



**NORTH WHATCOM
FIRE & RESCUE
AND
FIRE DISTRICT # 4**

**CONCURRENCY
MITIGATION FEE PROGRAM**

DRAFT

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1. Introduction

North Whatcom Fire & Rescue (Whatcom County Fire Protection District #21) and Fire District 4 have developed a concurrency mitigation fee program for all new development occurring within their jurisdiction where the Fire District has the authority to require concurrency mitigation. The objective of this report is to determine the mitigation fees that comply with Washington law. A critical component of the concurrency fee is a demonstrated calculation that justifies the fee schedule adopted by the Board of Fire Commissioners.

The purpose of this document is to develop a fair and equitable concurrency mitigation fee for capital facilities located within North Whatcom Fire & Rescue and Fire District 4 (the Fire District). There is concern that growth and development will exceed the ability of the Fire District to provide appropriate and adequate emergency response. Capital facility improvements, including new apparatus, are necessary to adequately serve new growth.

The information in this document related to concurrency mitigation fees for Fire District capital facilities presents a methodology, summarizes the data and explains the calculations for the fee structure. The methodology is designed to comply with the requirements of the Revised Code of Washington (RCW) and Whatcom County Code (WCC).

State Law

There are several different state statutes under which local governments may seek mitigation fees from new development. These authorities include impact fees, State Environmental Policy Act (SEPA) mitigation, and voluntary agreements.

Washington State law allows cities and counties to impose "impact fees" for fire protection facilities under RCW 82.02.050 - .100. Local governments cannot rely solely on impact fees to finance capital facilities, but must provide a balance between impact fees and other sources of public funding (RCW 82.02.050). The City of Blaine and Whatcom County have not adopted impact fee ordinances at this time.

The State Environmental Policy Act (SEPA) allows cities and counties to condition development permits based upon local government regulations or plans, provided that such conditions mitigate specific adverse impacts identified in the SEPA review process (RCW 43.21.060). Such conditions, often imposed in a mitigated determination of non-significance, may include mitigation fees as long as those fees do not duplicate impact fees already being charged (RCW 82.02.100).

State law contains provisions relating to subdivisions (generally five lots or more) in RCW 58.17. Specifically, this statute states that a proposed subdivision shall not be approved unless the city or county makes written findings that “. . . . Appropriate provisions are made for the public health, safety, and general welfare. . . .” (RCW 58.17.110). Public health, safety, and general welfare clearly includes services provided by the Fire District.

State law also allows “voluntary agreements” between fire districts and developers to mitigate direct impacts of proposed developments and subdivisions (RCW 82.02.020). The payment must be held in a reserve account and may only be expended to fund a capital improvement agreed upon by the parties to mitigate the direct impacts. Additionally, payments received pursuant to a voluntary agreement must be expended within five years of collection.

County Code

The Whatcom County Zoning Code includes a section entitled “Concurrency,” which requires, among other things, that no subdivision, commercial development or conditional uses shall be approved without a written finding that:

All providers of water, sewage disposal, schools, and fire protection serving the development have issued a letter that adequate capacity exists or arrangements have been made to provide adequate services for the development. ..(WCC 20.80.212).

Additionally, the Whatcom County Land Division Regulations address subdivisions, binding site plans and short plats. With regard to subdivisions, these County regulations contain approval criteria similar to those in state law, but also indicate:

Long subdivisions shall incorporate adequate capability for fire protection in accordance with sound engineering practices and locally adopted codes and development standards and shall be approved by the county fire marshal (WCC 21.05.100).

The Whatcom County Land Division Regulations contain similar fire protection provisions for short plats (WCC 21.04.110) and binding site plans (21.07.100).

Need for Mitigation Fees

The need for fire protection facilities is influenced by a variety of factors such as future development, number of incidents, geographical area, topographic and manmade barriers, and the County's adopted level of service standards.

In order to address the direct and cumulative impacts of proposed developments on the Fire District, and to protect lives and property, the District finds that it is necessary to seek mitigation fees.

