

BUILDING SITE DEVELOPMENT  
Republic County, Kansas

### Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. The following tables show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

BUILDING SITE DEVELOPMENT--Continued  
Republic County, Kansas

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Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
029AA: Hobbs-----	83	Very limited Flooding Shrink-swell	1.00 0.18	Very limited Flooding Shrink-swell	1.00 0.18	Very limited Flooding Shrink-swell	1.00 0.18
029AR: Armo-----	75	Somewhat limited Shrink-swell	0.62	Somewhat limited Shrink-swell	0.62	Somewhat limited Shrink-swell Slope	0.62 0.12
029BA: Hastings-----	58	Very limited Shrink-swell Slope	1.00 0.16	Very limited Shrink-swell Slope	1.00 0.16	Very limited Shrink-swell Slope	1.00 1.00
Hobbs-----	40	Very limited Flooding Shrink-swell	1.00 0.18	Very limited Flooding Shrink-swell	1.00 0.18	Very limited Flooding Shrink-swell	1.00 0.18
029CT: Crete-----	80	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.00
029GE: Geary-----	70	Somewhat limited Shrink-swell	0.92	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Slope	0.92 0.12
029GS: Geary-----	70	Somewhat limited Shrink-swell	0.92	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Slope	0.92 0.12
029LH: Lancaster-----	55	Somewhat limited Shrink-swell Slope	0.06 0.04	Somewhat limited Depth to soft bedrock Shrink-swell Slope	0.10 0.06 0.04	Very limited Slope Shrink-swell	1.00 0.06
Hedville-----	28	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Slope Depth to hard bedrock	1.00 1.00
029LN: Longford-----	65	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.12
029SA: Inavale-----	85	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
029TO: Tobin-----	78	Very limited Flooding Shrink-swell	1.00 0.38	Very limited Flooding Shrink-swell	1.00 0.38	Very limited Flooding Shrink-swell	1.00 0.38
089AR: Armo-----	100	Not limited		Not limited		Somewhat limited Slope	0.12
089BA: Bogue-----	75	Very limited Shrink-swell Slope	1.00 0.04	Very limited Shrink-swell Depth to soft bedrock Slope	1.00 0.29 0.04	Very limited Shrink-swell Slope	1.00 1.00
Armo-----	25	Somewhat limited Slope	0.00	Somewhat limited Slope	0.00	Very limited Slope	1.00
089BB: Bogue-----	80	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope Depth to soft bedrock	1.00 1.00 0.29	Very limited Slope Shrink-swell	1.00 1.00
089GN: Gibbon-----	100	Very limited Flooding Depth to saturated zone	1.00 0.07	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.07
089HB: Harney-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
089HC: Harney-----	100	Somewhat limited Shrink-swell	0.50	Not limited		Somewhat limited Shrink-swell Slope	0.50 0.12

