FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS OF THE PLANNING COMMISSION

IN THE MATTER OF CASE NO. CPA2019-0004/LUA2019-0011, ADOPTING THE CITY OF LIBERTY LAKE MUNICIPAL FLOOD DAMAGE PREVENTION REGULATIONS

HEARING DATE: August 14, 2019 @ 4:00 p.m.

PROPOSAL COORDINATOR: Lisa D. Key, Director of Planning, Engineering & Building Services

PROPOSAL SUMMARY:	
Location	Citywide
Applicant(s)	City of Liberty Lake
Proposal Information	2019 Development Code Amendment CPA2019-0004/LUA2019-0011
Code Chapter / Section	**Proposed City Development Code Amendment**
City Development Code New Article 10-6F	**Flood Damage Prevention Ordinance**: To allow the City to participate in the National Flood Insurance Program (NFIP), be eligible for FEMA Disaster Relief, minimize potential public and private losses from flooding, and minimize the cost of flood insurance
Proposed Amendment	See Exhibit A.

FEDERAL REGULATORY FRAMEWORK, AUTHORITY & REQUIREMENTS

44 CFR Subpart A: Requirements for Flood Plain Management Regulations

In order for the City of Liberty Lake to participate in the NFIP, the City of Liberty Lake must have Flood Plain Management Regulations that are consistent with the minimum Federal standards established in this Subpart.

STATE OF WASHINGTON REGULATORY FRAMEWORK, AUTHORITY & REQUIREMENTS:

RCW 36.70A: Growth Management Act (GMA):

Liberty Lake is mandated to plan under GMA. The City's Comprehensive Plan and Development Regulations were developed in accordance with the requirements of GMA. Development Regulations are required to implement the City's Comprehensive Plan, and any amendments to City Development Code must be consistent with the City's adopted Comprehensive Plan. The City must provide reasonable public notice of proposed amendments and opportunities for public participation.

RCW 86.16: Flood Plain Management

The State of Washington assumes full regulatory control of waters flowing within the State of Washington, and the Washington Department of Ecology is responsible for coordinating flood plain management regulation elements required by the NFIP. Where the minimum Flood Plain Management Regulations contained in this RCW exceed the Federal requirements, the City of Liberty Lake must meet the State of Washington's minimum requirements for flood plain management, in order to participate in the NFIP.

WAC 173-158-064:

*Details specific state requirements for establishing flood plain management regulations, in accordance with **RCW 86.16.***

WAC 365-196: Growth Management -- Procedural Criteria for Adopting Comprehensive Plans and Development Regulations

Development code amendments must comply with procedures established in WAC 365-196, including rules regarding internal consistency, interjurisdictional coordination, public participation requirements, and notification to the Department of Commerce of "intent to adopt" proposed code amendments at least 60 days prior to final adoption.

WAC 197-11: State Environmental Policy Act (SEPA) Rules:

Comprehensive Plan Land Use and Zoning Designations are subject to SEPA review as a non-project action, in accordance with procedures established in WAC 197-11.

CITY OF LIBERTY LAKE REGULATORY FRAMEWORK & PROCEDURAL REQUIREMENTS:

City Code §10-4B-5: Type IV Projects:

Comprehensive Plan and Development Code Amendments are classified as Type IV Projects in the City of Liberty Lake Development Code and are considered legislative decisions. The procedural requirements and decision criteria are detailed in City Development Code §10-4B-5.

DRAFT

SEPA REVIEW:

SEPA Checklists were completed for the proposed annual amendments to the City of Liberty Lake's Comprehensive Plan and Development Regulations. The City of Liberty Lake Planning, Engineering & Building Services has determined that the proposal, as a non-project review, will have no significant adverse environmental impacts and issued a Determination of Non-Significance (DNS) and Adoption of Existing Environmental Documents on July 19, 2019. The City adopted the Spokane County Final Supplemental Environmental Impact Statement for the Spokane County Comprehensive Plan that was prepared on November 22, 2000 and was previously adopted for the original City of Liberty Lake Comprehensive Plan and Development Code, as well as the Final Environmental Impact Statement for the City of Liberty Lake Urban Growth Area Boundary Alternatives that was prepared on December 13, 2006. The Notice of Availability, SEPA Checklist and Threshold Determination, and Amendment Document were routed to agencies on or before July 23, 2019, and a Notice of Availability was posted at the Liberty Lake Municipal Library and at City Hall, as well as being published in the July 19, 2019 edition of the Valley News Herald. On or before July 23, 2019, the Notice of Availability, Notice of Hearing, SEPA Checklist and Threshold Determination, and Amendment Lists were also posted on the City website, and the notice and a link to the City website was emailed to the public notice group, as well as the amendment applicants. Comments on the SEPA Checklist and Threshold Determination were due by 4 p.m., on August 5, 2019.

PROCEDURAL INFORMATION:

Planning Commission 2019 Annual Comprehensive Plan and Code Amendment Docket Review:	May 8, 2019
Planning Commission Workshop on CPA2019-0004/LUA2019-0011:	July 10, 2019
SEPA Notice/ Public Hearing Notice:	July 19, 2019
SEPA Comment/Appeal Period Ends:	August 5, 2019
Planning Commission Hearing:	August 14, 2019
Ratification of Recommendations:	September 11, 2019

AGENCY REVIEW:

SEPA Distribution List & Adjacent Jurisdictions: Liberty Lake Police Department; Avista; Century Link; Central Valley School District; City of Spokane Valley; CDA Tribe; Comcast; Spokane Clean Air; Spokane Valley Fire District; Spokane Transit Authority; Spokane Regional Health District; Spokane Tribe; WS Department of Ecology; WS Department of Fish & Wildlife; WS Department of Natural Resources; WS Department of Transportation; Spokane Regional Transportation Council; Liberty Lake Water & Sewer District; Consolidated Irrigation District; Spokane County Utilities; Spokane County Planning; WS Department of Commerce.

RELEVANT COMPREHENSIVE PLAN GOALS & POLICIES:

Governance Goal 1: Actively involve residents, businesses, and property owners in the governance of the City.

DRAFT

Land Use Goal 1: Provide a healthful, safe, and sustainable urban environment.

Natural Environment Goal 1: Preserve and enhance environmentally sensitive areas.

Governance Policy 1: The City shall use the website, email, social media, newsletters, local newspapers, special announcements and other techniques to keep the community well-informed.

Governance Policy 6: Review and update this Comprehensive Plan and the City's Development Regulations at least every 8 years in accordance with the provisions of the Washington State Growth Management Act.

Economic Development Policy 5: Provide consistent, fair, and timely regulations that are flexible, responsive, and effective.

Natural Environment Policy 1: Maintain an inventory of highly sensitive areas appropriate for preservation.

Natural Environment Policy 3: Provide public information programs to demonstrate how to protect environmentally sensitive areas from degradation.

STAFF ANALYSIS:

On January 2, 2018, Liberty Lake City Council adopted Resolution No. 18-233 (attached as Exhibit D, resolving to enact a Flood Damage Prevention Ordinance, and expressing their intent to participate in the National Flood Insurance Program (NFIP).

Adopting a flood damage prevention ordinance is a prerequisite for participation in the NFIP. The proposed ordinance (attached as Exhibit A) was developed using the Federal Emergency Management Agency (FEMA) Model Flood Damage Prevention Ordinance, as modified by Washington State Department of Ecology to incorporate Washington State requirements. The Flood Insurance Rate Maps (FIRM), attached as Exhibit B, indicate that, at present, the only 100-year flood plains in the City are located on publicly owned land, or open space tracts owned by Homeowners' Associations. Exhibit C contains FEMA forms referenced in the ordinance.

FINDINGS:

1. The required SEPA review has been completed on the proposed amendment.

2. All public and agency notice requirements were met and accomplished in a timely manner.

3. The public was provided the opportunity for early and continuous participation.

4. The public had the opportunity to submit written comments and testify at a public hearing before the Planning Commission.

CRITERIA FOR APPROVAL:

The criteria for approval of a code amendment are established in City Code §10-4B-5(A), which states:

DRAFT

A. *<u>Criteria for Amendment</u>:*
*The City may amend development regulations when it finds that **any** of the following applies:*

1. *Such amendment is consistent with the Comprehensive Plan and is not detrimental to the public welfare;*
2. *Change in economic, technological, or land use conditions has occurred to warrant modification;*
3. *It is found that an amendment is necessary to correct an error;*
4. *It is found that an amendment is necessary to clarify meaning or intent;*
5. *It is found that an amendment is necessary to provide for a use(s) that was not previously addressed; or*
6. *Those amendments as deemed necessary by the City Council as being in the public interest.*

CONCLUSIONS:

1. The proposed amendment **IS** consistent with the Comprehensive Plan and **IS NOT** detrimental to the public welfare.

2. The proposed amendment **IS NOT** warranted by a change in economic, technological and/or land use conditions.

3. The proposed amendment **IS NOT** necessary to correct an error.

4. The proposed amendment **IS NOT** necessary to clarify meaning or intent.

5. The proposed amendment **IS** necessary to provide for a proposed use that was not previously addressed.

6. The proposed amendment **IS** deemed necessary as being in the public interest.

RECOMMENDATION:

In the matter of Case No. CPA2019-0004/ LUA2019-0011, an amendment to the City of Liberty Lake Development Code adopting new Article 10-6F, establishing regulations to prevent potential damage from flooding, the City of Liberty Lake Planning Commission does hereby recommend to City Council that the amendment be **APPROVED.**

DRAFT

EXHIBIT A

PROPOSED AMENDMENTS TO THE CITY OF LIBERTY LAKE DEVELOPMENT CODE REGARDING FLOOD DAMAGE PREVENTION

Development Code §10-1C (B): Definitions

The following definitions shall be added to the above-referenced section:

Alteration of Water Course: Any action that will change the location of the channel occupied by water within the banks of any portion of a riverine waterbody.

Area of Shallow Flooding: Designated as AO, or AH Zone on the Flood Insurance Rate Map (FIRM). AO zones have base flood depths that range from one to three feet above the natural ground; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and, velocity flow may be evident. AO is characterized as sheet flow; AH indicates ponding, and is shown with standard base flood elevations.

Area of Special Flood Hazard: The land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letters A or V. "Special flood hazard area" is synonymous in meaning with the phrase "area of special flood hazard".

Base Flood: The flood having a 1% chance of being equaled or exceeded in any given year (also referred to as the "100-year flood"). Designated on Flood Insurance Rate Maps by the letters A or V.

Base Flood Elevation (BFE): The elevation to which floodwater is anticipated to rise during the base flood.

Basement: Any area of the building having its floor sub-grade (below ground level) on all sides.

Critical Facility: A facility for which even a slight chance of flooding might be too great. Critical facilities include (but are not limited to) schools, nursing homes, hospitals, police, fire and emergency response installations, and installations which produce, use, or store hazardous materials or hazardous waste.

Cumulative Substantial Damage: **F**lood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

Elevation Certificate: The official form (FEMA Form 81-31) used to track development, provide elevation information necessary to ensure compliance with community floodplain management ordinances, and determine the proper insurance premium rate with Section B completed by Community Officials.

Elevated Building: For insurance purposes, a non-basement building that has its lowest elevated floor raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.

Existing Manufactured Home Park or Subdivision: A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the adopted floodplain management regulations.

Expansion to an Existing Manufactured Home Park or Subdivision: The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Flood or **Flooding:** means:

1. A general and temporary condition of partial or complete inundation of normally dry land areas from:
   i. The overflow of inland or tidal waters;
   ii. The unusual and rapid accumulation of runoff of surface waters from any source; and/or
   iii. Mudslides (i.e. mudflows) which are proximately caused by flooding as defined in paragraph (2) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

2. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph (1)(i) of this definition.