Further, it is the position of the Fire District that unless funding for the necessary capital facilities are contributed by the developer through the mitigation fee, along with other public revenue sources committed to capital facilities, denial of the proposed development would be appropriate due to the unmitigated impact of the proposed development. Arrangements must be made with the Fire District to provide adequate services for proposed developments.

Concurrency mitigation fees will be expended on projects identified in the Fire District's Capital Facilities Plan (CFP). This Concurrency Mitigation Fee Program analyzes the projects in the CFP to identify the costs attributable to new development. The identified costs are calculated on a per unit basis (per dwelling unit for residential uses and per square foot for non-residential uses). The amount of the mitigation fee is determined by charging each fee-paying development for the number of dwelling units or square feet proposed in the development, with policy based deductions for tax revenue and installation of sprinkler systems.

2. Apparatus and Station Inventories

Currently, the Fire District responds from eleven fire stations operating a total of forty-seven pieces of apparatus. Four fire stations are staffed with career personnel and are augmented by part-time employees and volunteer firefighters. The remaining seven stations are volunteer stations. A summary of the apparatus being used by the Fire District for emergency response is provided in the table below.

Table 1: Apparatus Inventory

Apparatus Type	Responses (2015)	Number of Apparatus	Ave. Annual Responses per Apparatus
Fire Engines	1,463	13	112.54
Water Tenders	134	8	16.75
Brush Trucks	66	4	16.50
Ladder Trucks	35	2	17.50
Ambulances	3,226	13	248.15
Support Vehicles	332	7	47.43

The fire district operates 11 fire stations. The table below identifies the square footage of these stations. It also identifies the total incidents in 2015 and the fire station square footage per incident, which is used in future calculations.

Table 2: Station Inventory

Station	Square Feet	2015 Annual Incidents	Square Feet Per Incident
# 61 - Blaine	9,760		
# 62 - Semiahmoo	6,617		
# 63 - Birch Bay	11,347		
# 65 - Haynie	5,188		
# 68 - Delta	5,396		
# 69 - Laurel	6,624		
# 70 - Wiser Lake	5,100		
# 72 - Northwood	6,500		
# 11 - Agate Bay	2,820		
# 12 - Britton Loop	11,591		
# 13 - Smith Rd.	5,462		
Total	76,405	3,779	20.22

3. Capital Facility Costs per Incident

This section identifies the capital cost of apparatus and a new station attributed to each incident.

Annual Cost per Apparatus

The first step in calculating the apparatus cost per incident is to identify and annualize the cost of each type of apparatus. The annualized capital cost per apparatus is determined by dividing the capital cost of each apparatus type by its useful life.

$$\text{Apparatus Cost} / \text{Useful Life} = \text{Annual Cost per Apparatus}$$

The table below shows the annualized cost for each apparatus type. The cost per apparatus includes the vehicle, fire and EMS equipment, and communication equipment. The costs shown below represent current costs to purchase one new fully equipped unit of each apparatus type.

Table 3: Annualized Apparatus Cost

Apparatus Type	Total Cost per Apparatus	Apparatus Useful Life (Years)	Annual Cost Per Apparatus
Fire Engine	\$495,000	20	\$24,750
Water Tender	\$375,000	20	\$18,750
Brush Truck	\$135,000	15	\$9,000
Ladder Truck	\$995,000	25	\$39,800
Ambulance	\$165,000	8	\$20,625
Support Vehicle	\$42,000	5	\$8,400

Apparatus Cost per Response

The cost per emergency response is calculated for each type of apparatus in the table below. This table shows the annualized cost of one of each apparatus type (from Table 3) and the average annual emergency responses for each apparatus type (from Table 1).

Apparatus capital cost per response is calculated by dividing the annualized cost of the apparatus by the total number of annual responses for the same apparatus. Each type of apparatus is analyzed separately because the number and type of apparatus responding to an incident varies depending on the incident type and severity.

