RESOLUTION 1309

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GIG HARBOR, WASHINGTON, ADOPTING THE GIG HARBOR SPORTS COMPLEX PHASE 2 AND 3 FEASIBILITY STUDY

WHEREAS, the need for athletic fields with artificial turf and lighting in the Gig Harbor area has been documented for many years, including in the City's Parks, Recreation and Open Space Plan; and

WHEREAS, in 2010, the Olympic Property Group deeded 7.07 acres south of the YMCA, now known as Phase 3 of the Gig Harbor Sports Complex to the city in order to construct a public park; and

WHEREAS, in 2015, the city adopted a master plan for the Phase 3 property which included lit, artificial turf fields and other amenities; and

WHEREAS, in 2017 the city acquired an additional 21 acres, including land north of the YMCA and Peninsula Light Fields for the Gig Harbor Sports Complex; and

WHEREAS, in July 2018, the city council adopted Resolution 1123, adopting the master plan for the Gig Harbor Sports Complex; and

WHEREAS, the city entered into a lease agreement with the YMCA of Pierce and Kitsap Counties for the YMCA to develop eight acres north of city property, known as Phase 1A into two multipurpose, lighted, artificial turf athletic fields; and

WHEREAS, the city designed and obtained the necessary permits to build Phase 1B of the Gig Harbor Sports Complex which will contain a stage, six pickleball courts, three bocce courts, a playground, a bathroom and concession building and an open lawn; and

WHEREAS, in the 2023-2024 budget, council allocated funds to conduct a feasibility study for Phase 2 and Phase 3 of the Gig Harbor Sports Complex; and

WHEREAS, a May 8, 2023, the city council approved a professional services contract with BCRA to perform a feasibility study; and

WHEREAS, a stakeholders group was formed and held meetings on June 14, October 10 and November 14, 2023, where preferred field layouts were discussed as well as the need for other site amenities; and

WHEREAS, the parks commission reviewed the proposed layouts at their and recommended alternatives D and E for further consideration; and

WHEREAS, public open houses were held on August 8 and October 24, 2023, where public comment was taken and attendees were given the opportunity to vote on a preferred layout; and

WHEREAS, the city council considered the draft field layouts at study sessions on August 17, 2023 and January 18, 2024 and recommended Alternative D as the preferred option based on stakeholder, parks commission and public feedback.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Gig Harbor:

Section 1. The City Council hereby approves the Gig Harbor Sports Complex Feasibility Study. Adoption of the feasibility study does not commit the city to funding, design or permitting within a specific timeframe.

ADOPTED by the City Council of the City of Gig Harbor at a regular meeting thereof, held this 11th day of March 2024.

Tracie Markley
Mayor

Attest:

Joshua Stecker, CMC
City Clerk

February 29, 2024

Gig Harbor Sports Complex Phase 2 & 3 Feasibility Study

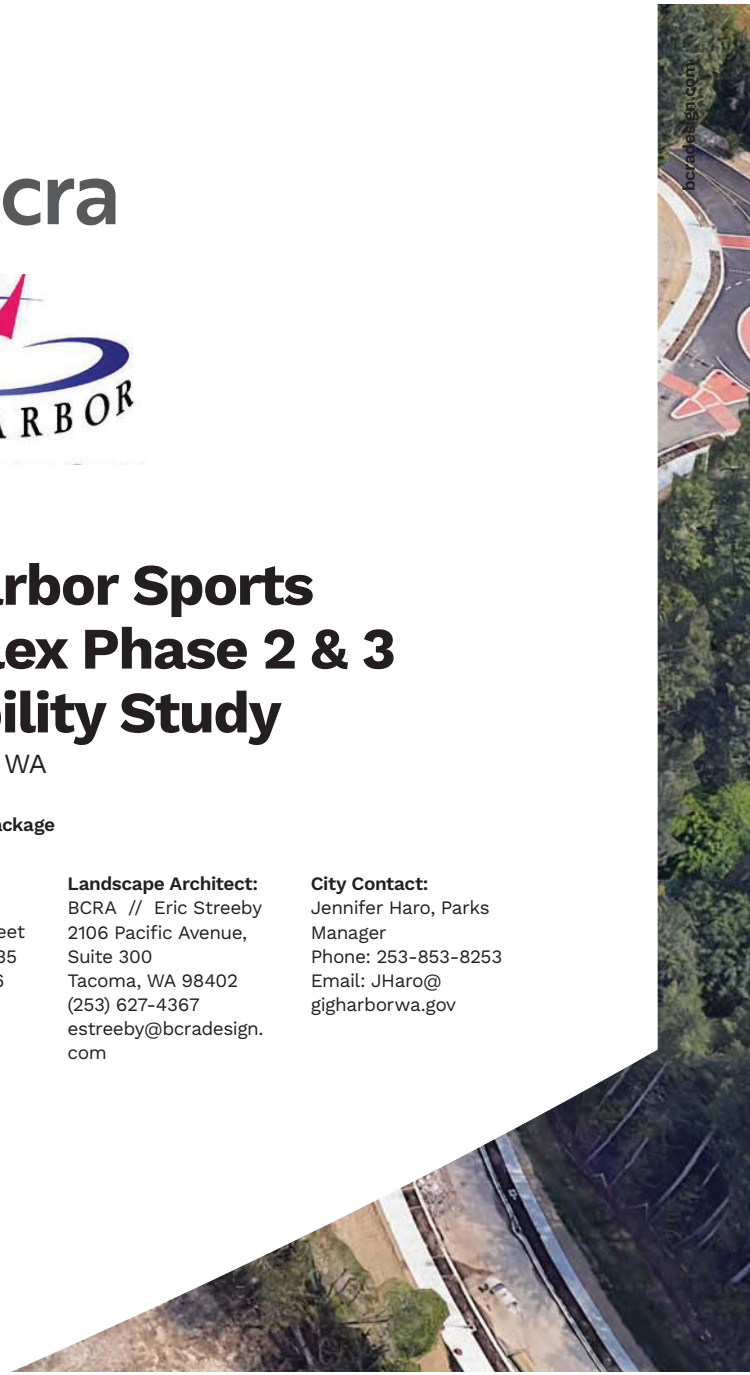
GIG HARBOR, WA

Feasibility Study Package
Version #1.0

Owner:
City of Gig Harbor
3510 Grandview Street
Gig Harbor, WA 98335
Phone 253-851-8136
Email

Landscape Architect:
BCRA // Eric Streeby
2106 Pacific Avenue,
Suite 300
Tacoma, WA 98402
(253) 627-4367
estreeby@bcradesign.com

City Contact:
Jennifer Haro, Parks Manager
Phone: 253-853-8253
Email: JHaro@gigharborwa.gov



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Executive Summary - Purpose

SITE INVESTIGATION

In February of 2023, the City of Gig Harbor engaged BCRA to prepare a feasibility study that assesses the impacts from construction and use of the planned Phase 2 and Phase 3 fields of the Gig Harbor Sports Complex. The goals of the feasibility study for Phases 2 and 3 were as follows:

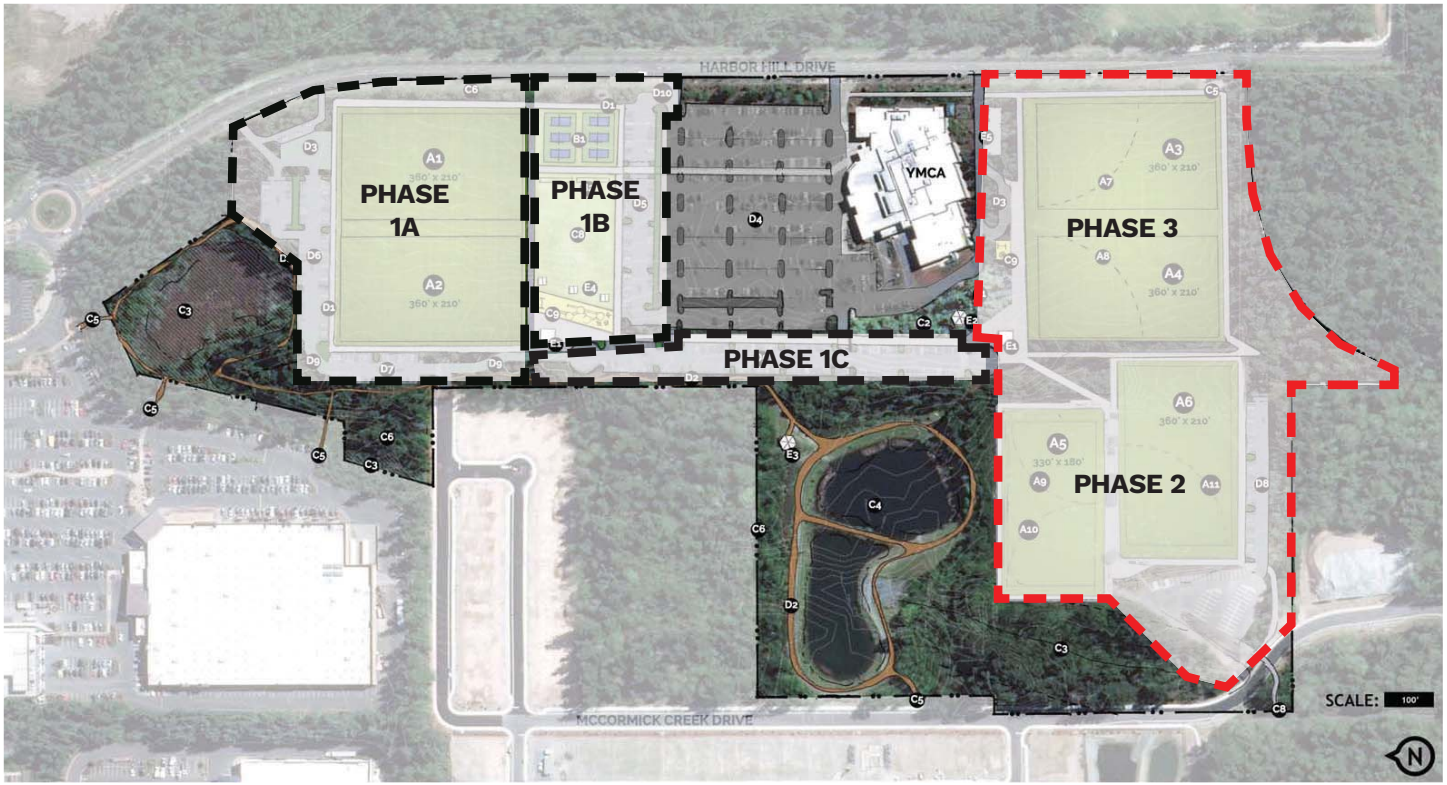
1. Develop design alternatives and associated cost estimates for Phases 2 and 3. We evaluated capital construction costs only. No O&M costs were included.

2. Receive input from local stakeholders and permitting agencies.

3. Provide a recommendation based on the information gathered.

A master plan for the overall sports complex was produced in 2018 (image to the right). Phase 1A consists of 2 multipurpose fields at the north end of the complex. Phase 1B is a community park which includes public amenities including pickleball courts, a playground, bocce courts, a great lawn with performance stage, and picnic and gathering shelters. Phase 1C is a linear strip to the west of Phase 1B and the existing YMCA parking lot that would provide parking and vehicular and pedestrian circulation between all three phases of the sports complex. Phases 2 and 3 are to be located at the south end of the sports complex (directly to the south and southwest of the Tom Taylor YMCA).

At the time the study began, the YMCA was in the process of designing Phase 1A, and the City was in the middle of the process of designing and constructing Phase 1B. The feasibility study for Phases 2 and 3 would include 3 phases:



2018 MASTER PLAN FOR GH SPORTS COMPLEX (Source: City of Gig Harbor)

1. Site Investigation: This phase would consist of information gathering in the form of observation of existing conditions of the site related to Phases 2 and 3, review of available as-built information to inform the stormwater analysis, research and compilation of GIS and land-use data, a zoning and code summary outlining zoning/land use/municipal code requirements. A trip generation memorandum and parking generation analysis would be performed, as would a critical areas review to identify any potential wetlands or water bodies in Phase 3. Lastly, a geotechnical site reconnaissance and field exploration would be performed for Phase 2.

2. Alternatives Analysis: In this phase of the feasibility study, BCRA and the City would develop three sports field design alternatives and engage in a series of stakeholder and public open house meetings and city council study sessions, to identify the necessary programmatic elements, solicit public and council feedback on the design, and ultimately narrow down the three alternatives to two alternatives. The phase would culminate with presenting the two remaining alternatives to the city council to request that they select a preferred alternative to develop in the final phase of the feasibility study.

3. Preferred Alternative Development: A final round of revisions and development of the preferred alternative would be performed. The final feasibility study design package would be compiled. The feasibility study would conclude with recommended next steps for the city. The final goal of the feasibility study would be the adoption of the feasibility study by the City Council, Client and Planning Division Staff.

The following pages represent the documentation

Executive Summary

SITE INVESTIGATION

Client
Jennifer Haro, Parks Manager
Phone: 253-853-8253
Email: JHaro@gigharborwa.gov

Project Facilitator
Eric Streeby / BCRA
estreeby@bcradesign.com

Site Description
An irregularly shaped group of 4 parcels. Parcel #4002470030 is bounded by Harbor Hill Drive on the east and south, and the YMCA property to the north. Parcel #0222312013, the existing Penlight Fields, is bounded by McCormick Creek Drive to the west, and an existing single-family residential neighborhood to the south. Parcels 0222312019 and 0222313074 are City-Owned Parcels which will not are not planned to be significantly impacted by the development of the project scope.

Parcel #'s
0222312013, 4002470030, 0222313074, 0222312019:

Design Team
BCRA
2106 Pacific Avenue, Suite 300
Tacoma, WA 98402

Landscape Architect:
BCRA // Eric Streeby
estreeby@bcradesign.com

Civil Engineer:
BCRA // Andrew Cirillo
acirillo@bcradesign.com

Consultant
Environmental Consultant
Grette Associates
Chad Wallin, Biologist
ChadW@gretteassociates.com

Traffic Consultant
PH Consulting
Pablo Para, PE, PTOE
pablo@phtraffic.com

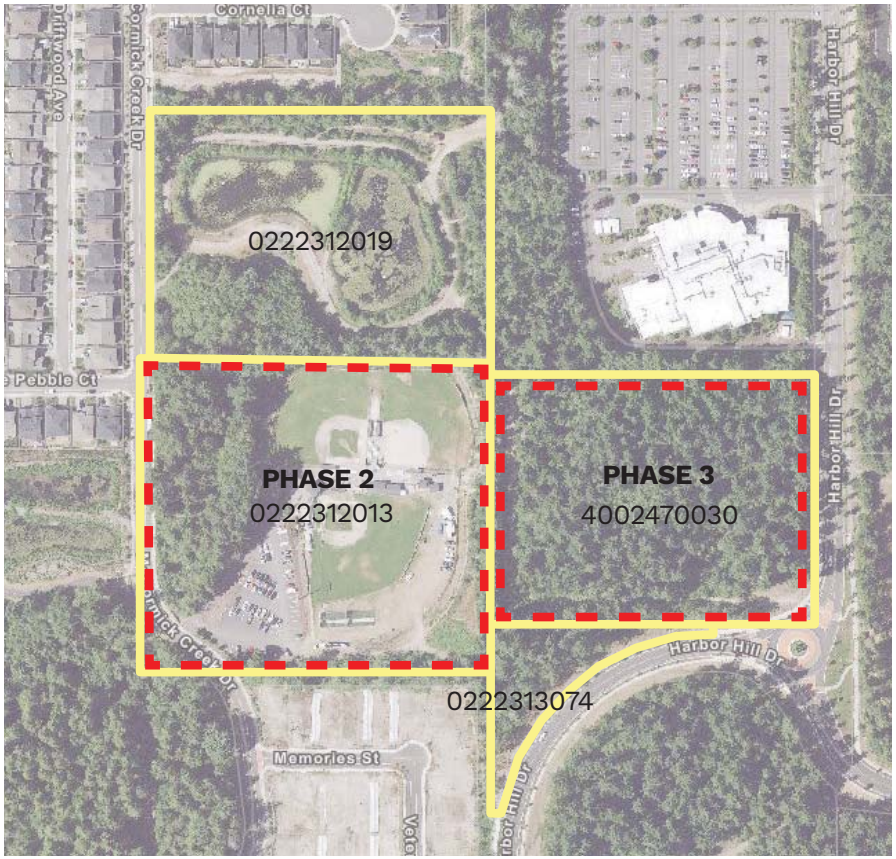
Cost Estimating Consultant
Bill Acker, Cost Estimator
fargwatt@harbornet.com

Geotechnical Consultant
Kleinfelder, Inc. / Marcus Byers, Geotechnical Engineer
MByers@kleinfelder.com

Project Description

Phase 2
Replacement of three existing grass fields (Peninsula Light Fields) at 10303 McCormick Creek Drive (Pierce County Parcel #0222312013), with synthetic turf all-purpose fields.

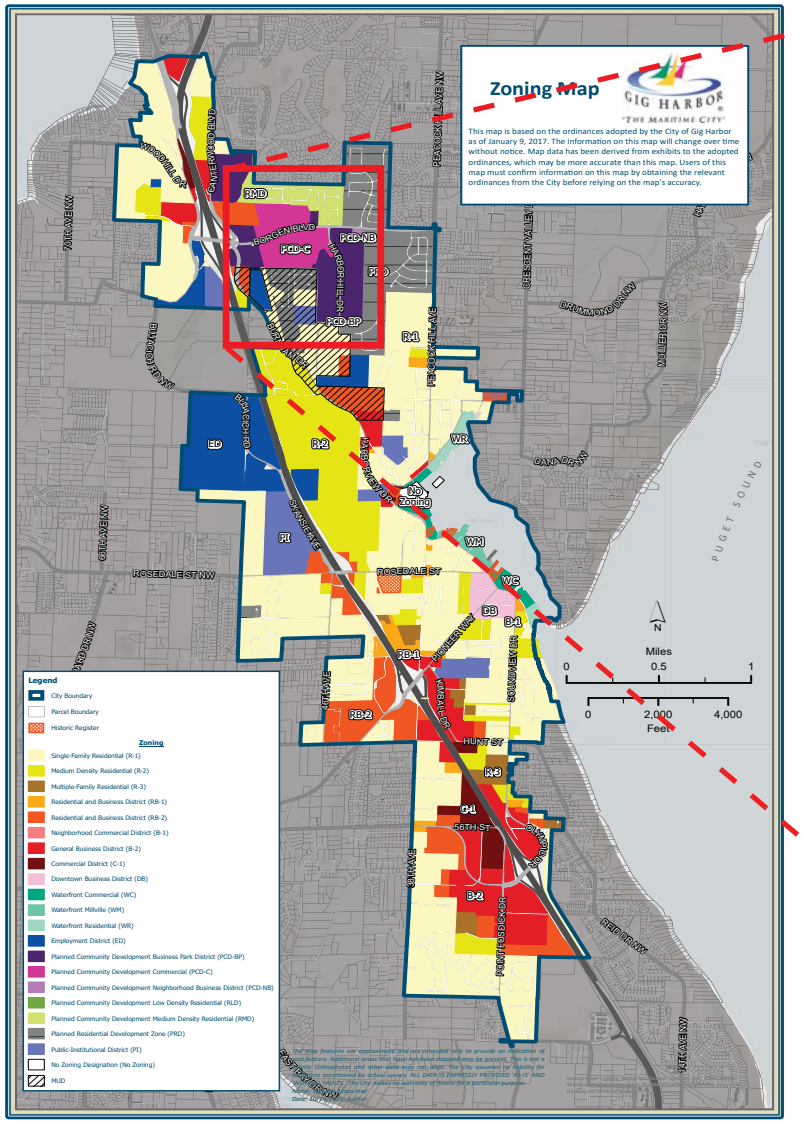
Phase 3
Two additional lighted synthetic turf fields on two undeveloped parcels (located just east of Phase 2) at 10310 Harbor Hill Drive (Pierce Count Parcel #4002470030 and 0222313074).



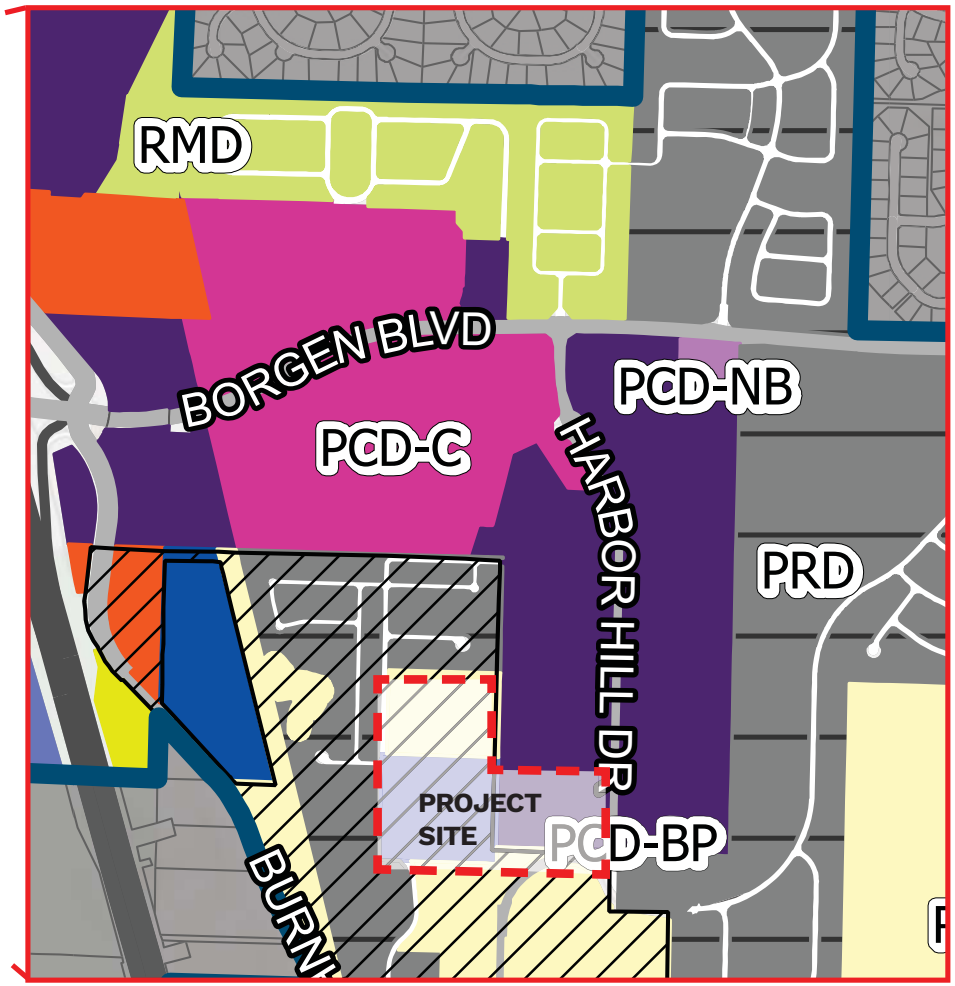
VICINITY MAP (Source: BCRA)

Land Use / Zoning Map

SITE INVESTIGATION



ZONING MAP (Source: City of Gig Harbor)



ZONING MAP LEGEND

- PCD-C Planned Community Development Commercial
- PCD-BP Planned Community Development Business Park
- PI Public Institutional District
- R-1 Single-Family Residential
- MUD Mixed Use District Overlay
- Project Site - Planned Rezone to PI by end of 2024

Land Use and Zoning Summary

SITE INVESTIGATION

Following is a Land Use and Zoning Summary, produced at the beginning of the feasibility study in March of 2023. A notable change that occurred in the alternatives analysis phase of the project is that the decision was made to rezone parcels 0222313074 and 4002470030 to PI (Public-Institutional District) by the end of 2024. These items are highlighted in magenta text for reference. The setbacks shown on the alternatives in this feasibility study reflect the required setbacks based on this initial land-use/zoning summary.

Site Data:
Section 31 Township 22 Range 02 Quarter 31 : W 1/2 OF NE OF SW (INCL 2.76+- REC WETLAND & BUFF #9411020163 L2/94 FD) EXC S 900 FT THEREOF & S 180 FT OF W 1/2 OF SE OF NW EASE OF RECORD FORMERLY TCO 27-526 DC121101MJ;

Section 31 Township 22 Range 02 Quarter 31 Plat BUSINESS PARK AT HARBOR HILL LOT 3 EASE OF RECORD OUT OF 02-22-31-1-008, 2-040 & 3-043 SEG 2006-1182 JU 6/1/06JU;

Section 31 Township 22 Range 02 Quarter 31 E 1/2 OF NE OF SW EXC N 1/2 OF NE OF NE OF SW TOG/W THAT POR OF E 1/2 OF SE OF SW LY ELY OF GIG HARBOR LONGBRACH CO RD EXC S 660 FT THEREOF TOG/W THAT POR OF W 50 FT OF N 330 FT OF S 660 FT OF E 1/2 OF SE OF SW LY E OF GIG HARBOR LONGBRANCH CO RD TOG/W SW QTR OF SE QTR EXC S 660 FT THEREOF ALSO EXC E 990 FT EXC THAT POR OF PROP CYD TO CY OF GIG HARBOR FOR R/W PER ETN 4425313 ALSO EXC THAT POR LY SLY OF SD R/W OUT OF 02-22-31-3-044 SEG 2017-0430 JP 04/26/17 JP

Section 31 Township 22 Range 02 Quarter 24 W 1/2 OF SE OF NW EXC N 660 FT THEREOF & ALSO EXC S 180 FT THEREOF EXC POR CYD TO CY OF GIG HARBOR PER ETN 4272842 EASE & RESERV OF RECORD SEG F 2382 DC00259474 8/31/12 KG

Area:
Parcel 0222312013 - 396,832 sq. ft. / 9.11 acres;
Parcel 4002470030 - 307,969 sq. ft. / 7.07 acres;
Parcel 0222313074 - 46,514 sq. ft. / 1.068 acres
Parcel 0222312019 - 302,306 sq. ft. / 6.94 acres

Address
10303 McCormick Creek Drive;
10310 Harbor Hill Drive;
Unassigned
Unassigned

Parcel ID #:
0222312013;4002470030;0222313074; 0222312019

Zoning
0222312013: Public-Institutional District (PI)
4002470030: Planned Community Development Business Park (PCD-BP)
(will be rezoned to PI by end of 2024)
MUD Overlay
0222313074: Single-Family Residential (R-1)
(will be rezoned to PI by end of 2024)
0222312019: Public-Institutional District (PI)

Adjacent (N): Single-Family Residential (R-1) Planned Community Development Business Park (PCD-BP) MUD Overlay
Adjacent (S): Single-Family Residential (R-1) MUD Overlay
Adjacent (E): Planned Community Development Business Park (PCD-BP)
Adjacent (W): Planned Residential Development (PRD) MUD Overlay

Overlay Zone/District
Gig Harbor North Activity Center (partial coverage)
Mixed Use District (partial coverage)
Adjacent to visually sensitive parcels intersecting enhancement corridors?

Permitted Uses:
Parks are a permitted use per 17.14.020; however, footnote 24 states:
"Permitted and conditional uses in the MUD district overlay are subject to the minimum parcel size and location requirements contained in GHMC 17.91.040(A)."

17.91.040(A)(2) states, "No parcel less than 10 acres shall be developed with nonresidential uses, except where the parcel is contiguous to a developed or planned business or commercial area."

Land Use Review:
Design review (17.98.030)
Major site plan review, Type II (17.96.030(B)(1))
*Processes may add as design is developed

Development Standards:

Chapter 17.15 Public-Institutional District (PI)

Height: 35 feet (17.15.060)

Residential Buffer: Any yard abutting a residential development shall be required to maintain a dense vegetated screen not less than 50 feet (17.15.050)

Parking: Parking is not permitted in the side yards. Parking in front and rear yards is permitted; provided, that a minimum landscape buffer equal to one-half the required yard is provided. In rear yards, a dense vegetative screen shall be provided between the parking area and any adjacent residence (17.15.070).

Design: All design and development standards contained in Chapter 17.99 GHMC are applicable in the PI district.

Chapter 17.16 Single-Family Residential (R-1)

Height: 35 feet (17.16.070)

Front Setback: 20 feet (17.16.060(C)(Footnote 3))
Rear Setback:30' feet
Side Setback: 8 feet

Max Surface Cov.: 40%

Min. Street Front.: 20'

Design: All development shall conform to the applicable design standards contained in Chapter 17.99 GHMC (17.16.100(A)).

Chapter 17.54 Planned Community Development Business Park (PCD-BP)
Category I use (17.54.025(A)(4))
Height: 35 feet (17.54.030(F))
Setbacks: No structure shall be closer than 150 feet to any residential zone or residential development and closer than 50 feet to any street or property line. Parking shall not be located any closer than 40 feet to any residential zone or residential development, and closer than 30 feet to any street or property line. (17.54.025(B)(1))

Open Space: A minimum of 20 percent of the site, excluding setbacks, shall remain in open space, with either retained natural vegetation or new landscaping. (17.54.025(C))

Design: Development in the PCD-BP district shall conform to the design and development standards contained in Chapter 17.99 GHMC. (17.54.025(M))

Chapter 17.91 Mixed Use District Overlay

Height: 35 feet (17.91.040(F)(2))

Max Coverage: 45% (17.91.040(F)(3))

Front Yard: 15 feet (17.91.040(F)(1))
Side Yard: 5 feet, unless zero lot line
Rear Yard: 15 feet

No parcel less than 10 acres shall be developed with nonresidential uses, except where the parcel is contiguous to a developed or planned business or commercial area. (17.91.040(A)(2))

Where phased development is proposed for a parcel of 10 acres or greater and where the first

Land Use and Zoning Summary (Cont'd)

SITE INVESTIGATION

phase is less than 10 acres, the remaining portion of the parcel reserved for future development shall be committed to residential or nonresidential uses. (17.91.040(A)(3))

Buffer: 17.91.040(D)
D. Separation of Uses/Transition Buffers. To ensure that different land uses are adequately separated, the following transition buffers and setbacks shall be used:

1. Buffers Separating New Businesses from Existing Residential Uses. A business or nonresidential use must meet the following standards where it is adjacent to property which is either developed or planned for residential use in addition to the zone transition standards defined in GHMC 17.99.180:

a. A minimum 35-foot setback from any property shared with a residential site.

b. Landscaping forming a dense vegetative screen or retention of existing native vegetation within required buffer areas equal to the minimum setback.

c. No parking shall occur within a required buffer.

Design: Design. Development in the MUD district shall conform to the design and development standards contained in Chapter 17.99 GHMC. (17.91.040(F)(9))

Chapter 17.72 Off-Street Parking and Loading Requirements

Quantity: Director shall determine the standards to be applied for parking using as a guide the uses listed in this section that most closely resemble the uses proposed. (17.72.030)
Chapter 17.78 Trees, Landscaping, and Screening

Perimeter Landscaping: "perimeter areas shall be landscaped with trees, shrubs, and groundcover. The required area of perimeter landscaping shall be at least the depth of the required yard or setback area" (17.78.070)

Tree Retention: All significant trees as defined in GHMC 17.99.590 shall be retained. These trees can be applied towards all or some of the trees required to be retained by GHMC 17.99.240(D). Retention of other existing vegetation for landscaping is strongly encouraged; however, it must be equal to or better than available nursery stock. (17.78.070(A)(2)(a))

*Design Manual states that 25% of significant trees should be incorporated into required landscaping and retained indefinitely (17.99.240(D))

Design Standards: Design standards apply

17.99.170 Zone transition standards
"Zone transition standards do not apply to development that is permitted under the development standards of the opposing zone or between zones that collectively fall under any one of the following zoning district categories." (17.99.170)

Site Analysis

SITE INVESTIGATION

Existing Conditions

Following is a brief summary of the existing site conditions within the project scope area, documented during the site investigation phase at the beginning of the feasibility study. This description is not exhaustive, but represents a summary of the key recorded observations regarding the site in its existing state.

Phase 2

The Phase 2 site, consisting of parcels 0222312013 and a small portion of 0222312019, is the current site of the Gig Harbor Little League fields, which consist of grass ballfields, an asphalt parking lot accessed from McCormick Creek Drive, a paved area between the fields with concessions, restroom, tower, historic umpire shack, and mechanical buildings,as well as batting cages and bullpens. McCormick Creek runs through a sloped, wooded ravine to the west of the fields. To the north of the fields on parcel 0222312019 is a stormwater pond with a walking trail which is used by the public for recreation and exercise. There is an existing trail with boardwalk which leads from the west edge of the parking lot out to McCormick Creek Drive.