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Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
089HF: Harney-----	100	Somewhat limited Shrink-swell	0.50	Not limited		Somewhat limited Shrink-swell Slope	0.50 0.12
089HS: Holdrege-----	55	Somewhat limited Shrink-swell Slope	0.50 0.04	Somewhat limited Shrink-swell Slope	0.50 0.04	Very limited Slope Shrink-swell	1.00 0.50
Geary-----	45	Somewhat limited Shrink-swell Slope	0.50 0.04	Somewhat limited Shrink-swell Slope	0.50 0.04	Very limited Slope Shrink-swell	1.00 0.50
089HU: Hord-----	100	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
089MC: Mccook-----	100	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
089NC: New Cambria-----	100	Very limited Flooding Shrink-swell	1.00 1.00	Very limited Flooding Shrink-swell	1.00 1.00	Very limited Flooding Shrink-swell	1.00 1.00
089ND: Nibson-----	100	Very limited Depth to soft bedrock Slope Shrink-swell	1.00 1.00 0.50	Very limited Depth to soft bedrock Slope Shrink-swell	1.00 1.00 0.50	Very limited Depth to soft bedrock Slope Shrink-swell	1.00 1.00 0.50
089NR: Nuckolls-----	80	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Roxbury-----	20	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50
089RB: Roxbury-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50
089RC: Roxbury-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50
201CS: Crete-----	95	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
201KP: Kipson-----	90	Very limited Depth to soft bedrock Slope Shrink-swell	1.00 1.00 0.50	Very limited Depth to soft bedrock Slope Shrink-swell	1.00 1.00 0.50	Very limited Depth to soft bedrock Slope Shrink-swell	1.00 1.00 0.50
201LC: Lancaster-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Depth to soft bedrock	0.50 0.46	Somewhat limited Shrink-swell Slope	0.50 0.12
201TY: Tully-----	85	Very limited Shrink-swell Slope	1.00 0.04	Very limited Shrink-swell Slope	1.00 0.04	Very limited Shrink-swell Slope	1.00 1.00
201WE: Wells-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Slope	0.50 0.12
Bk: Geary-----	55	Very limited Slope Shrink-swell	1.00 0.96	Very limited Slope Shrink-swell	1.00 0.96	Very limited Slope Shrink-swell	1.00 0.96
Hobbs-----	29	Very limited Flooding Shrink-swell	1.00 0.62	Very limited Flooding Shrink-swell	1.00 0.62	Very limited Flooding Shrink-swell	1.00 0.62
BOP: Borrow Pits-----	100	Not rated		Not rated		Not rated	

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Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Bu: Butler-----	84	Very limited Ponding Depth to saturated zone Shrink-swell	1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Shrink-swell	1.00 1.00 0.92	Very limited Ponding Depth to saturated zone Shrink-swell	1.00 1.00 1.00
Ca: Cozad-----	50	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
Cass-----	25	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
Ce: Crete-----	84	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
Cf: Crete-----	79	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
Ch: Crete-----	75	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.12
Cr: Crete-----	75	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.00
Dt: Detroit-----	89	Very limited Flooding Shrink-swell Ponding	1.00 1.00 1.00	Very limited Flooding Ponding Shrink-swell	1.00 1.00 0.92	Very limited Flooding Shrink-swell Ponding	1.00 1.00 1.00
Ed: Eudora-----	90	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
Eu: Eudora-----	90	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding Slope	1.00 0.12
Gc: Geary-----	70	Somewhat limited Shrink-swell	0.96	Somewhat limited Shrink-swell	0.96	Somewhat limited Shrink-swell Slope	0.96 0.12
Gr: Geary-----	70	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.18	Somewhat limited Shrink-swell Slope	0.50 0.12
Ha: Hastings-----	79	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
Hb: Hastings-----	80	Very limited Shrink-swell	1.00	Somewhat limited Shrink-swell	0.82	Very limited Shrink-swell	1.00
Hc: Hastings-----	85	Very limited Shrink-swell	1.00	Somewhat limited Shrink-swell	0.82	Very limited Shrink-swell Slope	1.00 0.12
Hd: Hastings-----	85	Very limited Shrink-swell	1.00	Somewhat limited Shrink-swell	0.82	Very limited Shrink-swell Slope	1.00 0.12
He: Hastings-----	90	Very limited Shrink-swell	1.00	Somewhat limited Shrink-swell	0.82	Very limited Shrink-swell Slope	1.00 0.12
Hf: Hastings-----	70	Very limited Shrink-swell	1.00	Somewhat limited Shrink-swell	0.82	Very limited Shrink-swell	1.00
Ortello-----	30	Not limited		Not limited		Not limited	
Ho: Hastings-----	70	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.48
Ortello-----	30	Not limited		Not limited		Somewhat limited Slope	0.48

