



RESOLUTION NO.

OF THE BOARD OF SUPERVISORS OF THE COUNTY OF EL DORADO

(REPEALING RESOLUTION NO. 219-2014)

WHEREAS, the California Code of Regulations, Title 24, Part 9, the California Fire Code, is updated by the State every three years; and,

WHEREAS, the 2016 California Fire Code became effective on January 1, 2017; and,

WHEREAS, California Health and Safety Code Sections 17958, 17958.5, 17958.7 and 18941.5 permit a county to make such local amendments and modifications as the county determines are reasonably necessary because of local climatic, geological or topographical conditions; and,

WHEREAS, the California Code of Regulations, Health and Safety Code, Division 12, Part 2, Chapter 1, Article 2, Section 13146, assigns responsibility for enforcement of fire safety regulations to the local level and grants authority to delegate enforcement to the chief building official, or his or her authorized representative, or to the chief of the fire protection district, or his or her representative; and,

WHEREAS, enforcement of the Fire Code in the County of El Dorado has historically been shared by the County Building Official and the local Fire Agencies according to the knowledge and skills each possesses; and,

WHEREAS, on October 11, 2016, the Board of Directors of the Pioneer Fire Protection District adopted Ordinance No. 2016-01, which adopted the 2016 California Fire Code with amendments the District, deemed necessary to deal with local climate, geological or topographical conditions.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Supervisors of the County of El Dorado ratify the following building code Amendments to the California Fire Code adopted by Pioneer Fire Protection District (Fire Department):

These changes include amendments and additions to the California Fire Code in the following sections: 111.4, 503.2, 503.2.1, 503.2.5, 503.2.6, 503.4.2 through 503.4.5, 507.5.1, 604.1.2, 903.2, 903.2.a, 903.2.b, 903.2.1, 903.2.C, 903.2.3, 903.2.4, 903.2.7, 903.2.9, 903.2.10, 907.2.a, 907.2.b, 907.2.c, 907.2.d, 5601.2, Table 6104.3 Footnote "d", 6112.1, 6112.2, 6112.3, 6113.1, 6113.2, Appendix B105.1, Table B105.1(1), B105.2, & Table 105.2. These changes are itemized in SECTION 2: ADOPTION OF CODE of this ordinance.

These changes also include the following CA Fire Code Sections and Appendices not adopted by the California State Fire Marshal; 101.1 through 101.5, 102.6 through 102.8, 102.10 through 102.12, 103.1 through 104.1, 104.3 through 104.4, 104.6 through 104.6.4, 104.8, through 104.9.2, 104.10.1 through 104.11.3, 105.2.3, 105.3.1 through 105.3.2, 105.6.10, 105.6.17 through 105.6.19, 105.6.28, 105.6.29 through 105.6.37, 105.6.39 through 105.6.44, 105.7.17 through 105.7.18, 106.1, 107.1 through 108.3, 109.3.2 through 109.4.1, 112.1, 113.1 through 113.5, 113.6, 113.6.1, 302, 303.1-303.9, 305.1-305.5, 307.1, through 307.5, 308.1 through 308.4.1, 403.1, 403.5 through 403.12, 503, Appendix D104.1 through D104.3, D105.1 through D105.4, D106.1, D107.1, D107.2, Appendix F and N, based on the 2015 edition of the International Fire Code as published by the International Code Council.

PASSED AND ADOPTED by the Board of Supervisors of the County of El Dorado at a regular meeting of said Board, held the ____ day of _____, 20__, by the following vote of said Board:

Attest:
James S. Mitrisin
Clerk of the Board of Supervisors

Ayes:
Noes:
Absent:

By: _____
Deputy Clerk

Chair, Board of Supervisors

RESOLUTION No. 2013-10a

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE PIONEER FIRE PROTECTION DISTRICT ADOPTING FINDINGS SUPPORTING AMENDMENTS TO THE CALIFORNIA FIRE CODE

WHEREAS, the District intends to adopt an ordinance adopting the California Fire Code and prescribing regulations governing conditions hazardous to life, property and the environment from fire, explosion, hazardous materials and hazardous uses; and

WHEREAS, the unique local climatic, geological, and topographical conditions existing within the boundaries of the District make it reasonably necessary for the District to impose more stringent requirements than set forth in the California Fire Code and pursuant to California Health and Safety Code sections 13869.7 and 17958.7, the District desires to make express findings to that effect.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Pioneer Fire Protection District hereby adopts the following findings concerning current unique local conditions that together make each modification to the California Fire Code, reasonably necessary to provide adequate and effective protection of life, property and the environment.

- A. **General.** After due consideration, the Board of Directors of the Pioneer Fire Protection District, hereby finds that due to local climatic, geologic and topographic conditions, as stated within this document, there is a need to provide the modifications and changes contained in the adoptive Ordinance of the California Fire Code. Such changes are deemed to be reasonably necessary to provide adequate and effective protection of life, property and the environment.

The Pioneer Fire Protection District provides fire protection, emergency medical services and rescue services to approximately 8,000 people in a 296 square mile area (187,000 acres). The District is located in the southern region of El Dorado County, on the western slope. Most of the districts territory (96,920 acres) is within the El Dorado National Forest with noted natural features including the Three Forks of the Consumnes River along with Mt. Aukum. The District's majority of private land use is agricultural and 3,000 acres in Williamson Act Contracts. The remaining private land includes 3, 276 developed and 2,134 undeveloped residential parcels, 34 developed and 11 undeveloped commercial parcels, and 884 miscellaneous parcels, with 28 wineries, 4 schools and 2 churches. The topography of the District ranges from forest lands that are mountainous with steep slopes and drainages (Leak Springs/Baltic Peak-Lookout @ 5,642 feet in elevation), to rolling foot hills (Bucks Bar Road Corridor @ 1,659 feet in elevations) with many inaccessible areas of grassland. The weather conditions vary from freezing temperatures with snow in winter, to summer temperatures that regularly exceed 100 degrees.

The District can be divided into six distinct areas: Mt. Aukum, Fair Play, Outingdale, Grizzly Flats, Omo Ranch and Somerset which typically contain small subdivisions and isolated residential developments with light commercial development. These areas are characteristic of the suburban, agricultural or ranch environment.

