible landscaping or water conservation and could result in an increase of the water requirements for a landscape depending on the landscape plants used. This system also ignores the broad range of demonstrated water efficiencies available in turfgrasses today. Finally, given the significant advances made in the development of drought tolerant, rewarding the elimination of turf is rewarding the elimination of well adapted plants through most of climates in the United States. TWCA believes it is most prudent to limit the award of points for prescriptive turf limits to those areas receiving less than twelve (12) inches or precipitation per year. An alternative point system endorsed by the TWCA uses the following scheme: For vegetated areas in landscape areas receiving less than twelve (12) inches precipitation per year, the maximum percentage of all turf areas is: GREEN BUILDING PRACTICES POINTS 403.6 Landscape plan. A landscape plan is developed to limit water and energy use in common areas while preserving or enhancing the natural environment utilizing one or more of the following: (4) EPA WaterSense Water Budget Tool or equivalent is used when implementing the maximum any percentage of turf areas. 2 5 (5) For landscaped vegetated areas in landscape areas receiving less than twelve (12) inches precipitation per year, the maximum percentage of all turf areas is: (a) 0 percent 5 (b) Greater than 0 percent to less than 20 percent 4 (c) Greater than 0 percent to less than 20 percent using third party qualified water efficient grasses 3 (d) 20 percent to less than 40 percent 3 (e) 20 percent to less than 40 percent using third party qualified water efficient grasses 3 (f) 40 percent to 60 percent 2 (g) 40 percent to 60 percent using third party qualified water efficient grasses 3 Using such a point award scheme maintains the incentive to use turf in landscapes responsibly while incentivizing the selection of improved water efficient varieties and encouraging a real engagement with the plant selection process. This point system also eliminates the unfounded demonization of turf. References: 1) R. Lal and B. Augustin (eds.) Carbon Sequestration in Urban Ecosystems, DOI 10.1007/978-94-007-2366-5_14 © Springer Science+Business Media B.V. 2012 2) Water Quality and Quantity Issues for Turfgrasses in Urban Landscapes, Council for Agricultural Science and Technology (CAST), Special Publication 27, 2006, Ch2. 3) Beard, J. B. and R. L. Green. 1994. The role of turfgrasses in environmental protection and their benefits to humans. J Environ Qual 23(9):452-460. 4) Jolanda Maas, Robert A Verheij, Sjerp de Vries, Peter Spreeuwenberg, Francois G Schellevis, Peter P Groenewegen. "Morbidity is related to a green living environment." J Epidemial Community Health. Published Online 15 October 2009. DOI:10.1136/jech.2008.079038 5) Richard Mitchell, Frank Popham "Effect of exposure to natural environment on health inequalities: an observational population study" Lancet 2008; 372: 1655-60 6) Karcher, D.E., Richardson, M.D., Hignight, K., and Rush, D. "Drought Tolerance of Tall Fescue Populations Selected for High Root/Shoot Ratios and Summer Survival "Crop Science 2008; v48 n2: 771-777 7) Karcher, D., M. Richardson and J. Landreth. 2008. Drought tolerance of tall fescue and bluegrass cultivars. Arkansas Turfgrass Report 2007, Ark. Ag. Exp. Stn. Res. Ser. 557:17-20.

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6165 403.6 Landscape plan
Submitter:	Greg Johnson, Outdoor Power Equipment Institute
Requested Action:	Revise as follows
Proposed Change:	(4) EPA WaterSense Water Budget Tool or equivalent is used when implementing the maximum percentage of turf areas. 2 10 (5) For landscaped vegetated areas, the maximum percentage of all turf areas is: (a) 0 percent 5 (b) Greater than 0 percent to less than 20 percent 4 (c) 20 percent to less than 40 percent 3 (d) 40 percent to 60 percent 2
Reason:	Turf area limits make no sense at the master community or subdevelopment scale, particularly given the many low water using native and improved species of turfgrass. Given the complexity of large scale

	landscape water budgeting it is proposed that a more significant point award be given for use of a WBT to match turf area to water availability.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6163 403.6 Landscape plan
Submitter:	Greg Johnson, Outdoor Power Equipment Institute
Requested Action:	Revise as follows
Proposed Change:	(5) For landscaped vegetated areas in locations with less than 12 inches of annual precipitation, the maximum percentage of all turf areas is:
Reason:	Where water supplies are sufficient, turf disincentives are disincentives to healthy communities. See the separate technical substantiation.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6347	403.6 Landscape plan
Submitter:	Brent Mecham, Ir	rigation Association
Requested Action:	Revise as follows	3
Proposed Change:		nse Water Budget Tool <u>or ANSI/ASABE S623.1 Jan2017 Determining Landscape Plant standard</u> or equivalent is used when implementing determining the maximum f areas.
Reason:	instructions to cre landscape. As a	ocument, this ANSI standard provides the necessary equations, plant factors and eate a landscape water budget and determine the water requirement to maintain the national standard it is equivalent to EPA WaterSense Water Budget Tool but perhaps e in the fact that the plant factors take into account the climate.
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6465 403.7 Wildlife habitat	
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Revise as follows	
Proposed Change:	403.7 Wildlife habitat. (1) Measures are planned that will support wildlife habitat.	6
	(2) The site is adjacent to a wildlife corridor, fish and game park, or preserved areas and is designed with regard for this relationship.	<u>3</u>

	(3) Outdoor lighting techniques are utilized with regard for wildlife.	3
	(4) Areas of lawn are integrated with maintenance tolerant, non-invasive flowering herbaceous plants in an amount to achieve not less than 20% of the groundcover. Plants should typically flower at less than 4 inches in height. Signs are provided indicating the purpose of the flowering lawn for habitat and prohibiting treatment with pesticides. (Consult a local agricultural extension service or university or for appropriate plants)	<u>3</u>
Reason:	Items 2 & 3 are duplicated from Chapter 5; benefits provided there are equally applicable at the site scale. Item 4 provides a method of supporting habitat in areas of lawn. Significant research has identified the potential of lawns to serve as bee habitat when integrated with flowering plants.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6296 403.9 Existing buildings	
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	Following mitigation of any harmful materials, E-existing building(s) and structure(s) is/are preserved and reused, modified adapted, or disassembled for reuse or recycling of building materials.	
	1. Building reuse. 12 2. Adaptation for building reuse preserving more than 75% of major components. OR, disassembly for reuse/recycling of more than 85% of major components. 10 3. Building reuse preserving not less than 50% of major components. 6 4. Adaptation for building reuse preserving more than 40% of major components, OR, disassembly for reuse/recycling of more than 50% of major components. 5	
Reason:	Building reuse avoids expenditure of resources for new construction and prevents waste generation. Building disassembly maximizes the recovery of construction and demolition (C&D) materials and creates economic opportunities in local communities. These non-trivial efforts are of the highest priority on the waste management hierarchy, and their implementation requires a meaningful incentive. Building reuse, adaptation and disassembly are all high on the waste management hierarchy, but building reuse is a source reduction measure that has the potential to carry the greatest overall benefit. The credit, as written, makes no mention of the need to mitigate any harmful materials prior to building reuse or adaptation. As written, the credit does not distinguish between partial and full-building reuse, adaptation or disassembly. To address these issues, we recommend the following: ? Increase the maximum number of points available for building reuse, adaptation and disassembly from 8 to 12. ? Allocate the maximum points to the reuse of a building, and a slightly lesser number of points to adaptation and disassembly. ? Bring attention to the need to mitigate any harmful materials prior to building reuse or adaptation. ? Allocate partial number of points to partial building reuse, adaptation or disassembly.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6145 405.1 Driveways and parking areas	
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Revise as follows	

