Spokane River Centennial Trail

Master Plan

Spokane Valley Chamber of Commerce

Jones & Jones Architects and Landscape Architects

November 1987
This report summarizes the concept, proposed alignment, development standards, implementation strategy and projected construction costs for the Spokane River Centennial Trail from the Washington/Idaho stateline to Spokane House. It represents the efforts of the master plan sponsors to develop the idea of the Trail into a tangible project proposal.

November 1987

Master Plan Sponsor
Spokane Valley Chamber of Commerce
with private and local agency contributions
The Spokane River

The Spokane River flows west into Washington from Lake Coeur d'Alene, Idaho. It runs 110 miles to the Columbia River in Lake Roosevelt, the reservoir behind the Grand Coulee Dam. The study area for the Spokane River Centennial Trail extends from the Idaho/Washington stateline west to Little Falls, a total distance of approximately 75 river miles.

The river traverses a cross-section of regional land uses, from wilderness to metropolitan core. It flows through a large state park, five county parks, and numerous city parks. It flows freely and swiftly through woodland and range, cascades down ancient tree-lined falls, and quietly pools under bridges and above historic dams.

"Nothing is so firmly impressed on the mind of the visitor to Spokane, as regards its appearance, as the great gorge into which the river falls near the centre of the city."
Olmsted Brothers Plan 1908

Introduction
For over a decade there has been interest in developing a safe, continuous recreational trail along the Spokane River, a landscape rich in history, cultural heritage, and natural drama. The Spokane River Centennial Trail carries on the Spokane tradition of community foresight in establishing parks before open space is consumed by development.

In addition to providing a valuable recreation resource, the trail will provide an opportunity to address open space, shoreline and scenic resource management in the immediate environs of the Spokane River.

The Spokane River Centennial Trail will commemorate the historical significance of places and events related to the river, and celebrate the natural processes that continue to shape the river and the region. The area's natural beauty, historic chronicle, and the trail's recreational opportunities, will contribute to the regional quality of life and serve as an attraction for visitors nationwide.

The trail will extend almost 40 miles from the Idaho border through the Spokane Valley, the Spokane central business district and on to historic Spokane House in Riverside State Park. As envisioned, the trail will accommodate bicyclists, pedestrians, equestrians and the handicapped on right-of-way that is mostly separated from motor traffic.
Other plans are being made to build a connecting 12 mile centennial trail in Idaho from the state-line to Coeur d'Alene. A 27 mile extension of the Spokane River Centennial Trail could continue downstream from Spokane House on existing roads to Little Falls on the Spokane Indian Reservation.

The natural scenic beauty of this area, combined with its significant historic aspects, make this a very special project for the entire northwest region.

I am delighted in the way this project is bringing citizens together from both the great states of Washington and Idaho. There are individuals of all ages and walks of life who are participating in this plan. I am encouraged at the broad base, bipartisan support that has developed on all levels of the government, federal, state, county and local.

This project transcends cultural and political differences and allows us to celebrate our shared pride in this beautiful and diverse region.

Thomas S. Foley
U.S. Senator

Ownership Patterns and Acquisition
The banks of the Spokane River and immediate uplands remain predominantly undeveloped because of the legacy of the 1908 Olmsted plan for city parks, and an ownership pattern established by hydro-power and timber interests.

In the early years of the century, Inland Empire Paper Company acquired land along the banks of the Spokane River for the purpose of building a power-generating dam near present-day Mirabeau Park. However, the dam was not built, and the land remains undeveloped.
The Washington State Parks and Recreation Commission has property outside of park boundaries that can be returned to private ownership. The State is negotiating with Inland Empire Paper Company to acquire right-of-way for 10 miles of Spokane River open space through a surplus land trade agreement. By trading lands, each party benefits, and the public gains a major resource.

Most of the remaining right-of-way is already public property controlled by: Washington State Parks and Recreation Commission, Washington State Department of Transportation, Spokane County, and the City of Spokane.

Several parcels owned privately should be purchased for trail right-of-way.

Existing Recreational Use
The Spokane River is a major recreational resource for residents of the Spokane area. Existing recreational uses on and adjacent to the river include horseback riding, floating in rafts, canoes and kayaks, water skiing, motor boating, bicycling, fishing, walking, running, rock climbing, cross-country skiing, swimming, and picnicking.

These activities are enjoyed in existing city, county and state parks and parkways, and on private riverside land without capital improvements, supervision, or maintenance.

"We find that the concept of a trail corridor along the Spokane River is an excellent one which would contribute greatly to recreation opportunities in the Spokane area."

Washington State Parks and Recreation Commission
October 16, 1987

"We recommend that communities create a network of greenways across the country, that states establish scenic byways, and that governors create outdoor corps to maintain trails and parks."

President's Commission on Americans Outdoors
January 1, 1987
Resource Conservation
The Spokane River is a greenway passing through and connecting the communities of the Inland Empire. This oasis, the clear water, trees, fish and wildlife is a significant element of the quality of life so valued here.

The cities of Coeur d'Alene and Spokane are growing toward each other at a fast pace, putting development pressure on agricultural and other open lands. As mentioned above these open lands close to the city are valuable recreation resources that are presently unprotected. The plants, wildlife, open spaces and the river itself could be replaced by city.

Establishing public ownership of the river open spaces will preserve these resources for the enjoyment of generations to come, when the surrounding lands are fully developed.

INTERPRETIVE OPPORTUNITIES
Cultural History
Spokane River is a landmark in the regional history of the Northwest from ancient Indian societies to Spokane's modern achievements.

It was the life's blood for Native Americans who fished, traded and lived along its banks. Evidence of early occupation can be seen at the petroglyphs near the Little Spokane River and Long Lake Dam.

During nineteenth century exploration and settlement, the river was landmark, provider, barrier and travel route. Many sites along the trail are commemorated in the journals of early explorers and missionaries, and in military records; some are still visible as historic structures and bridges, and in the vestiges of early roads and ferry landings.

With the arrival of the industrial age, the river became a source of power for fueling new machines and factories, lighting homes and schools. It provided the energy needed for the rapid growth of Spokane as the capital of the Inland Empire. Its role today has changed little. It continues to be the centerpiece of the industrial, cultural and recreational life of the region.

In our lifetime Spokane and Coeur d'Alene will be one city, fully developed. If we don't provide for open space and recreation on the river now, it won't happen.
Cecil Andrus
Governor of Idaho
Natural History
The landform of the Spokane River region is one of the unique features of local natural history. It is a composite of volcanic and glacial geology represented by the deep lava flows, petrified trees, and glacial deposits that define the river corridor. Dramatic changes in terrain, from open wheat prairies to the pine forests of Spokane Mountain, characterize the region. Opportunities for natural history interpretation are great. They range from descriptions of volcanic, glacial and modern landscape history, and natural plant and animal diversity, to demonstrations of aquifer recharge and protection of ground water resources.

There is an opportunity to connect these elements together into a continuous interpretive story, following the underlying thread of the river.

As an educational resource, the lands protected by the Spokane River Centennial Trail will be safely accessible to primary, secondary and college students inspiring learning and concern for all rivers and their environs.