Major District access roads/inhabited corridors include; County E16/Mt. Aukum Road, Sandridge Road, Omo Ranch Road and Grizzly Flats Road.

The Pioneer Fire Protection District is an "all-risk" agency. The District participates in a sophisticated automatic aid program and is dispatched through agreement by the California Department of Forestry and Fire Protection (Cal-Fire), at Camino. The resources of the District will respond to, and deal with, any type of emergency. The term "Fire Protection" in this document is broad and includes responses to fires, smoke and odor investigations, alarms, public assist calls, hazardous materials incidents, medical aid and specialized rescues.

The District has established one, full-time, staffed fire station (Station 38, Three Forks Region @ 7061 Mt. Aukum Road, District Headquarters) and one part-time staffed fire station (Station-31, Willow Region @ 7960 Grizzly Flat Road) to provide fire, EMS and rescue services to the communities we serve.

Pioneer Fire Protection District Volunteer Firefighters and support staff (i.e., the Grizzly Flats C.E.R.T. Team) (Station-32 @ 4770 Sciaroni Road, Grizzly Flat), and (Station-37 @6021 Omo ranch Road, Omo Ranch) when available. The District currently has seven full-time, career personnel and fourteen part-time paid/volunteer firefighter positions along with one management and two administrative support positions.

B. Climatic. The Pioneer Fire Protection District is located within a foothill and mountainous region of the county. The District is subject to four seasons, with an annual average snow fall in the winter months of 3 feet within the Grizzly Flat region and an average rain fall of forty-five inches per year in the lower foothill regions of the District. These adverse weather conditions create severe hazardous road conditions as well as rock slide hazards along the main access roads within, as well as into, the District from the surrounding areas. Due to periods of excess snow and excess rain fall, along with repeated road closures, the ability of the Fire District to provide immediate emergency response is often delayed. These same adverse climatic conditions often result in a large number of vehicular accidents that place extreme restraints on the availability of emergency response to perform emergency rescue, first aid, hazardous materials mitigation/control, and firefighting. The climatic condition often results in a substantial or lack of ability of the Fire Protection District to respond immediately to other types of emergency situations that occur. Examples of these emergency situations include structure fires, vegetation/forest fires, hazardous materials incidents, emergency medical calls, vehicular accidents and vertical rescues. The mutual aid agreements established with adjoining or neighboring fire agencies might not be possible due to adverse climatic conditions, restricting or total blocking access into the District.

C. Geological. The Pioneer Fire Protection District is located within moderate activity seismic Zone Three. The seismic, geological conditions present a potential for multiple fires, major breakage of water mains, multiple electrical power failures, multiple collapsed structures and a large number of calls for emergency medical aid, all of which may occur simultaneously during a seismic event. Our two local water districts have water pumping system used for fire suppression water delivery as well as water storage tanks/reservoirs providing water system pressure. Most of the pumping systems are dependent on electrical power for operation. Such electrical power may not be available during a seismic event. Water storage tanks used for the storage of required fire suppression water may also collapse in such an event forcing the additional need to transport water via additional pieces of fire apparatus which will place significant restraint on the ability of the District to provide the required emergency services. The water district has numerous water-pumping systems used for fire suppression water delivery, as well as water storage tanks

providing water system pressure. Most of the pumping systems are dependent on electrical power for operation. Such electrical power may not be available during a seismic event. Water storage tanks used for the storage of required fire suppression water may also collapse in such an event forcing the additional need to transport water via additional pieces of fire apparatus which will place a significant restraint on the ability of the District to provide the required emergency services.

- D. **Topographical.** The District is primarily composed of areas that are considered by the State fire hazard severity zone mapping system to be of very high fire severity zones and wildland. Much of the District is located within mountainous and foothill terrain, covered with highly combustible vegetation, including the presence of many coniferous forested areas. The elevation within the District ranges from at 1659 feet to over 5642 feet at the highest point. Slope within the District ranges from 0 degrees to 90 degrees. The structures within the areas of foothill terrain have very limited fire access, due to narrow roadways with steep grades and poor road surface conditions. The presence of many existing structures within the very high fire hazard severity zone areas provides for a very high potential of a structure fire spreading into a wildland or forest fire condition as well as the potential for a wildland or forest fire spreading to structures.

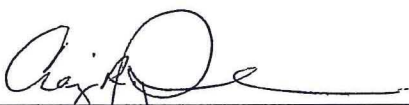
INTRODUCED at a regular meeting of the Board of Directors of the Pioneer Fire Protection District on November 12, 2013.

PASSED AND ADOPTED at a regular meeting of the Board of Directors of the Pioneer Fire Protection District on November 12, 2013 by the following roll call vote:

AYES: 3

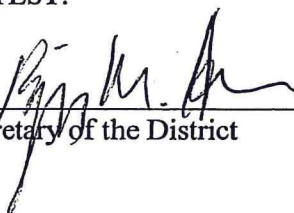
NOES: 0

ABSENT: 2



Chair, Board of Directors

ATTEST:



Secretary of the District

Mountain Democrat

PROOF OF PUBLICATION
(2015.5 C.C.P.)

Proof of Publication of PUBLIC NOTICE

STATE OF CALIFORNIA
County of El Dorado

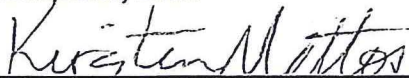
I am a citizen of the United States and a resident of the County aforesaid; I'm over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am principal clerk of the printer at the Mountain Democrat, 2889 Ray Lawyer Drive, a newspaper of general circulation, printed and published Monday, Wednesday, and Friday, in the City of Placerville, County of El Dorado, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court to the County of El Dorado, State of California, under the date of March 7, 1952, Case Number 7258; that the notice, of which the annexed is a printed copy (set in type no smaller than non-pareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

08/29, 09/05

All in the year 2016.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Placerville, California, this 8th day
of **SEPTEMBER, 2016**



Signature

Public Notice of Intent to Adopt
The 2016 California Fire Code
Notice is hereby given to the intention of the Pioneer Fire Protection District to adopt the 2016 California Fire Code. The District shall hold its first public hearing at 6:00 PM on the 13th of September 2016 at 7061 Mt. Aukum Rd., Somerset, CA regarding the adoption of the 2016 Fire Code pursuant to Health and Safety Code Section 13869. Copies of the code section referred to and any secondary code sections referred to, adopted by reference, are on file with the Secretary of the District and are open to public inspection. Adoption of the 2016 California Fire Code will enable all District personnel to follow one set of rules and regulations with regard to the health and safety of the public and the District's response thereto.
8/29, 9/5 2557

Mountain Democrat

PROOF OF PUBLICATION
(2015.5 C.C.P.)