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Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Hp: Hastings-----	70	Very limited Shrink-swell	1.00	Somewhat limited Shrink-swell	0.82	Very limited Shrink-swell Slope	1.00 0.12
Hobbs-----	28	Very limited Flooding Shrink-swell	1.00 0.62	Very limited Flooding Shrink-swell	1.00 0.62	Very limited Flooding Shrink-swell	1.00 0.62
Hs: Hobbs-----	88	Very limited Flooding Shrink-swell	1.00 0.62	Very limited Flooding Shrink-swell	1.00 0.62	Very limited Flooding Shrink-swell	1.00 0.62
Ht: Humbarger-----	69	Very limited Flooding Shrink-swell	1.00 0.62	Very limited Flooding Shrink-swell	1.00 0.62	Very limited Flooding Shrink-swell	1.00 0.62
Hu: Humbarger-----	69	Very limited Flooding Shrink-swell	1.00 0.06	Very limited Flooding Shrink-swell	1.00 0.06	Very limited Flooding Shrink-swell	1.00 0.06
Ke: Kenesaw-----	90	Somewhat limited Slope	0.00	Somewhat limited Slope	0.00	Very limited Slope	1.00
Kn: Kenesaw-----	90	Somewhat limited Slope	0.00	Somewhat limited Slope	0.00	Very limited Slope	1.00
Kp: Kipson-----	85	Very limited Depth to soft bedrock Slope	1.00 1.00	Very limited Depth to soft bedrock Slope	1.00 1.00	Very limited Slope Depth to soft bedrock Shrink-swell	1.00 1.00 0.11
La: Wells-----	70	Somewhat limited Shrink-swell	0.92	Somewhat limited Shrink-swell	0.92	Somewhat limited Shrink-swell Slope	0.92 0.48
Lc: Wells-----	70	Somewhat limited Shrink-swell	0.92	Not limited		Somewhat limited Shrink-swell Slope	0.92 0.48
Lh: Lancaster-----	50	Somewhat limited Shrink-swell Slope	0.92 0.04	Somewhat limited Shrink-swell Depth to soft bedrock Slope	0.92 0.42 0.04	Very limited Slope Shrink-swell	1.00 0.92
Hedville-----	28	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00
LOO: Longford, eroded---	90	Very limited Shrink-swell	1.00	Somewhat limited Shrink-swell	0.50	Very limited Shrink-swell Slope	1.00 0.12
Mr: Muir-----	89	Very limited Flooding Shrink-swell	1.00 0.18	Very limited Flooding Shrink-swell	1.00 0.18	Very limited Flooding Shrink-swell	1.00 0.18
Mu: Muir-----	100	Very limited Flooding Shrink-swell	1.00 0.18	Very limited Flooding Shrink-swell	1.00 0.06	Very limited Flooding Shrink-swell Slope	1.00 0.18 0.12
Ro: Coly-----	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Sa: Inavale-----	85	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
SAN: Sand And Gravel Pits	100	Not rated		Not rated		Not rated	
Sd: Inavale-----	100	Not limited		Not limited		Somewhat limited Slope	0.12

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Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Tu: Tully-----	75	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.48
Ty: Tully-----	75	Very limited Shrink-swell	1.00	Somewhat limited Shrink-swell	0.82	Very limited Shrink-swell Slope	1.00 0.48
W: Water (republican)--	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Wa: Saltine-----	98	Very limited Flooding Shrink-swell	1.00 0.62	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.62	Very limited Flooding Shrink-swell	1.00 0.62