Annual Apparatus Cost / Annual Responses per Apparatus = Apparatus Cost per Response

Table 4: Apparatus Cost per Response

Apparatus Type	Annual Cost Per Apparatus	Ave. Annual Responses per Apparatus	Apparatus Cost per Response
Fire Engine	\$24,750	112.54	\$219.92
Water Tender	\$18,750	16.75	\$1,119.40
Brush Truck	\$9,000	16.50	\$545.45
Ladder Truck	\$39,800	17.50	\$2,274.29
Ambulance	\$20,625	248.15	\$83.11
Support Vehicle	\$8,400	47.43	\$177.11

Apparatus Cost per Incident

The total apparatus cost per incident is calculated by multiplying the apparatus cost per response by the percent of incidents to which each type of apparatus responds. This calculation accounts for the fact that multiple apparatus are dispatched to many incidents. The result of this calculation is an average total cost of apparatus per incident.

$$\text{Apparatus Cost/Response} \times \text{Apparatus \% of Response} = \text{Total Apparatus Cost/Incident}$$

In order to calculate the apparatus cost per incident, it is necessary to first determine the percentage of incidents to which each type of apparatus is dispatched (see table below). Different types of emergencies need different types or combinations of apparatus. As a result, the usage of apparatus varies among the types of apparatus. The percent of responses by each type of apparatus is calculated below by dividing the annual responses for each type of apparatus by the total annual incidents. The result of the calculation below is the percent of incidents responded to by each type of apparatus.

Table 5: Incident Response by Type of Apparatus (2015)

Apparatus Type	Annual Responses by Apparatus Type	Total Annual Incidents	Percentage of Incidents Dispatched
Fire Engine	1,463	3,779	38.71%
Water Tender	134	3,779	3.55%
Brush Truck	66	3,779	1.75%
Ladder Truck	35	3,779	0.93%
Ambulance	3,226	3,779	85.37%
Support Vehicle	332	3,779	8.79%

NOTE: "Percentage of Incidents Dispatched" totals more than 100% because multiple apparatus types may be deployed to the same incident.

The apparatus cost per incident is shown in the table below. The cost per response for each apparatus type (from Table 4) is multiplied by the percent of fire incidents dispatched to (from Table 6) resulting in the total apparatus cost per incident.

Table 6: Total Apparatus Cost per Incident			
Apparatus Type	Apparatus Cost per Response	Percentage of Incidents Dispatched	Apparatus Cost per Incident
Fire Engine	\$219.92	38.71%	\$85.14
Water Tender	\$1,119.40	3.55%	\$39.69
Brush Truck	\$545.45	1.75%	\$9.53
Ladder Truck	\$2,274.29	0.93%	\$21.06
Ambulance	\$83.11	85.37%	\$70.95
Support Vehicle	\$177.11	8.79%	\$15.56

Annual Station Cost

The annual station cost is identified by dividing the station capital cost by the station's useful life. The useful life is estimated to be fifty years.

$$\text{Station Cost per Square foot / Useful Life} = \text{Annual Station Cost per Square Foot}$$

The table below calculates the annualized fire station cost per square foot. The costs include land, building, and equipment. The useful life of a station (50 years) represents the length of time the station will last before requiring significant capital cost for repair and/or renovation.

The annualized cost is based on the present value of a new fire station set forth in the Capital Facilities Plan and is calculated by dividing the estimated cost per square foot by the average useful life.

Table 7: Annualized New Station Cost per Square Foot

	Total Cost	Square Feet	Cost per Square foot	Useful Life (years)	Annual Cost per Square foot
New Station	\$4,983,000	10,000	\$498.30	50	\$9.97

NOTE: Cost per square foot includes land, construction and equipment.