Proof of Publication of PUBLIC NOTICE

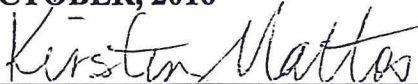
STATE OF CALIFORNIA
County of El Dorado

I am a citizen of the United States and a resident of the County aforesaid; I'm over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am principal clerk of the printer at the Mountain Democrat, 2889 Ray Lawyer Drive, a newspaper of general circulation, printed and published Monday, Wednesday, and Friday, in the City of Placerville, County of El Dorado, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court to the County of El Dorado, State of California, under the date of March 7, 1952, Case Number 7258; that the notice, of which the annexed is a printed copy (set in type no smaller than non-pareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

9/30, 10/5

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Placerville, California, this 5th day
of **OCTOBER, 2016**



Signature

Public Notice of Intent to Adopt The 2016 California Fire Code

Notice is hereby given to the intention of the Pioneer Fire Protection District to adopt the 2016 California Fire Code. The District shall hold a public hearing at 6:00 PM on the 11th of October 2016 at 7061 Mt. Auburn Rd., Somerset, CA regarding the adoption of the 2016 Fire Code pursuant to Health and Safety Code Section 13869. Copies of the code section referred to and any secondary code sections referred to, adopted by reference, are on file with the Secretary of the District and are open to public inspection. Adoption of the 2016 California Fire Code will enable all District personnel to follow one set of rules and regulations with regard to the health and safety of the public and the District's response thereto.

9/30, 10/5

2700

PIONEER FIRE PROTECTION DISTRICT

Ordinance No. 2016-01

BE IT ORDAINED BY THE BOARD OF DIRECTORS OF PIONEER FIRE PROTECTION DISTRICT

AS FOLLOWS:

AN ORDINANCE OF PIONEER FIRE PROTECTION DISTRICT ADOPTING THE 2016 EDITION OF THE CALIFORNIA FIRE CODE, BASED UPON THE 2015 EDITION OF THE INTERNATIONAL FIRE CODE, REGULATING AND GOVERNING THE SAFEGUARDING OF LIFE AND PROPERTY FROM FIRE AND EXPLOSION HAZARDS ARISING FROM THE STORAGE, HANDLING AND USE OF HAZARDOUS SUBSTANCES, MATERIALS AND DEVICES, AND FROM CONDITIONS HAZARDOUS TO LIFE OR PROPERTY IN THE OCCUPANCY OF BUILDINGS AND PREMISES IN PIONEER FIRE PROTECTION DISTRICT; PROVIDING FOR THE ISSUANCE OF PERMITS AND COLLECTION OF FEES THEREFORE; REPEALING ORDINANCE NO. 2016-01 OF PIONEER FIRE PROTECTION DISTRICT AND ALL OTHER ORDINANCES AND PARTS OF THE ORDINANCES IN CONFLICT THEREWITH.

BE IT ORDAINED by the Board of Directors of the Pioneer Fire Protection District, also known as Pioneer Fire:

Section 1: FINDINGS

Section 2: ADOPTION OF CODE

Section 3: CALIFORNIA FIRE CODE, AMENDMENTS

Section 4: ESTABLISHING LIMITS

Section 5: CONFLICT

Section 6: SEVERABILITY

Section 7: EFFECTIVE DATE AND PUBLICATION

SECTION 1: FINDINGS

The Pioneer Fire Protection District makes certain changes (listed below) to the California Fire Code, 2016 Edition, pursuant to Health and Safety Code Section 13869.7, 17958.7 and 18941.5 during this code adoption process. Such changes are necessary because of local climatic, geological and/or topographic conditions, as specified by the matrix attached at the end of this ordinance. The Pioneer Fire Protection District has adopted, pursuant to Section 18941.5 of the California Health and Safety Code, the findings of facts relative to these conditions by Resolution #2013-10a of the Pioneer Fire Protection District dated November 12, 2013.

These changes include amendments and additions to the California Fire Code in the following sections:

111.4, 503.2, 503.2.1, 503.2.5, 503.2.6, 503.4.2 through 503.4.5, 507.5.1, 604.1.2, 903.2, 903.2.a, 903.2.b, 903.2.1, 903.2.C, 903.2.3, 903.2.4, 903.2.7, 903.2.9, 903.2.10, 907.2.a, 907.2.b, 907.2.c, 907.2.d, 5601.2, Table 6104.3 Footnote "d", 6112.1, 6112.2, 6112.3, 6113.1, 6113.2, Appendix B105.1, Table B105.1(1), B105.2, & Table B105.2. These changes are itemized in SECTION 2: ADOPTION OF CODE of this ordinance.

These changes also include the following CA Fire Code Sections and Appendices not adopted by the California State Fire Marshal; 101.1 through 101.5, 102.6 through 102.8, 102.10 through 102.12, 103.1 through 104.1, 104.3 through 104.4, 104.6 through 104.6.4, 104.8, through 104.9.2, 104.10.1 through 104.11.3, 105.2.3, 105.3.1 through 105.3.2, 105.6.10, 105.6.17 through 105.6.19, 105.6.28, 105.6.29 through

105.6.37, 105.6.39 through 105.6.44 105.7.17 through 105.7.18, 106.1, 107.1 through 108.3, 109.3.2 through 109.4.1, 112.1, 113.1 through 113.5, 113.6, 113.6.1, 302, 303.1 through 303.9, 305.1 through 305.5, 307.1, through 307.5, 308.1 through 308.4.1, 403.1, 403.5 through 403.12, 503, Appendix D104.1 through D104.3, D105.1 through D105.4, D106.1, D107.1, D107.2, Appendix F and N, based on the 2015 edition of the International Fire Code as published by the International Code Council.