Flood Insurance Rate Map (FIRM): The official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

Flood Elevation Study: An examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards. Also known as a Flood Insurance Study (FIS).

Flood Plain or Flood-Prone Area: Any land area susceptible to being inundated by water from any source. See "Flood or flooding."

Flood Plain Management Regulations: Zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance) and other application of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Flood Proofing: Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitary facilities**,** structures, and their contents. Flood proofed structures are those that have the structural integrity and design to be impervious to floodwater below the Base Flood Elevation.

Floodway: The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

Functionally Dependent Use: A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, and does not include long-term storage or related manufacturing facilities.

Highest Adjacent Grade: The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.
Historic Structure: Any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
    a. By an approved state program as determined by the Secretary of the Interior, or
    b. Directly by the Secretary of the Interior in states without approved programs.

Increased Cost of Compliance: A flood insurance claim payment up to $30,000 directly to a property owner for the cost to comply with floodplain management regulations after a direct physical loss caused by a flood. Eligibility for an ICC claim can be through a single instance of "substantial damage" or as a result of a "cumulative substantial damage."

Lowest Floor: The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation

design requirements of the flood damage prevention regulations found at §10-6F-3(B)(1)(b), (which specifically addresses adequate flood ventilation openings).

Mean Sea Level: For purposes of the National Flood Insurance Program, the vertical datum to which Base Flood Elevations shown on a community's Flood Insurance Rate Map are referenced.

New Construction: For the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial Flood Insurance Rate Map or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

New Manufactured Home Park or Subdivision: A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of adopted floodplain management regulations.

Start of Construction: Substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Substantial Damage: Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial Improvement: means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

1. Before the improvement or repair is started; or
2. If the structure has been damaged and is being restored, before the damage occurred. For the purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

   The term excludes:

1. Any project for improvement of a structure to correct pre-cited existing violations of state or local health, sanitary, or safety code specifications which have been previously identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or
2. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

Variance from Flood Elevation Standard: A grant of relief from the requirements of the requirements of Article 10-6F of this title, to permit construction in a manner that would otherwise be prohibited by that Article.

Water Dependent: A structure for commerce or industry that cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations.

Water Surface Elevation: The height, in relation to the vertical datum utilized in applicable flood insurance study of flood of various magnitudes and frequencies in the flood plains of coastal or riverine areas.

The following definitions shall be amended in the above-referenced section:

Building: A structure with a single roof or connected with a roof built for the support, shelter, or enclosure of persons, animals, stored items, mechanical devices, or property of any kind, and permanently affixed to the ground. For the purposes of flood plain management, see "Structure".

Recreational Vehicle (RV): A vehicle that is:

1. Built on a single chassis;
2. 400 square feet or less when measured at the largest horizontal projection;
3. Designed to be self-propelled or permanently towable by a light duty truck; and
4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

~~A vehicular type portable structure without permanent foundation primarily designed as temporary living quarters for recreational, camping, or travel use, with or without motor power, and occupied in any one place for a period not exceeding 30 days.~~ This includes, but is not limited to, travel trailers, truck campers, camping trailers, and self-propelled motor homes.

Structure: Any object constructed or erected which requires location on or in the ground or is attached to something having a location on the ground (including towers, smokestacks, overhead transmission lines, captive balloons, etc.) but not including fences, retaining walls, signs or walls used as fences less than 6 feet in height. Excluded from this definition are accessory storage structures for the sole purpose of the owner or occupant less than 120 square feet in area not specifically permitted or prohibited by this Title or written interpretation thereto. Also excluded are docks and piers, but which may still be governed by the City's Shoreline Program. (See also

Wireless Communication Antenna Array and Wireless Communication Support Tower.) For the purposes of flood plain management, a "structure" shall be a walled and roofed building, including a gas or liquid storage tank that is principally above the ground.

Chapter 10-6 Environment

A new Article 10-6F shall be added, as follows:

§10-6F-1 General Provisions

A. Lands to Which These Regulations Apply.

These regulations shall apply to all areas of special flood hazards within the jurisdiction of City of Liberty Lake.

B. Basis for Establishing the Areas of Special Flood Hazard.

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Spokane County " dated July 6, 2010, and any revisions thereto, with an accompanying Flood Insurance Rate Map (FIRM), and any revisions thereto, are hereby adopted by reference and declared to be a part of these regulations. The Flood Insurance Study and the FIRM are on file at 22710 E Country Vista Drive, Liberty Lake, Washington 99019. The best available information for flood hazard area identification as outlined in §10-6F-2(C)(2) of this Article shall be the basis for regulation until a new FIRM is issued that incorporates data utilized under §10-6F-2(C)(2) of this Article.

C. Interpretation.

In the interpretation and application of these regulations, all provisions shall be:

1. Considered as minimum requirements;
2. Liberally construed in favor of the governing body; and,
3. Deemed neither to limit nor repeal any other powers granted under State statutes.

§10-6F-2 Administration

A. Establishment of Development Permit

1. Development Permit Required

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in §10-6F-1(B) of this Article. The permit shall be for all structures including manufactured homes, as set forth in the "Definitions," and for all development including fill and other activities, also as set forth in the "Definitions."

2. Application for Development Permit

Application for a development permit shall be made on forms furnished by the City of Liberty Lake and may include, but not be limited to, plans drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

a. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures recorded on a current elevation certificate (FEMA Form 81-31) with Section B completed by the local official.
b. Elevation in relation to mean sea level to which any structure has been floodproofed;
c. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet floodproofing criteria in §10-6F-3(B)(2);
d. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development.

B. Designation of the Local Administrator

The Zoning Administrator, or his/her designee is hereby appointed to administer and implement the provisions of this Article by granting or denying development permit applications in accordance with its provisions.

C. Duties & Responsibilities of the Local Administrator

Duties of the (Local Administrator) shall include, but not be limited to:

1. Permit Review
   a. Review all development permits to determine that the permit requirements of these regulations have been satisfied.
   b. Review all development permits to determine that all necessary permits have been obtained from those Federal, State, or local governmental agencies from which prior approval is required.
   c. Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of §10-6F-3(D)(1) are met.
   d. Review all development permits to determine that the site is reasonably safe from flooding.

2. Use of Other Base Flood Data (In A and V Zones)

When base flood elevation data has not been provided (in A or V Zones) in accordance with §10-6F-1(B), *Basis for Establishing the Areas of Special Flood Hazard*, the (Local Administrator) shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, in order to administer §10-6F-3(B), *Specific Standards*, and §10-6F-3(D), *Floodways*.

3. Information to be Obtained and Maintained

a. Where base flood elevation data is provided through the Flood Insurance Study, FIRM, or required as in paragraph (C)(2) of this section, obtain and record the actual (as-built) elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement, with said information recorded on a current elevation certificate (FEMA Form 81-31) with Section B completed by the local official.

b. For all new or substantially improved floodproofed nonresidential structures where base flood elevation data is provided through the FIS, FIRM, or as required in paragraph (C)(2) of this section:

   i. Obtain and record the elevation (in relation to mean sea level) to which the structure was floodproofed; and.

   ii. Maintain the floodproofing certifications required in paragraph (A)(2)(c)of this section.

c. Certification required by Section §10-6F-3 (D) (floodway encroachments).

d. Records of all variance actions, including justification for their issuance.

e. Improvement and damage calculations.

Maintain for public inspection all records pertaining to the provisions of these regulations.

4. Alteration of Watercourses.

a. Notify adjacent communities and the Department of Ecology prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.

b. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

5. Interpretation of FIRM Boundaries.

Make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (e.g. where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation. Such appeals shall be granted consistent with the standards of Section 60.6 of the Rules and Regulations of the National Flood Insurance Program.

D. Conditions for Variances from Flood Elevation Standards.

1. Generally, the only condition under which a variance from the elevation standard may be issued is for new construction and substantial improvements to be erected on a small or irregularly shaped lot contiguous to and surrounded by lots with existing structures constructed below the base flood level. As the lot size increases the technical justification required for issuing the variance increases.
2. Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.

3. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

4. Variances shall only be issued upon:

   a. A showing of good and sufficient cause;
   b. A determination that failure to grant the variance would result in exceptional hardship to the applicant;
   c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

5. Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from flood elevations should be quite rare.

6. Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing than watertight or dry-floodproofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria except subparagraph 2, above, and otherwise complies with paragraphs 1, 3 and 4 of §10-6F-3(A) of the General Standards.

7. Any applicant to whom a variance is granted shall be given written notice that the permitted structure will be built with its lowest floor below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk.

§10-6F-3 Provisions for Flood Hazard Reduction

A. General Standards

In all areas of special flood hazards, the following standards are required:

1. Anchoring

   a. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
   b. All manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors. For more detailed information, refer to guidebook, FEMA-85, "Manufactured Home Installation in Flood Hazard Areas."

2. Construction Materials and Methods

   a. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

   b. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

   c. Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding. Locating such equipment below the base flood elevation may cause annual flood insurance premiums to be increased.

3. Utilities

   a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems;
   b. Water wells shall be located on high ground that is not in the floodway;
   c. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;
   d. Onsite waste disposal systems shall be located to avoid impairment to them or contamination

from them during flooding.

4. Subdivision Proposals

   a. All subdivision proposals shall be consistent with the need to minimize flood damage;
   b. All subdivision proposals shall have public utilities and facilities, such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage;
   c. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage;
   d. Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least 50 lots or 5 acres (whichever is less).

5. Review of Building Permits

   Where elevation data is not available either through the Flood Insurance Study, FIRM, or from another authoritative source (§10-6F-2(C)(2)), applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above the highest adjacent grade in these zones may result in higher insurance rates.

B. Specific Standards

In all areas of special flood hazards where base flood elevation data has been provided as set forth in §10-6F-1(B), *Basis for Establishing the Areas of Special Flood Hazard*, or §10-6F-2(C)(2), *Use of Other Base Flood Data.*

1. Residential Construction
   a. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above the base flood elevation (BFE).

   b. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

      i. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
      ii. The bottom of all openings shall be no higher than one foot above grade.

iii. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

c. Subgrade crawl spaces are prohibited unless the following conditions are met:

i. The interior grade of a crawlspace below the base flood elevation must not be more than two feet below the lowest adjacent exterior grade.
ii. The height of the below-grade crawlspace, measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall, must not exceed four feet at any point.
iii. The height limitation is the maximum allowable unsupported wall height according to the engineering analyses and building code requirements for flood hazard areas (refer to FEMA Technical Bulletin 11-01, page 7, Guidance for Pre-Engineered Crawlspaces). This limitation is intended to prevent these crawlspaces from being converted into habitable spaces.
iv. There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace. The enclosed area should be drained within a reasonable time after a flood event. The type of drainage system will vary because of the site gradient and other drainage characteristics, such as soil types. Possible options include natural drainage through porous, well-drained soils and drainage systems such as perforated pipes, drainage tiles, or gravel or crushed stone drainage by gravity or mechanical means.
v. The velocity of floodwaters at the site should not exceed five feet per second for any crawlspace. For velocities in excess of five feet per second, other foundation types should be used.
vi. Below-grade crawlspace construction in accordance with the requirements listed above will not be considered basements.

2. Nonresidential Construction

a. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated one foot or more above the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

b. Be floodproofed so that below one foot or more above the base flood level the structure is watertight with walls substantially impermeable to the passage of water;

c. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

d. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in §10-6F-2(C)(3)(b);

e. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in §10-6F-3(B)(1)(b).

3. Manufactured Homes

All manufactured homes in the floodplain to be placed or substantially improved on sites shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot or more above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.

4. Recreational Vehicles

Recreational vehicles placed on sites are required to either:

a. Be on the site for fewer than 180 consecutive days, (or)

b. Be fully licensed and ready for highway use, on wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or

c. Meet the requirements of §10-6F-3(B)(3) above and the elevation and anchoring requirements for manufactured homes.