Proposed Change:	(4) Water permeable surfaces, including v Vegetative paving systems, are utilized to reduce the footprint of impervious surface driveways, fire lanes, streets or parking areas.
Reason:	Sec. 403.5 (4) already awards points for stormwater management by using permeable materials for driveways and parking areas. Accepting any water permeable surface to earn points for 405.1 (4) allows double counting for the same material installation. It robs the standard of credibility, particularly when the point awards are relatively high. Is using concrete pavers, with the associated carbon impacts, really worth up to 16 points? More importantly, allowing any permeable material to be awarded the same points as a vegetative paving system (VPS) implies that they have equivalent environmental benefit which is simply not true. A VPS sequesters carbon and produces oxygen. A VPS supports bacteria and other micro-organisms that mitigate hydrocarbon pollution; a likely problem on driving and parking surfaces. A VPS evapotranspires, returning moisture to the air and providing much more cooling than permeable hardscapes. A VPS filters dust and pollutants from the air. The trimmings from managed VPSs improve soil quality, either in situ or when removed for composting. A VPS is not subject to clogging while permeable hard surfaces are. The carbon impacts alone of installing vegetation in an open cell grid or over a recycled plastic matrix are orders of magnitude less harmful than those of producing and providing concrete, asphalt, mined and crushed stone, mined and washed pea rock, or other inorganic materials. The committee is encouraged to return to the language originally proposed in the previous cycle of the NGBS and reserve these innovative practice points for enhanced environmental performance as intended in Sec. 405.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6453 405.10 Community garden(s)	
Submitter:	Michael Cudahy, PPFA	
Requested Action:	Revise as follows	
Proposed Change:	Community garden(s). A-portions of the site of at least 250 sq feet is are established as a community garden(s) for the residents of the site to provide local food production for residents or area consumers. One point awarded per 250 sq feet. Maximum 3 points.	
Reason:	To establish a minimum size for the gardens and allow for point tier discussion. The committee or task group can discuss and determine if a minimum size is necessary. Some regions may use vertical gardens and not need much land area, but some regions my best be served by multiple fruit trees, or even palms. Also allows for a discussion of tiered points. A project would have more flexibility with a point tier allocation.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6452 405.5 Wetlands	
Submitter:	Michael Cudahy	
Requested Action:	Revise as follows	
Proposed Change:	405.5 Wetlands. Constructed <u>or natural</u> wetlands or other natural innovative wastewater or stormwater treatment technologies are used <u>on site.</u>	
Reason:	Rewording for clarity, allowing for constructed or natural wetlands to be used on site. Alternatively, if the intent is only constructed wetlands, the committee can modify.	

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6158 405.9 Open space	
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Revise as follows	
Proposed Change:	405.9 Open space. A portion of the gross area of the community is set aside as open space. 4 2 (Points awarded for every 10 percent of the community set aside as open space	
Reason:	1 point per 10% of gross community area is far too low. The World Health Organization recommends a minimum of 9 square meters (roughly 100 square feet) of green space per person for a healthy city. Given the multiple environmental and human health benefits that open green space can offer it only makes sense to create strong incentives for open design.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6458	Other for Chapter 4 (include section number and title below)		
Submitter:	Greg Johnson,	Greg Johnson, Outdoor Power Equipment Institute		
Requested Action:	Add new as foll	lows		
Proposed Change:	406 Human Health and Wellbeing - 406.0Intent. Site design, preparation and development practices are used to foster human health and wellbeing.			
	406.1. The si	ite is designed to encourage physical activity	-	
		of walkways, bikeways, street crossings, or pathways designed to walking, jogging, skating, and biking is provided.	-	
		All streets have sidewalks on each side of the street and marked crosswalks on each side of street intersections.	<u>5</u>	
		All streets have a dedicated and marked bicycle lane in each direction of travel.	<u>5</u>	
		Trails or pathways through natural areas of not less than 20 acres (80,940 m²) and which are protected by conservation easement are provided.	<u>8</u>	
	(d)	Multi-station fitness trails are provided.	1 point for 2 stations 6 points max	
	(e)	Mileage or progress markers are posted on trails	<u>1</u>	
	(2) Facilities	for active outdoor recreation are provided	-	

(a) A community swimming pool with an automatic pool cover is provided.	<u>7</u>
(b) A community golf course is provided.	<u>7</u>
(c) Community tennis or basketball courts are provided.	I point for each 3 points max
(d) Community pickleball or handball courts are provided.	I point for each 3 points max
(e) Community softball/baseball or multi-sports fields are provided.	5 points max 5 points each 15 points max
 (f) Community playgrounds and equipment or open play area are provided. 	3 points each 9 points max
(3) A fenced community off-leash dog park is provided.	<u>5</u>
1-	-
406.2 The site is designed to promote social interaction or outdoor respite	-
(1) Outdoor communal gathering places are provided	_
(a) Park space with seating and tables for picnicking is provided.	2 points per acre 10 points max
(b) A band-shell or stage for outdoor performance is provided	<u>5</u>
(c) Picnic areas (2 tables and 1 barbecue grill)	1 point for each
(2) Bench seating oriented toward scenic views or vistas such as mountains,	1 point per bench
skylines, or bodies of water is provided.(3) A community lawn or town square is provided	7 points max 5
-	_
406.3 Community garden(s). A portion of the site is established as a community garden(s) for the residents of the site to provide local food production for residents or area consumers.	<u>5</u>
or area consumers. Composting area and physical provisions are provided for accumulating compost	1
Signs designating the garden area are posted.	<u> </u>
406.4. Tick-borne disease. The site is designed to mitigate hazards from tick-borne disease	
(To acquire points the site must be documented to be at risk by an epidemiologist or qualified professional)	<u>Points</u>
(1) Dense plant beds, shrubbery and woody plants are not planted within 5 feet (1.5 m) of occupied buildings	5 ₋
(2) A minimum of a 5 foot (1.5 m) border of paving, mulch, bare earth, or turfgrass is provided between woods or weedy areas and people trafficked or occupied areas, including playgrounds and dog parks.	<u>5</u>
(3) Vegetation that is attractive to deer, as documented by a qualified professional, is not planted within 20 feet (6 m) of buildings	<u>3</u>
(4) Paths or trails maintained through natural or non-maintained areas are a minimum of 5 feet wide (1.5 m)	<u>3</u>
<u>-</u>	-

