ORDINANCE NO. 4167

AN ORDINANCE of the City Council of the City of Kent, Washington, relating to fire impact fees; establishing a framework for the adoption of a fire impact fee program by the City; requiring the execution of an interlocal agreement between the City and the Kent Fire Department Regional Fire Authority (RFA) governing the operation of the fire impact fee program; providing for the adoption of fire district capital facilities plans as an element of the City’s Comprehensive Plan; allowing collection of impact fees by the City on new development affecting fire protection facilities; providing the formula for calculation of the fee schedule; describing the procedures for credit, appeal and refunds; all as authorized by the Growth Management Act, Chapter 36.70A RCW, along with RCW 82.02.050 through 82.02.100; and amending Title 12 of the Kent City Code by adding a new Chapter 12.15.

RECITALS

A. The City Council of the City of Kent ("Council") finds that adequate fire protection facilities should be provided to serve the population generated from new development in the City.

B. To ensure that fire protection facilities are available to accommodate expected growth when needed, the Council recognizes the cost of new fire protection facilities must be shared by the public and private sectors, but the imposition of fire protection impact fees upon

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developers cannot exceed the proportionate share of the expense of fire protection facilities reasonably related to the impacts of new development, pursuant to Chapter 36.70A RCW, the Growth Management Act (GMA), along with RCW sections 82.02.050 through 82.02.100.

C. An organized framework must be adopted for the determination and analysis of the Kent Fire Department Regional Fire Authority’s need for impact fees to partially fund fire protection facilities necessitated by new development and to allow the imposition and collection of those fees through collaboration between the City of Kent and the Kent Fire Department Regional Fire Authority.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF KENT, WASHINGTON, DOES HEREBY ORDAIN AS FOLLOWS:

ORDINANCE

SECTION 1. - Amendment. Title 12 of the Kent City Code, entitled “Planning and Land Development,” is hereby amended by adding a new Chapter 12.15, entitled “Fire Impact Fees” as follows:

Sec. 12.15.010. Findings and authority. The city council of the city of Kent hereby finds and determines that continuing growth and development in the city of Kent will create additional demands and need for fire protection facilities. The Council further finds that the Washington State Growth Management Act (Chapter 36.70A RCW) authorizes cities to require that new growth and development pay a proportionate share of the cost to partially fund fire protection facilities needed to serve the new growth and development.
Therefore, pursuant to Chapter 82.02 RCW, the council adopts this chapter to assess fire impact fees. The provisions of this chapter shall be liberally construed in order to carry out the purposes of the council in establishing the fire impact fee program.

**Sec. 12.15.020. Definitions.** The following words and terms shall have the following meanings for the purpose of this chapter:

A. *Capital facilities and equipment plan* means the RFA’s capital improvement plan adopted by the RFA’s governing board consisting of:

1. An inventory of existing capital facilities and equipment owned by the RFA, their locations, and capacities;

2. An identification of demands expected to be placed on existing fire protection facilities and equipment by the impacts of projected new development over a twenty-year period;

3. A forecast of future capital facilities and equipment necessary to meet the RFA’s adopted level of service with the increased service demand of future growth within the RFA;

4. The proposed locations of expanded or new capital facilities and equipment and the associated timeline for construction or expansion;

5. At least a six-year financing component, updated as necessary to maintain at least a six-year forecast period, for financing needed fire protection facilities within projected funding levels, and identifying sources of financing for such purposes, including bond issues; and
6. Any other long range projects planned by the RFA.

B. _City_ means the city of Kent.

C. _Developer_ means the person or entity that owns or holds purchase options or other development control over property for which development activity is proposed.

D. _Development activity_ means any residential or commercial construction or expansion of a building, structure or use, any change in use of a building or structure, or any change in the use of land that creates additional demand for fire protection facilities.

E. _Director_ means the city of Kent economic and community development director or the director’s designee.

F. _Encumbered_ means impact fees identified by the RFA as being committed as part of the funding for a fire protection facility for which the publicly funded share has been assured or building permits sought or construction contracts let.

G. _Fire protection facilities_ means fully equipped fire stations, administrative offices, training grounds and structures, maintenance facilities and other specialized facilities required for the RFA to locate, house or expedite the timely arrival of firefighting and emergency medical equipment, fire suppression equipment, and the staff necessary to deliver emergency response services within the RFA’s service area.

H. _Interlocal agreement_ means the agreement between the RFA and the city, governing the operation of the fire impact fee program and describing the relationship, duties and liabilities of the parties.

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I. **Impact fee** means a payment of money imposed upon development as a condition of development approval to pay for fire protection facilities needed to serve new growth and development that is reasonably related to the new development that creates additional demand and need for fire protection facilities, that is a proportionate share of the cost of the fire protection facilities, and that is used for facilities that reasonably benefit the new development. “Impact fee” does not include a reasonable permit or application fee.

J. **Impact fee schedule** means the table of impact fees to be charged per unit of development, computed by the formula adopted under this chapter, indicating the standard fee amount per dwelling unit or per commercial development that shall be paid as a condition of development within the city.

K. **Level(s) of service** means the standards adopted by the RFA for the delivery of fire and emergency medical response services, as set forth in the RFA’s adopted standard of cover and reflected in the capital facilities and equipment plan.

L. **Mitigation and level of service policy** means the policy adopted by the RFA and used to guide the mitigation of impacts imposed by new development upon the RFA’s ability to deliver services. The policy supports approval of development through appropriate mitigations that safeguard the community.

M. **RFA** means the Kent Fire Department Regional Fire Authority, a Washington State municipal corporation established and operating pursuant to Chapter 52.26 RCW.
N. Standard of cover or SOC means the written risk evaluation and standards of service document maintained by the RFA in compliance with international accreditation through the Center for Public Safety Excellence.

Sec. 12.15.030. Impact fee – Applicability. Impact fees, based on the RFA’s capital facilities and equipment plan adopted by the city council, shall be required for all development activity requiring city review and approval where the activity requires the issuance of a residential or commercial building permit. The impact fees shall be assessed and collected for each type of construction when the permit is issued, as provided for in this chapter.

Sec. 12.15.040. Exemptions.

A. The following development activities are exempt from the requirements of this chapter:

1. Shelters or dwelling units for temporary placement, which provide housing to persons on a temporary basis not exceeding two weeks;

2. Rebuilding or remodeling of a legally established structure destroyed or damaged by fire, flood, explosion, act of nature or other accident or catastrophe, provided that a building permit for the rebuilding or remodeling is issued within one year after the damage or destruction occurs. The exemption shall not apply to any additional structure or expansion of the original square footage that is proposed to be built on the same tax parcel on which the structure that was damaged or destroyed is being rebuilt or remodeled;
3. Projects in which existing dwelling units are converted into condominium ownership and where no new dwelling units are created;

4. Any development activity that is exempt from the payment of an impact fee pursuant to RCW 82.02.100(1), as amended;

5. Any development activity for which fire impacts have been mitigated pursuant to a voluntary agreement entered into with the RFA to pay fees, dedicate land or construct or improve fire protection facilities, provided that the agreement predates the effective date of fee imposition;

6. Any development of two hundred square feet or less that does not use or store hazardous materials that would create a life safety risk;

7. Alteration of an existing nonresidential structure that does not expand the useable space and that does not involve a change in use;

8. Demolition of or moving an existing structure within the city from one site to another;

9. Miscellaneous improvements that do not create additional demands and need for fire protection facilities, including, but not limited to, construction of accessory structures, as defined in KCC 15.02.005, fences, walls, swimming pools and signs;

10. Alteration, expansion or remodeling of an existing dwelling or accessory residential structure where the use is not changed;

11. Construction of an accessory dwelling unit on a parcel with an existing single-family dwelling unit; provided, however, that this shall only

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exempt the construction from two thirds of the normal residential impact fee that would otherwise apply; and

12. A development permit for a City project.

B. Pursuant to RCW 82.02.100(2), where automatic fire sprinklers are installed in single-family residential occupancies, a reduced fee equal to seventy percent of the impact fee shall serve to mitigate the costs of needed EMS and rescue resources.

C. The director shall be authorized to determine whether a particular development activity falls within an exemption identified in this chapter, or is exempt pursuant to other applicable law. Determinations of the director shall be subject to the appeals procedures set forth in KCC 12.15.110.

Sec. 12.15.050. Interlocal agreement between the city and the RFA. As a condition of the city’s authorization and adoption of a fire impact fee ordinance, the city and the RFA shall enter into an interlocal agreement governing the operation of the fire impact fee program, and describing the relationship and liabilities of the parties thereunder.

Sec. 12.15.060. Submission of RFA capital facilities and equipment plan and data.