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Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
029AA: Hobbs-----	83	Very limited Flooding Low strength Shrink-swell	1.00 1.00 0.18	Somewhat limited Flooding Cutbanks cave	0.80 0.10	Very limited Flooding	1.00
029AR: Armo-----	75	Very limited Low strength Shrink-swell	1.00 0.62	Somewhat limited Cutbanks cave	0.10	Not limited	
029BA: Hastings-----	58	Very limited Shrink-swell Low strength Frost action Slope	1.00 1.00 0.50 0.16	Somewhat limited Slope Cutbanks cave	0.16 0.10	Somewhat limited Slope	0.16
Hobbs-----	40	Very limited Flooding Low strength Shrink-swell	1.00 1.00 0.18	Somewhat limited Flooding Cutbanks cave	0.80 0.10	Very limited Flooding	1.00
029CT: Crete-----	80	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
029GE: Geary-----	70	Very limited Frost action Low strength Shrink-swell	1.00 1.00 0.92	Somewhat limited Cutbanks cave	0.10	Not limited	
029GS: Geary-----	70	Very limited Low strength Shrink-swell Frost action	1.00 0.92 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
029LH: Lancaster-----	55	Somewhat limited Frost action Shrink-swell	0.50 0.06	Somewhat limited Cutbanks cave Depth to soft bedrock	0.10 0.10 0.04	Somewhat limited Depth to bedrock Slope	0.10 0.04
Hedville-----	28	Slope Very limited Depth to hard bedrock Slope	0.04 1.00 1.00	Slope Very limited Depth to hard bedrock Slope Cutbanks cave	0.04 1.00 1.00 0.10	Very limited Depth to bedrock Slope Content of large stones Droughty Gravel content	1.00 0.84 0.63 0.00
029LN: Longford-----	65	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
029SA: Inavale-----	85	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.60	Somewhat limited Flooding Droughty	0.60 0.04
029TO: Tobin-----	78	Very limited Flooding Low strength Frost action Shrink-swell	1.00 1.00 0.50 0.38	Somewhat limited Flooding Cutbanks cave	0.60 0.10	Somewhat limited Flooding	0.60
089AR: Armo-----	100	Not limited		Very limited Cutbanks cave	1.00	Not limited	
089BA: Bogue-----	75	Very limited Shrink-swell Slope	1.00 0.04	Very limited Too clayey Cutbanks cave Depth to soft bedrock Slope	1.00 1.00 0.29 0.04	Very limited Too clayey Depth to bedrock Droughty Slope	1.00 0.29 0.15 0.04
Armo-----	25	Somewhat limited Slope	0.00	Very limited Cutbanks cave Slope	1.00 0.00	Somewhat limited Slope	0.00

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Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
089BB: Bogue-----	80	Very limited Shrink-swell Slope	1.00 1.00	Very limited Too clayey Cutbanks cave Slope Depth to soft bedrock	1.00 1.00 1.00 1.00 0.29	Very limited Too clayey Slope Depth to bedrock Droughty	1.00 1.00 0.29 0.15
089GN: Gibbon-----	100	Very limited Frost action  Flooding  Depth to saturated zone	1.00 1.00 1.00 0.03	Very limited Depth to saturated zone Flooding  Cutbanks cave	1.00 0.60 0.60 0.10	Somewhat limited Flooding  Depth to saturated zone	0.60 0.03
089HB: Harney-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
089HC: Harney-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
089HF: Harney-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
089HS: Holdrege-----	55	Somewhat limited Shrink-swell Frost action Slope	0.50 0.50 0.04	Somewhat limited Cutbanks cave Slope	0.10 0.04	Somewhat limited Slope	0.04
Geary-----	45	Very limited Frost action Shrink-swell Slope	1.00 0.50 0.04	Somewhat limited Cutbanks cave Slope	0.10 0.04	Somewhat limited Slope	0.04
089HU: Hord-----	100	Somewhat limited Frost action Flooding	0.50 0.40	Somewhat limited Cutbanks cave	0.10	Not limited	
089MC: Mccook-----	100	Somewhat limited Frost action Flooding	0.50 0.40	Somewhat limited Cutbanks cave	0.10	Not limited	
089NC: New Cambria-----	100	Very limited Shrink-swell Flooding	1.00 0.40	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Very limited Too clayey	1.00
089ND: Nibson-----	100	Very limited Depth to soft bedrock Slope Shrink-swell	1.00 1.00 1.00 0.50	Very limited Depth to soft bedrock Slope Cutbanks cave	1.00 1.00 1.00 0.10	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.08
089NR: Nuckolls-----	80	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Roxbury-----	20	Very limited Flooding Shrink-swell Frost action	1.00 0.50 0.50	Somewhat limited Flooding Cutbanks cave	0.80 0.10	Very limited Flooding	1.00
089RB: Roxbury-----	100	Very limited Flooding Shrink-swell Frost action	1.00 0.50 0.50	Somewhat limited Flooding Cutbanks cave	0.80 0.10	Very limited Flooding	1.00
089RC: Roxbury-----	100	Very limited Flooding Shrink-swell Frost action	1.00 0.50 0.50	Somewhat limited Flooding Cutbanks cave	0.60 0.10	Somewhat limited Flooding	0.60
201CS: Crete-----	95	Very limited Shrink-swell Frost action	1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	