SECTION 2: ADOPTION OF CODE

That a certain document, three (3) copies of which are on file in the office of the Secretary of the Board of Directors of the Pioneer Fire Protection District, being marked and designated as the California Fire Code, 2016 edition, in its entirety, with the following amendments: 111.4, 503.2, 503.2.1, 503.2.5, 503.2.6, 503.4.2 through 503.4.5, 507.5.1, 604.1.2, 903.2, 903.2.a, 903.2.b, 903.2.1, 903.2.C, 903.2.3, 903.2.4, 903.2.7, 903.2.9, 903.2.10, 907.2.a, 907.2.b, 907.2.c, 907.2.d, 5601.2, Table 6104.3 Footnote "d", 6112.1, 6112.2, 6112.3, 6113.1, 6113.2, Appendix B105.1, Table B105.1(1), B105.2, & Table 105.2; and the following CA Fire Code Sections and Appendices not adopted by the California State Fire Marshal: 101.1 through 101.5, 102.6 through 102.8, 102.10 through 102.12, 103.1 through 104.1, 104.3 through 104.4, 104.6 through 104.6.4, 104.8, through 104.9.2, 104.10.1 through 104.11.3, 105.2.3, 105.3.1 through 105.3.2, 105.6.10, 105.6.17 through 105.6.19, 105.6.28, 105.6.29 through 105.6.37, 105.6.39 through 105.6.44 105.7.17 through 105.7.18, 106.1, 107.1 through 108.3, 109.3.2 through 109.4.1, 112.1, 113.1 through 113.5, 113.6, 113.6.1, 302, 303.1-303.9, 305.1-305.5, 307.1, through 307.5, 308.1 through 308.4.1, 403.1, 403.5 through 403.12, 503, Appendix D104.1 through D104.3, D105.1 through D105.4, D106.1, D107.1, D107.2, Appendix F and N, based on the 2015 edition of the International Fire Code as published by the International Code Council and the 2016 California Fire Code, be and is hereby adopted as the Fire Code of the Pioneer Fire Protection District, in the State of California regulating and governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises as herein provided; providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, penalties, conditions and terms of said Fire Code on file in the office of the Pioneer Fire Protection District are hereby referred to, adopted, and made a part hereof, as if fully set out in this ordinance, with the additions, insertions, deletions and changes, if any, prescribed in Section 3 of this ordinance.

SECTION 3: CALIFORNIA FIRE CODE, AMENDMENTS

The following Sections are hereby amended or added:

California Fire Code, Chapter 1 Amendments - Scope and Administration:

Section 105 - Permits

Section 105.6.28 of Chapter 1 of the Fire Code of the Pioneer Fire Protection District is amended to read as follows:

105.6.28 - LP Gas. An operational permit is required for:

1. Storage and use of LP-gas.

Exception: A permit is not required for individual containers with ~~500~~ 100-gallon water capacity or less or multiple container systems having an aggregate quantity not exceeding ~~500~~ 251 gallons serving occupancies in Group R-3.

Section 109 - Violations

Section 109.4 of Chapter 1 of the Fire Code of the Pioneer Fire Protection District is amended to read as follows:

Section 109.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of not more than \$1,000.00 and/or by imprisonment not exceeding 6 months, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense. (Health & Safety Code Section 13145 and 17995).

Section 111 - Stop Work Order

Section 111.4 of Chapter 1 of the Fire Code of the Pioneer Fire Protection District is amended to read as follows:

111.4. Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than \$500 or not more than \$1,000. (Health & Safety Code Section 13145 and 17995).

Section 113 – Fees

Sections 113.6 and 113.6.1 of Chapter 1 of the Fire Code of the Pioneer Fire Protection District are added to read as follows:

113.6 Permit, Plan Review and Inspection Fees. A schedule of fees adopted by the Fire District Board of Directors for Plan Review, Inspections and the issuance of Permits by the Fire District may be found in the most current the Pioneer Fire Protection District fee schedule (Health & Safety Code 17951).

113.6.1 Cost Recovery Fees. Fire service fees may be charged to any person, firm, corporation or business that through negligence, violation of the law, or as a result of carelessness, is responsible for the cause of the Fire District to respond to the scene of an incident. A district board may charge a fee to cover the cost of any service which the district provides or the cost of enforcing any regulation for which the fee is charged. (Health and Safety Code 13916). The fee shall not exceed the actual cost of suppressing the fire and/or responding to the scene of an incident.

Section 503 - Fire Apparatus Access Roads

Section 503 of the CA Fire Code is adopted in its entirety as part of the Fire Code of the Pioneer Fire Protection District Pioneer Fire Protection District. Only the additions or amendments to Section 503 are listed below:

503.2 Specifications. All fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8.

[California Code of Regulations, Title 19, Division 1, §3.05(a)] Fire Department Access and Egress. (Roads)

(a) Roads. Required access roads from every building to a public street shall be all-weather hard-surfaced (suitable for use by fire apparatus) right-of-way not less than 20 feet (6096 mm) in width. Such right-of-way shall be unobstructed and maintained only as access to the public street.

Exception: The enforcing agency may waive or modify this requirement if in his opinion such all-weather hard surfaced condition is not necessary in the interest of public safety and welfare.

503.2.1 Dimensions. For one and two family dwelling units (R3) applications, fire apparatus access roads shall have an unobstructed width of not less than 20 feet plus one-foot shoulder on each side, except for *approved* security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 15 feet.

For applications other than (R3), fire apparatus access roads shall have an unobstructed width of not less than 20 feet, plus one-foot shoulder on each side, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 15 feet or as approved by the fire code official.

All Driveways, as defined by Title 14 SRA Fire Safe Regulations, shall be not less than 12 feet wide.

503.2.5 Dead ends. For one and two family dwelling units (R3) applications, dead-end fire apparatus access roads shall comply with Title 14 SRA Fire Safe Regulations and shall have a turnaround constructed at its terminus.