	406.5 O	406.5 Outdoor smoking prohibition.	
	Signs are pro	Signs are provided prohibiting smoking at the following locations:	
	(a)	Smoking is prohibited within 25 feet (7.5 m) of all building exterior doors and operable windows or building air intakes within 15 (4.5 m) vertical feet of grade or a walking surface.	<u>5</u>
	(b)	Smoking is prohibited on decks, balconies, patios and other occupied exterior spaces.	<u>5</u>
	(c)	Smoking is prohibited at all parks, playgrounds, and community activity or recreational spaces.	<u>5</u>
Reason:	building. LEED substantiation) There some el	and wellness considerations are an important part of green and sustain addresses this subject matter as does the WELL Building Standard (so Much of health and wellness design for exteriors is best done at the dements of overlap with existing provisions for multimodal travel, but the function is provided, not how it is provided for healthy intent.	submitted as development scale.
TG Recommendation (AS or AM or D):			
Modification of Proposed Change:			
TG Reason:			
TG Vote:			

Proposal ID TBD	LogID 6551	Other for Chapter 4 (include section number and title below)	
Submitter:	Kat Benner, US-E	EcoLogic / TexEnergy	
Requested Action:	Add new as follow	vs	
Proposed Change:	405 HEALTH AN	ID WELL BEING (prior to INNOVATIVE PRACTICES)	
Reason:	To include a new sub-section within each chapter of the Protocol, as relevant, immediately preceding (or after) Innovative Practices section, to address health and well being issues that are interconnected to the overall Green certification, but independent/optional, not required. This opens the program to reach lifestyle and living for overall occupant health.		
TG Recommendation (AS or AM or D):			
Modification of Proposed Change:			
TG Reason:			
TG Vote:			

Chapter 5: Lot Design, Preparation and Development

Proposal ID TBD	LogID 6461 501.1 Lot (Lot selection)		
Submitter:	Greg Johnson, Power Equipment Institute		
Requested Action:	Add new as follows		
Proposed Change:	(4) Wildland-Urban Area Site Avoided. A site in the wildland-urban interface is not selected. (Only applicable where the Authority Having Jurisdiction has declared a wildland-urban interface area in accordance with the International Wildland-Urban Interface Code).		
Reason:	There are seriously negative environmental impacts from the spread of fire between buildings and wildlands. If it is known that a lot is in a wildland-urban interface area (declared by the AHJ, avoiding building on that site mitigates an environmental risk.		
TG Recommendation (AS or AM or D):		1	
Modification of Proposed Change:			
TG Reason:			
TG Vote:			

Proposal ID TBD	LogID 6454	501.2 Multi-model transportation
Submitter:	Michael Cudahy,	PPFA
Requested Action:	Add new as follow	ws
Proposed Change:	(6) (d) Bicycle encloselements. 2 Additional point	sed storage is provided or parking spaces are covered or otherwise protected from the is per (a)-(c)
Reason:	be rewarded as it	ion from the weather of a parked bicycle is an additional cost to the builder and should makes the use of bicycles more likely. It's also not inconceivable that a builder could nclosed space with a door for residents which should also be rewarded.
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6320 501.2	Multi-model transportation	
Submitter:	Aaron Gary, US-EcoLog	С	
Requested Action:	Add new as follows		
Proposed Change:	(7) Provide infrastructure to facilitate shared vehicle usage such as carpool drop-off areas, car-share services, and shuttle services to mass transit 5 POINTS		
Reason:		Communities that provide for share vehicle usage should be rewarded as this reduces the production of reen-house gases in the same way as mass transit or bicycle use.	

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6323 50	1.2 Multi-modal transportation
	-	
Submitter:	Aaron Gary, US-Ecol	Logic
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW IN 501.2 (8) Lot is within a community that has a Bike sharing program and where facilities for bike sharing are planned for and constructed 5 points (9) Lot is within a community that has a Car sharing program and where facilities for car sharing are planned for and constructed 5 points	
Reason:	Based on existing practice in NGBS 2015 (405.6) and applied to a single lot versus entire land development.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6173	501.2 Multi-model transportation	
	1		
Submitter:	Aaron Gary, US-E	EcoLogic	
Requested Action:	Add new as follow	vs	
Proposed Change:	ADD NEW OPTION TO 501.2 (7) Employment Access: A site is selected in an area with a measured Jobs per Sq. Mi. of: a) 10,000 - less than 25,000 - 3 POINTS b) 25,000 to less than 50,000 - 4 POINTS c) 50,000 to less than 100,000 - 5 POINTS d) 100,000 or more - 6 POINTS		
Reason:	Travel to and from work is a major source of carbon emissions. Locating housing near employment will significantly reduce the vehicle miles traveled of the average occupant. The Proposed metric can be easily found using http://htaindex.cnt.org/		
TG Recommendation (AS or AM or D):			
Modification of Proposed Change:			
TG Reason:			
TG Vote:			

Proposal ID TBD	LogID 6148	503.0 Intent (Lot Design)
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	