BUILDING SITE DEVELOPMENT--Continued  
Republic County, Kansas

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
201KP: Kipson-----	90	Very limited Depth to soft bedrock Slope Shrink-swell Frost action	1.00 1.00 0.50 0.50	Very limited Depth to soft bedrock Slope Cutbanks cave	1.00 1.00 0.10	Very limited Depth to bedrock Slope Carbonate content Content of large stones Droughty	1.00 1.00 1.00 0.20 0.18
201LC: Lancaster-----	100	Somewhat limited Shrink-swell Frost action	0.50 0.50	Somewhat limited Depth to soft bedrock Cutbanks cave	0.46 0.10	Somewhat limited Depth to bedrock	0.46
201TY: Tully-----	85	Very limited Shrink-swell Frost action Slope	1.00 0.50 0.04	Somewhat limited Too clayey Cutbanks cave Slope	0.12 0.10 0.04	Somewhat limited Slope	0.04
201WE: Wells-----	100	Somewhat limited Shrink-swell Frost action	0.50 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Bk: Geary-----	55	Very limited Frost action Low strength Slope Shrink-swell	1.00 1.00 1.00 0.96	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Hobbs-----	29	Very limited Flooding Low strength Shrink-swell Frost action	1.00 1.00 0.62 0.50	Somewhat limited Flooding Cutbanks cave	0.80 0.10	Very limited Flooding	1.00
BOP: Borrow Pits-----	100	Not rated		Not rated		Not rated	
Bu: Butler-----	84	Very limited Shrink-swell Ponding Depth to saturated zone Frost action Low strength	1.00 1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Too clayey Cutbanks cave	1.00 1.00 0.50 0.10	Very limited Ponding Depth to saturated zone	1.00 1.00
Ca: Cozad-----	50	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.60	Somewhat limited Flooding	0.60
Cass-----	25	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.60	Somewhat limited Flooding	0.60
Ce: Crete-----	84	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
Cf: Crete-----	79	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
Ch: Crete-----	75	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
Cr: Crete-----	75	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	

BUILDING SITE DEVELOPMENT--Continued  
Republic County, Kansas

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Dt: Detroit-----	89	Very limited Shrink-swell Low strength Ponding Flooding	1.00 1.00 1.00 0.40	Very limited Ponding Cutbanks cave	1.00 0.10	Very limited Ponding	1.00
Ed: Eudora-----	90	Very limited Frost action Flooding	1.00 0.40	Somewhat limited Cutbanks cave	0.10	Not limited	
Eu: Eudora-----	90	Very limited Frost action Flooding	1.00 0.40	Somewhat limited Cutbanks cave	0.10	Not limited	
Gc: Geary-----	70	Very limited Frost action Low strength Shrink-swell	1.00 1.00 0.96	Somewhat limited Cutbanks cave	0.10	Not limited	
Gr: Geary-----	70	Very limited Frost action Low strength Shrink-swell	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Ha: Hastings-----	79	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Hb: Hastings-----	80	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Hc: Hastings-----	85	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Hd: Hastings-----	85	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
He: Hastings-----	90	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Hf: Hastings-----	70	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Ortello-----	30	Somewhat limited Frost action	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Ho: Hastings-----	70	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Ortello-----	30	Somewhat limited Frost action	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Hp: Hastings-----	70	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Hobbs-----	28	Very limited Flooding Low strength Shrink-swell Frost action	1.00 1.00 0.62 0.50	Somewhat limited Flooding Cutbanks cave	0.60 0.10	Somewhat limited Flooding	0.60

