

TFMA 2008 Freeboard Survey (Finished Floor Elevation Freeboard over BFE)

05/12/08

City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Special Notes	Proposed Requirement
Abernathy		1	City of Lubbock provides technical assistance	
Abilene		1	(1) Developer must conduct a study and determine BFE and floodway boundary in Zone A (2) In Zone X, new construction must be elevated a minimum of 18" above natural grade or crown of nearest street. (3) New development must provide detention. (4) Elevation Certificates are required when structure is completed and before CO.(5) 2 CFM's on staff	LFA is a CFM
Alamo Heights	1	1	Residential requirement only - per Ordinance. City Council adopted Zone AE as floodway, and is not allowing development in floodway. One CFM on staff.	LFA is a CFM
Allen		2 (res), 1.5 (comm)	2 foot residential, 1.5 feet commercial	
Alvin		0		
Amarillo		1	(1) New construction must be elevated +1' above BFE. (2) Developer must submit a study showing BFE in Zone A. (3) New construction in Zone X (shaded and unshaded) must be elevated +1' above natural grade or crown of the nearest street. (4) EC required prior to forming and pouring lowest floor and after construction.	
Arlington	2	3		LFA is a CFM

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Austin	1, 2	N/A	(1) City Code precludes development within the fully developed land-use condition 100-year floodplain. Conditional exceptions include: 1) Within Central Business District, 2 feet above fully developed BFE, and 2) Minimum freeboard of 1 foot above fully developed BFE in all other areas. (2) All development must demonstrate no adverse flooding impact; mitigation typically achieved by on-site or regional detention ponds. (3) City uses fully developed watershed condition floodplain for regulating all subdivision platting and building construction. (4) City adopted the IBC and the IRC (except Plumbing) with reference to ASCE 24. (5) City requires cumulative building addition and improvements (substantial improvements) for 10 years. (6) Austin is CRS 8.	LFA is a CFM
Bailey's Prairie	1	1	(1) Developer must submit a study defining both the BFE and floodway based on fully developed conditions.(2) EC required prior to forming/pouring lowest floor and when structure is completed.	LFA is a CFM
Balch Springs		No Adverse Impact	In a nutshell, "No Adverse Impact" means you cannot build in the floodplain (contact Balch Springs city engineer for more info)	
Ballenger	0	0	Elevation Certificate required before CO	
Bartonville		1	Flood plain administrator requires 2 feet on all new subdivisions	
Bastrop		2	Developer must conduct a drainage study and provide detention when required. Development must demonstrate no adverse impact on adjacent properties.	

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Bastrop County		2	Developer must conduct a study and determine BFE and floodway in Zone A; On-site compensatory storage required. County enforces "cumulative damage over the life of the structure" treshold for substantial damage. Elevation Certificates are required prior to framing; after construction; and before CO. Basements are prohibited in SFHA. County is CRS Class 8. LFA is a CFM.	Certificates of non-compliance to be filed with County Clerk. Inspections reports from PE/AIA are required during construction. Any home w/in 150' of a watercourse must be +2' above NG. New Subdivisions must have BM's and include dedicated 10'setback (easement)from SFHA
Bay City	0	0		
Baytown	1.5		(1) New construction must be elevated a minimum of 1.5' above BFE. (2) Detention is required. (3) In Zone X, new construction must be elevated a minimum of 1.5 feet above natural grade or above crown of nearest street. (4) EC required prior to pouring lowest floor and before CO. (5) City is CRS Class 6.	LFA is a CFM
Beaumont		1.5	Elevation Certificate required prior to pouring slab, after construction and before CO. City has applied for CRS.	LFA is a CFM
Bellaire	1		In Zone X, new construction must be elevated 1.0' above natural garde or crown of nearest street. EC required 1)before construction begins, 2)when construction is complete and 3) before CO. County-wide detention requirements by HCFCD. City is CRS Class 9	LFA is a CFM
Benbrook		2	New lots prohibited from being created in 100-year floodplain. Elevation Certificates required on foundation forms before pour. City is CRS 7. One (1) CFM on staff	LFA is a CFM