Requested Action:	Revise as follows	
Proposed Change:	503.0 Intent. The lot is designed to avoid detrimental environmental impacts first, to minimize any unavoidable impacts, and to mitigate for those impacts that do occur. The project is designed to minimi environmental impacts and to protect, restore, and enhance the natural features and environmental quality of the lot. The lot is designed to enhance human health and well-being.	
Reason:	People's living environments should support healthy lifestyles. Sec. 505.5 recognizes this by awarding points for community gardens; a healthy outdoor activity, providing both exercise and better nutrition.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6463 503.1 Natural resources	
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Add new as follows	
Proposed Change:	(8) Developer has a plan to design and construct the lot in accordance with the International Wildland-Urban Interface Code (IWUIC). (Only applicable where the AHJ has not declared a wildland-urban interface area, but a fire protection engineer, certified fire marshal, or other qualified party has determined and documented the site as hazarded per the IWUIC).	
Reason:	It is unrealistic to believe that building will not occur on lots that could qualify as hazarded by the International Wildland-Urban Interface Code, but that have not been legally identified as such by the AHJ. Good environmental policy on those sites is to develop according to the provisions of the IWUIC to mitigate the negative consequences of fire spread between wildlands and buildings. (see documentation a letter from the International Association of Fire Chiefs Life Safety Section). Requiring a qualified party to establish whether a lot qualifies as hazarded keeps this provision from being a points giveaway.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6546	503.3 Soil disturbance and erosion	
Submitter:	Ben Edwards,	Spindale NC	
Requested Action:	Delete without	substitution	
Proposed Change:		Delete on item (3) from section 503.3 <u>Limits of clearing and grading are demarcated on the lot plan.</u>	
Reason:	awards 5 point same action ur flagging a site above-code do relative weight disturbance is	is intended to bring attention a larger issue in this document: double counting. 504.3(2) as for flagging the site under Lot Construction. 503.3(3) awards 5 points for planning the inder Lot Design (points are awarded when "the intent of the design is implemented." While is important, the potential for 10 points for a standard practice is not appropriate in an ocument. Points should be awarded based on outcome, and should clearly indicate the in compliance. Note: Similar issues are found in Chapters 4 and 11, and the topic of soil illustrative. Philosophically, if points are to be awarded for planning, construction, and a greatest weight should be in verification.	

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6223	503.4 Stormwater management	
Submitter:	Paul Gay, US-E	EcoLogic	
Requested Action:	Add new as foll	lows	
Proposed Change:	Instal Permane	nt or Maintained/Managed Post Construction Sewer/Street drain protection	
Reason:	protect sewer s	protect sewer system and water ways from ongoing post construction pollutants	
TG Recommendation (AS or AM or D):			
Modification of Proposed Change:			
TG Reason:			
TG Vote:			

Proposal ID TBD	LogID 6322	503.4 Stormwater management	
Submitter:	Aaron Gary, US	S-EcoLogic S-EcoLogic	
Requested Action:	Add new as foll	ows	
Proposed Change:	(5) Complete gu	utter and downspout system directs storm water away from foundation to landscaping or em - 8 points	
Reason:	To direct rainwa for rainwater ca	ater away from the structure to prevent erosion and to protect the structure itself, and/or pture	
TG Recommendation (AS or AM or D):			
Modification of Proposed Change:			
TG Reason:			
TG Vote:			

Proposal ID TBD	LogID 1515	503.4 Stormwater management	
Submitter:	Heather Dylla, N	National Asphalt Pavement Association	
Requested Action:	Delete without s	substitution	
Proposed Change:	following percer (d) less th (e) 25 – 5	Permeable materials are used for driveways, parking areas, walkways and patios according to the following percentages: (d) less than 25 percent (e) 25 – 50 percent 5 Greater than 50 percent 10	
Reason:	Giving points specifically to permeable materials may encourage their use where they are not practical or not even the best solution for Stormwater management. Their efficacy depends on site limitations such as soil permeability, depth to impermeable layers and water table, and topography. It is recommended		

	that permeable materials are evaluated together with all other low impact development practices (question 3) to encourage the best stormwater management solution.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6164 503.5 Landscape plan		
Submitter:	Crag Johnson Outdoor Dower Equipment Institute		
Submitter.	Greg Johnson, Outdoor Power Equipment Institute		
Requested Action:	Revise as follows		
Proposed Change:	(4) For sites receiving more than 12 inches of average annual precipitation the EPA WaterSense Water Budget Tool or equivalent is used when implementing the maximum percentage of turf areas.		
	(5) For landscaped vegetated areas on sites receiving 12 or less inches of average annual precipitation, the maximum percentage of turf area is:		
Reason:	To address concerns with water use for turfgrass in arid climates, where there is no existing turf limitation ordinance, it is proposed that points for turf limitations be awarded only where annual precipitation averages 12 or less inches per year and that the use of a WBT be used to establish turf limits for sites that average more than 12 inches of precipitation per year. It is also also proposed that the maximum points for a 100% turf limitation be equal to the points awarded for use of a WBT. See the additional substantiation for the complete reason		
TG Recommendation (AS or AM or D):			
Modification of Proposed Change:			
TG Reason:			
TG Vote:			

Proposal ID TBD	LogID 6342	503.5 Landscape plan	
Submitter:	Brent Mecham	, Irrigation Association	
Requested Action:	Revise as follo	ws	
Proposed Change:	Water Demand	4) EPA WaterSense Water Budget Tool or ANSI/ASABE S623.1 Jan2017 Determining Landscape Plant Water Demands standard or equivalent is used when implementing the maximum determining the percentage of turf areas.	
Reason:	instructions to diandscape. As	As a published document, this ANSI standard provides the necessary equations, plant factors and instructions to create a landscape water budget and determine the water requirement to maintain the landscape. As a national standard it is equivalent to EPA WaterSense Water Budget Tool but perhaps has an advantage in the fact that the plant factors take into account the climate.	
TG Recommendation (AS or AM or D):			
Modification of Proposed Change:			
TG Reason:			
TG Vote:			

Proposal ID TBD	LogID 6222 503.5 Landscape plan		
Submitter:	Greg Johnson, Outdoor Power Equipment Institute		
Requested Action:	Revise as follows		
Proposed Change:	503.5 Landscape plan. A plan for the lot is developed to limit water and energy use while preserving or enhancing the natural environment or human health and well-being.		
Reason:	Human health and well-being are key objectives of green, high-performing buildings and sites. "Our nation is in the midst of a lively public policy debate on how best to enable individuals and communities to make healthier choices. In recent years, with the rapid advance of green building practices, the connection between green building and its promotion of human health has become increasingly clear: Done right, the built environment can have profound positive effects on health, both human and environmental. At their worst, our building materials and designs, and our choices about location, building construction, operation and maintenance, contribute to some of the key public health concerns of modern society, from asthma to cancer to obesity. At their best, our buildings and communities can be powerful protectors and promoters of health and well-being. We must shift practice such that our definitions of sustainable building include the well-being of the people in the buildings and the community around them as a matter of course — not an incidental byproduct. In the new paradigm, human performance must be seen as important as energy performance; health conservation equal to water conservation; health management on par with waste management." Health is a Human Right, Green Building Can Help; USGBC January 2013		
TG Recommendation (AS or AM or D):			
Modification of Proposed Change:			
TG Reason:			
TG Vote:			