C. AE and A1-30 Zones with Base Flood Elevations but No Floodways

In areas with base flood elevations (but a regulatory floodway has not been designated), no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

D. Floodways

Located within areas of special flood hazard established in §10-6F-1(B) are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters that can carry debris, and increase erosion potential, the following provisions apply:

1. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels during the occurrence of the base flood discharge.

2. Construction or reconstruction of residential structures is prohibited within designated

floodways, except for:

a. Repairs, reconstruction, or improvements to a structure which do not increase the ground floor area; and,

b. Repairs, reconstruction or improvements to a structure, the cost of which does not exceed 50 percent of the market value of the structure either:

    i. Before the repair, or reconstruction is started, or

    ii. If the structure has been damaged, and is being restored, before the damage occurred.

c. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or to structures identified as historic places, may be excluded in the 50 percent.

3. If §10-6F-3(D)(1) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of §10-6F-3, *Provisions for Flood Hazard Reduction.*

LISTING OF COMMUNITIES

COMMUNITY NAME	COMMUNITY NUMBER	LOCATED ON PANEL(S)	INITIAL NFIP MAP DATE	INITIAL FIRM DATE	MOST RECENT FIRM PANEL DATE
†AIRWAY HEIGHTS, CITY OF	530270	0625, 0700			
CHENEY, CITY OF	530175	0689, 0693, 0852, 0856, 0875	May 21, 1976	November 6, 1979	July 6, 2010
DEER PARK, CITY OF	530176	0200	April 5, 1974	December 26, 1979	July 6, 2010
FAIRFIELD, TOWN OF	530177	0943	November 8, 1974	October 16, 1979	July 6, 2010
LATAH, TOWN OF	530178	1116, 1118, 1119, 1125	December 6, 1974	July 6, 2010	July 6, 2010
LIBERTY LAKE, CITY OF	530162	0595, 0605, 0615	July 6, 2010	July 6, 2010	July 6, 2010
MEDICAL LAKE, CITY OF	530179	0675	July 6, 2010	July 6, 2010	July 6, 2010
MILLWOOD, TOWN OF	530180	0558, 0559, 0566, 0567*	July 6, 2010	July 6, 2010	July 6, 2010
ROCKFORD, TOWN OF	530181	0934, 0975	December 6, 1974	October 2, 1979	July 6, 2010
SPANGLE, CITY OF	530182	0892, 0925	June 6, 1978	September 18, 1979	July 6, 2010
SPOKANE COUNTY (UNINCORPORATED AREAS):	530174	0025, 0050, 0075, 0100, 0125*, 0150, 0175, 0200, 0205, 0210, 0215, 0220, 0250, 0275, 0300, 0325, 0341, 0342, 0343, 0344, 0350, 0355, 0360, 0361, 0362*, 0363, 0364, 0366, 0367, 0368, 0369*, 0380, 0385, 0390, 0395, 0425, 0450, 0475, 0500, 0525, 0528, 0529, 0530, 0531, 0533, 0535*, 0536, 0537, 0538*, 0539, 0541, 0542, 0543, 0544, 0554, 0555, 0558, 0561, 0562, 0563, 0566, 0702, 0706, 0707, 0708*, 0709, 0726, 0727 1125	January 17, 1975	May 17, 1988	July 6, 2010
SPOKANE VALLEY, CITY OF	530342	0558, 0559, 0561, 0562, 0563, 0564, 0566, 0567*, 0568, 0569, 0578, 0579, 0585*, 0590, 0593, 0594, 0595, 0732, 0751	July 6, 2010	July 6, 2010	July 6, 2010
SPOKANE, CITY OF	530183	0344, 0363, 0369*, 0525, 0528, 0529, 0530, 0531, 0533, 0535*, 0536, 0537, 0538*, 0539, 0541, 0542, 0543, 0544, 0554, 0555, 0558, 0561, 0562, 0563, 0566, 0702, 0706, 0707, 0708*, 0709, 0726, 0727	May 24, 1974	August 1, 1980	July 6, 2010
WAVERLY, TOWN OF	530184	1125	July 6, 2010	July 6, 2010	July 6, 2010

†Non-floodprone
*Panel Not Printed

NOTE TO USER

Future revisions to this FIRM Index will only be issued to communities that are located on FIRM panels being revised. This FIRM Index therefore remains valid for FIRM panels dated July 6, 2010 or earlier. Please refer to the "MOST RECENT FIRM PANEL DATE" column in the Listing of Communities table to determine the most recent FIRM Index date for each community.

BASE MAP SOURCE

Base map information shown on this FIRM was derived from multiple sources. Base map files were provided in digital format by Spokane County GIS and Washington State Department of Natural Resources. This information was compiled at various map scales during the time period 1995-2007.

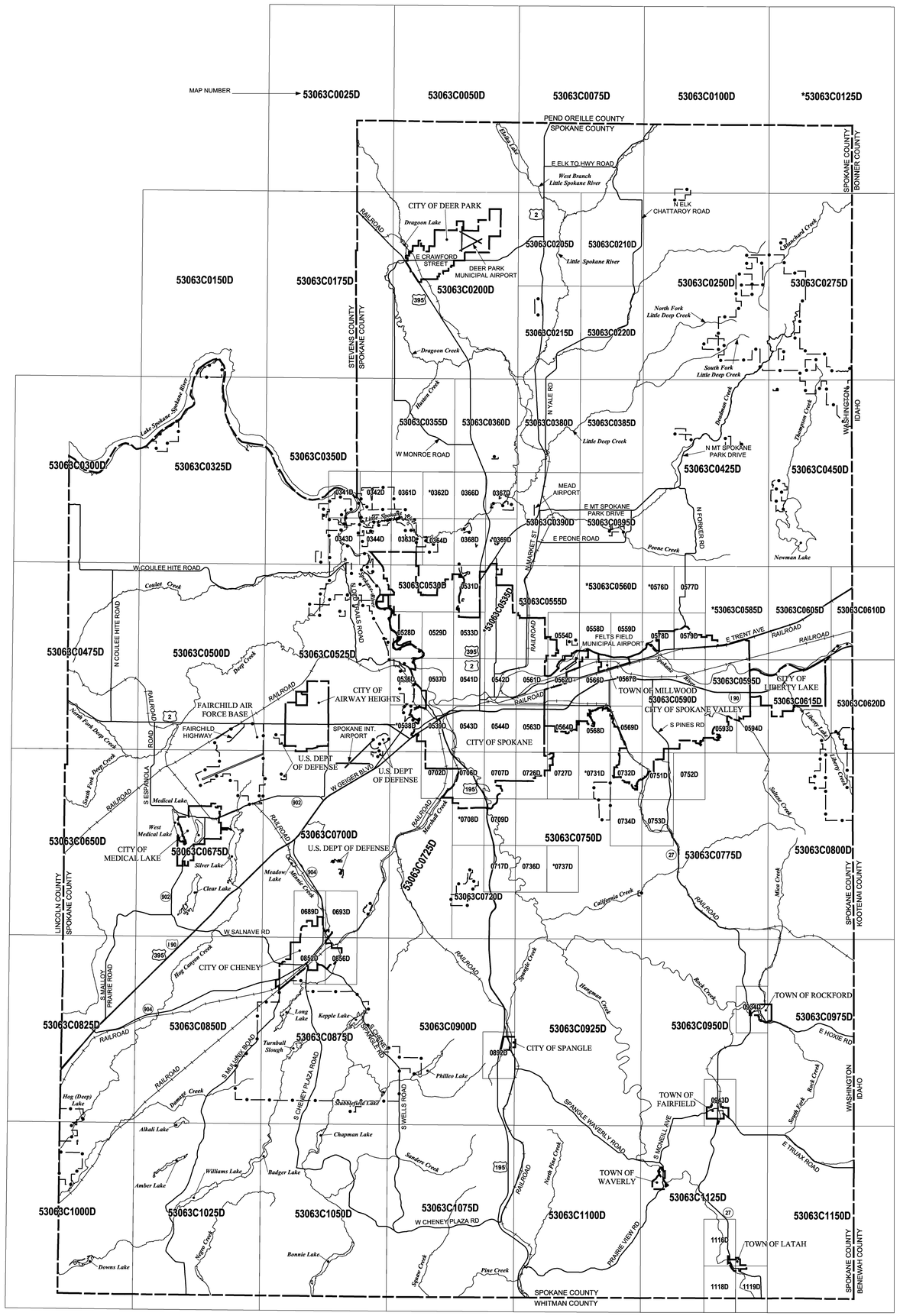
ELEVATION DATUM

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282
(301) 713-3242

NOTE TO USERS

FEMA maintains information about map features, such as street locations and names, in or near designated flood hazard areas. Requests to revise information in or near designated flood hazard areas may be provided to FEMA during the community review period, at the final Consultation Coordination Officer's meeting, or during the statutory 90-day appeal period. Approved requests for changes will be shown on the final printed FIRM.



* PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS

FIRM Panel Dates For Printed Panels of Spokane County, WA And Incorporated Areas

Panel	Effective Date	Panel	Effective Date	Panel	Effective Date
0025 D	July 6, 2010	0530 D	July 6, 2010	0707 D	July 6, 2010
0050 D	July 6, 2010	0531 D	July 6, 2010	0709 D	July 6, 2010
0075 D	July 6, 2010	0533 D	July 6, 2010	0717 D	July 6, 2010
0100 D	July 6, 2010	0536 D	July 6, 2010	0720 D	July 6, 2010
0150 D	July 6, 2010	0537 D	July 6, 2010	0725 D	July 6, 2010
0175 D	July 6, 2010	0539 D	July 6, 2010	0726 D	July 6, 2010
0200 D	July 6, 2010	0541 D	July 6, 2010	0727 D	July 6, 2010
0205 D	July 6, 2010	0542 D	July 6, 2010	0732 D	July 6, 2010
0210 D	July 6, 2010	0543 D	July 6, 2010	0734 D	July 6, 2010
0215 D	July 6, 2010	0544 D	July 6, 2010	0736 D	July 6, 2010
0220 D	July 6, 2010	0554 D	July 6, 2010	0750 D	July 6, 2010
0250 D	July 6, 2010	0555 D	July 6, 2010	0751 D	July 6, 2010
0275 D	July 6, 2010	0558 D	July 6, 2010	0752 D	July 6, 2010
0300 D	July 6, 2010	0559 D	July 6, 2010	0753 D	July 6, 2010
0325 D	July 6, 2010	0561 D	July 6, 2010	0775 D	July 6, 2010
0341 D	July 6, 2010	0562 D	July 6, 2010	0800 D	July 6, 2010
0342 D	July 6, 2010	0563 D	July 6, 2010	0825 D	July 6, 2010
0343 D	July 6, 2010	0564 D	July 6, 2010	0850 D	July 6, 2010
0344 D	July 6, 2010	0566 D	July 6, 2010	0852 D	July 6, 2010
0350 D	July 6, 2010	0568 D	July 6, 2010	0856 D	July 6, 2010
0355 D	July 6, 2010	0569 D	July 6, 2010	0875 D	July 6, 2010
0360 D	July 6, 2010	0577 D	July 6, 2010	0892 D	July 6, 2010
0361 D	July 6, 2010	0578 D	July 6, 2010	0900 D	July 6, 2010
0363 D	July 6, 2010	0579 D	July 6, 2010	0925 D	July 6, 2010
0364 D	July 6, 2010	0590 D	July 6, 2010	0934 D	July 6, 2010
0366 D	July 6, 2010	0593 D	July 6, 2010	0943 D	July 6, 2010
0367 D	July 6, 2010	0594 D	July 6, 2010	0950 D	July 6, 2010
0368 D	July 6, 2010	0595 D	July 6, 2010	0975 D	July 6, 2010
0380 D	July 6, 2010	0605 D	July 6, 2010	1000 D	July 6, 2010
0385 D	July 6, 2010	0610 D	July 6, 2010	1025 D	July 6, 2010
0390 D	July 6, 2010	0615 D	July 6, 2010	1050 D	July 6, 2010
0395 D	July 6, 2010	0620 D	July 6, 2010	1075 D	July 6, 2010
0425 D	July 6, 2010	0650 D	July 6, 2010	1100 D	July 6, 2010
0450 D	July 6, 2010	0675 D	July 6, 2010	1116 D	July 6, 2010
0475 D	July 6, 2010	0689 D	July 6, 2010	1118 D	July 6, 2010
0500 D	July 6, 2010	0693 D	July 6, 2010	1119 D	July 6, 2010
0525 D	July 6, 2010	0700 D	July 6, 2010	1125 D	July 6, 2010
0528 D	July 6, 2010	0702 D	July 6, 2010	1150 D	July 6, 2010
0529 D	July 6, 2010	0706 D	July 6, 2010		

MAP DATES

This FIRM Index displays the map dates for each FIRM panel at the time that this Index was printed. Because this Index may not be distributed to unaffected communities in subsequent revisions, users may determine the most current map date for each FIRM panel by visiting the FEMA Map Service Center website at http://msc.fema.gov or by calling the Map Service Center at 1-800-358-9616.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

MAP REPOSITORIES
(Maps available for reference only, not for distribution.)