A. On an annual basis, the RFA shall submit the following materials to the city council:

1. The RFA’s capital facilities and equipment plan (as defined in KCC 12.15.020(A)) as adopted by the RFA’s governing board. The capital facilities and equipment plan shall contain a six-year financing component as set forth in KCC 12.15.020(A);
2. The RFA’s growth projections over the next six years;

3. The RFA’s standard of service;

4. The RFA’s overall capacity to meet levels of service over the next six years, and the expected service improvements from fire protection facilities planned by the RFA but not yet built or implemented; and

5. An inventory of the RFA’s existing facilities.

B. To the extent that the RFA’s levels of service identify a deficiency in its existing facilities, the RFA’s capital facilities and equipment plan must identify the sources of funding other than impact fees, for building or acquiring the necessary facilities to serve the existing population in order to eliminate the deficiencies within a reasonable period of time.

C. Facilities to meet future demand shall be designed to meet the RFA’s adopted levels of service. If sufficient funding is not projected to be available to fully fund facilities which meet the adopted levels of service, the RFA’s capital facilities and equipment plan should document the reason for the funding gap, and identify all sources of funding and mitigation that the RFA plans to use to meet the adopted levels of service.

D. The RFA shall also submit an annual report to the city council showing the capital improvements which were serviced in whole or in part by the impact fees.

Sec. 12.15.070. Annual Council review. On an annual basis, the city council shall review the information submitted by the RFA pursuant to KCC 12.15.060(A)(1) and consider whether to adopt the same. The city
council's review and possible adoption shall occur in conjunction with any update of the capital facilities element of the city's comprehensive plan that occurs concurrently with the adoption or amendment of the city's budget.

Sec. 12.15.080. Impact fee program elements.

A. Impact fees will be assessed on every new structure in the city for which a fee schedule has been established.

B. Concurrently with the city's assessment of impact fees, the RFA will assess the proposed development's total impacts using the guidance of the RFA's mitigation and level of service policy. If it is determined by this policy that impact fees alone will not address fire service concurrency within a reasonable time, additional mitigations may be required to reduce development impacts. Subsequently, impact fees may or may not be reduced depending upon the mitigations imposed.

C. Consistent with RCW 82.02.050 through 82.02.100, any impact fee imposed shall be reasonably related to the impact caused by the development and shall not exceed a proportionate share of the cost of the system improvements that are reasonably related to the development.

D. The impact fee shall be based on the capital facilities and equipment plan developed by the RFA and approved by the RFA governing board, and adopted by reference by the city as part of the capital facilities element of the comprehensive plan for the purpose of establishing the fee program.
Sec. 12.15.090. Fee calculations.

A. The fee shall be calculated based on a RFA-wide basis using the appropriate factors and data to be supplied by the RFA as indicated in Attachment A of the RFA's mitigation and level of service policy using the formula set out in Appendix A of Attachment A, adopted herein by reference.

B. Separate fees shall be calculated for single-family, multifamily, commercial/industrial, assisted care and hospital and medical facilities, and other facilities as identified in Attachment A. For the purpose of this chapter, mobile homes and manufactured homes shall be treated as single-family dwellings and duplexes shall be treated as multifamily dwellings.

C. The formula in Attachment A provides for a credit where creditable mitigations are implemented or where voluntary agreements between the RFA and developer provide for fire protection facilities, fire facility sites, or other related developer contributions that the RFA finds acceptable.

D. The city may also impose an application fee, as established by council resolution, to cover the reasonable costs of administration of the impact fee program.

Sec. 12.15.100 Assessment and collection of impact fees.

A. At the time of issuance of a building permit by the city, including a permit for a manufactured home, the fire impact fee shall be assessed based on the impact fee schedule then in effect as calculated in Attachment A. The impact fee and the application fee, if any, shall be
collected by the city, and maintained in separate accounts. All fire impact fees shall be paid to the RFA from the fire impact fee account monthly. If the city imposes an application fee, the city shall retain the application fees associated with the city's administration of the impact fee program.

B. Collection of fire impact fees may be deferred upon the city's adoption of a deferral ordinance pursuant to ESB 5923.

Sec. 12.15.110. Determination of the fee – Adjustments – Exception – Appeals.

A. The director shall determine the amount of the fire impact fee, based upon the schedule provided by the RFA.

B. The developer shall be entitled to a credit for the value of any dedication of land for, improvement to, or new construction of any system improvements provided by the developer, to fire protection facilities that are identified in the capital facilities plan that are required by the city as a condition of approving the development.

C. The standard impact fees may be adjusted in one of the following circumstances:

1. The developer demonstrates that an impact fee assessment was improperly calculated; or

2. Where unusual circumstances are identified by the director, developer, or RFA, the fee may be adjusted in specific cases to ensure that impact fees are imposed fairly. Adjustments will be determined jointly by the director and the RFA’s designee.
D. In cases where a developer requests an independent fee calculation, adjustment exception or a credit pursuant to RCW 82.02.060(6), the director shall consult with the RFA and the RFA shall advise the director prior to making the final impact fee determination.

E. A developer may provide studies and data to demonstrate that any particular factor used by the RFA may not be appropriately applied to the development proposal.

F. Any appeal of the decision of the director with regard to fee amounts shall follow the process for the appeal of the underlying development application.

G. Impact fees may be paid under protest in order to obtain a building permit or a manufactured home permit.

Sec. 12.15.120. Impact fee accounts and refunds.

A. Impact fee receipts shall be earmarked specifically and retained in a special interest bearing account established by the RFA solely for the RFA’s fire impact fees. All interest shall be retained in the account and expended for the purpose or purposes for which impact fees were imposed. Annually, the RFA, based in part on its report prepared pursuant to KCC 12.15.060, shall prepare a report on the impact fee account showing the source and amount of all moneys collected, earned or received, and capital or system improvements that were financed in whole or in part by impact fees. The RFA shall submit a copy of this report to the city council annually. The city shall maintain a separate fire impact fee account and, if applicable, an administration fee account pursuant to KCC 12.15.100. The city’s finance department shall, upon request from the RFA, provide a memo to the city
council which will include an accounting of the annual amount of all fire impact fees collected and transferred to the RFA.

B. Impact fees for the RFA’s system improvements shall be expended by the RFA only in conformance with the RFA’s adopted capital facilities and equipment plan element of the comprehensive plan.

C. Impact fees shall be expended or encumbered by the RFA for a permissible use within ten years of when the fees were paid, unless there exists an extraordinary or compelling reason for fees to be held longer than ten years. Such extraordinary or compelling reasons shall be identified to the city by the RFA in a written report. The city council shall identify the RFA’s extraordinary and compelling reasons for the fees to be held longer than ten years in the council’s own written findings.

D. The current owner of property on which an impact fee has been paid may receive a refund of such fees if the impact fees have not been expended or encumbered within ten years of receipt of the funds by the RFA on fire protection facilities intended to benefit the development activity for which the impact fees were paid. In determining whether impact fees have been encumbered, impact fees shall be considered encumbered on a first in, first out basis. The RFA shall notify potential claimants by first class mail deposited with the United States postal service addressed to the owner of the property as shown in the county tax records.

E. An owner’s request for a refund must be submitted to the RFA in writing within one year of the date the right to claim the refund arises or the date that notice is given, whichever date is later. Any impact fees that are not expended or encumbered by the RFA in conformance with the capital facilities and equipment plan within these time limitations, and for
which no application for a refund has been made within this one-year period, shall be retained and expended consistent with the provisions of this section. Refunds of impact fees shall include any interest earned on the impact fees.

F. Should the city seek to terminate any or all fire impact fee requirements, all unexpended or unencumbered funds, including interest earned, shall be refunded to the current owner of the property for which a fire impact fee was paid. Upon the finding that any or all fee requirements are to be terminated, the city shall place notice of such termination and the availability of the refunds in a newspaper of general circulation at least two times and shall notify all potential claimants by first class mail addressed to the owner of the property as shown in the county tax records. All funds available for refund shall be retained for a period of one year. At the end of one year, any remaining funds shall be retained by the RFA, but must be expended by the RFA, consistent with the provisions of this section. The notice requirement set forth above shall not apply if there are no unexpended or unencumbered balances with the account or accounts being terminated.

G. A developer may request and shall receive a refund, including interest earned on the impact fees paid, when:

1. The developer does not proceed to finalize the development activity as required by statute or city code, including the international building code; and

2. No impact on the RFA has resulted.

H. Interest due upon the refund of impact fees required by this section shall be calculated according to the average amount received by the RFA
on invested funds throughout the period during which the fees were retained.