Station Cost per Incident

The station cost per incident is calculated by multiplying the annual station cost per square foot by the station square feet per incident.

$$\text{Annual Station Cost per Square Foot} \times \text{Square feet per Incident} = \text{Station Cost per Incident}$$

This calculation, as shown below, is based on the station cost per square foot (from Table 8) multiplied by the station square feet per incident (from Table 2).

Table 8: New Station Cost per Incident

Annual Cost per Square foot	Square Feet Per Incident	Station cost Per Incident
\$9.97	20.22	\$201.50

4. Capital Facility Costs by Land Use

This chapter identifies the estimated apparatus and new station costs per unit of development (dwelling or square foot of non-residential development) for each type of land use.

Annual Incidents per Unit of Development

The first step is to estimate the annual incidents to which the Fire District is dispatched for each land use. The number of incidents is estimated below for the various land use categories.

Table 9: Total Annual Incidents by Land Use		
<u>Apparatus Type</u>	Estimated Annual Incidents by Land Use	Percentage of Incidents Dispatched
<u>Residential</u>		
Single Family and Duplex	2,565	67.88%
Multi-Family	219	5.79%
<u>Non-Residential</u>		
Hotel/Motel/Resort	90	2.39%
Medical		
Nursing Home	105	2.78%
Medical-Dental	25	0.67%
Commercial		
Office	36	0.96%
Retail	248	6.56%
Leisure Facilities	71	1.87%
Restaurant/Lounge	49	1.29%
Industrial/Manufacturing	125	3.30%
Institutions		
Churches/Non-Profit	34	0.91%
Education	132	3.49%
Special Public Facilities	80	2.11%
Total	3,779	100.00%

The next step is to determine how many annual incidents there are per unit of development. The total annual incidents for each type of land use (from the table above) are divided by the current estimated number of dwelling units or square feet of structures to calculate the annual incidents per dwelling unit or square foot. The result in the table below shows how many times an average unit of development has an incident to which the Fire District responds. For example, an average single family/duplex dwelling unit has an average of 0.1468949 incidents per year. This is the same as saying that 14.68% of single family/duplex units have an emergency response incident in an average year. Another way of understanding this information is that, on average, a single family or duplex unit would have some type of incident once every 6.8 years.

Table 10: Annual Incidents per Unit of Development

	Annual Incidents by Land Use	2015 Estimated Units of Development		Annual Incidents per Unit of Development
<u>Residential</u>				
Single Family and Duplex	2,565	17,463	dwelling units	0.1468949
Multi-Family	219	1,047	dwelling units	0.2089754
<u>Non-Residential</u>				
Hotel/Motel/Resort	90	138,919	square feet	0.0006511
Medical				
Nursing Home	105	42,266	square feet	0.0024824
Medical-Dental	25	22,209	square feet	0.0011403
Commercial				
Office	36	65,200	square feet	0.0005549
Retail	248	1,153,168	square feet	0.0002149
Leisure Facilities	71	557,083	square feet	0.0001266
Restaurant/Lounge	49	147,955	square feet	0.0003301
Industrial/Manufacturing	125	1,762,823	square feet	0.0000708
Institutions				
Churches/Non-Profit	34	392,744	square feet	0.0000875
Education	132	783,062	square feet	0.0001686
Special Public Facilities	80	215,106	square feet	0.0003700
Total	3,779			

Capital Cost per Unit of Development

In the following tables, the capital cost per unit of development (dwelling unit or square foot) is determined by multiplying the annual fire incidents per unit of development (from Table 14) by the annual capital cost per incident of each apparatus type and fire station (from Tables 7 and 9), then multiplying that result by the useful life of the apparatus or fire station (from Table 3).

As an example, single family/duplex dwelling units average 0.1468949 incidents per year (14.68% have some type of incident in a given year). In the table below, multiplying this incident rate (from Table 14) by the annual capital cost of engines \$85.14 per incident (from Table 7) indicates a cost of \$12.50 per dwelling unit to provide it's share of a fire engine for one year. Since an engine lasts 20 years, the dwelling needs to pay for 20 times the annual rate for a total of \$250.14.

