



West Henderson Public Facilities Needs Assessment (PFNA)

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City of Henderson, Nevada

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West Henderson PFNA City of Henderson, Nevada

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EXECUTIVE SUMMARY

The City of Henderson, Nevada, retained TischlerBise, Inc. to update the Public Facilities Needs Assessment (PFNA) program for West Henderson that is imposed on new development to meet the new demands generated for public facilities. It is the intent of the City of Henderson to evaluate the assessment for: (1) parks and recreation, (2) police, (3) fire. This report presents the methodologies and calculations used to generate the maximum supportable assessment amounts. It is intended to serve as supporting documentation for the City of Henderson.

The purpose of this study is to demonstrate the City's compliance with Nevada Statutes as authorized by the Nevada Legislature (278.02591):

1. *A governing body may establish, independently or in conjunction with another governing body, an analysis of the cost to construct infrastructure in an area which is undeveloped land and which is likely to become developed.*
2. *The analysis of the cost to construct infrastructure in an area that is undeveloped land must include, without limitation:*
 - (a) A precise description of the area, either in the form of a legal description or by reference to roadways, lakes and waterways, railroads or similar landmarks, and township, county or city boundaries;*
 - (b) An estimate of the expected total population of the area when the land becomes fully developed;*
 - (c) An assessment of the infrastructure that will be necessary to support the area when it becomes fully developed according to the master plan adopted by the governing body pursuant to NRS 278.220; and*
 - (d) A plan for the development of the infrastructure which includes, without limitation:*
 - (1) Any minimum requirements for the development of infrastructure that have been determined by the regional planning coalition;*
 - (2) A plan to meet the anticipated needs of the area for police and fire protection, parks, roads, regional transportation and flood control facilities when the land becomes fully developed;*
 - (3) An estimate of the date on which each phase of the development will occur;*
 - (4) The manner in which the plan for the development of the infrastructure will be implemented; and*
 - (5) An economic analysis of the cost to plan and develop fully the infrastructure for the area.*
3. *The governing body may, if it finds that the analysis of the projected need for infrastructure is consistent with the master plan, approve the analysis by ordinance.*
4. *The governing body shall provide the necessary copies of the analysis to the regional planning coalition for review and information.*

Following the adoption of the 2014 *West Henderson Land Use Plan Update* there was an increase in demand for both residential and nonresidential development. Following the growing interest, the City of Henderson prepared and approved the 2017 *West Henderson Public Facilities Needs Assessment Area Plan*. This report is an update to the 2017 study by revising the projected growth, public facility needs, and public facility costs.

The assessments are one-time payments used to construct system improvements needed to accommodate new development in West Henderson. The amount represents new growth's fair share of capital facility needs and cannot be used to fund operating or maintenance costs. The following report demonstrates:

- New development will create a need for capital improvements
- New development must derive a benefit from the payment of the contributions
- The assessment paid by a particular type of development should not exceed its proportional share

The geographic area for the PFNA is West Henderson (map is provided in appendix) and the three infrastructure components (parks & recreation, police, and fire) are assessed on residential and nonresidential demand.

Reduced to its simplest terms, the process of the PFNA contribution amounts involves two main steps: (1) determining the cost of development-related capital improvements and (2) allocating those costs equitably to various types of development. In this case, the plan-based method allocates costs for parks & recreation, police, and fire capital facilities to the projected buildout of West Henderson. In this method, the total cost of relevant facilities is divided by total growth to calculate a cost per unit (i.e., housing units and nonresidential square footage).

Regardless of the methodology, a consideration of "credits" is integral to the calculation of the contribution. There are two types of "credits," each with specific and distinct characteristics, but both of which should be addressed in the calculation. The first is a credit due to possible double payment situations. This could occur when contributions are made by the property owner toward the capital costs of the public facility covered by the PFNA. This type of credit is integrated into the impact contribution calculation. The second is a credit toward the payment of a contribution for dedication of public sites or improvements provided by the developer and for which the PFNA is imposed. This type of credit is addressed in the administration and implementation of the program.