**SECTION 2.** - *Severability.* If one or more sections, subsections, or sentences of this ordinance is held to be unconstitutional or invalid, that decision will not affect the validity of the remainder of this ordinance and it will remain in full force and effect.

**SECTION 3.** - *Corrections by City Clerk or Code Reviser.* Upon approval of the city attorney, the city clerk and the code reviser may make necessary corrections to this ordinance, including the correction of clerical errors; ordinance, section, or subsection numbering; or references to other local, state or federal laws, codes, rules, or regulations.

**SECTION 4.** - *Effective Date.* This ordinance shall take effect and be in force thirty days from and after its passage, as provided by law.

Suzette Cooke, Mayor

ATTEST:

Ronald F. Moore, MMC

RONALD F. MOORE, CITY CLERK

APPROVED AS TO FORM:

TOM BRUBAKER, CITY ATTORNEY

16 Fire Impact Fee Amend Title 12
PASSED: 1st day of September, 2015.
APPROVED: 1st day of September, 2015.
PUBLISHED: 4th day of September, 2015.

I hereby certify that this is a true copy of Ordinance No. 4167 passed by the city council of the city of Kent, Washington, and approved by the Mayor of the city of Kent as hereon indicated.

RONALD F. MOORE, CITY CLERK

(SEAL)
Mitigation & Level of Service Policy

KENT FIRE DEPARTMENT
REGIONAL FIRE AUTHORITY

Mitigation and Level of Service Policy for Fire Service Concurrency
Adopted September 2014
This policy has been designed with two distinct purposes in mind, first to inform the lay reader regarding issues critical to maintaining fire service concurrency and second, to provide guidance to Kent Fire Department Regional Fire Authority's staff in implementing appropriate mitigations necessary for maintaining fire service concurrency within the Kent Fire Department Regional Fire Authority service area. The basis for impact and level of service contribution fees is derived from the revenues needed to maintain Kent Fire Department Regional Fire Authority's 2014–2033 Capital Improvement Plan. Data used in development of this policy was supplied by Kent Fire Department Regional Fire Authority.
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KFD REGIONAL FIRE AUTHORITY: MITIGATION & LEVEL OF SERVICE POLICY

1. Acronyms

ALS: Advanced Life Support
BLS: Basic Life Support
C&E: Capital and Equipment
CFAI: Commission on Fire Accreditation International
CPSE: Center for Public Safety Excellence
EMS: Emergency Medical Services
ERF: Effective Response Force
IAFC: International Association of Fire Chiefs
ICMA: International City/County Management Association
ISO: Insurance Services Office
KFDRFA: Kent Fire Department Regional Fire Authority
LOS: Level of Service
NFPA: National Fire Protection Association
SOC: Standard of Cover

2. Definitions

2.1. Call Stacking: Refers to the occurrence of simultaneous emergency calls. Call stacking occurs when more than one request for emergency assistance occurs within the same fire station service area. When this occurs, the primary response unit cannot answer the second emergency and a second fire unit from the same station must respond or a fire unit from a fire station much farther away responds.

2.2. Concentration: Refers to the deployment of multiple fire and rescue resources from within a fire service jurisdiction so that the proper number of resources needed for all types of emergency incidents can be assembled at the scene of an emergency within the defined level of service time.

2.3. Concurrency: Concurrency refers to the twelfth goal of the Washington State Growth Management Act\(^1\) which requires public facilities and services necessary for public safety to be adequate to serve new development without decreasing current service levels below locally established minimum standards.

\(^1\) Found in RCW 36.70A.020
2.4. Distribution: The deployment or "distribution" of fire stations and resources across a fire service jurisdiction so that the adopted first-in drive time standard for fire and rescue resources can be achieved.

2.5. Drive Time: The elapsed time needed for an emergency vehicle to travel to a dispatched address. Drive time begins when the wheels of a fire apparatus begin to roll in response to a dispatch and ends when the apparatus is parked at the scene of the dispatched address.

2.6. Effective Response Force: Refers to the number of resources and personnel needed to effectively provide fire or emergency medical services. The number of resources making up an effective response force varies by type of emergency.

2.7. Fire Impact Fee: A fee authorized under Chapter 82.02 RCW that is assessed on new development to pay a proportionate share of the costs associated with maintaining fire service concurrency inside of a jurisdiction that has adopted fire impact fees. Fire Impact fees must be adopted and authorized by the local land use authority (City of Covington, Kent, or King County).

2.8. Fire Level of Service Fee: A fee that is used to mitigate the direct impacts new development has upon fire services inside of a jurisdiction that has not adopted fire impact fees. Fire level of service fees are consistent with the Growth Management Act and applied through the SEPA process or in cooperation with the authority having permitting jurisdiction under RCW 54.18.110.

2.9. Fire Service Concurrency: See Concurrency

2.10. First-in: Refers to the first fire and rescue resource to arrive at the scene of an emergency. Distribution performance is a measure of first-in drive time.

2.11. Fractile Performance: Refers to the percentage of time a specified performance expectation is achieved. If an emergency response drive time of 5 minutes is achieved on 82 of 100 responses, the fractile performance would be 82%.

2.12. Full First Alarm: Refers to the number of fire resources and personnel assigned to a specific alarm type that is capable of assembling an effective response force.

2.13. Level of Service: Level of service (LOS) refers to the Kent Fire Department’s adopted time and performance expectations. Benchmark LOS is the targeted goal to achieve fire service concurrency. Baseline LOS is the minimum performance expectation. Service below baseline in considered response failure. Development
within areas below baseline performance should be opposed if adequate mitigation cannot be integrated into the project.

2.14. **Reliability:** Refers to the use of fire resource capacity. For a resource to be reliable, it must be available to answer emergency calls as least as often as the service expectation placed upon that resource. For instance, if a fire resource is expected to deliver service at the adopted standard 90% of the time, then that resource should be available to respond to an emergency incident from its assigned fire station at least 90% of the time. Reliability levels below the adopted performance expectation indicate resource exhaustion.

2.15. **Resource Exhaustion:** Resource exhaustion occurs when the demand for service placed upon a fire service resource is so great, that its fractile reliability begins to fall below the adopted level of service for that resource resulting in the need for resources from fire stations farther away to respond in place of the resource experiencing exhaustion. A fire station service area experiencing regular resource exhaustion will result in longer and longer response times unless additional resources are added to the fire station serving that area to create more capacity.

2.16. **Response:** Response refers to the movement of firefighters and fire apparatus to the scene of an emergency request for fire or emergency medical services. The request for response is generally issued through Valley Communications Center, the 9-1-1 answering point for the KFDRFA.

2.17. **Standard of Cover:** Refers to the in-depth process developed by the Center for Public Safety Excellence in their accreditation process for the strategic planning of fire station and fire resource deployment. Standard of Cover is the “Standard” to which the fire department will deliver service based upon community descriptions and the risks within those community types.
3. Concurrency Policy Statement

3.1. It is the policy of Kent Fire Department Regional Fire Authority (KFDRFA) to participate in the orderly growth of the community and to maintain concurrency of fire and life safety services as the community grows. Concurrency describes the ideal that service capacity of the KFDRFA shall grow with or stay concurrent with the impacts of development occurring within the service area. The KFDRFA recognizes that regional economic vitality depends upon orderly growth and supports community growth through development and is not opposed to new development.

3.2. However, new development and the population increase that comes with new development has a direct impact on the ability of the KFDRFA to maintain adopted levels of service and adequate public safety concurrently with development. Consequently, the KFDRFA opposes the negative impacts development imposes upon level of service performance and directs the Fire Chief to utilize the mitigation strategies found within this document to mitigate any and all negative impacts of development that threaten concurrency by reducing service capacity below the benchmark level of service standards adopted herein.

3.3. The Fire Chief shall cause the evaluation of each development proposed to occur within the service area. The Chief’s evaluation shall identify any adverse impacts that may affect the KFDRFA’s ability to maintain adopted benchmark levels of service and the mitigation strategies necessary to maintain concurrency with development. It is the intent of the KFDRFA to recognize when adequate service capacity exists and to only impose mitigations that are rational and relational to the impacts of new development upon service capacity.

4. Purpose Statement

4.1. The purpose of this policy is to establish guidelines for the implementation of monetary and non-monetary mitigations appropriate to maintaining fire service concurrency within the KFDRFA’s emergency response area. It is the intent to utilize the guidelines herein to mitigate the direct impacts of new development upon the KFDRFA’s ability to deliver fire and life safety services in accordance with its adopted level of service standards. Further, this policy as prepared shall constitute Growth Management, Impact Fee, State Environmental Protection Act (S.E.P.A.), and land subdivision Policy as adopted by the Board of Commissioners of Kent Fire Department Regional Fire Authority.
5. Consistency with other Plans and Policies:

5.1. To ensure that Kent Fire Department Regional Fire Authority (KFDRFA) will be able to meet the increasing demand for fire protection services resulting from future development and population growth, this policy utilizes the findings and conclusions of a number of plans and policies including but not limited to; Kent, Covington and King County Comprehensive Plans, KFDRFA's Capital Facilities Plan, Station Location Analysis, Standard of Cover and annual reports required by Chapter 52.33 RCW.