Proposal ID TBD	LogID 6240	503.5 Landscape plan	
Submitter:	Aaron Gary, US	S-EcoLogic	
Requested Action:	Revise as follow	ws	
Proposed Change:	enhancing the (Where "front"	503.5 Landscape plan. A plan for the lot is developed to limit water and energy use while preserving or enhancing the natural environment. (Where "front" only or "rear" only plan is implemented, only half of the points (rounding down to a whole number) are awarded for Items (1)-(8)	
Reason:	For projects that use a design/build methodology which often skips the development of a formal plan during design credit should still be available. While this may not be best practice, the resulting verified installation can still achieve many of the goals of this credit without the currently stipulated plan. As such, giving a project full credit for the items they can accomplish (i.e. 2-3,5-9) while not awarding points for the items they can't only makes sense.		
TG Recommendation (AS or AM or D):			
Modification of Proposed Change:			
TG Reason:			
TG Vote:			

Proposal ID TBD	LogID 6572	503.5 Landscape plan
Submitter:	Jack Karlin, Turfg	grass Water Conservation Alliance
Requested Action:	Revise as follows	

Proposed Change:

GREEN BUILDING PRACTICES		
403.6 Landscape plan. A landscape plan is developed to limit water and energy use in cor	nmon areas	
while preserving or enhancing the natural environment utilizing one or more of the f	ollowing:	
(4) EPA WaterSense Water Budget Tool or equivalent is used when implementing the	2	
maximum any percentage of turf areas.	<u>5</u>	
(5) For landscaped vegetated areas in landscape areas receiving less than twelve (12)		
inches precipitation per year, the maximum percentage of all turf areas is:		
(a) 0 percent		
(b) Greater than 0 percent to less than 20 percent		
(c) Greater than 0 percent to less than 20 percent using third party qualified water	3	
efficient grasses		
(d) 20 percent to less than 40 percent 3		
(e) 20 percent to less than 40 percent using third party qualified water efficient grasses		
(f) 40 percent to 60 percent		
(g) 40 percent to 60 percent using third party qualified water efficient grasses		

Reason:

The Turfgrass Water Conservation Alliance® (TWCA®) is a 501c3 nonprofit committed to water conservation and preserving the ecological services provided by turfgrass in the managed environment. Representing 93 members around the world in academia, government, and private sector, TWCA's coalition reaches beyond our industry members. TWCA® provides education based on scientific information which contradicts many of the opinions and much of the misinformation about turfgrass. Further, the TWCA® recognizes that water and plants are necessary to sustain life, and strive to protect the environment in which we live. Destruction of the environment by the removal of plant materials, including turfgrass is detrimental to the health and wellbeing of our society. Turf serves as an important sink for Carbon; nationwide, single family detached homes with yards sequester enough carbon to take 44,000 cars off the road each year1. That is the same as every person in Coachella CA not driving for a year. Turf filters fine particulate and dust out of the air2 improving air quality, reduces noise and glare3 and cools the air to help mitigate the heat island effect caused by the ever-expanding blanket of hard, impervious surfaces covering large swathes of the United States. Green spaces in general, and turf in particular, are linked to large scale improvements in the physical and mental health of the population4 as well as attenuating the health gaps between the richest and poorest citizens of communities5. The removal of plant matter from any environment, managed or natural, should be considered long and with great care. Decisions made today to remove or limit turf may conserve water in the short term. It may take years or decades, even, for the long term negative consequences to be felt. However, when the consequences are felt it will be in the form of higher cooling costs, louder, dirtier cities, and shorter, less healthy, less happy lives. Further, to treat turf as a monolith is to ignore the broad spectrum of genetic diversity represented by this classification of plants and discounts decades of research that have gone into reducing the water needs of turfgrasses6,7. TWCA's third party, peer review process has identified over 80 varieties that have demonstrated statistically significant water efficiencies over conventional varieties of the same species. The key to long term outdoor water savings in residential development is education and engagement. Awarding points for the use of a Water Budgeting Tools (WBT) encourages contractors and end-users to learn more about their landscapes and engage with both the design and maintenance processes. TWCA proposes raising the awarded points for using a Water Budgeting Tool to incentivize engagement with and understanding of the landscaped areas surrounding houses. We believe this engagement and understanding will significantly contribute to water savings over the life of the development. Incentivizing the use of literally any other landscape plant for vegetated areas does not ensure responsible landscaping or water conservation and could result in an increase of the water requirements for a landscape depending on the landscape plants used. This system also ignores the broad range of demonstrated water efficiencies available in turfgrasses today. Finally, given the significant advances made in the development of drought tolerant, rewarding the elimination of turf is rewarding the elimination of well adapted plants through most of climates in the United States. TWCA believes it is most prudent to limit the award of points for prescriptive turf limits to those areas receiving less than twelve (12) inches or precipitation per year. An alternative point system endorsed by the TWCA uses the following scheme: For vegetated areas in landscape areas receiving less than twelve (12) inches precipitation per year, the maximum percentage of all turf areas is: GREEN BUILDING PRACTICES POINTS 403.6 Landscape plan. A landscape plan is developed to limit water and energy use in common areas while preserving or enhancing the natural environment utilizing one or more of the following: (4) EPA WaterSense Water Budget Tool or equivalent is used when implementing the maximum any percentage of turf areas. 2 5 (5) For landscaped vegetated areas in landscape areas receiving less than twelve (12) inches precipitation per year, the maximum percentage of all turf areas is: (a) 0 percent 5 (b) Greater than 0 percent to less than 20 percent 4 (c) Greater than 0 percent to less than 20 percent using third party qualified water efficient grasses 3 (d) 20 percent to less than 40 percent 3 (e) 20 percent to less than 40 percent using third party qualified water efficient grasses 3 (f) 40 percent to 60 percent 2 (g) 40 percent to 60 percent using third party qualified water efficient grasses 3 Using