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Brady	0	0	Developer must conduct a study and determine BFE and floodway boundary in Zone A; In Zone X, new construction must be elevated a minimum of 24" above natural grade or crown of nearest street. New development must provide detention. Elevation Certificates are required prior to forming/pouring lowest floor, when structure is completed and before CO.	
Brazoria County		2	(1) In flood zone, EC required before construction and after foundation in complete. (2) In Zone X recommendation of 2-ft above grade but no EC required. (3) No permit is issued w/o copy of Env Health approved septic permit on less than 10 acres. (4) Drainage plan required for all commercial and any fill of more than 5000 sq ft. (5) No rise certification for floodways. Adopted May 2005. LFA is a CFM	LFA is a CFM
Brazos County		1	Septic Permit cannot be issued without Floodplain Permit. County has interlocal agreement for ETJ Permits and shares GIS and floodplain data with Bryan and College Station. 2 CFM's on staff. EC required before CO.	LFA is a CFM
Brookside Village		1		
Brownwood		1	(1) No rise study required for development in floodway. (2) Detention required to mitigate development. (3) New construction in Zone X (shaded and unshaded) must be elevated 1' above natural grade or gutter of nearest street. (4) If #3 cannot be obtained, Ground adjacent to structure must be sloped 5% minimum away from foundation for a min. of 10' as per Section 1803 of IBC. (5) EC required prior to framing/pouring lowest floor; after construction is completed and prior to C O.	Enroll in CRS

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City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Special Notes	Proposed Requirement
Bryan		1	(1) Development in Zone X must be elevated 0.5' above top of curb or above crown of nearest street. (2) EC's required during construction with form board survey and prior to CO. (3) City of Bryan is CRS 7 with 5 CFM's on staff. (4) City adopted IBC.	LFA is a CFM
Buda	0	0	(1) Developer must submit a study establishing floodplain and floodway boundaries and BFE in Zone A (2) Detention is required to mitigate the impacts of development in Zone AE (3) EC not required	LFA is a CFM
Bulverde		2		LFA is a CFM
Cameron County Canyon		2		
Canyon		1		
Carmine	0	0	Member of TCRFC	
Carrollton	2		Zero (0') rise in Floodway. Developer must conduct a study and determine BFE in Zone A; New development must provide detention. Elevation Certificates are required before CO. CRS Class 7	LFA is a CFM
Clear Lake Shores		0		
Cleburne		1	City is CRS Class 9. Two (2) CFM's on staff.	LFA is a CFM
Cleveland	1.5	1.5	Fill placed in floodplain/floodway must be mitigated. New structures in Zone X must be elevated a minimum of 0.5' above natural grade or crown of nearest street. EC required prior to forming/pouring lowest floor and when structure is completed and prior to CO.	LFA is a CFM
College Station	N/A	1	Designated channel reaches have additional requirements of +2', +3' and +4' above BFE. New construction in shallow flooding areas (Zone AH and AO) must be elevated +1' above depth number or BFE. Two (2) Elevations Certificates are required: (1) prior to forming/pouring lowest floor and (2) Prior to issuing a CO. Detention is required to mitigate the impact of development. City has five (5) CFM's on staff.	Brazos County, Bryan and College Station are working together to standardize floodplain management requirements and drainage policy. LFA is a CFM

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Colorado County	1	1	In Zone A the Developer must conduct a study to define the BFE and Floodway. Detention or mitigation required for fill placed in floodplain/floodway. EC required when structure is completed.	LFA is a CFM
Coppell	1	2		
Copper Canyon		1	Flood plain administrator requires 2 feet on all new subdivisions	
Copperas Cove		1.5		
Corinth		0	Proposed ordinance requires +1' BFE based on fully developed conditions	1
Corpus Christi	at BFE	0	City considering Ordinance with 1' freeboard above BFE. Elevation Certificate required before CO. CRS 9 - City has 2 CFM's on staff.	LFA is a CFM
Corsicana		1	(1) Developer is required to conduct a study to define BFE and floodway in Zone A. (2) EC is required prior to forming/pouring lowest floor; when structure is completed; and prior to CO.	LFA is a CFM
Dallas	3		(1) No construction allowed in the floodplain (2) New construction must be BFE +3' (3) Fill permit allows reclamation but has +3' freeboard requirement (4) Dalls does not have floodways - 0' rise allowed in floodplain (5) No loss in valley storage allowed.(6) EC's required for modification to existing structures. (7) City also has environmental requirements in SFHA. (8) Detention may be required (9) City is CRS Class 7+D52	LFA is a CFM
Deer Park		0		
Denison		1	EC is required before CO.	
Denton	1.5		No rise allowed in floodway/floodplain. In Zone A, Developer must define Floodplain and Floodway if 3 acres or 20 lots. New structures in Zone X must be elevated 1.0' in X unshaded and 1.5' in X shaded. EC required when structure is completed and before CO. CRS Class 8.	LFA is a CFM