6. Introduction:

6.1. The primary responsibility of the KFDRFA is the delivery of fire and rescue services. The delivery of these services ideally originates from fire stations located throughout the service area. To provide effective service, firefighters must respond in a minimum amount of time after the incident has been reported and with sufficient resources to initiate meaningful fire, rescue, or emergency medical services.

7. The Importance of Time and Fire Service Measures

7.1. Time is the critical issue when an emergency is reported. Fire can expand at a rate of many times its volume per minute and as a result, quick response is critical for the rescue of occupants and the application of extinguishing agents to minimize loss. The time segment between fire ignition and the start of fire suppression activities has a direct relationship to fire loss.

7.2. The delivery of emergency medical services are also time critical. Survival rates for some types of medical emergencies are dependent upon rapid intervention by trained emergency medical personnel. In most cases, the sooner trained fire or emergency medical rescue personnel arrive, the greater the chance for survival and conservation of property. The importance of time and the critical factors affected by time are discussed in section 7.3.
7.3. Fire Department Total Reflex Time Sequence

7.3.1. There are five components of the fire department total reflex time sequence as defined below:

7.3.1.1. **Dispatch time:** Amount of time that it takes to receive and process an emergency call. This includes (1) receiving the call, (2) determining what the emergency is, (3) verifying where the emergency is located, (4) determining what resources and fire department units are required to handle the call, and (5) notifying the fire department units that are to respond.

7.3.1.2. **Turnout time:** The time from when fire department units are first notified of an emergency to the beginning point of response time. This includes discontinuing and securing the activity firefighters were involved in at time of dispatch, traveling by foot to their apparatus, donning appropriate protective clothing and taking a seat-belted position on the apparatus.

7.3.1.3. **Response/Drive time:** The time that begins when the wheels of a response vehicle begin to roll en route to an emergency incident and ends when wheels of the response vehicle stop rolling upon arrival at the address of the emergency scene.

7.3.1.4. **Access time:** Amount of time required for the crew to move from where the apparatus stops at the address of an emergency incident to where the actual emergency exists. This can include moving to the interior or upper stories of a large building and dealing with any barriers such as locked gates, doors or other restrictions that may slow access to the area of the emergency.

7.3.1.5. **Setup time:** The amount of time required for fire department units to set up, connect hose lines, position ladders, and prepare to extinguish the fire. Setup time includes disembarking the fire apparatus, pulling and placing hose lines, charging hose lines, donning self-contained breathing apparatus, making access or entry into the building, and applying water. The opportunity for saving time during setup is minimal, even for trained personnel.
7.3.1.5.1. Setup time also includes the time required for firefighters to deploy lifesaving equipment such as defibrillators, oxygen masks, and other rescue tools such as the jaws-of-life.

7.4. Flashover

7.4.1. The term flashover refers to the most dangerous time in fire growth. As a fire grows within a room, its radiant heat is absorbed by the contents of the room heating up the combustible gases and furnishings to their ignition point until finally the entire room bursts into flame.

Figure 1: Photo of a Witnessed Flashover

7.4.2. Measuring the time to flashover is a function of time and temperature. Fire growth occurs exponentially; that is, fire doubles itself every minute of free burn that is allowed.

7.4.3. There are a number of factors that determine when flashover may occur. These include the type of fuel, the arrangement of the fuels in the room, room size, and so on. Because these factors vary, the exact time to flashover cannot be predicted, making quick response and rapid fire attack the best way to control fire, protect life and reduce fire loss.
7.4.4. Over the past 50 years, fire engineers agree that the replacement of wood and other natural products with plastics and synthetic materials for interior furnishings has resulted in increased fuel loads, higher fire temperatures and decreasing time to flashover, making quick response more important than ever. Flashover can typically occur from less than four (4) to beyond 10 minutes after free burning starts depending upon the air or oxygen supply available to the fire.

7.4.5. Figure 2: Time vs. Products of Combustion, shows the progression of fire and how some time frames can be managed by the fire department and some cannot. The elapsed time from fire ignition to fire reporting varies but can be indirectly managed through the use of remotely monitored fire alarm and suppression systems to help mitigate the growth of fire. These systems can automatically report the presence of a fire to a public safety answering point (PSAP) or 9-1-1 center. In a perfect world, all structures would be equipped with a monitored fire alarm and automatic fire sprinkler system to help reduce dispatch time and speed the arrival of fire department resources allowing firefighters to arrive at the scene when fires are smaller and more controllable.

(Intentionally blank to Figure 2)
Figure 2: Time vs. Products of Combustion

This diagram illustrates fire growth over time and the sequence of events that may occur from ignition to suppression. Depending on the size of room, contents of the room and available oxygen, flashover can occur in less than 2 or more than 10 minutes. Flashover occurs most frequently between 4 and 10 minutes.

7.4.6. It is important to note the significance of automatic fire sprinklers, as the above exhibit illustrates. Fire sprinklers in both residential and commercial occupancies will activate to help control a fire long before the arrival of firefighting resources. Automatic fire sprinklers control fire and buy firefighters significant time toward saving lives and minimizing loss from fire. In the KFDRFA’s case, there are often too few resources available to supply a full first alarm and the effective response force resources required for a structure fire. As a result, it is typical for structure fire responses to be supplemented with mutual aid companies from other jurisdictions or volunteer resources that take much longer to arrive, limiting the KFDRFA’s overall ability to control larger fires.

7.5. Consequences of Flashover

7.5.1. Once flashover occurs, it is no longer possible for survival in the room of flashover. Not even firefighters in complete protective gear can survive the
intense heat of flashover. A post-flashover fire burns hotter and moves faster, compounding the search and rescue problems in the remainder of the structure at the same time that more firefighters are needed to deal with the much larger fire problem.

7.5.2. Because of the dramatic change in fire conditions post flashover, all fire based performance standards attempt to place fire resources on scene of a fire prior to flashover.

7.6. Brain Death in a Non-Breathing Patient

7.6.1. The delivery of emergency medical services (EMS) by first responders is also time critical for many types of injuries and events. If a person has a heart attack and cardiopulmonary resuscitation (CPR) is started within four minutes, that person’s chances of leaving the hospital alive are almost four times greater than if they did not receive CPR until after four minutes. Exhibit 3 shows the survival rate for heart attack victims when CPR is available.

7.6.2. Chances of survival are increased with the intervention of a cardiac defibrillator. All KFDRFA units carry defibrillators. Exhibit 4 shows the

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2 Source: National Fire Protection Association Handbook Volume 19
survival rate of a heart attack victim with CPR and defibrillation.

Figure 4: Cardiac Survival with CPR and Defibrillation

8. National Fire Service Standards for Performance:


8.1.1. NFPA 1710 establishes Standards for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments and contains the following time objectives:

8.1.1.1. Turnout time:
- Fire based response: 1 minute 20 seconds (80 seconds)
- Medical based response: 1 minute 00 seconds (60 seconds)

8.1.1.2. Fire response/drive time: Four minutes (240 seconds) or less for the arrival of the first arriving engine company at a fire suppression incident and/or eight minutes (480 seconds) or less for the deployment of a full first alarm assignment at a fire suppression incident

Data Source: King County Emergency Medical Services
8.1.1.3. **First responder or higher emergency medical response/drive time:** Four minutes (240 seconds) or less for the arrival of a unit with first responder or higher-level capability at an emergency medical incident.

8.1.1.4. **Advanced life support response/drive time:** Eight minutes (480 seconds) or less for the arrival of an advanced life support unit at an emergency medical incident, where the service is provided by the fire department.

8.1.1.5. The standard NFPA 1710, states that the fire department shall establish a performance objective of not less than 90 percent for the achievement of each response time objective. NFPA 1710 also contains a time objective for dispatch time by requiring that "All communications facilities, equipment, staffing, and operating procedures shall comply with NFPA 1221." NFPA 1221 sets the performance standard for dispatch time at 1 minute (60 seconds) 90 percent of the time.