For applications other than (R3), dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall be provided with an *approved* area for turning around fire apparatus.

503.2.6 Bridges and elevated surfaces. Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with the current El Dorado County Transportation Division bridge standard. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the *fire code official*. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, *approved* barriers, *approved* signs or both shall be installed and maintained when required by the *fire code official*.

503.4.2 Fire Apparatus Access Gates. Fire Apparatus Access Road Gates shall meet the standards identified in the Fire Department's Gate Standard.

Section 503.4.3 of the Fire Code of the Pioneer Fire Protection District is added to read as follows:

503.4.3 Roads from 20 to 29 feet in width. Fire apparatus access roads, 20 to 29 feet wide, shall be posted on both sides as a fire lane, with no parking allowed on either side of the roadway.

Section 503.4.4 of the Fire Code of the Pioneer Fire Protection District is added to read as follows:

503.4.4 Roads from 30 to 35 feet in width. Fire apparatus access roads, 30 to 35 feet wide, shall be posted on one side as No Parking, Fire Lane, with parking allowed only on the opposite side of the roadway.

Section 503.4.5 of the Fire Code of the Pioneer Fire Protection District is added to read as follows:

503.4.5 Roads 36 feet and greater in width. Fire apparatus access roads, 36 feet and greater in width, may allow parking on both sides of the roadway.

The Following Sections of the California Fire Code, Appendix D - Fire Apparatus Access Roads are adopted and amended to read as part of Chapter 5 as follows:

Section D104 - Commercial and Industrial Developments

D104.1 Buildings exceeding three stories or 30 feet in height. Buildings or facilities exceeding 30 feet or three stories in height shall have at least two means of fire apparatus access for each structure.

D104.2 Buildings exceeding 62,000 square feet in area. Buildings or facilities having a gross *building area* of more than 62,000 square feet shall be provided with two separate and *approved fire apparatus access roads*.

D104.3 Remoteness. Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

Exception: Fire apparatus roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or similar condition, and an approved alternative means of fire protection is provided.

Section D105 - Aerial Fire Apparatus Access Roads

D105.1 Where required. Buildings or portions of buildings or facilities exceeding 30 feet in height above the lowest level of fire department vehicle access shall be provided with *approved fire apparatus access roads capable of accommodating fire department aerial apparatus*. Overhead utility and power lines shall not be located within the aerial fire apparatus access roadway.

D105.2 Width. Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet, exclusive of shoulders, in the immediate vicinity of any building or portion of building more than 30 feet in height.

D105.3 Proximity to building. At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building.

D105.4 Obstructions. Overhead utility and power lines shall not be located over the aerial fire apparatus access road or between the aerial fire apparatus road and the building. Other obstructions shall be permitted to be placed with the approval of the fire code official.

Section D106 - Multiple-Family Residential Developments

D106.1 Projects having more than 100 dwelling units. Multiple- family residential projects having more than 100 *dwelling units* shall be equipped throughout with two separate and *approved* fire apparatus access roads.

Section D107 - One- or Two-Family Residential Developments

D107.1 One- or two-family dwelling residential developments. Developments of one- or two- family *dwelling*s shall be provided with separate and *approved* fire apparatus access roads and shall meet the requirements of D107.2 Remoteness, when required by the Fire Chief.

Section 507 - Fire Protection Water Supplies

Sections 507.5.1 of Chapter 5 of the Fire Code of the Pioneer Fire Protection District are amended to read as follows:

Section 507.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more the 400 150 feet from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

Exception: For Group R-3 and Group U occupancies, *equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.1*, the distance requirement shall be not more than 600 feet (183m).

California Fire Code, Chapter 6 Amendments - Building Services and System

Section 604 - Emergency and Standby Power Systems

Sections 604.1.2 of Chapter 6 of the Fire Code of the Pioneer Fire Protection District are amended to read as follows:

Section 604.1.2 Installations. Emergency power systems and standby power systems shall be installed in accordance with this code, NFPA 110 and NFPA 111. All buildings, other than one- and two-family dwelling units, and agricultural buildings not used for commercial purpose, with stand-by power shall have a shunt trip device that disconnects all power sources to the building, approved by the Fire Code Official. Existing installations shall be maintained in accordance with the original approval.

California Fire Code, Chapter 9 Amendments - Fire Protection Systems

Section 903 -Automatic Sprinkler Systems

Section 903.2 of Chapter 9 of the Fire Code of the Pioneer Fire Protection District is amended to read as follows:

903.2 Where required. Approved, NFPA 13 automatic sprinkler system shall be required and installed in all buildings or structures, greater than 3600 square feet, when constructed or relocated within the jurisdiction.

Exceptions:

1. One- and two-family dwelling units (R-3 Occupancies). (See Section R313 of the 2016 CA Residential Code that requires all one and two family dwellings to be equipped with an NFPA 13D sprinkler system)
2. Agricultural buildings, except any agricultural building which is used for commercial purposes (e.g. retails sales, food service, and/or special events)

Sections 903.2.a and 903.2.b of Chapter 9 of the Fire Code of the Pioneer Fire Protection District are added to read as follows:

903.2.a Status of existing buildings greater than 3,600 square feet. In existing buildings 3600 square feet or greater, other than one- and two-family dwelling units, and agricultural buildings not under Special Use Permit for commercial purposes, where the floor area of the building or structure is increased by an addition of more than thirty percent (30%) or 1,000 square feet, whichever is less, such building or structure shall be made to conform to Section 903.2.

903.2.b Status of existing buildings less than 3,600 square feet. In existing buildings 3,600 square feet or less, other than one-and two-family dwelling units, and agricultural buildings not under Special Use Permit for commercial purposes, where the floor area of the building or structure is increased to a total square footage over 3,600 square feet, by an addition of more than thirty percent (30%) or 1,000 square feet, whichever is less, such building or structure shall be made to conform to Section 903.2.