Investigation of the existing Phase 2 fields revealed that, while there are a small number of under-drain pipes crossing the field, the existing fields lack a full under-drainage system. A stormwater ditch has been constructed along the outfield of all three existing fields. The existing pipes under the existing field daylight into this stormwater ditch, which drains to McCormick Creek on the northwest portion of the site

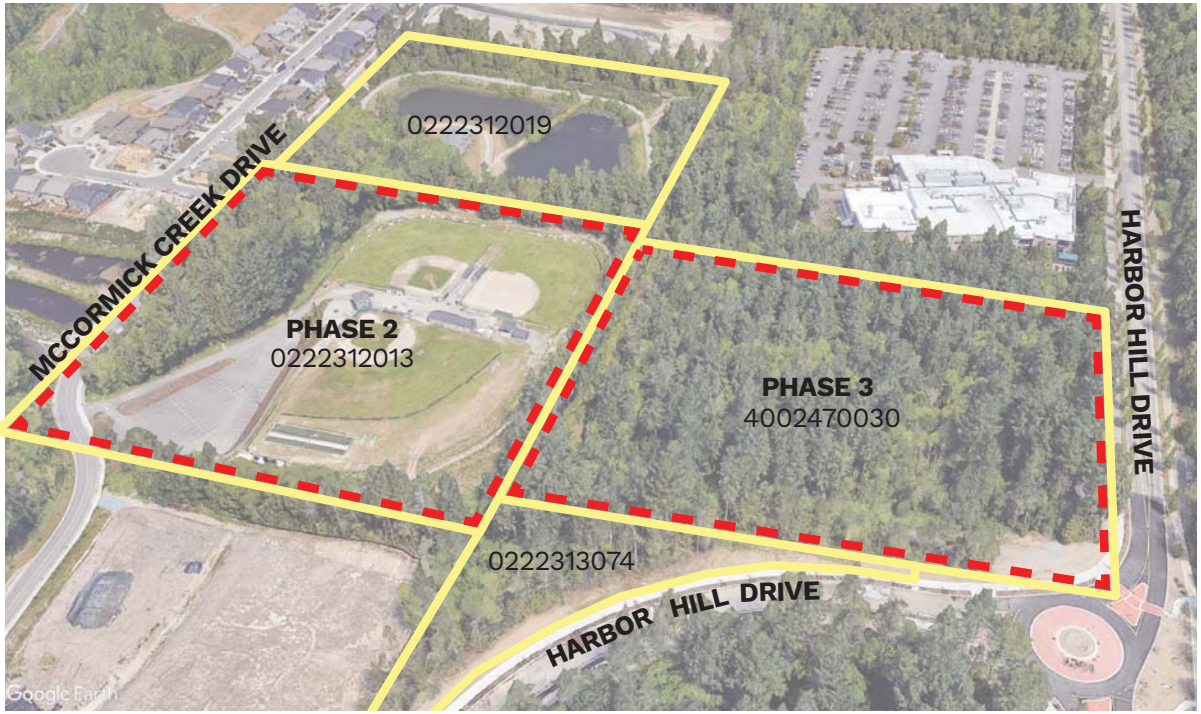
With the Phase 2 Fields being at a lower elevation than the Phase 3 site, a significant topographical feature is a steep slope/escarpment along the eastern edge of the Phase 2 fields which is a product of the original excavation to build the fields.

The existing Phase 2 Field restrooms are on a septic system - there is an existing drain field at the southeast corner of Parcel 0222312013.

Phase 3

The Phase 3 site (parcel 4002470030) is a largely undeveloped wooded area consisting mainly of Douglas Fir, Western Red Cedar, Red Alder, and Big-leaf Maple. There is a utility easement with an unpaved maintenance path which is informally used as a public walking trail running through the southern and western edges of the parcel. The path connect to Harbor Hill Drive on it's east end. The path also connects to the Phase 2 parking lot on it's west end. The portion of the trail that runs north-south, connects to parcel 0222312019 and loops around the existing stormwater pond.

The overall topography of the parcel slopes from the high point at the northeastern portion of the site to the low point at the southwestern portion of the site, consisting of approximately 20 feet of grade change.



BIRDSEYE: PARCELS INCLUDED IN FEASIBILITY STUDY (Source: BCRA/Google Earth)

Key Adjacencies

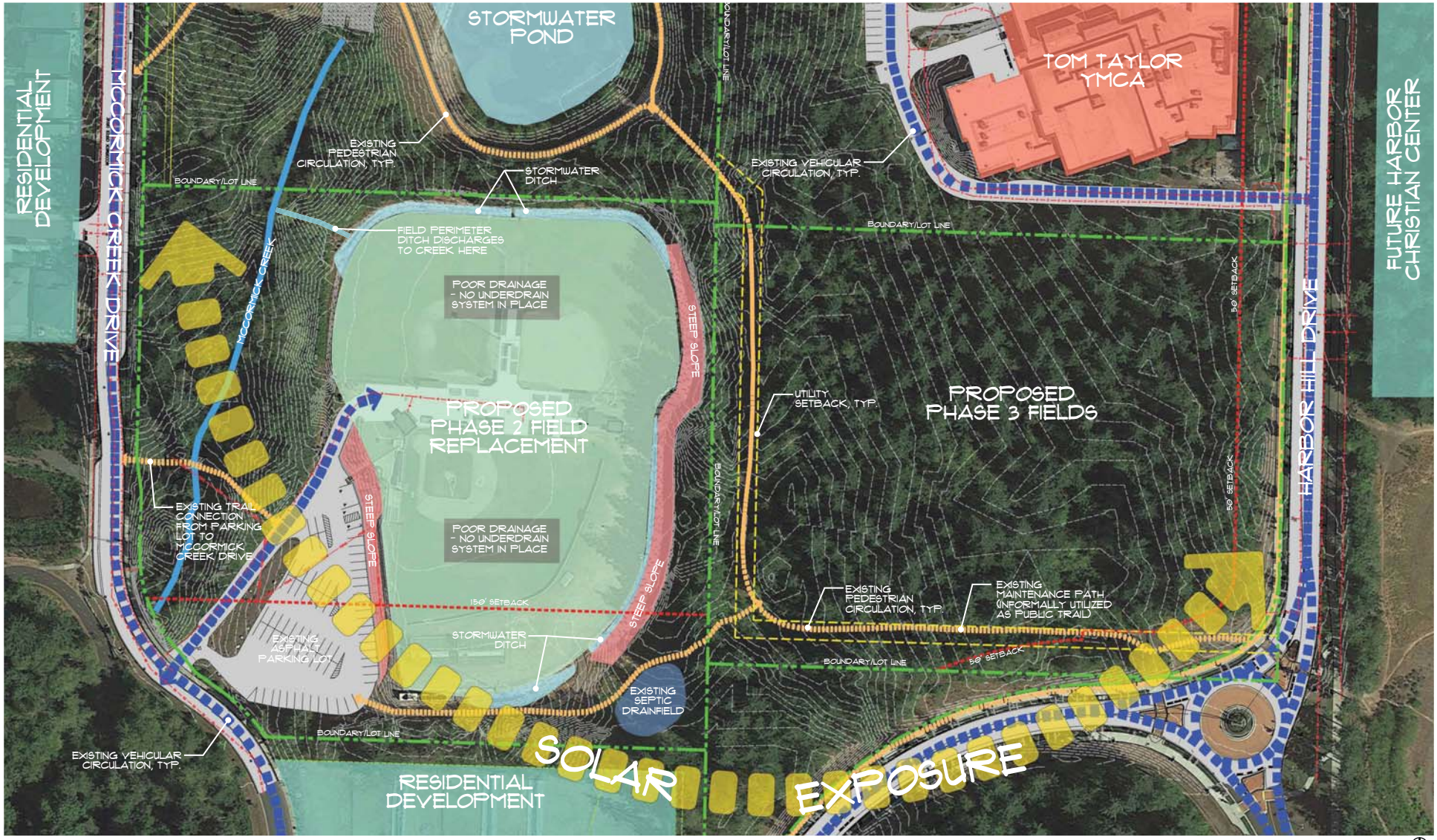
Parcel 0222312013 (Phase 2) is flanked by McCormick Creek Drive to the west and a single-family residential development to the south, and Parcel 0222312019 which contains the stormwater pond to the north.

Parcels 400270030 and 0222313074 (Phase 3) are flanked by Harbor Hill Drive to the east and south. Parcel #4002470030 is flanked by the Tom Taylor YMCA property to the north. Parcel #0222313074 is also flanked by the single family residential neighborhood to the west.

The exhibits on the following pages include an exhibit developed during the site investigation phase that summarize the existing site conditions, photos documenting existing site conditions, and an exhibit that summarizes some of the key opportunities and constraints identified during the site analysis phase of the feasibility study.

Site Analysis

SITE INVESTIGATION

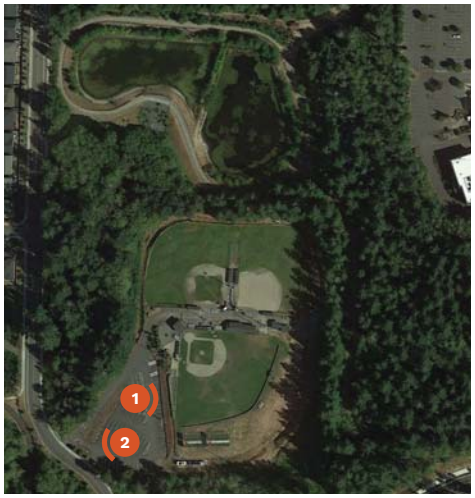


SITE ANALYSIS DIAGRAM (Source: BCRA)

Site Photos

SITE INVESTIGATION

1 Phase 2 Parking Lot Panorama Facing East Showing Grade Change at Baseball Field Edge



KEY MAP

Not to Scale

North

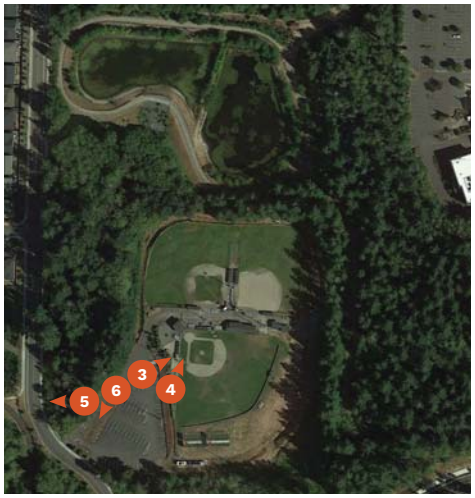
2 Phase 2 Parking Lot Panorama Facing SW-NW

Site Photos

SITE INVESTIGATION

3 Timber Stairs Leading from Parking Lot to Fields

4 Paved Area with Bleachers Behind Backstop to West of Large Baseball Field



KEY MAP

Not to Scale

North

5 Boardwalk Trail Between Parking and McCormick Creek Drive

6 View Looking Southwest at Driveway to McCormick Creek Drive

Site Photos

SITE INVESTIGATION

7 Maintenance Drive Access at SE Parking Lot

8 Maintenance Drive Access at NW Parking Lot

KEY MAP

Not to Scale

North

9 Phase 2 Stormwater Ditch at Outfield

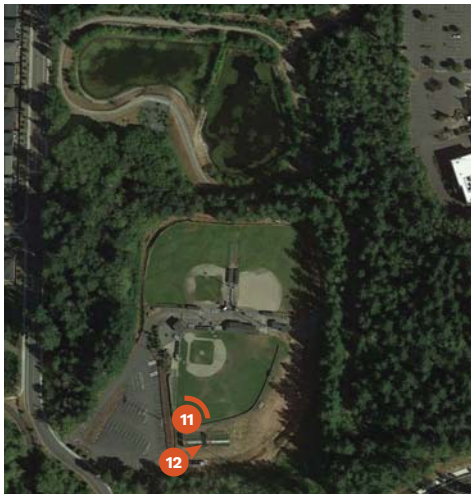
10 Phase 2 Small Ball field Outfield

Site Photos

SITE INVESTIGATION

11 Panorama of Large Baseball Field

12 Existing Batting Cages



KEY MAP

Not to Scale

North

Site Photos

SITE INVESTIGATION

13 Harbor Hill Drive Facing North

14 Harbor Hill Drive Roundabout Facing Southeast

KEY MAP

Not to Scale

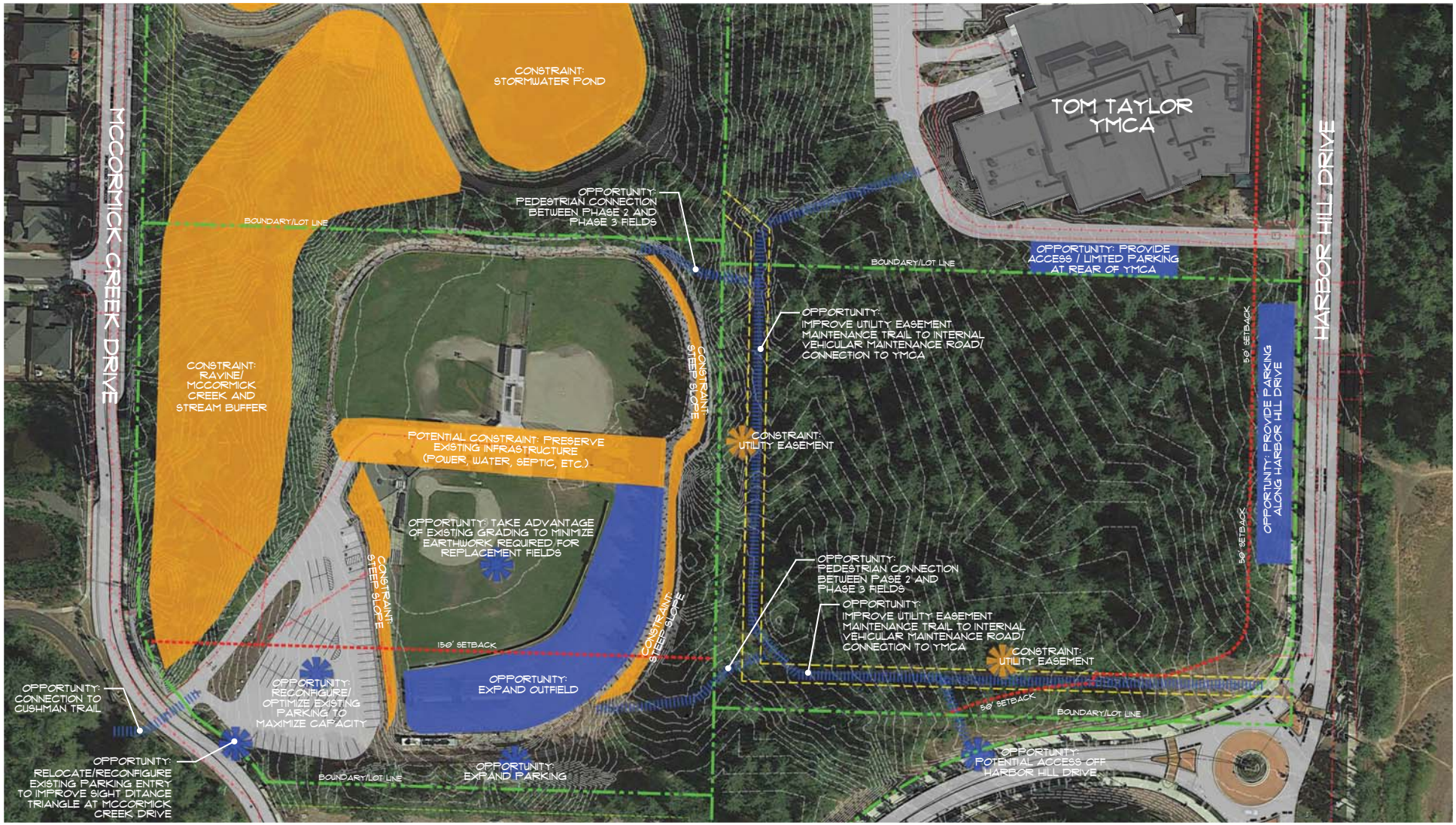
North

15 Existing Trail in Utility Easement Facing East

16 Stormwater Pond Panorama

Opportunities and Constraints

SITE INVESTIGATION



OPPORTUNITIES AND CONSTRAINTS DIAGRAM (Source: BCRA)

Opportunities and Constraints

SITE INVESTIGATION

Summary

Through the preliminary site investigation and information gathering process, several site characteristics and elements were identified which had the potential to impact and/or influence the design. Some of these were contextual factors to consider as the design progresses, some were physical realities that the design needed to respect, and some are opportunities that this site revealed which could enhance the functionality of the design.

Opportunities

1. Taking advantage of the existing baseball fields which had already been graded flat presented a clear opportunity to minimize the necessary excavation and grading required to upgrade the Phase 2 baseball fields.
2. The adjacency of the Tom Taylor YMCA to the north of Phase three presented an opportunity leverage the existing access off of Harbor Hill Drive to the rear of the YMCA to create a potential drop off area at the north side of Phase 2.
3. The high ground at the northeastern portion of the Phase 2 site was identified as a logical location for parking accessed direction off of Harbor Hill drive.
4. The existing utility easement maintenance trail along the south and west portions of Phase 2 presented a clear opportunity to upgrade these trails to a vehicular access drive that could provide vehicular/maintenance/fire access and/or parking in the interior portion of the site.
5. The approximate midpoint of the south edge of Phase 2 adjacent to the stretch of Harbor Hill Drive that runs southwest was seen to have potential to become an additional point of access to the Phase 2 fields.
6. Pedestrian connections between Phase 2 and 3 would provide critical routes for pedestrian flow throughout Phase 2 and Phase 3, enhancing visitors' use of the entire site.
7. It was noted that the existing large baseball field in Phase 2 was not a full-sized baseball field, and the potential for expansion of the baseball field was noted.
8. The proximity of the Cushman Trail to the existing Phase 2 parking lots provides a unique opportunity to connect pedestrians using this regional trail to the site, and opens up a safe pedestrian and bike route to other offsite parking areas.
9. The presence of a blind corner at the location where McCormick Creek Drive bends at the Phase 2 parking lot driveway revealed an opportunity to enhance safety of cars exiting the parking lot onto McCormick Creek Drive, by relocating the parking lot entry further southeast.
10. An area of unutilized space in the Phase 2 parking lot made it apparent that re-striping of the lot might regain a number of parking stalls.

Constraints:

1. The wooded ravine at McCormick Creek presented a clear limitation to the develop-able footprint of the site.

Steep slopes/escarpment between Phase 2 and Phase 3 and at parking lot (source: BCRA/Google Earth)

2. There were a large number of utilities, existing buildings and infrastructure running east-west, bisecting the Phase 2 Fields that present a clear constraint since it would likely be cost-prohibitive to relocate all the utilities.

3. The utility easements and storm infrastructure running through Phase 3 presented a potential constraint to how much grading work could be done through these portions of the site without significant cost impacts.
4. The existing steep slopes separating Phase 2 and Phase 3, as well as the steep slope separating the Phase 2 parking lot from the large baseball field were a topographical constraint that would have to be considered as the design progressed.
5. With over 20 feet of grade change across the Phase 2 site, it was recognized early on that a significant amount of grading, and potentially retaining walls would be required to construct sports fields in Phase 2, which would be a major driver of cost for the project.

Existing Phase 3 Trails (source: BCRA/Google Earth)

Infiltration Feasibility Study

SITE INVESTIGATION

As identified in the feasibility study scope, Kleinfelder Engineers was engaged to perform an infiltration feasibility study for the Phase 2 Fields.

In short, the study concluded that stormwater systems for the site be based on infiltration rates of .01 inches/hour or less, and that provisions be made for handling and disposing of stormwater that does not infiltrate.

Following is the summary letter. The infiltration feasibility study in it's entirety is also included as Appendix A of this feasibility study:

KLEINFELDER
Bright People. Right Solutions.

August 16, 2023
Kleinfelder Project No. 24000835.001A

Eric Streeby, PLA
Associate
Landscape Architect
BCRA Design
2106 Pacific Avenue, Suite 300
Tacoma, WA 98402

Subject: **Infiltration Feasibility Study**
Peninsula Light Fields
10303 McCormick Creek Drive
Gig Harbor, WA 98332

Dear Mr. Streeby:

This letter summarizes Kleinfelder's infiltration feasibility study performed in support of the proposed Peninsula Light Field Improvements project at 10303 McCormick Creek Drive in Gig Harbor, Washington. We based our scope of services on our proposal titled "Revised Proposal for Geotechnical Engineering Services, Gig Harbor Sports Complex Phase II & III Feasibility Study, 10303 McCormick Creek Drive and 10310 Harbor Hill Drive, Gig Harbor, Washington" dated April 19, 2023. The following sections summarize our findings and conclusions.

FIELD EXPLORATION AND LABORATORY TESTING

Field explorations consisted of excavating two test pits, designated TP-1 and 2, to depths of about 6½ feet below the existing ground surface. Test pits were excavated southeast of the existing ballfield in a gravel surfaced area at locations selected by the City of Gig Harbor. The coordinates were estimated using a handheld GPS for plotting on the Site and Exploration Map, which should be considered approximate. The Vicinity Map, Figure 1, presents the project location and the Site and Exploration Map, Figure 2, presents the locations of the test pits.

Excavation was performed using a Kubota KX040-4 equipped with a toothed digging bucket, owned and operated by John Nichols Excavating operating under subcontract to Kleinfelder. A Kleinfelder EIT observed and logged the test pit excavations and collected samples for further examination and testing in our laboratory in Redmond, Washington. Samples were collected at various depths based on observed stratigraphy. Soil density was estimated based on the observed excavation conditions and relative effort of the excavator. Laboratory testing consisted of nine natural moisture content tests, five sieve analyses, and two hydrometer analyses. Appendices A and B present Test Pit logs and laboratory test results, respectively.

INFILTRATION FEASIBILITY STUDY (Source: Kleinfelder, Inc.)

Infiltration Feasibility Study, (cont'd)

SITE INVESTIGATION

GEOLOGIC AND SOILS MAPS

The Puget Lowland is characterized by a dynamic landscape that has been shaped primarily by continental glaciations, tectonic activity, and volcanism. Multiple phases of Pleistocene regional glaciation during the Fraser Glaciation have greatly influenced the modern topography and geology of the Puget Lowland, including Gig Harbor. The surficial soil units are derived predominantly from the latest glacial episode, the Vashon Stade of the Fraser Glaciation. Surface topography in the Puget Lowland is generally marked by north-south oriented ridges and valleys formed by glacial scouring, which were subsequently altered by post-glacial erosion and deposition. Surficial glacial deposits in the Gig Harbor area generally consist of glacial till, though the till is mantled in some areas by recessional outwash and/or recent alluvium. The 1:100k Surface Geology Map from the Washington Department of Natural Resources Geologic Information Portal indicates the site is underlain by Vashon Glacial Till.

The USDA Natural Resources Conservation Service Web Soil Survey map indicates that the site is underlain by Map Unit 16C, Harstine gravelly ashy sandy loam, 6 to 15 percent slopes. Per the City of Gig Harbor Stormwater Management and Site Development Manual, Appendix III Table B.5, this corresponds to Soil Hydrologic Group C, with moderately high runoff potential and an estimated 0.05 to 0.15 inches per hour infiltration rate.

SOIL AND GROUNDWATER CONIDTIONS

Soils encountered in the test pit explorations were consistent with the referenced geologic map and consisted of approximately 3½ feet of fill / reworked glacial till overlying weathered glacial till. Except for the gravel surfacing, we interpreted the upper 3½ feet to consist of native soils likely placed and/or disturbed during original site grading for the ballfields. Below this, soils transitioned to a weathered glacial till consisting of silty sand with gravel and silty sand. We estimate the glacial till to be medium dense to dense and lab testing indicated 26 to 28 percent fines.

Groundwater seepage was not observed in our test pit explorations. Excavation was performed during the dry summer season and perched layers of groundwater may develop seasonally, particularly over layers of unweathered glacial till.

INFILTRATION FEASIBILITY

We evaluated infiltration feasibility based on geologic conditions, Soil Hydrogeologic Group, and soil grain size and density. In general, glacial till soils are very poor infiltration receptors due to density (compactness) and fines content. Infiltration rates measured in glacial till soils by means of Pilot Infiltration Tests are typically less than 0.1 inch / hour.

Based on the City of Gig Harbor Stormwater Management and Site Development Manual, grain size testing is only appropriate for estimating infiltration rates for Hydrogeologic Group A soils, a criterial the site soils do not meet. We concur with this limitation, and it is our opinion that grain size methods would significantly overestimate the infiltration rate for the soils encountered in the test pits.

We recommend that preliminary stormwater system design be based on infiltration rates of approximately 0.1 inch / hour, or less, and that provisions be made for handling and disposing of stormwater that does not infiltrate. There is a potential that some areas of the site are underlain by a mantle of recessional outwash that would have a higher infiltration rate. However, the outwash would

be underlain by glacial till and therefore would likely have a low long-term infiltration capacity. Kleinfelder can perform additional explorations as part of a supplemental scope of services, if desired.

GEOLOGIC HAZARDS

Due to the relatively level site grades and soil conditions, we estimate the landslide, erosion, and seismic hazards at the site to be low.

LIMITATIONS

This work was performed in a manner consistent with the level of care and skill ordinarily exercised by other members of Kleinfelder's profession practicing in the same locality, under similar conditions, and at the date the services are provided. Our conclusions, opinion, and recommendations are based on a limited number of observations and data. It is possible that conditions could vary between or beyond the data evaluated. Kleinfelder makes no other representation, guarantee or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

This report may be used only by the Client and the registered design professional in responsible charge and only for the purposes stated for this specific engagement within a reasonable time from its issuance, but in no event later than two (2) years from the date of the report.

CLOSING

We trust that this report serves your needs at this time. If you have questions regarding our professional services or need additional information, please contact our office at (425) 636-7900.

Sincerely,

KLEINFELDER

Panutad Kuwijitsuwan, EIT (WA)
Geotechnical Engineer

Marcus Byers, PE, P.Eng
Principal Geotechnical Engineer
Senior Project Manager

Attachments: Figure 1: Vicinity Map
Figure 2: Site and Exploration Map
Appendix A: Test Pit Logs
Appendix B: Laboratory Testing

INFILTRATION FEASIBILITY STUDY (Source: Kleinfelder, Inc.)

Environmental Assessment

SITE INVESTIGATION

As identified in the feasibility study scope, Grette and Associates was engaged to perform a reconnaissance of the Phase 3 project site for the presence of wetlands, and evaluate any found wetlands in accordance with the U.S.A.C.E. Federal Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (2010), and Chapter 18.08 of the Gig Harbor Municipal Code (GHMC). In addition, Grette would visually investigate the areas within 300 feet surrounding the project sites for the presence of wetlands. Lastly, they would perform an assessment to identify any features that would be classified as a natural water according to WAC 222-16-030 and Chapter 18.08 of the GHMC.

As a result of their site reconnaissance, Grette did not identify any wetland or stream features on or within 300 feet of the Phase 3 site.

The infiltration feasibility study in it's entirety is included as Appendix B of this feasibility study. Following is the summary letter.

Grette Associates LLC
ENVIRONMENTAL CONSULTANTS

TECHNICAL MEMORANDUM

Prepared for: Eric Streeby, PLA
BCRA Designs
2106 Pacific Avenue, Suite 300
Tacoma, WA 98402

June 7, 2023

Prepared by: Grette Associates LLC
2709 Jahn Ave. NW, Ste. H5
Gig Harbor, WA 98335-7999

File No.: 388.008

Re: Gig Harbor Sports Complex – Phase 3 Feasibility Site Investigations

1 INTRODUCTION

Grette Associates (Grette) is under contract with BCRA to assist with their feasibility study for the Phase 3 improvements for the Gig Harbor Sports Complex project located off Harbor Hill Dr. (Pierce County parcel 4002470030) within the City of Gig Harbor (Figure 1).

The purpose of this technical memorandum is to summarize Grette's June 2, 2023 site investigation to identify any wetland(s) or stream(s) that would be subject to the development standards defined in Chapter 18.08 of the Gig Harbor Municipal Code (GHMC).

2 BACKGROUND

2.1 National Wetlands Inventory

The U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI) was queried to determine if previously-identified wetlands are present within 300 feet of the Phase 3 site (USFWS 2023). According to the NWI Interactive Online Mapper, there are no aquatic features mapped by NWI within 300 feet of the Phase 3 site. The nearest features are both located approximately 600 feet from the Phase 3 site to the east and west (Attachment 1).

2.2 State Water Classification System

The Washington Department of Natural Resources' (WDNR) Forest Practice Application Mapping Tool on-line mapper was queried to identify the water typing of any streams mapped by WDNR (WDNR 2023). According to WDNR, there is a Type F (fish habitat) stream located approximately 600 feet west and a Type F stream located approximately 600 feet east of the Phase 3 site (Attachment 1). The stormwater pond northwest of the Phase 3 site is mapped to be associated with the western stream and is also mapped as a Type F water.

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1

ENVIRONMENTAL ASSESSMENT (Source: Grette Associates)

Environmental Assessment (cont'd)

SITE INVESTIGATION

2.3 Soil Information

According to the Natural Resources Conservation Service's (NRCS) Web Soil Survey (NRCS 2023), the soils within the Phase 3 site consist of Harstine gravelly ashy sandy loam (6 to 15 percent slopes) which is not classified as a hydric soil (Attachment 1).

3 METHODS

Grette traversed and visually evaluated the Phase 3 site as well as those accessible areas within 300 feet to identify any feature that would meet the definition of a wetland or stream per Chapter 18.08 of the GHMC.

Potential wetland areas were visually evaluated using the criteria defined in the U.S. Army Corps of Engineers (USACE) *Federal Wetland Delineation Manual* (1987) and the USACE's *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (2010).

Streams were defined as any feature that would be classified as a natural water according to WAC 222-16-030 and Chapter 18.08 of the GHMC.

4 RESULTS

Upon completion, Grette did not identify any wetland or stream features on or within 300 feet of the Phase 3 site. With the exception of a narrow gravel road which appears to serve as a maintenance road to access the offsite stormwater pond to the northwest, the Phase 3 site is undeveloped and consists of a relatively mature conifer forest typical of the Puget Sound region (Figure 2).

During Grette's site assessment, no vegetation or seasonal hydrology was observed that would suggest potential wetland conditions are present within the Phase 3 site. The vegetation within the Phase 3 site predominantly consists of Douglas fir (*Pseudotsuga menziesii*), western red cedar (*Thuja plicata*), big-leaf maple (*Acer macrophyllum*), and red alder (*Alnus rubra*). Areas beneath the forest canopy predominantly consist of evergreen huckleberry (*Vaccinium ovatum*), salal (*Gaultheria shallon*), cascara (*Rhamnus purshiana*), trailing blackberry (*Rubus ursinus*) and bracken fern (*Pteridium aquilinum*).

Figure 2. General Phase 3 Site Conditions

The site is relatively flat and no obvious depressional areas or similar topography was identified that would suggest potential seasonal wetland hydrology occurs within the Phase 3 site. In addition, according to lidar imagery (WDNR 2023) the Phase 3 site does not contain any topographic characteristics that would suggest potential wetland conditions may be present within the forested area.

The only offsite aquatic feature identified within 300 feet of the Phase 3 site is a stormwater pond that is situated approximately 250 feet northwest of the site. Historical aerials show that the pond was built in approximately 2007 during the construction of the Tom Taylor Family YMCA and was designed to manage and retain stormwater that falls within the YMCA facility. According to the historical information provided (Attachment 2), there is an existing wetland feature located north of the Phase 1 site that seasonally discharges through an approximately 700-foot bypass pipe into a small narrow ditch and into the western cell of the stormwater pond (Figure 3). Based on Grette's site observations, it appears that the western cell of the stormwater pond is intended to maintain seasonal hydrology discharge from the northern wetland to wetland areas mapped south of the stormwater pond (Attachment 2) and ultimately towards the Type F stream mapped by WDNR. The eastern cell appears to collect and retain stormwater runoff associated with the YMCA. No visible feature was observed along the divider berm within the stormwater pond to suggest these two cells function together.

Both cells of the stormwater management facility were constructed from uplands for the purpose of managing site stormwater and are not regulated wetlands as defined by GHMC 18.08.

Figure 3. Stormwater Pond Culverts

[1] The photograph left captures the inlet of the stormwater pond culvert that collects wetland discharge from the approximate 700-foot bypass pipe located north of the stormwater pond. The photograph on the right captures the stormwater outlet structure that seasonally discharges to maintain hydrology to the wetland and stream south of the stormwater pond.

5 CONCLUSION

Per Chapter 18.08 of the GHMC, all wetlands and streams shall be identified within 300 feet of a proposed project. No wetlands or streams were identified within 300 feet of the Phase 3 site during Grette's site assessment. The open water feature that is situated within approximately 250 feet of the Phase 3 site is a stormwater pond built during the construction of the YMCA facility. Based on the information provided, while NWI and WDNR do map a stream historically extending through the area where the stormwater pond was constructed, this feature appears to be inaccurately mapped and was not found to be present. More specifically, the provided site plan (Attachment 2) identifies wetlands to the north and south of the stormwater pond but does not identify a stream channel extending through either of these features. Given this information, it

ENVIRONMENTAL ASSESSMENT (Source: Grette Associates)

Environmental Assessment (cont'd)

SITE INVESTIGATION

appears that the stream mapped by NWI and WDNR likely originates south of the stormwater pond and that the construction of the stormwater pond did not include a modification of a natural stream channel.

In addition, the stormwater pond appears to have been constructed from uplands and not in a historical wetland area. According to the NRCS (2023), the historical soils mapped within the area where the stormwater pond was constructed consisted of Harstine gravelly ashy sandy loam (6 to 15 percent slopes) which is not classified as a hydric soil. Furthermore, NWI does not map a historical wetland feature in this area in comparison to the wetlands to the north and south of the stormwater pond and, based on historical aerials, this area appeared to consist of a similar upland forest observed in the Phase 3 site.

Per GHMC 18.08.030, wetlands do not include those features intentionally created from non-wetland areas, including stormwater detention/retention facilities. Based on the information available, the stormwater pond would not be considered a regulated wetland feature under Chapter 18.08 and therefore would not have a buffer extending into the Phase 3 site.