8.1.1.6. Adding the three separate time segments together, the NFPA expects the following temporal benchmarks to be performed at least 9 out of every 10 times from receipt of a 9-1-1 call to the arrival of fire and EMS resources:

- **Fire call**
  - First-in Dispatch = 1:00 + Turnout = 1:20 + Drive = 4:00 = 6:20
  - Full alarm Dispatch = 1:00 + Turnout = 1:20 + Drive = 8:00 = 10:20
- **EMS – Basic Life Support (BLS)**
  - First-in Dispatch = 1:00 + Turnout = 1:00 + Drive = 4:00 = 6:00
  - Full Alarm Dispatch = 1:00 + Turnout = 1:00 + Drive = 8:00 = 10:00
- **EMS – Advanced Life Support (ALS)**
  - First-in Dispatch = 1:00 + Turnout = 1:00 + Drive = 4:00 = 6:00
  - Full alarm Dispatch = 1:00 + Turnout = 1:00 + Drive = 8:00 = 10:00

8.2. **Center for Public Safety Excellence Standards of Response Coverage**

8.2.1. The Center of Public Safety Excellence is a consortium of the International Association of Fire Chiefs (IAFC), the International City/County Management Association (ICMA), the National Fire Protection Association (NFPA) and the Insurance Services Office (ISO). Together this group has established the Commission on Fire Accreditation International (CFAI) and criteria for fire departments to achieve Accredited Agency Status. Critical to achieving Accredited Agency Status is an assessment of the fire department’s ability to
effectively deliver service. To make this assessment, the CFAI has established a methodology for; determining the fire service risk of a community, assessing the fire department's capability compared to risk, measurement of resource capacity, and guidelines for performance standards to assess overall capabilities of a fire department. The CFAI publishes this methodology in its Standards of Cover manual.

8.2.2. The term standard of cover refers to the “standard(s)” to which a fire department runs daily operations in order to “cover” the service area of the fire department. The CFAI process for establishing a Standard of Cover has nine parts that are described below with relevant information to the KFDRFA:

8.2.2.1. **Existing deployment assessment:** Identifies current inventory of fire stations, apparatus and staffing. KFDRFA’s stations apparatus and staffing are found in the 2008 fire station study and in the KFDRFA’s Capital Improvement Plan in Section 3, Physical Capital Resources.

8.2.2.2. **Review of Community outcome expectations:** Ultimately, level of service standards are driven by the community. The KFDRFA’s standards have been adopted herein and by the Cities of Kent and Covington in their Comprehensive Plan, both have undergone a public review and hearing process.

8.2.2.3. **Community risk assessment:** The CFAI identifies the service area definitions, and benchmarks and baselines for performance in Figure 5: Community Definitions and Performance Expectations on the next page. The KFDRFA provides fire and life safety services to approximately 173,000 people across 60 square miles and serves rural, suburban and urban communities.
8.2.2.4. **Distribution of Resources:** Fire stations should be distributed so that resources deployed from them can provide coverage to the response area within the level of service (LOS) standard established for first-in fire and rescue units. The KFDRFA’s Standard of Cover has revealed service areas where current fire station deployment cannot meet adopted service levels.

8.2.2.5. **Concentration of Resources:** Fire resources should be concentrated near high demand areas and in large enough numbers of equipment and personnel to provide an effective response force with the full first alarm assignment. Because of a lack of resources, KFDRFA often relies on resources from neighboring fire departments to assemble an effective response force.

8.2.2.6. **Capacity Analysis/Reliability:** To achieve an adopted performance standard, resources must be available or “reliable” at least as often as their adopted performance expectation. Historic reliability below the adopted performance standard places the service area in “Resource Exhaustion” and creates call stacking and simultaneous calls within a
specific service area. KFDRFA is currently experiencing resource exhaustion at Stations 71 and 74 where reliability is below 90%.

8.2.2.7. **Historical response effectiveness studies:** The percentage of compliance the existing response system delivers based on current LOS. Section 4.5 of the KFDRFA Capital Improvement Plan, identifies historical sub-standard performance.

8.2.2.8. **Prevention and mitigation:** Prevention and mitigation directly impacts the level of safety for responding firefighters and the public. Using analysis of risk and looking at what strategic mitigations can be implemented may not only prevent the incident from occurring but may also minimize the severity when and if the incident ever occurs.

8.2.2.8.1. The KFDRFA works closely with the Cities of Kent and Covington to reduce risk by providing enforcement of the International Fire Code. This policy will provide the additional mitigations necessary to maintain fire service concurrency.

8.2.2.9. **Overall evaluation:** "In 90 percent of all incidents, the first-due unit shall arrive within 4 minutes travel or 6 minutes 20 seconds of total reflex time which includes; dispatch, turnout and response times. The first-due unit shall be capable of advancing the first hose line for fire control, starting rescue procedures or providing basic life support for medical incidents. In a moderate risk area, an initial effective response force shall arrive within 8 minutes travel or 10 minutes 20 seconds of total reflex time, 90 percent of the time, and be able to provide 1,500 gallons per minute for firefighting, or be able to handle a five-patient emergency medical incident." Tables 12, 13 & 14 in the KFDRFA Capital Improvement Plan, identifies historical sub-standard performance.
9. State and Local Standards

9.1. Washington State Law

9.1.1. Chapter 52.33 RCW requires fire departments with paid staff to establish Level of Service (LOS) policies and performance objectives based on the arrival of first responders with defibrillation equipment prior to brain death and the arrival of adequate fire suppression resources prior to flashover. This law recognizes the NFPA’s Standard 1710 and the Commission on Fire Accreditation International’s (CFAI) Standard of Cover as bases for this statute and requires a 90% performance expectation of the established LOS.

9.2. King County Standards

9.2.1. The King County Comprehensive Plan and Countywide Planning Policies are based on the concept of concurrency and require that adequate facilities and services be available or be made available to serve development as it occurs. The County Comprehensive Plan recognizes the validity of using a response time analysis in determining appropriate service levels and recognizes the central role of fire protection districts in providing those services.

9.3. City Kent Response Standards

9.3.1. The Kent Comprehensive Plan has adopted the following fire service response standards:

9.3.1.1. First due unit for both fire and EMS shall arrive on scene within 7 minutes of initial dispatch 80% of the time

9.3.1.2. Structure Fires: 16 firefighters on scene within 10 minutes of origin of emergency call 80% of the time.

9.3.1.3. Advanced life support incidents: 5 to 6 first responders on scene within 10 minutes of initial dispatch 80% of the time.

9.4. KFDRFA’s LOS Standard

9.4.1. As an Accredited Agency, the KFDRFA has established benchmark and baseline performance measures following the guidelines established by the
Center for Public Safety Excellence (CPSE) as published in their 8th edition of the Commission on Fire Accreditation (CFAI) Self-Assessment Manual. Benchmark performance represents industry best practices and baseline performance indicates minimum standards capable of limiting the loss of life and property. Agencies performing below baseline standards are considered in response failure and are not considered for Accredited Agency Status by the CFAI. Performance below benchmark standards can contribute to unnecessary property and life loss.

**Figure 6: KFDRFA Turnout Time Performance Objectives**

<table>
<thead>
<tr>
<th>Performance Type</th>
<th>Urban</th>
<th>Suburban</th>
<th>Rural</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benchmark</td>
<td>1 min, 55 sec</td>
<td>1 min, 55 sec</td>
<td>1 min, 55 sec</td>
<td>90% of the time</td>
</tr>
<tr>
<td>Baseline</td>
<td>2 min, 25 sec</td>
<td>2 min, 25 sec</td>
<td>2 min, 25 sec</td>
<td>90% of the time</td>
</tr>
</tbody>
</table>

**Figure 7: KFDRFA Baseline Drive Time Performance Objectives**

<table>
<thead>
<tr>
<th>Community &amp; Performance</th>
<th>Urban @ 90%</th>
<th>Suburban @ 90%</th>
<th>Rural @ 90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution</td>
<td>5 min, 40 sec</td>
<td>6 min, 10 sec</td>
<td>6 min, 35 sec</td>
</tr>
<tr>
<td>Mini Concentration⁴</td>
<td>7 min, 05 sec</td>
<td>7 min, 10 sec</td>
<td>7 min, 30 sec</td>
</tr>
<tr>
<td>Full Concentration⁵</td>
<td>11 min, 00 sec</td>
<td>11 min, 00 sec</td>
<td>11 min, 00 sec</td>
</tr>
</tbody>
</table>

**Figure 8: KFDRFA Benchmark Drive Time Performance Objectives**

<table>
<thead>
<tr>
<th>Community &amp; Performance</th>
<th>Urban @ 90%</th>
<th>Suburban @ 90%</th>
<th>Rural @ 90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution</td>
<td>4 min, 15 sec</td>
<td>4 min, 35 sec</td>
<td>5 min, 30 sec</td>
</tr>
<tr>
<td>Mini Concentration⁴</td>
<td>6 min, 30 sec</td>
<td>6 min, 45 sec</td>
<td>7 min, 00 sec</td>
</tr>
<tr>
<td>Full Concentration⁵</td>
<td>8 min, 00 sec</td>
<td>9 min, 00 sec</td>
<td>10 min, 00 sec</td>
</tr>
</tbody>
</table>

⁴ Mini-Concentration force is the arrival of at least three engines to fires or two units for medical incidents.