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Dickinson		1		
Double Oak		1	Floodplain administrator requires +2 feet on all new subdivisions	
Eagle Lake		1	requires final EC from surveyor for all new construction in FP	
East Bernard	0	0	City has contracted with Wharton County to manage floodplain management program.	Wharton Co. LPA is CFM
El Campo		Above BFE	(1) New development must be 18 in. above natural grade or 12 in. above crown of Street (2) EC required before framing; after construction is complete and prior to CO.	LFA is a CFM
Elgin		1		
El Paso, City of	0	0	(1) Developer must perform a study and define BFE and Floodway in Zone A. (2) New construction in Zone X (shaded and unshaded) must be elevated 0.67' above NG or crown of nearest street. (3) City is CRS 9 (4) EC required before framing; after construction and before CO. (5) Proposing 1' above BFE and all Subdivisions, Grading, Drainage, Commercial and Residential Improvement Plans based on NAVD 88 once DFIRMs are made effective.	LFA is a CFM
Eules		2	Zone A - Developer must submit a H&H Study, based on fully developed watershed, identifying 100-year BFE, dedicate the area that is inundated by 25-year fully developed storm, and new development must be BFE+2. Detention is required if downstream system is undersized. City has 1 CFM on staff.	LFA is a CFM
Fayette County		1	a new ordinance is being proposed requiring +2'. (2) EC required at final stage of dev/ (3) FPA position is recently vacant/ it was managed by a CFM	
Forney		0		1
Fort Bend County		1		LFA is a CFM
Fort Worth	2	3		

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Fredericksburg	N/A	N/A	100-yr flood plane is zoned Open Space, no new construction allowed including additions to existing structures	
Friendswood		2	Also: + 2' in Zone X shaded; +1.5' in Zone X unshaded	
Frisco	2		The entire residential and commercial lot elevation shall be 1 foot above the 100 year fully developed water surface elevation. The minimum finished floor elevations shall be an additional 1 foot above the minimum lot elevation.	
Gainesville		2	(1) Developer is required to conduct a study to define BFE and floodway in Zone A. (2) Detention is required for new construction. (3) EC is required when structure is completed and prior to CO.	LFA is a CFM
Galveston County		0	(1) New construction in Zone X must be elevated 24 inches above NG in Zone X Shaded and 18 inches above NG in Zone X Unshaded (2) EC required when structure is completed.	LFA is a CFM
Garland	2	2	Fully-developed BFE and compensatory valley storage required for all development in Rowlett and Spring Creeks. Developer must conduct a study for all development in Zone "A" areas. Community is enrolled in CRS, and our Floodplain Administrator is a CFM.	LFA is a CFM
Georgetown		1		
Goldthwaite	0	0	no ordinance	
Gonzales County		0		
Grand Prairie	1	2	City required drainage review by CFM for all subdivision proposals. City is CRS Class 7. Two (2) CFM's on staff.	LFA is a CFM
Grapevine	2	3		