In closing, there are no critical areas (wetlands/streams) situated within the Phase 3 site or any offsite features within 300 feet that would potentially have an associated buffer extending onto the Phase 3 site.

If you have any questions on this memo, please contact me at (253) 573-9300, or by email at chadw@gretteassociates.com.

Regards,

Chad Wallin
Biologist

Traffic Summary

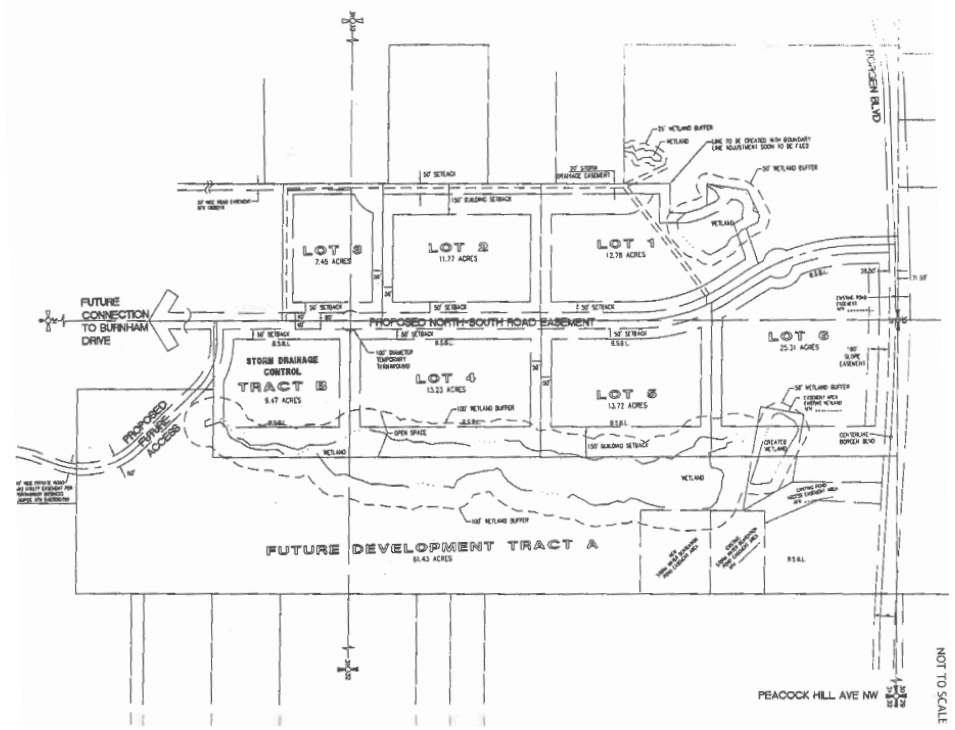
SITE INVESTIGATION

As identified in the feasibility study scope, pH Consulting was engaged to develop a Trip Generation Memorandum for Phase 3 site-related use only. The memo was to reference the previous Harbor Hill Business Park TIA and document the consistency of trips generated by Phase 3. The conclusions and recommendations that came out of the report were as follows:

"Phase 3 of the Gig Harbor Sports Complex is projected to generate up to 63 PM peak hour trips. Based on the originally assigned 167 trips for Lot 3, a balance of 104 trips will remain and offsite traffic impact analysis should not be necessary. Parking demand for the site is estimated to be 104 stalls. Based on this limited trip generation and parking generation analysis we can conclude that the development of Lot 3 as a Soccer Complex consisting of two ballfields is feasible.

We recommend that the next phase of GHSC project development conduct a campuswide traffic analysis evaluating site accesses, internal circulation, comprehensive parking needs, and pedestrian connections. The analysis should include all phases of GHSC site developments and existing related uses."

The Trip Generation Memorandum in it's entirety is included as Appendix C of this feasibility study.



HARBOR HILLS BUSINESS PARK LOT MAP (Source: The Transpo Group)

Stakeholder Meeting #1 Process

ALTERNATIVES ANALYSIS

Stakeholder Meeting #1 Invitees

After the site investigation phase of the project, The City of Gig Harbor identified a group of local stakeholders to engage with in a series of meetings meant to solicit feedback regarding Phases 2 and 3 of the Sports Complex. The stakeholder group consisted of the Gig Harbor Peninsula Youth Sports Coalition, and other stakeholders. The list of identified stakeholders who received invitations to and attended the first stakeholder meeting was as follows:

Amanda Babich
PenMet Parks

Ron Brentin
Gig Harbor Peninsula Youth Sports Coalition, Gig Harbor Little League

Jennifer Butler
Peninsula School District

Christine Hewitson
Gig Harbor Peninsula Youth Sports Coalition

David Kinley
Gig Harbor Soccer

Adrienne Matison
Peninsula School District Community Use

Kyle Munkres
Peninsula Youth Football

Steve Nixon
PenMet Parks

Jessie Palmer
YMCA of Pierce and Kitsap Counties

Michael Perrow
Gig Harbor Peninsula Youth Sports Coalition

Doug Smith
Gig Harbor Parks Commission

The City reached out to the invitees in advance of the meeting with a series of questions regarding the desired programming of the sports complex. The questions included the following:

Initial Questions

What are the requested field sizes/types (for organizations that will be using Phase 2 & 3 Fields)?

What is the minimum outfield distance that is sufficient for level of play– ex: 200’ or 180’for Little League?

Are outfield fences required or desired? (With the phase 2 fields, a couple of configurations might be possible:
1. Stick with the existing layout and have outfield fences.
2. Multipurpose fields with backstops at the field corners and with no outfield fences.
(see A5 field in Phase 2 from 2018 master plan as an example of this condition.

Any other specific levels of play or standards desired aside from Little League? Ex: Pony League? If so, what Pony League levels of play and outfield distances?

Football: Field sizes/types desired – we are assuming 360 x 160 for end zone to end zone, sideline to sideline

Lacrosse: Field sizes/types desired – is 360’ x 180’ Unified Lacrosse layout okay or is there a desire for separate boys and girls fields? If so, what are the desired dimensions for boys and girls fields?

Soccer
Field sizes/types desired – 320 x 190 okay for full size? If not, what is desired full-size footprint?

Youth field sizes desired? If so, what size(s)? 225’ x 150’?

Any other sports not listed here that we need to plan for?

How much parking? How many people typically attend:

- Little League games?
- Football Games?
- Soccer Games?
- Lacrosse Games?

Striping – okay to overlay baseball/softball over football/lacrosse/soccer?

High school size baseball field needed?

Early Design Process

ALTERNATIVES ANALYSIS

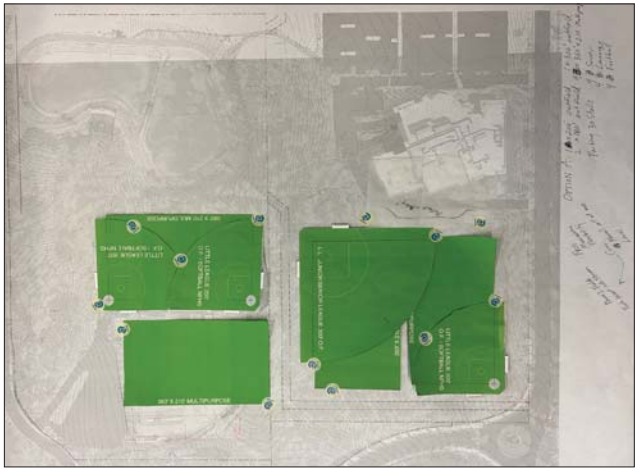
BCRA staff held a preliminary internal charrette to develop preliminary concepts. (Source: BCRA)

Early Design Process

In preparation for Stakeholder Meeting #1, BCRA, using all of the information gathered in the site investigation phase, held an internal, collaborative design workshop/charrette to develop three preliminary conceptual layouts for Phase 2 and 3 (Alternatives 'A', 'B', and 'C'). The team looked at different configurations for spatially organizing the athletic programming elements on the site, considering such factors as topography, site circulation, existing utilities,vehicular access drives, access, etc. The alternatives depicted a variety of layouts, programming, parking, etc. with the intention of providing a range of layout options that would allow for a productive dialogue with the stakeholders to identify benefits and/or deficits of each option to inform the progression of the design.

The images below show the first sketches that came out of the charrette, which served as a starting point for each of the alternatives.

The alternatives that were presented in the first stakeholder meeting are shown on the following 3 pages.

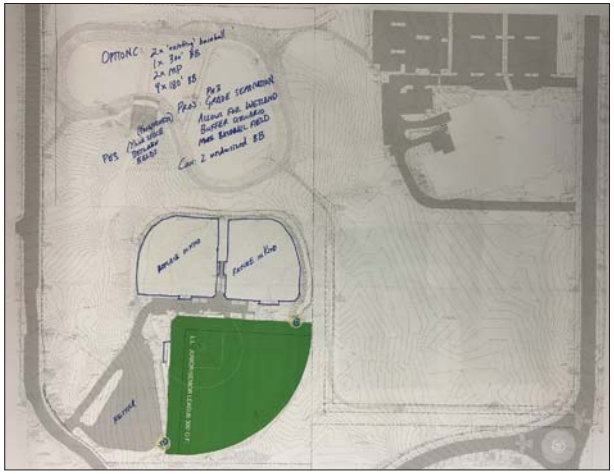


Preliminary Design Sketch - Alternative A (Source: BCRA)

Alternative A
This alternative took the approach of maximizing the flexibility of use and programming for both phases by providing multipurpose fields in both phases.

Preliminary Design Sketch - Alternative B (Source: BCRA)

Alternative B
This alternative kept the large baseball field as a dedicated baseball field, and added additional parking in Phase 3 at the expense of a second full-sized multipurpose field



Preliminary Design Sketch - Alternative C (Source: BCRA)

Alternative C
This alternative left the small little league fields largely within their existing footprints, and expanded the larger baseball field. Phase 3 (not depicted in the sketch) included two full-sized multipurpose fields.

Stakeholder Meeting #1 Alternative 'A'

ALTERNATIVES ANALYSIS

FIELD INVENTORY:

1 300' OUTFIELD FIELD (BASEBALL/SOFTBALL)
1 200' OUTFIELD FIELD (BASEBALL/SOFTBALL)
2 180' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
4 360' BY 210' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND LACROSSE)

TOTAL BY SPORT:
4 BASEBALL/SOFTBALL
3 FOOTBALL
4 SOCCER
4 LACROSSE

PROS:

-PROVIDES SPACE FOR ADDITIONAL PARKING TO THE SOUTH OF PHASE 2 FIELDS
-MAXIMIZES FLEXIBILITY OF USE FOR BOTH PHASES BY INCORPORATING MAXIMUM NUMBER OF MULTIPURPOSE FIELDS STRIPED FOR MULTIPLE SPORTS
-LARGER CONTIGUOUS AREA OF SYNTHETIC TURF FIELD IN PHASE 3 ALLOWS FOR FULL SIZE BASEBALL FIELD

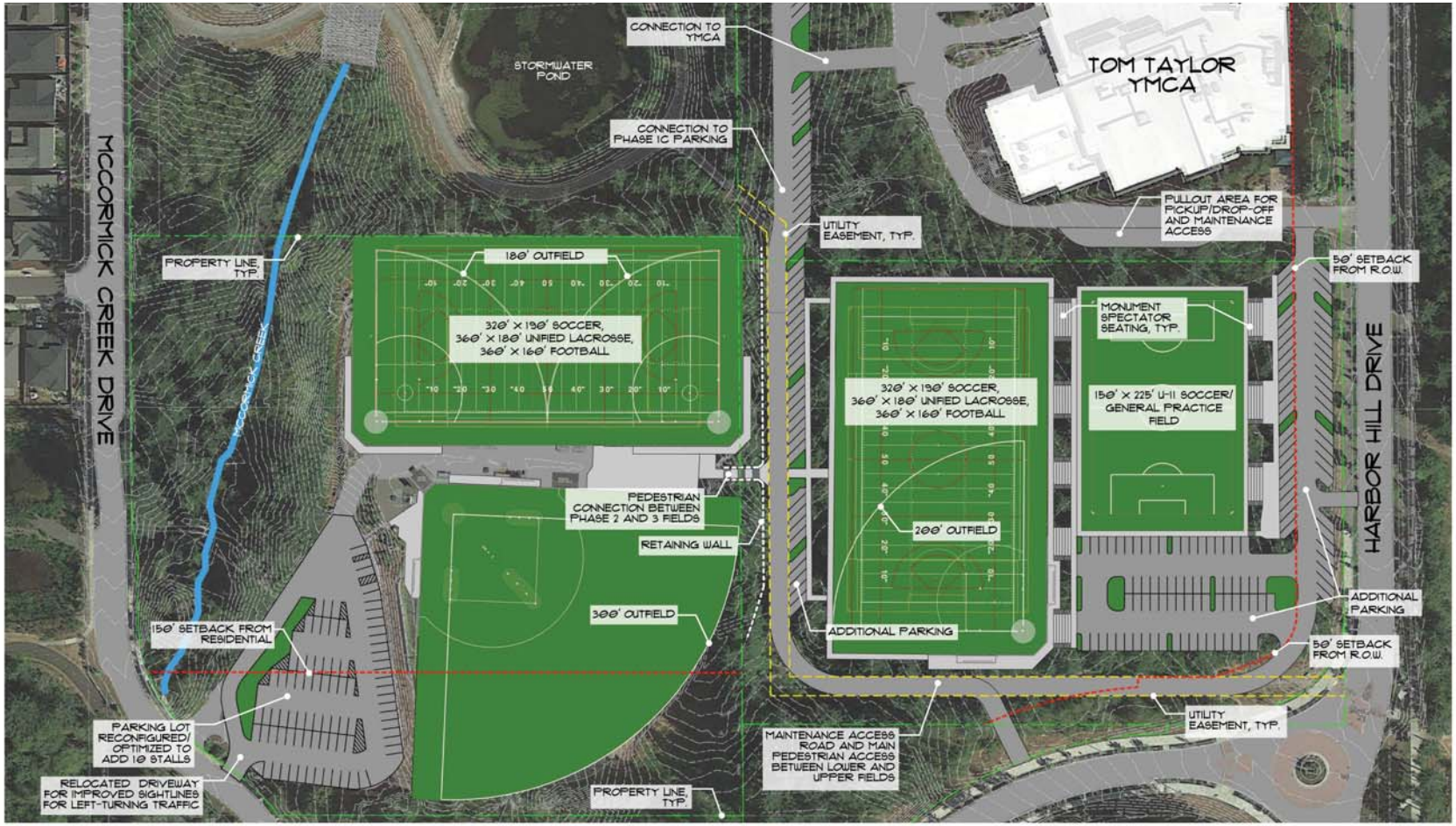
CONS:

-PHASE 3 GRADING IS ALL AT ONE LEVEL, POTENTIALLY INCREASING HEIGHT OF NECESSARY RETAINING WALLS
-PHASE 2 MULTIPURPOSE FIELDS ENCROACH INTO RAVINE BEYOND EXISTING BALLFIELD FOOTPRINTS

0' 40' 80' 160'
Scale
North

Stakeholder Meeting #1 Alternative 'B'

ALTERNATIVES ANALYSIS



FIELD INVENTORY:

1 300' OUTFIELD FIELD (BASEBALL/SOFTBALL)
1 200' OUTFIELD FIELD (BASEBALL/SOFTBALL)
2 180' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
2 360' BY 210' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND LACROSSE)
1 U-11 SOCCER FIELD

TOTAL BY SPORT:
4 BASEBALL/SOFTBALL
2 FOOTBALL
3 SOCCER
2 LACROSSE

PROS:

-PHASE 3 FIELDS ARE GRADED TO BE ON TWO LEVELS
-MORE BASEBALL/SOFTBALL FIELDS THAN ALTERNATIVE A
-MONUMENT SEATING AT PHASE 3 FIELDS FOR MORE SPECTATOR CAPACITY SIGNIFICANT ADDED PARKING IN PHASE 3
-PROVIDES VEHICULAR CONNECTION BETWEEN EAST AND WEST SIDES OF PHASE 3 FIELDS

CONS:

-MINIMAL ADDITIONAL PARKING IN PHASE 2
-PHASE 2 MULTIPURPOSE FIELDS ENCROACH INTO RAVINE BEYOND EXISTING BALLFIELD FOOTPRINTS
-LOSS OF MULTIPURPOSE FIELD SPACE DUE TO ADDED PARKING

0' 40' 80' 160'
Scale
North

Stakeholder Meeting #1 Alternative 'C'

ALTERNATIVES ANALYSIS

FIELD INVENTORY:

1 300' OUTFIELD FIELD (BASEBALL/SOFTBALL)
2 200' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
2 UNDERSIZED BASEBALL/SOFTBALL FIELDS WITHIN EXISTING FOOTPRINT
2 360' BY 210' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND LACROSSE)

TOTAL BY SPORT:
5 BASEBALL/SOFTBALL
2 FOOTBALL
2 SOCCER
2 LACROSSE

PROS:

-MINIMIZES ENCROACHMENT INTO STREAM RAVINE WEST OF PHASE 2 FIELDS
-MORE BASEBALL/SOFTBALL FIELDS THAN ALTERNATIVE A
-FLEXIBLE, PROGRAMMABLE GATHERING SPACE BETWEEN TWO PHASE 3 FIELDS WHICH CAN BE ORIENTED TOWARDS WEST OR EAST FIELDS
-STAYING LARGELY WITHIN EXISITNG PHASE 2 FOOTPRINT MINIMIZES PHASE 2 EARTHWORK
-PROVIDING FIELDS EXCLUSIVELY FOR LITTLE LEAGUE SIMPLIFIES FIELD STRIPING COMPLEXITY AND NEED FOR RECONFIGURING FIELD EQUIPMENT/ GOALS, ETC., AS USE CHANGES THROUGHOUT THE YEAR

CONS:

-MINIMAL ADDITIONAL PARKING IN PHASE 2
-2 BALLFIELDS IN PHASE 2 REMAIN UNDERSIZED
-PHASE 3 GRADING IS ALL AT ONE LEVEL, POTENTIALLY INCREASING HEIGHT OF NECESSARY RETAINING WALLS
-PHASE 2 FIELDS LACK FLEXIBILITY PROVIDED BY MULTIPURPOSE FIELDS

Stakeholder Meeting #1 Feedback

ALTERNATIVES ANALYSIS

The following notes summarizing the discussion items and feedback were recorded in the meeting:

1. Parks commissioner likes the parking shown in Alternate B
2. Want to include the parking along McCormick Creek within the parking calculations done for the site
3. Will this connect to the sewer or stay with a drain field? Sewer connection
4. Desire to see batting cages, there are currently a few but they need to be shown (new or retained)
5. Alternate B - Soccer likes the large ball field, could fit a 4v4, 7v7 or maybe a 9v9 soccer game on it.
6. Make sure to show the Cushman Trail and the trail that runs across the stream in the wetland. May want to include passive recreation trail
7. Concern about Alternate B's impact to the concessions stand.
8. Potential desire to see parking in the Triangle parcel
9. Soccer wants spectator seating only on one side of the field to provide separation from teams and spectators
10. Would like to see anticipated parking numbers
11. Drive through drop off was a big hit (referenced Sehmel and Phase1A as good examples)
12. Diffuse Parking with multiple access points was popular
13. Little league would like to retain the tower element (storage, office, announcers) could be rebuilt or retained
14. Liked having a larger baseball field however, Alternate A would eliminate 2 multipurpose fields if it were in use
15. School district has negative experiences with portable fences (probably unavoidable) they are hard to set up, bulky, and require storage
16. Desire to see pro-forma given to council to help support the cost offset and justification for maintenance staff
a. Look at rentals and concessions proceeds
17. Is there a way to account for local users walking to the site rather than driving and parking
18. Want to include offsite parking - Shared parking agreement with Harbor Christian
19. Don't design around buses
20. Want this to be a family friendly gathering space.
21. Turf fields have a design life of around 10 years and should be included in the pro-forma
22. Will the cost estimate include EV charging?
23. Grade separating the fields in Phase 3 would reduce crossfire of balls between the fields.
24. Soccer should use FIFA standards for field size - 105m x 68m (344ft x 223ft)
25. One person expressed a preference for Phase 2 of Alternative B with expanded baseball/softball field which would be largely dedicated to baseball/softball but would also include some smaller soccer/practice fields:
26. It was mentioned that these options do not include the batting cages that would be displaced by expanding the baseball field outward. Future iterations of the design will strive to account for batting cages
27. It was mentioned that soft surface/active trails should be included in future iterations of the design(s).
28. It was mentioned by Harbor Soccer that the desire is to not have spectators on the same side of the field as the team.
29. It was suggested that the possibility of included parking in the remnant triangular parcel could be explored.
30. It was brought up multiple times that before putting these three options to city council some information about the various cost drivers between each field option should be part of what is given them to help them make a decision. Example: The Phase 3 options where both of the fields are on the same level is the highest cost option, whereas the Phase 3 options with the stepped fields is lower cost due to less earthwork.
31. It was mentioned that Sehmel Park is a good precedent to look to with regards to drop off areas and drive through drop off.
32. It was mentioned that the little league fields need to retain the tower and concession stand and restroom (or replace in a new configuration).
33. It was mentioned that Sehmel does not have separate entrances and exits, and there should be separate entrances and exits.
34. It was brought up that you will want fire access to the fields for any structures, and aid units.
35. Accessibility needs to be considered – BCRA will look at accessibility in future iterations.
36. Consider bleachers and scoreboards as part of designs.
37. Consider storage for soccer goals, football goals, temporary outfield fencing, field grooming equipment.
38. One person mentioned that their favorite configuration would be a combination of Phase 2 / Alternative B, and Phase 3 Alternative A
39. A concern was expressed that the baseball field should be dedicated to baseball/softball rather than overlaid with multiple sports.
40. Another person expressed that the large baseball field in Alternative B, Phase 2 could be expanded to multipurpose field.
41. It was expressed that the designs should consider the management impacts of moving all the equipment for the various sports and the associated costs.
42. Restrooms should be considered
43. It was asked whether a Pro forma will be done for Council to weigh estimated revenue for fields. Jennifer answered that a pro forma has not been done at this time and is currently not part of the scope of this feasibility study.
44. It was brought up that PenMet Parks has some information about generated revenue that could be used to inform this design.
45. It was expressed that concessions are an important part of the revenue of the current Little League Fields.
46. One person expressed a preference for the stair step configuration of Phase 3.
47. One person expressed that bike racks may be required.
48. Will buses be required? For high school play, accommodations for buses may be required.
49. The question was asked more than once about the possibility of a shared parking agreement.
50. The question was asked more than once that a parking study is needed.
51. Multiple persons expressed the opinion that school bus parking should not be included in the design, this is meant to be a public park that is needed as a result of limited public usability of school fields, so this design should not make accommodations for school uses of public fields. Community use first – no dedicated bus use.
52. A drop off zone (perhaps at north end of phase 3, could accommodate bus drop-off.
53. It was expressed that the Little League fields should retain the 'essence of Little League.' Families come here, it's a family-friendly place to be used all day long.
54. The pros and cons of turf fields were discussed – turf fields require maintenance, an estimated 10 year useful life of a turf field needs to be incorporated into budgets. Grass fields are not very usable in winter, also required a different kind of maintenance.
55. Sports injuries due to turf fields?
56. One person raised the question of whether parking is more expensive in the future due to infrastructure required for EV charging requirements.
57. The consideration of the hazards of flying lacrosse balls is one reason to consider a stepped field design.
58. One person expressed a preference for Alternative C for Phase 3, which provides 2 more baseball fields.
59. Harbor Soccer expressed that they think the soccer fields might be slightly undersized – requested that BCRA examine FIFA standards which is what to strive for. (approx. 105 x 75 yards, or 345' x 222' plus a 2' buffer strip around the edge of the field).
60. A preference was expressed for the turf used at Sehmel Park is the same turf used at Husky Stadium.
61. The consideration of ball control netting at the baseball fields was brought up.
62. It was expressed that there are trade-offs between more parking and loss of field space – there are pros and cons with more fields, less parking, and less fields, more parking.
63. Harbor Soccer requested that they be provided with the next stakeholder meeting date.

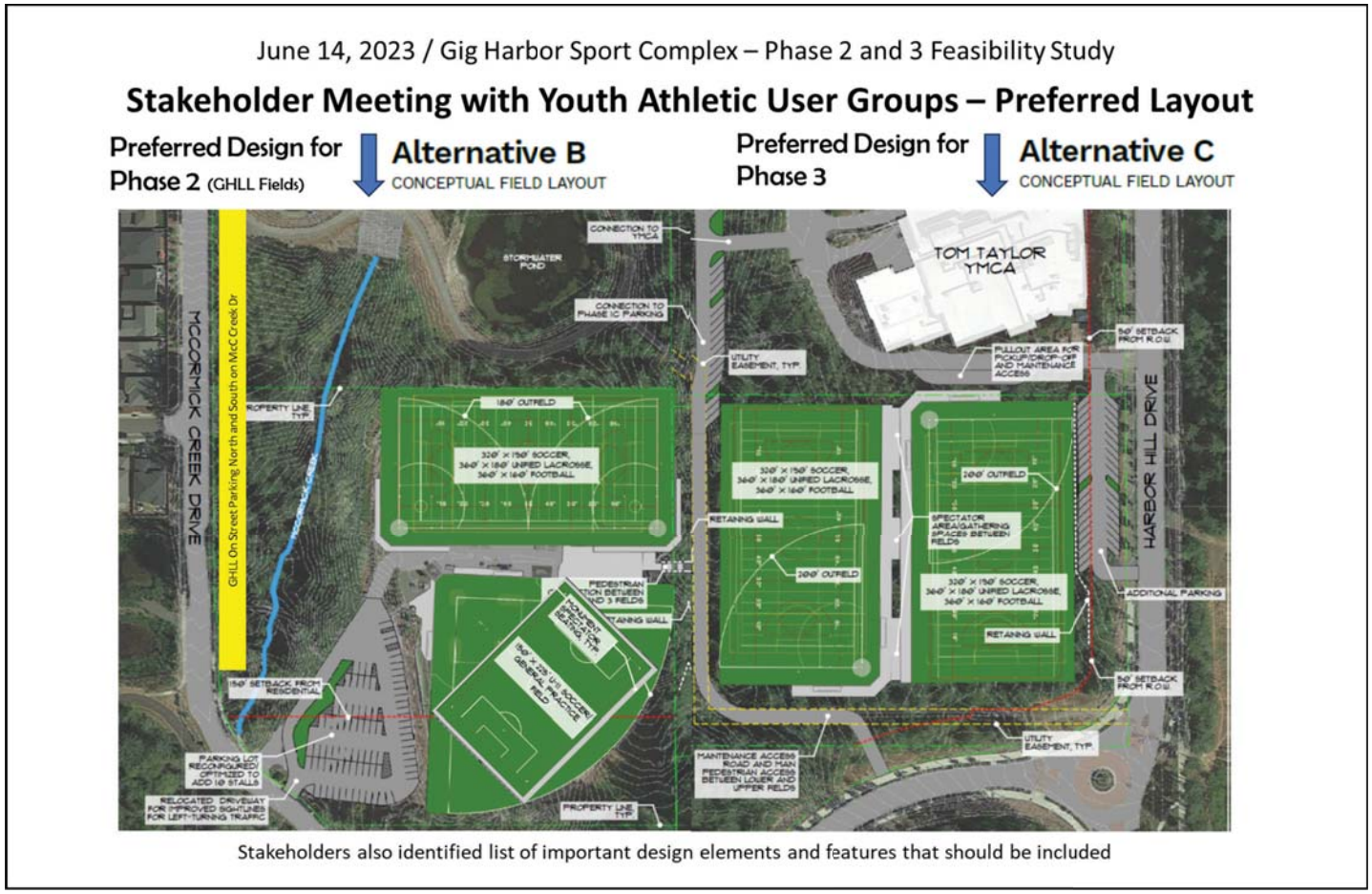
Stakeholder Meeting #1 Feedback

ALTERNATIVES ANALYSIS

After the first stakeholder meeting, additional, written feedback was collected by the City, from the stakeholders - it is summarized below:

Michael Perrow compiled a 'Preferred Layout (right image) which is the hybrid that the stakeholders generally agreed on.

Some Stakeholders also liked the layout for Phase 3 that allowed the full-sized baseball field.



PREFERRED LAYOUT (Source: Michael Perrow)

Public Meeting #1 Process

ALTERNATIVES ANALYSIS

Public Meeting #1

After the first Stakeholder Meeting, The City of Gig Harbor advertised and held a meeting open to the general public, meant to solicit feedback regarding Phases 2 and 3 of the Sports Complex. The intent of the meeting was to give the public insight into the feasibility process, and give them an opportunity to express their opinions on the various alternatives being developed by the design consultant (BCRA).

One of the outcomes of the first stakeholder meeting was that, in addition to the original Alternatives 'A','B,' and 'C', it was decided that two more Alternatives be produced that reflect two variations on the Stakeholders' preferred layout.

Additional Alternatives for Public Meeting

Alternative 'D' :

Phase 2 would include a multipurpose athletic field (soccer,lacrosse,football) with two smaller baseball fields (180' outfield) overlaid. The existing large baseball field would have its outfield distance expanded to 300 feet. The large baseball field would also be able to accommodate open practice area for multiple sports, such as U-11 soccer.

Phase 3 would be able to accommodate a full-sized baseball field by building all the Phase 3 fields on one level, as this was identified as a desired program.

Alternative 'E' :

Phase 2 would include a multipurpose athletic field (soccer,lacrosse,football) with two smaller baseball fields (180' outfield) overlaid. The existing large baseball field would have its outfield distance expanded to 300 feet. The large baseball field would also be able to accommodate open practice area for multiple sports, such as U-11 soccer. (Phase 2 would be identical to Alternative 'D').

Public Meeting #1 was held at Peninsula Light Fields. (Source: BCRA)

Phase 3 would split the fields and stagger the elevations of each field, creating an opportunity for gathering and seating between the fields, and a reduction in the necessary excavation and fill required to construct the fields.

At the public meeting, attendees were asked to express their opinion on which of the five alternatives they liked the most, and were also given an opportunity to provide open-ended, written feedback about the project.

The five alternatives presented at the public open house are on the following pages.