⁵ Full-Concentration is the arrival of the full first alarm assignment.
10. Local Restriction on Level of Service

10.1. The KFDRFA has assessed its ability to deliver service in compliance with established national standards finding that current deployment will not allow the department to meet recognized standards. As a result of the level of service analysis, the KFDRFA has completed a fire station deployment study with a focus on determining the optimum station location and resource deployment necessary to achieve effective response times. This study has considered the National Fire Protection Association’s Standard 1710, the Center for Public Safety Excellence’s (CPSE) Standard of Coverage recommendations and Chapter 52.33 RCW in establishing standards for emergency response.

10.2. Because of resource limitations and budget restrictions, the KFDRFA has adopted drive time level of service standards that exceed the benchmark standards established by NFPA 1710, the CPSE and the guidelines of Chapter 52.33 by as much as 2 minutes and 15 seconds.

11. Need for Mitigation of Development Impacts

11.1. The KFDRFA’s current fire system performance falls short of national standards and in many parts of the service area performance compared to the CFAI baseline standards would be considered in response failure. Any additional impacts posed by new development will further erode the KFDRFA’s ability to deliver service at adopted standards.

11.2. As a result of the economic recession that began in 2008, normal tax revenues available to the KFDRFA have been reduced because of the reduction in assessed property values. The KFDRFA is dependent upon property tax revenues generated from a levy of $1.00 per thousand dollars of assessed real and personal property value and a Fire Benefit Charge. Declining property values, the statutory tax levy capacity of $1.00 and the nationwide recession has resulted in declining revenues, staff reductions and delays in equipment replacements within the KFDRFA. Traditional funding of capital replacement programs has been shifted to meet
operating expenses which is largely made up of salary and benefits for firefighters and other staff leaving the capital plan under funded.

11.3. Unless new development can mitigate their impacts to the KFDRFA system in accordance with this policy, the KFDRFA must oppose each and every development occurring within the KFDRFA service area.

12. Determining Development Impacts

12.1. Concepts of Fire Service Capacity and Cascading Failure:

12.1.1. The deployment of fire and life safety resources such as fire engines and emergency medical vehicles is geographically based through planned selection of fire station locations. Fire station locations must be carefully chosen to allow the resource(s) deployed from these locations to reach all portions of the fire stations assigned service area within a time frame capable of providing successful outcomes for critically injured or non-breathing patients and to prevent flashover and minimize life and property loss during a structure fire.

12.1.2. This type of geographic deployment depends on the availability of the resources assigned to that fire station location. System failure begins to occur when the demand for these resources is increased to a point where simultaneous requests for a resource begins to commonly occur as a result of exceeding the capacity of that resource. When service demand exceeds a single resource fire station’s capacity, a resource from a fire station further away must respond in its place. The result of this situation is often referred to as cascading failure. The failure of one resource to be available to answer emergency calls cascades to the next closest fire station resource, leaving two service areas unprotected when the covering resource vacates its assigned area to make up for lack of capacity of the failing resource. This effect continues to cascade out with a ripple effect to yet other fire stations and jurisdictions.

12.1.3. Cascading failure causes longer drive times to reach emergency scenes and as a result, it is less likely that those resources can positively affect the negative outcomes of flashover and brain death.

12.1.4. The solution to cascading failure is the addition of service capacity through the deployment of additional response resources to the fire station that is experiencing substandard reliability. The deployment of additional fire
resources results in considerable expense to a community, therefore a delicate balance must be maintained to use but not exceed the service capacity of resources.

12.1.5. The Center for Public Safety Excellence refers to a fire resource’s capacity in their Commission on Fire Accreditation Standards of Cover guidelines, in terms of level of “reliability” of a fire resource. If a resource is available at least as often as the expected performance measurement, it is considered reliable.

12.1.6. The KFDRFA’s ability to meet its response time standards is directly affected by resource reliability.

12.2. Components of Response:

12.2.1. The KFDRFA measures the direct impact of an individual development on system performance by determining the development’s impact on service capacity and fire department response times. Fire department response times have two primary measures. First is the arrival time of the initial arriving “first-in” or distribution resource. Second is the arrival of all resources needed to effectively mitigate the incident which is referred to as the “Effective Response Force” (ERF) or concentration resources. The ERF is also commonly referred to as the full first alarm assignment. An initial arriving resource can begin to render aid or perform other necessary tasks as a component of the ERF but cannot resolve the incident alone. An ERF for a life threatening medical call requires two or more fire resources and a structure fire requires five or more fire resources. The additional resources of the ERF must respond from greater distances than the first-in resource therefore the first-in and ERF have two separate performance expectations.

12.3. Effect of Development on Fire System Performance:

12.3.1. Each new development uses service capacity affecting the reliability and the temporal performance of fire service resources. Where service capacity exists to accommodate the impacts of new development, mitigations should be reduced accordingly to allow new development credit for the existing capacity. However, service capacity or resource reliability must be carefully measured to assess the reliability and response performance of both first-in and full first alarm (ERF) resources.
12.3.2. It is important to understand whether a new development is placed nearer to or farther from a fire station, its use of service capacity will have a negative effect on the fire service systems performance.

12.3.3. Mitigations necessary to maintain fire service concurrency is not dependent on geographical location within a fire stations service area but on the fact that each development consumes service capacity negatively affecting reliability and response performance. Those developing property close to an existing fire station directly impact the system because they are using capacity that would otherwise serve more distant development. As close-in properties develop, they in turn, directly impact the system by reducing resource reliability for those developments that are more distant.

12.4. Mitigation Actions Required:

12.4.1. The KFDRFA’s limited funding and resources has caused the need to adopt standards that establish levels of service below nationally recognized benchmark standards and as a result, all new development has a direct impact on the KFDRFA’s service capacity.

12.4.2. When system inadequacies exist, the impact of each new development will have an unacceptable direct impact on the KFDRFA’s ability to provide service. Each new development shall be reviewed to determine whether it will further impact the following identified service deficiencies. Mitigation shall be required if any one or more of the following performance deficiencies listed below exist within the service area of the proposed development:

12.4.2.1. Historical performance data shows arrival time for first-in unit response times exceed the adopted Level of Service standard.

12.4.2.2. Historical performance data shows arrival time of full first alarm units exceed the adopted Level of Service standard.

12.4.2.3. Historical performance data shows fractile reliability of first in units is equal to or less than 5% more than the adopted Level of Service on a 24 hour bases or equal to or less than the adopted standard during peak demand hours.
12.4.2.4. Historical performance data shows fractile reliability of Full First Alarm resources is equal to or less than 5% more than the adopted Level of Service during peak demand hours.

12.4.2.5. Historical data shows evidence that more than one mutual-aid company has been consistently relied upon to provide an Effective Response Force to the area of proposed development.

12.4.2.6. Less than 1,500 gallons of fire flow is available when any structure to structure spacing is less than 15 feet from any part of another structure.

12.5. Mitigation Options:

12.5.1. The KFDRFA staff may utilize the options listed below and/or any State or locally adopted building code set, and any NFPA or other recognized standard to mitigate the impacts of new development upon the ability of the KFDRFA to deliver service.

12.5.2. Acceptable mitigations shall include but not be limited to one or more of the following options:

12.5.2.1. Installation of automatic fire sprinkler systems to provide onsite fire control until KFDRFA response units can arrive on scene.

12.5.2.1.1. All automatic fire sprinkler systems shall comply with NFPA 13.

12.5.2.1.1. Flow through or “Multi-Purpose” systems may be allowed in one and two family structures upon approval of the Fire Marshal representing the authority having jurisdiction (Covington, Kent or King County).

12.5.2.2. Installation of monitored alarm and alerting systems to provide early alerting to the KFDRFA.

12.5.2.3. Installation of fire walls or other building separations to reduce fire flow and/or firefighting resource requirements.

12.5.2.4. Use of alternate construction materials to reduce chance of fire spread between structures.
12.5.2.5. Installation of intercom systems in multi-family housing to assist evacuation and sheltering in place.

12.5.2.6. Addition of access enhancements such as secondary access points, fire lanes, ambulance parking spaces etc.

12.5.2.7. Installation of incident reduction features such as grab bars in senior and disabled housing units

12.5.2.8. Installation of monitored medical alarms

12.5.2.9. Installation of alarm monitored defibrillators in public areas of multi-family housing, places of assembly, and public buildings.