AIRWAY HEIGHTS, CITY OF:
City Hall
1208 South Lundstrom
Airway Heights, Washington 99001

CHENEY, CITY OF:
112 Anderson Road
Cheney, Washington 99004

DEER PARK, CITY OF:
316 East Crawford
Lower Level
Suite A
Deer Park, Washington 99006

FAIRFIELD, TOWN OF:
218 E Main Street
Po Box 334
Fairfield, Washington 99012

LATAH, TOWN OF:
City Hall
108 E Market
Latah, Washington 99018

LIBERTY LAKE, CITY OF:
22710 E Country Vista Drive
Liberty Lake, Washington 99019

MEDICAL LAKE, CITY OF:
City Hall
S 124 Lefevre
Po Box 369
Medical Lake, Washington 99022

MILLWOOD, TOWN OF:
City Hall
9103 East Frederick
Millwood, Washington 99206

ROCKFORD,TOWN OF:
20 West Emma Street
Rockford, Washington 99030

SPANGLE, CITY OF:
City Hall
115 W 2nd Street
Spangle, Washington 99031

SPOKANE, CITY OF:
Public Works Building
1026 West Broadway
Spokane, Washington 99201

SPOKANE COUNTY
(UNINCORPORATED AREAS):
1026 W. Broadway Ave
Spokane, Washington 99201

SPOKANE VALLEY, CITY OF:
11707 E Sprague
Suite 106
Spokane Valley, Washington 99206

WAVERLY, TOWN OF:
255 N Commercial
Waverly, Washington 99039

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

MAP INDEX

FIRM
FLOOD INSURANCE RATE MAP
SPOKANE COUNTY, WASHINGTON
AND INCORPORATED AREAS

(SEE LISTING OF COMMUNITIES TABLE)

MAP INDEX

PANELS PRINTED: 25, 50, 75, 100, 150, 175, 200, 205, 210, 215, 220, 250, 275, 300, 325, 341, 342, 343, 344, 350, 355, 360, 361, 363, 364, 366, 367, 368, 380, 385, 390, 395, 425, 450, 475, 500, 525, 528, 529, 530, 531, 533, 536, 537, 539, 541, 542, 543, 544, 554, 555, 558, 559, 561, 562, 563, 564, 566, 568, 569, 577, 578, 579, 590, 593, 594, 595, 605, 610, 615, 620, 650, 675, 689, 693, 700, 702, 706, 707, 709, 717, 720, 725, 726, 727, 732, 734, 736, 750, 751, 752, 753, 775, 800, 825, 850, 852, 856, 875, 892, 900, 925, 934, 943, 950, 975, 1000, 1025, 1050, 1075, 1100,1116, 1118, 1119, 1125, 1150

MAP NUMBER
53063CIND0A

EFFECTIVE DATE
July 6, 2010

Federal Emergency Management Agency

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242,** or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was derived from multiple sources. Base map files were provided in digital format by Spokane County GIS and Washington State Department of Natural Resources. This information was compiled at various map scales during the time period 1995-2007.

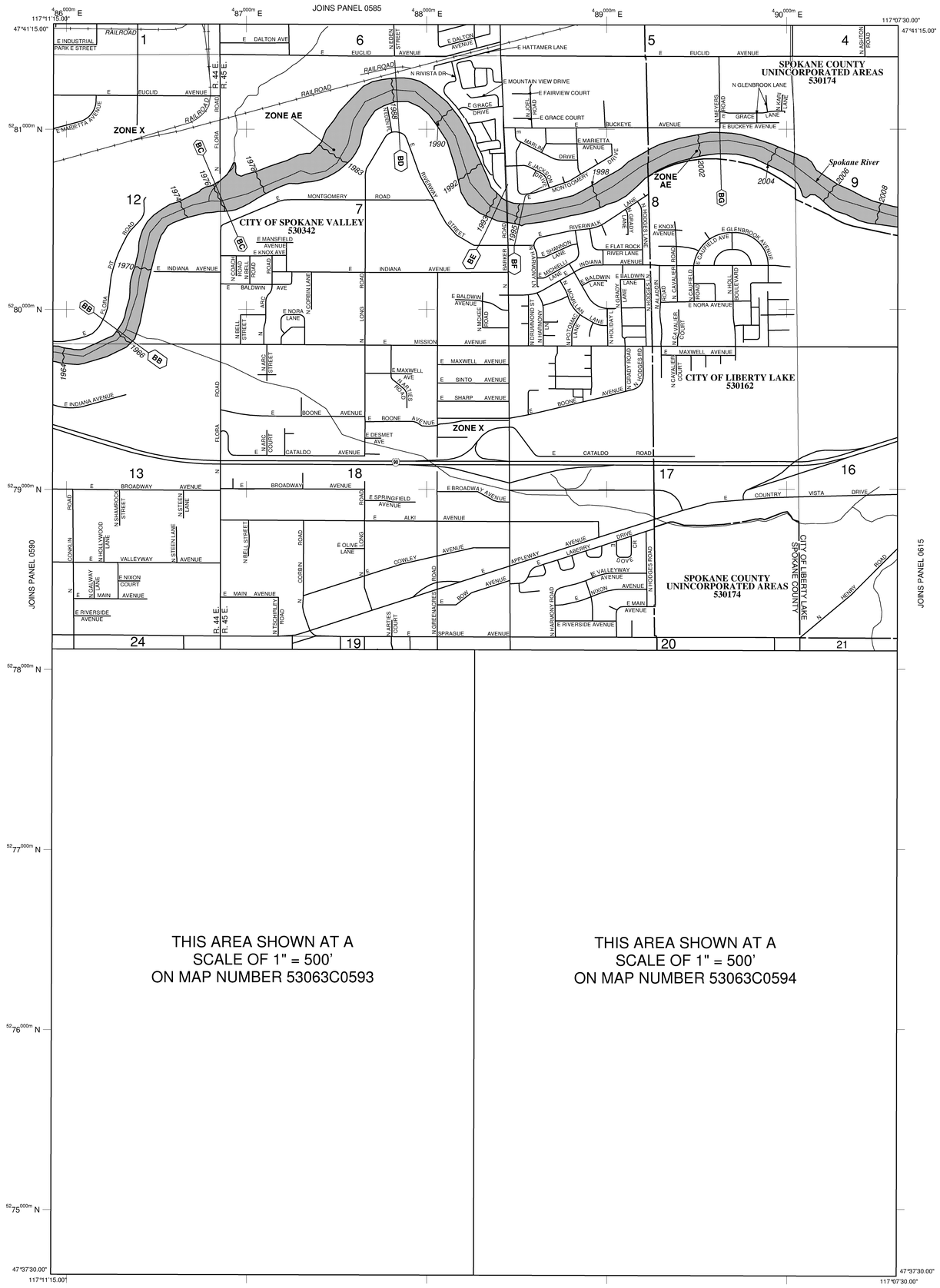
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables *in the Flood Insurance Study report (which contains authoritative hydraulic data)* may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, *a Flood Insurance Study report*, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	Floodplain boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
~~ 513 ~~~	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

A — A	Cross section line
23 - - - - - 23	Transect line
97°07'30", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
$^{42}75^{000m}$N	1000-meter Universal Transverse Mercator grid ticks, zone 11
6000000 M	5000-foot grid ticks: Washington State Plane coordinate system, north zone (FIPSZONE 4601), Lambert Conformal Conic
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
July 6, 2010
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'

500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0595D

FIRM
FLOOD INSURANCE RATE MAP
SPOKANE COUNTY, WASHINGTON
AND INCORPORATED AREAS

PANEL 595 OF 1150
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SPOKANE COUNTY	530174	0595	D
LIBERTY LAKE, CITY OF	530162	0595	D
SPOKANE VALLEY, CITY OF	530342	0595	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
53063C0595D

EFFECTIVE DATE
JULY 6, 2010

Federal Emergency Management Agency

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242,** or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was derived from multiple sources. Base map files were provided in digital format by Spokane County GIS and Washington State Department of Natural Resources. This information was compiled at various map scales during the time period 1995-2007.

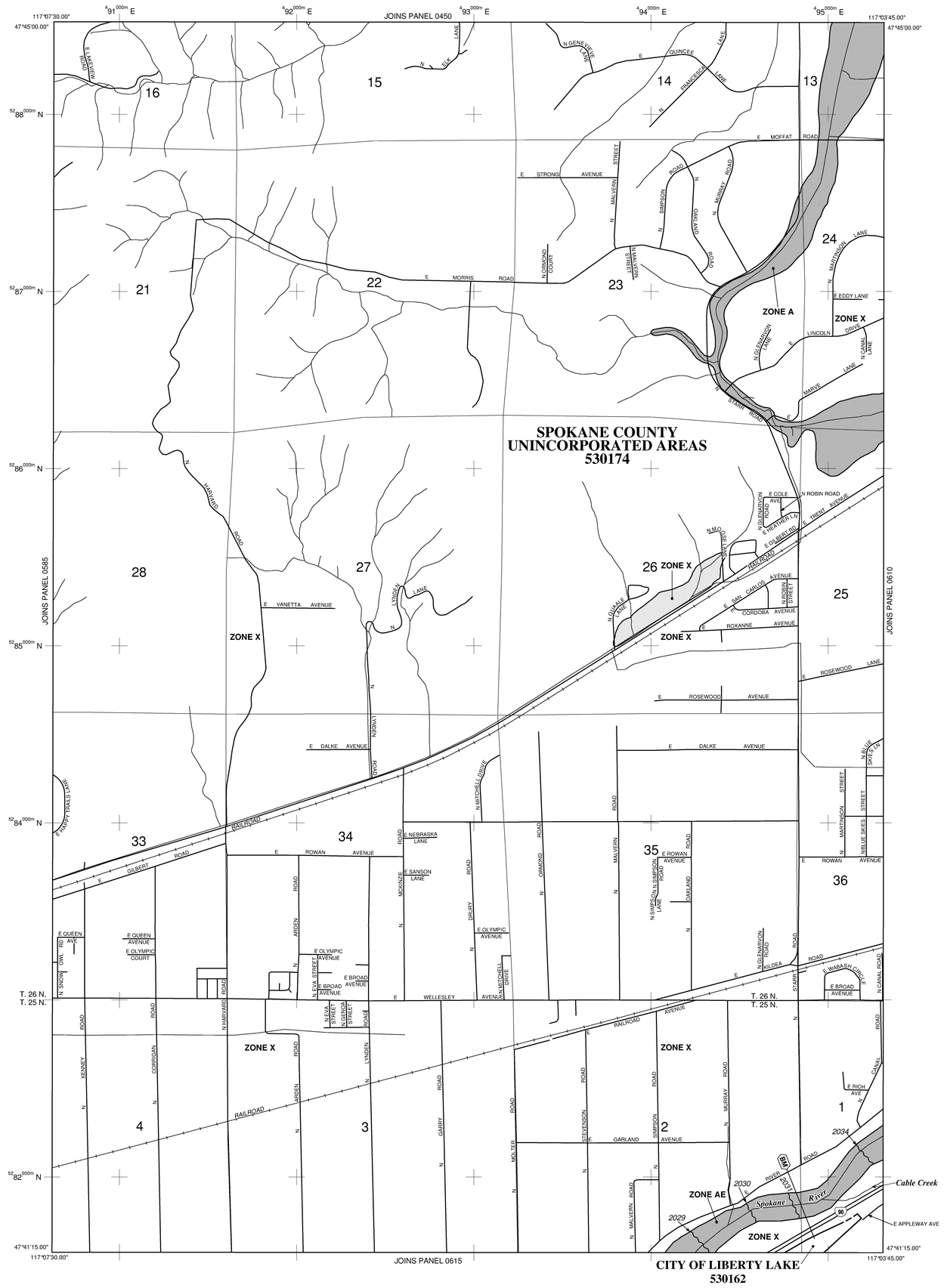
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables *in the Flood Insurance Study report (which contains authoritative hydraulic data)* may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, *a Flood Insurance Study report*, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	Floodplain boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