The design team and city presented and answered questions on the five alternatives presented (Source: BCRA)

Gig Harbor Public Works staff were in attendance to answer questions and provide information regarding Phases 1A and 1B of the Gig Harbor Sports Complex. (Source: BCRA)

Public Meeting #1 Alternative 'A'

ALTERNATIVES ANALYSIS

FIELD INVENTORY:

1 300' OUTFIELD FIELD (BASEBALL/SOFTBALL)
1 200' OUTFIELD FIELD (BASEBALL/SOFTBALL)
2 180' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
4 360' BY 210' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND LACROSSE)

TOTAL BY SPORT:
4 BASEBALL/SOFTBALL
3 FOOTBALL
4 SOCCER
4 LACROSSE

PROS:

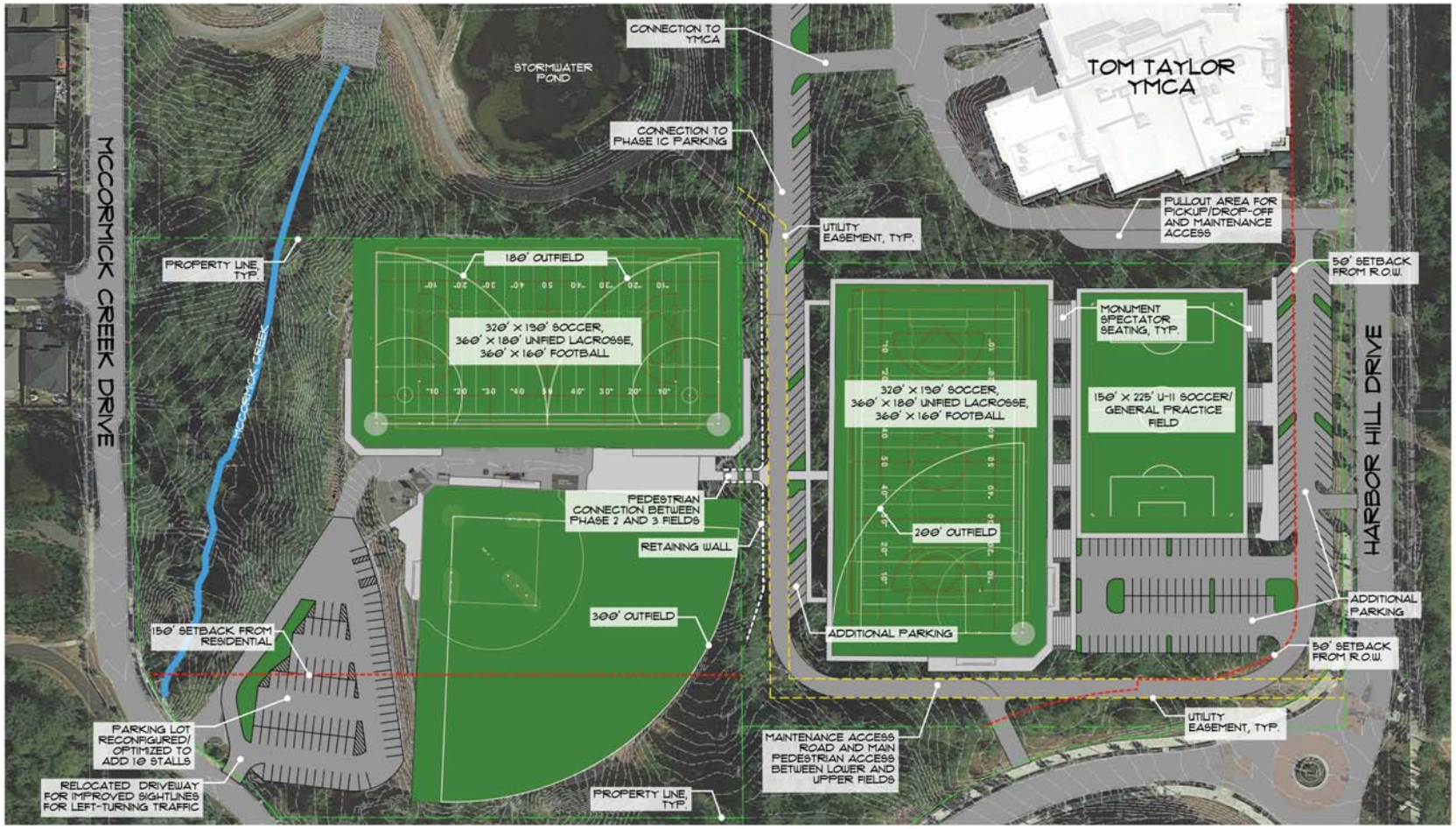
-PROVIDES SPACE FOR ADDITIONAL PARKING TO THE SOUTH OF PHASE 2 FIELDS
-MAXIMIZES FLEXIBILITY OF USE FOR BOTH PHASES BY INCORPORATING MAXIMUM NUMBER OF MULTIPURPOSE FIELDS STRIPED FOR MULTIPLE SPORTS
-LARGER CONTIGUOUS AREA OF SYNTHETIC TURF FIELD IN PHASE 3 ALLOWS FOR FULL SIZE BASEBALL FIELD

CONS:

-PHASE 3 GRADING IS ALL AT ONE LEVEL, POTENTIALLY INCREASING HEIGHT OF NECESSARY RETAINING WALLS
-PHASE 2 MULTIPURPOSE FIELDS ENCROACH INTO RAVINE BEYOND EXISTING BALLFIELD FOOTPRINTS

Public Meeting #1 Alternative 'B'

ALTERNATIVES ANALYSIS



FIELD INVENTORY:

1 300' OUTFIELD FIELD (BASEBALL/SOFTBALL)
1 200' OUTFIELD FIELD (BASEBALL/SOFTBALL)
2 180' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
2 360' BY 210' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND LACROSSE)
1 U-11 SOCCER FIELD

TOTAL BY SPORT:
4 BASEBALL/SOFTBALL
2 FOOTBALL
3 SOCCER
2 LACROSSE

PROS:

-PHASE 3 FIELDS ARE GRADED TO BE ON TWO LEVELS
-MORE BASEBALL/SOFTBALL FIELDS THAN ALTERNATIVE A
-MONUMENT SEATING AT PHASE 3 FIELDS FOR MORE SPECTATOR CAPACITY SIGNIFICANT ADDED PARKING IN PHASE 3
-PROVIDES VEHICULAR CONNECTION BETWEEN EAST AND WEST SIDES OF PHASE 3 FIELDS

CONS:

-MINIMAL ADDITIONAL PARKING IN PHASE 2
-PHASE 2 MULTIPURPOSE FIELDS ENCROACH INTO RAVINE BEYOND EXISTING BALLFIELD FOOTPRINTS
-LOSS OF MULTIPURPOSE FIELD SPACE DUE TO ADDED PARKING

0' 40' 80' 160'
Scale
North

PARKING SUMMARY:

-PHASE 3 PROPOSED PARKING SPACES: 146*
-PHASE 2 PROPOSED PARKING SPACES: 84 (74 EXISTING + 10 GAINED)
*PARKING WITHIN PHASE 3 PROPERTY LINE ONLY DOES NOT INCLUDE POTENTIAL PHASE 1C PARKING.
DISCLAIMER: CONCEPT LEVEL PARKING DATA IS SUBJECT TO CHANGE.

Public Meeting #1 Alternative 'C'

ALTERNATIVES ANALYSIS

FIELD INVENTORY:

1 300' OUTFIELD FIELD (BASEBALL/SOFTBALL)
2 200' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
2 UNDERSIZED BASEBALL/SOFTBALL FIELDS WITHIN EXISTING FOOTPRINT
2 360' BY 210' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND LACROSSE)

TOTAL BY SPORT:
5 BASEBALL/SOFTBALL
2 FOOTBALL
2 SOCCER
2 LACROSSE

PROS:

-MINIMIZES ENCROACHMENT INTO STREAM RAVINE WEST OF PHASE 2 FIELDS
-MORE BASEBALL/SOFTBALL FIELDS THAN ALTERNATIVE A
-FLEXIBLE, PROGRAMMABLE GATHERING SPACE BETWEEN TWO PHASE 3 FIELDS WHICH CAN BE ORIENTED TOWARDS WEST OR EAST FIELDS
-STAYING LARGELY WITHIN EXISITNG PHASE 2 FOOTPRINT MINIMIZES PHASE 2 EARTHWORK
-PROVIDING FIELDS EXCLUSIVELY FOR LITTLE LEAGUE SIMPLIFIES FIELD STRIPING COMPLEXITY AND NEED FOR RECONFIGURING FIELD EQUIPMENT/ GOALS, ETC., AS USE CHANGES THROUGHOUT THE YEAR

CONS:

-MINIMAL ADDITIONAL PARKING IN PHASE 2
-2 BALLFIELDS IN PHASE 2 REMAIN UNDERSIZED
-PHASE 3 GRADING IS ALL AT ONE LEVEL, POTENTIALLY INCREASING HEIGHT OF NECESSARY RETAINING WALLS
-PHASE 2 FIELDS LACK FLEXIBILITY PROVIDED BY MULTIPURPOSE FIELDS

Public Meeting #1 Alternative 'D'

ALTERNATIVES ANALYSIS

FIELD INVENTORY:

1 375' OUTFIELD FIELD (BASEBALL/SOFTBALL)
1 300' OUTFIELD FIELD (BASEBALL/SOFTBALL)
1 200' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
2 180' OUTFIELD FIELDS (BASEBALL/SOFTBALL
3 360' BY 210' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND LACROSSE)
1 150' X 225 U-11 SOCCER/GENERAL PRACTICE FIELD

TOTAL BY SPORT:
5 BASEBALL/SOFTBALL
3 FOOTBALL
3 SOCCER
3 LACROSSE 1 SMALL MULTISPORT PRACTICE FIELD

PROS:

-ADDITION OF MULTIPURPOSE FIELD IN PHASE 2
-EXPANDS LARGEST PHASE 2 BALLFIELD TO 300' OUTFIELD
-FLEXIBLE, PROGRAMMABLE GATHERING SPACE BETWEEN TWO PHASE 3 FIELDS WHICH CAN BE ORIENTED TOWARDS WEST OR EAST FIELDS
-STAYING LARGELY WITHIN EXISTING PHASE 2 FOOTPRINT MINIMIZES PHASE 2 EARTHWORK
-PHASE 3 FIELDS CAN ACCOMODATE HIGH-SCHOOL SIZED BASEBALL FIELD (375' OUTFIELD)

CONS:

-MINIMAL ADDITIONAL PARKING IN PHASE 2
-PRIORITIZES MAXIMUM FIELD PROGRAMMING/FLEXIBILITY AT THE EXPENSE OF MORE PARKING IN PHASE 3
-PHASE 3 GRADING IS ALL AT ONE LEVEL, POTENTIALLY INCREASING HEIGHT OF NECESSARY RETAINING WALLS

PARKING SUMMARY:

-PHASE 3 PROPOSED PARKING SPACES: 61*
-PHASE 2 PROPOSED PARKING SPACES: 84 (74 EXISTING + 10 GAINED)
*PARKING WITHIN PHASE 3 PROPERTY LINE ONLY DOES NOT INCLUDE POTENTIAL PHASE 1C PARKING.
DISCLAIMER: CONCEPT LEVEL PARKING DATA IS SUBJECT TO CHANGE.

Public Meeting #1 Alternative 'E'

ALTERNATIVES ANALYSIS

FIELD INVENTORY:

1 300' OUTFIELD FIELD (BASEBALL/SOFTBALL)
2 200' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
2 180' OUTFIELD FIELDS (BASEBALL/SOFTBALL
3 360' BY 210' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND LACROSSE)
1 150' X 225 U-11 SOCCER/GENERAL PRACTICE FIELD

TOTAL BY SPORT:
5 BASEBALL/SOFTBALL
3 FOOTBALL
3 SOCCER
3 LACROSSE 1 SMALL MULTISPORT PRACTICE FIELD

PROS:

-ADDITION OF MULTIPURPOSE FIELD IN PHASE 2
-EXPANDS LARGEST PHASE 2 BALLFIELD TO 300' OUTFIELD
-FLEXIBLE, PROGRAMMABLE GATHERING SPACE BETWEEN TWO PHASE 3 FIELDS WHICH CAN BE ORIENTED TOWARDS WEST OR EAST FIELDS
-STAYING LARGELY WITHIN EXISTING PHASE 2 FOOTPRINT MINIMIZES PHASE 2 EARTHWORK
-POTENTIAL FOR STEPPING PHASE 3 FIELDS TO MINIMZE RETAINING WALL HEIGHTS.

CONS:

-MINIMAL ADDITIONAL PARKING IN PHASE 2
-PRIORITIZES MAXIMUM FIELD PROGRAMMING/FLEXIBILITY AT THE EXPENSE OF MORE PARKING IN PHASE 3
-PHASE 3 CANNOT ACCOMODATE HIGH-SCHOOL SIZED BASEBALL FIELD

0' 40' 80' 160' North
Scale

PARKING SUMMARY:

-PHASE 3 PROPOSED PARKING SPACES: 40*
-PHASE 2 PROPOSED PARKING SPACES: 84 (74 EXISTING - 10 GAINED)
*PARKING WITHIN PHASE 3 PROPERTY LINE ONLY DOES NOT INCLUDE POTENTIAL PHASE 1C PARKING
DISCLAIMER: CONCEPT LEVEL PARKING DATA IS SUBJECT TO CHANGE.

Public Meeting #1 Feedback

ALTERNATIVES ANALYSIS

Below is a table summarizing the tally of the public meeting attendees' preferences among the five alternatives presented:

POLL OPINIONS	
Alternative 'A'	13
Alternative 'B'	3
Alternative 'C'	10
Alternative 'D'	15
Alternative 'E'	7
None	6

Additionally, the written comments received by the public via comment box are listed below:

1. 'Preserve more natural areas with trails and trees. Gig Harbor North needs more natural areas.'

2. 'Very much in favor of a sports complex – keep kids active – brings the community together.'

3. 'We already do not have enough baseball/ softball fields. Our girls are out at 12! 12 year old girls have their last year of ball. 13 year old girls have no fields. We already have to share fields w/ one another and little kids play until 10:00pm! On school nights. It's ridiculous! We need baseball fields.'

4. 'C is the best of the choices- but we are still short baseball fields. Little league is turning kids away because of lack of fields. We can do beter than this!
Fields over trees. Kids first!'

5. 'This community has lost too many trees. Owl habit along w/other wildlife is severely compromised. None of the options are viable for wildlife sustainability. Phase 1 should only be 1 field.'

6. 'Would love to see added fields. We have to turn kids away. I have not had a kid in little league for 12 years. But still umpire because it is great for the kids and the community'

7. 'We live in McCormick Creek sub. We are already imposed by overflow parking un our neighborhood. Option B is the only plan that proposes additional parking of any significance. Even that is not adequate.'

8. 'We are turning away kids for little league due to lack to fields. How does any of this resolve those issues?'

9. 'Our neighborhood, Harbor Hill, already has a lot of noise from the highway, gun range, Borgen & Swiftwater elementary. We are lacking wooded areas and trees as it is. It would be wonderful and utilized by all to have more trees and wooded walking trails. Trees help our community in many ways – temp, noise & light pollution, cleaner air, etc. Please don't land not so close to densely close housing. Develop or develop as little as possible of the land near Harbor Hill. Gig harbor definitely needs more youth sports fields but please find another place'

10. 'I like alternative b b/c it has enough total by sport options for multiple age brackets and enough parking that has less impact on the surrounding communities.'

11. 'Fields are in short supply. We need places for our kids to play outside in active recreation. Retain the trees. No additional fields. Reconfigure 2 existing baseball field.'

12. 'More fields are definitely needed and will aid all the growing sports. As a parent of lacrosse players and football this would be amazing. Alternate a looks the most optimized for all sports.'

13. 'I am in favor of alternate e!'

14. 'Please keep as much buffer/ trees between any development and the housing boundary as possible. Plant more trees!'

15. 'Building these fields is extremely important to the gig harbor community. I have coached in Gig Harbor 20 years and know the importance of youth sports and the positive impact it has on children as well as the community. These fields must be built in order to keep up with demand. If we don't, we will lose families to nearby communities and lose significant revenue. The amount of tourism that can come from tournaments is significant as well.'

16. 'Keep treed area behind baseball fields. Ie) delete 2 multi-use fields.'

17. 'Please add batting cage to plans. Highschool size baseball filed very important to have in plan.'

18. 'I believe it is necessary to include a high school size baseball field option in whichever option is chosen. Currently option d is the only one that accommodates HS. Also, there should be at least one dedicated baseball filed so remove the soccer practice field in option d.'

19. 'Alternative c with reduced 300' of to 220". **** parking like alternative a & use space toward center filed for indoor batting cages!! Help pay operation cost phase 2 –.
Phase 3 – alternative b for parking!! Or – between alt d & e – more parking'

20. 'It is hard to decide on an alternative when there are so many questions. Multiuse fields are great and offer flexibility. However, it could also mean a reduction in softball fields if other sports get priority on the multiuse ones. The batting cages are important and should be retained. I do believe fields should be turf so they can be used. The conditions they currently are in are horrible and make it difficault for the kids to play.'

21. 'Give us back our 8 pickleball courts (or 12) we will put a roof over them.'

22. 'Concerned about parking as i live nearby and parking / traffic is difficult during baseball already. Then the light pollution is intense at night games.'

23. 'Please consider option "c" for dedicated baseball fields. The multiuse fields will not allow for a proper mound. And "standard" field set – up also the multi-sports field teams overlap. Two soccer / football fields are already in 1a. This option also allows for a "full sized" baseball field for older kids, as well! Please build out all phases as soon as possible. Not enough turf fields in Gig Harbor.'

24. 'Plan & show what 1 field in phase 1a and phase 3 would look like.'

25. 'Alternative A – best choice allow most multifunction. Lacrosse fields are in very small supply alt. A best supports this over growthing sport for both sexes.

Public Meeting #1 Feedback (cont'd)

ALTERNATIVES ANALYSIS

26. 'For the parking lot across from the new DR Horton development on Veteran Ave. Our HOA pays for that parking lot. We would prefer for the city to take on that lot and if they don't want to that lot needs to be private parking for the people in the hoa who pay for it. Most of us who live there would prefer for the city to take it on. How will this park impact traffic on the surranding roads? Do you plan to incorporate additional road?'

27. 'Build out of phase 3 is innacceptable, in all alternatives. You need to provide an alternative smaller community play areas and leaves most of the trees standing.'

28. 'As a nearby resident, i am concerned with increasing the already extensive traffic that happens during ball games on McCormick Creek Drive. In particular, the fields should be used for offical high school sports as that would dramatically increase noise, use , city parks should not be the solution for poor planning by the schools for their needs. The solution is to congestion for neighbors and there is another important point. The create suitable fields at or near the schools or some other solution that isn't "outsourcing" the problem'

29. 'Is there an alternative that leaves out phase 2 and 3? How will the city make up for the tree loss, aka carbon sink loss?'

30. 'Best proposed is the one that minimizes traffic / parking impact on McCormick Creek Drive. For past year parking has been abysmal and intrusive to residents of McCormick creek. Parking needs to be maximized on top of hill near harbor hill drive or by the YMCA accessing complex through YMCA parking lot.'

31. 'My main concerns are more parking and easier access for handicap guests; and more baseball / softball and soccer fields.'

32. 'Complex is so necessary to kids sports. Here, this has been a long time coming.'

33. 'I would like to offer my feedback on the proposals that did not fit on the small comment sheet.
First, PLEASE advocate and encourage completing ALL phases of the project and for it to be completed as soon as possible. We as a city are late to the need. I personally support all phases of this project. Gig Harbor is deficient in the number of artificial turf playing surfaces needed by our rainy climate. Hundreds of games have been cancelled each and every year due to poor field condition (soft, muddy fields because of rains). Playing in poor field conditions' also risks injury to our kids. Our practice days are repeatedly much less than desired as there are just not enough fields to meet the demand of all the different sports teams across the city with the grwoth we have had.
Second, I have been made aware that there are people advocating for not completing the final phase of the project and instead asking for the trees to remain where the two final multi-purpose fields are planned to instead add more walking trails. I DO NOT support this position for several reasons.
The city for the last decade has required developers to maximize the number of homes per acre to minimize urban sprawl. This results in developers designing communities with small 10,000sqft lots where all of the homes have very-very small backyards not big enough for children's sports activities. Developments like The Ridge, Harbor Crossing, Harbor Hill, McCormick Woods, etc. all have very tiny yards per city-imposed requirements. However, the city did not require the developers to add any significant play areas or fields in these developments, so the resident rely on the services of the City to meet this need. It would be extremely poor public policy and governance to require dense zoning, but then not provide adequate sports playing areas for our city's kids.
Additionally, these developments DID include a significant number of trails systems through adjacent wooded areas, wet-land buffers, ponds and access to Cushman trail. The need for trails has already been addressed and the community does not need more trails at this point. We need the fields. Far fewer residents would utilize the trails as compared to the proposed and much-needed sports fields.
Finally, I support Option "C" for field design choice. This design has dedicated Baseball fields verse multi-use baseball fields. This is important as Baseball infields, mounds, and field design are important aspects of the game not replicated with a multi-use field. Have you ever seen anyone slide into second on astro-turf?? Dedicated fields would also help prevent contentious scheduling conflicts - ...and there are already two other multi-use fields (for a total of 4) in the plan. Plan "C" is also with-in the existing footprint of the Little League Fields so hopefully it would be more affordable to complete and could be completed sooner!
Thanks for listening'

34. 'When there are games at the three current ball fields, The ball field parking lot, all of McCormick drive parking spots (to Costco and to Burnham) are filled as well as the parking lot by Burnham. During the district tournament, parking became a real issue with out of area folks trying hard not to park illegally. A few actually parked at Costco and walked to the fields. If phase 3 plans to add more fields, where are these folks going to park. I do not see any parking slots (or maybe a few for the snap shot is hard to read) to adequately cover the additional people using the fields. So, unless there is an agreement to use the YMCA parking, the parking will become a real issue.'

City Council Study Session #1 and Stakeholder Feedback

ALTERNATIVES ANALYSIS

City Council Study Session #1 and Stakeholder Feedback

Following the first public meeting, the City attended the City Council Study Session, to report on the feasibility study process thus far, and presented the results of both Stakeholder Meeting #1 and Public Meeting #1.

Alternatives B (page 31), D (page 33), and E (page 34) were presented to the City Council. The councilmembers were asked to recommend 2 of the 3 alternatives of the to carry forward and continue developing as part of the feasibility study.

The City Council selected alternatives D and E as the alternatives to continue developing.

Additionally, the City continued soliciting written feedback from the stakeholders' group to help inform the continued development of the alternatives. Specifically, the City asked for input on the following questions:

1. Do you think the full-sized high school baseball field is necessary?

2. If more parking is required, where do you think it should go? The City doesn't have parking standards for sports fields, but several people have expressed concern that neither of these plans provide enough parking.

3. Any other thoughts?

At this point, the design team moved forward with the continued development of alternatives D and E.

Some of the notable additions/decisions made were:

1. The YMCA requested that the dropoff area be moved to the south side of phase 3 rather than being located on the north side of Phase 3, on their property.

2. From this point forward, both Alternatives (D and E) would take the conservative approach of showing a soldier-pile retaining wall along the north Phase 3 property line adjacent to the Tom Taylor YMCA property, with the intent of respecting the YMCA's preference to minimize encroachment of Phase 3 onto YMCA property.

The following notes summarize the additional written feedback received from the stakeholders' group after the first City Council Study Session:

1. 'What is the 'value' of the High School sized baseball field (to our High School, for use by baseball clubs, to support tournament play, ...)?'

2. 'Can the additional costs associated with Alt D vs. Alt C be tolerated?'

3. 'From my perspective, the parking difference is not great, and the precise parking need will always be subjective. I think the key to managing parking is to give alternatives, in particular a practical and efficient drop off/pickup area. I assume the one proposed (which is the same in both alternatives) has been optimized to maximize efficiency and ease of use. If parking at the YMCA would be available, it would seem that YMCA parking in conjunction with the drop-off/pick-up area would work well.'

4. 'I suggest that the baseball community stakeholders address question no. 1 while allowing the more comprehensive study to define the cost difference for our City Council to consider in light of available funding and other budget priorities.'

5. 'One question, what is prohibiting the expansion of the proposed Phase 3 "Additional Parking" adjacent to Harbor Hill Dr to the south and possibly further around the southern side of the Phase 3 fields? Grading challenges?'

6. 'Phase 2 Parking – There is no mention of the McCormick Creek Drive on-street parking that was provided in exchange for allowing the road to be constructed on the SW corner of the then GHLL property. There are a lot of stalls, and they could be taken into account. Further, there is the parking lot at McC Creek & Burnham, when the Council suggested this as part of the development agreement for the McC Creek Plat it was with GHLL and Cushman trail parking in mind. While these are off-site stalls, they are there because of and for the GHLL, or in the case of the parking lot for the GHLL, and as such they should be part of the total parking count, even if as a separate line item.'

7. 'Phase 3 Parking – Additional parking could be achieved along the access drive to the south of the Phase 3 fields. The triangle parcel south of Phase 3 could be used, particularly considering the Harbor Hill Drive/Sentinel Drive Roundabout was constructed in part on the Phase 3 property. The history with the road eating into the Phase 3 property is that the roundabout was going to be located south of the current location, resulting in the Sportsman's Club losing more property than if the roundabout was pushed north to the current location. In moving north, it cut into the Phase 3 parcel. Based on this it only seems reasonable that the triangle parcel south of Phase 3 along HH Drive be used at least in part for the Sports Complex. Parking as well as a maintenance shed with fenced storage could be accommodated here while still providing room for a dense native vegetative screening buffer.'

8. 'Phase 2 Batting Cages– There doesn't seem to be any batting cages included, currently there are four cages and GHLL has held off on installing two more (so each field would have two) because they would likely get ripped out when the site is reconfigured. There should be six batting cages. These are common at other similar facilities.'

9. 'Phase 2 – Full Baseball Field – The larger 300' BB field Phase 2 makes sense as it would then allow a modified soccer field on it, so there can be more use. During GHLL season March to June, a temporary fence could be put up to bring the outfield into the Little League standards, this is common. With the fence up for LL, the unused outfield area would be the perfect area for teams to warm up. If the outfield fence was taller than typical maybe it could meet the needed 375', or something close, for older youth baseball teams.'

10. 'Phase 2 – GHLL Tower building – It is unclear if this is in either of the D or E plans. Having this is important. Also, the other GHLL fields will need the ability for scorers to be at a booth or table behind the backstops. These are common at other similar facilities.'

11. 'Phase 2 &3 – Scoreboards – The GHLL fields currently have scoreboards and are a must moving forward. Having a scoreboard(s) Phase 3 for at the very least for the baseball field configurations is a must. These are common at other similar facilities.'

12. 'Phase 2 – Restroom & Concessions – There doesn't seem to be any mention of restrooms or concessions stand, should the existing not remain then these would need to be added somewhere. Concessions are common at other similar facilities.'

13. 'Phases 2 & 3 – Temp/Movable Fencing – The sites will need to be able to accommodate temp/movable outfield fencing for baseball-lined fields. This is not only for going from soccer to baseball but also for moving in outfield fences on the larger fields. These are common at other similar facilities.'

14. 'Phase 3 - Full Baseball Field – This would be nice, but if there is only one it would be best on Phase 2, even if it had higher outfield walls to fit it in.'

15. 'Phase 3 – Maintenance Shed & Fenced Storage – This could be located on the triangular parcel south of Phase 3 along the north side of HH Drive. Parking as well as a maintenance shed with fenced storage could be accommodated here while still providing room for a dense native vegetative screening buffer. This would be a good place for dumpsters so that the giant refuse trucks can enter and exit the site without having to drive where there are kids in the parking lots. As mentioned previously the use of the parcel could offset the loss of some of the Phase 3 property to the HH

City Council Study Session #1 and Stakeholder Feedback (cont'd)

ALTERNATIVES ANALYSIS

Drive extension roundabout.'

16. 'Your recent email about the FIFA field sizes with them overlayed on the Option D & E layouts was good. Thankfully if a soccer field is +/- 5% smaller it doesn't really impact the same much.'

17. 'We assume that complete build-out of either concept of Phase 2 and 3 will require a Binding Site Plan, easement, etc. with the YMCA to accomplish. Will the BSP and changes in property line buffers impact our ability to develop future structures within our property?'

18. 'We'd like to review the proposed traffic flows for Phases 1c, 2, and 3 to better understand how this might impact traffic patterns at the Y'

19. 'We'd like to propose the pick-up/drop-off location shown at the north end of Phase 3 be moved to the south or west side of Phase 3'

20. 'Save the old shack that they have onsite for umpires; it has some local historical value.'

21. 'Would there be scoreboards?'

22. Would dugouts be included in the new layout on Phase 2?

23. 'Seating considerations –
    Football needs to have teams standing on both sides of the fields for games
    Soccer needs both teams on one side
    Where would seating go for spectators?'

24. 'Batting cages are vital and need to be located somewhere onsite.'

25. 'Phase 2 Parking - There is no mention of the McCormick Creek Drive on-street parking that was provided in exchange for allowing the road to be constructed on the SW corner of the then GHLL property. There are a lot of stalls, and they could be taken into account. Further, there is the parking lot at McCormick Creek and Burnham, when the Council suggested this as part of the development agreement for the McCormick Creek Plat it was with GHLL and Cushman Trail parking in mind.'

26. 'Phase 3 Parking - Additional parking could be achieved along the access drive to the south of the fields. The triangle parcel south of Phase 3 could be used, particularly considering the Harbor Hill Drive / Sentinel Drive Roundabout was constructed in part on the Phase 3 property.'

27. 'Phase 2 Batting Cages - There doesn't seem to be any batting cages included, currently there are four caages and GHLL has held off on installing two more (so each field would have two) because they would likely get ripped out when the site is reconfigured. There should be six batting cages.'

28. 'Phase 2 - Full Baseball Field - The full-sized BB field Phase 2 makes sense as it would then allow a modified soccer field on it, so there can be more use. During GHLL season March to June, a tomporary fence could be put up to bring the outfield into the Little League standards, this is common. With the fence up for LL, the unused outfield area would be the perfect area for teams to warm up.'

29. 'Phase 2 - GHLL Tower building - It is unclear if this is in either of the D or E plans. Having this is important. Also, the other GHLL fields will need the ability for scorers to stand behind the backstops.'

30. 'Phase 2 & 3 - Scoreboards - The GHLL fields currently have scoreboards, and they would also be good to have at Phase 3.'

31. 'Phase 3 - Full Baseball Field - This would be nice, but if there is only one it would be best on Phase 2, even if it had higher outfield walls to fit in.'

32. 'Phase 2 - Restroom & Concessions - there doesn't seem to be any mention of these, should the existing not remain then these would need to be addressed.'

33. 'Phases 2 & 3 - Temp/Movable outfield fences will be needed for all fields lined for baseball.'

Stakeholder Meeting #2 & Public Meeting #2 Process

ALTERNATIVES ANALYSIS

Stakeholder Meeting #2

After the first City Council study session, BCRA took all of the feedback received in Stakeholder Meeting #1 and Public Meeting #1, and continued developing Alternatives 'D' and 'E', taking into account all of the feedback received.

The design team, the stakeholder group and the City met in person for a second time to review the progress of Alternatives D and E. The list of invitees who attended the second stakeholder meeting was as follows:

Ron Brentin
Gig Harbor Peninsula Youth Sports Coalition, Gig Harbor Little League

Jennifer Butler
Peninsula School District

David Kinley
Gig Harbor Soccer

Adrienne Matison
Peninsula School District community use

Sarah Montgomery
Gig Harbor Peninsula Youth Sports Coalition

Kyle Munkres
Peninsula Youth Football

Christine Perrow
Gig Harbor Peninsula Youth Sports Coalition

Michael Perrow
Gig Harbor Peninsula Youth Sports Coalition

Alternatives D and E were presented to the stakeholder group for feedback and discussion. In addition to incorporation of the feedback received from the stakeholders and public, the alternatives involved a higher level of detail and annotation regarding specifics about the alternative designs, as well as the inclusion of conceptual grading and stormwater plans to communicate the general intent of how stormwater would be handled and the grading approach to both alternatives:

Public Meeting #2

After the second stakeholder meeting, the City hosted a second public open house, in which the same two alternatives presented at the second stakeholder meeting (Alternatives 'D' and 'E') were presented to the public to solicit additional feedback.

In the interest of keeping the focus on the layout and programming of the fields, It was decided not to include the grading and stormwater exhibits in the second public open house.

The alternatives that were presented in the second stakeholder and public meetings are shown on the following 4 pages.

Stakeholder/Public Meeting #2 Alternative 'D'

ALTERNATIVES ANALYSIS

FIELD INVENTORY:

1 375' OUTFIELD FIELD (BASEBALL/SOFTBALL)
1 300' OUTFIELD FIELD (BASEBALL/SOFTBALL)
1 200' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
2 180' OUTFIELD FEILDS (BASEBALL/SOFTBALL
3 360' BY 210' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND LACROSSE)
1 150' X 225 U-11 SOCCER/GENERAL PRACTICE FIELD

TOTAL BY SPORT:
5 BASEBALL/SOFTBALL
3 FOOTBALL
3 SOCCER (2 FIFA SIZED)
3 LACROSSE
1 SMALL MULTISPORT PRACTICE FIELD

PROS:

-MORE ADDITIONAL PARKING THAN ALTERNATIVE 'E'
-RELOCATION OF UMPIRE SHACK COULD IMPROVE PEDESTRIAN CIRCULATION / SITE ORGANIZATION
-PHASE 3 FIELDS CAN ACCOMODATE HIGH-SCHOOL SIZED BASEBALL FIELD (375' OUTFIELD)

CONS:

-NO ADDITIONAL PROGRAMMABLE / SPECTATOR SPACE BETWEEN PHASE 3 FIELDS
-PRIORITIZES MAXIMUM FIELD PROGRAMMING / FLEXIBILITY AT THE EXPENSE OF MORE PARKING IN PHASE 3
-PHASE 3 GRADING IS ALL AT ONE LEVEL, POTENTIALLY INCREASING HEIGHT OF RETAINING WALLS

PARKING SUMMARY:

-PHASE 3 PROPOSED PARKING SPACES: 71*
-PHASE 2 PROPOSED PARKING SPACES: 84 (74 EXISTING - 10 GAINED)
-THE 36 EXISTING PARALLEL PARKING STALLS ALONG MCCORMICK CREEK DRIVE ARE NOT INCLUDED IN THIS PARKING SUMMARY, BUT ARE REGULARLY UTILIZED FOR FIELD EVENTS / PRACTICES.
*PARKING WITHIN PHASE 3 PROPERTY LINE ONLY DOES NOT INCLUDE POTENTIAL PHASE 1C PARKING.

DISCLAIMER: CONCEPT LEVEL PARKING DATA IS SUBJECT TO CHANGE.

Stakeholder Meeting #2 Alternative 'D' Grading

ALTERNATIVES ANALYSIS

GRADING CONCEPT:

GENERALLY, THE GRADING CONCEPT REQUIRES SEVERAL RETAINING WALLS TO MANAGE THE GRADE CHANGE ACROSS THE SITE. A RETAINING WALL WOULD WRAP THE ENTIRE NORTH EDGE AND EAST EDGE OF THE PHASE 3 FIELDS, AND WOULD MAX OUT AT 16' HIGH AT THE NORTHEAST CORNER. ANOTHER RETAINING WALL SEPARATING PHASES 2 AND THREE WOULD BE AT ITS HIGHEST AT THE NORTHEAST CORNER OF THE PROPOSED PHASE 2 MULTIPURPOSE FIELD, MAXING OUT AT 21' HIGH. LASTLY, THE EXPANSION OF THE LARGE BASEBALL FIELD IN PHASE 2 WOULD REQUIRE A RETAINING WALL WHICH WOULD BE APPROXIMATELY 11' HIGH. ALL THE SYNTHETIC TURF FIELDS ARE ASSUMED TO BE FLAT. THE PHASE TWO FIELDS ARE AT APPROXIMATELY 206 ELEVATION, WHILE THE PHASE 3 FIELDS ARE AT APPROXIMATELY 228 ELEVATION (DIFFERENCE OF 22 FEET). TWO ACCESSIBLE RAMPS AT A SLOPE OF APPROXIMATELY 7.8% PROVIDE AN ACCESSIBLE CONNECTION BETWEEN PHASE 2 AND PHASE THREE, AND AN ACCESSIBLE CONNECTION BETWEEN THE UPPER PARKING ON THE EAST SIDE OF PHASE 3 AND THE PHASE 3 FIELDS.