12.5.2.10. Impact Fees.

12.5.2.11. Level of Service Fees

12.5.3. Selected mitigation measures should be relational to the risk imposed by the development. Time is the critical issue in the delivery of fire and emergency medical services. Mitigation measures should be appropriate and adequate to achieve a level of public safety that would be equivalent to the KFDRFA’s achievement of response time standards.

13. Developer Agreements Required

13.1. Developer agreements are required for all developments occurring within the KFDRFA service area. The KFDRFA and the development applicant shall enter into a mitigation agreement that clearly identifies all mitigation required to maintain fire service concurrency.

13.1.1. Exceptions:
13.1.1.1. Where the development occurs within the City of Covington and impact fees are the only mitigation required, an agreement may not be necessary when utilizing the City of Covington’s impact fee policies will ensure collection of impact fees.

13.1.1.2. When all mitigation requirements are included as plat notes into the approved and permitted land use plans, a mitigation agreement may not be required.
13.2. Basis for Calculating Impact and Level of Service Fees:

13.2.1. Boundaries: As a point of reference, the KFDRFA boundaries shall be used as a determinant or benchmark as to the extent of capacity of service according to the KFDRFA’s adopted response time standards. This policy may be applied to all or administratively defined areas within the boundaries of the KFDRFA.

13.2.2. Property Categories: Properties are grouped by two basic categories, residential, and commercial. Residential properties shall include both single family and multifamily units. Commercial property shall be those property uses that would otherwise be classified as industrial, business, retail sales and services, wholesale sales, storage, assisted care facilities and hospital and medical facilities.

13.2.3. Capital Improvements: The KFDRFAs Capital Improvement Plan identifies the resources and revenue needed to provide adequate service and maintain public health and safety over a 20 year planning cycle. Each year an updated Six Year Capital Plan shall be adopted to provide current levels of service and provide the basis for updating construction and equipment costs and impact and level of service fees.

13.2.4. Fire Department Service Demand: Past demand for fire department services to property categories identified above, shall be used to predict future service level demand to those property types. The percentage of service use by new development and its impact on the KFDRFA Service Levels shall be used to determine appropriate and relational contributions for each property type (see Appendix A, Res/Com Split). Needed expenditures for improvements identified in the KFDRFA Capital Improvement Plan will be the basis for determining the construction and equipment costs (C&E) which are used in calculating impact fees and level of service contributions.

13.2.5. Usage Factor: The specific use of fire services by land use category. Use factors are based on actual call rates. (see appendix B)

13.2.6. ERF (Effective Response Force) Factor: The minimum amount of staffing and equipment that must reach a specific emergency location within the maximum adopted level of service time capable of fire suppression, EMS and/or other incident mitigation.
13.2.7. New Development Share: That portion of the LOS fee to be paid for by new development. New Development share is used to assure that new development does not solely pay for improvements that increase the ability to serve throughout the KFDRFA.

13.2.8. Projected Development. The 20 year development capacity analysis found in the KFDRFA’s Capital Improvement Plan will be the basis for KFDRFA calculations of future dwelling units and future square-footage of commercially developed properties.

14. Mitigation Methodology and Fee Application:

14.1. New Development Assessment:

14.1.1. Impact Fees & Mitigations

14.1.1.1. In areas where fire service impact fees have been adopted in support of the KFDRFA by the authority having jurisdiction to permit building and land uses, each new proposed development will have a capacity analysis completed to determine the system wide impacts the proposed development will have on fire concurrency within the KFDRFA service area.

14.1.1.2. System impacts will be assessed utilizing the KFDRFA’s Mitigation Assessment Worksheet. (See Appendix B)

14.1.1.3. Impact fees will be calculated and determined by applying the appropriate formula found in Appendix A

14.1.1.4. KFDRFA staff will determine appropriate non-fee mitigations that will provide adequate protection necessary to provide fire service concurrency to the proposed development.

14.1.1.5. KFDRFA staff shall consider developer submitted alternate mitigations and fee amounts presented in a study that provides acceptable alternatives to the mitigations found in this policy.
14.1.2. Level of Service Fees & Mitigations

14.1.2.1. In areas where fire service impact fees have not been adopted in support of the KFDRFA by the authority having jurisdiction to permit building and land uses, each new development when proposed, and upon notice of application, shall have their direct impacts assessed and their appropriate mitigation options determined.

14.1.2.2. The KFDRFA shall pursue all appropriate mitigations necessary to maintain public safety and fire service concurrency through the provisions provided by the Growth Management Act (GMA), State Environmental Protection Act (SEPA), Washington State subdivision codes, and the adopted land use regulations in the authority having jurisdiction.

14.1.2.3. Direct impacts will be assessed utilizing the KFDRFAs Mitigation Assessment Worksheet. (See Appendix B)

14.1.2.4. Appropriate Level of Service Contribution fees will be calculated and determined by applying the formula found in Appendix A

14.1.2.5. KFDRFA staff will determine appropriate non-fee mitigations that will provide adequate protection necessary to provide fire service concurrency to the proposed development.

14.1.3. Impact and Level of Service Fee Reduction:

14.1.3.1. Where automatic fire sprinklers are installed in single family residential occupancies, a reduced fee equal to 70% of the impact or level of service fee shall serve to mitigate the costs of needed EMS and rescue resources. Additional reductions shall be applied as identified on the KFDRFA Service Capacity Analysis worksheet in Appendix B.

14.1.4. Fee Payment Policy:
14.1.4.1. Payment of impact fees within the adopting cities will be collected by the city having jurisdiction at time of permitting or as defined by a required development agreement. Impact or level of service fees shall be based on the most recently adopted formula and fees. Any fees paid later than required shall be subject to interest at a rate of one (1) percent per month.

14.1.4.2. All impact fees and level of service contributions collected shall be held by the KFDRA in a reserve account used to fund the KFDRA's Capital Improvement Plan. If impact fees are not utilized within ten years of receipt or five years of receipt for level of service fees, a refund will be issued to the developer with interest.

14.1.4.3. In all cases, it is the KFDRA's intent to collect impact and level of service fees in a manner consistent with this section. However, in an interest to work with developers in as fair and equitable fashion as possible, the KFDRA staff shall use the following guidelines for negotiating payment schedules.

14.1.4.3.1. Residential fee payment:

14.1.4.3.1.1. Collection of all residential impact and level of service fees shall be collected at the time of building permit issuance by the local land use authority and level of service fee payments should occur at the time of final platting or prior to the start of construction. In extenuating circumstances the following payment option may be exercised. Any fees received late from any payment option will be subject to interest penalties of one (1) percent per month.

14.1.4.3.1.2. Fees shall be at least 50% collected at the time of building permit issuance for a structure and the remaining balance of the fire fee paid within three business days of the issuance of a certificate of occupancy for the structure that the fee was to be paid for.

14.1.4.3.2. Commercial fee payment:
14.1.4.3.2.1. Collection of all commercial impact and level of service fees shall be collected by the time of building permit issuance where impact fee authority exists and level of service fee amounts should occur at time of final platting or prior to the start of construction.

14.1.4.4. Fee Exempt Properties:

14.1.4.4.1. Religious buildings constructed for the sole purpose of religious worship or education

14.1.4.4.2. Existing structures retained and incorporated into a new subdivision of land.

14.1.4.4.3. Square footage of new construction equal to the percentage of square footage of existing structures to be redeveloped.

14.1.4.4.4. Public education facilities constructed for the sole purpose of academic education

14.1.4.5. Agreements:

14.1.4.5.1. All mitigation agreements between the KFDRFA and developers shall be recorded as a lien against the property of the proposed development unless the developer agrees to include all mitigation requirements specified in the agreement in the approved plat notes. Upon receipt of payment, the KFDRFA will promptly notify the appropriate authority having jurisdiction and remove any encumbrances recorded against the appropriate property.

14.1.4.5.2. KFDRFA Funding Participation: There is currently an identified need for additional fire facilities and equipment in the KFDRFA. The KFDRFA will share in the expense of needed resources as outlined in Section 7.3 20 year Funding Plan of the KFDRFA Capital Improvement Plan, and in the following manner:

14.1.4.5.2.1. The KFDRFA will be directly responsible for the percentage of construction and equipment costs beyond the growth share determined for new developments
14.1.4.5.2.2. The KFDRFA will contribute shortages as a result of loss of, or default on collections of impact and level of service fees.

14.1.4.5.2.3. Estimated revenues are never fully realized from development and the KFDRFA will need to supplement shortages.

