

Port of Kennewick



Vista Field Airport Closure and Redevelopment Estimate of Cost

February 24, 2010

**Prepared by
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Introduction

The Port of Kennewick owns the Vista Field Airport in Kennewick. The Airport includes approximately 78.6 utilized acres and an additional 28.1 acres of undeveloped property immediately surrounding the Airport for a total ownership of approximately 106.7 acres. The Port also owns additional properties in the vicinity of the Airport. Existing airport related improvements occupying the 78.6 acres are the runway, taxiways, parking areas, perimeter fencing, Fixed Base Operator Building with refueling station, three older hangar structures and three newer combined use hangar/business buildings.

The possible closure of Vista Field Airport and the subsequent development of the entire 106.7 acre area for other uses have been debated for a number of years. Recently the Port engaged the services of an engineering consulting firm to characterize the costs to close the Airport and to provide conceptual costs for the potential redevelopment of the area. Additionally, HDR Engineering, Inc. has been contracted by the Port of Kennewick to provide an independent estimate of the costs to close the Vista Field as an Airport Facility and to redevelop the area for non-Airport related commercial use. The Port will use this and other information to make a decision about the future of Vista Field. Included in the independent estimate are costs to remediate or clean-up the site, demolish and remove structures considered incompatible for future use, repayment of current aviation loans, business relocation, site planning, possible litigation and the cost to provide a basic network of streets and utilities to support the potential uses. As noted below some costs have been provided to HDR by the Port.

Limitations

The independent estimate developed by HDR Engineering, Inc. utilizes the surface areas of structures and pavements, and pavement depths determined by others, after limited verification using aerial photography only. No in-depth investigation was performed. Further, the lengths of streets, utilities or other improvements are also estimated using the aerial photography provided by the Port. Field survey data has not been collected and a preliminary design has not been completed to support this estimate.

For consistency purposes the estimate incorporates the following closure costs provided by the Port:

Integrated Planning-	\$175,000
Purchase of Lease (Shannon Hangar) -	\$500,000
Repayment of State Aviation Grant-	\$274,028
Litigation-	\$300,000
Relocation of Businesses-	\$300,000

Assumptions

In order to provide a meaningful cost estimate a number of assumptions must be made. These assumptions are as follows:

Site Demolition Costs including Remediation or Site Clean-up

- The older existing hangars along the south side of the runway can not be used for other purposes and must be removed in their entirety.
- Two of the newer business hangars can remain but the most northern hangar must be removed to allow use of the area for the basic street system. The cost to acquire the properties required to re-configure the extension of the street would likely exceed the value of the hangar.

- The existing Fixed Base Operator (FBO) Building cannot be retro-fitted for other uses and must be removed due to concerns of structural integrity and energy inefficiencies.
- There will be no salvage value for buildings although the buildings could be offered for salvage prior to removal to reduce demolition costs. The estimates do include the recycling of metal sheeting and structural members.
- Existing pavements in the runway, taxiways and parking areas will be removed in-place utilizing grinding or pulverization techniques and temporarily stored on-site. Stored materials will be re-used to the extent possible in lieu of crushed surfacing and pipe bedding material to reduce the disposal costs.
- Buried conduits for runway lighting can remain but electrical wiring and lights will be removed.
- No asbestos material requiring special removal and disposal exists.
- Petroleum contaminated soil requiring removal and special handling is limited to the refueling station and shall not exceed 200 tons. Existing underground tanks are not known to have leaked petroleum products into the underlying soils, therefore no remediation costs are assumed.