MAXIMUM SUPPORTABLE PFNA CONTRIBUTIONS

Figure 1 provides a schedule of the maximum PFNA contribution supported by this report. The contributions represent the highest supportable amount for each type of applicable land use and represents new growth's fair share of the cost for capital facilities. The City may adopt the PFNA at less

than the amounts shown. However, a reduction in revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

The contributions for residential development are to be assessed per housing unit and contributions for nonresidential development are to be assessed per square foot of floor area. In summary, this study supports a maximum PFNA contribution of \$4,918 per housing unit and \$2.06 per nonresidential square foot. Figure 1 compares the current contribution rates to the maximum allowable under this study. Overall, the study supports an increase of \$1,898 per housing unit and \$1.10 per nonresidential square foot.

Furthermore, the current fee schedule has three nonresidential land uses while this study recommends a unified nonresidential fee. This will expedite administering the program and provide flexibility in future developments if the market shifts.

Lastly, TischlerBise recommends that the City of Henderson preform an annual adjustment to the PFNA contributions based on the increase of development costs and conduct a comprehensive update when conditions warrant such an effort.

Figure 1. Maximum Supportable Public Facilities Needs Assessment Contributions

Infrastructure Category	Maximum Supportable Contribution	
	per Housing Unit	per Nonres. Sq. Ft.
Parks & Recreation	\$4,251	\$1.13
Police	\$331	\$0.65
Fire	\$336	\$0.28
Grand Total	\$4,918	\$2.06

Development Type	Max Contribution	2023 Contribution [1]	Increase/Decrease
Residential (per unit)	\$4,918	\$3,020	\$1,898
Nonresidential (per sq. ft.)	\$2.06	\$0.96	\$1.10

[1] Note: Nonresidential contribution is the average between three development types. This update is establishing a unified nonresidential fee.

CAPITAL IMPROVEMENT PLANS & GROWTH PROJECTIONS

The following section provides a summary of the capital improvement plans and costs on which the PFNA is based. First, Figure 2 lists the projected full buildout of the West Henderson area. Overall, 31,604 housing units and 16.3 million nonresidential square feet are projected. This is a four percent increase in housing development and a 19 percent decrease in nonresidential floor area from the previous PFNA study. The adjustment in projections is based on revisions to the available acreage that is developable in the study area.

Figure 2. Projected Growth of Study Area

Development Type	2017 PFNA Study	Updated Projections	Change	% Change
Residential				
Housing Units	30,400	31,604	1,204	4%
Nonresidential				
Retail Square Feet	3,470,000	3,744,891	274,891	8%
Office Square Feet	6,750,000	4,069,414	(2,680,586)	-40%
Industrial Square Feet	6,900,000	6,014,724	(885,276)	-13%
Public/Civic Square Feet	3,140,000	2,482,105	(657,895)	-21%
Total	20,260,000	16,311,133	(3,948,867)	-19%

Figure 3 lists the parks & recreation, police, and fire capital facilities needed to serve the projected growth in West Henderson. Importantly, only the projects that are directly attributed to West Henderson development is included in the analysis. For example, the 911 call center at the police station is excluded since it provides benefit to residents that live outside the study area. Furthermore, park land has already been acquired by the City or will be dedicated by the Bureau of Land Management (BLM), so the park construction costs represent the funding needed to improve park land, the cost to purchase land has been excluded. Lastly, there have been increases in construction costs for the police and fire station since the 2017 study. However, the costs included in this study represent current engineering estimates which the City is anticipating in the future.