STORMWATER CONCEPT:

THE ARTIFICAL TURF FIELDS ARE ASSUMED TO BE IMPERVIOUS SURFACES DUE TO THEIR RUNOFF CHARACTERISTICS AND ARE EXPECTED TO INCLUDE AN UNDERDRAIN SYSTEM. PRELIMINARY GEOTECHNICAL INVESTIGATIONS INDICATE RELATIVELY LOW PERMEABILITY SOILS AND A RECOMMENDED DESIGN INFILTRATION RATE OF 0.1 INCHES PER HOUR. WE EXPECT TO APPLY THIS INFILTRATION RATE UNDER ALL ARTIFICIAL TURF SURFACES.

THE PHASE 3 IMPROVEMENTS LIE WITHIN LOT 3 OF THE BUSINESS PARK AT HARBOR HILL. THIS PARCEL WAS INCLUDED IN THE DESIGN FOR THE HARBOR HILL WEST REGIONAL STORMWATER FACILITY. WE INTEND THAT RUNOFF FROM PHASE 3 THAT DOES NOT INFILTRATE WILL BE CONVEYED TO THE REGIONAL FACILITY. IT APPEARS THAT PHASE 3 IMPROVEMENTS WILL EXCEED THE HARD SURFACE AREA ASSUMPTIONS OF THE REGIONAL FACILITY DESIGN. HOWEVER, DUE TO THE LARGE AREA OF TURF FIELDS WHICH CAN INFILTRATE STORMWATER BELOW GRADE, WE EXPECT THE FLOW CHARACTERISTICS OF THE PROPOSED DESIGN TO MATCH THE ORIGINAL ASSUMPTIONS OF THE REGIONAL FACILITY.

WE EXPECT PHASE 2 IMPROVEMENTS WILL BE SUBJECT TO MINIMUM REQUIREMENTS 1-10 UNDER THE 2023 GIG HARBOR STORMWATER MANAGEMENT AND SITE DEVELOPMENT MANUAL, AND WILL HAVE AN INFILTRATION RATE OF 0.1 INCHES PER HOUR UNDER THE TURF SURFACES, SIMILAR TO THE PHASE 3 IMPROVEMENTS. FOR NEW AND REPLACED IMPERVIOUS SURFACES TO MATCH THE FORESTED CONDITION, AN UNDERGROUND DETENTION SYSTEM IS PROPOSED PRIOR TO DISCHARGING TO MCCORMICK CREEK. WE DON'T EXPECT THIS DETENTION SYSTEM TO BE LARGER THAN 160 FEET X 29 FEET X 6 FEET.

Stakeholder/Public Meeting #2 Alternative 'E'

ALTERNATIVES ANALYSIS

FIELD INVENTORY:

1 300' OUTFIELD FIELD (BASEBALL/SOFTBALL)
2 200' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
2 180' OUTFIELD FIELDS (BASEBALL/SOFTBALL
3 360' BY 210' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND LACROSSE)
1 150' X 225 U-11 SOCCER/GENERAL PRACTICE FIELD

TOTAL BY SPORT:
5 BASEBALL/SOFTBALL
3 FOOTBALL
3 SOCCER (2 FIFA SIZED)
3 LACROSSE
1 SMALL MULTISPORT PRACTICE FIELD

PROS:

-ADDITION OF MULTIPURPOSE FIELD IN PHASE 2
-EXPANDS LARGEST PHASE 2 BALLFIELD TO 300' OUTFIELD
-FLEXIBLE, PROGRAMMABLE GATHERING SPACE BETWEEN TWO PHASE 3 FIELDS WHICH CAN BE ORIENTED TOWARDS WEST OR EAST FIELDS
-STEPPING PHASE 3 FIELDS TO CREATE GRADE CHANGE BETWEEN FIELDS AND POTENTIALLY REDUCE RETAINING WALL HEIGHTS.

CONS:

-LESS ADDITIONAL PARKING THAN ALTERANATIVE 'D'
-PHASE 3 CANNOT ACCOMODATE HIGH-SCHOOL SIZED BASEBALL FIELD.
-UMPIRE SHACK LOCATION IS NOT OPTIMAL FOR PEDESTRIAN CIRCULATION BETWEEN PHASE 2 FIELDS.

PARKING SUMMARY:

-PHASE 3 PROPOSED PARKING SPACES: 51*
-PHASE 2 PROPOSED PARKING SPACES: 84 (74 EXISTING - 10 GAINED)
-36 EXISTING PARALLEL PARKING STALLS ALONG MCCORMICK CREEK DRIVE ARE NOT INCLUDED IN THIS PARKING SUMMARY, BUT ARE REGULARLY UTILIZED FOR FIELD EVENTS / PRACTICES.
*PARKING WITHIN PHASE 3 PROPERTY LINE ONLY DOES NOT INCLUDE POTENTIAL PHASE 1C PARKING

DISCLAIMER: CONCEPT LEVEL PARKING DATA IS SUBJECT TO CHANGE.

Stakeholder Meeting #2 Alternative 'E' Grading

ALTERNATIVES ANALYSIS

GRADING CONCEPT:

GENERALLY, THE GRADING CONCEPT REQUIRES SEVERAL RETAINING WALLS TO MANAGE THE GRADE CHANGE ACROSS THE SITE. A RETAINING WALL WOULD WRAP THE ENTIRE NORTH EDGE AND EAST EDGE OF THE PHASE 3 FIELDS, AND WOULD MAX OUT AT 12' HIGH AT THE NORTHEAST CORNER. ANOTHER RETAINING WALL SEPARATING PHASES 2 AND THREE WOULD BE AT ITS HIGHEST AT THE NORTHEAST CORNER OF THE PROPOSED PHASE 2 MULTIPURPOSE FIELD, MAXING OUT AT 21' HIGH. LASTLY, THE EXPANSION OF THE LARGE BASEBALL FIELD IN PHASE 2 WOULD REQUIRE A RETAINING WALL WHICH WOULD BE APPROXIMATELY 11' HIGH. ALL THE SYNTHETIC TURF FIELDS ARE ASSUMED TO BE FLAT. THE PHASE TWO FIELDS ARE AT APPROXIMATELY 206 ELEVATION. THE PHASE 3 FIELDS ARE STEPPED AT APPROXIMATELY 228.5 ELEVATION AND 231.5 ELEVATION, WITH 3 8" STEPS BETWEEN THEM. TWO ACCESSIBLE RAMPS AT A SLOPE OF APPROXIMATELY 7.8% PROVIDE AN ACCESSIBLE CONNECTION BETWEEN PHASE 2 AND PHASE THREE, AND AN ACCESSIBLE CONNECTION BETWEEN THE UPPER PARKING ON THE EAST SIDE OF PHASE 3 AND THE PHASE 3 FIELDS.

STORMWATER CONCEPT:

THE ARTIFICAL TURF FIELDS ARE ASSUMED TO BE IMPERVIOUS SURFACES DUE TO THEIR RUNOFF CHARACTERISTICS AND ARE EXPECTED TO INCLUDE AN UNDERDRAIN SYSTEM. PRELIMINARY GEOTECHNICAL INVESTIGATIONS INDICATE RELATIVELY LOW PERMEABILITY SOILS AND A RECOMMENDED DESIGN INFILTRATION RATE OF 0.1 INCHES PER HOUR. WE EXPECT TO APPLY THIS INFILTRATION RATE UNDER ALL ARTIFICIAL TURF SURFACES.

THE PHASE 3 IMPROVEMENTS LIE WITHIN LOT 3 OF THE BUSINESS PARK AT HARBOR HILL. THIS PARCEL WAS INCLUDED IN THE DESIGN FOR THE HARBOR HILL WEST REGIONAL STORMWATER FACILITY. WE INTEND THAT RUNOFF FROM PHASE 3 THAT DOES NOT INFILTRATE WILL BE CONVEYED TO THE REGIONAL FACILITY. IT APPEARS THAT PHASE 3 IMPROVEMENTS WILL EXCEED THE HARD SURFACE AREA ASSUMPTIONS OF THE REGIONAL FACILITY DESIGN. HOWEVER, DUE TO THE LARGE AREA OF TURF FIELDS WHICH CAN INFILTRATE STORMWATER BELOW GRADE, WE EXPECT THE FLOW CHARACTERISTICS OF THE PROPOSED DESIGN TO MATCH THE ORIGINAL ASSUMPTIONS OF THE REGIONAL FACILITY.

WE EXPECT PHASE 2 IMPROVEMENTS WILL BE SUBJECT TO MINIMUM REQUIREMENTS 1-10 UNDER THE 2023 GIG HARBOR STORMWATER MANAGEMENT AND SITE DEVELOPMENT MANUAL, AND WILL HAVE AN INFILTRATION RATE OF 0.1 INCHES PER HOUR UNDER THE TURF SURFACES, SIMILAR TO THE PHASE 3 IMPROVEMENTS. FOR NEW AND REPLACED IMPERVIOUS SURFACES TO MATCH THE FORESTED CONDITION, AN UNDERGROUND DETENTION SYSTEM IS PROPOSED PRIOR TO DISCHARGING TO MCCORMICK CREEK. WE DON'T EXPECT THIS DETENTION SYSTEM TO BE LARGER THAN 160 FEET X 29 FEET X 6 FEET.

Stakeholder Meeting #2 / Public Meeting #2 Feedback

ALTERNATIVES ANALYSIS

Following are the notes, discussion items, and stakeholder feedback recorded in the second stakeholder meeting:

1. Batting cages should have 60' length.
Soccer – FIFA fields can be reduced in width – 55-75 yards is the range – we are showing 70 yds – could reduce to maybe 65 yards and would still be fine.
2. U.S. Youth Soccer is their reference

3. Parking – existing parking along McCormick Creek extends southeast along McCormick Creek as well (approx. 15 more stalls), plus auxiliary lot across from residential development (43 stalls) – so 36+15+43 = 94 more spaces that should be included in the parking counts for these alternatives.
4. These on-street parking stalls were developed as part of a prior agreement and it was agreed they could be used by Penlight fields users – so they should be counted.

5. Detention Vault – should it be shown in outfield? Dean Z – actually will likely be under the parking lot.
6. Alternative D is preferred.

7. 'High School Sized' verbiage implies these are meant for use by high-schools, who prevent public from using their fields – so we should use different terminology for those, such as 'Full-Sized Baseball.'

8. Lighting for Fields and Parking is not mentioned – include.

9. Updated lighting for Phase 2 (with updated technology for cutoff lighting).

10. Security fencing – no perimeter security fencing, just vehicle gates – this is in line with standards for similar facilities in the region.

11. Nets over the pavilion area between two fields – to catch foul balls (Silverdale Fairgrounds as precedent).

12. Tree Preservation – will come up in city council – currently we are preserving 31% - 25% is the requirement.

13. Tree replacement – is there a way to do any needed tree replacement off site in lieu of on site?

14. Other areas such as donkey creek and the tree conservation there were intended as mitigation for this site.

15. Provide more buffer planting to the south of Phase 2 for the residential development to the south/east

16. Alternative D – what is power source for lights? Will need to be determined in design.

17. Provide an office for Phase 3 fields.

18. Provide areas for spectators at midpoint of soccer fields – teams will gather on opposite sides of fields (between two fields). Need minimum of 6' clear on edge of fields for refs. Plus room for teams to gather (minimum 12' – more if possible.)

19. Ambulance/EMS entrance – 20' clear width required.
South Driveway entrance, provide a little more turn radius for vehicle entry/exit.

20. Alternative D is preferred. Acknowledge higher cost, but the revenue gained by this is justified.

21. Currently for tournaments, teams have to play in Tacoma, some never even make it to GH for a GH-hosted tournament.

22. Tax revenue for more tournaments to be able to be held in GH will help.

23. Bike racks / bus stop incorporated?

24. Propose creation of a document to tell story of benefits of fields?

25. Revenue benefits of fields.

26. New lighting – with cutoff (environmental benefit)

27. Septic conversion to sewer benefit

28. Protecting wetlands (not encroaching into stream) – benefit.

29. Tree Preservation benefit.

Additionally, the following stakeholder written feedback wa received:

1. What happened to the "Pullout area for drop-off/pickup" on the E-W road south of Tim Taylor YMCA? I believe that convenient drop-off/pickup mitigates uncertainty in predicting parking requirements, particular if YMCA parking is then available. I would make this a requirement for any concept.

2. The concepts are similar in functionality (Field Inventory) with the big difference being a High School sized field in Alternative D. So a big question remains, how important is this? If it is essential to provide for High School baseball, then go with Alternative D.

3. A lot of information is provided on Grading and Stormwater, but it is not clear to me "so what?". I presume that Grading and Stormwater management is more difficult (and therefore more expensive) for Alternative D but some effort should be made to quantify the difference to help in decision making.

Bottom line, Alt D provides a High School ball field but presumably at more cost (maybe longer development schedule?). Alt D also provides marginally more parking (26 spaces) but if effective drop-off/pickup can be provided, parking issues might be effectively mitigated.

As summarized in my email of 9/1/23, "I suggest that the baseball community stakeholders address question of what is the 'value' of the High School sized baseball field (to our High School, for use by baseball clubs, to support tournament play, ...) while allowing the more comprehensive study to define the cost difference for our City Council to consider in light of available funding and other budget priorities.

Additionally, the following public feedback was noted (verbally) at the second public meeting:

1. The current snack shack is inadequate.

2. Need more parking.

3. More parking in Phase 2.

4. Traffic impact study?

5. Widen driveways at Phase 3.

6. McCormick Street is not a through street - provide signs to alert people of this.

7. Neighbor stated he is excited for the fields.

8. Long overdue - more fields.

9. Clarify meaning of comfort station? Bathroom.

Following the second stakeholder and public meetings, Alternatives D and E were updated to incorporate some of the stakeholder feedback at this point, and delivered to the City for their review.

The main differences involved the addition of stormwater design detail including preliminary field under-drain layouts, detention vaults and stormwater layout. Additionally, the reduction of Phase 3 soccer field widths allowed for more gathering space for fields and referees along the sidelines while maintaining enough field width to meet stakeholder requirements, and adding radii to some of the driveway entrances.

The updated alternatives that were delivered to the City for review prior to the City Council Study Session are shown on the following 4 pages.

Alternative 'D' Update

ALTERNATIVES ANALYSIS

FIELD INVENTORY:

1 375' OUTFIELD FIELD (BASEBALL/SOFTBALL)
1 300' OUTFIELD FIELD (BASEBALL/SOFTBALL)
1 200' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
2 180' OUTFIELD FEILDS (BASEBALL/SOFTBALL
3 360' BY 210' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND LACROSSE)
1 150' X 225 U-11 SOCCER/GENERAL PRACTICE FIELD

TOTAL BY SPORT:
5 BASEBALL/SOFTBALL
3 FOOTBALL
3 SOCCER (2 FIFA SIZED)
3 LACROSSE
1 SMALL MULTISPORT PRACTICE FIELD

PROS:

-MORE ADDITIONAL PARKING THAN ALTERNATIVE 'E'
-RELOCATION OF UMPIRE SHACK COULD IMPROVE PEDESTRIAN CIRCULATION / SITE ORGANIZATION
-PHASE 3 FIELDS CAN ACCOMODATE HIGH-SCHOOL SIZED BASEBALL FIELD (375' OUTFIELD)

CONS:

-NO ADDITIONAL PROGRAMMABLE / SPECTATOR SPACE BETWEEN PHASE 3 FIELDS
-PRIORITIZES MAXIMUM FIELD PROGRAMMING / FLEXIBILITY AT THE EXPENSE OF MORE PARKING IN PHASE 3
-PHASE 3 GRADING IS ALL AT ONE LEVEL, POTENTIALLY INCREASING HEIGHT OF RETAINING WALLS

PARKING SUMMARY:

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-THE 51 EXISTING PARALLEL PARKING STALLS ALONG MCCORMICK CREEK DRIVE AND 44 SPACES IN THE PARKING LOT ACROSS MCCORMICK CREEK DRIVE FROM OCEANA STREET ARE NOT INCLUDED IN THIS PARKING SUMMARY, BUT ARE REGULARLY UTILIZED FOR FIELD EVENTS / PRACTICES.
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Alternative 'D' Grading Update

ALTERNATIVES ANALYSIS

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STORMWATER CONCEPT:

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Alternative 'E' Update

ALTERNATIVES ANALYSIS

FIELD INVENTORY:

1 300' OUTFIELD FIELD (BASEBALL/SOFTBALL)
2 200' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
2 180' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
3 360' BY 210' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND LACROSSE)
1 150' X 225 U-11 SOCCER/GENERAL PRACTICE FIELD

TOTAL BY SPORT:
5 BASEBALL/SOFTBALL
3 FOOTBALL
3 SOCCER (2 FIFA SIZED)
3 LACROSSE
1 SMALL MULTISPORT PRACTICE FIELD

PROS:

-ADDITION OF MULTIPURPOSE FIELD IN PHASE 2
-EXPANDS LARGEST PHASE 2 BALLFIELD TO 300' OUTFIELD
-FLEXIBLE, PROGRAMMABLE GATHERING SPACE BETWEEN TWO PHASE 3 FIELDS WHICH CAN BE ORIENTED TOWARDS WEST OR EAST FIELDS
-STEPPING PHASE 3 FIELDS TO CREATE GRADE CHANGE BETWEEN FIELDS AND POTENTIALLY REDUCE RETAINING WALL HEIGHTS.

CONS:

-LESS ADDITIONAL PARKING THAN ALTERANATIVE 'D'
-PHASE 3 CANNOT ACCOMODATE HIGH-SCHOOL SIZED BASEBALL FIELD.
-UMPIRE SHACK LOCATION IS NOT OPTIMAL FOR PEDESTRIAN CIRCULATION BETWEEN PHASE 2 FIELDS.

PARKING SUMMARY:

-PHASE 3 PROPOSED PARKING SPACES: 51*
-PHASE 2 PROPOSED PARKING SPACES: 84 (74 EXISTING - 10 GAINED)
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DISCLAIMER: CONCEPT LEVEL PARKING DATA IS SUBJECT TO CHANGE.

Alternative 'E' Grading Update

ALTERNATIVES ANALYSIS

GRADING CONCEPT:

GENERALLY, THE GRADING CONCEPT REQUIRES SEVERAL RETAINING WALLS TO MANAGE THE GRADE CHANGE ACROSS THE SITE. A RETAINING WALL WOULD WRAP THE ENTIRE NORTH EDGE AND EAST EDGE OF THE PHASE 3 FIELDS, AND WOULD MAX OUT AT 12' HIGH AT THE NORTHEAST CORNER. ANOTHER RETAINING WALL SEPARATING PHASES 2 AND THREE WOULD BE AT ITS HIGHEST AT THE NORTHEAST CORNER OF THE PROPOSED PHASE 2 MULTIPURPOSE FIELD, MAXING OUT AT 21' HIGH. LASTLY, THE EXPANSION OF THE LARGE BASEBALL FIELD IN PHASE 2 WOULD REQUIRE A RETAINING WALL WHICH WOULD BE APPROXIMATELY 11' HIGH. ALL THE SYNTHETIC TURF FIELDS ARE ASSUMED TO BE FLAT. THE PHASE TWO FIELDS ARE AT APPROXIMATELY 206 ELEVATION. THE PHASE 3 FIELDS ARE STEPPED AT APPROXIMATELY 228.5 ELEVATION AND 231.5 ELEVATION, WITH 3 8" STEPS BETWEEN THEM. TWO ACCESSIBLE RAMPS AT A SLOPE OF APPROXIMATELY 7.8% PROVIDE AN ACCESSIBLE CONNECTION BETWEEN PHASE 2 AND PHASE THREE, AND AN ACCESSIBLE CONNECTION BETWEEN THE UPPER PARKING ON THE EAST SIDE OF PHASE 3 AND THE PHASE 3 FIELDS.

STORMWATER CONCEPT:

THE ARTIFICAL TURF FIELDS ARE ASSUMED TO BE IMPERVIOUS SURFACES DUE TO THEIR RUNOFF CHARACTERISTICS AND ARE EXPECTED TO INCLUDE AN UNDERDRAIN SYSTEM. PRELIMINARY GEOTECHNICAL INVESTIGATIONS INDICATE RELATIVELY LOW PERMEABILITY SOILS AND A RECOMMENDED DESIGN INFILTRATION RATE OF 0.1 INCHES PER HOUR. WE EXPECT TO APPLY THIS INFILTRATION RATE UNDER ALL ARTIFICIAL TURF SURFACES.

THE PHASE 3 IMPROVEMENTS LIE WITHIN LOT 3 OF THE BUSINESS PARK AT HARBOR HILL. THIS PARCEL WAS INCLUDED IN THE DESIGN FOR THE HARBOR HILL WEST REGIONAL STORMWATER FACILITY. WE INTEND THAT RUNOFF FROM PHASE 3 THAT DOES NOT INFILTRATE WILL BE CONVEYED TO THE REGIONAL FACILITY. IT APPEARS THAT PHASE 3 IMPROVEMENTS WILL EXCEED THE HARD SURFACE AREA ASSUMPTIONS OF THE REGIONAL FACILITY DESIGN. HOWEVER, DUE TO THE LARGE AREA OF TURF FIELDS WHICH CAN INFILTRATE STORMWATER BELOW GRADE, WE EXPECT THE FLOW CHARACTERISTICS OF THE PROPOSED DESIGN TO MATCH THE ORIGINAL ASSUMPTIONS OF THE REGIONAL FACILITY.

WE EXPECT PHASE 2 IMPROVEMENTS WILL BE SUBJECT TO MINIMUM REQUIREMENTS 1-10 UNDER THE 2023 GIG HARBOR STORMWATER MANAGEMENT AND SITE DEVELOPMENT MANUAL, AND WILL HAVE AN INFILTRATION RATE OF 0.1 INCHES PER HOUR UNDER THE TURF SURFACES, SIMILAR TO THE PHASE 3 IMPROVEMENTS. FOR NEW AND REPLACED IMPERVIOUS SURFACES TO MATCH THE FORESTED CONDITION, AN UNDERGROUND DETENTION SYSTEM IS PROPOSED PRIOR TO DISCHARGING TO MCCORMICK CREEK.

Preliminary Cost Report

ALTERNATIVES ANALYSIS

At this point in the feasibility study, Alternatives D and E were developed to a level appropriate to begin the determination of project construction costs. Acker Consulting was engaged to develop initial construction cost reports for each of the two alternatives. The initial construction costs reports broke out costs between Phases 2 and 3.

The estimate included full construction costs, plus the equivalent of a 4% - 5% design contingency. Additionally, the construction cost estimate included Contractor G.R, OH&P, B&I, B&O Tax Markups, and No Sales Tax. The construction cost estimate did not include design and project management.

The project construction costs in the report assumed that each phase would be constructed independently/separately, but included an estimated savings if the phases were to be constructed concurrently.

The initial construction cost report produced a budgetary cost estimate summarized in the table below (and on page 1 of the estimate, image on right). The initial construction cost report in its entirety is included as Appendix D.

PHASE 2 AND 3 PRELIMINARY CONSTRUCTION COSTS				
PROJECT COMPONENT	QUANTITY	UNIT	ESTIMATE COST	WITH G.C. MARK-UPS
Alternate D Scope				
Phase 2, Alternate D	1.25	LS	$12,848,200	$16,060,250
Phase 3, Alternate D	1.25	LS	$9,860,150	$12,325,188
Phase 2 & 3 Alternate D total				**$28,385,438**
Alternate E Scope				
Phase 2, Alternate E	1.25	LS	$12,478,200	$15,597,750
Phase 3, Alternate E	1.25	LS	$9,631,300	$12,039,125

It was determined that, as designed, either alternative would be cost-prohibitive to construct. Therefore, a determination was made to conduct a value engineering exercise to bring costs down to a level appropriate to bring to City Council.

Drafted: 10/31/22
Completed: 11/01/23

GIG HARBOR SPORTS COMPLEX
PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

Page 1 of 14

GENERAL SCOPE:

This is a preliminary estimate that compares the costs of two proposed scopes to construct Phases 2 and 3 of a Gig Harbor Sports Complex near the Tom Taylor YMCA in Gig Harbor, WA. Specifically excluded are Phases 1A, 1B and 1C, all of which are to be done at different times and under separate contracts. For estimating purposes, Phase 2 and Phase 3 scopes, whether they be Alternates D or E, are treated as separate individual projects in their Base Estimates. If both were done at the same time and under the same contract there might be a $280,000 overall efficiency savings, not taking into account additional savings of avoiding further construction cost escalation premiums. Regardless of what specific scenario gets played out, it is assumed the existing Phase 2 area ballfields will be closed to the public and out of commission when new Phase 2 work takes place there.

The estimate includes full construction costs, plus the equivalent of a 4% to 5% design contingency. Sales tax and other soft costs such as permits, design fees, third party testing, utility connection fees if applicable, owner's administration costs, and a change order construction contingency are excluded. Also, since there is not yet a targeted date of when either Phase 2 or Phase 3 projects would start, all estimate costs are in current dollars. It is suggested that a construction cost escalation premium, calculated at about a 5% to 6% annual compounded rate, be added to the estimate bottom-lines once target dates are decided upon. Current scope information and costs are very preliminary and should be treated as such.

INCLUDED:	EXCLUDED:
320,000 SF of Phase 2 and 300,000 SF of Phase site improvements.	Phase 1A, 1B and 1C work--under a separate contracts.
Site removal of strippings, plus extensive net excavation cut haul-offs.	Significant overexcavation--excavated subgrade cuts used as suitable fills.
Extensive retaining walls in both phases, with some soldier pile walls in Phase 2.	Site improvements beyond Phase 2 & 3 boundaries shown on proposed plans.
Provisions for new outside utility services, still to be defined and laid out.	Any wetlands mitigation work--assumed to be not applicable.
A new water main loop line with fire hydrants in Phase 3.	A new access road, expanded parking, and a fire main loop in Phase 2 work.
Removal of a septic system, replaced w/ a new sewer service to street in Ph. 2.	New storage containers, or removal & reinstallation of existing--by owner.
A new large underground storm detention vault in Phase 2.	A storm detention vault in Phase 3--a storm outlet to an existing pond instead.
Sports field lighting in both Phases 2 and 3.	New parking lot lighting in Phase 2 Base Estimate scope--an Option.
Synthetic turf with underdrainage at new sports fields.	Grandstand type seating--portable type bleachers only.
Fencing at sports fields, plus backstops and scoreboards.	Electronic monitoring, cameras, controlled gates, or street or traffic lighting.
Landscaping & irrigation in both phases.	Extensive improvements in existing south Phase 2 parking lot that remains.
A new Restroom & Concessions building in Phase 3.	A new Restroom & Concessions building in Phase 2--existing remains.
Relocation of an existing Umpire & electrical shed in Phase 2 D.	Fire sprinkler protection, or an outside fire sprinkler service in either phases.
Contractor's general requirements, overhead & profit.	Sales tax, permits, 3rd party testing, design fees, or utility co. fees if applicable.
Contractor's bond & insurance, and B & O tax.	Owner's administration costs, or a change order contingency.
A 4% to 5% design contingency.	Construction cost escalation or LEED administration & certification premiums.

	BUDGETARY COST ESTIMATE				
PROJECT COMPONENT	Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
BASE ESTIMATE PHASING AND COST OPTION SUMMARY: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
ALTERNATE D SCOPE:					
PHASE 2, Alternate D.	1.25	LS	$12,848,200	**$16,060,250**	See Page 2 for an Estimate Summary Breakdown.
PHASE 3, Alternate D.	1.25	LS	$9,860,150	**$12,325,188**	See Page 6 for an Estimate Summary Breakdown.
PHASE 2 & 3 ALTERNATE D TOTAL:				**$28,385,438**	Alternate D, Phase 2 & 3 separate projects in current dollars.
ALTERNATE E SCOPE:					
PHASE 2, Alternate E.	1.25	LS	$12,478,200	**$15,597,750**	See Page 10 for an Estimate Summary Breakdown.
PHASE 3, Alternate E.	1.25	LS	$9,631,300	**$12,039,125**	See Page 11 for an Estimate Summary Breakdown.
PHASE 2 & 3 ALTERNATE E TOTAL:				**$27,636,875**	Alternate D, Phase 2 & 3 separate projects in current dollars.

All Estimate Costs are in Fourth Quarter 2023 Dollars

For: BCRA — **A CONCEPTUAL COST STUDY** — From: Bill Acker Consulting Services

PRELIMINARY COST REPORT (Source: Acker Consulting)

VE Process / City Council Study Session #2

ALTERNATIVES ANALYSIS

The design team and City collaborated to identify ways to meet the needs of the stakeholders, and find out what sacrifices to the current designs they would be willing to make in order to bring project costs down.

The City consulted with the stakeholders' group on some potential VE strategies. The stakeholders were willing to allow some reduction in the large baseball field size, but there was a strong desire not to reduce the size of the northern Phase 2 fields or the Phase 3 fields.

BCRA then made revisions to the two alternative designs, implementing a series of VE strategies. Some of the main cost reduction strategies included:

1. Reduction of the Phase 2 baseball outfield distance to slightly (10-15 feet) beyond the existing outfield fence, thereby greatly reducing necessary retaining walls and synthetic turf area/quantity.
2. Revision of the ramp alignment to align with grading of the hillside in lieu of retaining walls, reducing ramp/wall amounts/costs.
3. Large reduction in retaining walls, primarily in Phase 2.
4. Removal of expensive fascia panels from the solider pile wall in Phase 3.
5. Leave existing umpire shed as is rather than relocate it, which involved significant costs due to associated infrastructure adjustments.
6. Utilize the majority of existing paving between the Phase 2 fields rather than re-paving the entire area.
7. Leave existing batting cages in place, re-purpose and re-located existing aluminum bleachers.
8.. Remove the revised driveway at Phase 2 parking lot - reduce Phase 2 parking lot scope to re-striping only.
9. Stormwater vaults - utilize less expensive 'doghouse' style Stormtech system, rather than concrete vaults.
10. Revise concrete paving to reduce quantities of new concrete.
11. Revise turf fields to trim the amount of synthetic turf.
12. Reduction in the assumed landscape square footages.

Following these strategies, the estimated construction costs for the fields were able to be reduced significantly. As with the original preliminary construction cost report, The project construction costs in the report assumed that each phase would be constructed independently/separately, but included an estimated savings if the phases were to be constructed concurrently. The table below summarizes the estimated costs, post-VE revisions (The full updated cost report can be found as Appendix E of the feasibility study):

PHASE 2 AND 3 PRELIMINARY CONSTRUCTION COSTS (POST-VALUE ENGINEERING)				
PROJECT COMPONENT	QUANTITY	UNIT	ESTIMATE COST	WITH G.C. MARK-UPS
Alternate D Scope				
Phase 2, Alternate D	1.25	LS	$6,835,140	$8,543,925
Phase 3, Alternate D	1.25	LS	$9,397,908	$11,747,385
Phase 2 & 3 Alternate D total				**$20,291,310**
Alternate E Scope				
Phase 2, Alternate E	1.25	LS	$6,835,140	$8,543,925
Phase 3, Alternate E	1.25	LS	$9,469,328	$11,836,660

Study Session #2

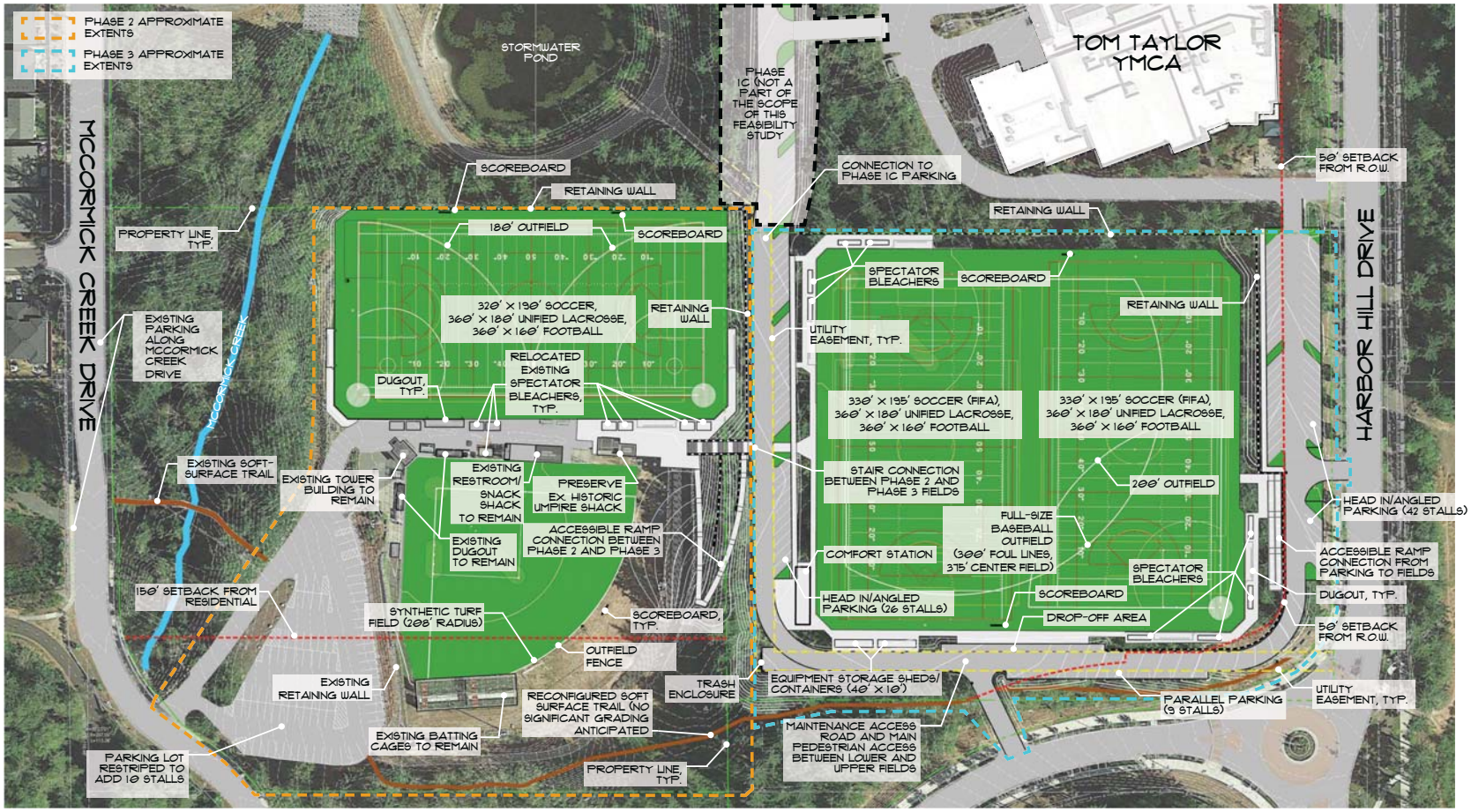
BCRA and the City attended the City Council Study Session held on January 18, 2024, to present the two alternatives, and request that the City Council select one of the two remaining alternatives as the Preferred Alternative.