A — A	Cross section line
23 - - - - - 23	Transect line
97°07'30", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
$^{42}75^{000m}$N	1000-meter Universal Transverse Mercator grid ticks, zone 11
6000000 M	5000-foot grid ticks: Washington State Plane coordinate system, north zone (FIPSZONE 4601), Lambert Conformal Conic
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
July 6, 2010
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'

500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0605D

FIRM
FLOOD INSURANCE RATE MAP
SPOKANE COUNTY, WASHINGTON
AND INCORPORATED AREAS

PANEL 605 OF 1150
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SPOKANE COUNTY	530174	0605	D
LIBERTY LAKE, CITY OF	530162	0605	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
53063C0605D

EFFECTIVE DATE
JULY 6, 2010

Federal Emergency Management Agency

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole–foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC–3, #9202
1315 East–West Highway
Silver Spring, MD 20910–3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713–3242,** or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was derived from multiple sources. Base map files were provided in digital format by Spokane County GIS and Washington State Department of Natural Resources. This information was compiled at various map scales during the time period 1995-2007.

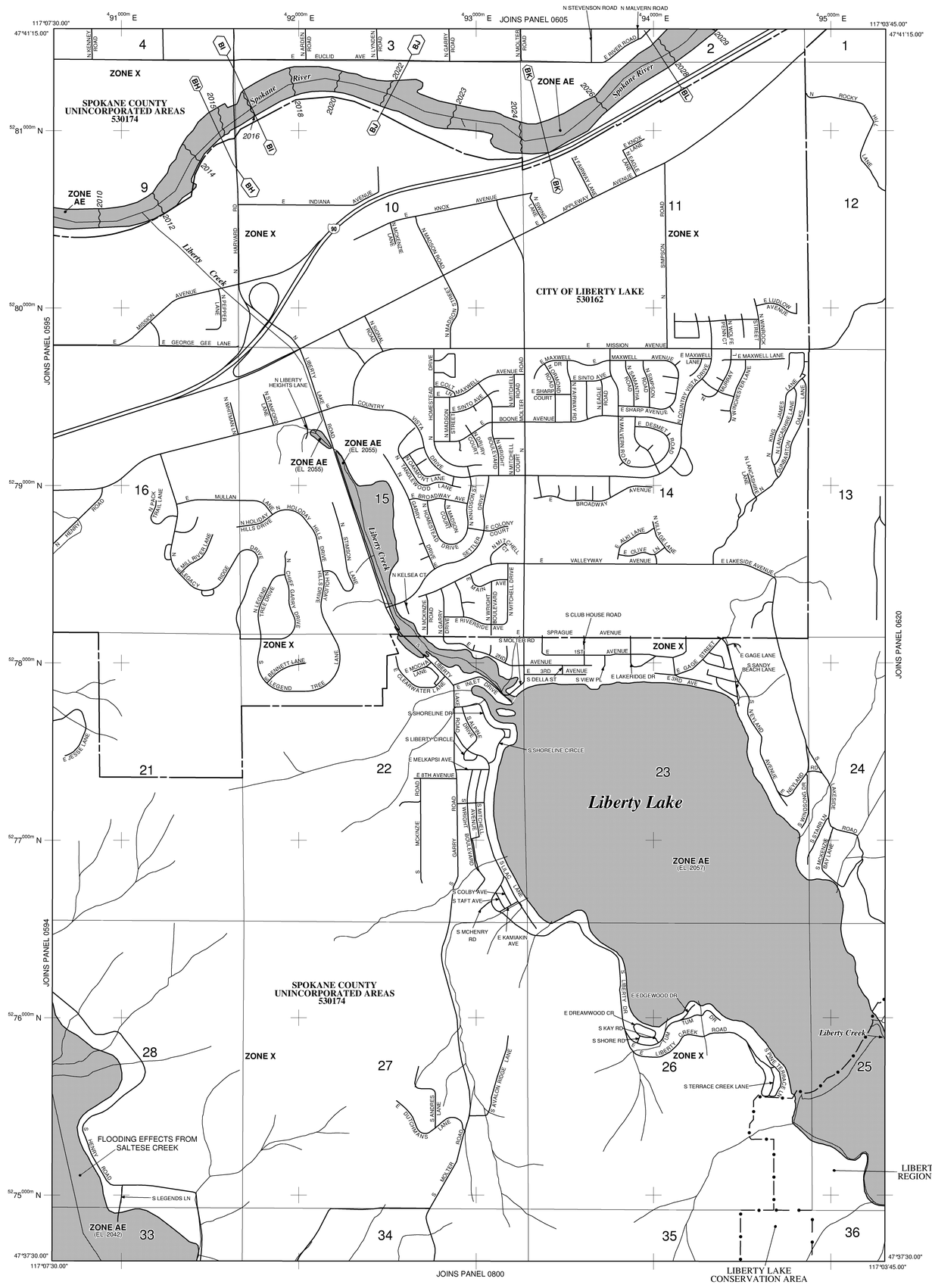
This map reflects more detailed and up–to–date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables *in the Flood Insurance Study report (which contains authoritative hydraulic data*) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de–annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1–800–358–9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, *a Flood Insurance Study report*, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1–800–358–9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1–877–FEMA MAP** (1–877–336–2627) or visit the FEMA website at http://www.fema.gov/.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	Floodplain boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

A — A	Cross section line
23 - - - - - 23	Transect line
97°07'30", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
$^{42}75^{000m}$N	1000-meter Universal Transverse Mercator grid ticks, zone 11
6000000 M	5000-foot grid ticks: Washington State Plane coordinate system, north zone (FIPSZONE 4601), Lambert Conformal Conic
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
July 6, 2010
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1–800–638–6620.

MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

300 0 300 600 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0615D

FIRM
FLOOD INSURANCE RATE MAP
SPOKANE COUNTY, WASHINGTON
AND INCORPORATED AREAS

PANEL 615 OF 1150
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SPOKANE COUNTY	530174	0615	D
LIBERTY LAKE, CITY OF	530162	0615	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
53063C0615D

EFFECTIVE DATE
JULY 6, 2010

Federal Emergency Management Agency

APPENDIX F: FEMA FORMS

This Appendix includes copies of the following certificates that are mentioned in the Study Course and used in implementing your floodplain management ordinances:

- FEMA Form 81-31, Elevation Certificate and Instructions
- FEMA Form 81-65, Floodproofing Certificate

The following FEMA forms may be of interest to local officials, but are not included in this Appendix:

- FEMA Form 81-92, MT-EZ, Application Form for Single Residential Lot or Structure Amendments to National Flood Insurance Program Maps;
- FEMA Form 81-87, MT-1, Application Forms for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill;
- FEMA Form 81-89, MT-2, Application Forms for Conditional Letters of Map Revision and Letters of Map Revision; and
- Standard Flood Hazard Determination form.

Current copies of all of these certificates and forms can be obtained from the following sources:

- They may be downloaded from FEMA's website at http://www.fema.gov/nfip/forms.shtm;
- They are available on the CD-ROM version of the *National Flood Insurance Program (NFIP) Floodplain Management Requirements: A Study Guide and Desk Reference for Local Officials*;
- You may request the forms by calling the FEMA Map Assistance Center (FMAC) toll-free at 1-877-FEMA-MAP (1-877-336-2627); and
- You may request the forms electronically at femamapspecialist@patlive.com.

While some of the forms may have passed their expiration dates, they are still current and should still be used.

They may be reproduced for local use.

FEDERAL EMERGENCY MANAGEMENT AGENCY
NATIONAL FLOOD INSURANCE PROGRAM

O.M.B. No. 3067-0077
Expires December 31, 2005

ELEVATION CERTIFICATE

Important: Read the instructions on pages 1 - 7.

SECTION A - PROPERTY OWNER INFORMATION

For Insurance Company Use:
Policy Number
Company NAIC Number

BUILDING OWNER'S NAME

BUILDING STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. No.) OR P.O. ROUTE AND BOX NO.

CITY | STATE | ZIP CODE

PROPERTY DESCRIPTION (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)

BUILDING USE (e.g., Residential, Non-residential, Addition, Accessory, etc. Use a Comments area, if necessary.)

LATITUDE/LONGITUDE (OPTIONAL) (##° - ##' - ##.##" or ##.#####°)

HORIZONTAL DATUM: ☐ NAD 1927 ☐ NAD 1983

SOURCE: ☐ GPS (Type): ☐ USGS Quad Map ☐ Other:

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP COMMUNITY NAME & COMMUNITY NUMBER	B2. COUNTY NAME	B3. STATE

B4. MAP AND PANEL NUMBER	B5. SUFFIX	B6. FIRM INDEX DATE	B7. FIRM PANEL EFFECTIVE/REVISED DATE	B8. FLOOD ZONE(S)	B9. BASE FLOOD ELEVATION(S) (Zone AO, use depth of flooding)

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in B9.
☐ FIS Profile ☐ FIRM ☐ Community Determined ☐ Other (Describe):

B11. Indicate the elevation datum used for the BFE in B9: ☐ NGVD 1929 ☐ NAVD 1988 ☐ Other (Describe):

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☐ No Designation Date

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☐ Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.

C2. Building Diagram Number (Select the building diagram most similar to the building for which this certificate is being completed - see pages 6 and 7. If no diagram accurately represents the building, provide a sketch or photograph.)