Figure 3. West Henderson PFNA Capital Improvement Plan

Facility	Description	West Hend. Cost
Parks & Recreation		
Recreation Facility	Multigen facility with indoor, outdoor, activity pool	\$67,900,000
Sports Complex	Baseball/multipurpose fields	\$52,500,000
Neighborhood Park	5 acres	\$4,000,000
Neighborhood Park	5 acres	\$4,000,000
Neighborhood Park	10 acre	\$8,000,000
Neighborhood Park	10 acre	\$8,000,000
Neighborhood Park	10 acre	\$8,000,000
Neighborhood Park	10 acre	\$8,000,000
Neighborhood Park	10 acre	\$8,000,000
Neighborhood Park	10 acre	\$8,000,000
Neighborhood Park	10 acre	\$8,000,000
Neighborhood Park	10 acre	\$8,000,000
Parks & Recreation Subtotal		\$184,400,000
Public Safety		
Fire Station	4-bay station	\$15,200,000
Police Station	Excluding 911 Call Center, under construction	\$21,000,000
Public Safety Subtotal		\$36,200,000

Parks & Recreation Subtotal	\$184,400,000
Public Safety Subtotal	\$36,200,000
Grand Total	\$220,600,000

PARKS & RECREATION PFNA CONTRIBUTION ANALYSIS

The City of Henderson Parks & Recreation PFNA contributions are calculated using a plan-based approach. City staff has identified a list of Parks & Recreation projects that are planned to be constructed to accommodate future residential and nonresidential growth. The project costs are attributed to development based on a proportionate share analysis. The plan-based method allocates costs for a specified set of improvements to a specified amount of development. In this method, the total cost of parks and recreation facilities is divided by total growth to calculate a cost per unit.

PROPORTIONATE SHARE ANALYSIS

TischlerBise recommends analyzing cumulative impact hours to find the proportionate share of parks and recreation facilities between residential and nonresidential development. Population and job estimates are needed to conduct this analysis. First, based on the U.S. Census American Community Survey, the average household size in Henderson is 2.34 persons per housing unit. This factor is applied to the housing buildout of West Henderson to project 73,948 future residents (2.34 persons per unit x 31,604 housing units = 73,948 persons). Secondly, based on employee density factors from the Institute of Transportation Engineers *Trip Generation* (2021) there are a total of 37,740 jobs projected from the nonresidential growth in West Henderson.

Shown in Figure 4, the proportionate share is based on cumulative impact hours per year. Future West Henderson residents were allocated 24 hours per day at 365 days per year, for a total of 8,760 impact hours per resident. Future jobs were allocated 8 hours per day, 5 days per week, and 50 weeks per year, for a total of 2,000 impact hours per job. Multiplying the respective impact hours by the number of residents and jobs yields the total annual impact hours for both residential and nonresidential categories. Residential proportionate share of the total impact hours is 90 percent, while the nonresidential share is 10 percent.

Figure 4. Parks & Recreation Proportionate Share Analysis

Development Type	Projected Service Unit	Impact Hours per Year	Total Impact Hours per Year	Proportionate Share
Residential	73,948 residents [1]	8,760 hours	647,784,480	90%
Nonresidential	37,740 jobs [2]	2,000 hours	75,480,000	10%
		Total	723,264,480	100%

[1] Future residents are estimated based on Henderson person per housing unit average (2.34) from U.S. Census Bureau, 2020 American Community Survey

[2] Future jobs are estimated based on employee density factors from Trip Generation, Institute of Transportation Engineers, 11th Edition (2021)

Residential Impact Hours: 24 hours per day x 365 days = 8,760 hours

Nonresidential Impact Hours: 8 hours per day x 5 days per week x 50 weeks per year = 2,000 hours

PARKS & RECREATION COST ANALYSIS

Listed in Figure 5 are the eleven parks and recreation facility projects planned to serve the future demand from development in West Henderson. The park land has already been acquired by the City or will be dedicated by the Bureau of Land Management (BLM), so the park construction costs represent the funding needed to improve park land, the cost to purchase land has been excluded. Also, 70 percent of the recreation facility and sports complex are attributed to West Henderson demand. In total, there is \$184.4 million planned in new facilities. By applying the proportionate share factors, \$166 million is attributed to future housing growth and \$18.4 million is attributed to future nonresidential growth.