In the study session, BCRA presented Alternatives D & E, highlighted the main differences and pros and cons between each alternative, highlighted the main differences in cost between each of the alternatives, and presented a tree preservation exhibit demonstrating how the alternatives met the city's tree preservation requirements and would propose to replace all trees removed at a 1:1 ratio offsite. BCRA answered questions from the Council, and then each Council Member expressed which of the two design the would choose to move forward as the preferred alternative.

The designs and exhibits presented in the second City Council Study Session are shown on the following 7 pages, followed by the feedback received from the City Council:

City Council Study Session #2 Alternative 'D'

ALTERNATIVES ANALYSIS



FIELD INVENTORY:

1 375' OUTFIELD FIELD (BASEBALL/SOFTBALL)
1 200' OUTFIELD FIELD (BASEBALL/SOFTBALL)
1 200' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
2 180' OUTFIELD FEILDS (BASEBALL/SOFTBALL
2 360' BY 195' & 1 360' BY 190' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND LACROSSE)
1 150' X 225 U-11 SOCCER/GENERAL PRACTICE FIELD
TOTAL BY SPORT:
5 BASEBALL/SOFTBALL
3 FOOTBALL
3 SOCCER (2 FIFA SIZED)
3 LACROSSE

PROS:

-MORE ADDITIONAL PARKING THAN ALTERNATIVE 'E'
-PHASE 3 FIELDS CAN ACCOMODATE FULL-SIZED BASEBALL FIELD (375' OUTFIELD)

CONS:

-NO ADDITIONAL PAVED PROGRAMMABLE / SPECTATOR SPACE BETWEEN PHASE 3 FIELDS
-PHASE 3 GRADING IS ALL AT ONE LEVEL, INCREASING HEIGHT OF RETAINING WALLS

PARKING SUMMARY:

-PHASE 3 PROPOSED PARKING SPACES: 77*
-PHASE 2 PROPOSED PARKING SPACES: 84 (74 EXISTING - 10 GAINED)
-THE 51 EXISTING PARALLEL PARKING STALLS ALONG MCCORMICK CREEK DRIVE AND 44 SPACES IN THE PARKING LOT ACROSS MCCORMICK CREEK DRIVE FROM OCEANIA STREET ARE NOT INCLUDED IN THIS PARKING SUMMARY, BUT ARE REGULARLY UTILIZED FOR FIELD EVENTS / PRACTICES.
*PARKING WITHIN PHASE 3 PROPERTY LINE ONLY - DOES NOT INCLUDE POTENTIAL PHASE 1C PARKING.

City Council Study Session #2 Alternative 'D' Grading / Storm Design

ALTERNATIVES ANALYSIS

GRADING CONCEPT:

GENERALLY, THE GRADING CONCEPT REQUIRES SEVERAL RETAINING WALLS TO MANAGE THE GRADE CHANGE ACROSS THE SITE. A RETAINING WALL WOULD WRAP THE ENTIRE NORTH EDGE AND EAST EDGE OF THE PHASE 3 FIELDS, AND WOULD MAX OUT AT 16' HIGH AT THE NORTHEAST CORNER. ANOTHER RETAINING WALL SEPARATING THE NORTHERN PORTION OF PHASES 2 AND THREE WOULD BE AT ITS HIGHEST AT THE NORTHEAST CORNER OF THE PROPOSED PHASE 2 MULTIPURPOSE FIELD, MAXING OUT AT 21' HIGH. THE LARGE BASEBALL FIELD IN PHASE 2 WOULD REMAIN WITHIN IT'S EXISTING FOOTPRINT, ELIMINATING THE NEED FOR ADDITIONAL RETAINING WALLS AT THE OURFIELD. ALL THE SYNTHETIC TURF FIELDS ARE ASSUMED TO BE FLAT. THE PHASE TWO FIELDS ARE AT APPROXIMATELY 206 ELEVATION, WHILE THE PHASE 3 FIELDS ARE AT APPROXIMATELY 228 ELEVATION (DIFFERENCE OF 22 FEET).TWO ACCESSIBLE RAMPS AT A SLOPE OF APPROXIMATELY 7.8% PROVIDE AN ACCESSIBLE CONNECTION BETWEEN PHASE 2 AND PHASE THREE, AND AN ACCESSIBLE CONNECTION BETWEEN THE UPPER PARKING ON THE EAST SIDE OF PHASE 3 AND THE PHASE 3 FIELDS.

STORMWATER CONCEPT:

THE ARTIFICAL TURF FIELDS ARE ASSUMED TO BE IMPERVIOUS SURFACES DUE TO THEIR RUNOFF CHARACTERISTICS AND ARE EXPECTED TO INCLUDE AN UNDERDRAIN SYSTEM. PRELIMINARY GEOTECHNICAL INVESTIGATIONS INDICATE RELATIVELY LOW PERMEABILITY SOILS AND A RECOMMENDED DESIGN INFILTRATION RATE OF 0.1 INCHES PER HOUR. WE EXPECT TO APPLY THIS INFILTRATION RATE UNDER ALL ARTIFICIAL TURF SURFACES.

THE PHASE 3 IMPROVEMENTS LIE WITHIN LOT 3 OF THE BUSINESS PARK AT HARBOR HILL. THIS PARCEL WAS INCLUDED IN THE DESIGN FOR THE HARBOR HILL WEST REGIONAL STORMWATER FACILITY. WE INTEND THAT RUNOFF FROM PHASE 3 THAT DOES NOT INFILTRATE WILL BE CONVEYED TO THE REGIONAL FACILITY. IT APPEARS THAT PHASE 3 IMPROVEMENTS WILL EXCEED THE HARD SURFACE AREA ASSUMPTIONS OF THE REGIONAL FACILITY DESIGN. HOWEVER, DUE TO THE LARGE AREA OF TURF FIELDS WHICH CAN INFILTRATE STORMWATER BELOW GRADE, WE EXPECT THE FLOW CHARACTERISTICS OF THE PROPOSED DESIGN TO MATCH THE ORIGINAL ASSUMPTIONS OF THE REGIONAL FACILITY.

WE EXPECT PHASE 2 IMPROVEMENTS WILL BE SUBJECT TO MINIMUM REQUIREMENTS 1-10 UNDER THE 2023 GIG HARBOR STORMWATER MANAGEMENT AND SITE DEVELOPMENT MANUAL, AND WILL HAVE AN INFILTRATION RATE OF 0.1 INCHES PER HOUR UNDER THE TURF SURFACES, SIMILAR TO THE PHASE 3 IMPROVEMENTS. FOR NEW AND REPLACED IMPERVIOUS SURFACES TO MATCH THE FORESTED CONDITION, AN UNDERGROUND DETENTION SYSTEM IS PROPOSED PRIOR TO DISCHARGING TO MCCORMICK CREEK.

City Council Study Session #2 Alternative 'E'

ALTERNATIVES ANALYSIS

FIELD INVENTORY:

1 208' OUTFIELD FIELD (BASEBALL/SOFTBALL)
2 200' OUTFIELD FIELDS (BASEBALL/SOFTBALL)
2 180' OUTFIELD FIELDS (BASEBALL/SOFTBALL
3 360' BY 210' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND
2 360' BY 195' & 1 360' BY 190' MULTI-PURPOSE FIELDS (FOOTBALL, SOCCER, AND LACROSSE)

TOTAL BY SPORT:
5 BASEBALL/SOFTBALL
3 FOOTBALL
3 SOCCER (2 FIFA SIZED)
3 LACROSSE

PROS:

-FLEXIBLE, PROGRAMMABLE GATHERING SPACE BETWEEN TWO PHASE 3 FIELDS WHICH CAN BE ORIENTED TOWARDS WEST OR EAST FIELDS
-STEPPED PHASE 3 FIELDS TO CREATE GRADE CHANGE BETWEEN FIELDS, REDUCING OVERALL CUT AND FILL

CONS:

-LESS ADDITIONAL PARKING THAN ALTERNATIVE 'D'
-PHASE 3 CANNOT ACCOMODATE FULL-SIZED BASEBALL FIELD.

PARKING SUMMARY:

-PHASE 3 PROPOSED PARKING SPACES: 51*
-PHASE 2 PROPOSED PARKING SPACES: 84 (74 EXISTING - 10 GAINED)
-THE 51 EXISTING PARALLEL PARKING STALLS ALONG MCCORMICK CREEK DRIVE AND 44 SPACES IN THE PARKING LOT ACROSS MCCORMICK CREEK DRIVE FROM OCEANIA STREET ARE NOT INCLUDED IN THIS PARKING SUMMARY, BUT ARE REGULARLY UTILIZED FOR FIELD EVENTS / PRACTICES.
*PARKING WITHIN PHASE 3 PROPERTY LINE ONLY DOES NOT INCLUDE POTENTIAL PHASE 1C PARKING

DISCLAIMER: CONCEPT LEVEL PARKING DATA IS SUBJECT TO CHANGE.

City Council Study Session #2 Alternative 'E' Grading / Storm Design

ALTERNATIVES ANALYSIS

GRADING CONCEPT:

GENERALLY, THE GRADING CONCEPT REQUIRES SEVERAL RETAINING WALLS TO MANAGE THE GRADE CHANGE ACROSS THE SITE. A RETAINING WALL WOULD WRAP THE ENTIRE NORTH EDGE AND EAST EDGE OF THE PHASE 3 FIELDS, AND WOULD MAX OUT AT 12' HIGH AT THE NORTHEAST CORNER. ANOTHER RETAINING WALL SEPARATING THE NORTHERN PORTION OF PHASES 2 AND THREE WOULD BE AT ITS HIGHEST AT THE NORTHEAST CORNER OF THE PROPOSED PHASE 2 MULTIPURPOSE FIELD, MAXING OUT AT 21' HIGH. THE LARGE BASEBALL FIELD IN PHASE 2 WOULD REMAIN WITHIN IT'S EXISTING FOOTPRINT, ELIMINATING THE NEED FOR ADDITIONAL RETAINING WALLS AT THE OUTFIELD. ALL THE SYNTHETIC TURF FIELDS ARE ASSUMED TO BE FLAT. THE PHASE TWO FIELDS ARE AT APPROXIMATELY 206 ELEVATION. THE PHASE 3 FIELDS ARE STEPPED AT APPROXIMATELY 228.5 ELEVATION AND 231.5 ELEVATION, WITH 3 8" STEPS BETWEEN THEM. TWO ACCESSIBLE RAMPS AT A SLOPE OF APPROXIMATELY 7.8% PROVIDE AN ACCESSIBLE CONNECTION BETWEEN PHASE 2 AND PHASE THREE, AND AN ACCESSIBLE CONNECTION BETWEEN THE UPPER PARKING ON THE EAST SIDE OF PHASE 3 AND THE PHASE 3 FIELDS.

STORMWATER CONCEPT:

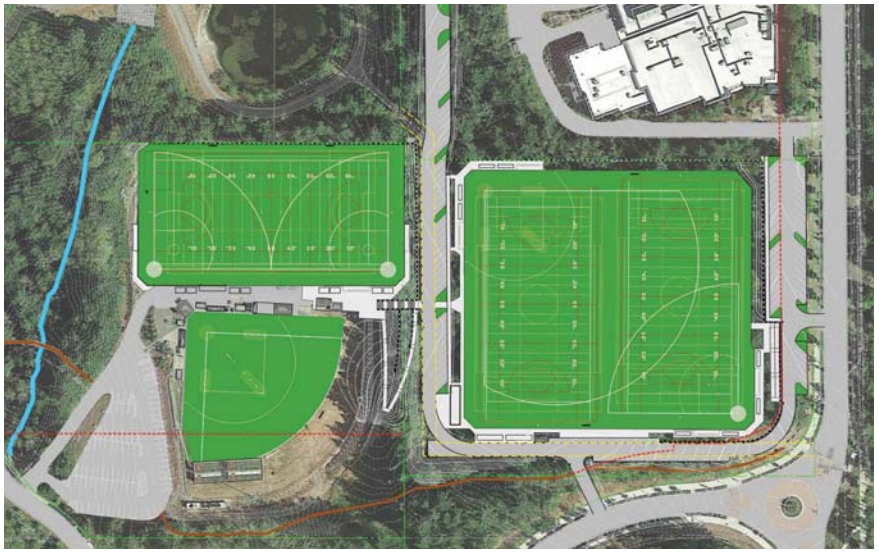
THE ARTIFICAL TURF FIELDS ARE ASSUMED TO BE IMPERVIOUS SURFACES DUE TO THEIR RUNOFF CHARACTERISTICS AND ARE EXPECTED TO INCLUDE AN UNDERDRAIN SYSTEM. PRELIMINARY GEOTECHNICAL INVESTIGATIONS INDICATE RELATIVELY LOW PERMEABILITY SOILS AND A RECOMMENDED DESIGN INFILTRATION RATE OF 0.1 INCHES PER HOUR. WE EXPECT TO APPLY THIS INFILTRATION RATE UNDER ALL ARTIFICIAL TURF SURFACES.

THE PHASE 3 IMPROVEMENTS LIE WITHIN LOT 3 OF THE BUSINESS PARK AT HARBOR HILL. THIS PARCEL WAS INCLUDED IN THE DESIGN FOR THE HARBOR HILL WEST REGIONAL STORMWATER FACILITY. WE INTEND THAT RUNOFF FROM PHASE 3 THAT DOES NOT INFILTRATE WILL BE CONVEYED TO THE REGIONAL FACILITY. IT APPEARS THAT PHASE 3 IMPROVEMENTS WILL EXCEED THE HARD SURFACE AREA ASSUMPTIONS OF THE REGIONAL FACILITY DESIGN. HOWEVER, DUE TO THE LARGE AREA OF TURF FIELDS WHICH CAN INFILTRATE STORMWATER BELOW GRADE, WE EXPECT THE FLOW CHARACTERISTICS OF THE PROPOSED DESIGN TO MATCH THE ORIGINAL ASSUMPTIONS OF THE REGIONAL FACILITY.

WE EXPECT PHASE 2 IMPROVEMENTS WILL BE SUBJECT TO MINIMUM REQUIREMENTS 1-10 UNDER THE 2023 GIG HARBOR STORMWATER MANAGEMENT AND SITE DEVELOPMENT MANUAL, AND WILL HAVE AN INFILTRATION RATE OF 0.1 INCHES PER HOUR UNDER THE TURF SURFACES, SIMILAR TO THE PHASE 3 IMPROVEMENTS. FOR NEW AND REPLACED IMPERVIOUS SURFACES TO MATCH THE FORESTED CONDITION, AN UNDERGROUND DETENTION SYSTEM IS PROPOSED PRIOR TO DISCHARGING TO MCCORMICK CREEK.

City Council Study Session #2 - Alternate Comparison

ALTERNATIVES ANALYSIS



Alternative D Summary:

-Preferred by stakeholders' group.

Pros:

-Can accomodate full-sized baseball field (375' center field distance).

-More parking than Alternative E - 84 spaces in Phase 2, 77 spaces in Phase 3, 161 total spaces.

Cons:

-No paved gathering/seating spaces between 2 multipurpose fields.

Alternative E Summary:

Pros:

-Paved gathering space between 2 multipurpose fields.

-Stepped Phase 3 fields reduces overall cut/fill.

Cons:

-No full-sized baseball field.

-Less parking than Alternative D - 51 spaces in Phase 3, 84 spaces in Phase 2, 135 spaces total.

City Council Study Session #2 Cost Comparison

ALTERNATIVES ANALYSIS

Alternative D Estimated Cost Report: $20,291,310

More **Overall Retaining Walls:**
11,930 SF cast-in-place / 2,260 SF soldier pile / 340 SF rockery = 14,530 SF
$2,974,250 (less than Alt E due to less soldier pile wall)

More **Cut/Fill:**
Phase 2 = 10,180 CY cut / 4,460 CY fill
Phase 3 = 47,370 CY cut / 10,220 CY fill
Total = 57,550 CY cut / 14,680 CY fill
Net Export: 42,870 CY
$2,386,801 site prep and grading (more cost than Alt E)

Less **Site Concrete/Paving:**
$736,725

Less **Synthetic Turf:**
Ph. 2 = 135,000 SF +Ph. 3 = 175,000 SF = 310,000 SF
$3,186,800 Phase 2 + $4,068,800 Phase 3 = $7,255,600

Alternative E Cost Report: $20,380,585

Less **Overall Retaining Walls:**
10,850 SF cast-in-place / 3,050 soldier pile / 340 SF rockery = 14,240 SF
$3,065,813 (more than Alt D due to more soldier pile wall)

Less **Cut/Fill:**
Phase 2 = 10,180 CY cut / 4,460 CY fill
Phase 3 = 31,690 CY cut, 10,330 CY fill
Total = 41,870 CY cut / 14,790 CY fill
Net Export: 27,080 CY
$2,052,638 site prep and grading costs

More **Site Concrete/Paving:**
$817,475

More **Synthetic Turf:**
Ph. 2 = 135,000 SF Ph. 3 = 177,000 SF = 312,000 SF
$3,186,800 Phase 2 + $4,150,050 Phase 3 = $7,336,850

City Council Study Session #2 Tree Preservation

TREE PRESERVATION DIAGRAM

City Council Study Session #2 Feedback

ALTERNATIVES ANALYSIS

The following notes summarize the discussion items and feedback recorded in the second city council study session, organized by Council Member / Attendee:

Council Member/Attendee:

Council Member Storset:

- What would the restroom situation look like
  (Design consultant clarified new restroom in Phase 3, existing restroom in Phase 2)
- Option E may need to add storage in Phase 3
- Likes the soft trail
- Would like connection to the Cushman trail
- Prefers Option D
- likes the green belt at the SE corner of E/3

Public Works Director Langhelm:

- Clarified that the cost savings of building both phases concurrent is minimal

Council Member Henderson:

- Interested in tree retention at the north end of Phase 2
- Curious about the stormwater management
  (Design consultant answered with an explanation of infiltration/ detention strategy)

Council Member Woock:

- Likes Phase 2 doesn't like Phase 3
- Referenced a flash vote that showed this
- Questioned the cost of replacement
- Questioned excluding cost estimation

Council Member Barber:

- Prefers Option D

Council Member Woock:

- Prefers Phase 2/D only

Council Member/Attendee:

Council Member Lykins:

- Prefers Option D

Council Member Henderson:

- Prefers Option D, does not like Phase 3

Council Member Coronado:

- Prefers Option D
- Likes more sports and more parking

City Administrator Knutson:

- Clarified that this is for feasibility only and does not authorize design or permitting
- No current partners for operations and maintenance

Based on the feedback received, the design team moved into the 'Preferred Alternative Development' phase with Alternative 'D' as the council-selected Preferred Alternative.

Preferred Alternative Process

PREFERRED ALTERNATIVE DEVELOPMENT

Preferred Alternative Development

In the preferred alternative phase, BCRA continued the development of the selected Preferred Alternative to a higher level of detail. At this point, the preferred alternative (feasibility-level) design was considered largely complete, and changes at this point were limited to minor revisions to the site layout, further development of the stormwater plan to more accurately size the detention vaults based on storm modeling, inclusion of ADA stalls into the preferred alternative plan, and development of a rendered site plan that depicted a higher level of detail / illustrative quality than prior iterations / alternatives. Additionally, the cost estimator was be re-engaged to develop an updated cost report based on the refined preferred alternative.

The desired outcome of the conclusion of this final phase of the feasibility study is for the feasibility study be formally adopted by the City Council as part of the public record.

The following pages present the preferred alternative design.

(Large-format versions of the Preferred Alternative Conceptual Field Layout and the Preferred Alternative Conceptual Grading and Stormwater Design) are included as Appendix F and G of the feasibility Study

Preferred Alternative Conceptual Field Layout

PREFERRED ALTERNATIVE DEVELOPMENT

Legend

01 180' Outfield
02 Retaining Wall
03 Scoreboard
04 Trash Enclosure
05 Dugout, typ.
06 Relocated Existing Spectator Bleachers
07 Spectator Bleachers, typ.
08 Comfort Station
09 Stair Connection Between Pase 2 and Phase 3 Fields
10 Drop-off Area
11 Equipment/Storage Sheds (40' x 10')
12 Parallel Parking (8 stalls)
13 Maintenance Access Road & Main Pedestrian Access Between Upper and Lower Fields
14 Accessible Ramp Connection from Parking to Fields
15 Head in/Angled Parking (42 stalls)
16 Head in/Angled Parking (26 stalls)
17 330' x 195' Soccer (FIFA), 360' x 180' Unified Lacrosse, 360' x 160' Football
18 330' x 190' Soccer, 360' x 180' Unified Lacrosse, 360' x 160' Football
19 Connection to Phase 1C Parking
20 200' Outfield
21 Outfield Fence
22 Reconfigured Soft Surface Trail (no significant grading anticipatated)
23 Accessible Ramp Connection Between Phase 2 and Phase 3
24 Synthetic Turf Field (208' radius)
25 Preserve Existing Historic Umpire Shack
26 Existing Tower Building to Remain
27 Existing Dugout to Remain
28 Existing Restroom/Snack Shack to Remain
29 Existing Batting Cages to Remain
30 Existing Retaining Wall
31 Parking Lot Restriped to add 10 Stalls
32 Existing Soft-surface Trail
33 Existing Parking Along McCormick Creek Drive
34 Full-size Baseball Outfield (300' foul Lines, 375' center field)
35 ADA Accessible Parking Stalls
36 Dense Vegetated Buffer at Phase 2 South Property Line

Field Inventory

1 375' Outfield field (Baseball/Softball)
1 208' Outfield field (Baseball/Softball)
1 200' Outfield fields (Baseball/Softball)
2 180' Outfield fields (Baseball/Softball
2 360' x 195' and 1 360' x 90' Multi-purpose fields (Football, Soccer, and Lacrosse)
1 150' x 225 U-11 Soccer/General practice field

Total by Sport:
5 Baseball/Softball
3 Football
3 Soccer (2 FIFA sized)
3 Lacrosse

Preferred Alternative Conceptual Grading and Stormwater Design

PREFERRED ALTERNATIVE

GRADING CONCEPT:

GENERALLY, THE GRADING CONCEPT REQUIRES SEVERAL RETAINING WALLS TO MANAGE THE GRADE CHANGE ACROSS THE SITE. A RETAINING WALL WOULD WRAP THE ENTIRE NORTH EDGE AND EAST EDGE OF THE PHASE 3 FIELDS, AND WOULD MAX OUT AT 16' HIGH AT THE NORTHEAST CORNER. ANOTHER RETAINING WALL SEPARATING THE NORTHERN PORTION OF PHASES 2 AND THREE WOULD BE AT ITS HIGHEST AT THE NORTHEAST CORNER OF THE PROPOSED PHASE 2 MULTIPURPOSE FIELD, MAXING OUT AT 21' HIGH. THE LARGE BASEBALL FIELD IN PHASE 2 WOULD REMAIN WITHIN IT'S EXISTING FOOTPRINT, ELIMINATING THE NEED FOR ADDITIONAL RETAINING WALLS AT THE OUTFIELD. ALL THE SYNTHETIC TURF FIELDS ARE ASSUMED TO BE FLAT. THE PHASE TWO FIELDS ARE AT APPROXIMATELY 206 ELEVATION, WHILE THE PHASE 3 FIELDS ARE AT APPROXIMATELY 228 ELEVATION (DIFFERENCE OF 22 FEET).TWO ACCESSIBLE RAMPS AT A SLOPE OF APPROXIMATELY 7.8% PROVIDE AN ACCESSIBLE CONNECTION BETWEEN PHASE 2 AND PHASE THREE, AND AN ACCESSIBLE CONNECTION BETWEEN THE UPPER PARKING ON THE EAST SIDE OF PHASE 3 AND THE PHASE 3 FIELDS.

STORMWATER CONCEPT:

THE ARTIFICAL TURF FIELDS ARE ASSUMED TO BE IMPERVIOUS SURFACES DUE TO THEIR RUNOFF CHARACTERISTICS AND ARE EXPECTED TO INCLUDE AN UNDERDRAIN SYSTEM. PRELIMINARY GEOTECHNICAL INVESTIGATIONS INDICATE RELATIVELY LOW PERMEABILITY SOILS AND A RECOMMENDED DESIGN INFILTRATION RATE OF 0.1 INCHES PER HOUR. WE EXPECT TO APPLY THIS INFILTRATION RATE UNDER ALL ARTIFICIAL TURF SURFACES.

THE PHASE 3 IMPROVEMENTS LIE WITHIN LOT 3 OF THE BUSINESS PARK AT HARBOR HILL. THIS PARCEL WAS INCLUDED IN THE DESIGN FOR THE HARBOR HILL WEST REGIONAL STORMWATER FACILITY. WE INTEND THAT RUNOFF FROM PHASE 3 THAT DOES NOT INFILTRATE WILL BE CONVEYED TO THE REGIONAL FACILITY. IT APPEARS THAT PHASE 3 IMPROVEMENTS WILL EXCEED THE HARD SURFACE AREA ASSUMPTIONS OF THE REGIONAL FACILITY DESIGN. HOWEVER, DUE TO THE LARGE AREA OF TURF FIELDS WHICH CAN INFILTRATE STORMWATER BELOW GRADE, WE EXPECT THE FLOW CHARACTERISTICS OF THE PROPOSED DESIGN TO MATCH THE ORIGINAL ASSUMPTIONS OF THE REGIONAL FACILITY.

WE EXPECT PHASE 2 IMPROVEMENTS WILL BE SUBJECT TO MINIMUM REQUIREMENTS 1-10 UNDER THE 2023 GIG HARBOR STORMWATER MANAGEMENT AND SITE DEVELOPMENT MANUAL, AND WILL HAVE AN INFILTRATION RATE OF 0.1 INCHES PER HOUR UNDER THE TURF SURFACES, SIMILAR TO THE PHASE 3 IMPROVEMENTS. FOR NEW AND REPLACED IMPERVIOUS SURFACES TO MATCH THE FORESTED CONDITION, AN UNDERGROUND DETENTION SYSTEM IS PROPOSED. THIS DESIGN MAINTAINS THE EXISTING DISCHARGE CONDITION AS THE EXISTING CONDITIONS.

Preliminary Cost Report - Preferred Alternative

ALTERNATIVES ANALYSIS

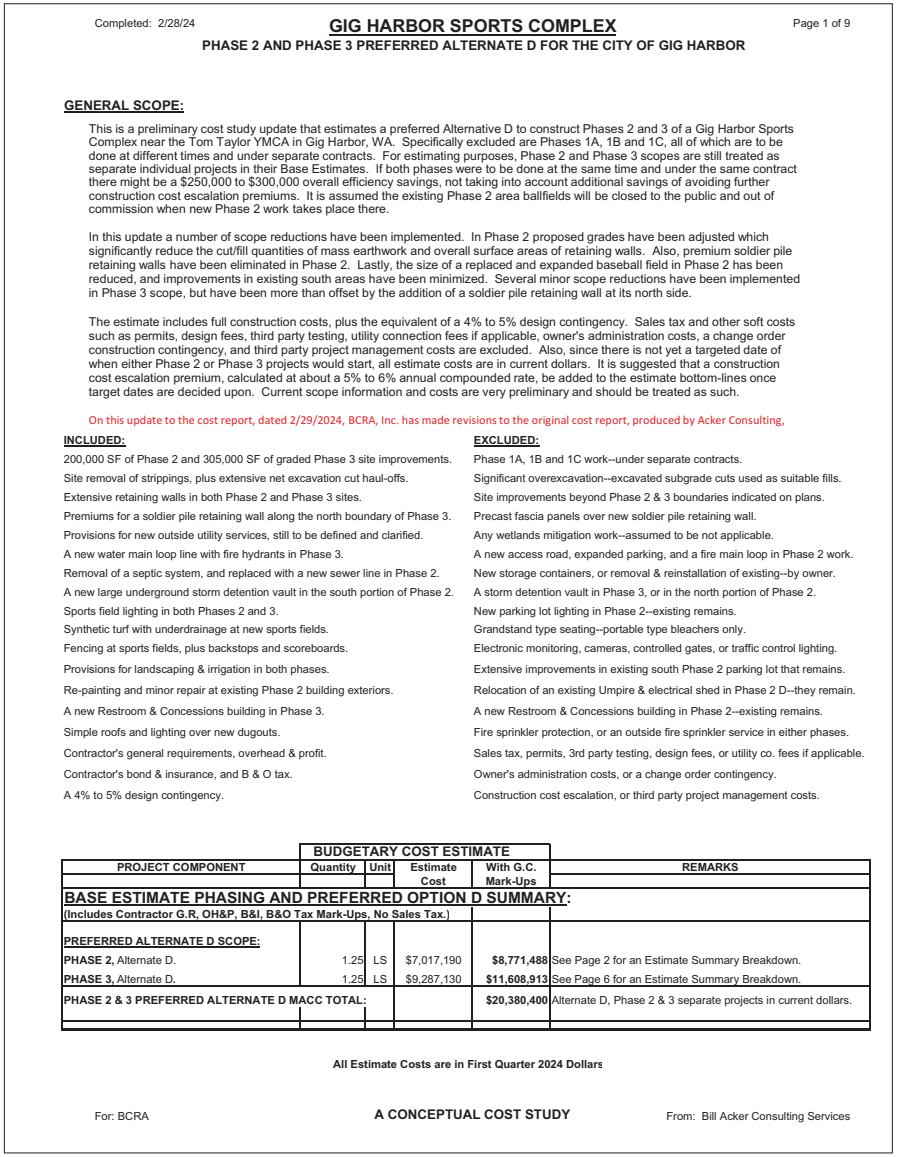
For the preferred alternative, Acker Consulting was re-engaged to update the initial construction cost reports for the preferred alternative.

As in the initial construction cost report, the estimate included full construction costs, plus the equivalent of a 4% - 5% design contingency. Additionally, the construction cost estimate included Contractor G.R, OH&P, B&I, B&O Tax Markups, and No Sales Tax. The construction cost estimate did not include design and project management.

The project construction costs in the report assumed that each phase would be constructed independently/separately, but included an estimated savings if the phases were to be constructed concurrently.

The updated construction cost report produced a budgetary cost estimate summarized in the table below (and on page 1 of the estimate, image on right). The initial preferred alternative construction cost report in its entirety is included as Appendix H of the feasibility study.

PREFERRED ALTERNATIVE - PHASE 2 AND 3 PRELIMINARY CONSTRUCTION COSTS				
PROJECT COMPONENT	QUANTITY	UNIT	ESTIMATE COST	WITH G.C. MARK-UPS
Preferred Alternative Scope				
Phase 2	1.25	LS	$7,017,190	$8,771.488
Phase 3	1.25	LS	$11,608,913	$11,608,913
Preferred Alternative Total				**$20,380,400**



Completed: 2/28/24

GIG HARBOR SPORTS COMPLEX

Page 1 of 9

PHASE 2 AND PHASE 3 PREFERRED ALTERNATE D FOR THE CITY OF GIG HARBOR

GENERAL SCOPE:

This is a preliminary cost study update that estimates a preferred Alternative D to construct Phases 2 and 3 of a Gig Harbor Sports Complex near the Tom Taylor YMCA in Gig Harbor, WA. Specifically excluded are Phases 1A, 1B and 1C, all of which are to be done at different times and under separate contracts. For estimating purposes, Phase 2 and Phase 3 scopes are still treated as separate individual projects in their Base Estimates. If both phases were to be done at the same time and under the same contract there might be a $250,000 to $300,000 overall efficiency savings, not taking into account additional savings of avoiding further construction cost escalation premiums. It is assumed the existing Phase 2 area ballfields will be closed to the public and out of commission when new Phase 2 work takes place there.

In this update a number of scope reductions have been implemented. In Phase 2 proposed grades have been adjusted which significantly reduce the cut/fill quantities of mass earthwork and overall surface areas of retaining walls. Also, premium soldier pile retaining walls have been eliminated in Phase 2. Lastly, the size of a replaced and expanded baseball field in Phase 2 has been reduced, and improvements in existing south areas have been minimized. Several minor scope reductions have been implemented in Phase 3 scope, but have been more than offset by the addition of a soldier pile retaining wall at its north side.