Redevelopment Costs

- Includes providing all basic infrastructure required by the City of Kennewick for all new streets, i.e., streets, water, water services, fire hydrants, sewer and side sewers, street lights, curb, gutter, sidewalk, and planting strips as detailed in City Standard Plan 2-2, Exhibit “B” attached.
- The City will allow pulverized pavement grindings to be used in lieu of crushed surfacing on a 1.5 to 1 depth ratio and for pipe bedding.
- There is a sufficient amount of on-site materials for use in re-shaping the pavement removal areas. The import of borrow material is not required.
- The level of improvement of the existing streets around the Airport and adjoining the Port property will be limited to the installation of new sidewalk adjacent to the existing curb only where sidewalk does not currently exist.
- The City will require the installation of a traffic signal or round-about at the intersection of Kellogg and Quinault.
- The infrastructure costs are based upon the street system and lot configuration shown on the attached Exhibit “A”, Conceptual Site Plan.
- Power is available for extension to the site and will be provided by the Benton PUD at a cost to be reimbursed by the Port.
- Communications costs will include providing buried conduits only.
- All the work is to be performed by public contracts and therefore wages are subject to the payment of State prevailing wages.

Estimated Costs

The Tables below represent a summation of the estimated cost for closure, site demolition, and redevelopment. Where applicable, a detailed estimate for the items of work is attached with unit prices and quantities for demolition and the construction of streets and utilities. The estimates for new street and utilities are conceptual only. The development of a preliminary design as a basis for the estimate is beyond the scope of work authorized.

Table No. 1, Closure Costs, is simply a tabulation of the costs provided by the Port and represent the costs to prepare the information to seek approval to close the Airport (Integrated Planning), and the estimated costs to mitigate the closure.

Table No. 2, Site Demolition, is a summation of the estimated demolition costs. An estimate for the items of work is attached with unit prices and quantities. Where noted on the building demolition estimates, the unit prices are based upon Heavy Construction Cost Data, 22nd Edition, published by *RSMMeans*. For disposal, the costs have been estimated by combining the reported cost to dispose or the tipping fee with the estimated cost to load and haul the material to the disposal site. The Building Demolition and Pavement Removal estimates include a 20% contingency to cover unknown conditions and/or additional work and a 5% mark-up to cover the costs to prepare solicitations, monitor the clean-up and contract administration.

Table No. 3, Redevelopment Costs, represents a summary of the costs to prepare the site for redevelopment including the planning and permitting processes. The cost for Streets and Development Infrastructure is based upon the estimate attached. The unit prices for the various items of work contained in the estimate are based on compiled unit prices from area local agencies for similar work, adjusted in some cases based upon professional opinion. The estimates include a 20% contingency to cover changes in quantities or additional items of work not included in the estimate, and 15% for engineering and contract administration. For new construction, 15% is used for project development based upon the industry average cost to design a new project, prepare plans and specifications, and to administer the project.

Closure Costs

The estimated costs to cease operations of Vista Field as an Airport and to prepare the site for redevelopment are summarized as follows:

Table No. 1 Closure Costs

Item	Estimated Cost
Integrated Planning	\$175,000
Purchase of Lease (Shannon Hangar)	\$500,000
Repayment of State Aviation Grant	\$274,028
Litigation	\$300,000
Relocation of Businesses-	\$300,000
Estimated Total Closure Cost	\$1,549,028

Site Demolition

The following is a summary of the estimated costs for site demolition. See attached estimates for a breakdown of the costs.

Table No. 2 Site Demolition

Item	Estimated Cost
Pavement Removal & Disposal	\$782,800
FBO Building Demolition	\$64,700
Fueling Station Demolition	\$29,300
Old Hangars Demolition	\$68,200
New Hangar Demolition	\$69,800
Misc. (Fencing, Lights & Etc.)	\$88,100
Estimated Total Site Demolition Cost	\$1,102,900

Redevelopment Costs

The estimated costs to prepare a plan for redevelopment and complete the necessary studies and applications to implement the plan, and to construct the supporting infrastructure are summarized below. The elements in the Redevelopment Master Plan would include but not be limited to a market analysis, updated infrastructure improvement plan including development standards, business plan, and implementation plan with public involvement during all phases of preparation.