Table 11: Fire Engine Cost by Land Use

	Annual Incidents per Unit of Development		Annual Fire Engine Cost per Unit of Dev. @ \$85.14 per Incident	Total Fire Engine Cost per Unit of Dev. Over 20 Year Life
<u>Residential</u>				
Single Family and Duplex	0.1468949	per du	\$12.5069	\$250.14
Multi-Family	0.2089754	per du	\$17.7925	\$355.85
<u>Non-Residential</u>				
Hotel/Motel/Resort	0.0006511	per sf	\$0.0554	\$1.11
Medical				
Nursing Home	0.0024824	per sf	\$0.2114	\$4.23
Medical-Dental	0.0011403	per sf	\$0.0971	\$1.94
Commercial				
Office	0.0005549	per sf	\$0.0472	\$0.94
Retail	0.0002149	per sf	\$0.0183	\$0.37
Leisure Facilities	0.0001266	per sf	\$0.0108	\$0.22
Restaurant/Lounge	0.0003301	per sf	\$0.0281	\$0.56
Industrial/Manufacturing	0.0000708	per sf	\$0.0060	\$0.12
Institutions				
Churches/Non-Profit	0.0000875	per sf	\$0.0075	\$0.15
Education	0.0001686	per sf	\$0.0144	\$0.29
Special Public Facilities	0.0003700	per sf	\$0.0315	\$0.63

The table below calculates the capital cost per unit of development (dwelling unit or square foot for non-residential development) for a water tender responding to incidents. The incident rate from is multiplied by the tender's capital cost of \$39.69 per incident. The result is then multiplied by the 20-year useful life to calculate the capital cost per unit of development for tender apparatus.

Table 12: Water Tender Cost by Land Use

	Annual Incidents per Unit of Development		Annual Water Tender Cost per Unit of Dev. @ \$39.69 per Incident	Total Water Tender Cost per Unit of Dev. Over 20 Year Life
<u>Residential</u>				
Single Family and Duplex	0.1468949	per du	\$5.8307	\$116.61
Multi-Family	0.2089754	per du	\$8.2949	\$165.90
<u>Non-Residential</u>				
Hotel/Motel/Resort	0.0006511	per sf	\$0.0258	\$0.52
Medical				
Nursing Home	0.0024824	per sf	\$0.0985	\$1.97
Medical-Dental	0.0011403	per sf	\$0.0453	\$0.91
Commercial				
Office	0.0005549	per sf	\$0.0220	\$0.44
Retail	0.0002149	per sf	\$0.0085	\$0.17
Leisure Facilities	0.0001266	per sf	\$0.0050	\$0.10
Restaurant/Lounge	0.0003301	per sf	\$0.0131	\$0.26
Industrial/Manufacturing	0.0000708	per sf	\$0.0028	\$0.06
Institutions				
Churches/Non-Profit	0.0000875	per sf	\$0.0035	\$0.07
Education	0.0001686	per sf	\$0.0067	\$0.13
Special Public Facilities	0.0003700	per sf	\$0.0147	\$0.29

The table below calculates the capital cost per unit of development (dwelling unit or square foot for non-residential development) for brush trucks responding to incidents. The incident rate is multiplied by the brush trucks cost per fire incident, \$9.53. The result is then multiplied by the 15-year useful life of a brush trucks to calculate the capital cost per unit of development for a brush truck.