Making it happen
The dedication of the Spokane River Centennial Trail could occur in 1989 to commemorate the Washington State Centennial. A number of steps must be taken to achieve this goal:

- Develop and mobilize community support
- Incorporate and prioritize trail development in county, city and state park plans
- Establish an agency coordination and project administration plan
- Prepare detailed design and construction documents
- Secure acquisition, construction and operation funds

Please accept my congratulations for the progress you have made on the proposed Spokane River Centennial Trail. It promises to be an outstanding resource for hikers, runners and other outdoor enthusiasts as well as a fine addition to Spokane recreation network.

A great deal of work has gone into this project already and I am convinced that the coalition of civic, government and private groups and individuals will be successful in finishing the job.

Washington Governor Booth Gardner
November 3, 1987
Develop and mobilize community support
The most significant factor in making the trail a reality will continue to be community participation. Political support for the project ranges from local agencies and elected officials to our representatives in Olympia and Washington DC. Washington and Idaho Governors Gardner and Andrus support the trail.

Surveys of Spokane area residents indicate that an overwhelming number would participate in trail related work, including campaigning, construction and, if necessary, taxation. Enthusiasm for the project should be continued and enhanced through widespread community mobilization:
- A letter writing campaign should be organized.
- A community commitment should be demonstrated through dedicated construction and maintenance funding supported by taxation.
- Trail user support for the project should be organized through benefits, trail corps projects and group rides.

"... light a new prairie fire of community concern and investment to preserve and create outdoor opportunities for the next generation of Americans."
President's Commission on Americans Outdoors

Incorporate and prioritize trail development in county, city and state park comprehensive plans.
Land use zoning, building codes, operations and capital improvements expenditures, acquisition, staffing and lobbying by public agencies are all authorized and prioritized through agency plans. To assure timely implementation, continuing support and minimum conflict with other agency plans and policies, the Spokane River Centennial Trail should be recognized in all agency plans as a distinct entity with a high priority.

The 1908 Olmsted plan for city parks included dedication of riverside property throughout the city to recreation and open space.
- The City of Spokane should reinforce this legacy by implementing the Spokane River Centennial Trail to compliment the existing park system and enhance recreational opportunities along the river.

Spokane County has a number of existing parks the trail passes through.
- The county comprehensive plan and the county park plan should specifically address the trail as desirable recreation and open space element that connects these parks, furthering the shoreline management goals.
Riverside State Park was established in 1933 through the foresight and generosity of community leaders. Its purpose was to preserve the beauty of the valley and to protect recreation opportunities near the burgeoning city. Today the park comprises nearly 7,000 acres, and hosts 1.3 million visitors annually. However, the park has no master plan for capital improvements to meet changing user demands, improve existing facilities or resource enhancement and protection.

The recommended Spokane River Centennial Trail alignment through Riverside State Park follows existing routes to minimize new development without an overall park plan. These are not necessarily the best long term trail solutions.

- A comprehensive plan for the park should be prepared before major capital improvements are made. One element in the plan should be improvement of the Spokane River Centennial Trail with separated, Class 1 alignments for bicycles, horses and hikers.

"We applaud the efforts of the citizens of the Spokane area and encourage them in the fulfillment of their dream."

Richard Leake, Chief

Julie Planning and Acquisition
Washington State Parks and Recreation Commission

Establish an agency coordination and project administration plan.

The forty mile Spokane River Centennial Trail was conceived as single project that unifies two states, crosses from county jurisdiction into city, into state park. Implementation should not be fragmented by jurisdiction.

City, county, state and federal agencies have interests in various aspects of the development of this trail. For some of the agencies, this project will fit neatly into their normal routine thus assuring timely participation and support. For other agencies this type of project may unfamiliar, making communication and coordination a very important element in successful implementation.

- A Spokane River Centennial Trail administrative authority should be established. The role of this authority should be to:
  - Expedite planning and design under the guidance of a steering committee composed of representatives of the, public agencies and user groups.
  - Coordinate agency participation and communication.
  - Secure design continuity.
  - Coordinate and administer funding for trail construction and operation.
Detail design and construction documents.
The Spokane River Centennial Trail was conceived as one trail. It is a continuous thread, a stream of open space flowing through the regional community. The recommendations in this report identify development standards and general alignment. Detail design, engineering, traffic analysis, and construction documents must still be prepared.

Design and construction of the Spokane River Centennial Trail should not be fragmented. It should be designed and built as one project resulting in:
- Lower design, administration, acquisition and construction costs.
- Greater community satisfaction.
- Greater possibility of realizing the best possible alignment and design standard.

Secure acquisition, construction and operation funds.
The costs associated with the design, administration and construction of the Spokane River Centennial Trail are estimated at approximately $6.5 million. Annual operation costs are expected to be $140,000.

Local individuals, businesses and agencies are already investing time and funds for trail planning. The State of Washington is in the process of acquiring land. State and federal funding can help build the Spokane River Centennial Trail, but residents of the Spokane area have to enter the process by authorizing local agency expenditures, conducting fund raising and investing time in support of the trail effort.

In January 1987 the President's Commission on Americans Outdoors recommended that communities be encouraged to participate in establishing their own open space and recreation resources. Federal programs for protecting open space and recreation opportunities can help, but the community must act.
On Class One trails the maximum desirable grade for long climbs is five percent, although very short grades of up to eight percent can be tolerated. These slopes are consistent with Washington State regulations for accessibility by handicapped persons.

It is most desirable to maintain Class One continuity by separating trail crossings from motorized traffic with under-passes or over-passes. Where on-grade crossings are unavoidable, traffic control devices should be installed and adequate sight distances provided for both motorists and trail users.

Class II Separated Where terrain and existing development precludes a separated alignment and on-road conditions permit safe trail use, sections of the trail will be developed as Class II on-road bike lanes with a separate unpaved trail for pedestrian and equestrian use. Class II Separated trail totals 8 miles.

Class II Combined A short section of trail is aligned on Upriver Drive near Boulder Beach where all users must use the existing road shoulder. Class II Combined trail totalling .5 miles.

Class III Many of the existing bike routes in the Spokane area are signed on-road bike routes, with no additional pavement width or special striping. Where development precludes establishing a separated alignment, and where traffic levels permit, Class III trails are tolerable to complete trail connections. In the Foothills Park the Spokane River Centennial Trail must follow Maligo Drive for 2.3 miles.
DEVELOPMENT STANDARDS

Safety
For the safety and enjoyment of trail users 28 miles of the Spokane River Centennial Trail will be Class One completely separated from roads used by motor vehicles.

When intended primarily for bicycling Class One trails are often referred to as bikeways, although other non-motorized traffic is tolerated and usually included in the design criteria. Only security and maintenance vehicles will be allowed on this portion of the trail.

Although system continuity is important, dimensions in some sections of the trail will vary to accommodate site conditions and existing development. Three types of Class One trail where designed for the Spokane River Centennial Trail to respond to varying user, terrain and development conditions.

Class One Optimal segments, totalling 14.5 miles, have a twelve foot wide paved surface for wheeled and pedestrian traffic, and a separate stabilized aggregate surface eight feet wide for equestrians and runners. The trail will be separated from adjacent traffic lanes by a median at least ten feet wide.

Class One Minimal segments, totalling 7.8 miles, will have a paved surface ten feet wide for wheeled and pedestrian traffic, and stabilized aggregate shoulders totalling at least three feet for equestrians and runners. The trail will be separated from adjacent traffic lanes by a median at least five feet wide or traffic barriers.