Table No. 2 Redevelopment Costs

Item	Estimated Cost
Redevelopment Master Plan	\$175,000
Survey & Develop Binding Site Plan	\$27,500
Environmental (SEPA, Cultural & Traffic)	\$30,000
Streets and Development Infrastructure	\$4,971,200
Estimated Total Redevelopment Cost	\$5,203,700

Total Combined Estimated Cost**\$7.86 M**

Closure Cost Estimate- Pavement Removal

Surface Area¹= 125,400 SY

Quantity of Existing Pavement²= 37,000 CY or approximately 76,000 Tons using recognized conversion of 2.05 Tons/CY³

Assumptions:

Rotomilling or grinding to require two separate passes to be able to use the material from the first pass for crushed surfacing or pipe bedding.

All grindings will be temporarily stockpiled on-site prior to being hauled for re-use by others.

Items of Work	Unit	Unit Price	Est. Quantity	Est. Cost
Mobilization @ 8% of Other Items	LS	\$ 46,389.40	1	\$ 46,389.40
Rotomilling	SY	\$ 1.90	124,500	\$ 236,550.00
Haul to Temporary Stockpile	Ton	\$ 1.25	76,000	\$ 95,000.00
Haul Off-site For Re-use By Others ^{4,5}	Ton	\$ 5.65	43,950	\$ 248,317.50
Grindings Re-purchase Value ⁶	Ton	\$ -	43,950	\$ -
Subtotal				\$ 626,256.90
20% Contingencies				\$ 125,251.38
5% Engineering & Construction Admin.				\$ 31,312.85
Total Estimated Cost- Pavement Removal				\$ 782,821.13

Notes:

1. Based on pavement areas determined by Arculus and reasonably confirmed by HDR using aerial photography.
2. Volume of material based upon pavement depths for the various areas previously determined by Arculus.
3. Conversion from CY to Tons from WSDOT Design Manual.
4. 12,250 Tons used for crushed surfacing & 19,800 used for pipe bedding and trench backfill.
5. Based upon \$0.30/Ton mile for 15 miles plus \$0.70/Ton to load and unload.
6. The value of the grindings varies from \$6/Ton if a purchaser can be located to \$0/Ton if hauled to a commercial asphalt supplier. The cost for disposal of slabs of pavement ranges from \$5.50 to \$6.50/Ton. For this estimate the re-purchase value is assumed to be \$0/Ton since no purchaser of the quantities that will be generated is known.
7. Unit prices have been adjusted to include sales tax