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Guadalupe County	1	1	(1) new construction must be elevated 1' above BFE. (2) Developer must submit a study showing BFE and floodway in Zone A areas based on fully developed conditions. Study must also show "no r+D141ise". (3) Detention is required to mitigate development. (4) EC is required prior to forming/pouring lowest floor; after construction is completed and prior to CO. (5) New Plats must show BFE for all lots in floodplain. (6) County is applying for CRS in 2008. (7) Two CFM's on staff. One more in 2008.	LFA is a CFM
Harris County		1.5	(1) 1.5 feet to lowest horizontal member in floodway (2) detention is required (3) County is CRS 8	LFA is a CFM
Haslet	1	1	(1) New Construction must be +1' above Fully Developed BFE in all studied areas and +1' in unstudied areas.(2) Developer must conduct a study and define fully developed BFE and FW in Zone A. (3) EC required prior to pouring lowest floor.	LFA is a CFM
Hays County		0	In Zone A, the Developer must conduct a study to define BFE and floodway. Detention may be required to ofset development impact. EC is required before CO is issued.	LFA is a CFM
Herlotes	1	1	Developer must establish BFE and Floodway in Zone A. Detention is required. EC is required before pour and after construction is completed.	LFA is a CFM
Houston		1.5	1 foot in floodplain, 1.5 feet in floodway, Detention is required	LFA is a CFM
Hurst		1	(1) Developer must conduct a study to define the floodway and BFE in Zone A (2) Detention is required to mitigate the impacts of a proposed project (3) EC required prior to CO (4) City is creating a Storm Water Utility (5) City has introduced new MH restrictions in SFHA	
Irving		2		LFA is a CFM
Jasper		1		

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Jersey Village		1		
Jonestown		1		LFA is a CFM
Kemah		1.5		
Kerrville		1	(1) Developer must conduct a study to define the floodway and BFE. (2) Detention may be required to mitigate the impacts of a proposed project. (3) EC required prior to pouring lowest floor; after structure is complete and prior to CO.	LFA is a CFM
Killeen		1		1.5
Kingsville		1	City is proposing +2 ft above BFE along the floodplain with no new development allowed in the floodplain unless an engineered study is provided showing no rise in FP	
La Porte		1		
Lago Vista		1		
Lake Ransom Canyon		1	City of Lubbock provides technical assistance	
Lancaster	1		(1) Lowest floor must be elevated +1' BFE based on fully developed conditions (2) Detention is required to mitigate development in SFHA. (3) EC required before CO is issued. (4) Pre Development peak flows must be maintained. Downstream assessment is required using a 10% zone of influence.	LFA is a CFM
Laredo		1.5	Within Zone A, if no base flood elevation data is available, new and substantially improved structures shall have the lowest floor (including basement) elevated at least 3 ft. above the highest adjacent grade.	
League City		1.5	New Construction must be +1.5' feet above 500-year including Zone V	
Levelland		0		1
Lewisville		2		

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Liberty County		1	(1) New construction in Zone AE must be elevated a minimum of +1' BFE (2) New construction in Zone X (shaded and unshaded) must be elevated a minimum of 1.5' above natural grade or crown of the nearest street. (3) Developer must conduct a study to define BFE and Floodway in Zone A. (4) Detention is required for new construction. (5) EC is required prior to forming/pouring lowest floor and after structure is completed.	Co ENG. is a CFM
Llano		1	(1) Developer must conduct a study to define impact in Floodway and detention may be required. (2) Development in Zone X must be elevated a minimum of +1 above NG. (3) EC required prior to forming, when structure is completed an before CO.	LFA is a CFM
Llano County		1 and 3	1 foot FB for areas with BFE/ 3 feet FB for areas without BFE; Elevation Certificates required before CO. Developer is required to perform a study and define BFE and floodway in Zone A. Pre-FIRM structures below BFE cannot be enlarged (footprint) even if not substantial improvement.	LFA is a CFM
Longview		2	2 feet in zone AE, 0.5 feet above surrounding grade in approximate study zones	
Lubbock	1	1	Developer must conduct a study to establish new BFE's in Zone A's, if more than 5 acres or 50 lots, based on fully developed Q100. New construction in Zone X must be elevated 1 foot above natural grade or crown of nearest street. EC required before forming/pouring lowest floor, when construction is complete and before CO. CRS Class 8.	LFA is a CFM
Lubbock County		1	We do not permit, which keeps us from regulating as much as we would like to. One CFM on staff.	LFA is a CFM
Lufkin	1	1	Developer must conduct a study to define BFE and Floodway in Zone A.	1