Class One Urban segments, totalling 5.6 miles, will not experience as much equestrian traffic, but will have greater pedestrian loads. Class One Urban segments will have a paved surface twelve feet wide for wheeled and pedestrian traffic, and stabilized aggregate shoulders totalling at least three feet for equestrians and runners. The trail will be separated from adjacent traffic lanes by a median at least five feet wide or traffic barriers.
For over a decade there has been interest in developing a safe, continuous recreational trail along the Spokane River, a landscape rich in history, cultural heritage, and natural drama. The Spokane River Centennial Trail carries on the Spokane tradition of community foresight in setting aside open space before it is consumed by development. In addition to providing a valuable recreation resource, the trail will provide an opportunity to address open space, shoreline and scenic resource management in the immediate environs of the Spokane River.

The Spokane River Centennial Trail will commemorate the historical significance of places and events related to the river, and celebrate the natural processes that continue to shape the river and the region. The areas' natural beauty, historic chronicle, and the trail's recreational opportunities, will contribute to the regional quality of life and serve as an attraction for visitors nationwide. The trail will extend almost 40 miles from the Idaho border through the Spokane Valley, the Spokane central business district and on to historic Spokane House in Riverside State Park. As envisioned, the trail will accommodate bicyclists, pedestrians, equestrians and the handicapped on right-of-way that is mostly separated from motor traffic.

Other plans are being made to build a connecting 25 mile centennial trail in Idaho from the state line to Lake Coeur d'Alene. A 27 mile extension of the Spokane River Centennial Trail could continue downstream from Spokane House on existing roads to Little Falls on the Spokane Indian Reservation creating a continuous trail of over 90 miles.

Fortunately, a continuous trail alignment can be found that traverses land mostly in public ownership. Less than three miles of the 39 miles of right-of-way will remain in the private control upon completion of a land trade by the Washington State Parks and Recreation Commission. Land acquisition costs for the remaining properties have not been established.

The 12 foot paved trail surface will be separated from traffic for cycling, pedestrian and running safety. In many areas an additional, unpaved equestrian trail is provided. Anticipated development costs for the trail alignments totals 6.4 million dollars.*

* Anticipated development costs include inflation, contractor's overhead, contingencies, and design and administration.
The Spokane River Centennial Trail is a community project that has attracted a significant amount of public support, both in the Spokane region and within the State of Washington:

Private Donations: Trail planning efforts to date have been conducted on behalf of the Spokane River Centennial Trail Committee, a sub-committee of the Valley Chamber of Commerce. This group has committed over $50,000 to the trail master plan (November 1987), community awareness programs and agency coordination. Funds spent by the Committee are from corporate and individual donations and specially dedicated city and county funds.

A significant contribution of time and talent has been dedicated to the trail effort as well by a wide range of individuals and companies interested in seeing the Spokane area quality of life improved through the additional recreation opportunities, the conservation of open space resources and the economic activity generated by trail recreationists.

City and County Commitments: The City of Spokane and Spokane County have been supporting the trail master planning effort of the Trail Committee and are continuing their programs to acquire land for trail segments in their jurisdictions.

State of Washington: The Washington State Parks and Recreation Commission has recently acquired 374 acres of river front open space for 12 miles of trail right-of-way purposes through a land exchange valued at over 2.5 million dollars.
**Spokane River Centennial Trail**

Chamokane Creek, named for Chief Chamokane, died 1882, the last remaining Chief, was revered by the Indians, "easily the greatest chief present at the Walla Walla council." 

The entire flow of the ancient Columbia River flowed through this valley when glacial ice blocked the riverbed at Kettle Falls.

**Long Lake Dam 1915**

At 170 feet, this was the tallest spillway dam in the world.

**Little Falls Dam 1910**

Four salmon runs per summer supplied Indians who fished here.

**Terry Ferry 1860 and LaPray 1865**

First bridge over the Spokane River below Spokane Falls.

**Downstream**

Riverfront Park to Little Falls

Spokane Valley Chamber of Commerce

**Future Phase**
Petroglyphs
Site believed to have been Spokane Tribal Sacred Grounds. Rock paintings attributed to the Spokane Indians, date unknown.

Terry Ferry, 1860 and TaPray Bridge 1865 First bridge over the Spokane River below Spokane Falls.
Petroglyphs
Site believed to have been Spokane Tribal Sacred Grounds. Rock paintings attributed to the Spokane Indians, date unknown.

Riverside State Park

Spokane House and Fort Spokane
Spokane House the first trading post in Washington and Oregon, established in 1810 by the Canadian Northwest Company. Headquarters for the fur trade between the Rocky Mountains and the Cascades for 15 years.
The American Pacific Fur Company built Fort Spokane adjacent to Spokane House in 1812 and abandoned it to the British in 1814.
Site of present day interpretive center and museum dedicated to early trader and Indian lifestyles.

Nine Mile Dam
Powered the Spokane and Inland Empire Railroad's electric engines, passenger and freight cars at speeds up to 50 miles per hour during the first decade of the twentieth century.
KEY

Class I Trailway  Separated from vehicle traffic. Rural sections have paved and unpaved paths.

Class II Trail Lane  Widened paved shoulders with signing and striping. Unpaved shoulder for horses.

Class III Trail Route  Signed on-road route.

Bowl & Pitcher
100 campsites, picnicking, boat launch, spectacular geologic formation, canyon and suspension bridge. This area may have been used by generations of Indians as a religious site, fishing grounds and encampment. Camp Seven Mile.

Aubrey L. White Parkway
Aubrey L. White, first president of the Spokane Park Board in 1907 was instrumental in Spokane's purchase and development of parks. "A park within 15 minutes walk of every home."

The Cl...
The city of Spokane was founded in 1871. Water power captured at the falls ran mills, power plants, and the municipal water pump. The falls were a significant landmark, meeting place and fishing area for the Spokane Indians and others.

Union Pacific and Northern Pacific tracks approached downtown on high bridges and an immense earth fill visible here then crossed the river to Havermill Island (Riverfront Park).
Spokane Falls was an important fishing and trading site for the Spokane Indians and others who travelled to the site several times per year. Col. Wright skirmished with the Spokanes here during his 1858 expedition.  


Riverfront Park: City of Spokane founded 1871, mills, power plants.

Upriver Drive: Garry Logan running trail. Widen shoulders, signing, striping, improve surface and eliminate gravel intersections. Future upgrade to Class I Bike Trail.

Segment 21
Segment 20
Segment 19
Segment 22
Segment 23
Segment 24
Segment 26
Segment 25
On-grade crossing

Washington Water Power Building 1959
Holy Names Academy 1890
Gonzaga University Bing Crosby Library, Trent Ave.
Museum of Native American Cultures

Upstream Stateline to Riverfront Park

Spokane Valley Chamber of Commerce
Minnehaha Rocks

City Parks, included in early park proposals for this site, near the water works and street.

FREDERICK AVE

FRENCH AV ST. W

ST. W. AVE.

BUCKEYE AVE

GRACE AVE

FREEDOM AVE

BROADWAY AVE

FH OFFICE

UPRIVER DRIVE

GRANT ST.

LAFAYETTE AVE

JOHNSON ST.

BROADWAY AVE

UPLAND ST.

UPRIVER DRIVE

GARLAND AVE.

TRENT ROAD

The Isle

power, water, gas, map, signs.

Uprover Dam

shoulder widening, future upgrade to Class 1 trail, improve underpass

ENCORE

College

TRAIL DEVELOPMENT STANDARDS

Safety
28 miles of the Spokane River Centennial Trail will be Class One completely separated from roads used by motor vehicles.