	such a point award scheme maintains the incentive to use turf in landscapes responsibly while incentivizing the selection of improved water efficient varieties and encouraging a real engagement with the plant selection process. This point system also eliminates the unfounded demonization of turf. References: 1) R. Lal and B. Augustin (eds.) Carbon Sequestration in Urban Ecosystems, DOI 10.1007/978-94-007-2366-5_14 © Springer Science+Business Media B.V. 2012 2) Water Quality and Quantity Issues for Turfgrasses in Urban Landscapes, Council for Agricultural Science and Technology (CAST), Special Publication 27, 2006,Ch2. 3) Beard, J. B. and R. L. Green. 1994. The role of turfgrasses in environmental protection and their benefits to humans. J Environ Qual 23(9):452–460. 4) Jolanda Maas, Robert A Verheij, Sjerp de Vries, Peter Spreeuwenberg, Francois G Schellevis, Peter P Groenewegen. "Morbidity is related to a green living environment." J Epidemial Community Health. Published Online 15 October 2009. DOI:10.1136/jech.2008.079038 5) Richard Mitchell, Frank Popham "Effect of exposure to natural environment on health inequalities: an observational population study" Lancet 2008; 372: 1655-60 6) Karcher, D.E., Richardson, M.D., Hignight, K., and Rush, D. "Drought Tolerance of Tall Fescue Populations Selected for High Root/Shoot Ratios and Summer Survival" Crop Science 2008; v48 n2: 771-777 7) Karcher, D., M. Richardson and J. Landreth. 2008. Drought tolerance of tall fescue and bluegrass cultivars. Arkansas Turfgrass Report 2007, Ark. Ag. Exp. Stn. Res. Ser. 557:17-20.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6484	503.5 Landscape plan	
Submitter:	Jeremy Velasqu	uez, TexEnergy Solutions	
Requested Action:	Add new as foll	ows	
Proposed Change:	Add:	Add:	
	the landscaping	pliance path for design & build landscapes: Points would only be allowed to be taken if contractor is made aware of the requirements in 503.5 before installation & the installed & verified to comply with the various options in 503.5.	
Reason:	architect to des contractors are	us factors, some residential developments do not have the opportunity for a landscape ign all of the landscaping and submit plans to the contractor. Some landscaping capable of installing efficient landscape without printed plans as long as the verifier can ne intent of the design ahead of time.	
TG Recommendation (AS or AM or D):			
Modification of Proposed Change:			
TG Reason:			
TG Vote:			

Proposal ID TBD	LogID 6565	503.6 Wildlife habitat	
Submitter:	Craig Conner, E	Building Quality	
Requested Action:	Add new as follows		
Proposed Change:	503.7 Bee friendly habitat is provided by landscaping. A minimum of 500 sq ft of landscaping provides bees with a food source in spring, summer and fall. Water is available. The landscape is planned such that no pesticides will be used. Points 10		

Reason:	Natural bee habitat is being destroyed. Native bee populations are in decline. Landscape can help provide for native bees.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6466 503.6 Wildlife habitat
Submitter:	Greg Johnson, Outdoor Power Equipment Institute
Requested Action:	Add new as follows
Proposed Change:	(5) Areas of lawn are integrated with maintenance tolerant, non-invasive flowering herbaceous plants in an amount to achieve not less than 20% of the groundcover. Plants should typically flower at less than 4 inches in height. (Consult a local agricultural extension service or university or for appropriate plants)
Reason:	Ample evidence exists that incorporating maintenance tolerant flowering plants in lawns supports bee and other arthropod habitat. Encouraging new ways of providing and maintaining landscaping in managed environments can reconcile human needs for durable groundcovers and habitat needs for bees.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6146 505.1 Driveways and parking areas	
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Revise as follows	
Proposed Change:	(4) Water permeable surfaces, including v_Vegetative paving systems, are utilized to reduce the footprint of impervious surface driveways, fire lanes, streets or parking areas.	
Reason:	(4) Water permeable surfaces, including v Vegetative paving systems, are utilized to reduce the footprint	

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6174	505.4 Mixed-use development		
0	A 0 110			
Submitter:	Aaron Gary, US	6-EcoLogic		
Requested Action:	Revise as follow	Revise as follows		
Proposed Change:		elopment: ains a mixed use building f a residential community that contains a mixed use building.		
Reason:	Allows single fa	mily mixed use communities to be recognized for achieving the same goal.		
TG Recommendation (AS or AM or D):				
Modification of Proposed Change:				
TG Reason:				
TG Vote:				

Proposal ID TBD	LogID 6192	505.5 Community garden(s)
Submitter:	Aaron Gary, US-E	EcoLogic
Requested Action:	Revise as follows	
Proposed Change:	one of the following (1) A portion of the provide for local for (2) Locate the provide for the provide	y garden(s). Provide local food production for residents or area consumers through ng: e lot is established as a community garden(s), available to residents of the lot, to cod production to residents or area consumers. eject within a 0.5-mile walk distance of an existing or planned farmers market that is te at least once a week for at least five months of the year.
Reason:	Access to fresh produce offers healthy food options for residents, and purchase of fresh produce directly from farmers demystifies the cycle of food production. This measure also supports local economic development that increases the economic value and production of farmlands and community gardens. This revision creates a path for sites where the community garden is not feasible but the end-goal can still be met through site-selection.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6455	505.5 Community garden(s)
Submitter:	Michael Cudahy,	PPFA
Requested Action:	Revise as follows	

Proposed Change:	Community garden(s). A-portions of the site of at least 250 sq feet is are established as a community garden(s) for the residents of the site to provide local food production for residents or area consumers. One point awarded per 250 sq feet. Maximum 3 points.
Reason:	To establish a minimum size for the gardens and allow for point tier discussion. The committee or task group can discuss and determine if a minimum size is necessary. Some regions may use vertical gardens and not need much land area, but some regions my best be served by multiple fruit trees, or even palms. Also allows for a discussion of tiered points. A project would have more flexibility with a point tier allocation.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6151 505.6 Multi-unit plug-in electric vehicle charging	
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	505.6 Multi-unit plug-in electric vehicle charging. Plug-in electric vehicle charging capability is provided for at least 4 <u>2</u> percent of parking stalls. <u>Fractional values shall be rounded up to the nearest whole number</u> . Electrical capacity	
Reason:	There are now over 577,000 plug-in electric vehicles (plug-in hybrids or battery electric vehicles) being driven in the US. All major manufacturers offer the vehicles for sale, and there are federal tax incentives, as well as state incentives, for their use. As of early 2016, there were over 12,200 public EV charging stations in the US. This proposal increases the percentage requirement from 1 to 2 percent (the original proposal that was discussed during the last NGBS revision was 5 percent), and adds clarify language if the calculation yields a value like 1.4 (in which case, they would have to install 2 EV charging stations).	
Concurrent Review Staff Note:	This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6156 503.6 Multi-unit plug-in electric vehicle charging		
Submitter:	Steven Rosenstock, Edison Electric Institute		
Requested Action:	Revise as follows		
Proposed Change:	(208/240V-4 0 <u>80</u> amp) (<u>208-</u> 240V/4 0 <u>80</u> A)		
Reason:	This proposal updates the specification match the current SAE information, as shown on the following web site and below: http://www.sae.org/smartgrid/chargingprimer.pdf "AC Level 2 Charging* – 208 –240 AC charging up to 80 amps, on-board vehicle charger (~19kw)"		
Concurrent Review Staff Note:	This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.		
TG Recommendation (AS or AM or D):			

Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6535	505.6 Multi-unit plug-in electric vehicle charging		
Submitter:	Craig Conner, E	Building Quality		
Requested Action:	Revise as follow	vs		
Proposed Change:	for at least 4-2 p number, with no electric panels s wiring infrastruc designated stall amp) or Level 2	505.6 Multi-unit plug-in electric vehicle charging. Plug-in electric vehicle charging capability is provided for at least 4–2 percent of parking stalls. The number of charging stations is rounded to the nearest even number, with no points for zero chargers and odd number rounded up. Electrical capacity in main electric panels supports Level 2 charging (208/240V-40 amp). Each stall is provided with conduit and wiring infrastructure from the electric panel to support Level 2 charging (208/240V-40 amp) service to the designated stalls, and stalls are equipped with either Level 2 charging AC grounded outlets (208/240V-40 amp) or Level 2 charging stations (240V/40A) by a third party charging station. Charging stations and electrical service is in accordance with the NEC Article 625.		
Reason:		More economical chargers have two chargers on one post. Rounding simply allows the use of these chargers. The National Electric Code (NEC) specifies how chargers and electrical supply are connected in Article 625.		
Concurrent Review Staff Note:	This proposal is buildings.	also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily		
TG Recommendation (AS or AM or D):				
Modification of Proposed Change:				
TG Reason:				
TG Vote:				

Proposal ID TBD	LogID 6537	505.6 Multi-unit plug-in electric vehicle charging
Submitter:	Chuck Foster, Ch	arles R. Foster Associates
Requested Action:	Revise as follows	
Proposed Change:	Plug-in electric ve	hicle charging capability is provided for at least 4 <u>3</u> percent of parking stalls.
Reason:	There are now over 577,000 plug-in electric vehicles (plug-in hybrids or battery electric vehicles) being driven in the US. All major manufacturers offer the vehicles for sale, and there are federal tax incentives, as well as state incentives, for their use. As of early 2016, there were over 12,200 public EV charging stations in the US. This proposal increases the percentage requirement from 1 to 3 percent (the original proposal that was discussed during the last NGBS revision was 5 percent), and adds clarify language if the calculation yields a value like 1.4 (in which case, they would have to install 2 EV charging stations).	
Concurrent Review Staff Note:	This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD LogID 6552	Other for Chapter 5 (include section number and title below)
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Submitter:	Kat Benner, US-EcoLogic / TexEnergy
Requested Action:	Add new as follows
Proposed Change:	505 HEALTH AND WELL BEING (prior to INNOVATIVE PRACTICES)
Reason:	To include a new sub-section within each chapter of the Protocol, as relevant, immediately preceding (or after) Innovative Practices section, to address health and well being issues that are interconnected to the overall Green certification, but independent/optional, not required. This opens the program to reach lifestyle and living for overall occupant health.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6241	Other for Chapter 5 (include section number and title below)	
Submitter:	Paul Gay, US-Ed	coLogic	
Requested Action:	Add new as follow	ws	
Proposed Change:	Assess Project lo	505.X Pre Construction Durability Assessment Assess Project lot and Building risks associated with lot location, develop strategies to address specified risks. Include measures in plans	
Reason:		assess and address site / location specific risks eg Pests/UV/Excessive thermal considerations (Hot/Cold/ Humidity) Moisture/Soil/Terrain/Landscape and include measures to address in plans	
TG Recommendation (AS or AM or D):			
Modification of Proposed Change:			
TG Reason:			
TG Vote:			

Proposal ID TBD	LogID 6162 Other for Chapter 5 (include section number and title below)
Submitter:	Greg Johnson, Outdoor Power Equipment Institute
Requested Action:	Add new as follows
Proposed Change:	505.7 Open green open space. Provide not less than 150 square feet (14 m²) of open green space per sleeping room on the lot. 3 points
Reason:	The World Health Organization (WHO) has suggested that every city should have a minimum of 9 square meters (100 ft2) of green space per person. 1.5 people per sleeping room is a common metric used for municipal zoning and planning purposes, so providing 150 sf2 approximates the WHO recommendation. http://www.baharash.com/liveable-cities-how-much-green-space-does-your-city-have/
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6482 Other for Chapter 5 (include section number and title below)	
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	New Section	
	Section 506.1 - Exterior Activity Space - Provide an exterior space as part of the overall development that is intended for physical activity to promote health and wellness.	
Reason:	Many subdivisions and multifamily projects lack a dedicated space outside where people can exercise or participate in other physical activities.	
Concurrent Review Staff Note:	This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6459	Other for Chapter 5 (include section number and title below)	
Submitter:	Grea Johnson	, Outdoor Power Equipment Institute	
		•	
Requested Action:	Add new as fo	ilows	
Proposed Change:		n and Wellbeing Site design, preparation and development practices are used to fo 3.	ster human health
	506.1. The s	site is designed to encourage physical activity	<u>Points</u>
	(1) Facilities	s for active outdoor recreation are provided	_
	(a)	A swimming pool with an automatic pool cover is provided.	<u>3</u>
	(b)	A tennis, pickleball, basketball or handball court is provided.	1 point per court 3 points max
	(c)	A playground and equipment are provided.	<u>3</u>
		An informal play area is provided for children and pets.	<u>3</u>
	exercise	ding is located within .5 mile (.8 km) of parks with playgrounds, facilities, parks, trails, an accessible body of water, or other physical acilities open to the public.	<u>5</u>
	-		-
	506.2 The si	te is designed to promote social interaction or outdoor respite	<u>Points</u>
	(1) Outdoor	gathering places are provided	-
	(a)	Outdoor space with seating and tables for picnicking or socializing is provided.	1 point per space 5 points max
	(b)	Outdoor seating oriented toward scenic views or vistas such as mountains, skylines, or bodies of water is provided.	1 point per seating area 5 points max

(2) A community lawn or town square is provided	
d Company of the Comp	<u>5</u>
506.3 Community garden(s). A portion of the site is established as a community garden(s) for the residents of the site to provide local food production for residents or area consumers.	<u>3</u>
Composting area and physical provisions are provided for accumulating compost	<u>1</u>
Signs designating the garden area are posted.	1
-	_
506.4. Tick-borne disease. The site is designed to mitigate hazards from tick-borne disease	<u>Points</u>
To acquire points the site must be documented to be at risk by an epidemiologist or qualified professional)	
(1) Dense plant beds, shrubbery and woody plants are not planted within 5 feet (1.5 m) of occupied buildings	2 points per building
(2) A minimum of a 5 foot (1.5 m) border of paving, mulch, gravel, or turfgrass is provided between woods or weedy areas and people trafficked or occupied areas.	<u>3</u>
(3) Vegetation that is attractive to deer, as documented by a qualified professional, is not planted within 20 (6 m) feet of buildings.	<u>3</u>
-	-
406.5 Outdoor smoking prohibition.	<u>Points</u>
Signs are provided prohibiting smoking at the following locations:	-
(a) Smoking is prohibited within 25 feet (7.5 m) of all building exterior doors and operable windows or building air intakes within 15 (4.5 m) vertical feet of grade or a walking surface.	<u>5</u>
(b) Smoking is prohibited on decks, balconies, patios and other occupied exterior spaces.	<u>5</u>