C3. Elevations – Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO
Complete Items C3.-a-i below according to the building diagram specified in Item C2. State the datum used. If the datum is different from the datum used for the BFE in Section B, convert the datum to that used for the BFE. Show field measurements and datum conversion calculation. Use the space provided or the Comments area of Section D or Section G, as appropriate, to document the datum conversion.
Datum Conversion/Comments

Elevation reference mark used Does the elevation reference mark used appear on the FIRM? ☐ Yes ☐ No

☐ a) Top of bottom floor (including basement or enclosure) ___.__ft. (m)
☐ b) Top of next higher floor ___.__ft. (m)
☐ c) Bottom of lowest horizontal structural member (V zones only) ___.__ft. (m)
☐ d) Attached garage (top of slab) ___.__ft. (m)
☐ e) Lowest elevation of machinery and/or equipment servicing the building (Describe in a Comments area) ___.__ft. (m)
☐ f) Lowest adjacent (finished) grade (LAG) ___.__ft. (m)
☐ g) Highest adjacent (finished) grade (HAG) ___.__ft. (m)
☐ h) No. of permanent openings (flood vents) within 1 ft. above adjacent grade
☐ i) Total area of all permanent openings (flood vents) in C3h sq. in. (sq. cm)

License Number, Embossed Seal, Signature, and Date

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information.
I certify that the information in Sections A, B, and C on this certificate represents my best efforts to interpret the data available.
I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

CERTIFIER'S NAME | LICENSE NUMBER

TITLE | COMPANY NAME

ADDRESS | CITY | STATE | ZIP CODE

FEMA Form 81-31, January 2003 | See reverse side for continuation. | Replaces all previous editions

SIGNATURE | DATE | TELEPHONE

IMPORTANT: In these spaces, copy the corresponding information from Section A.			For Insurance Company Use:
BUILDING STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. No.) OR P.O. ROUTE AND BOX NO.			Policy Number
CITY	STATE	ZIP CODE	Company NAIC Number

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)

Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.

COMMENTS

☐ Check here if attachments

SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zone AO and Zone A (without BFE), complete Items E1 through E4. If the Elevation Certificate is intended for use as supporting information for a LOMA or LOMR-F, Section C must be completed.

E1. Building Diagram Number ___ (Select the building diagram most similar to the building for which this certificate is being completed – see pages 6 and 7. If no diagram accurately represents the building, provide a sketch or photograph.)

E2. The top of the bottom floor (including basement or enclosure) of the building is ___ ft. (m) ___ in. (cm) ☐ above or ☐ below (check one) the highest adjacent grade. (Use natural grade, if available).

E3. For Building Diagrams 6-8 with openings (see page 7), the next higher floor or elevated floor (elevation b) of the building is ___ ft. (m) ___ in. (cm) above the highest adjacent grade. Complete items C3.h and C3.i on front of form.

E4. The top of the platform of machinery and/or equipment servicing the building is ___ ft. (m) ___ in. (cm) ☐ above or ☐ below (check one) the highest adjacent grade. (Use natural grade, if available).

E5. For Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance?
☐ Yes ☐ No ☐ Unknown. The local official must certify this information in Section G.

SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, C (Items C3.h and C3.i only), and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. *The statements in Sections A, B, C, and E are correct to the best of my knowledge.*

PROPERTY OWNER'S OR OWNER'S AUTHORIZED REPRESENTATIVE'S NAME

ADDRESS	CITY	STATE	ZIP CODE
SIGNATURE	DATE	TELEPHONE	

COMMENTS

☐ Check here if attachments

SECTION G - COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below.

G1. ☐ The information in Section C was taken from other documentation that has been signed and embossed by a licensed surveyor, engineer, or architect who is authorized by state or local law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2. ☐ A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

G3. ☐ The following information (Items G4-G9) is provided for community floodplain management purposes.

G4. PERMIT NUMBER	G5. DATE PERMIT ISSUED	G6. DATE CERTIFICATE OF COMPLIANCE/OCCUPANCY ISSUED

G7. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building is: ___ . ___ ft. (m) Datum: ____

G9. BFE or (in Zone AO) depth of flooding at the building site is: ___ . ___ ft. (m) Datum: ____

LOCAL OFFICIAL'S NAME	TITLE
COMMUNITY NAME	TELEPHONE
SIGNATURE	DATE

COMMENTS

FEMA Form 81-31, January 2003 Replaces all previous editions

FEMA

FEDERAL EMERGENCY MANAGEMENT AGENCY

NATIONAL FLOOD INSURANCE PROGRAM

ELEVATION CERTIFICATE

AND

INSTRUCTIONS

NATIONAL FLOOD INSURANCE PROGRAM
ELEVATION CERTIFICATE

PAPERWORK BURDEN DISCLOSURE NOTICE

FEMA Form 81-31

The public reporting burden for this form is estimated to be 3.0 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, Paperwork Reduction Project (3067-0077). NOTE: Please do not send your completed form to the above address.

PURPOSE OF THE ELEVATION CERTIFICATE

The Elevation Certificate is an important administrative tool of the National Flood Insurance Program (NFIP). It is to be used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment or Revision (LOMA or LOMR-F).

The Elevation Certificate is required in order to properly rate post-FIRM buildings, which are buildings constructed after publication of the Flood Insurance Rate Map (FIRM), for flood insurance Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, and AR/AO. The Elevation Certificate is not required for pre-FIRM buildings unless the building is being rated under the optional post-FIRM flood insurance rules.

As part of the agreement for making flood insurance available in a community, the NFIP requires the community to adopt a floodplain management ordinance that specifies minimum requirements for reducing flood losses. One such requirement is for the community to obtain the elevation of the lowest floor (including basement) of all new and substantially improved buildings and maintain a record of such information. The Elevation Certificate provides a way for a community to comply with this requirement.

Use of this certificate does not provide a waiver of the flood insurance purchase requirement. Only a LOMA or LOMR-F from the Federal Emergency Management Agency (FEMA) can amend the FIRM and remove the Federal mandate for a lending institution to require the purchase of flood insurance. However, the lending institution has the option of requiring flood insurance even if a LOMA/LOMR-F has been issued by FEMA. The Elevation Certificate may be used to support a LOMA or LOMR-F request. Lowest floor and lowest adjacent grade elevations certified by a surveyor or engineer will be required if the certificate is used to support a LOMA or LOMR-F request.

This certificate is used only to certify building elevations. A separate certificate is required for floodproofing. Under the NFIP, non-residential buildings can be floodproofed up to or above the Base Flood Elevation (BFE). A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE. Floodproofing of residential buildings is not permitted under the NFIP unless FEMA has granted the community an exception for

residential floodproofed basements. The community must adopt standards for design and construction of floodproofed basements before FEMA will grant a basement exception. For both floodproofed non-residential buildings and residential floodproofed basements in communities that have been granted an exception by FEMA, a floodproofing certificate is required.

INSTRUCTIONS FOR COMPLETING THE ELEVATION CERTIFICATE

The Elevation Certificate is to be completed by a land surveyor, engineer, or architect who is authorized by law to certify elevation information when elevation information is required for Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, or AR/AO. Community officials who are authorized by law or ordinance to provide floodplain management information may also complete this form. For Zones AO and A (without BFE), a community official, a property owner, or an owner's representative may provide information on this certificate, unless the elevations are intended for use in supporting a LOMA or LOMR-F. Certified elevations must be included if the purpose of completing the Elevation Certificate is to obtain a LOMA or LOMR-F.

In Puerto Rico only, elevations for building information and flood hazard information may be entered in meters.

SECTION A - PROPERTY OWNER INFORMATION

This section identifies the building, its location, and its owner. Enter the name(s) of the building owner(s), the building's complete street address, and the lot and block number. If the building's address is different from the owner's address, enter the address of the building being certified. If the address is a rural route or a Post Office box number, enter the lot and block numbers, the tax parcel number, the legal description, or an abbreviated location description based on distance and direction from a fixed point of reference. For the purposes of this certificate, "building" means both a building and a manufactured (mobile) home.

A map may be attached to this certificate to show the location of the building on the property. A tax map, FIRM, or detailed community map is appropriate. If no map is available, provide a sketch of the property location, and the location of the building on the property. Include appropriate landmarks such as nearby roads, intersections, and bodies of water. For building use, indicate whether the building is residential, non-residential, an addition to an existing residential or non-residential building, an accessory building (e.g., garage), or other type of structure. Use the Comments area of Section F if needed.

If latitude and longitude data are available, enter them in degrees, minutes, and seconds, or in decimal degrees, taken at the center of the front of the building. Enter arc seconds to two decimal places. Indicate the horizontal datum and the source of the measurement data (for example, taken with GPS, scaled from a USGS Quad Map, etc.).

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

Complete the Elevation Certificate on the basis of the FIRM in effect at the time of the certification.

The information for Section B is obtained by reviewing the FIRM panel that includes the building's location. Information about the current FIRM and a pamphlet titled "Guide to Flood Maps" are available from the Federal Emergency Management Agency (FEMA) website at http://www.fema.gov or by calling 1-800-427-4661. If a Letter of Map Amendment (LOMA) or Letter of Map Revision (LOMR-F) has been issued by FEMA, please provide the letter date and case number in the Comments area of Section D or Section G, as appropriate.

Item B1. NFIP Community Name & Community Number. Enter the complete name of the community in which the building is located and the associated 6-digit community number. For a building that is in an area that has been annexed by one community but is shown on another community's FIRM, enter the community name and 6-digit number of the annexing community. For a newly incorporated community, use the name and 6-digit number of the new community. Under the NFIP, a "community" is any State or area or political subdivision thereof, or any Indian tribe or authorized native organization, which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction. To determine the current community number, see the NFIP *Community Status Book*, available on FEMA's website at http://www.fema.gov or by calling 1-800-427-4661.

Item B2. County Name. Enter the name of the county or counties in which the community is located. For an unincorporated area of a county, enter "unincorporated area." For an independent city, enter "independent city."

Item B3. State. Enter the 2-letter state abbreviation (for example, VA, TX, CA).

Item B4. Map and Panel Number. Enter the 10-digit number shown on the FIRM panel where the building or manufactured (mobile) home is located. The first six digits will not match the NFIP community number: 1) when the sixth digit is a "C," in which case the FIRM panel is in a countywide format; or 2) when one community has annexed land from another community but the FIRM panel has not been updated to reflect this annexation. If the sixth digit is a "C," it is followed by a four-digit map number. For maps not in countywide format, enter the "community panel number" shown on the FIRM.

Item B5. Suffix. Enter the suffix letter shown on the FIRM panel that includes the building's location.

Item B6. FIRM Index Date. Enter the effective date or map revised date shown on the FIRM Index.

Item B7. FIRM Panel Effective/Revised Date. Enter the map effective date or the map revised date shown on the FIRM panel. This will be the latest of all dates shown on the map. The current FIRM panel effective date can be determined by calling 1-800-427-4661.

Item B8. Flood Zone(s). Enter the flood zone, or flood zones, in which the building is located. All flood zones containing the letter "A" or "V" are considered Special Flood Hazard Areas. The flood zones are A, AE, A1-A30, V, VE, V1-V30, AH, AO, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, and AR/AO. Each flood zone is defined in the legend of the FIRM panel on which it appears.

Item B9. Base Flood Elevation(s). Using the appropriate Flood Insurance Study (FIS) Profile, Flood Elevation Table, or FIRM panel, locate the property and enter the BFE (or base flood depth) of the building site. If the building is located in more than one flood zone in Item B8., list all appropriate BFEs in Item B9. BFEs are shown on a FIRM or FIS Profile for Zones A1-A30, AE, AH, V1-V30, VE, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, and AR/AO; flood depth numbers are shown for Zone AO. Use the AR BFE if the building is located in any of Zones AR/A, AR/AE, AR/A1-A30, AR/AH, or AR/AO. In A or V zones where BFEs are not provided on the FIRM, the community may have established BFEs or obtained BFE data from other sources. For subdivisions and other developments of more than 50 lots or 5 acres, establishment of BFEs is required by the community's floodplain management ordinance. If the BFE is obtained from another source, enter the BFE in Item B9.

Item B10. Indicate the source of the BFE that you entered in Item B9.

Item B11. Indicate the elevation datum to which the elevations on the applicable FIRM are referenced.