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Mansfield	1	2	(1) New construction must be elevated +2' above BFE. (2) Developer must submit a study establishing the BFE and floodway in Zone A. (3) Any development in the floodway must include a "no rise" certificate. (4) New construction in Zone X (shaded) must be elevated +2' above natural grade or crown of the nearest street. In Zone X (unshaded) the requirement is +1.5' above natural grade or crown of the nearest street. (5) Detention is required to offset the impacts of proposed development. (6) EC required prior to forming and pouring lowest floor; after construction; and prior to CO.	LFA is a CFM
Manvel		2		LFA is a CFM
Marble Falls		1	studies required in un-numbered A for BFE and floodway/ no fill allowed in floodway without mitigation/ EC required at permit, prior to foundation, at completion and prior to CO/ interested in CRS/ FPA is CFM	LFA is a CFM
Matagorda County		1	(1) New development must be elevated a minimum of +1' above BFE. (2) No development allowed in the Floodway (3) New ordinance being developed requiring a study be submitted with a request for permit establishing the BFE and floodway in Zone A.	LFA is a CFM
McKinney	2	3		
Meadowlakes		0	In Zone X, new construction must be elevated 0.5' above natural grade or crown of nearest street. EC required 1) before construction begins, 2) when forms are in place (but before pour), and 3) after foundation is complete/ currently working on CRS application/ FPA is CFM	LFA is a CFM

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Mesquite	2	(see notes)	(1) Mesquite does not use BFE since these elevations do not look at ultimate development and are generally not conservative. Using BFE will often put structures in the floodplain when discharges increase with development. (2) Mesquite requires developer to do an ultimate development (built out) model and keep finish floors 2' above this elevation. (3) Mesquite is coordinating with FEMA map update to revise all mapping to ultimate discharges. Another consideration is that updating models from HEC-2 to HEC-RAS often increases flood elevations upstream of bridges due to differences between the models for bridge modeling. These increases can be significant and often exceed 1'. Beware of using the BFE for planning purposes! In Zone A - Developer must conduct a study to establish BFE's and floodway based on fully developed conditions. (4) No fill is allowed in FP or FW without mitigation-no adverse impact (5) EC required prior to placing/pouring lowest floor.	New construction must be elevated 2 feet above the fully developed 100-year floodplain and be located outside of the floodplain; parking lots can be at the fully developed 100-year elevation but still need to be located outside the floodplain; natural floodway is based on fully developed conditions; no floodway fringe. LFA is a CFM
Midland		1	Playas Lowest floor must be +1' above overflow elevation or BFE whichever is higher. No import of fill is allowed in Playas. This is difficult to enforce.	
Mills County	0	0		none
Missouri City		1		
Mont Belvieu		1.5	18 inches over base flood elevation when lots in floodplain. 18 inches over average terrain, or 12 inches over elevation of the crown of the road when drainage is by open ditch, or 12 inches over elevation of curb if drainage is curb and gutter	
Montgomery County	1	1	Zone A must be determined by developer.	
Nassau Bay		2		

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New Braunfels	1	1	(1) Developer must conduct a study to define the BFE and Floodway and detention may be required. (2) EC required prior to forming, when structure is completed and before CO. (3) City utilizes FEMA Flood Recovery Maps (4) City has purchased substantially damaged structures	LFA is a CFM
North Richland Hills		1.5	FF must be 1.5' above BFE. CLOMR/LOMR required for all Zone "A" floodplain, subdivisions 5 acres and larger located in Zone "AE", and subdivisions with any proposed improvements in the floodway. A separate ordinance governs Little Bear Creek which specifies no rise in ultimate BFE. NRH is CRS Class 7. Two Elevation Certificates are required during construction - (1) with form board survey and (2) prior to issuance of CO. City has two CFM's on staff.	LFA is a CFM
Nueces County			Fill placed in floodplain/floodway must be mitigated. EC required prior to forming/pouring lowest floor and when structure is completed.	
Oak Ridge North		1		LFA is a CFM
Odessa		1	(1) New construction must be elevate +1' above BFE (2) Developer must conduct a study and establish both BFE and floodway in Zone A areas (3) Zone X (shaded and unshaded) - lowest floor must be 1' above natural grade and/or 1' above top of curb. (4) Detention is required to mitigate development. (5) EC required prior to forming/pouring lowest floor; after construction is completed and prior to CO. (6) Odessa is Class 8 CRS. (7) City has two CFM on staff.	LFA is a CFM
Orange County		1		
Palacios	0	0	EC required 1) prior to pouring lowest floor, 2) when structure is complete, 3) prior to CO/ not in CRS but interested/ FPA is CFM	LFA is a CFM