The estimate includes full construction costs, plus the equivalent of a 4% to 5% design contingency. Sales tax and other soft costs such as permits, design fees, third party testing, utility connection fees if applicable, owner's administration costs, a change order construction contingency, and third party project management costs are excluded. Also, since there is not yet a targeted date of when either Phase 2 or Phase 3 projects would start, all estimate costs are in current dollars. It is suggested that a construction cost escalation premium, calculated at about a 5% to 6% annual compounded rate, be added to the estimate bottom-lines once target dates are decided upon. Current scope information and costs are very preliminary and should be treated as such.

On this update to the cost report, dated 2/29/2024, BCRA, Inc. has made revisions to the original cost report, produced by Acker Consulting,

INCLUDED:

200,000 SF of Phase 2 and 305,000 SF of graded Phase 3 site improvements.
Site removal of strippings, plus extensive net excavation cut haul-offs.
Extensive retaining walls in both Phase 2 and Phase 3 sites.
Premiums for a soldier pile retaining wall along the north boundary of Phase 3.
Provisions for new outside utility services, still to be defined and clarified.
A new water main loop line with fire hydrants in Phase 3.
Removal of a septic system, and replaced with a new sewer line in Phase 2.
A new large underground storm detention vault in the south portion of Phase 2.
Sports field lighting in both Phases 2 and 3.
Synthetic turf with underdrainage at new sports fields.
Fencing at sports fields, plus backstops and scoreboards.
Provisions for landscaping & irrigation in both phases.
Re-painting and minor repair at existing Phase 2 building exteriors.
A new Restroom & Concessions building in Phase 3.
Simple roofs and lighting over new dugouts.
Contractor's general requirements, overhead & profit.
Contractor's bond & insurance, and B & O tax.
A 4% to 5% design contingency.

EXCLUDED:

Phase 1A, 1B and 1C work--under separate contracts.
Significant overexcavation--excavated subgrade cuts used as suitable fills.
Site improvements beyond Phase 2 & 3 boundaries indicated on plans.
Precast fascia panels over new soldier pile retaining wall.
Any wetlands mitigation work--assumed to be not applicable.
A new access road, expanded parking, and a fire main loop in Phase 2 work.
New storage containers, or removal & reinstallation of existing--by owner.
A storm detention vault in Phase 3, or in the north portion of Phase 2.
New parking lot lighting in Phase 2--existing remains.
Grandstand type seating--portable type bleachers only.
Electronic monitoring, cameras, controlled gates, or traffic control lighting.
Extensive improvements in existing south Phase 2 parking lot that remains.
Relocation of an existing Umpire & electrical shed in Phase 2 D--they remain.
A new Restroom & Concessions building in Phase 2--existing remains.
Fire sprinkler protection, or an outside fire sprinkler service in either phases.
Sales tax, permits, 3rd party testing, design fees, or utility co. fees if applicable.
Owner's administration costs, or a change order contingency.
Construction cost escalation, or third party project management costs.

	BUDGETARY COST ESTIMATE				
PROJECT COMPONENT	Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
BASE ESTIMATE PHASING AND PREFERRED OPTION D SUMMARY:					
(Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
PREFERRED ALTERNATE D SCOPE:					
PHASE 2, Alternate D.	1.25	LS	$7,017,190	**$8,771,488**	See Page 2 for an Estimate Summary Breakdown.
PHASE 3, Alternate D.	1.25	LS	$9,287,130	**$11,608,913**	See Page 6 for an Estimate Summary Breakdown.
PHASE 2 & 3 PREFERRED ALTERNATE D MACC TOTAL:				**$20,380,400**	Alternate D, Phase 2 & 3 separate projects in current dollars.

All Estimate Costs are in First Quarter 2024 Dollars

For: BCRA

A CONCEPTUAL COST STUDY

From: Bill Acker Consulting Services

Conclusions and Recommendations

CHAPTER NAME

Conclusions/Next Steps

The conclusions we can draw from this feasibility study for Phases 2 and 3 of the Gig Harbor Sports Complex are summarized below:

Site: BCRA considered the site feasibility in its site investigations, alternative analysis, and preferred alternative development for Phases 2 and 3. From the beginning of the study, it was recognized that the site, Phase 3 in particular, presented a challenge in terms of siting two multipurpose athletic fields, due to the limited available space and topographic change across the parcel.

Additionally, the zoning and land use and requirements present a challenge in terms of providing a dense vegetated buffer along all sides of the parcel, given the limited available space remaining once the fields, paving, and access drives are constructed. By rezoning the Phase 3 parcel to PI (Public Institution), the City should have more flexbility with regards to meeting some of the development requirements in the zone.

The Phase 2 Fields are less challenging from a site development standpoint, as the site has already been more or less graded and is prepped for conversion to synthetic turf. The single-family neighborhood to the south makes it critical to bolster the southern edge of Phase 2 with additional trees.

Tree preservation is also identified as a key challenge to development of Phase 3. The City Council is clear in their directive to preserve trees wherever possible, and to replace trees at a 1:1 ratio offsite (if replacing onsite is not feasible). In the case of Phase 2 and 3, this tree replacement will largely need to be performed offsite at an as-yet to be determined location.

The site feasibility also is based upon the combining of the four parcels comprising the site into a single binding site plan. That this will occur is not yet a certainty, and creation of a binding site plan will likely need to be a part of the final development / construction of the site.

All of the developed alternatives (leading into and including the preferred alterative) depict a connection to Phase 1C. However, since Phase 1C was not included as a part of the scope of this feasibility study, more investigation is needed to determine the feasibility of this. In order to support the determination of how feasibile the overall sports complex is as depicted in the 2018 master plan and this feasibility study, **we recommend that a feasibility study focusing on Phase 1C be performed.**

YMCA: The YMCA was a key stakeholder throughout this process and allowed the City and BCRA to make some broad assumptions about the connection off of Harbor Hill Drive into the parking lot in Phase 3. Based on conversations with the YMCA and the undertainty of whether it would be feasible for any of the improvements to be constructed onto YMCA property to the north of Phase 3, the preferred alternative depicts a retaining wall along the north edge of Phase 3 which limits encroachment onto their property everywhere except at the entrance to the Phase 3 parking lot. **We recommend that more detailed conversations and collaboration between the City and the YMCA occur in order to further determine the details of how the sports complex and the YMCA will interface and coexist.**

Financial: The preliminary construction cost estimate for the preferred alternative is $8.7M for Phase 2 and $11.6M for Phase 3. These project costs assume that each phase will be constructed incependently/separately. This study determined that there is limited cost savings to be gained by constructing the fields concurrently. Therefore, a phased approach to construction could be appropriate depending upon available funds and desired schedule.

As discussed in the City Council Study Session, the selection of the Preferred Alternative and the adoption of this feasibilty study do not guarantee that the City will ultimately find the funds needed to design and construct this project. More study is needed to determine the operational and financial feasibility of the project.

During our meetings with the Stakeholders, it became apparent that sports fields of these type and size and generate a significant amount of steady income through rental of the fields for weekend tournament events, or weekly sports leagues. The income generated by rental and use fees is often used to pay for operations, maintenance, and to finance loans issued to fund the field construction costs.

We recommend an operational/financial study/pro forma study to futher determine the operational costs and revenue sources the sports complex can be expected to produce from tournament revenue, rentals, etc. This will enable the City to take a critical step toward determining the viability of the sports complex.

Phases 2 and 3 of the Gig Harbor Sports Complex represent a highly sought after recreational facility that will serve the growing need for recreational and field space in the region.

While there are still questions surrounding operational feasibility and financial feasibility for Phases 2 and 3, **there is site feasibility for Phases 2 and 3 of the sports complex.**

August 16, 2023
Kleinfelder Project No. 24000835.001A

Eric Streeby, PLA
Associate
Landscape Architect
BCRA Design
2106 Pacific Avenue, Suite 300
Tacoma, WA 98402

Subject: **Infiltration Feasibility Study**
Peninsula Light Fields
10303 McCormick Creek Drive
Gig Harbor, WA 98332

Dear Mr. Streeby:

This letter summarizes Kleinfelder's infiltration feasibility study performed in support of the proposed Peninsula Light Field Improvements project at 10303 McCormick Creek Drive in Gig Harbor, Washington. We based our scope of services on our proposal titled "Revised Proposal for Geotechnical Engineering Services, Gig Harbor Sports Complex Phase II & III Feasibility Study, 10303 McCormick Creek Drive and 10310 Harbor Hill Drive, Gig Harbor, Washington" dated April 19, 2023. The following sections summarize our findings and conclusions.

FIELD EXPLORATION AND LABORATORY TESTING

Field explorations consisted of excavating two test pits, designated TP-1 and 2, to depths of about 6½ feet below the existing ground surface. Test pits were excavated southeast of the existing ballfield in a gravel surfaced area at locations selected by the City of Gig Harbor. The coordinates were estimated using a handheld GPS for plotting on the Site and Exploration Map, which should be considered approximate. The Vicinity Map, Figure 1, presents the project location and the Site and Exploration Map, Figure 2, presents the locations of the test pits.

Excavation was performed using a Kubota KX040-4 equipped with a toothed digging bucket, owned and operated by John Nichols Excavating operating under subcontract to Kleinfelder. A Kleinfelder EIT observed and logged the test pit excavations and collected samples for further examination and testing in our laboratory in Redmond, Washington. Samples were collected at various depths based on observed stratigraphy. Soil density was estimated based on the observed excavation conditions and relative effort of the excavator. Laboratory testing consisted of nine natural moisture content tests, five sieve analyses, and two hydrometer analyses. Appendices A and B present Test Pit logs and laboratory test results, respectively.

GEOLOGIC AND SOILS MAPS

The Puget Lowland is characterized by a dynamic landscape that has been shaped primarily by continental glaciations, tectonic activity, and volcanism. Multiple phases of Pleistocene regional glaciation during the Fraser Glaciation have greatly influenced the modern topography and geology of the Puget Lowland, including Gig Harbor. The surficial soil units are derived predominantly from the latest glacial episode, the Vashon Stade of the Fraser Glaciation. Surface topography in the Puget Lowland is generally marked by north-south oriented ridges and valleys formed by glacial scouring, which were subsequently altered by post-glacial erosion and deposition. Surficial glacial deposits in the Gig Harbor area generally consist of glacial till, though the till is mantled in some areas by recessional outwash and/or recent alluvium. The 1:100k Surface Geology Map from the Washington Department of Natural Resources Geologic Information Portal indicates the site is underlain by Vashon Glacial Till.

The USDA Natural Resources Conservation Service Web Soil Survey map indicates that the site is underlain by Map Unit 16C, Harstine gravelly ashy sandy loam, 6 to 15 percent slopes. Per the City of Gig Harbor Stormwater Management and Site Development Manual, Appendix III Table B.5, this corresponds to Soil Hydrologic Group C, with moderately high runoff potential and an estimated 0.05 to 0.15 inches per hour infiltration rate.

SOIL AND GROUNDWATER CONIDTIONS

Soils encountered in the test pit explorations were consistent with the referenced geologic map and consisted of approximately 3½ feet of fill / reworked glacial till overlying weathered glacial till. Except for the gravel surfacing, we interpreted the upper 3½ feet to consist of native soils likely placed and/or disturbed during original site grading for the ballfields. Below this, soils transitioned to a weathered glacial till consisting of silty sand with gravel and silty sand. We estimate the glacial till to be medium dense to dense and lab testing indicated 26 to 28 percent fines.

Groundwater seepage was not observed in our test pit explorations. Excavation was performed during the dry summer season and perched layers of groundwater may develop seasonally, particularly over layers of unweathered glacial till.

INFILTRATION FEASIBILITY

We evaluated infiltration feasibility based on geologic conditions, Soil Hydrogeologic Group, and soil grain size and density. In general, glacial till soils are very poor infiltration receptors due to density (compactness) and fines content. Infiltration rates measured in glacial till soils by means of Pilot Infiltration Tests are typically less than 0.1 inch / hour.

Based on the City of Gig Harbor Stormwater Management and Site Development Manual, grain size testing is only appropriate for estimating infiltration rates for Hydrogeologic Group A soils, a criterial the site soils do not meet. We concur with this limitation, and it is our opinion that grain size methods would significantly overestimate the infiltration rate for the soils encountered in the test pits.

We recommend that preliminary stormwater system design be based on infiltration rates of approximately 0.1 inch / hour, or less, and that provisions be made for handling and disposing of stormwater that does not infiltrate. There is a potential that some areas of the site are underlain by a mantle of recessional outwash that would have a higher infiltration rate. However, the outwash would

be underlain by glacial till and therefore would likely have a low long-term infiltration capacity. Kleinfelder can perform additional explorations as part of a supplemental scope of services, if desired.

GEOLOGIC HAZARDS

Due to the relatively level site grades and soil conditions, we estimate the landslide, erosion, and seismic hazards at the site to be low.

LIMITATIONS

This work was performed in a manner consistent with the level of care and skill ordinarily exercised by other members of Kleinfelder's profession practicing in the same locality, under similar conditions, and at the date the services are provided. Our conclusions, opinion, and recommendations are based on a limited number of observations and data. It is possible that conditions could vary between or beyond the data evaluated. Kleinfelder makes no other representation, guarantee or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

This report may be used only by the Client and the registered design professional in responsible charge and only for the purposes stated for this specific engagement within a reasonable time from its issuance, but in no event later than two (2) years from the date of the report.

CLOSING

We trust that this report serves your needs at this time. If you have questions regarding our professional services or need additional information, please contact our office at (425) 636-7900.

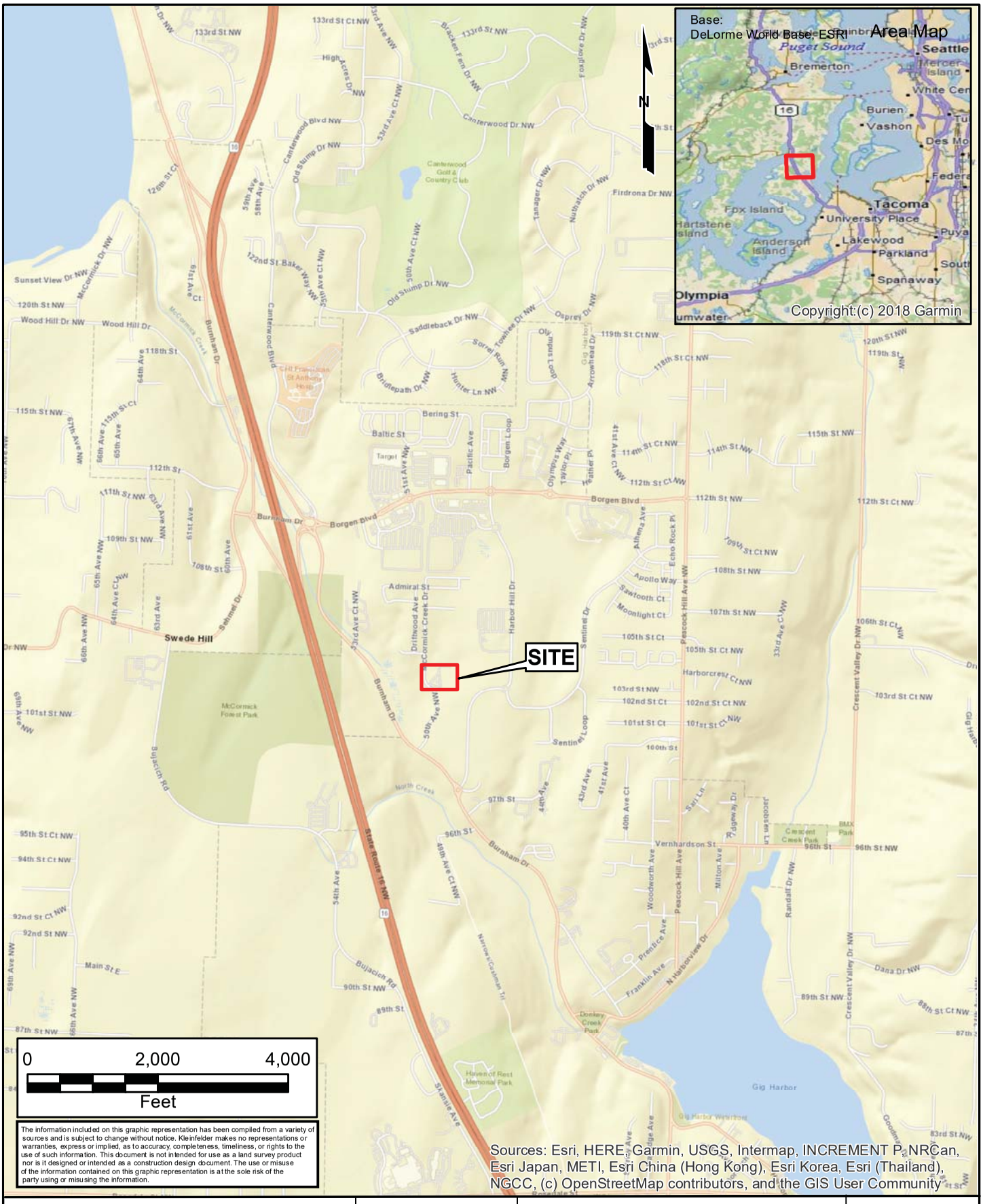
Sincerely,

KLEINFELDER

Panutad Kuwijitsuwan, EIT (WA)
Geotechnical Engineer

Marcus Byers, PE, P.Eng
Principal Geotechnical Engineer
Senior Project Manager

Attachments: Figure 1: Vicinity Map
Figure 2: Site and Exploration Map
Appendix A: Test Pit Logs
Appendix B: Laboratory Testing



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PROJECT NO.	24000835
DRAWN BY:	JDS
CHECKED BY:	FK
DATE:	08/09/2023
REVISED:	

VICINITY MAP

GIG HARBOR SPORTS COMPLEX PHASE II & III
10303 McCORMICK CREEK DRIVE
GIG HARBOR, WASHINGTON

FIGURE
1

0 50 100

SCALE: 1" = 50' SCALE IN FEET

N

LEGEND

⬢ TEST PIT LOCATION

REFERENCE:
BASE MAPPING IMAGE DATA FROM © 2022 MICROSOFT CORP.
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CHECKED BY	FK
DATE:	08/09/2022
REVISED:	

SITE AND EXPLORATION MAP

GIG HARBOR SPORTS COMPLEX PHASE II & III
10303 McCORMICK CREEK DRIVE
GIG HARBOR, WASHINGTON

FIGURE
2

PLOTTED: 8/9/2023 2:38 PM BY: jeff sala
CAD FILE: W:\2024\24000835.001A - Gig Harbor Sports Complex Phase II & III\24000835.dwg LAYOUT: F2

DRILLING METHOD/SAMPLER TYPE GRAPHICS

GRAB SAMPLE

GROUND WATER GRAPHICS

- WATER LEVEL (level where first observed)
- WATER LEVEL (level after stabilizing period)
- WATER LEVEL (additional levels after exploration)
- OBSERVED SEEPAGE

NOTES

- The report and graphics key are an integral part of these logs. All data and interpretations in this log are subject to the explanations and limitations stated in the report.
- Solid lines separating strata on the logs represent approximate boundaries only, dashed lines are inferred or extrapolated boundaries. Actual transitions may be gradual or differ from those represented.
- No warranty is provided as to the continuity of soil or rock conditions between individual sample locations.
- Logs represent general soil or rock conditions observed at the point of exploration on the date indicated.
- In general, Unified Soil Classification System (ASTM D2488/D2487) designations presented on the logs were based on visual classification in the field and were modified where appropriate based on gradation and index property testing.
- Fine grained soils that plot within the hatched area on the Plasticity Chart, and coarse grained soils with between 5% and 12% passing the No. 200 sieve require dual USCS symbols, ie., CL-ML, GW-GM, GP-GM, GW-GC, GP-GC, GC-GM, SW-SM, SP-SM, SW-SC, SP-SC, SC-SM.
- If sampler is not able to be driven at least 6 inches then 50/X indicates number of blows required to drive the identified sampler X inches with a 140 pound hammer falling 30 inches.

ABBREVIATIONS

C_u - Coefficients of Uniformity
C_c - Coefficients of Curvature
WOH - Weight of Hammer
WOR - Weight of Rod

REFERENCES

1. American Society for Materials and Testing (ASTM), 2011, ASTM D2487: Classification of Soils for Engineering Purposes (Unified Soil Classification System).

UNIFIED SOIL CLASSIFICATION SYSTEM[1]

COARSE GRAINED SOILS (More than 50% retained on No. 200 Sieve)	**GRAVELS** (More than 50% of coarse fraction retained on No. 4 Sieve)	CLEAN GRAVEL WITH <5% FINES		**GW**	WELL-GRADED GRAVEL, WELL-GRADED GRAVEL WITH SAND
				**GP**	POORLY GRADED GRAVEL, POORLY GRADED GRAVEL WITH SAND
		GRAVELS WITH 5% TO 12% FINES		**GW-GM**	WELL-GRADED GRAVEL WITH SILT, WELL-GRADED GRAVEL WITH SILT AND SAND
				**GW-GC**	WELL-GRADED GRAVEL WITH CLAY (OR SILTY CLAY), WELL-GRADED GRAVEL WITH CLAY AND SAND (OR SILT CLAY AND SAND)
				**GP-GM**	POORLY GRADED GRAVEL WITH SILT, POORLY GRADED GRAVEL WITH SILT AND SAND
				**GP-GC**	POORLY GRADED GRAVEL WITH CLAY (OR SILTY CLAY), POORLY GRADED GRAVEL WITH CLAY AND (OR SILTY CLAY AND SAND)
		GRAVELS WITH > 12% FINES		**GM**	SILTY GRAVEL, SILTY GRAVEL WITH SAND
				**GC**	CLAYEY GRAVEL, CLAYEY GRAVEL WITH SAND
				**GC-GM**	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL WITH SAND
	SANDS (50% or more of coarse fraction passes the No. 4 Sieve)	CLEAN SANDS WITH <5% FINES		**SW**	WELL-GRADED SAND, WELL-GRADED SAND WITH GRAVEL
				**SP**	POORLY GRADED SAND, POORLY GRADED SAND WITH GRAVEL
		SANDS WITH 5% TO 12% FINES		**SW-SM**	WELL-GRADED SAND WITH SILT, WELL-GRADED SAND WITH SILT AND GRAVEL
				**SW-SC**	WELL-GRADED SAND WITH CLAY (OR SILTY CLAY), WELL-GRADED SAND WITH CLAY AND GRAVEL (OR SILTY CLAY AND GRAVEL)
				**SP-SM**	POORLY GRADED SAND WITH SILT, POORLY GRADED SAND WITH SILT AND GRAVEL
				**SP-SC**	POORLY GRADED SAND WITH CLAY, POORLY GRADED SAND WITH CLAY AND GRAVEL (OR SILTY CLAY AND GRAVEL)
		SANDS WITH > 12% FINES		**SM**	SILTY SAND, SILTY SAND WITH GRAVEL
				**SC**	CLAYEY SAND, CLAYEY SAND WITH GRAVEL
				**SC-SM**	SILTY, CLAYEY SAND, SILTY, CLAYEY SAND WITH GRAVEL
FINE GRAINED SOILS (50% or more passes the No. #200 sieve)	SILTS AND CLAYS (Liquid Limit less than 50)			**ML**	SILT, SILT WITH SAND, SILT WITH GRAVEL
				**CL**	LEAN CLAY, LEAN CLAY WITH SAND, LEAN CLAY WITH GRAVEL
				**CL-ML**	SILTY CLAY, SILTY CLAY WITH SAND, SILTY CLAY WITH GRAVEL
				**OL**	ORGANIC CLAY, ORGANIC CLAY WITH SAND, ORGANIC CLAY WITH GRAVEL, ORGANIC SILT, ORGANIC SILT WITH SAND, ORGANIC SILT WITH GRAVEL
	SILTS AND CLAYS (Liquid Limit 50 or greater)			**MH**	ELASTIC SILT. ELASTIC SILT WITH SAND, ELASTIC SILT WITH GRAVEL
				CH	FAT CLAY, FAT CLAY WITH SAND, FAT CLAY WITH GRAVEL
				**OH**	ORGANIC CLAY, ORGANIC CLAY WITH SAND, ORGANIC CLAY WITH GRAVEL, ORGANIC SILT, ORGANIC SILT WITH SAND, ORGANIC SILT WITH GRAVEL

NOTE: USE MATERIAL DESCRIPTION ON THE LOG TO DEFINE A GRAPHIC THAT MAY NOT BE PROVIDED ON THIS LEGEND.

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CHECKED BY: MBB
DATE: 8/15/2023

GRAPHICS KEY

Gig Harbor Sports Complex Phase II & III
10303 McCormick Creek Drive
Gig Harbor, WA

APPENDIX
A-1

GRAIN SIZE[1]

DESCRIPTION		SIEVE SIZE	GRAIN SIZE
Boulders		>12 in.	>12 in. (304.8 mm.)
Cobbles		3 - 12 in.	3 - 12 in. (76.2 - 304.8 mm.)
Gravel	coarse	3/4 -3 in.	3/4 -3 in. (19 - 76.2 mm.)
	fine	#4 - 3/4 in.	0.19 - 0.75 in. (4.8 - 19 mm.)
Sand	coarse	#10 - #4	0.079 - 0.19 in. (2 - 4.9 mm.)
	medium	#40 - #10	0.017 - 0.079 in. (0.43 - 2 mm.)
	fine	#200 - #40	0.0029 - 0.017 in. (0.07 - 0.43 mm.)
Fines		Passing #200	<0.0029 in. (<0.07 mm.)

SECONDARY CONSTITUENT[1]

Term of Use	AMOUNT	
	Secondary Constituent is Fine Grained	Secondary Constituent is Coarse Grained
Trace	<5%	<15%
With	≥5 to <15%	≥15 to <30%
Modifier	≥15%	≥30%

PLASTICITY[1]

DESCRIPTION	CRITERIA
Non-Plastic	A 1/8 in. (3 mm) thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.

MOISTURE CONTENT[1]

DESCRIPTION	FIELD TEST
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

CONSISTENCY - FINE-GRAINED SOIL[2, 3]

CONSISTENCY	SPT - N (# blows / ft)	Pocket Pen (tsf)	UNCONFINED COMPRESSIVE STRENGTH (Q_u)(psf)	VISUAL / MANUAL CRITERIA
Very Soft	<2	PP < 0.25	<500	Easily penetrated several inches by fist
Soft	2 - 4	0.25 ≤ PP <0.5	500 - 1,000	Easily penetrated several inches by thumb
Medium Stiff	4 - 8	0.5 ≤ PP <1	1,000 - 2,000	Can be penetrated several inches by thumb with moderate effort
Stiff	8 - 15	1 ≤ PP <2	2,000 - 4,000	Readily indented by thumb but penetrated only with great effort
Very Stiff	15 - 30	2 ≤ PP <4	4,000 - 8,000	Readily indented by thumbnail
Hard	>30	4 ≤ PP	>8,000	Indented by thumbnail with difficulty

APPARENT DENSITY - COARSE-GRAINED SOIL[2]

APPARENT DENSITY	SPT-N (# blows / ft)
Very Loose	<4
Loose	4 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	>50

STRUCTURE[1]

DESCRIPTION	CRITERIA
Stratified	Alternating layers of varying material or color with layers at least 1/4-in. (6mm) thick, note thickness.
Laminated	Alternating layers of varying material or color with the layers less than 1/4-in. (6 mm) thick, note thickness.
Fissured	Breaks along definite planes of fracture with little resistance to fracturing.
Slickensided	Fracture planes appear polished or glossy, sometimes striated.
Blocky	Cohesive soil that can be broken down into small angular lumps which resist further breakdown.
Lensed	Inclusion of small pockets of different soils, such as small lenses of sand scattered through a mass of clay; note thickness.
Homogeneous	Same color and appearance throughout

ANGULARITY[1]

DESCRIPTION	CRITERIA
Angular	Particles have sharp edges and relatively plane sides with unpolished surfaces.
Subangular	Particles are similar to angular description but have rounded edges.
Subrounded	Particles have nearly plane sides but have well-rounded corners and edges.
Rounded	Particles have smoothly curved sides and no edges.

REACTION WITH HYDROCHLORIC ACID[1]

DESCRIPTION	FIELD TEST
None	No visible reaction
Weak	Some reaction, with bubbles forming slowly
Strong	Violent reaction, with bubbles forming immediately

CEMENTATION[1]

DESCRIPTION	FIELD TEST
Weakly	Crumbles or breaks with handling or little finger pressure
Moderately	Crumbles or breaks with considerable finger pressure
Strongly	Will not crumble or break with finger pressure

REFERENCES

1. American Society for Materials and Testing (ASTM), 2017, ASTM D2488: Standard Practice for Description and Identification of Soils (Visual Manual Procedures).
2. Terzaghi, K and Peck, R., 1948, Soil Mechanics in Engineering Practice, John Wiley & Sons, New York.
3. United States Department of the Interior Bureau of Reclamation (USBR), 1998, Earth Manual, Part I.

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DATE: 8/15/2023

SOIL DESCRIPTION KEY
(For additional tables, see ASTM D2488)

Gig Harbor Sports Complex Phase II & III
10303 McCormick Creek Drive
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APPENDIX
A-2

TEST PIT LOG TP-1

Date Begin - End:	6/09/2023	**Excavation Company:**	JPN Contracting
Logged By:	P. Kuwijitsuwan	**Excavation Crew:**	J. Nichols
Hor.-Vert. Datum:	Not Available	**Excavation Equip.:**	Kubota KX040-4
Plunge:	N/A degrees	**Excav. Dimensions:**	3 x 10 ft
Weather:	55F Rain		

FIELD EXPLORATION

Surface Condition: Bare Earth and Grass

Depth (feet)	Graphical Log	Lithologic Description	Sample Type	USCS Symbol	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	Additional Tests/ Remarks
		Poorly Graded GRAVEL with Silt and Sand (GP-GM): fine to medium gravel, subangular to subrounded gravel, light brown to brown, moist, rootlets and trace organics, fine to medium sand			4.5						
				GP-GM	4.5		48	9.0			
		GLACIAL TILL **Silty SAND with Gravel (SM)**: fine to medium sand, brown to gray, moist, iron oxide staining, weathered			6.9						
		some cobbles									
5		**Silty SAND (SM)**: fine to medium sand, brown to gray, moist, trace gravel, weathered			7.8		87	26.0			

The test pit was terminated at approximately 6.5 ft. below ground surface. The test pit was backfilled with excavated material on June 09, 2023.

GROUNDWATER LEVEL INFORMATION:
Groundwater was not observed during excavation or after completion.
GENERAL NOTES:

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CHECKED BY:	MBB
DATE:	8/7/2023

TEST PIT LOG TP-1

Gig Harbor Sports Complex Phase II & III
10303 McCormick Creek Drive
Gig Harbor, WA

APPENDIX
A-3
PAGE: 1 of 1

Date Begin - End: 6/09/2023 **Excavation Company:** JPN Contracting

Logged By: P. Kuwijitsuwan **Excavation Crew:** J. Nichols

Hor.-Vert. Datum: Not Available **Excavation Equip.:** Kubota KX040-4

Plunge: N/A degrees **Excav. Dimensions:** 3 x 10 ft

Weather: 55F Rain

TEST PIT LOG TP-2

Depth (feet)	Graphical Log	FIELD EXPLORATION Surface Condition: Bare Earth and Grass Lithologic Description	Sample Type	LABORATORY RESULTS USCS Symbol	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	Additional Tests/ Remarks
		Poorly Graded GRAVEL with Silt and Sand (GP-GM): fine to medium sand, subangular to subrounded gravel, brown, moist, dense, rootlets and trace organics									
		GLACIAL TILL **Silty SAND with Gravel (SM)**: fine to medium sand, brownish gray, moist, dense, weathered, round to subrounded gravels		SM	5.5		63	13			
					5.4		66	17			
					6.0						
5		grades to brown, fines content increases, gravel content decreases			7.8		85	28.5			
					8.1						

The test pit was terminated at approximately 6.5 ft. below ground surface. The test pit was backfilled with excavated material on June 09, 2023.

GROUNDWATER LEVEL INFORMATION:
Groundwater was not observed during excavation or after completion.