BUILDING SITE DEVELOPMENT--Continued  
Republic County, Kansas

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Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Hs: Hobbs-----	88	Very limited Flooding Low strength Shrink-swell Frost action	1.00 1.00 0.62 0.50	Somewhat limited Flooding Cutbanks cave	0.60 0.10	Somewhat limited Flooding	0.60
Ht: Humbarger-----	69	Very limited Flooding Low strength Shrink-swell Frost action	1.00 1.00 0.62 0.50	Very limited Cutbanks cave Flooding	1.00 0.60	Somewhat limited Flooding	0.60
Hu: Humbarger-----	69	Very limited Flooding Low strength Frost action Shrink-swell	1.00 1.00 0.50 0.06	Very limited Cutbanks cave Flooding	1.00 0.60	Somewhat limited Flooding	0.60
Ke: Kenesaw-----	90	Somewhat limited Frost action Slope	0.50 0.00	Somewhat limited Cutbanks cave Slope	0.10 0.00	Somewhat limited Slope	0.00
Kn: Kenesaw-----	90	Somewhat limited Frost action Slope	0.50 0.00	Somewhat limited Cutbanks cave Slope	0.10 0.00	Somewhat limited Slope	0.00
Kp: Kipson-----	85	Very limited Depth to soft bedrock Slope Low strength Frost action Shrink-swell	1.00 1.00 0.78 0.50 0.11	Very limited Depth to soft bedrock Slope Cutbanks cave	1.00 1.00 0.10	Very limited Depth to bedrock Slope Carbonate content Droughty Content of large stones	1.00 1.00 0.56 0.00
La: Wells-----	70	Very limited Low strength Shrink-swell Frost action	1.00 0.92 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Lc: Wells-----	70	Very limited Low strength Shrink-swell Frost action	1.00 0.92 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Lh: Lancaster-----	50	Very limited Low strength Shrink-swell Frost action Slope	1.00 0.92 0.50 0.04	Somewhat limited Depth to soft bedrock Cutbanks cave Slope	0.42 0.10 0.04	Somewhat limited Depth to bedrock Slope	0.42 0.04
Hedville-----	28	Very limited Depth to hard bedrock Slope Frost action	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10	Very limited Depth to bedrock Slope Droughty Content of large stones	1.00 1.00 0.92 0.03
LOO: Longford, eroded----	90	Very limited Shrink-swell Frost action	1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Mr: Muir-----	89	Very limited Low strength Frost action Flooding Shrink-swell	1.00 0.50 0.40 0.18	Somewhat limited Cutbanks cave	0.10	Not limited	
Mu: Muir-----	100	Very limited Low strength Frost action Flooding Shrink-swell	1.00 0.50 0.40 0.18	Somewhat limited Cutbanks cave	0.10	Not limited	

BUILDING SITE DEVELOPMENT--Continued  
Republic County, Kansas

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ro: Coly-----	100	Very limited Slope Low strength Frost action	1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Sa: Inavale-----	85	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.60	Somewhat limited Flooding Droughty	0.60 0.04
SAN: Sand And Gravel Pits	100	Not rated		Not rated		Not rated	
Sd: Inavale-----	100	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.04
Tu: Tully-----	75	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Ty: Tully-----	75	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
W: Water (republican)--	100	Very limited Slope Low strength	1.00 1.00	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Wa: Saltine-----	98	Very limited Frost action  Flooding Low strength Shrink-swell	1.00  1.00 1.00 0.62	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00  0.80 0.10	Very limited Flooding  Salinity Sodium content	1.00  1.00 1.00