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Although system continuity is important, dimensions in some sections of the trail will vary to accommodate site conditions and existing development. These sections are Class One trail where designed for the Spokane River Centennial Trail to respond to varying user, terrain and development conditions.

Boulder Beach improve beach for swimming, provide parking and safe access. Relocate launch facilities to The Islands.

Class One Optimal segments, totaling 14.5 miles, have a twelve foot wide paved surface for wheeled and pedestrian traffic, and a separate eight foot stabilized aggregate surfacing for equestrians and runners. The trail will be separated from adjacent traffic lanes by a median at least ten feet wide.

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No Motor Vehicles

Keep left/right

Right Lane Only

Yield to Peds

Royal Riblet

National Heritage builder of aces.
The maximum desirable grade for long climbs is five percent, although very short grades of up to eight percent can be tolerated. These slopes are consistent with Washington State regulations for accessibility by handicapped persons.

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**Class II Combined** A short section of trail is aligned on Upriver Drive near Boulder Beach where all users must use the existing road shoulder. Class II Combined trail totals .5 miles.

**Class III** Many of the existing bike routes in the Spokane area are signed on-road bike routes, with no additional pavement width or special striping. Where development precludes establishing a separated alignment, and where traffic levels permit, Class III trails are tolerable to complete trail connections. In the Pasadena Park area the Spokane River Centennial Trail must follow Merging Drive for 2.3 miles.
Class I Trailway: Separated from vehicle traffic. Rural sections have paved and unpaved paths.

Class II Trail Lane: Widened paved shoulders with signage and striping. Unpaved shoulder for horses.

Class III Trail Route: Signed on-road route.

Visitor Information Center: Staffed, parking, hitching post, information signing, water, toilets.

Spokane Bridge: 1864, first bridge over the Spokane River. White settlement preceded City of Spokane.

Camas Prairie Trailhead: Camping, river access, parking, hitching post, water, power, toilets, map sign.

Horse Slaughter Camp 1858: In September of 1858 a strife forcedCol. George Wright to evacuate Colonel Edward Steptoe's disaster the previous spring. Captured and slaughtered 700-1000 horses. Indian horses.

Mullan Road: Military road from Fort Walla Walla to Missouri River. Relocated to bridge from Mullan's Ferry 1856.

Liberty Lake: 3000-acre county wilderness park. Camping, hiking, swimming.

Colonel Wright's Nez Perce scouts and three companies of dragoons commanded by Major Grrier captured 1000 Spokane Indian horses in this valley and drove them to Horse Slaughter Camp on the Spokane River. Colonel Wright dubbed it Grrier Lake.
Spokane River
Centennial Trail

Master Plan

Technical Memo:
Cost Analysis

Spokane Valley
Chamber of Commerce

Jones & Jones
Architects and Landscape Architects

November 1987
NOTE
This Technical Memo summarizes the cost analysis performed for the Spokane River Centennial Trail. Each type of trail cross-section was broken into component construction functions and materials. Costs collected and totaled on a unit basis, either cost per square foot or linear foot.

Each trail segment was also analyzed. Special construction features, trail length, trail type, furnishings etc. were totaled and multiplied by the unit costs.

Finally the segment costs were totaled on the Grand Total sheet and cost multipliers applied. These multipliers include regional cost adjustment, inflation, taxes, contingencies, and design and administration. All dollar amounts are in 1987 dollars.

This estimate represents a best estimate of probable cost of construction. No warranty is made regarding actual costs bidding conditions, inflation, nor final construction costs.
Segment 1  SPOKANE BRIDGE  I Optimal
Idaho Stateline to Visitor Info Ctr

OWNERSHIP: WaDOT  3,250 Feet


IMPROVEMENTS: Rip-rap and fill necessary under I-90 bridge. Striping and signs at on-grade crossing of Spokane Bridge Road near I-90, underpass. Signing for historic sites.

OTHER RECOMMENDATIONS (costs not estimated): Camping, parking, river access, hitching posts, water, trash receptacles. Renovation of abandoned railroad bridge for access to Idaho. Acquisition of property north of I-90 R.O.W., and south of Spokane Bridge.

Segment 2  HORSE SLAUGHTER  I Optimal
Visitor Info Ctr to Gauging Sta.

OWNERSHIP: WaDOT  10,500 Feet

Existing rest area with phone, water, restrooms, staffed information counter.

TRAIL: Alignment varies from old highway bed to Class I Optimal. 2 sections are constrained to Class I Minimal by river/freeway locations.


Two 1000 foot right-of-way fence relocations and additional rip-rap and fill where freeway alignment crowds river.

OTHER RECOMMENDATIONS (costs not estimated): Possible site for river access with adjacent camping. Presently privately owned and available.

Segment 3  LIBERTY  I Optimal
Gaging Station to Harvard Road

OWNERSHIP: IEP  6,400 Feet

TRAIL: Separated trails, some room to meander. Nice views, remote and seasonal variation in river location.

IMPROVEMENTS: Island access. On-grade crossing at Harvard.

OTHER RECOMMENDATIONS (costs not estimated): Dollards and cable barrier to direct trail traffic to crossing on south side of Harvard bridge. Signs and striping.

Segment 4  HARVARD RAPIDS  I Optimal
Harvard Rd to Barker Rd

OWNERSHIP: IEP & other private  12,000 Ft

TRAIL: Separated trails. Room to meander some between existing dirt track and river bank. On-grade crossing at Barker.

IMPROVEMENTS: Trailhead at Harvard Rd. Signs, driveway, parking, hitching post, water, power, toilets, map sign, bollards, trash receptacles, planting.

OTHER RECOMMENDATIONS (costs not estimated): Acquisition of private undeveloped property desirable at Barker.

Segment 5  GREENACRES  I Minimal
Barker Rd to Flora Rd

OWNERSHIP: IEP & other private  7,400 Ft

TRAIL: Combined horse/bike trail on abandoned railroad grade because of steep slope above trail and river adjacent to trail. Steep traverse across slope at Barker end. No road crossings.

IMPROVEMENTS: Signs at on-grade crossing at Barker. Striping. Trash receptacles. Traverse down slope to river level, retaining wall or rip-rap might be necessary.

OTHER RECOMMENDATIONS (costs not estimated): Acquisition of undeveloped private property desirable on west side of Barker for traverse across slope. Possible future trail access point at Barker.
Segment 6  FLORA RAPIDS  I Minimal  3,500 Ft
Flora Road to Lions Park
OWNERSHIP: IEP
TRAIL: Combined horse/bike trail on abandoned railroad grade. Steep slope down from trail, constrained by existing residential development and vegetation. No road crossings.
IMPROVEMENTS: Interpretive signing for natural history sites. Trash receptacles at Flora community service project trash receptacles, parking, river access, map, bollards, hitching post.

Segment 7  SULLIVAN RAPIDS  I Optimal  4,000 Feet
Lions Park to Sullivan Road
OWNERSHIP: IEP
TRAIL: Separated trails on abandoned railroad grade.
IMPROVEMENTS: Trailhead at Sullivan; parking, trash receptacles, power, water, signs on Sullivan.