The cost per housing unit and nonresidential square footage is found by comparing the buildout projections and the attributed costs. For example, the cost per housing unit is \$5,251 (\$165,960,000 / 31,604 housing units = \$5,251 per housing unit).

Figure 5. Parks & Recreation Cost Analysis

Facility	Description	West Hend. Cost
Recreation Facility	Multigen facility with indoor, outdoor, activity pool	\$67,900,000
Sports Complex	Baseball/multipurpose fields	\$52,500,000
Neighborhood Park	5 acres	\$4,000,000
Neighborhood Park	5 acres	\$4,000,000
Neighborhood Park	10 acre	\$8,000,000
Neighborhood Park	10 acre	\$8,000,000
Neighborhood Park	10 acre	\$8,000,000
Neighborhood Park	10 acre	\$8,000,000
Neighborhood Park	10 acre	\$8,000,000
Neighborhood Park	10 acre	\$8,000,000
Neighborhood Park	10 acre	\$8,000,000
Neighborhood Park	10 acre	\$8,000,000
Total		\$184,400,000

	Residential	Nonresidential
Proportionate Share	90%	10%
Share of Capital Cost	\$165,960,000	\$18,440,000

Share of Capital Cost	\$165,960,000	\$18,440,000
Growth in Housing Units/Nonres. Sq. Ft.	31,604	16,311,133
Cost per Housing Unit/Nonres. Sq. Ft.	\$5,251	\$1.13

RESIDENTIAL CONSTRUCTION TAX CREDIT

The City of Henderson assesses a Residential Construction Tax (RCT) on housing development to provide funding for new park construction. The RCT is assessed on new housing units based on the value of the home with a maximum of \$1,000. To ensure there are no double payments for future park construction a credit is included in the PFNA contribution calculation. Conservatively, the study assumes a credit of \$1,000 per housing unit. The credit is displayed below in the input summary.

PARKS & RECREATION MAXIMUM SUPPORTABLE PFNA CONTRIBUTIONS

The contributions represent the highest supportable amount for each type of land use and represents new growth's fair share of the cost for capital facilities. The City may adopt contributions that are less than the amounts shown. However, a reduction in PFNA revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure 6. Parks & Recreation Maximum Supportable PFNA Contributions

Parks & Rec Residential Contribution	
Gross per Housing Unit	\$5,251
RCT Credit	(\$1,000)
Max Contribution per Housing Unit	\$4,251

Parks & Rec Nonresidential Contribution	
Max Contribution per Square Foot	\$1.13

PARKS & RECREATION PFNA CONTRIBUTION REVENUE PROJECTIONS

The maximum contribution amounts are applied to buildout projections to estimate the revenues from the PFNA program. As a result, there is \$134.3 million in projected revenue from residential development and \$18.4 million in projected revenue from nonresidential development, totaling \$152.8 million. The total facility need is \$184.4 million, so the PFNA revenue is able to offset 83 percent of the cost. The funding gap is the result of the credit for RCT revenue and it is anticipated that the remaining \$31.6 million in funding will be covered by the RCT revenue.

Figure 7. Parks & Recreation PFNA Revenue Projections

West Henderson PFNA Area	Residential \$4,251 per Unit	Nonresidential \$1.13 per Sq. Ft.
Buildout Projection	31,604	16,311,133
Revenue Projection	\$134,348,604	\$18,431,580

Total Revenue Projection	<u>\$152,800,000</u>
West Henderson Parks & Rec Capital Cost	<u>\$184,400,000</u>
Funding Gap	<u>\$31,600,000</u>

POLICE PFNA CONTRIBUTION ANALYSIS

The City of Henderson Police PFNA contributions are calculated using a plan-based approach. City staff has identified need for new police infrastructure to be constructed to directly serve the new demand from future residential and nonresidential growth. The project costs are attributed to development based on a proportionate share analysis. The plan-based method allocates costs for a specified set of improvements to a specified amount of development. In this method, the total cost of police facilities is divided by total growth to calculate a cost per unit.