The following sections are amended by changing California Fire Code requirements to 3,600 square feet for fire sprinkler installation, as follows (the complete text of the section is not provided):

903.2.1	Group A	<u>All Group A</u> - 3,600 square feet or greater
903.2.c	Group B	<u>All Group B</u> - 3,600 square feet or greater
903.2.3	Group E	<u>All Group E</u> - 3,600 square feet or greater
903.2.4	Group F	<u>All Group F</u> - 3,600 square feet or greater *2,500 square feet or greater for manufacturing of mattresses and upholstered furniture
903.2.7	Group M	<u>All Group M</u> - 3,600 square feet or greater
903.2.9	Group S-1	<u>All Group S-1</u> - 3,600 square feet or greater *2,500 square feet for storage of mattresses and upholstered furniture
903.2.10	Group S-2	<u>All group S-2</u> - 3,600 square feet or greater

Section 907 - Fire Alarm and Detection Systems

Sections 907.2.a, 907.2.b and 907.2.c, 907.2.d of Chapter 9 of the Fire Code of the Pioneer Fire Protection District are added to read as follows:

907.2.a An approved fire alarm/detection system shall be installed in all buildings with a floor area less than 3,600 square feet.

Exceptions:

One and two family dwellings (R-3 Occupancies and other occupancies classified as "U").

Agricultural buildings, except any agricultural building which is used for commercial purposes (e.g. retail sales, food service, and/or special events).

Buildings with a floor area less than 500 square feet may be exempt, as determined by the Fire Chief, based on building construction material and features, location, occupancy type, and distance to exposures.

907.2.b Status of existing buildings. In existing buildings without an approved automatic sprinkler system, other than one- or two-family dwelling units, agricultural building not under Special Use permit for commercial purposes where a fire alarm detection system does not exist and the floor area of the building or structure is increased or modified by more than thirty percent (30%) or 1,000 square feet, whichever is less, such building or structure shall be made to conform to Section 907 when required by the Fire Chief. Buildings with a floor area less than 500 square feet may be exempt, as determined by the Fire Chief, based on building construction materials and features, location, occupancy type, and distance to exposures.

907.2.c Monitoring. All fire alarm detection systems shall be connected directly through and monitored by a U.L. approved central, proprietary or remote station service, which gives audible and visual signals at a constantly attended location. All sprinklered buildings shall be monitored.

907.2.d Type I Hood Installations. The requirement of installation, or replacement, of a Type I Hood System shall require a monitoring fire alarm system to be installed, or for the hood system to be connected to an existing Fire Alarm system for that building.

California Fire Code, Chapter 56 Amendments - Explosives and Fireworks

Section 5601.2 is amended as follows: Permits required.

Section 5601.2 of Chapter 56 of the Fire Code of the Pioneer Fire Protection District is amended to read as follows:

5601.2 - Permits required. Permits shall be required as set forth in Section 105.6 and regulated in accordance with this section. Where explosives permits are required, they shall be issued by the Fire Chief, or his/her representative, and the El Dorado County Sheriff's Department. Where fireworks permits are required, they shall be issued by the Fire Chief and the El Dorado County Board of Supervisors.

California Fire Code, Chapter 61 Amendments - Liquefied Petroleum Gases

Table 6104.3 Footnote "d" of Chapter 61 of the Fire Code of the Pioneer Fire Protection District is amended to read as follows:

6104.3 Footnote "d" - ~~500 gallons~~ 251 gallons. Installation of DOT tanks, with setbacks from structures less than 10 feet, must be approved by the Fire AHJ.

Section 6112 is added as follows: High Elevation Liquefied Petroleum Gas Installations (4,000' and Above).

Section 6112 of Chapter 61 of the Fire Code of the Pioneer Fire Protection District is added to read as follows:

6112.1 Regulators. Two-stage regulator system shall be installed in accordance with manufacturer requirements.

1. Two stage regulator systems shall be installed on all LPG installations.
2. The first stage regulator shall be installed under the hinged gauge cover supplied with the tank. The atmospheric pressure aperture of the regulator shall be pointed downward. The first stage regulator shall be plumbed to the riser of the yard piping with soft copper tubing to allow flexibility should tank shifting occur. The riser from the yard piping shall be located not more than 3 inches (horizontally) from the walls of the tank.
3. The second stage regulator and riser pipe shall be installed under the eave of the building, as close as practicable to the building wall. This riser shall be securely supported/braced to the wall approximately 10 inches below the regulator so as to prevent bending of the pipe by lateral snow/ice loads.
4. A protective cover, approved by the gas supplier and Building Official, shall be installed over the second stage regulator and securely supported to the ground or diagonally to the wall.
5. The riser pipes for the yard piping shall not be imbedded in concrete. Concrete placed around such riser shall be held back at least 1 inch from all sides of the pipe.
6. At the time of application for any building permit, which involves the installation of a LPG system, the applicant shall submit a LPG system plot plan in 3 copies (or digitally as PDF). The LPG plot plan shall include, but not be limited to, the tank location, proposed tank capacity in U.S. gallons, route of yard piping, location of the riser pipe at the building, property boundaries, an outline of all existing/proposed buildings on the lot and a depiction of the ridge line of any building to be supplied with LPG. This shall also be forwarded to the appropriate fire district to serve as a locator map in event of an emergency.
7. Location of the centerline of LPG tanks shall be permanently marked by the use of snow stakes, one at each end. Such stakes shall be of sufficient height to be visible through anticipated maximum snow depth at the respective location. Installation and maintenance of these snow stakes is the responsibility of the LPG user.
8. Propane appliances and accessories shall not be permitted in any new installation below the first floor or below grade, whichever is more restrictive.

Section 6112.2 of Chapter 61 of the Fire Code of the Pioneer Fire Protection District is added to read as follows:

6112.2 Vertical Riser Piping.

1. Minimum of Schedule 80 - iron piping.
2. Riser shall be within 3 inches horizontally of the tank.
3. Swing joints shall be installed above and below tank level to provide for the tank movement. (Street elbows shall not be used.)

4. A listed flexible riser constructed of copper or stainless steel tubing and protected by a steel covered sheathed material may be used instead of swing joints. The flexible alternative shall provide sufficient slack to allow for tank movement.