Item B12. Indicate whether the building is located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA). Federal flood insurance is prohibited in designated CBRS areas for buildings or manufactured (mobile) homes built or substantially improved after the date of the CBRS designation. An information sheet explaining CBRS areas may be obtained on FEMA's website at http://www.fema.gov or by calling 1-800-427-4661.

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

Complete Section C if the building is located in any of Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, or AR/AO, or if this certificate is being used to support a LOMA or LOMR-F. If the building is located in Zone AO or Zone A (without BFE), complete Section E instead. To ensure that all required elevations are obtained, it may be necessary to enter the building (for instance, if the building has a basement or sunken living room, split-level construction, or machinery and equipment).

Surveyors may not be able to gain access to some crawl spaces to shoot the elevation of the crawl space floor. If access to the crawl space cannot be gained, use the following guidance:

- Use a yardstick or tape measure to measure the floor height to the "next higher floor," and then subtract the crawl space height from the elevation of the "next higher floor."
- Contact the local floodplain administrator of the community that the building is located in. The community may have documentation of the elevation of the crawl space floor as part of the permit issued for the building.
- If the property owner has documentation or knows the height of the crawl space floor to the next higher floor, try to verify this by looking inside the crawl space through any openings or vents.

In all three cases, provide the elevation in the Comments area and a brief description of how the elevation was obtained.

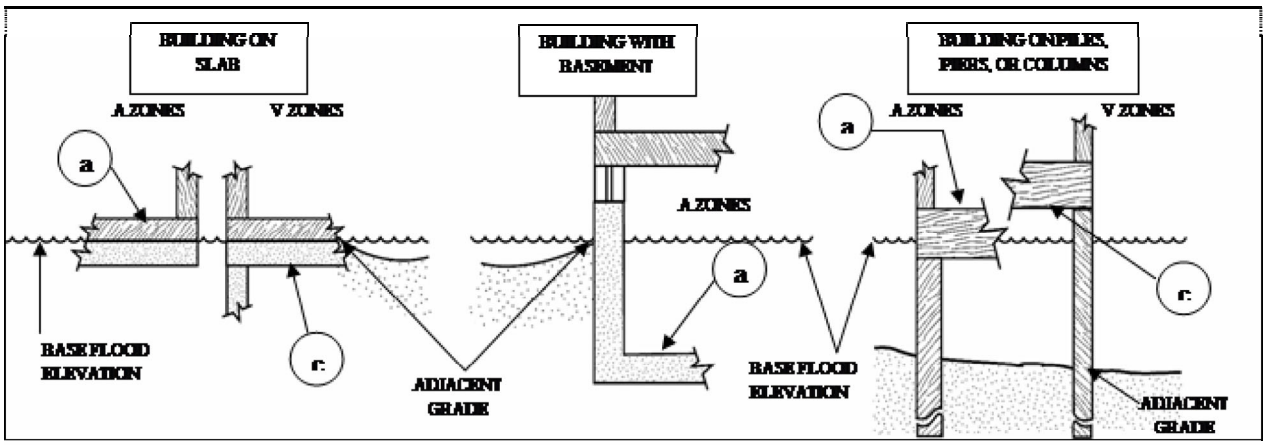
Item C1. Indicate whether the elevations to be entered in this section are based on construction drawings, a building under construction, or finished construction. For either of the first two choices, a post-construction Elevation Certificate will be required when construction is complete. If the building is under construction, include only those elevations that can be surveyed in Items C3.a-g. Use the Comments area to provide elevations obtained from the construction plans or drawings. Select "finished construction" only when all machinery and/or equipment—furnaces, hot water heaters, heat pumps, air conditioners, and elevators and their associated equipment—have been installed and the grading around the building is completed.

Item C2. Select the diagram on pages 6 and 7 that best represents the building. Then enter the diagram number and use the diagram to identify and determine the appropriate elevations requested in Items C3.a-g. If you are unsure of the correct diagram, select the diagram that most closely resembles the building being certified, or provide a sketch or photograph of the building and enter all elevations in Items C3.a-g.

Item C3. Indicate whether the elevation reference mark (benchmark) used during the field survey is an elevation mark on the FIRM. If it is not, indicate the source and datum for the elevation. Vertical

control benchmarks other than those shown on the FIRM are acceptable for elevation determinations. Show the conversion from the field survey datum used to the datum used for the BFE(s) entered in Item B9. All elevations for the certificate must be referenced to the datum on which the BFE is based. Show the datum conversion, if applicable, in this section or in the Comments area of Section D. For property experiencing ground subsidence, the most recently adjusted reference mark elevations must be used for determining building elevations. However, when subsidence is involved, the BFE should not be adjusted. Enter elevations in Items C3.a-g to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico).

Items C3.a-d. Enter the building elevations (excluding the attached garage) indicated by the selected building diagram (Item C2.) in Items C3.a-c. If there is an attached garage, enter the elevation for top of attached garage slab in Item C3.d. (Because elevation for top of attached garage slab is self-explanatory, attached garages are not illustrated in the diagrams.) If the building is located in a V zone on the FIRM, complete Item C3.c. If the flood zone cannot be determined, enter elevations for all of Items C3.a-g. For buildings in A zones, elevations a, b, d, and e should be measured at the top of the floor. For buildings in V zones, elevation c must be measured at the bottom of the lowest horizontal structural member of the floor (see drawing below). For buildings elevated on a crawl space, Diagram 8, enter the elevation of the top of the crawl space floor in Item C3.a, whether or not the crawl space has openings (flood vents). *If any item does not apply to the building, enter "N/A" for not applicable.*



Item C3.e. Enter the lowest elevation of machinery and/or equipment—furnaces, hot water heaters, heat pumps, air conditioners, and elevators and their associated equipment—in an attached garage or enclosure or on an open utility platform that provides utility services for the building. If the machinery and/or equipment is mounted to a wall, pile, etc., enter the platform elevation of the machinery and/or equipment. Indicate machinery/equipment type in the Comments area of Section D or Section G, as appropriate. *If this item does not apply to the building, enter "N/A" for not applicable.*

Items C3.f-g. Adjacent grade is defined as the elevation of the ground, sidewalk, patio slab, or deck support immediately next to the building. If the certificate is to be used for a LOMA or LOMR-F, provide in the Comments area the lowest adjacent grade elevation measured at the deck support or stairs if that elevation is lower than the building's lowest adjacent grade. For Zone AO, use the natural grade elevation, if available. This measurement must be to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico) if this certificate is being used to support a request for a LOMA or LOMR-F.

Items C3.h-i. Enter the number of permanent openings (flood vents) in the walls supporting the building, including the attached garage, that are no higher than 1.0 foot above the adjacent grade. Determine the total area of all such openings in square inches (square cm, in Puerto Rico), and enter the

total in Item C3.i. If the building has no permanent openings (flood vents) within 1.0 foot above adjacent grade, enter "0" (zero) for each of Items C3.h and C3.i. Enter in the Comments area whether the openings are on the foundation walls of the building and/or on the walls of the garage.

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

Complete as indicated. This section of the Elevation Certificate may be signed by only a land surveyor, engineer, or architect who is authorized by law to certify elevation information. Place embossed seal and signature in the box next to elevations in Section C. A flat stamp is acceptable only in states that do not authorize use of an embossed seal over the signature of a professional. You are certifying that the information in Sections A, B, and C on this certificate represents your best efforts to interpret the data available and that you understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001. Use the Comments area of Section D, on the back of the certificate, to provide datum, elevation, or other relevant information not specified on the front.

SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO & ZONE A (WITHOUT BFE)

Complete Section E if the building is located in Zone AO or Zone A (without BFE). Otherwise, complete Section C instead.

Item E1. Select the diagram on pages 6 and 7 that best represents the building; then enter the diagram number. If you are unsure of the correct diagram, select the diagram that most closely resembles the building, or provide a sketch or photograph. Explain in the Comments area if the measurement provided under Item E.2, E.3, or E.4 is based on the "natural grade."

Item E2. Enter the height in feet and inches (meters and centimeters, in Puerto Rico) of the top of the bottom floor (as indicated in the applicable diagram) above or below the highest adjacent grade (HAG). For post-FIRM buildings in Zone AO, the community's floodplain management ordinance requires that this value equal or exceed the base flood depth on the FIRM. Buildings in Zone A (without BFE) may qualify for a lower insurance rate if an engineered BFE is developed at the site.

Item E3. For Building Diagrams 6-8 with proper openings (see page 7), enter the height in feet and inches (meters and centimeters, in Puerto Rico) of the next higher floor or elevated floor (as indicated in the applicable diagram) above the highest adjacent grade (HAG). Be sure that you have completed Items C3.h and C3.i on the front of the form to show the number of permanent openings (flood vents) within 1 foot above adjacent grade and the total area of the openings.

Item E4. Enter the height in feet and inches, in relation to the highest adjacent grade next to the building, of the platform that supports the machinery and/or equipment servicing the building. Indicate machinery/equipment type in the Comments area of Section E. *If this item does not apply to the building, enter "N/A" for not applicable.*

Item E5. For those communities where this base flood depth is not available, the community will need to determine whether the top of the bottom floor is elevated in accordance with the community's floodplain management ordinance.

SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

Complete as indicated. This section is provided for certification of measurements taken by a property owner or property owner's representative when responding to Sections A, B, C (Items C3.h and C3.i only), and E. The address entered in this section must be the actual mailing address of the property owner or property owner's representative who provided the information on the certificate.

SECTION G - COMMUNITY INFORMATION (OPTIONAL)

Complete as indicated. The community official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. If the authorized community official completes Sections C, E, or G, complete the appropriate item(s) and sign this section.

Check **Item G1.** if Section C is completed with elevation data from other documentation, including elevations obtained from the Community Rating System Elevation Software, that has been signed and embossed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. Indicate the source of the elevation data and the date obtained in the Comments area of Section G. If you are both a community official and a licensed land surveyor, engineer, or architect authorized by law to certify elevation information, and you performed the actual survey for a building in Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/A1-A30, AR/AE, AR/AH, or AR/AO, you must also complete Section D.

Check **Item G2.** if information is entered in Section E by the community for a building in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

Check **Item G3.** if the information in Items G4-G9 has been completed for community floodplain management purposes to document the as-built lowest floor elevation of the building. Section C of the Elevation Certificate records the elevation of various building components but does not determine the lowest floor of the building or whether the building, as constructed, complies with the community's floodplain management ordinance. This must be done by the community. Items G4-G9 provide a way to document these determinations.

Item G4. Permit Number. Enter the permit number or other identifier to key the Elevation Certificate to the permit issued for the building.

Item G5. Date Permit Issued. Enter the date the permit was issued for the building.

Item G6. Date Certificate of Compliance Issued. Enter the date that the Certificate of Compliance or Occupancy or similar written official documentation of as-built lowest floor elevation was issued by the community as evidence that all work authorized by the floodplain development permit has been completed in accordance with the community's floodplain management laws or ordinances.

Item G7. New Construction or Substantial Improvement. Check the applicable box. "Substantial Improvement" means any reconstruction, rehabilitation, addition, or other improvement of a building, the cost of which equals or exceeds 50 percent of the market value of the building before the start of construction of the improvement. The term includes buildings that have incurred substantial damage, regardless of the actual repair work performed.

Item G8. As-built lowest floor elevation. Enter the elevation of the lowest floor (including basement) when the construction of the building is completed and a final inspection has been made to confirm that the building is built in accordance with the permit, the approved plans, and the community's floodplain management laws or ordinances. Indicate the elevation datum used.

Item G9. BFE. Using the appropriate FIRM panel, FIS, or other data source, locate the property and enter the BFE (or base flood depth) of the building site. Indicate the elevation datum used.

Enter your name, title, and telephone number, and the name of the community. Sign and enter the date in the appropriate blanks.