Table 13: Brush Truck - Cost by Land Use

	Annual Incidents per Unit of Development		Annual Brush Truck Cost per Unit of Dev. @ \$9.53 per Incident	Total Brush Truck Cost per Unit of Dev. Over 15 Year Life
<u>Residential</u>				
Single Family and Duplex	0.1468949	per du	\$1.3994	\$20.99
Multi-Family	0.2089754	per du	\$1.9908	\$29.86
<u>Non-Residential</u>				
Hotel/Motel/Resort	0.0006511	per sf	\$0.0062	\$0.09
Medical				
Nursing Home	0.0024824	per sf	\$0.0236	\$0.35
Medical-Dental	0.0011403	per sf	\$0.0109	\$0.16
Commercial				
Office	0.0005549	per sf	\$0.0053	\$0.08
Retail	0.0002149	per sf	\$0.0020	\$0.03
Leisure Facilities	0.0001266	per sf	\$0.0012	\$0.02
Restaurant/Lounge	0.0003301	per sf	\$0.0031	\$0.05
Industrial/Manufacturing	0.0000708	per sf	\$0.0007	\$0.01
Institutions				
Churches/Non-Profit	0.0000875	per sf	\$0.0008	\$0.01
Education	0.0001686	per sf	\$0.0016	\$0.02
Special Public Facilities	0.0003700	per sf	\$0.0035	\$0.05

The table below calculates the capital cost per unit of development (dwelling unit or square foot for non-residential development) for a ladder truck responding to incidents. The incident rate from is multiplied by the ladder truck cost per incident, \$21.06. The result is then multiplied by the 25-year useful life of a ladder truck to calculate the capital cost per unit of development for a ladder truck.

Table 14: Ladder Truck - Cost by Land Use

	Annual Incidents per Unit of Development		Annual Ladder Truck Cost per Unit of Dev. @ \$21.06 per Incident	Total Ladder Truck Cost per Unit of Dev. Over 25 Year Life
<u>Residential</u>				
Single Family and Duplex	0.1468949	per du	\$3.0942	\$77.35
Multi-Family	0.2089754	per du	\$4.4018	\$110.05
<u>Non-Residential</u>				
Hotel/Motel/Resort	0.0006511	per sf	\$0.0137	\$0.34
Medical				
Nursing Home	0.0024824	per sf	\$0.0523	\$1.31
Medical-Dental	0.0011403	per sf	\$0.0240	\$0.60
Commercial				
Office	0.0005549	per sf	\$0.0117	\$0.29
Retail	0.0002149	per sf	\$0.0045	\$0.11
Leisure Facilities	0.0001266	per sf	\$0.0027	\$0.07
Restaurant/Lounge	0.0003301	per sf	\$0.0070	\$0.17
Industrial/Manufacturing	0.0000708	per sf	\$0.0015	\$0.04
Institutions				
Churches/Non-Profit	0.0000875	per sf	\$0.0018	\$0.05
Education	0.0001686	per sf	\$0.0036	\$0.09
Special Public Facilities	0.0003700	per sf	\$0.0078	\$0.19

The table below calculates the capital cost per unit of development (dwelling unit or square foot for non-residential development) for an ambulance responding to incidents. The incident rate is multiplied by the ambulance unit cost per incident, \$70.95. The result is then multiplied by the 8-year useful life of an ambulance to calculate the capital cost per unit of development for an ambulance.

Table 15: Ambulance - Cost by Land Use

	Annual Incidents per Unit of Development		Annual Ambulance Cost per Unit of Dev. @ \$70.95 per Incident	Total Ambulance Cost per Unit of Dev. Over 8 Year Life
<u>Residential</u>				
Single Family and Duplex	0.1468949	per du	\$10.4224	\$83.38
Multi-Family	0.2089754	per du	\$14.8271	\$118.62
<u>Non-Residential</u>				
Hotel/Motel/Resort	0.0006511	per sf	\$0.0462	\$0.37
Medical				
Nursing Home	0.0024824	per sf	\$0.1761	\$1.41
Medical-Dental	0.0011403	per sf	\$0.0809	\$0.65
Commercial				
Office	0.0005549	per sf	\$0.0394	\$0.31
Retail	0.0002149	per sf	\$0.0152	\$0.12
Leisure Facilities	0.0001266	per sf	\$0.0090	\$0.07
Restaurant/Lounge	0.0003301	per sf	\$0.0234	\$0.19
Industrial/Manufacturing	0.0000708	per sf	\$0.0050	\$0.04
Institutions				
Churches/Non-Profit	0.0000875	per sf	\$0.0062	\$0.05
Education	0.0001686	per sf	\$0.0120	\$0.10
Special Public Facilities	0.0003700	per sf	\$0.0263	\$0.21