Closure Cost Estimate- Building Demolition

Demolition Item	Unit	Unit Cost ¹²	Est. Quantity	Est. Cost
FBO Building & Hangar- 4,550 SF (Footprint)				
1550 SF, 2 Story Block ¹	CF	\$ 0.33	24,800	\$ 8,184.00
155 LF Block Walls, 2 Story ¹	SF	\$ 2.40	2480	\$ 5,952.00
3000 SF Hangar ¹	CF	\$ 0.16	48000	\$ 7,680.00
Conc. Slab ^{1,2}	SF	\$ 4.58	4550	\$ 20,839.00
Footing & Foundation Wall ^{1,3}	LF	\$ 14.67	380	\$ 5,574.60
Conc. Disposal ⁴	Ton	\$ 13.62	260	\$ 3,541.20
Steel Recycling ⁵	Ton	\$ (111.90)	20	\$ (2,238.00)
Building Material Disposal ⁶	Ton	\$ 63.10	35	\$ 2,208.50
Subtotal				\$ 51,741.30
20% Contingency				\$ 10,348.26
5% Engineering & Admin.				\$ 2,587.07
Total- FBO Building & Hangar				\$ 64,676.63
Re-Fueling Station				
12,000 Gal. Fuel Tank Removal ¹	LS	\$ 2,816.00	1	\$ 2,816.00
6,000 Gal. Fuel Tank Removal ¹	LS	\$ 2,166.00	1	\$ 2,166.00
Disposal of Contaminated Soil ⁷	Ton	\$ 55.40	200	\$ 11,080.00
Conc. Slab ^{1,8}	SF	\$ 4.58	1450	\$ 6,641.00
Conc. Disposal ⁴	Ton	\$ 13.62	52	\$ 708.24
Subtotal				\$ 23,411.24
20% Contingency				\$ 4,682.25
5% Engineering & Admin.				\$ 1,170.56
Total- Re-fueling Station				\$ 29,264.05
Old Hangars- 3 Hangars approx. 29,250 SF				
Hangars ¹	CF	\$ 0.16	351,000	\$ 56,160.00
Steel Recycling ^{5,11}	Ton	\$ (111.90)	55	\$ (6,154.50)
Building Material Disposal ⁶	Ton	\$ 63.10	72	\$ 4,543.20
Subtotal				\$ 54,548.70
20% Contingency				\$ 10,909.74
5% Engineering & Admin.				\$ 2,727.44
Total- Old Hangars				\$ 68,185.88
New Business Hangar- 5,600 SF (Shannon Hangar)				
Hangar- 4640 SF ¹	CF	\$ 0.16	55,680	\$ 8,908.80
Metal Office Building- 960 SF ¹	CF	\$0.33	11,520	\$ 3,801.60
Footing & Foundation Wall ^{1,3}	LF	\$ 14.67	300	\$ 4,401.00
Conc. Slab ^{1,2}	SF	\$ 4.58	5,600	\$ 25,648.00
Conc. Apron Slab ^{1,2}	SF	\$ 4.58	2,400	\$ 10,992.00
Conc. Disposal ⁴	Ton	\$ 13.62	246	\$ 3,350.52
Steel Recycling ⁵	Ton	\$ (111.90)	24	\$ (2,685.60)
Building Material Disposal ⁶	Ton	\$ 63.10	22	\$ 1,388.20
Subtotal				\$ 55,804.52
20% Contingency				\$ 11,160.90
5% Engineering & Admin.				\$ 2,790.23
Total- New Hangar				\$ 69,755.65
Other Miscellaneous Items				
Perimeter Fencing ¹	LF	\$3.71	19,000	\$ 70,490.00
Runway Lighting- Fixtures Only	LS	\$0.00	1	\$ -
Conduits & Electrical Conductors	LS	\$0.00	1	\$ -
Subtotal				\$ 70,490.00
20% Contingency				\$ 14,098.00
5% Engineering & Admin.				\$ 3,524.50
Total- Other				\$ 88,112.50

Notes For Building Demolition:

1. Unit price derived from Heavy Construction Cost Data, 22nd Edition, published by *RSMMeans*.
2. Assumed 4" unreinforced slab for determination of disposal quantity.
3. Assumed 1' x 2' footing w/8" x 2' foundation wall for determination of disposal quantity.
4. Unit Price= \$5.50/Ton Disposal + \$7.50/Ton Haul
5. Unit Price= \$120/Ton Recycling Credit - \$7.50/Ton Haul
6. Unit Price= \$55/Ton Tipping Fee + \$7.50/Ton Haul
7. Unit Price= \$20.72/Ton Tipping Fee + \$32/Ton Haul
8. Assumed 6" unreinforced slab for determination of disposal quantity.
9. Assumes fixtures offered to smaller Airports if removed at no cost.
10. Assumes conduits to be left in-place & salvage value of conductors to equal cost to remove.
11. Includes weight of steel runways (3,090 SF @ 5 lbs/SF)
12. The Washington State Department of Revenue considers demolition to be taxable. The unit costs include 8.3% sales tax on all items of work with the exception that sales tax has only been added to the cost of haul for the disposal items of work.