The following eight diagrams illustrate various types of buildings. Compare the features of the building being certified with the features shown in the diagrams and select the diagram most applicable. Enter the diagram number in Item C2. and the elevations in Items C3.a-C3.g.

In A zones, the floor elevation is taken at the top finished surface of the floor indicated; in V zones, the floor elevation is taken at the bottom of the lowest horizontal structural member (see drawing in instructions for Section C).

DIAGRAM 5

All buildings elevated on piers, posts, piles, columns, or parallel shear walls. No obstructions below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is open, with no obstruction to flow of flood waters (open lattice work and/or readily removable insect screening is permissible).

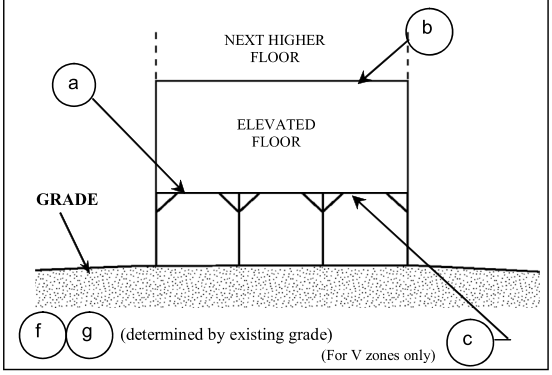


DIAGRAM 6

All buildings elevated on piers, posts, piles, columns, or parallel shear walls with full or partial enclosure below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about openings in Section C, Building Elevation Information (Survey Required).

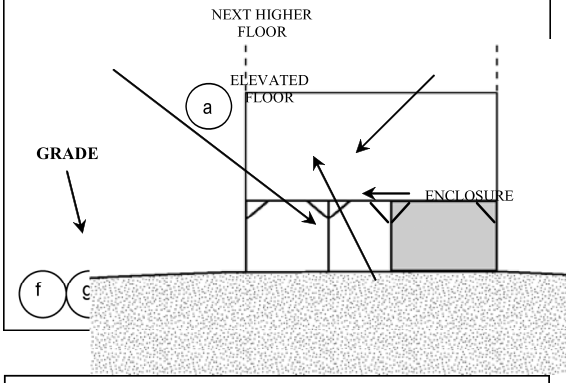


DIAGRAM 7

All buildings elevated on full-story foundation walls with a partially or fully enclosed area below the elevated floor. This includes walkout levels, where at least one side is at or above grade. The principal use of this building is located in the elevated floors of the building.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about openings in Section C, Building Elevation Information (Survey Required).

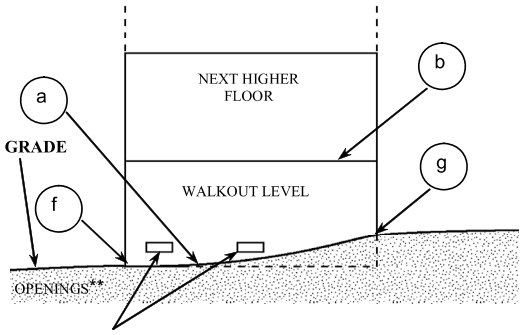
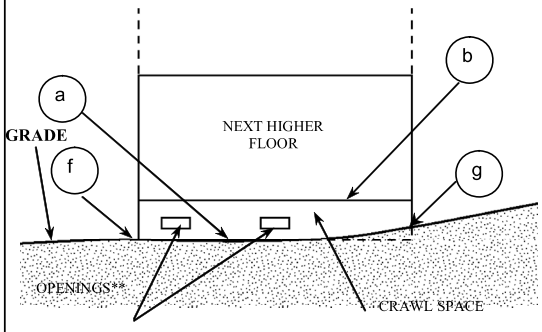


DIAGRAM 8

All buildings elevated on a crawl space with the floor of the crawl space at or above grade on at least one side, with or without an attached garage.

Distinguishing Feature – For all zones, the area below the first floor is enclosed by solid or partial perimeter walls. In all A zones, the crawl space is with or without openings** present in the walls of the crawl space. Indicate information about the openings in Section C, Building Elevation Information (Survey Required).



**An "opening" (flood vent) is defined as a permanent opening in a wall that allows for the free passage of water automatically in both directions without human intervention. Under the NFIP, a minimum of two openings is required for enclosures or crawl spaces with a total net area of not less than one square inch for every square foot of area enclosed. Each opening must be on different sides of the enclosed area. If a building has more than one enclosed area, each area must have openings on exterior walls to allow floodwater to directly enter. The bottom of the openings must be no higher than one foot above the grade underneath the flood vents. Alternatively, you may submit a certification by a registered professional engineer or architect that the design will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening

O.M.B. NO. 3067-0077
Expires July 31, 2002

FEDERAL EMERGENCY MANAGEMENT AGENCY
NATIONAL FLOOD INSURANCE PROGRAM

FLOODPROOFING CERTIFICATE

FOR NON-RESIDENTIAL STRUCTURES

The floodproofing of non-residential buildings may be permitted as an alternative to elevating to or above the Base Flood Elevation; however, a floodproofing design certification is required. This form is to be used for that certification. Floodproofing of a residential building does not alter a community's floodplain management elevation requirements or affect the insurance rating unless the community has been issued an exception by FEMA to allow floodproofed residential basements. The permitting of a floodproofed residential basement requires a separate certification specifying that the design complies with the local floodplain management ordinance.

BUILDING OWNER'S NAME

STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. Number) OR P.O. ROUTE AND BOX NUMBER

OTHER DESCRIPTION (Lot and Block Numbers, etc.)

FOR INSURANCE COMPANY USE
POLICY NUMBER
COMPANY NAIC NUMBER

CITY STATE ZIP CODE

SECTION I FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

Provide the following from the proper FIRM:

COMMUNITY NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRM INDEX	FIRM ZONE	BASE FLOOD ELEVATION (In AO Zones, Use Depth)

SECTION II FLOODPROOFING INFORMATION (By a Registered Professional Engineer or Architect)

Floodproofing Design Elevation Information:

Building is floodproofed to an elevation of ..... feet NGVD. (Elevation datum used must be the same as that on the FIRM.)

Height of floodproofing on the building above the lowest adjacent grade is ..... feet.

(NOTE: for insurance rating purposes, the building's floodproofed design elevation must be at least one foot above the Base Flood Elevation to receive rating credit. If the building is floodproofed only to the Base Flood Elevation, then the building's insurance rating will result in a higher premium.)

SECTION III CERTIFICATION (By Registered Professional Engineer or Architect)

Non-Residential Floodproofed Construction Certification:

I certify that, based upon development and/or review of structural design, specifications, and plans for construction, the design and methods of construction are in accordance with accepted standards of practice for meeting the following provisions:

The structure, together with attendant utilities and sanitary facilities, is watertight to the floodproofed design elevation indicated above, with walls that are substantially impermeable to the passage of water.

All structural components are capable of resisting hydrostatic and hydrodynamic flood forces, including the effects of buoyancy, and anticipated debris impact forces.

I certify that the information on this certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

CERTIFIER'S NAME LICENSE NUMBER (or Affix Seal)

TITLE COMPANY NAME

ADDRESS CITY STATE ZIP CODE

SIGNATURE DATE PHONE

Copies should be made of this Certificate for: 1) community official, 2) Insurance agent/company, and 3) building owner.

FEMA Form 81-65, AUG 99 Replaces all previous editions F-056 (8/99)

RESOLUTION NO. 18-233
CITY OF LIBERTY LAKE
SPOKANE COUNTY, WASHINGTON

A RESOLUTION OF THE CITY OF LIBERTY LAKE, WASHINGTON REGARDING PARTICIPATION IN THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP)

WHEREAS, certain areas of the City of Liberty Lake could be subject to periodic flooding, mudslides (i.e., mudflows), or flood-related erosion, causing serious damages to properties within these areas; and

WHEREAS, relief is available in the form of Federally subsidized flood insurance as authorized by the National Flood Insurance Act of 1968; and

WHEREAS, it is the intent of this City Council to require the recognition and evaluation of flood, mudslide (i.e., mudflow), or flood-related erosion hazards in all official actions relating to land use in areas having these hazards; and

WHEREAS, the City Council has the legal authority to adopt land use and control measures to reduce future flood losses pursuant to RCW 86.16, WAC 173-158, RCW 86.26, WAC 173-145, and the City Development Code.

THEREFORE, THE CITY COUNCIL OF THE CITY OF LIBERTY LAKE, WASHINGTON, DOES RESOLVE AS FOLLOWS:

1. Assures the Federal Insurance Administration that it will enact as necessary, and maintain in force in those areas having flood, mudslide (i.e. mudflow), or flood-related erosion hazards, adequate land use and control measures with effective enforcement provisions consistent with the Criteria set forth for the National Flood Insurance Program in Part 60 Title 44 of the Code of Federal Regulations.

2. Vests the City of Liberty Lake City Administrator or designee with the responsibility, authority and means to:

(a) Assist the Administrator, at his request, in his delineation of the limits of the area having special flood, mudslide (i.e. mudflow), or flood-related erosion hazards.
(b) Provide such information as the Administrator may request concerning present uses and occupancy of the floodplain, mudslide (i.e. mudflow) or flood-related erosion areas.
(c) Cooperate with Federal, State and local agencies and private firms which undertake to study, survey, map and identify floodplain, mudslide (i.e. mudflow), or flood-related erosion areas, and cooperate with neighboring communities with respect to management of adjoining floodplain, mudslide (i.e. mudflow) and/or flood related erosion areas in order to prevent aggravation of existing hazards.
(d) Submit on the anniversary date of the community's initial eligibility an Annual Report to the Administrator on the progress made during the past year within the

community in the development and implementation of floodplain management measures.

(e) Upon occurrence, notify the Administrator in writing whenever the boundaries of the community have been modified by annexation or the community has otherwise assumed or no longer has authority to adopt and enforce floodplain management regulations for a particular area. In order that all Flood Hazard Boundary Maps and Flood Insurance Rate Maps accurately represent the community's boundaries, include within such notification a copy of a map of the community suitable for reproduction, clearly delineating the new corporate limits or new area for which the community has assumed or relinquished floodplain management regulatory authority.

3. Appoints the City of Liberty Lake Planning & Building Services to maintain for public inspection and to furnish upon request, for the determination of applicable flood insurance risk premium rates within all areas having special flood hazards identified on a Flood Hazard Boundary Map or Flood Insurance Rate Map, any certificates of flood-proofing, and information on the elevation (in relation to mean sea level) of the level of the lowest habitable floor (including basement if habitable) of all new or substantially improved structures, and include whether or not such structures contain a basement, and if the structure has been floodproofed the elevation (in relation to mean sea level) to which the structure was floodproofed.

4. Agrees to take such other official action as may be reasonably necessary to carry out the objectives of the program.

Passed by the City Council this 2ND day of January, 2018.

Steve Peterson, Mayor
City of Liberty Lake

ATTEST:

City Clerk, Ann Swenson

APPROVED AS TO FORM:

City Attorney, Sean Boutz

* *

CERTIFICATION

I, Ann Swenson, the undersigned City Clerk of the City of Liberty Lake, of Spokane County, Washington, HEREBY CERTIFY that the foregoing Resolution is a full, true and correct copy of Resolution No. 18-233 duly adopted at a regular meeting of the City Council of said City, duly and regularly held at the regular meeting place thereof on January 2, 2018 of which meeting all members of said City Council had due notice and at which a majority thereof were present; and that at said meeting said Resolution was adopted by the following vote: unanimous.

AYES, and in favor thereof: Mayor Pro Tem Brickner, Council Members Langford, Moore, Kaminskas, Dunne, Severs, and Kennedy.

NAYS: None.

ABSENT: None.

ASTAINED: None.

CITY OF LIBERTY LAKE

Ann Swenson

CITY CLERK