Segment 8  MILLSTONES  I Optimal  8,000 Ft
Sullivan to Mirabeau Pk
OWNERSHIP: IEP
TRAIL: Separate trails on abandoned railroad grade. Horse trail can meander.
IMPROVEMENTS: Restoration where eroded from motorcycle and all-terrain vehicle use.

Segment 9  MIRABEAU  I Optimal  4,500 Feet
Mirabeau Park to Trent Ave ROW
OWNERSHIP: IEP
TRAIL: Abandoned railroad grade.
IMPROVEMENTS: Park restoration, trash receptacles, power, water, picnic facilities, parking.

Segment 10  TREN'T BRIDGE  I Minimal  2,500 Feet
Bridge and approaches
OWNERSHIP: WadOT
TRAIL: Combined trail. No shoulder for horses on bridge deck.
IMPROVEMENTS: Trail passes under Trent on west end, guard rail needed on approach to same width as walk on bridge. East end: widen walk on approach to same as bridge. Provide ramp down to trail alignment.

Segment 11  PLANTATION  I Optimal
Trent Bridge to Park parking lot
OWNERSHIP: IEP
TRAIL: Separated, can meander independently.
IMPROVEMENTS: Alignment at crest of riverbank near Trent then through pine plantation.
OTHER RECOMMENDATIONS: Master plan necessary for park improvements to include use of plantation and field to south for trail related recreation and open space.

Segment 12  PLANTES FERRY PK  I Minimal  2,000 Ft
Parking lot to HiSt Mkr
OWNERSHIP: Co Park
TRAIL: Horses on trail shoulder. Crosses park adjacent to parking lot. Crosses entry drive and descends toward ferry location.
IMPROVEMENTS: Interpretive signing for historic sites. Signing, additional trash receptacles, hitching rails, renovate foot bridge.

Segment 13  DANGEROUS CURVE  I Minimal  2,000 Ft
Historical Mkr to Islands rd
OWNERSHIP: Co Parks/Co Pub Wks
TRAIL: Horses on trail shoulder.
IMPROVEMENTS: Retaining wall, traffic barrier, fill to widen road right-of-way to accommodate trail, signs.
Segment 14  THE ISLANDS
Islands access road to Maringo
OWNERSHIP: IEP
TRAIL: Separated trails throughout segment
IMPROVEMENTS: Trailhead, access road, trash recept., parking, power, water, toilets, picnicking, hitching posts, map, signs.
OTHER RECOMMENDATIONS (costs not estimated):
Boat ramp, parking, camping.

Segment 15  MARINGO DRIVE
Islands to Uriver Drive
OWNERSHIP: County road ROW
TRAIL: On-road route. Striping and signing necessary.
IMPROVEMENTS: Striping/signing every block. On-grade crossing at Uriver Dr to Class II lanes.
OTHER RECOMMENDATIONS (costs not estimated):
Traffic signal at Argonne.

Segment 16  UPRIVER DRIVE
Maringo to Boulder Beach
OWNERSHIP: Co Road / City Pk
TRAIL: Existing shoulders.
IMPROVEMENTS: Widen shoulders to 8 ft. striping. On-grade crossing to Class I trail at Boulder Beach north side of Uriver Drive.
OTHER RECOMMENDATIONS (costs not estimated):
Master plan for restoration and improvement of Boulder Beach area. Provide safe parking and access. Possible realignment of Uriver Drive away from river.

Segment 17  MINNEHAHA
Boulder Beach to Frederick
OWNERSHIP: Co Park/City Park
TRAIL: Separated horse and bike trails. Meander horse inland, keep bikes visible from Uriver Drive.
OTHER RECOMMENDATIONS (costs not estimated):
Master plan new park at Minnehaha Rocks. Pave gravel side streets to eliminate loose gravel.

Segment 18  ORCHARDS
Frederick to Havanna St
OWNERSHIP: City Parks
TRAIL: Class I with shoulders. Parallels Uriver Drive.
IMPROVEMENTS: signage on Uriver Drive.
OTHER RECOMMENDATIONS (costs not estimated):
Master plan recreation access to river below dam. Provide facilities for fishing, river access, passive use of river bank.

Segment 19  HAVANNA
Havanna Street to Rebecca
OWNERSHIP: City Parks
TRAIL: Class I parallels Uriver Drive. Shoulders, some planting and furniture.
IMPROVEMENTS: Bollards and signs, parking areas for small groups of cars.

Segment 20  REBECCA
Rebecca St to Greene St
OWNERSHIP: City Parks
TRAIL: Class I parallels Uriver Drive.
IMPROVEMENTS: Bollards and signs, parking areas for small groups of cars. Planting & furniture.
Segment 21  GREENE UNDERPASS
600 Feet  I Urban
OWNERSHIP: City Parks
TRAIL: Class I parallels Upriver Dr
IMPROVEMENTS: Rework curbs and pavement to clarify route for cyclists remaining on road and to improve auto safety. Clarify parking areas. Signage & bollards to formalize urban trail section.
OTHER RECOMMENDATIONS (costs not estimated): Pave side streets to eliminate loose gravel.

Segment 22  GARRY-LOGAN TRAIL
7,100 Feet  I Urban
Greene St to Mission Ave
OWNERSHIP: City Parks
TRAIL: Bikes on Class I trail adjacent to Upriver Drive. Realign road centerline away from river to consolidate walking path as separate trail.
IMPROVEMENTS: Small parking areas, bollards and signs to keep vehicular traffic from crossing trail.
OTHER RECOMMENDATIONS (costs not estimated): Master plan for Upriver Parkway improvements from Mission to Greene to include parking areas, informal river bank use, selective pruning, clearing and planting of trees, shrubs and turf to create well maintained open space.

Segment 23  MISSION CROSSING
500 Feet  I Urban
OWNERSHIP: City street
TRAIL: On-grade crossing.
IMPROVEMENTS: New crosswalk and trail crossing at west end of Mission Street bridge from City swimming pool to north side of Mission at Upriver Drive. Add traffic signals at Upriver Drive coordinated with Perry Street signals.
OTHER RECOMMENDATIONS (costs not estimated): Redesign bridge with trail underpass when replacement is necessary.

Segment 24  HOLY NAMES ACADEMY
3,500 Feet  I Urban
Mission Pool to Hamilton.
OWNERSHIP: BN
TRAIL: Class I Urban at top of bank including shoulders for horses.
IMPROVEMENTS: Underpass at active line will require retaining wall, some excavation. No street crossings necessary.

Segment 25  HAMILTON OVERPASS
500 Feet  I Urban
OWNERSHIP: City
TRAIL: Bridge, stairs & ramps.
IMPROVEMENTS: Pedestrian and bike bridge over Hamilton. Planting on embankments, signs.