The table below calculates the capital cost per unit of development (dwelling unit or square foot for non-residential development) for a command vehicle responding to incidents. The incident rate is multiplied by the support vehicle cost per fire incident, \$15.56. The result is then multiplied by the 5-year useful life of a support vehicle to calculate the capital cost per unit of development for a support vehicle.

Table 16: Support Vehicle - Cost by Land Use

	Annual Incidents per Unit of Development		Annual Support Vehicle Cost per Unit of Dev. @ \$15.56 per Incident	Total Support Vehicle Cost per Unit of Dev. Over 5 Year Life
<u>Residential</u>				
Single Family and Duplex	0.1468949	per du	\$2.2856	\$11.43
Multi-Family	0.2089754	per du	\$3.2516	\$16.26
<u>Non-Residential</u>				
Hotel/Motel/Resort	0.0006511	per sf	\$0.0101	\$0.05
Medical				
Nursing Home	0.0024824	per sf	\$0.0386	\$0.19
Medical-Dental	0.0011403	per sf	\$0.0177	\$0.09
Commercial				
Office	0.0005549	per sf	\$0.0086	\$0.04
Retail	0.0002149	per sf	\$0.0033	\$0.02
Leisure Facilities	0.0001266	per sf	\$0.0020	\$0.01
Restaurant/Lounge	0.0003301	per sf	\$0.0051	\$0.03
Industrial/Manufacturing	0.0000708	per sf	\$0.0011	\$0.01
Institutions				
Churches/Non-Profit	0.0000875	per sf	\$0.0014	\$0.01
Education	0.0001686	per sf	\$0.0026	\$0.01
Special Public Facilities	0.0003700	per sf	\$0.0058	\$0.03

The table below calculates the capital cost per unit of development (dwelling unit or square foot for non-residential development) for a new fire station. The incident rate is multiplied by the fire station's capital cost of \$201.50 per incident. The result is then multiplied by the 50-year useful life to calculate the capital cost per unit of development for a fire station.

Table 17: New Fire Station - Cost by Land Use

	Annual Incidents per Unit of Development		Annual Fire Station Cost per Unit of Dev. @ \$201.50 per Incident	Total Fire Station Cost per Unit of Dev. Over 50 Year Life
<u>Residential</u>				
Single Family and Duplex	0.1468949	per du	\$29.5987	\$1,479.93
Multi-Family	0.2089754	per du	\$42.1076	\$2,105.38
<u>Non-Residential</u>				
Hotel/Motel/Resort	0.0006511	per sf	\$0.1312	\$6.56
Medical				
Nursing Home	0.0024824	per sf	\$0.5002	\$25.01
Medical-Dental	0.0011403	per sf	\$0.2298	\$11.49
Commercial				
Office	0.0005549	per sf	\$0.1118	\$5.59
Retail	0.0002149	per sf	\$0.0433	\$2.17
Leisure Facilities	0.0001266	per sf	\$0.0255	\$1.28
Restaurant/Lounge	0.0003301	per sf	\$0.0665	\$3.33
Industrial/Manufacturing	0.0000708	per sf	\$0.0143	\$0.71
Institutions				
Churches/Non-Profit	0.0000875	per sf	\$0.0176	\$0.88
Education	0.0001686	per sf	\$0.0340	\$1.70
Special Public Facilities	0.0003700	per sf	\$0.0746	\$3.73

5. Concurrency Mitigation Fees

This chapter summarizes the total capital facilities cost for apparatus and a new station per unit of development. It also identifies adjustments for tax revenues and installation of sprinkler systems. These credits are subtracted from the total capital facilities cost per unit of development, resulting in the concurrency mitigation fees for North Whatcom Fire & Rescue and Whatcom County Fire Protection District # 4.