14.1.4.5.2.4. The KFDRFA will contribute the actual construction and other costs exceeding original estimates.

14.1.4.5.2.5. Payment of unanticipated costs associated with implementing the KFDRFA Capital Improvement Plan.

14.1.4.5.2.6. Advancing funds for the project before total collection of impact fee or level of service contributions.

14.1.4.5.2.7. Management of this policy, and the Capital Improvement Plan.

15. Assurance of Adequate Provisions for Public Safety, Limitations, Intent of Concurrency:

15.1. The safety and welfare of current and future residents of the KFDRFA is of paramount concern to the KFDRFA. It is recognized that this policy may have limitations and may not provide definitive guidance for effective mitigation of direct development impacts on the KFDRFA’s service capacity in all cases.

15.2. It is not the intent of this policy to limit the KFDRFA’s staff in making decisions outside of this policy where those decisions and mitigation options serve the intent of maintaining concurrency with development and protecting KFDRFA’s service capacity, making rational and relational mitigation requests appropriate to the level of risk, and protecting the safety of the public and firefighters in a fair and consistent manner.
16. Policy Review and Adjustment:

16.1. At least annually, this Policy will be reviewed and amended as necessary. This review will include updates to reflect current level of service capacity. Amendments will be made consistent with the annual revision of the six (6) year Capital Improvement Plan and shall be approved through a resolution of the KFDRFA’s Board.
ATTACHMENT A

Appendix – A

LEVEL OF SERVICE & IMPACT FEE FORMULAS

<table>
<thead>
<tr>
<th>Land Use Type</th>
<th>System wide C&amp;E</th>
<th>Res/Com Split</th>
<th>Usage Factor</th>
<th>ERF Factor</th>
<th>New Dev Share</th>
<th>Projected New Units 2014 - 2033</th>
<th>Type of Unit</th>
<th>Impact &amp; LOS Fee Amount per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>$87,133,000</td>
<td>73%</td>
<td>58%</td>
<td>1</td>
<td>90%</td>
<td>19,068</td>
<td>Living Unit</td>
<td>$1,741.29</td>
</tr>
<tr>
<td>Single Family</td>
<td>$87,133,000</td>
<td>73%</td>
<td>42%</td>
<td>1.3</td>
<td>90%</td>
<td>19,068</td>
<td>Living Unit</td>
<td>$1,639.21</td>
</tr>
<tr>
<td>Multi Family</td>
<td>$87,133,000</td>
<td>73%</td>
<td>42%</td>
<td>1.3</td>
<td>90%</td>
<td>19,068</td>
<td>Living Unit</td>
<td>$1,639.21</td>
</tr>
<tr>
<td>Commercial</td>
<td>$87,133,000</td>
<td>27%</td>
<td>30%</td>
<td>3</td>
<td>80%</td>
<td>14,000,000</td>
<td>Square Feet</td>
<td>$1.21</td>
</tr>
<tr>
<td>COMM/IND</td>
<td>$87,133,000</td>
<td>27%</td>
<td>30%</td>
<td>3</td>
<td>80%</td>
<td>14,000,000</td>
<td>Square Feet</td>
<td>$0.81</td>
</tr>
<tr>
<td>HOSP/MED/CIV/SCH/F</td>
<td>$87,133,000</td>
<td>27%</td>
<td>30%</td>
<td>3</td>
<td>80%</td>
<td>14,000,000</td>
<td>Square Feet</td>
<td>$0.81</td>
</tr>
<tr>
<td>ASSISTED CARE</td>
<td>$87,133,000</td>
<td>27%</td>
<td>40%</td>
<td>3</td>
<td>80%</td>
<td>14,000,000</td>
<td>Square Feet</td>
<td>$1.61</td>
</tr>
</tbody>
</table>

LOS Formula Definitions

- **Land Use Type:**
  Defines the land uses types and structure uses that impact and level of service fees are assessed on.

- **System wide C&E:**
  The construction and equipment costs for the 20 year time span of the KFDRFA’s Capital Improvement Plan

- **Res/Com Split:**
  Percentage of annual emergency responses by property type; Residential = 74%, Commercial = 26%

- **Usage Factor:**
  The portion of Res/Com Split that is used by a specific property type; Single Family = 80% of all emergency responses that are used by the residential properties and the remaining 20% is used by Multi-Family properties.

- **ERF Factor:**
  The ERF or effective response force factor represents the size of the first alarm emergency response in numbers of firefighters and equipment that is needed to effectively handle the risk posed by that property type.

- **New Dev Share:**
  Represents the portion of C&E costs assigned to new development. The remaining portion is to be paid for by the KFDRFA through annual tax collections.
ATTACHMENT A

- **Projected New Units:**
  Defines the number of new units projected to be constructed within the KFDRFA service area between 2011 and 2030

- **Impact and LOS Contribution Fee Amount:**
  Represents the maximum fee to be paid by new development for each specific property type. This fee amount may be reduced if existing fire service capacity is adequate to serve the new development.

### Service Capacity Credit Criteria

#### Residential Fee Reduction Factors:*
- Historical data shows first in station response area meets LOS = 15%
- Historical data shows F-Box of development meets first in LOS = 10%
- First in station reliability data meets peak hour standard = 10%
- 1,500 GPM / structure spacing greater than 15 feet = 10%
- Historical data shows full first alarm reliability meets peak call volume standard = 15%
- Automatic sprinkler system installed (single family only) = 30%
- Historical data shows full first alarm ERF meets LOS standard to F-Box = 30%

*Accumulated discounts cannot exceed the LOS contribution amount and cumulative discounts cannot be used as credits to be transferred.

#### Multi-Family and Commercial/Industrial Reduction Factors:
- Historical data shows first in station response area meets LOS = 10%
- Historical data shows F-Box of development meets first in LOS = 10%
- First in station reliability data meets peak hour standard = 10%
- Historical data shows full first alarm reliability meets peak call volume standard = 15%
- Historical data shows full first alarm ERF meets LOS standard to F-Box = 30%
Appendix B
Kent Fire Department
Service Capacity Analysis for New SFR Development

Date of Analysis: ________________ Project Permit #: ____________________

Project Address: ____________________ Land Parcel #: ____________________

Fire Box Location: ________________ Fire Box Performance: 1st In _____% ERF _____%

1st in Station ____ Peak Hour Reliability ____% 1st in Area Performance ______%

Fire ERF Required _____ ERF Pick List _______. _______. _______. _______. _______. _______.

ERF Reliability ______% ______% ______% ______% ______% ______% ______%

Capacity Allowance Calculator:

1st in response area meets LOS ______ = 15% ______%
F-Box development meets first in LOS ______ = 10% ______%
1st in reliability meets peak hour standard ______ = 10% ______%
1,500 GPM / structure spacing greater than 15 feet ______ = 10% ______%
1st alarm reliability meets peak hour standard ______ = 15% ______%
Sprinklers installed ______ = 30% ______%
1st alarm ERF meets LOS standard to F-Box ______ = 30% ______%

Total Capacity Allowance ______%

Total Fee Calculation:
Full SFR Impact Fee Rate = ______
SFR units in development ______ x ______
Total impact fee amount ______

Impact fee to be assessed:
Total impact fee ______ x capacity allowance ______ = $ ______
Kent Fire Department
Service Capacity Analysis for New non-SFR Development

Date of Analysis: _______________ Project Permit # _______________________

Project Address: ___________________ Land Parcel # _______________________

Fire Box Location: ____________ Fire Box Performance: 1st In ______% ERF ______%

1st in Station _____ Peak Hour Reliability ______% 1st in Area Performance ______%


ERF Reliability ______% ______% ______% ______% ______% ______% ______% ______%

Capacity Allowance Calculator:

1st in response area meets LOS ______ = 10% ______
F-Box development meets first in LOS ______ = 10% ______
1st in reliability meets peak hour standard ______ = 10% ______
1st alarm reliability meets peak hour standard ______ = 15% ______
1st alarm ERF meets LOS standard to F-Box ______ = 30% ______
Total Capacity Allowance ______ ______

Impact fee category and rate:

<table>
<thead>
<tr>
<th>Category</th>
<th>Impact fee rate per square foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi Family</td>
<td>______________________________</td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>______________________________</td>
</tr>
<tr>
<td>Hospital/Medical/Civic</td>
<td>______________________________</td>
</tr>
<tr>
<td>Assisted Care</td>
<td>______________________________</td>
</tr>
</tbody>
</table>

Total fee calculation:

Full impact fee rate ______
Square footage of development x ______
Total impact/LOS amount $ ______

Impact fee to be assessed:

Total impact/LOS amount ______ x capacity allowance ______ = $ ______