Segment 26  GONZAGA
Overpass to BN Bridge 1,750 Feet
OWNERSHIP: City
TRAIL: Class I Urban on old railroad alignment. Crosses river on renovated railroad bridge.
IMPROVEMENTS: Turf planting along trail. Signs/stripes at Columbus Street.
Segment 27  GLACIER PARK  I Urban
BN Bridge to Division St  2,250 Ft
OWNERSHIP: Glacier Park Development Company, easement or dedication after development.
TRAIL: Class I Urban with shoulder. Amently sites included in development plans.
IMPROVEMENTS: Incorporate trail into development plans. Trail can serve as buffer and connection between existing neighborhoods and proposed development.
Segment 28  E RIVERFRONT PK  I Urban
Division Street to Pavilion  2,250 Ft
OWNERSHIP: City Park
TRAIL: Existing 12+ foot walkway on riverbank.
IMPROVEMENTS: Bike racks, renovate planting, signing, striping.
Segment 29  W RIVERFRONT PK  I Urban
Pavilion to Monroe St  2,000 Ft
OWNERSHIP: City of Spokane
TRAIL: Trail follows existing walks, crosses river on existing Post Street Bridge (to be vacated for pedestrian use). On-grade signalized crossing at Bridge Street and Monroe.
IMPROVEMENTS: Bike racks, renovate planting, signing, striping. Class I Urban on north side of street.
OTHER RECOMMENDATIONS (costs not estimated): Signalized on-grade crossing at Bridge and Monroe.
Segment 30  THE SUMMIT  I Urban
Monroe St to Bridge Street  6,600 Ft
OWNERSHIP: Uplands and Glacier Park Development Companies easement or dedication after development.
TRAIL: Trail follows relocated Summit Avenue and abandoned BN line adjacent to Summit development. Connects proposed commercial and residential development with downtown. On-grade crossings of driveways.
IMPROVEMENTS: Incorporate trail into development plans for Summit area. Trail can serve as buffer and connection between existing neighborhoods and proposed development. Some improvements by developer.
Segment 31  BRIDGE STREET  I Urban
Bridge St to Boone Ave  2,750 Ft
OWNERSHIP: City Parks
TRAIL: Following abandoned railroad grade just below Summit to bridge abutment. New grade parallel to Boone. Cross on-grade at Summit.
IMPROVEMENTS: Signs/stripes at Boone. Geologic and cultural interpretive overlooks.
Segment 32  BOONE  I Urban
Boone St to Steel Bridge  2,500 Feet
OWNERSHIP: City Parks
TRAIL: Descend side slope between Summit Avenue and Natatorium Park trail lots.
IMPROVEMENTS: Benches. Historic note about carousel.
Segment 33  STEEL BRIDGE  I Minimal
Steel Bridge over River  400 Feet
OWNERSHIP: City
TRAIL: Trail crosses river on renovated bridge.
IMPROVEMENTS: Renovate bridge to accommodate trail and maintenance traffic. Interpretive graphics about bridge, Natatorium Park, river access.
Segment 34  HOLY NAMES  I Optimal  3,500 Ft
Bridge to Ft Wright Pkwy
OWNERSHIP: Holy Names Convent
TRAIL: Class I Optimal trail including separated horse path. Existing underpass at Pkwy.
IMPROVEMENTS: Trail access to river.
OTHER RECOMMENDATIONS (costs not estimated): Acquisition of private property desirable.

Segment 35  ELLIOT AVENUE  I Optimal  7,200 Ft
Ft Wright Pkwy to Gvmnt Way
OWNERSHIP: City, State Pk
TRAIL: Bike trail stays high after passing under Fort Wright Pkwy, joins abandoned railroad grade. Horse and running trails descend toward river.
IMPROVEMENTS: Class I Optimal Trail, gravel path separate from paved.
INTERPRETIVE SITE: Geology viewpoint looking downstream into Riverside State Park.
OTHER RECOMMENDATIONS (costs not estimated): Riverside State Park comprehensive master plan.

Segment 36  GOVERNMENT WAY  I Minimal  4,500 Feet
Military Cemetery to Aubrey White Parkway
OWNERSHIP: State Park, Co Road
TRAIL: Bikes Class I trail adjacent to Government Way. Horses and foot traffic follow existing trails.
IMPROVEMENTS: Signs/stripes on Gov Way. Foot and horse trail upgrade to equestrian center.

Segment 37  AUBREY WHITE PKWY  II Separated
24,000 Feet
Government Way to Seven Mile
OWNERSHIP: Riverside State Park
TRAIL: Bikes use existing Aubrey White Parkway, horses on existing trail, designated, improved and signed as part of Spokane River Centennial Trail. Foot traffic on signed hiking trail.
IMPROVEMENTS: Signing, striping, and traffic control on parkway. Interpretive signage.
OTHER RECOMMENDATIONS (costs not estimated): Future development of Class I bike trail(s). See note in Segment 35.

Segment 38  RIVERSIDE ST PARK DR  II Separated
18,000 Ft
Seven Mile to Nine Mile
OWNERSHIP: Riverside State Park
TRAIL: Bikes use existing Riverside State Park Road, horses on designated, improved and signed equestrian trail, foot traffic on signed hiking trail. Trail crosses Nine Mile bridge on ex. sidewalks.
IMPROVEMENTS: Signing, horse and hiking trail designation.
OTHER RECOMMENDATIONS (costs not estimated): Future dev. Class I trail(s). See note in Segment 35.

Segment 39  SPOKANE HOUSE  I Optimal
Nine Mile Bridge to Spokane House
OWNERSHIP: State Park
TRAIL: Paralleling highway, horses adjacent to paved path.
IMPROVEMENTS: Signing, horse and hiking trail designation.
## Development Costs

### CLASS I Standards

<table>
<thead>
<tr>
<th>Pavement Width</th>
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<th>Min fm</th>
<th>Urban</th>
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<td>11</td>
<td>12 Ft</td>
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<tr>
<td>Shoulder Width</td>
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<tr>
<td>Median</td>
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<tr>
<td>Back Slope</td>
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<td>Total Corridor</td>
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### Class I Trail (Optimal)

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<td>CY</td>
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<td>0.76</td>
<td>2.67</td>
</tr>
<tr>
<td>6&quot; Bank Gravel 98% Compaction</td>
<td>SY</td>
<td>1.82</td>
<td>2.67</td>
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<tr>
<td>Fine Grading</td>
<td>CY</td>
<td>0.71</td>
<td>3.56</td>
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<tr>
<td>2&quot; Bituminous Binder Course</td>
<td>SY</td>
<td>4.25</td>
<td>1.33</td>
</tr>
<tr>
<td>1&quot; Bituminous Wearing Surface</td>
<td>SY</td>
<td>2.23</td>
<td>1.33</td>
</tr>
<tr>
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<tr>
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<td>2.00</td>
<td>1.00</td>
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<td>Signing 8 per mile</td>
<td>Ea</td>
<td>81.00</td>
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<td>Drainage Structures</td>
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### Class I Trail (Minimum)

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</tr>
<tr>
<td>98% Compaction</td>
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<td></td>
<td></td>
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<tr>
<td>motor grader + Rolled</td>
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<tr>
<td>Trees &amp; Shrubs</td>
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<tr>
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**Total**: 17.67 /LF

### Class I Trail (Urban)

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<td>1.27</td>
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<tr>
<td>6&quot; Bank Gravel</td>
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<td>1.67</td>
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<tr>
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<td>1.67</td>
<td>1.18</td>
<td>6%</td>
</tr>
<tr>
<td>98% Compaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>motor grader + Rolled</td>
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<tr>
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<tr>
<td>Signing 8 per mile</td>
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<tr>
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<td>0.75</td>
<td>4%</td>
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**Total**: 20.32 /LF

**Total**: 93,306 /Mile
## Class II Combined Trail

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<td>0.08</td>
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<tr>
<td>6&quot; Bank Gravel</td>
<td>SY</td>
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<td>0.20</td>
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<tr>
<td>Fine Grading</td>
<td>SY</td>
<td>0.71</td>
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<tr>
<td>2&quot; Bit Binder</td>
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<tr>
<td>1&quot; Bit Wearing</td>
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**Means Ref**