Section 6112.4 of Chapter 61 of the Fire Code of the Pioneer Fire Protection District is added to read as follows:

6112.3 Marking and Locations.

1. An approved sign shall be located directly above the riser shut off valve on the building in a visible location.
2. The liquefied petroleum gas supplier shall affix a weatherproof identification tag to the inside of the tank valve protecting cover. This tag shall contain the supplier's name and emergency telephone number.
3. Tank installation shall be permanently marked by a metal or wood material snow marker, with a minimum dimension of 2 inches by 2 inches. The snow marker shall be of sufficient height to rise above the annual snow depth and shall be a minimum of 10 feet in height. The snow markers shall be painted yellow and located on opposite ends of the tank.

Section 6113 of Chapter 61 of the Fire Code of the Pioneer Fire Protection District is added to read as follows:

Section 6113.1 & 6113.2 of Chapter 61 of the Fire Code of the Pioneer Fire Protection District is added to read as follows:

6113.1 Permits and Plans. Permits shall be required and plans shall be submitted for all underground tank installations and approved by the Fire AHJ.

6113.2 Underground LPG Tank Ownership. Underground LPG tanks shall be prohibited from being sold to end-users and shall be retained by the LPG company under a lease-type system to ensure proper annual maintenance requirements are met and recorded.

Appendix B - Fire Flow Requirements for Buildings

Appendix B is adopted in its entirety, with the following amendments below:

Section B105.1, Table B105.1(1) of Appendix B of the Fire Code of the Pioneer Fire Protection District is amended to read as follows:

Table B105.1(1) – Required Fire-Flow for One- and two- family dwellings, Group R-3 and R-4 buildings and townhouses:

FIRE-FLOW CALCULATION AREA (square feet)	AUTOMATIC SPRINKLER SYSTEM (design standard)	MINIMUM FIRE-FLOW (gallons per min)	FLOW DURATION (hours)
0 - 3,600	No automatic sprinkler system	1,000	1

3,601 and greater	No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2) at the required fire-flow rate (<u>min. 2 hours</u>)
0 - 3,600	§ 903.3.1.3 of the CA Fire Code or §313.3 of the CA Residential Code	500 1,000	$\frac{1}{2}$ 1
3,601 and greater	§ 903.3.1.3 of the CA Fire Code or §313.3 of the CA Residential Code	$\frac{1}{2}$ value of Table B105.1(2) (<u>min. 1500 GPM</u>)	$\frac{1}{2}$ 2

Table B105.2 of Appendix B of the Fire Code of the Pioneer Fire Protection District is amended to read as follows:

Table B105.2 - Buildings other than one- and two- family dwellings, Group R-3 and R-4 buildings and townhouses:

AUTOMATIC SPRINKLER SYSTEM (design standard)	MINIMUM FIRE-FLOW (gallons per min)	FLOW DURATION (hours)
No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2)
§ 903.3.1.1 of the CA Fire Code	25% 50% of the value in Table B105.1(2) * (<u>min. 1500 GPM</u>)	Duration in Table B105.1(2) at the reduced flow rate
§ 903.3.1.3 of the CA Fire Code	25% 50% of the value in Table B105.1(2) *	Duration in Table B105.1(2) at the reduced flow rate

*No footnotes adopted

SECTION 4. ESTABLISHING LIMITS

That the geographic limits referred to in certain sections of the Fire Code of the Pioneer Fire Protection District are hereby established as follows:

Sections 5704.2.9.6.1- Geographic limits in which flammable or combustible liquids in above-ground tanks outside of buildings is prohibited:

The limits, referred to in Sections 5704.2.9.6.1 of the Fire Code of the Pioneer Fire Protection District in which the storage of Class I flammable liquids or Class II combustible liquids in above- ground tanks outside

of buildings is restricted, are hereby established as the limits of the Pioneer Fire Protection District, County of El Dorado.

The storage of Class I flammable liquids or Class II combustible liquids in above-ground tanks outside of buildings is allowed in an AHJ approved Commercial, Industrial Zone with a Special/Conditional Use Permit issued by the County of El Dorado.

Sections 5706.2.4.4 - Geographic limits in which flammable or combustible liquids in above-ground tanks is prohibited:

The limits, referred to in Sections 5706.2.4.4 of the Fire Code of the Pioneer Fire Protection District in which the storage of Class I flammable liquids or Class II combustible liquids in above-ground tanks is restricted, are hereby established as the limits of the Pioneer Fire Protection District, County of El Dorado.

The storage of Class I flammable liquids or Class II combustible liquids in above-ground tanks is allowed in an AHJ approved Commercial, Industrial Zone with a Special/Conditional Use Permit issued by the County of El Dorado.

Section 5806.2- Geographic limits in which storage of flammable cryogenic fluids in stationary containers is prohibited:

The limits referred to in Section 5806.2 of the Fire Code of the Pioneer Fire Protection District in which storage of flammable cryogenic fluids in stationary containers is prohibited are hereby established as the limits of the Pioneer Fire Protection District, County of El Dorado.

The storage of flammable cryogenic fluids in stationary containers is allowed in an AHJ approved Commercial, Industrial Zone with a Special/Conditional Use Permit issued by the County of El Dorado.

Section 6104.2 - Geographic limits in which storage of liquefied petroleum gases is to be restricted for the protection of heavily populated and congested areas:

The limits, referred to in Section 6104.2 of the California Fire Code, in which storage of liquefied petroleum gas in excess of an aggregate of 2,000-gallon water capacity is restricted, are hereby established as limits of the Pioneer Fire Protection District, County of El Dorado.

1. The storage of liquefied petroleum gas in excess of an aggregate of 2,000-gallon water capacity when located at least one-half (1/2) mile from property zoned or designated for residential use and at least one-half (1/2) mile from existing residential development with a density greater than one (1) dwelling unit per acre and at least one-half (1/2) mile from any hotel or motel is allowed when AHJ approved and a Special/Conditional Use Permit is issued by the County of El Dorado.
2. Dispensing within established limits. Within the limits established by law restricting the dispersion of liquefied petroleum gas for the protection of heavily populated or congested areas, the aggregate capacity of any one installation shall not exceed a water capacity of 2,000 gallons. The dispensing of liquefied petroleum gas in excess of an aggregate of 2,000-gallon water capacity when located at least one-half (1/2) mile from property zoned or designated for residential use and at least one-half (1/2) mile from existing residential development with a density greater than one (1) dwelling unit per acre and at least one-half (1/2) mile from any hotel or motel is allowed when AHJ approved and a Special/Conditional Use Permit is issued by the County of El Dorado.