Reason:

Human health and wellness are important considerations in green and sustainable design and building. Outdoor areas offer important health and wellness benefits when designed and installed appropriately. General substantiation for health and wellness was submitted with a parallel proposal to Chapter 4. This proposal is accompanied by substantiation of the need for design to mitigate tick hazards to human health. Tick-borne diseases are at epidemic levels in North America and much of the world, are

	expanding rapidly, and are projected to worsen with climate change. Managed landscape are an important tool to mitigate tick hazards.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6324	Other for Chapter 5 (include section number and title below)
Submitter:	Aaron Gary, US	-EcoLogic
Requested Action:	Add new as follo	ows
Proposed Change:		Orientation. Lot is part of a community where a minimum if 75% of the building sites the longer dimension of the structure to face within 20 degrees of south 6 points
Reason:	Takes existing N	NGBS 2015 practice, 403.2, and applies it to a lot.
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6321	Other for Chapter 5 (include section number and title below)	
Submitter:	Aaron Gary, US-E	coLogic	
Requested Action:	Add new as follow	rs .	
Proposed Change:	ADD NEW SECTI	ON	
	Lot is within a con	ty Design for Cross Ventilation: nmunity located in a hot, humid climate where 75% of streets are within 20-30 degrees parallel to the prevailing wind - 5 POINTS	
Reason:	and to provide cro	ate good ventilation is necessary to remove excess heat from streets and open spaces is s-ventilation in buildings. Streets parallel to the prevailing wind have the highest ets perpendicular to the prevailing wind yield lower velocity and more turbulent wind in	
TG Recommendation (AS or AM or D):			
Modification of Proposed Change:			
TG Reason:			
TG Vote:			

Proposal ID TBD	LogID 6345	Other for Chapter 5 (include section number and title below)
Submitter:	Aaron Gary, US	S-EcoLogic
Requested Action:	Add new as foll	ows
Proposed Change:	505.X Street No	etwork:

	Locate the project in an area of high intersection density 5 POINTS
	INSERT definition in Section 201. Area of High Intersection Density. An area whose existing streets and sidewalks create at least 90 intersections per square mile (35 intersections per square kilometer).
	When determining the number of intersections, include the following: intersections within a ¼ mile (400 meter) radius of project boundary; streets and sidewalks that are available for general public use and not gated; sidewalk intersections provided they are a unique right of way (i.e., a sidewalk through a city park); and publicly accessible alleys.
Reason:	This credit encourages health and well being of home owners and tenants on by encouraging daily physical activity. It has the added benefits of promoting projects that are well connected to the community at large as well as encourage development within existing communities that minimizes vehicle miles traveled.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6350	Other for Chapter 5 (include section number and title below)
Submitter:	Jeremy Velasqu	ez, TexEnergy Solutions
Requested Action:	Add new as follo	ows
Proposed Change:	Section 506 - A	dd a new section as relevant for Health and Well-being credits.
Reason:		protocols evolve, the natural progression is to include measures that have a positive pant health and well-being.
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6326	Other for Chapter 5 (include section number and title below)
Submitter:	Aaron Gary, US	-EcoLogic
Requested Action:	Add new as follo	ows
Proposed Change:	ADD NEW SEC 505.9 Commun POINTS	TION Lity Recycling Program: Lot is within a community that has a recycling program 5
Reason:	the house level.	ling on a community level as a means to align with practice 607 which does the same on Being able to collect recycling in a homes when you have no place to take it is not particularly effective.
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		

TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6247	Other for Chapter 5 (include section number and title below)
Submitter:	Paul Gay, US-E	-col ogic
Requested Action:	Add new as follows	
Proposed Change:	505.XX Project has em	ergency plan in place to address relevant Natural Disasters
Reason:		ct is protected against relevant potential impact from natural hazards thquakes/Landslides/Hurricanes/Tornadoes/Dust Storms/Wildfires
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6178	Other for Chapter 5 (include section number and title below)
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW SECTION 505.10 District Heating and Cooling: Lot is within a community that has a district heating and/or cooling	
	system.	
Reason:	District cooling and heating can be very efficient as it removes the need for building specific space heating systems, space cooling systems, and/or domestic water heating systems.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6179	Other for Chapter 5 (include section number and title below)	
Submitter:	Aaron Gary, US-EcoLogic		
Requested Action:	Add new as foll	Add new as follows	
Proposed Change:	505.12 Local E (1) Demonstrate your bidding pre (2) Demonstrate	ADD NEW SECTION 505.12 Local Economic Development and Community Wealth Creation: (1) Demonstrate that local preference for construction employment and subcontractor hiring was part of your bidding process - 3 POINTS (2) Demonstrate that you achieved at least 20% local employment - 4 POINTS (3) Provide physical space for small business, nonprofits, and/or skills and workforce education 5 POINTS	
Reason:		has the opportunity to act as an economic catalyst within a neighborhood and community. Its offer opportunities to directly enhance the lives of residents when they include physical	

	space that can accommodate various programs for learning, job skill development and other social interactions. Numerous studies have documented the ways in which affordable housing projects have positive economic impacts on their surrounding neighborhoods.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6177	Other for Chapter 5 (include section number and title below)	
Submitter:	Aaron Gary, US	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows		
Proposed Change:	ADD NEW SECTION		
	505.8 Open Sp	pace: Lot is within a community that has 1 acre or greater set aside as open space	
Reason:	Based on NGB	S 2015 405.9 and applied to a single lot versus entire land development	
TG Recommendation (AS or AM or D):			
Modification of Proposed Change:			
TG Reason:			
TG Vote:			

Proposal ID TBD	LogID 6154 Other for Chapter 5 (include section number and title below)	
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Add new as follows	
Proposed Change:	 505.7 Community activity(s). A portion of the lot is established for physical activity or social interaction, available to residents of the lot for community recreation and interaction. 3 points 	
Reason:	Increased density is a worthwhile goal of the standard, but denser residential conditions drive a corresponding need for open space, preferably vegetated, suitable for physical activity or social gathering to enhance human health and well-being. Children in particular can benefit from healthy play area close to their residences.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Others Assigned to TG-2

Proposal ID TBD	LogID 6467 1302 Referenced Documents	
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Add new as follows	
Proposed Change:	International Code Council:	
	International Wildland-Urban Interface Code 2018	
Reason:	This supports proposed changes in Chapter 4 & 5.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		