2.1-150-0400
2.6-050-0100
2.6-071-0400
2.3-220-2200
2.6-101-0120
2.6-101-0300

**Plus per LF Costs**

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<tr>
<td>12 x 18&quot; Sign</td>
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<tr>
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<tr>
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<td>0.03</td>
<td>0.62 2 - 8 foot lanes</td>
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**Total per Square Foot**

2.90 /L In Ft
(add to above)

**Means Ref**

2.1-150-0400
2.6-050-0100
2.6-071-0400
2.6-400-0600
12.5-111-1050

2.8-460-5600

11/4/87
# Class II Separated Trail

## Paved Portion

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<td>0.04</td>
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<tr>
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<td>0.08</td>
</tr>
<tr>
<td>2&quot; Bit Binder</td>
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<td>0.47</td>
</tr>
<tr>
<td>1&quot; Bit Wearing</td>
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### Plus per LF Costs

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<tr>
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### Total Paved Portion

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<td>0.94</td>
<td>/Lin Ft</td>
</tr>
<tr>
<td></td>
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<td>(add to above)</td>
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</table>

## Unpaved Portion Width: 5 Ft

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
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<th>Total per L.F.</th>
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<tbody>
<tr>
<td>Clearing</td>
<td>SY</td>
<td>0.36</td>
<td>0.20</td>
</tr>
<tr>
<td>Prepare &amp; Roll Sub-base</td>
<td>SY</td>
<td>0.76</td>
<td>0.42</td>
</tr>
<tr>
<td>6&quot; Bank Gravel</td>
<td>SY</td>
<td>1.82</td>
<td>1.01</td>
</tr>
<tr>
<td>12 x 16&quot; Sign</td>
<td>Ea</td>
<td>81.00</td>
<td>0.12 every 1/4 mile</td>
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<tr>
<td>Wildflower Seeding Scarify (2.8-110-3050) SF</td>
<td>SF</td>
<td>0.03</td>
<td>0.31</td>
</tr>
<tr>
<td>Planting</td>
<td>SF</td>
<td>0.25</td>
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### Total Unpaved Portion

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<tbody>
<tr>
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### Total Paved + Unpaved

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# Class III

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<th>Unit Un/Mi</th>
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<tr>
<td>Signs</td>
<td>Ea</td>
<td>4</td>
<td>324.00</td>
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<tr>
<td>Striping</td>
<td>LF</td>
<td>10560</td>
<td>1056.00</td>
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### Total

<p>| | | | |</p>
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<tr>
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</thead>
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<tr>
<td></td>
<td></td>
<td>0.26</td>
<td>/L.F.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1380.00</td>
<td>/Mile</td>
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## Bank Stabilization

<table>
<thead>
<tr>
<th>Description</th>
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<th>$/Unit</th>
<th>Quant per LF</th>
<th>Total per LF</th>
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</thead>
<tbody>
<tr>
<td>hauling, earth</td>
<td>CY</td>
<td>5.10</td>
<td>2.22</td>
<td>11.33</td>
</tr>
<tr>
<td>fill, spread dumped material</td>
<td>CY</td>
<td>1.03</td>
<td>2.22</td>
<td>2.20</td>
</tr>
<tr>
<td>hauling, rock</td>
<td>CY</td>
<td>5.10</td>
<td>2.22</td>
<td>11.33</td>
</tr>
<tr>
<td>rip-rap, machine placed</td>
<td>CY</td>
<td>21.00</td>
<td>2.22</td>
<td>46.67</td>
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Total: 71.62/LF

## Retaining Walls

<table>
<thead>
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<th>Quant</th>
<th>Total/LF</th>
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</thead>
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<tr>
<td>6' Gabion</td>
<td>LF</td>
<td>90.00</td>
<td>1.00</td>
<td>90.00</td>
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<tr>
<td>Backfill &amp; Compact</td>
<td>CY</td>
<td>10.90</td>
<td>2.67</td>
<td>29.07</td>
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Total: 119.07/LF

## Fencing

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<th>Fence Type</th>
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<tr>
<td>Guard Rail</td>
<td>LF</td>
<td>8.10</td>
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<tr>
<td></td>
<td>LF</td>
<td>10.90</td>
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</table>

## Signs

<table>
<thead>
<tr>
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<th>Cost</th>
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<tbody>
<tr>
<td>12 x 18' Sign</td>
<td>Ea</td>
<td>52.00</td>
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<tr>
<td>10' Posts</td>
<td>Ea</td>
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## Staging Sites

<table>
<thead>
<tr>
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<tr>
<td>Clearing</td>
<td>SY</td>
<td>0.36</td>
<td>4840</td>
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<tr>
<td>Rough Grading</td>
<td>CY</td>
<td>1.40</td>
<td>4840</td>
</tr>
<tr>
<td>24' Paved Entry Road</td>
<td>LF</td>
<td>26.62</td>
<td>100</td>
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<tr>
<td>Unpaved Parking</td>
<td>Ea</td>
<td>109.52</td>
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<tr>
<td>Lawn</td>
<td>MSF</td>
<td>410.23</td>
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<tr>
<td>Planted</td>
<td>SF</td>
<td>4.00</td>
<td>4000</td>
</tr>
<tr>
<td>bollards, concrete posts</td>
<td>Ea</td>
<td>28.00</td>
<td>6</td>
</tr>
<tr>
<td>signs, steel, 24&quot; x 24&quot;</td>
<td>Ea</td>
<td>33.00</td>
<td>4</td>
</tr>
<tr>
<td>add to above for steel posts</td>
<td>Ea</td>
<td>29.00</td>
<td>4</td>
</tr>
<tr>
<td>benches, park, backless, wood</td>
<td>Ea</td>
<td>730.00</td>
<td>2</td>
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<tr>
<td>bike rack, 10' long, permanent</td>
<td>Ea</td>
<td>285.00</td>
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<tr>
<td>trash receptacles, concrete</td>
<td>Ea</td>
<td>676.00</td>
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Total: 45,493 Each

Means Ref
12.7-380-1000
2.6-071-0680
2.7-101-0490
2.6-300-0100
2.6-400-0600
2.6-400-1500
12.7-411-1000
2.1-150-0400
2.3-163-2020
12.5-111-1050
12.5-510-1500
12.7-411-1000
2.6-300-1550
2.6-420-1200
2.6-420-1500
2.7-050-0460
2.7-301-0200
2.7-650-2000

11/4/87
### Traffic Signals

<table>
<thead>
<tr>
<th>Item</th>
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<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>9 Signals</td>
<td>Ea</td>
<td>34,300</td>
</tr>
<tr>
<td>Sickle Street Sensor</td>
<td>Ea</td>
<td>3,375</td>
</tr>
<tr>
<td>Pedestrian Buttons</td>
<td>Ea</td>
<td>4,900</td>
</tr>
<tr>
<td><strong>Total Each</strong></td>
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<td>42,575 each</td>
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### Pedestrian Bridge