Redevelopment Cost Estimate- Infrastructure

Assumptions and/or Clarifications:

New Streets & Infrastructure

Based upon City of Kennewick's Standard Drawing No. 2-2 with minor modifications

Street Width= 40' face of curb to face of curb

Surfacing- 3" HMA
2" Crushed Top Course
6" Grindings in lieu of Crushed Base Rock

Stormwater Handling- In street catch basins spaced at 300' each side with piping to 60' of infiltration trench under

Plantings- 10' wide planting strip each side of new street

Irrigation System

Sod

Trees @ 30' on center

Street Lights- City/PUD standard luminaires @ 150' on center. Spacing for ornamental fixtures would be reduced to approx. 100' with a cost increase of \$900 per luminaire.

Fire Hydrants- 300' on center. Offset with 8" connection for future use to meet fire flow

Water- 8" water main

Water service to each lot at lot line

Sewer- 8" main line

6" building sewer service for each lot

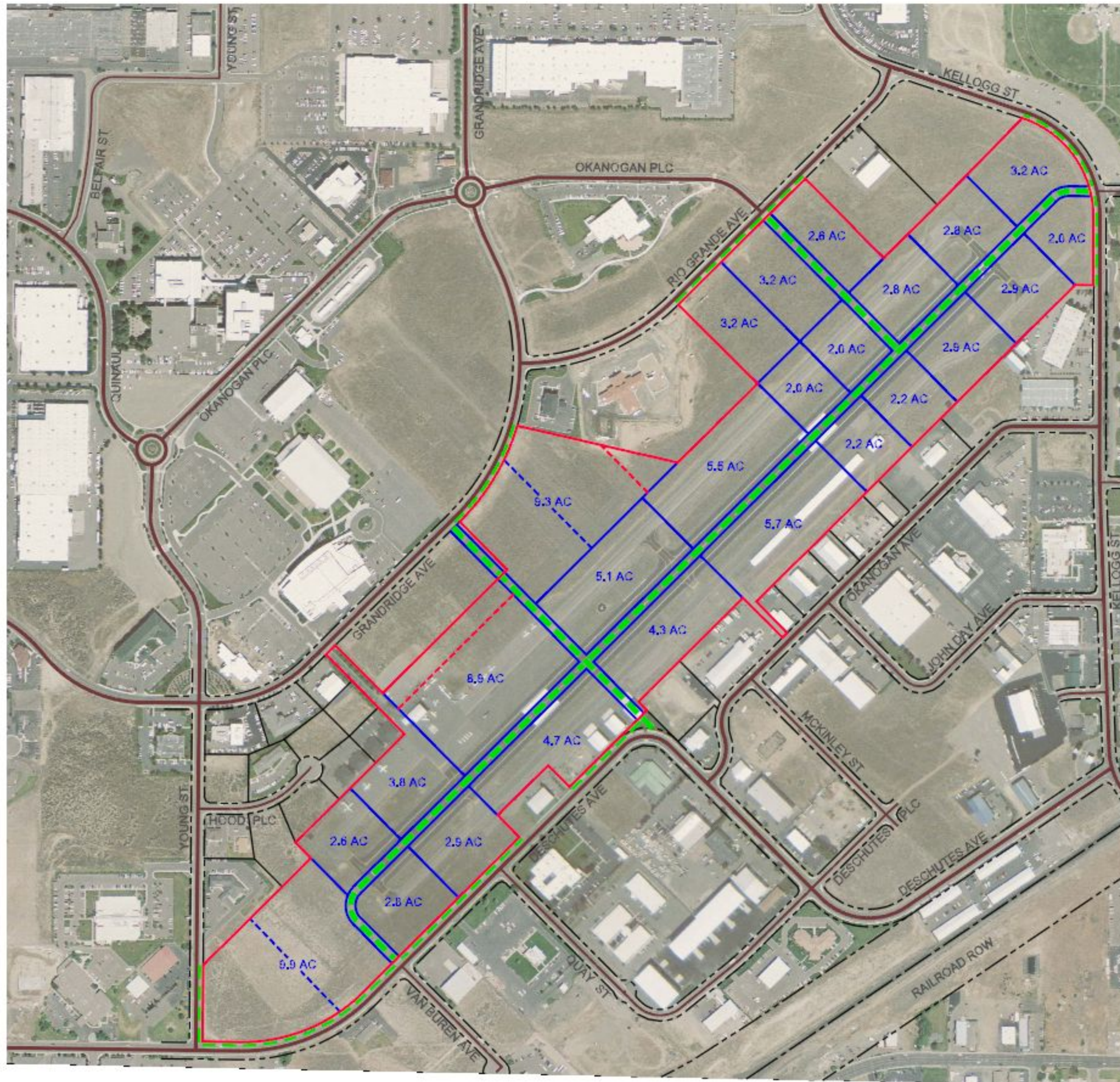
Manhole at all intersections, changes in direction, and/or 500' on centers