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Parker County	0	0	Developer must conduct a study (existing and fully developed) to define BFE and Floodway in Zone A. EC is required prior to forming/pouring lowest floor and before CO. Parker County is CRS Class 8.	LFA is a CFM
Pasadena		1		
Pearland		1		LFA is a CFM
Planeview		1		
Plano	2	2	Developer must conduct a study to define BFE and Floodway in Zone A. Detention is required for new construction. EC is required prior to forming/pouring lowest floor and before CO. Plano is CRS Class 6.	LFA is a CFM
Point Venture		1	Elevation Certificates are required before CO is issued.	
Richmond		1	1 foot above BFE or 2 feet above natural grade (whichever is higher)	
Round Rock	2		Plats must show Ultimate 100-year flood boundary; Ultimate 100-year floodplain must be contained w/in drainage easement for single-family, two-family and townhouse zoning districts. For all other zoning - 25-year ultimate floodplain must be contained w/in easement. Final plats must state that fences, structures, storage or fill is prohibited w/in the 100-year ultimate floodplain. One CFM on staff.	LFA is a CFM

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Rowlett		2	(1) Developer must conduct a study to identify BFE and floodway in Zone A. (2) New construction in Zone X Shaded must be elevated a minimum of 2 feet above NG or nearest street. (3) New construction in Zone X Unshaded must be elevated a minimum of 1 foot above NG or nearest street (4) Detention is required except for lots in excess of 1 acre or proof submitted that no negative impact on the existing storm drainage system (5) Builders required to submit a Lot Grading Plan as part of permit request. (6) Survey is required prior to pouring lowest floor of new construction. (7) EC required when structure is completed and prior to CO. (8) As Built sealed by a RPLS is required when structure is completed	LFA is a CFM
Sachse		2		
San Angelo		1	Lowest Floor elevated +1' above BFE on FIRM	
San Antonio	1	2	City requires future conditions study based on a fully developed watershed. Floodways must be defined by Zero (0') Rise. Zone A - Developer must define BFE & Floodway based on fully developed watershed. EC required with drawings to support the permit application and prior to CO.	LFA is a CFM
San Patricio Co.		1.5	18" above BFE required county-wide	
San Saba County	0	0	minimum NFIP	none
Seabrook		1	City requires Elevation Certificate prior to CO. City requires elevations to be adjusted for subsidence. City is CRS 9	LFA is a CFM

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Sealy	1	1	(1) New construction must be elevated: +1' above BFE; 12" above curb; or 18" above natural grade whichever is higher. (2) Developer must conduct H&H study to define BFE in Zone A. (3) Detention is required to mitigate the impact of development in SFHA. (4) New construction in Zone X must be elevated a minimum of 18" above NG or 12" above curb whichever is higher. (5) EC required prior to forming/pouring lowest floor; after construction and prior to CO. (6) "Zero Rise" downstream of development in Allen's Creek watershed. (7) City has GIS mapping available on line.	LFA is a CFM
Shoreacres		1		
Simonton		1	1 foot above BFE or 1 foot above street elevation whichever is higher. Elevation Certificate is required after construction.	Pending change - Elevation Certificates will be required - before pour or lowest floor framed in and after construction.
Slaton		1	City of Lubbock provides technical assistance	
Southlake		2		
Southside Place		0		1 or 1.5
Sugarland		1' above top of curb or 1' above elevation in front of house whichever is greater, regardless of BFE	City plans to apply for CRS.	LFA is a CFM