<table>
<thead>
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<th>Unit</th>
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<th>Quan</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>60' x 12' Pre-cast concrete</td>
<td>SF</td>
<td>34.00</td>
<td>960</td>
<td>32,640</td>
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<tr>
<td>Retaining Walls</td>
<td>SF</td>
<td>17.20</td>
<td>1,200</td>
<td>20,640</td>
</tr>
<tr>
<td>Approaches</td>
<td>CY</td>
<td>14.90</td>
<td>3,333</td>
<td>49,667</td>
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<tr>
<td>Planting</td>
<td>SF</td>
<td>1.00</td>
<td>12,000</td>
<td>12,000</td>
</tr>
<tr>
<td>Other Stuff</td>
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<td>20,000</td>
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<tr>
<td><strong>Total Each</strong></td>
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<td>134,947 each</td>
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### Drainage Structures

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Trench</td>
<td>LF</td>
<td>16.2</td>
<td>36.00</td>
<td>56.32</td>
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<tr>
<td>2'x4' CB</td>
<td>Ea</td>
<td>190</td>
<td>1.00</td>
<td>190.00</td>
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<tr>
<td>18'' Cover</td>
<td>Ea</td>
<td>120</td>
<td>1.00</td>
<td>120.00</td>
</tr>
<tr>
<td>36''-12'' Corrugated Pipe</td>
<td>LF</td>
<td>10.55</td>
<td>36.00</td>
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<tr>
<td><strong>Total</strong></td>
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</table>

**Means Ref**
- 2.6-500-0100
- 2.6-500-0200
- 2.6-500-0400

**Means Ref**
- 2.9-050-1100
- 12.7-310-2200
- 2.3-190-1300

**Means Ref**
- 12.3-110-1310
- 2.5-021-3000
- 2.5-021-4600
- 2.5-274-2080
## Segment Development Summary

### Raw Costs

### Upstream Segment

<table>
<thead>
<tr>
<th>Number</th>
<th>Class</th>
<th>Name</th>
<th>End Upstream</th>
<th>Downstream</th>
<th>Jurisdiction Ownership</th>
<th>Length Feet</th>
<th>Special Construction</th>
<th>Trail Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALLEY 1</td>
<td>T0</td>
<td>Spokane Bridge</td>
<td>Station Line</td>
<td>Visitue Inlet Gaging Station</td>
<td>Spokane Co WDF&amp;F TWS</td>
<td>3,620</td>
<td>620 VIC/Trailer/Back Stabilizer</td>
<td>54,000</td>
</tr>
<tr>
<td></td>
<td>T0</td>
<td>Horse Slaughter Camp</td>
<td></td>
<td></td>
<td>Spokane Co WDF&amp;F TWS</td>
<td>3,390</td>
<td></td>
<td>150,000</td>
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<tr>
<td></td>
<td>T0</td>
<td>Liberty</td>
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<td>Spokane Co WDF&amp;F TWS</td>
<td>3,000</td>
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<td>100,000</td>
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<tr>
<td></td>
<td>T0</td>
<td>Harvard Rapids</td>
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<tr>
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<td>T0</td>
<td>Greenup</td>
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<tr>
<td></td>
<td>T0</td>
<td>Floras Rapids</td>
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<tr>
<td></td>
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<td>Sullivan Rapids</td>
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<tr>
<td></td>
<td>T0</td>
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<tr>
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<td>100,000</td>
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<td></td>
<td>100,000</td>
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<tr>
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<td>T0</td>
<td>The Island</td>
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<td></td>
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<tr>
<td></td>
<td>T0</td>
<td>Martha Drive</td>
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<tr>
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### Urban Segment

<table>
<thead>
<tr>
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<th>Class</th>
<th>Name</th>
<th>End Upstream</th>
<th>Downstream</th>
<th>Jurisdiction Ownership</th>
<th>Length Feet</th>
<th>Special Construction</th>
<th>Trail Costs</th>
</tr>
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<tbody>
<tr>
<td>URBAN 18</td>
<td>T0</td>
<td>Orchards</td>
<td></td>
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<td>Spokane City Park</td>
<td>5,000</td>
<td>104 Signs on Frederick</td>
<td>324</td>
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<td>Havannah</td>
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<td></td>
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<tr>
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<td>T0</td>
<td>Rebecca</td>
<td></td>
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<td></td>
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<td>600</td>
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### DOWNSPEAR Segment

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<th>Downstream</th>
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<th>Length Feet</th>
<th>Special Construction</th>
<th>Trail Costs</th>
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<tbody>
<tr>
<td>URBAN 18</td>
<td>T0</td>
<td>Orchards</td>
<td></td>
<td></td>
<td>Spokane City Park</td>
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<td></td>
<td>104 Signs on Frederick</td>
</tr>
<tr>
<td></td>
<td>T0</td>
<td>Havannah</td>
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<td>45,731</td>
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<tr>
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<td>T0</td>
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<td>2,000</td>
<td></td>
<td>40,060</td>
</tr>
<tr>
<td></td>
<td>T0</td>
<td>Greene Underpass</td>
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<td>600</td>
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<td>10,000</td>
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<tr>
<td></td>
<td>T0</td>
<td>Running Trail</td>
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<td>45,731</td>
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<td>Mission Crossing</td>
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<td>7,100</td>
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<td>150,495</td>
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<td>Spokane City Park</td>
<td>7,100</td>
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<td>150,495</td>
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<td>Spokane City Park</td>
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### Riverine Segment

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<th>End Upstream</th>
<th>Downstream</th>
<th>Jurisdiction Ownership</th>
<th>Length Feet</th>
<th>Special Construction</th>
<th>Trail Costs</th>
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### Extension Segment

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<th>Number</th>
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<th>Downstream</th>
<th>Jurisdiction Ownership</th>
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<th>Special Construction</th>
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<td>Spokane Co State Highway</td>
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<td>T0</td>
<td>Little Falls Rd</td>
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<td>Spokane Co State Highway</td>
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### Total Miles

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<th>Miles</th>
<th>Total Costs</th>
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<tbody>
<tr>
<td></td>
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<td>Miles</td>
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### Relation to Spokane House

<table>
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<th>Spokane House to Little Falls</th>
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<tbody>
<tr>
<td>Miles 27.31</td>
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</table>

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**Note:** The document appears to be a table with columns for various segments, details, and costs, but the text is not fully transcribed due to the image quality and formatting. The table includes data on segments, types, lengths, costs, and other relevant information. The document seems to be part of a report or summary, possibly related to a project involving segment development, with costs broken down into miles and dollars.
# Spokane River Centennial Trail

**Grand Total Summary Estimate in 1987 dollars**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Factor</th>
<th>Stateline to</th>
<th>Riverfront to</th>
<th>TOTAL</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Riverfront</td>
<td>Spokane House</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Upstream</td>
<td>Downstream</td>
<td></td>
</tr>
<tr>
<td>Trail Length</td>
<td>23</td>
<td>16</td>
<td>39</td>
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<td>Regional Construction Cost</td>
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<td>38,848</td>
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<td>Correction</td>
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<td>193,960</td>
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<tr>
<td>Inflation</td>
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<td>101,833</td>
<td>372,537</td>
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<td>Washington State and Local Sales Tax</td>
<td>7.9%</td>
<td>3,697,334</td>
<td>1,390,865</td>
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**SUBTOTAL**

| Contingency Allowance            | 10.0%  | 369,733      | 139,086       | 508,820 |

**SUBTOTAL**

| Design & Administration Costs    | 15.0%  | 610,060      | 229,493       | 839,553 |

**TOTAL ADJUSTED DEVELOPMENT COSTS**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>$4,677,127</td>
<td>$1,759,444</td>
<td>$6,436,571</td>
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