Traffic Mitigation- New signal or round-about at the Kellogg/Quinault intersection

Existing Streets- 5' Sidewalk Only along Port Property

Sales Tax- Per Dept. of Revenue Rule 171 sales tax is applied to the materials portion of street related items of work only and to both labor and materials for non-street work such as water and sewer. The unit costs below include applicable sales tax.

Items of Work	Unit	Unit Price	Est. Quantity	Est. Cost
Mobilization @ 8% of Other Items	LS	\$ 272,767.22	1	\$ 272,767.22
Clearing and Grubbing	LS	\$ 10,000.00	1	\$ 10,000.00
Construction Staking	LS	\$ 35,000.00	1	\$ 35,000.00
Earthwork- Grading, Excavation & Compaction	CY	\$ 8.00	15,500	\$ 124,000.00
Earthwork- Existing Street Sidewalk	CY	\$ 15.00	475	\$ 7,125.00
Seeding and Mulching	AC	\$ 2,500.00	1.6	\$ 4,000.00
HMA	Ton	\$ 75.00	5,605	\$ 420,375.00
Existing Street Restoration	SY	\$ 50.00	75	\$ 3,750.00
Crushed Top Course	Ton	\$ 15.00	5,070	\$ 76,050.00
Grindings In-Place for Base	Ton	\$ 5.00	11,140	\$ 55,700.00
Conc. Sidewalk (New Streets)	SY	\$ 28.00	7,917	\$ 221,676.00
Conc. Sidewalk (Existing Streets)	SY	\$ 28.00	2,892	\$ 80,976.00
Grindings for Sidewalk (New Streets)	Ton	\$ 5.00	850	\$ 4,250.00
Grindings for Sidewalk (Existing Streets)	Ton	\$ 5.00	300	\$ 1,500.00
Conc. Curb & Gutter	LF	\$ 11.00	14,200	\$ 156,200.00
Catch Basin	EA	\$ 950.00	56	\$ 53,200.00
Infiltration Trench	LF	\$ 50.00	3,360	\$ 168,000.00
Stormwater Basin	EA	\$ 200.00	56	\$ 11,200.00
Stormwater Cleanout	EA	\$ 150.00	56	\$ 8,400.00
Street Lights	EA	\$ 3,000.00	84	\$ 252,000.00
8" Water Main	LF	\$ 27.08	7,444	\$ 201,583.52
Connect to Existing Water Main	EA	\$ 1,624.50	5	\$ 8,122.50
8" Gate Valves	EA	\$ 1,061.30	20	\$ 21,226.00
2" Water Service	EA	\$ 1,245.50	24	\$ 29,892.00
Fire Hydrant Assembly	EA	\$ 5,200.00	25	\$ 130,000.00
8" Sewer Line	LF	\$ 29.25	7,424	\$ 217,152.00
Sanitary Manhole	EA	\$ 3,520.00	20	\$ 70,400.00
6" Side Sewer	EA	\$ 975.00	24	\$ 23,400.00
Trench Safety	LF	\$ 1.65	14,868	\$ 24,532.20
Top Soil	SY	\$ 4.00	15,485	\$ 61,940.00
Irrigation System	SY	\$ 3.00	15,485	\$ 46,455.00
Sod	SY	\$ 8.00	15,485	\$ 123,880.00
Tree Plantings	EA	\$ 420.00	475	\$ 199,500.00
Traffic Signal/Roundabout	LS	\$ 250,000.00	1	\$ 250,000.00
Misc. Traffic Signs & Markings	LS	\$ 5,000.00	1	\$ 5,000.00
Electrical Service (PUD)	LF	\$ 32.50	8,350	\$ 271,375.00
Telephone Conduit	LF	\$ 3.80	8,350	\$ 31,730.00
Subtotal				\$ 3,682,357.44
20% Contingencies				\$ 736,471.49
15% Engineering & Construction Admin.				\$ 552,353.62
Total Estimated Cost- New Street & Utilities, & Sidewalk along Existing Streets				\$ 4,971,182.54