PROPORTIONATE SHARE ANALYSIS

Shown in Figure 8 is a FY22 citywide calls for service report provided by the Police Department. Of the total calls, 49.8 percent were to residential locations and 50.2 percent were to nonresidential locations. This split is used to allocate future demand to the police capital plan for West Henderson.

Figure 8. Police Calls for Service

Land Use	FY22 Calls for Service	Percent of Total
Residential	99,306	49.8%
Nonresidential	100,129	50.2%
Total	199,435	100%

Source: City of Henderson Police Department

POLICE COST ANALYSIS

Listed in Figure 9 is the identified need for a new police station in West Henderson. In this case, there are elements to the station (i.e., the 911 call center) that are providing a citywide benefit that have been excluded from the PFNA analysis. The station totals \$31.3 million while \$21 million is attributed to future demand in West Henderson. The proportionate share percentages are applied to find the allocated cost to future residential (\$10.5 million) and nonresidential demand (\$10.5 million).

The cost per housing unit and nonresidential square footage is found by comparing the buildout projections and the allocated costs. For example, the cost per housing unit is \$331 (\$10,456,670 / 31,604 housing units = \$331 per housing unit).

Figure 9. Police Cost Analysis

Facility	Description	Total Cost	West Hend. Cost
Police Station	Excluding 911 Call Center	\$31,272,719	\$21,000,000
Total			\$21,000,000
		Residential	Nonresidential
Proportionate Share		49.8%	50.2%
Share of Capital Cost		\$10,456,670	\$10,543,330
Share of Capital Cost		\$10,456,670	\$10,543,330
Growth in Housing Units/Nonres. Sq. Ft.		31,604	16,311,133
Cost per Housing Unit/Nonres. Sq. Ft.		\$331	\$0.65

POLICE MAXIMUM SUPPORTABLE PFNA CONTRIBUTIONS

The contributions represent the highest supportable amount for each type of land use and represents new growth's fair share of the cost for capital facilities. The City may adopt contributions that are less than the amounts shown. However, a reduction in PFNA revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure 10. Police Maximum Supportable PFNA Contributions

Police Residential Contribution	
Max Contribution per Housing Unit	\$331

Police Nonresidential Contribution	
Max Contribution per Square Foot	\$0.65

POLICE PFNA CONTRIBUTION REVENUE PROJECTIONS

The maximum contribution amounts are applied to buildout projections to estimate the revenues from the PFNA program. As a result, there is \$10.5 million in projected revenue from residential development and \$10.6 million in projected revenue from nonresidential development. Thus, the maximum contribution amounts are able to offset the entire growth-related police infrastructure need in West Henderson included in this study.

Figure 11. Police PFNA Revenue Projections

West Henderson PFNA Area	Residential \$331 per Unit	Nonresidential \$0.65 per Sq. Ft.
Buildout Projection	31,604	16,311,133
Revenue Projection	\$10,460,924	\$10,602,237

Total Revenue Projection	\$21,000,000
West Henderson Police Capital Cost	\$21,000,000
Funding Gap	\$0

FIRE PFNA CONTRIBUTION ANALYSIS

The City of Henderson Fire PFNA contributions are calculated using a plan-based approach. City staff has identified need for new fire infrastructure to be constructed to directly serve the new demand from future residential and nonresidential growth. The project costs are attributed to development based on a proportionate share analysis. The plan-based method allocates costs for a specified set of improvements to a specified amount of development. In this method, the total cost of fire facilities is divided by total growth to calculate a cost per unit.

PROPORTIONATE SHARE ANALYSIS

Shown in Figure 12 is a FY22 citywide calls for service report provided by the Fire Department. Of the total calls, 69.8 percent were to residential locations and 30.2 percent were to nonresidential locations. This split is used to allocate future demand to the fire capital plan for West Henderson.