SECTION 5: CONFLICT

That - ORDINANCE NO. 2016-01 of the Pioneer Fire Protection District, and all other ordinances or parts of ordinances herewith are hereby repealed.

SECTION 6: SEVERABILITY

If any Ordinance, article, subsection or subdivision thereof, provision, sentence, clause or phrase of this code, or any application thereof, is for any reason held to be invalid by a court of competent jurisdiction, such decision shall not affect the remaining provisions of this code, which can be given effect without the invalid portions and, therefore, such invalid portions are declared to be severable. The Pioneer Fire Protection District hereby declares that it would have enacted this Ordinance and each of its articles, sections, subsections, or subdivisions thereof, provisions, sentences, clauses or phrases irrespective of the fact that one or more of them is declared invalid.

SECTION 7: EFFECTIVE DATE AND PUBLICATION

This Ordinance shall take effect thirty (30) days after its adoption. The Pioneer Fire Protection District Board Secretary is directed to publish this ordinance in a newspaper of general circulation in the District. In lieu of publication of the full text of the ordinance, a summary of the ordinance may be published by the by the Board Secretary within fifteen (15) days after its passage and a certified copy shall be posted in the office of the Pioneer Fire Protection District, pursuant to Government Code Section 36933(c) (1).

The above Ordinance was introduced at a meeting of the Board of Directors of the Pioneer Fire Protection District on September 13, 2016 and it was then read for the first time. The Ordinance was read for the second time on October 11, 2016 and approved by the following vote:

PASSED AND ADOPTED by the Board of Directors of the Pioneer Fire Protection District this, 11th day of October, 2016.

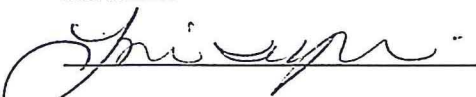
AYES: 4

NOES: 0

ABSENT: 0

ABSTAIN: 1

ATTEST:


Lori Ingram, Vice-Chair

ATTEST:


Allen Wood, Board Chair

2016 CFC Findings of Fact Matrix

2016 CFC Amended Code Section	Adopted	Adopted as Amended	Finding
111.4		X	Admin
503.2		X	Climatic/Geological/Topographical
503.2.1		X	Climatic/Geological/Topographical
503.2.5		X	Climatic/Geological/Topographical
503.2.6		X	Climatic/Geological/Topographical
503.4.2 through 503.4.5		X	Climatic/Geological/Topographical
507.5.1		X	Climatic/Geological/Topographical
604.1.2		X	Climatic/Geological/Topographical
903.2		X	Climatic/Geological/Topographical
903.2.a		X	Climatic/Geological/Topographical
903.2.b		X	Climatic/Geological/Topographical
903.2.1		X	Climatic/Geological/Topographical
903.2.c		X	Climatic/Geological/Topographical
903.2.3		X	Climatic/Geological/Topographical
903.2.4		X	Climatic/Geological/Topographical
903.2.7		X	Climatic/Geological/Topographical
903.2.9		X	Climatic/Geological/Topographical
903.2.10		X	Climatic/Geological/Topographical
907.2.a		X	Climatic/Geological/Topographical
907.2.b		X	Climatic/Geological/Topographical
907.2.c		X	Climatic/Geological/Topographical
907.2.d		X	Climatic/Geological/Topographical
5601.2		X	Geological/Topographical
Table 6104.3 Footnote "d"		X	Climatic/Geological/Topographical
6112.1		X	Climatic/Geological/Topographical
6112.2		X	Climatic/Geological/Topographical
6112.3		X	Climatic/Geological/Topographical
6113.1		X	Climatic/Geological/Topographical
6113.2		X	Geological/Topographical
Appendix B105.1		X	Climatic/Geological/Topographical
Table B105.1(1)		X	Climatic/Geological/Topographical
B105.2		X	Climatic/Geological/Topographical
Table 105.2		X	Climatic/Geological/Topographical
101.1 through 101.5	X		Admin
102.6 through 102.8	X		Admin
102.10 through 102.12	X		Admin
103.1 through 104.1	X		Admin
104.3 through 104.4	X		Admin
104.6 through 104.6.4	X		Admin
104.8 through 104.9.2	X		Admin
104.10.1 through 104.11.3	X		Admin
105.2.3	X		Admin
105.3.1 through 105.3.2	X		Admin
105.6.10	X		Admin
105.6.17 through 105.6.19	X		Admin
105.6.28	X		Admin

2016 CFC Findings of Fact Matrix

2016 CFC Amended Code Section	Adopted	Adopted as Amended	Finding
105.6.29 through 105.6.37	X		Admin
105.6.39 through 105.6.44	X		Admin
105.7.17 through 105.7.18	X		Admin
106.1	X		Admin
107.1 through 108.3	X		Admin
109.3.2 through 109.4.1	X		Admin
112.1	X		Admin
113.1 through 113.5	X		Admin
113.6	X		Admin
113.6.1	X		Admin
302	X		Admin
303.1 through 303.9	X		Climatic/Geological/Topographical
305.1 through 305.5	X		Climatic/Geological/Topographical
307.1 through 307.5	X		Climatic/Geological/Topographical
308.1 through 308.4.1	X		Climatic/Geological/Topographical
403.1	X		Climatic/Geological/Topographical
403.5 through 403.12	X		Climatic/Geological/Topographical
503	X		Climatic/Geological/Topographical
Appendix D104.1 through D104.3	X		Climatic/Geological/Topographical
D105.1 through D105.4	X		Climatic/Geological/Topographical
D106.1	X		Climatic/Geological/Topographical
D107.1	X		Climatic/Geological/Topographical
D107.2	X		Climatic/Geological/Topographical
Appendix F	X		Climatic/Geological/Topographical
Appendix N	X		Geological/Topographical