ROADWAY IMPROVEMENTS

FULL ROADWAY:

44' ROW WITH 15' PUBLIC SIDEWALK AND
UTILITY EASEMENTS EACH SIDE - 7,120 LF

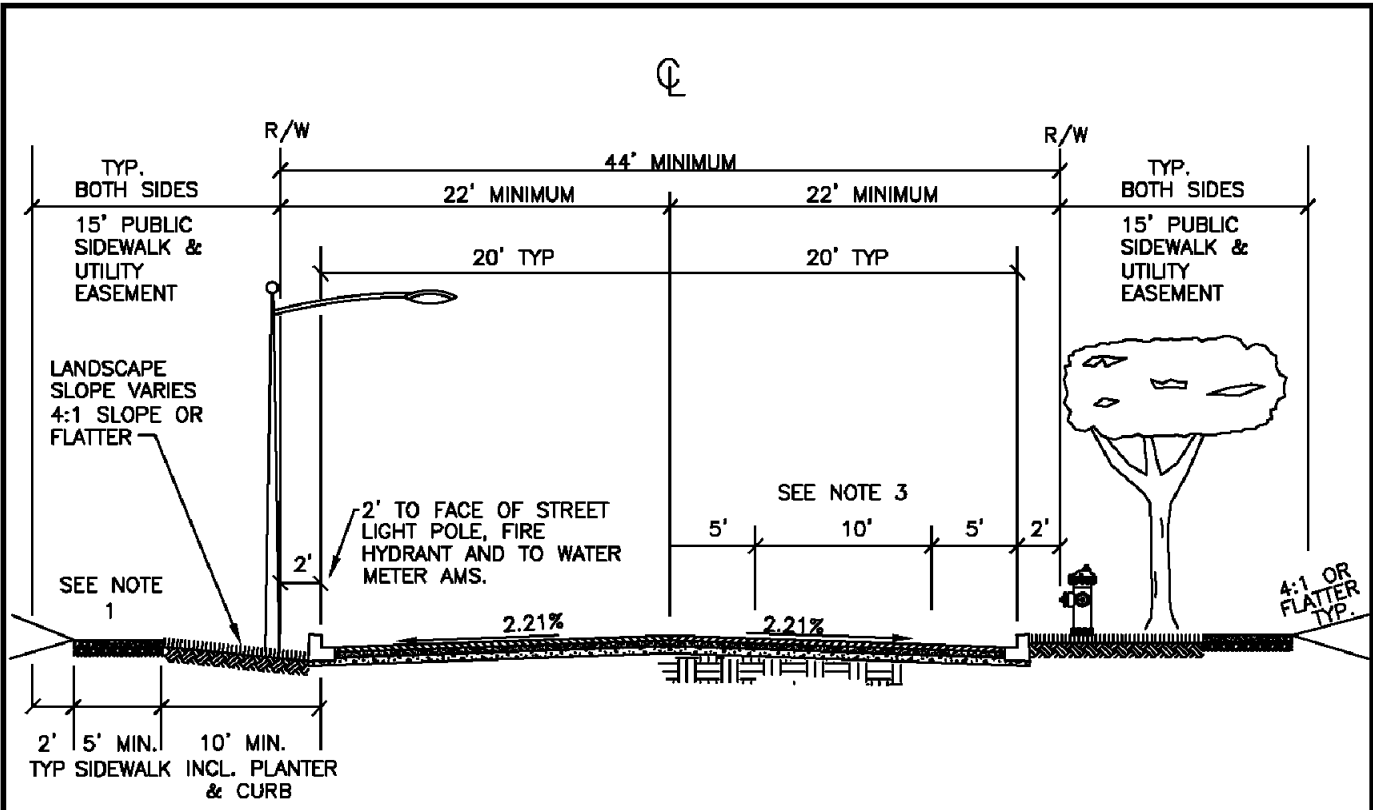
FRONTAGE:

60'/80' ROW - 4,685 LF

EXHIBIT A
CONCEPTUAL SITE PLAN
PORT OF KENNEWICK
VISTA FIELD

JAN 20, 2010

HDR



NOTES:

1. **SIDEWALK AND DRIVEWAY CONSTRUCTION** IN CONJUNCTION WITH THE STREET DESIGN, THE DESIGNER WILL INCLUDE A SIDEWALK PROFILE, IF THE GRADE OF THE SIDEWALK WILL DIFFER FROM A DESIGNATED STANDARD VERTICAL OFFSET FROM THE CURB. ALL ADA CURB RAMPS SHALL BE SLOPED AT 12:1 OR FLATTER. ON ALL RESIDENTIAL DEVELOPMENTS AND WHEN REQUIRED BY THE PLANNING REVIEW ON COMMERCIAL DEVELOPMENTS, THE DEVELOPER WILL BE REQUIRED TO CONSTRUCT ALL SIDEWALKS.
2. **PLANTING AREA** LANDSCAPE ELEMENTS, IRRIGATION SYSTEM, PLANT MATERIALS, AND STREET TREES SHALL BE COMPLETED BY THE DEVELOPER AND MAINTAINED BY THE HOME OWNERS ASSOCIATION. IN ABSENCE OF A HOMEOWNERS ASSOCIATION, LANDSCAPING SHALL BE PLANTED AND MAINTAINED BY THE INDIVIDUAL PROPERTY OWNER PER KMC 5.56.360. ALL IRRIGATION AND LANDSCAPE IMPROVEMENTS SHALL MEET THE APPROVAL OF THE COMMUNITY PLANNING DEPARTMENT DIRECTOR. STREET TREES MUST BE SELECTED FROM THE CITY'S RECOMMENDED STREET TREE LIST (KAC 10.90.070). ALTERNATIVE SPECIES WILL BE CONSIDERED (KMC 18.64.090 (20)). INSTALLATION OF TREES AND LANDSCAPING MATERIAL MUST MEET THE PROVISIONS OF KMC 18.64.
3. TYPICAL LANE WIDTHS SHOWN, SUBJECT TO TRAFFIC ENGINEER REVIEW.
4. FOR CONSTRUCTION NOTES AND DETAILS NOT SHOWN, SEE SHEET 1.

**COLLECTOR STREET
2005 AND NEWER**

SEE SHEET 1 FOR DEVELOPMENTS APPROVED PRIOR TO JANUARY 1, 2005

<p>CITY OF KENNEWICK ENGINEERING DEPARTMENT</p>	DATE	2/93	<p>DWG. NO. 2-2 SHEET 2 OF 2</p>
	DWN	CJD	
	REV	11/07	
	CHK	DLK	
	SCALE	NTS	

EXHIBIT B