Figure 12. Fire Calls for Service

Land Use	FY22 Calls for Service	Percent of Total
Residential	28,084	69.8%
Nonresidential	12,152	30.2%
Total	40,236	100%

Source: City of Henderson Fire Department

FIRE COST ANALYSIS

Listed in Figure 13, there is a need for a new four bay fire station in West Henderson to serve future demand. The proportionate share percentages are applied to find the allocated cost to future residential (\$10.6 million) and nonresidential demand (\$4.6 million).

The cost per housing unit and nonresidential square footage is found by comparing the buildout projections and the allocated costs. For example, the cost per housing unit is \$336 (\$10,609,325 / 31,604 housing units = \$336 per housing unit).

Figure 13. Fire Cost Analysis

Facility	Description	West Hend. Cost
Fire Station	4-bay station	\$15,200,000
Total		\$15,200,000

	Residential	Nonresidential
Proportionate Share	69.8%	30.2%
Share of Capital Cost	\$10,609,325	\$4,590,675

Share of Capital Cost	\$10,609,325	\$4,590,675
Growth in Housing Units/Nonres. Sq. Ft.	31,604	16,311,133
Cost per Housing Unit/Nonres. Sq. Ft.	\$336	\$0.28

FIRE MAXIMUM SUPPORTABLE PFNA CONTRIBUTIONS

The contributions represent the highest supportable amount for each type of land use and represents new growth's fair share of the cost for capital facilities. The City may adopt contributions that are less than the amounts shown. However, a reduction in PFNA revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

Figure 14. Fire Maximum Supportable PFNA Contributions

Fire Residential Contribution	
Max Contribution per Housing Unit	\$336
Fire Nonresidential Contribution	
Max Contribution per Square Foot	\$0.28

FIRE PFNA CONTRIBUTION REVENUE PROJECTIONS

The maximum contribution amounts are applied to buildout projections to estimate the revenues from the PFNA program. As a result, there is \$10.6 million in projected revenue from residential development and \$4.6 million in projected revenue from nonresidential development. Thus, the maximum contribution amounts are able to offset the entire growth-related fire infrastructure need in West Henderson included in this study.

Figure 15. Fire PFNA Revenue Projections

West Henderson PFNA Area	Residential \$336 per Unit	Nonresidential \$0.28 per Sq. Ft.
Buildout Projection	31,604	16,311,133
Revenue Projection	\$10,618,944	\$4,567,117
Total Revenue Projection		\$15,200,000
West Henderson Fire Capital Cost		\$15,200,000
Funding Gap		\$0

SUMMARY OF MAXIMUM SUPPORTABLE PFNA CONTRIBUTIONS

In Figure 16 is a summary of the maximum contribution amounts for each infrastructure category. In summary, this study supports a maximum PFNA contribution of \$4,918 per housing unit and \$2.06 per nonresidential square foot. The figure compares the current contribution rates to the maximum allowable under this study. Overall, the study supports an increase of \$1,898 per housing unit and \$1.10 per nonresidential square foot. Furthermore, the current fee schedule has three nonresidential land uses while this study recommends a unified nonresidential fee

Figure 16. Summary of Maximum Supportable PFNA Contributions

Infrastructure Category	Maximum Supportable Contribution	
	per Housing Unit	per Nonres. Sq. Ft.
Parks & Recreation	\$4,251	\$1.13
Police	\$331	\$0.65
Fire	\$336	\$0.28
Grand Total	\$4,918	\$2.06

Development Type	Max Contribution	2023 Contribution [1]	Increase/Decrease
Residential (per unit)	\$4,918	\$3,020	\$1,898
Nonresidential (per sq. ft.)	\$2.06	\$0.96	\$1.10

[1] Note: Nonresidential contribution is the average between three development types. This update is establishing a unified nonresidential fee.

APPENDIX A. WEST HENDERSON MAP

Figure 17 illustrates the PFNA boundary.

Figure 17. West Henderson PFNA Boundary