The "Concurrency Mitigation Fee" is not intended to pay the entire amount of new capital facilities. New development should be given a revenue credit adjustment for future payments of property taxes that would be used to pay for the same new capital facilities required to serve the new development. Such a credit should include an adjustment for the benefit received (and partially paid) by existing community members. These adjustments are solely a "policy based credit" decision of the Board of Fire Commissioners of North Whatcom Fire & Rescue.

Fire station and various apparatus costs per unit of development are added together to determine the total capital facility cost by dwelling unit or non-residential square foot, and then the District's policy-based adjustments are applied.

In the table on the next page, the "Cost of Apparatus and Station per Unit of Development" is the total capital facility cost per dwelling or square foot for non-residential development. For example, estimated capital costs incurred from a new single family dwelling, from the tables above, are as follows:

Fire Engine	\$250.14
Water Tender	\$116.61
Brush Truck	\$20.99
Ladder Truck	\$77.35
Ambulance	\$83.38
Support Vehicle	\$11.43
New Station	<u>\$1,479.93</u>
Total	\$2,039.84

The calculated cost of capital facilities needed to serve a new single family residence is \$2,039.84. However, this residence will pay tax revenue over the planning period. Assuming a rate of \$1.50/1,000 assessed value, a residence valued at \$250,000 would pay \$7,500 in taxes to North Whatcom Fire & Rescue over the 20-year planning period. Most of this revenue will go to operations.

However, if the voters of the District approve bond measures, additional property taxes will be paid for capital facilities. Additionally, it is recognized that new capital facilities will also serve existing residents, who should pay for a portion of these facilities. Therefore, there is a policy-based deduction of 50%. For a single family residence without a sprinkler system, this would equate to a standard mitigation fee of \$1,019.92.

A credit is also being given when a sprinkler system is installed. Sprinklers have more benefit in multi-family units because they generally prevent spread of fire to other units in the building. Additionally, they are designed to operate for longer durations than single family sprinkler systems. This will reduce the costs to the Fire District. Therefore, the mitigation fees for multi-family residential units with sprinkler systems are reduced more than single family dwellings with sprinkler systems. Similar rationale applies to commercial development.

Finally, the mitigation fee for nursing homes has been adjusted in the table below to recognize that these developments have the highest mitigation fee per square foot, yet they serve an important role in the community – especially for an aging population.

Mitigation fees for each land use are shown in the table below.

Table 18: Mitigation Fees by Land Use

	Cost of Apparatus and Station per Unit of Dev.	Unit of Development	Standard Mitigation Fee With Adjustment for Tax Revenue @ 50.0%	Mitigation Fee for Development with a Sprinkler System SFR/Duplex @ 50%	All other @ 25%
<u>Residential</u>					
Single Family and Duplex	\$2,039.84	per du	\$1,019.92	\$509.96	
Multi-Family	\$2,901.91	per du	\$1,450.96	\$362.74	
<u>Non-Residential</u>					
Hotel/Motel/Resort	\$9.04	per sf	\$4.52	\$1.13	
Medical					
Nursing Home	\$34.47	per sf	\$17.24	\$3.45	
Medical-Dental	\$15.84	per sf	\$7.92	\$1.98	
Commercial					
Office	\$7.71	per sf	\$3.85	\$0.96	
Retail	\$2.98	per sf	\$1.49	\$0.37	
Leisure Facilities	\$1.76	per sf	\$0.88	\$0.22	
Restaurant/Lounge	\$4.58	per sf	\$2.29	\$0.57	
Industrial/Manufacturing	\$0.98	per sf	\$0.49	\$0.12	
Institutions					
Churches/Non-Profit	\$1.22	per sf	\$0.61	\$0.15	
Education	\$2.34	per sf	\$1.17	\$0.29	
Special Public Facilities	\$5.14	per sf	\$2.57	\$0.64	