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Tarrant County		1	(1) Work in floodplain may require a engineering study to ensure adjacent property owners won't be affected by construction and/or development in the floodplain. This is determined on a case by case basis and is applicable to all zones. (2) Strict compliance to "no rise" in FW (3) EC required when structure is completed.	LFA is a CFM
Texarkana		1	(1) In Zone A the developer must submit a study showing BFE and Floodway based on fully developed watershed. (2) No development allowed in the floodway (3) EC required prior to issuing CO.	LFA is a CFM
The Colony		0' if no fill in floodplain, +2' if fill in floodplain	No development allowed in the floodway. LFA is a CFM, total 3 CFMs on staff. Cannot increase velocities above 6 fps. City is considering +2' in all cases.	LFA is a CFM
Tomball	0	0	Detention is required. EC required prior to pouring lowest floor and before CO. +1./5' elevation is proposed. LFA is a CFM	LFA is a CFM
Tom Green County		0		LFA is a CFM
Uvalde	2	2	(1) New construction must be elevated a minimum of 2' above BFE. (2) Developer must conduct a study to establish the BFE and floodway in Zone A based on fully developed watershed conditions (3) No fill in floodway without mitigation. (4) In Zone X (shaded and unshaded) new construction must be elevated a minimum of 2 feet above NG or crown of the nearest street. (5) EC required prior to framing/pouring lowest floor; after construction is completed and prior to CO.	
Victoria	0	0	Developer must establish BFE and Zero rise Floodway in Zone A. Detention is required. EC is required after pour and before CO. Three (3) CFM's on staff.	LFA is a CFM
Waco		1		
Waller		1		
Waller County		0		

TFMA 2008 Freeboard Survey (Finished Floor Elevation Freeboard over BFE)

05/12/08

City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Special Notes	Proposed Requirement
Webster		1		
West Orange		1	Developer must establish BFE and Floodway in Zone A. EC is required before CO.	
West University Place		0		1 or 1.5
Wharton	1	1	(1) New construction in Zone X must be +1' above NG. (2) Detention required to mitigate fill/development (3) EC required prior to forming; when structure is completed and prior to CO. (4) City has applied for CRS	LFA is a CFM
Wharton County		0	Detention required in new subdivisions. EC required prior to pouring lowest floor and when structure is completed. FP Permits are cross referenced to 911 Addressing.	LFA is a CFM
Wichita County		1		1.5 or 2.0
Williamson County	0	0	In Zone A, the Developer must conduct a study to determine BFE. No fill allowed in SFHA w/o mitigation. EC is required when structure is completed.	LFA is a CFM
Woodville		1		
Summary:				
159 responses were received (There are 1,124 Texas communities enrolled in the NFIP)				
123 (77%) of communities that responded have adopted a "Freeboard" ordinance requiring new construction to be elevated 1' or more above BFE.				
35 (22%) of communities that responded require that new construction be elevated above the BFE based on "fully developed" watershed conditions.				
34 (22%) of communities that responded require detention.				
76 (48%) of communities that responded have a CFM on staff.				
Thank you for participating in the 2008 TFMA "Freeboard" Survey.				

Date of Survey: Jan-Apr 08 - The information above also includes survey responses received from 2004, 2005, 2006 and 2007
 2008 Survey conducted by John Ivey, PE, CFM, Mike Howard, CFM, Roy Sedwick, CFM and Heidi Carlin, CFM (Jan-Apr 2008)
 2007 Survey conducted by John Ivey, PE, CFM, Mike Howard, CFM, Roy Sedwick, CFM and Lochen Wood, CFM (Mar-Jun 2007)
 2006 Survey conducted by John Ivey, PE, CFM, Roy Sedwick, CFM and Lochen Wood, CFM (Mar/Apr 2006)
 2005 Survey conducted by John Ivey, PE, CFM and Roy Sedwick, CFM, based on initial findings by Charlie Hastings, PE, CFM
 2004 Survey conducted by Charlie Hastings, PE, CFM, City Engineer, City of Kerrville, Texas via e-mail over a two day period (6/23/04 - 6/24/04)