GENERAL NOTES:

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DRAWN BY: PK

CHECKED BY: MBB

DATE: 8/7/2023

TEST PIT LOG TP-2

Gig Harbor Sports Complex Phase II & III
10303 McCormick Creek Drive
Gig Harbor, WA

APPENDIX

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PAGE: 1 of 1

Exploration ID	Depth (ft.)	Sample Description	Water Content (%)	Dry Unit Wt. (pcf)	Sieve Analysis (%)			Atterberg Limits			Additional Tests
					Passing 3/4"	Passing #4	Passing #200	Liquid Limit	Plastic Limit	Plasticity Index	
TP-1	0.5	POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM)	4.5								
TP-1	2.0	POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM)	4.5		72	48	9.0				
TP-1	3.5	SILTY SAND WITH GRAVEL (SM)	6.9								
TP-1	5.0	SILTY SAND (SM)	7.8			87	26.0				
TP-2	1.5	SILTY SAND WITH GRAVEL (SM)	5.5		90	63	13				
TP-2	3.0	SILTY SAND WITH GRAVEL (SM)	5.4		81	66	17				
TP-2	4.0	SILTY SAND WITH GRAVEL (SM)	6.0								
TP-2	5.0	SILTY SAND WITH GRAVEL (SM)	7.8		94	85	28.5				
TP-2	6.0	SILTY SAND WITH GRAVEL (SM)	8.1								

Refer to the Geotechnical Evaluation Report or the supplemental plates for the method used for the testing performed above.
NP = NonPlastic

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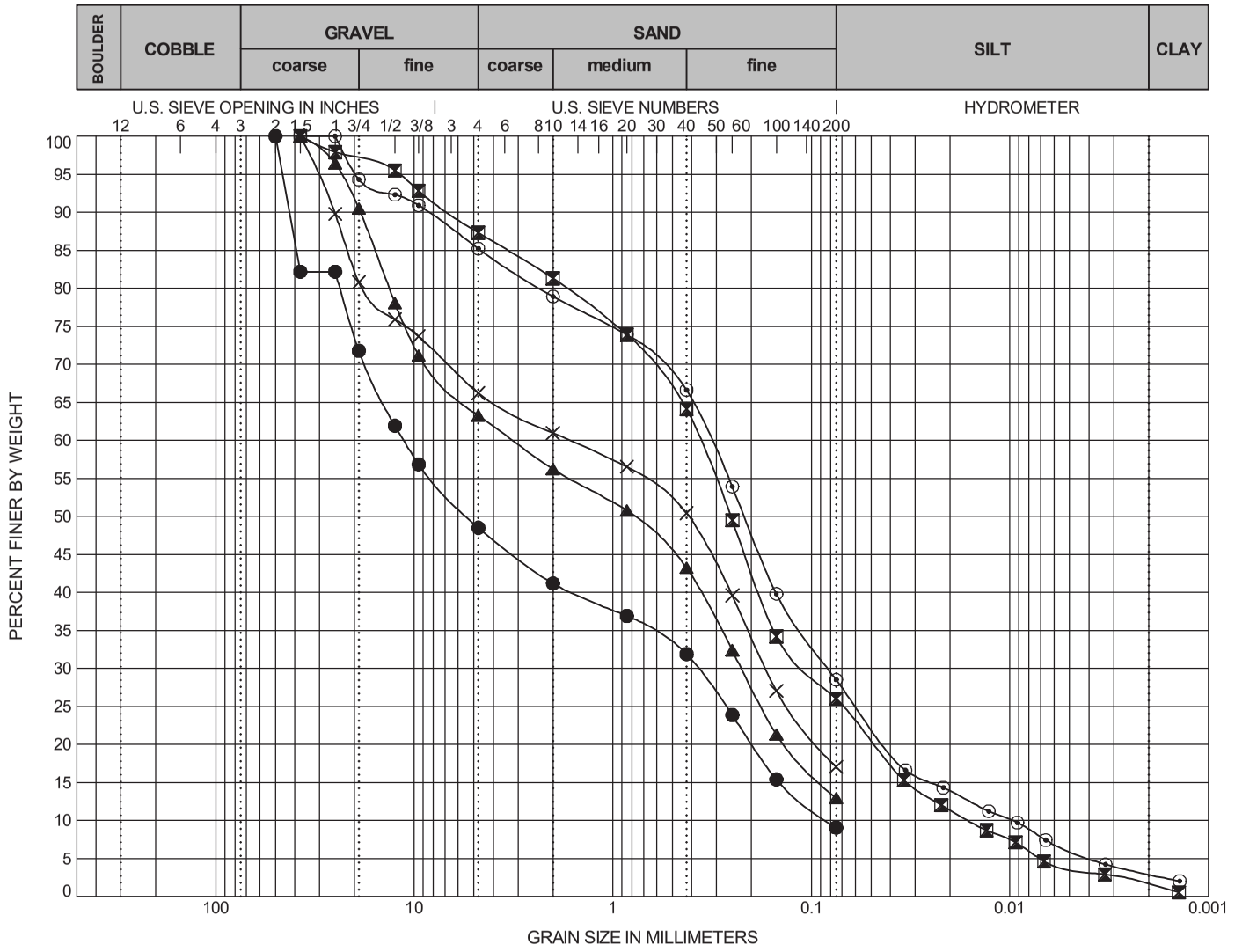
LABORATORY TEST RESULT SUMMARY

Gig Harbor Sports Complex Phase II & III
10303 McCormick Creek Drive
Gig Harbor, WA

APPENDIX
B-1



Exploration ID		Depth (ft.)	Sample Description	LL	PL	PI
●	TP-1	2	POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM)	NM	NM	NM
⊠	TP-1	5	SILTY SAND (SM)	NM	NM	NM
▲	TP-2	1.5	SILTY SAND WITH GRAVEL (SM)	NM	NM	NM
×	TP-2	3	SILTY SAND WITH GRAVEL (SM)	NM	NM	NM
⊙	TP-2	5	SILTY SAND WITH GRAVEL (SM)	NM	NM	NM

Exploration ID		Depth (ft.)	D_{100}	D_{60}	D_{30}	D_{10}	Cc	Cu	Passing 3/4"	Passing #4	Passing #200	%Silt*	%Clay*
●	TP-1	2	50	11.281	0.376	0.083	0.15	135.46	72	48	9.0	NM	NM
⊠	TP-1	5	37.5	0.366	0.105	0.016	1.88	22.74		87	26.0	24.3	1.7
▲	TP-2	1.5	37.5	3.189	0.224	NM	NM	NM	90	63	13	NM	NM
×	TP-2	3	37.5	1.668	0.169	NM	NM	NM	81	66	17	NM	NM
⊙	TP-2	5	37.5	0.323	0.082	0.01	2.14	32.94	94	85	28.5	25.7	2.8

*These numbers represent silt-sized and clay-sized content but may not indicate the percentage of the material with the engineering properties of silt or clay. Sieve Analysis and Hydrometer Analysis testing performed in general accordance with ASTM D6913(Sieve Analysis) and ASTM D7928 (Hydrometer Analysis).
NP = Nonplastic
NM = Not Measured

Coefficients of Uniformity - $C_u = D_{60} / D_{10}$
Coefficients of Curvature - $C_c = (D_{30})^2 / D_{60} D_{10}$
D_{60} = Grain diameter at 60% passing
D_{30} = Grain diameter at 30% passing
D_{10} = Grain diameter at 10% passing

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SIEVE ANALYSIS

Gig Harbor Sports Complex Phase II & III
10303 McCormick Creek Drive
Gig Harbor, WA

APPENDIX
B-2

Grette Associates LLC
ENVIRONMENTAL CONSULTANTS

TECHNICAL MEMORANDUM

Prepared for: Eric Streeby, PLA
BCRA Designs
2106 Pacific Avenue, Suite 300
Tacoma, WA 98402

June 7, 2023

Prepared by: Grette Associates LLC
2709 Jahn Ave. NW, Ste. H5
Gig Harbor, WA 98335-7999

File No.: 388.008

Re: Gig Harbor Sports Complex – Phase 3 Feasibility Site Investigations

1 INTRODUCTION

Grette Associates (Grette) is under contract with BCRA to assist with their feasibility study for the Phase 3 improvements for the Gig Harbor Sports Complex project located off Harbor Hill Dr. (Pierce County parcel 4002470030) within the City of Gig Harbor (Figure 1).

The purpose of this technical memorandum is to summarize Grette's June 2, 2023 site investigation to identify any wetland(s) or stream(s) that would be subject to the development standards defined in Chapter 18.08 of the Gig Harbor Municipal Code (GHMC).

2 BACKGROUND

2.1 National Wetlands Inventory

The U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI) was queried to determine if previously-identified wetlands are present within 300 feet of the Phase 3 site (USFWS 2023). According to the NWI Interactive Online Mapper, there are no aquatic features mapped by NWI within 300 feet of the Phase 3 site. The nearest features are both located approximately 600 feet from the Phase 3 site to the east and west (Attachment 1).

2.2 State Water Classification System

The Washington Department of Natural Resources' (WDNR) Forest Practice Application Mapping Tool on-line mapper was queried to identify the water typing of any streams mapped by WDNR (WDNR 2023). According to WDNR, there is a Type F (fish habitat) stream located approximately 600 feet west and a Type F stream located approximately 600 feet east of the Phase 3 site (Attachment 1). The stormwater pond northwest of the Phase 3 site is mapped to be associated with the western stream and is also mapped as a Type F water.

Figure 1. Phase 3 – Vicinity Map

2.3 Soil Information

According to the Natural Resources Conservation Service's (NRCS) Web Soil Survey (NRCS 2023), the soils within the Phase 3 site consist of Harstine gravelly ashy sandy loam (6 to 15 percent slopes) which is not classified as a hydric soil (Attachment 1).

3 METHODS

Grette traversed and visually evaluated the Phase 3 site as well as those accessible areas within 300 feet to identify any feature that would meet the definition of a wetland or stream per Chapter 18.08 of the GHMC.

Potential wetland areas were visually evaluated using the criteria defined in the U.S. Army Corps of Engineers (USACE) *Federal Wetland Delineation Manual* (1987) and the USACE's *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (2010).

Streams were defined as any feature that would be classified as a natural water according to WAC 222-16-030 and Chapter 18.08 of the GHMC.

4 RESULTS

Upon completion, Grette did not identify any wetland or stream features on or within 300 feet of the Phase 3 site. With the exception of a narrow gravel road which appears to serve as a maintenance road to access the offsite stormwater pond to the northwest, the Phase 3 site is undeveloped and consists of a relatively mature conifer forest typical of the Puget Sound region (Figure 2).

During Grette's site assessment, no vegetation or seasonal hydrology was observed that would suggest potential wetland conditions are present within the Phase 3 site. The vegetation within the Phase 3 site predominantly consists of Douglas fir (*Pseudotsuga menziesii*), western red cedar (*Thuja plicata*), big-leaf maple (*Acer macrophyllum*), and red alder (*Alnus rubra*). Areas beneath the forest canopy predominantly consist of evergreen huckleberry (*Vaccinium ovatum*), salal (*Gaultheria shallon*), cascara (*Rhamnus purshiana*), trailing blackberry (*Rubus ursinus*) and bracken fern (*Pteridium aquilinum*).

Figure 2. General Phase 3 Site Conditions

The site is relatively flat and no obvious depressional areas or similar topography was identified that would suggest potential seasonal wetland hydrology occurs within the Phase 3 site. In

addition, according to lidar imagery (WDNR 2023) the Phase 3 site does not contain any topographic characteristics that would suggest potential wetland conditions may be present within the forested area.

The only offsite aquatic feature identified within 300 feet of the Phase 3 site is a stormwater pond that is situated approximately 250 feet northwest of the site. Historical aerials show that the pond was built in approximately 2007 during the construction of the Tom Taylor Family YMCA and was designed to manage and retain stormwater that falls within the YMCA facility. According to the historical information provided (Attachment 2), there is an existing wetland feature located north of the Phase 1 site that seasonally discharges through an approximately 700-foot bypass pipe into a small narrow ditch and into the western cell of the stormwater pond (Figure 3). Based on Grette's site observations, it appears that the western cell of the stormwater pond is intended to maintain seasonal hydrology discharge from the northern wetland to wetland areas mapped south of the stormwater pond (Attachment 2) and ultimately towards the Type F stream mapped by WDNR. The eastern cell appears to collect and retain stormwater runoff associated with the YMCA. No visible feature was observed along the divider berm within the stormwater pond to suggest these two cells function together.

Both cells of the stormwater management facility were constructed from uplands for the purpose of managing site stormwater and are not regulated wetlands as defined by GHMC 18.08.

Figure 3. Stormwater Pond Culverts

[1] The photograph left captures the inlet of the stormwater pond culvert that collects wetland discharge from the approximate 700-foot bypass pipe located north of the stormwater pond. The photograph on the right captures the stormwater outlet structure that seasonally discharges to maintain hydrology to the wetland and stream south of the stormwater pond.

5 CONCLUSION

Per Chapter 18.08 of the GHMC, all wetlands and streams shall be identified within 300 feet of a proposed project. No wetlands or streams were identified within 300 feet of the Phase 3 site during Grette's site assessment. The open water feature that is situated within approximately 250 feet of the Phase 3 site is a stormwater pond built during the construction of the YMCA facility. Based on the information provided, while NWI and WDNR do map a stream historically extending through the area where the stormwater pond was constructed, this feature appears to be inaccurately mapped and was not found to be present. More specifically, the provided site plan (Attachment 2) identifies wetlands to the north and south of the stormwater pond but does not identify a stream channel extending through either of these features. Given this information, it

appears that the stream mapped by NWI and WDNR likely originates south of the stormwater pond and that the construction of the stormwater pond did not include a modification of a natural stream channel.

In addition, the stormwater pond appears to have been constructed from uplands and not in a historical wetland area. According to the NRCS (2023), the historical soils mapped within the area where the stormwater pond was constructed consisted of Harstine gravelly ashy sandy loam (6 to 15 percent slopes) which is not classified as a hydric soil. Furthermore, NWI does not map a historical wetland feature in this area in comparison to the wetlands to the north and south of the stormwater pond and, based on historical aerials, this area appeared to consist of a similar upland forest observed in the Phase 3 site.

Per GHMC 18.08.030, wetlands do not include those features intentionally created from non-wetland areas, including stormwater detention/retention facilities. Based on the information available, the stormwater pond would not be considered a regulated wetland feature under Chapter 18.08 and therefore would not have a buffer extending into the Phase 3 site.

In closing, there are no critical areas (wetlands/streams) situated within the Phase 3 site or any offsite features within 300 feet that would potentially have an associated buffer extending onto the Phase 3 site.

If you have any questions on this memo, please contact me at (253) 573-9300, or by email at chadw@gretteassociates.com.

Regards,

Chad Wallin
Biologist

References:

Environmental Laboratory (Corps). 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Natural Resource Conservation Service (NRCS). 2023. United States Department of Agriculture. Web Soil Survey [map online]. Queried June 5, 2023. URL: http://websoilsurvey.nrcs.usda.gov/

U.S. Army Corps of Engineers (Corps). 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*, ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

U.S. Fish and Wildlife Service (USFWS). 2023. Wetland Mapper [map online]. National Wetlands Inventory Queried June 5, 2023. URL: http://www.fws.gov/wetlands/Wetlands-Mapper.html Interactive Layer = "Wetlands".

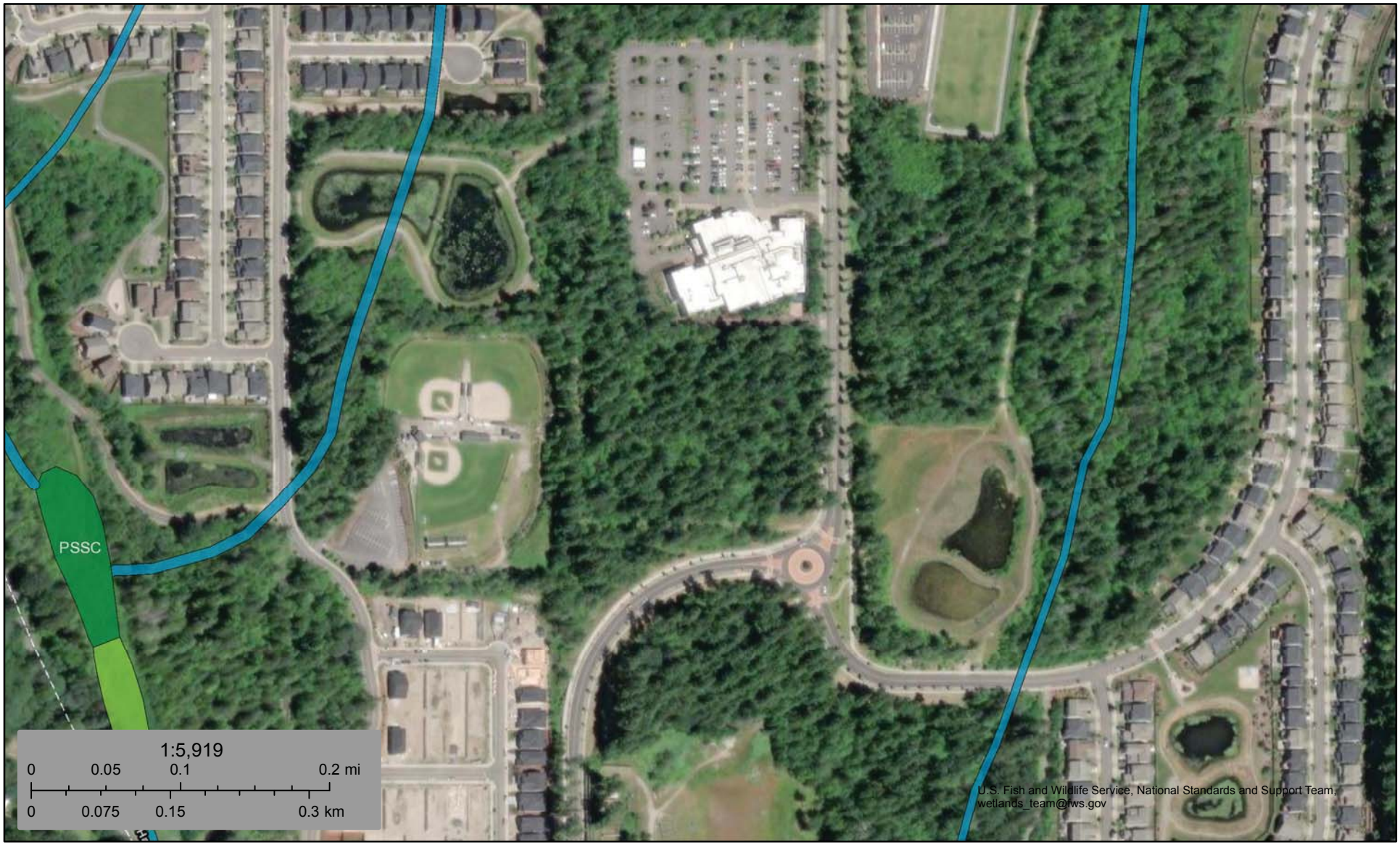
Washington Department of Natural Resources (WDNR). 2023. Forest Practices Application Mapping Tool [map online]. Streams and Water Type Breaks. Queried March 6, 2023. URL: https://fortress.wa.gov/dnr/protectiongis/fpamt/index.html

ATTACHMENT 1

BACKGROUND RESEARCH

U.S. Fish and Wildlife Service
National Wetlands Inventory

Phase 3 - NWI Map



June 5, 2023

Wetlands_Alaska

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Forest Practice Application Mapping Tool (FPAMT)

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

Extreme care was used during the compilation of this map to ensure its accuracy. However, due to changes in data and the need to rely on outside information, the Department of Natural Resources cannot accept responsibility for errors or omissions, and therefore, there are no warranties that accompany this material.

Approximate Scale : 1:4,800

0 200 400 800 Feet

Date: 3/6/2023 Time: 8:51 AM

Forest Practice Application Mapping Tool (FPAMT)

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

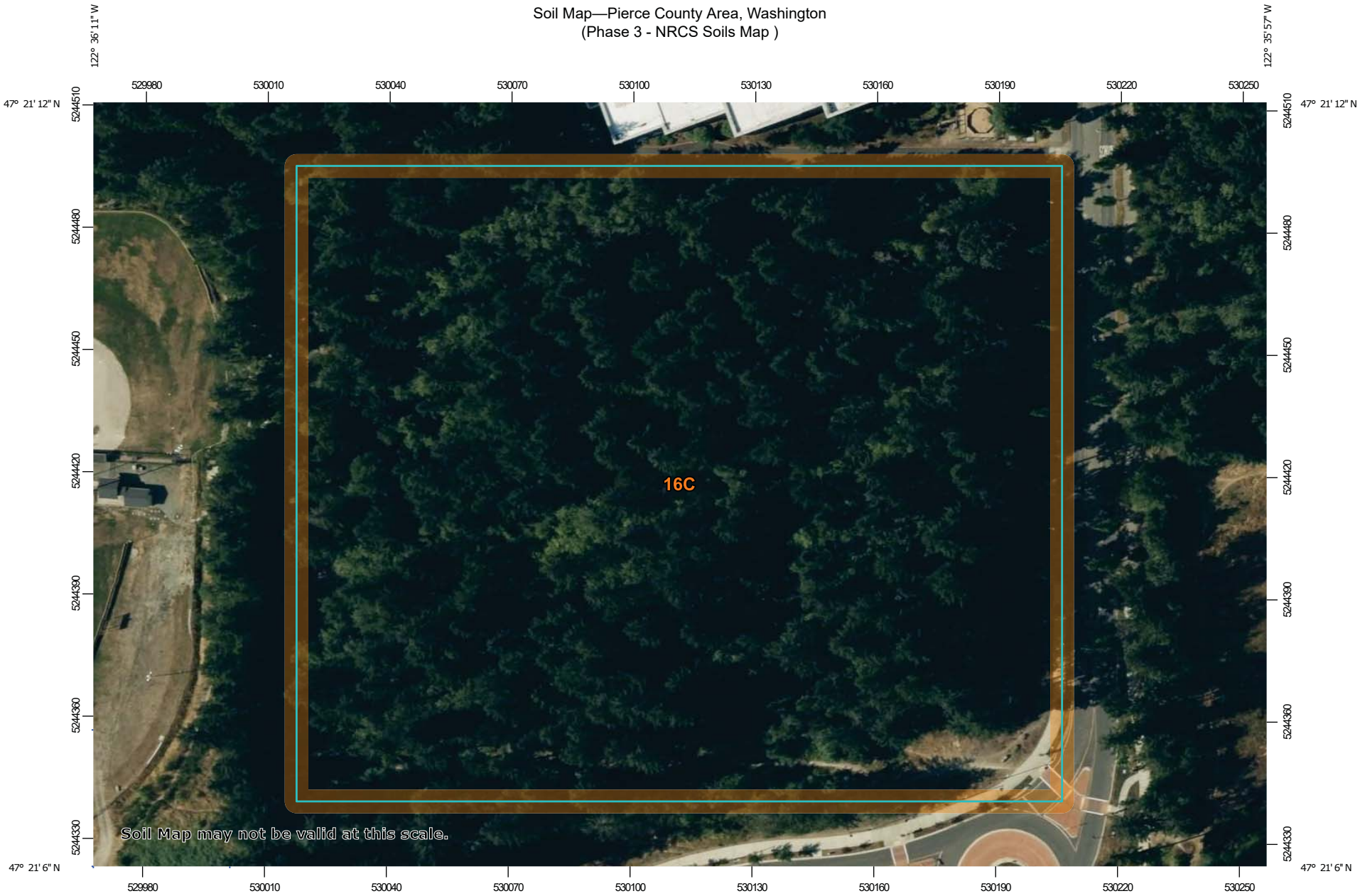
Extreme care was used during the compilation of this map to ensure its accuracy. However, due to changes in data and the need to rely on outside information, the Department of Natural Resources cannot accept responsibility for errors or omissions, and therefore, there are no warranties that accompany this material.

Approximate Scale : 1:4,800

0 200 400 800 Feet

Date: 6/6/2023 Time: 8:26 AM

Soil Map—Pierce County Area, Washington
(Phase 3 - NRCS Soils Map)



Map Scale: 1:1,320 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Pierce County Area, Washington
Survey Area Data: Version 18, Sep 8, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 31, 2022—Aug 8, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

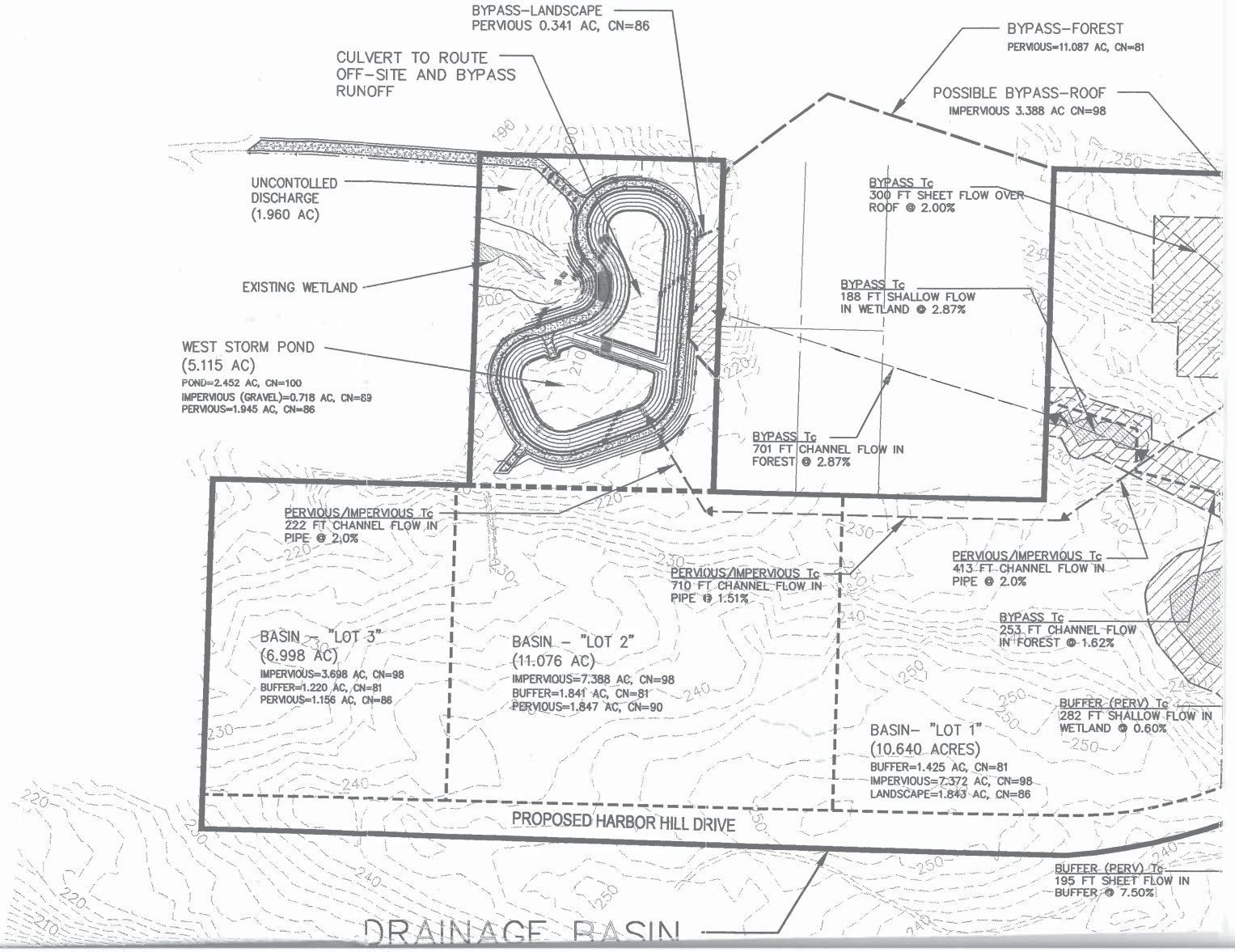
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
16C	Harstine gravelly ashy sandy loam, 6 to 15 percent slopes	7.3	100.0%
Totals for Area of Interest		**7.3**	**100.0%**

ATTACHMENT 2

OFFSITE STORMWATER POND – SITE PLAN

VICINITY MAP

SCALE 2" = 1 MILE



PH CONSULTING
Balanced Transportation Solutions

913 MLK Jr. Way, Suite A
Tacoma, WA 98405
253.267.8650
phtraffic.com

6.29.2023

TO:
Eric Streeby
Associate Landscape Architect
BCRA Design
estreeby@bcradesign.com

Subject: Gig Harbor Sports Complex Phase 2 & 3 Feasibility Study, Trip & Parking Generation Memorandum

This Trip & Parking Generation memorandum was prepared to support the City of Gig Harbor Sports Complex (GHSC) Phase 2 &3 Feasibility Study. The project site is located south and west of the Tom Taylor Family YMCA at 10550 Harbor Hill Drive. This project is comprised of the existing Peninsula Light Fields at 10303 McCormick Creek Drive and the undeveloped Lot 3 of the Harbor Hills Business Park subdivision as shown in **Figures 1 and 2**. This memorandum only evaluates trip and parking generation related to the development of Lot 3.

Existing Site

Lot 3 is 7.07 acres and is located between Harbor Hills Drive and the Peninsula Light fields. The site is being evaluated as part of a feasibility analysis with the re-development of the existing Peninsula Light Fields.

Figure 1: GHSC Phase 2& 3 Sites

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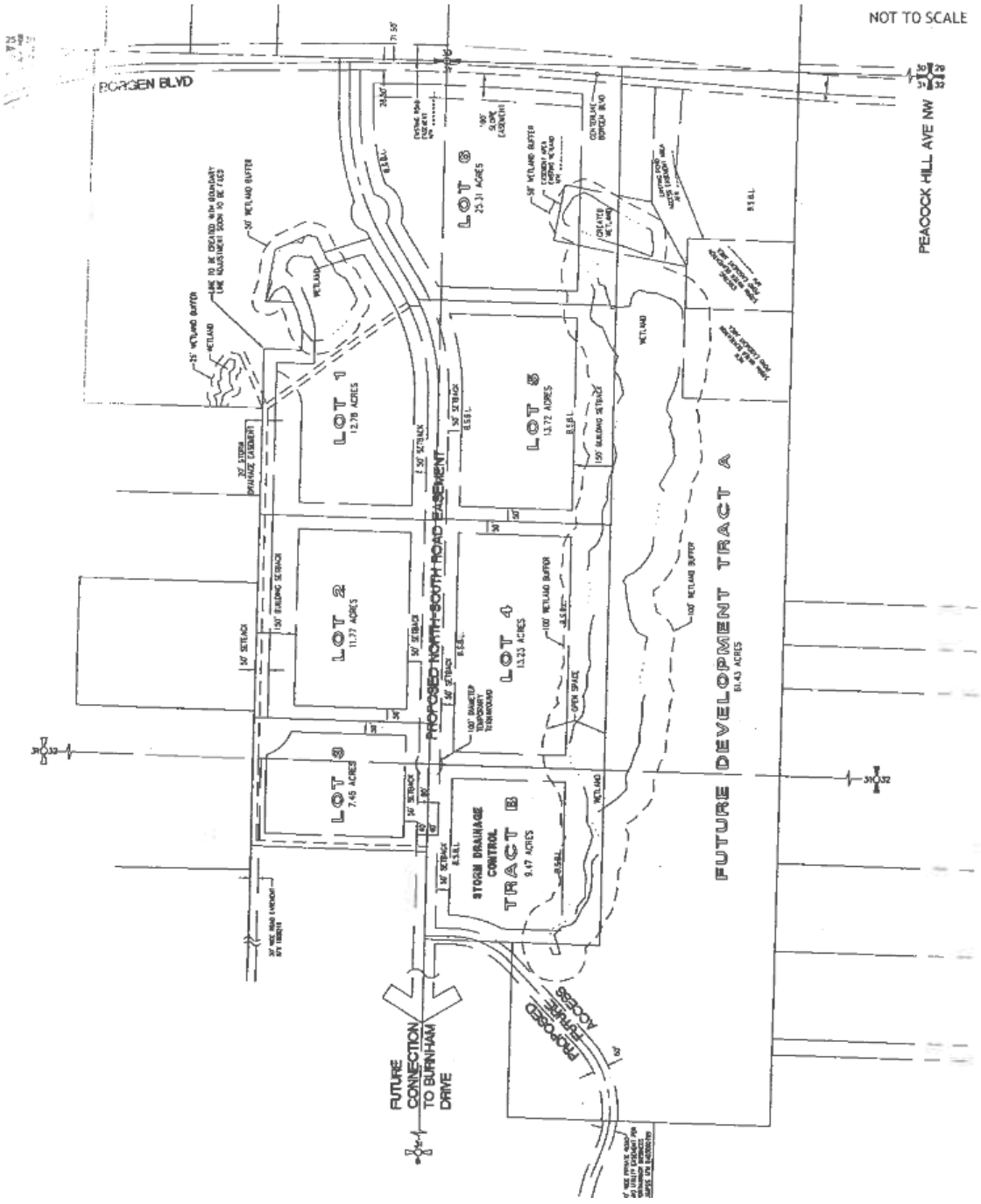

Figure 2: Harbor Hills Business Park Lot Map

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Existing Traffic Conditions

The original Harbor Hill Business Park development prepared a traffic analysis which assigned trips to each of the Lots based on assumed development scenarios. Several of the business park lots have been developed over the subsequent years. These developments include the Harbor Hill Business Park, the Tom Taylor Family YMCA, Gig Harbor Elementary No. 9, and the ongoing GHSC Phase 1A/1B development. As Lot 3 is currently undeveloped there is not any existing parking provided onsite and there are not any existing uses generating vehicle trips.

Parking

N/A

Trip Generation

The original Harbor Hill Business Park TIA outlined the trips that were assumed for the future uses. That table was updated as part of GHSC Phase 1B traffic analysis and is shown below with corresponding assigned trip estimates. To prepare a conservative analysis, the original analysis assumed several of the lots as Business Park use including Lot 3 which was allocated 167 trips.

Table 1: Harbor Hills Business Park Project Trip Generation Summary

Lot	Assumed Use	Weekday PM Peak Hour	
		Pass – by Trips	New Trips
1a	City Park (Phase 1A)	0	239 (reserved)
1b	City Park (Phase 1B)	0	48
2	YMCA	0	137
3	Business Park	0	167
4	Community Center	0	113
5	Elementary School	0	94
6	Commercial	172	684
Totals		172	1,482

Source: GHSC Phase 1B Traffic Analysis, PH Consulting 2023

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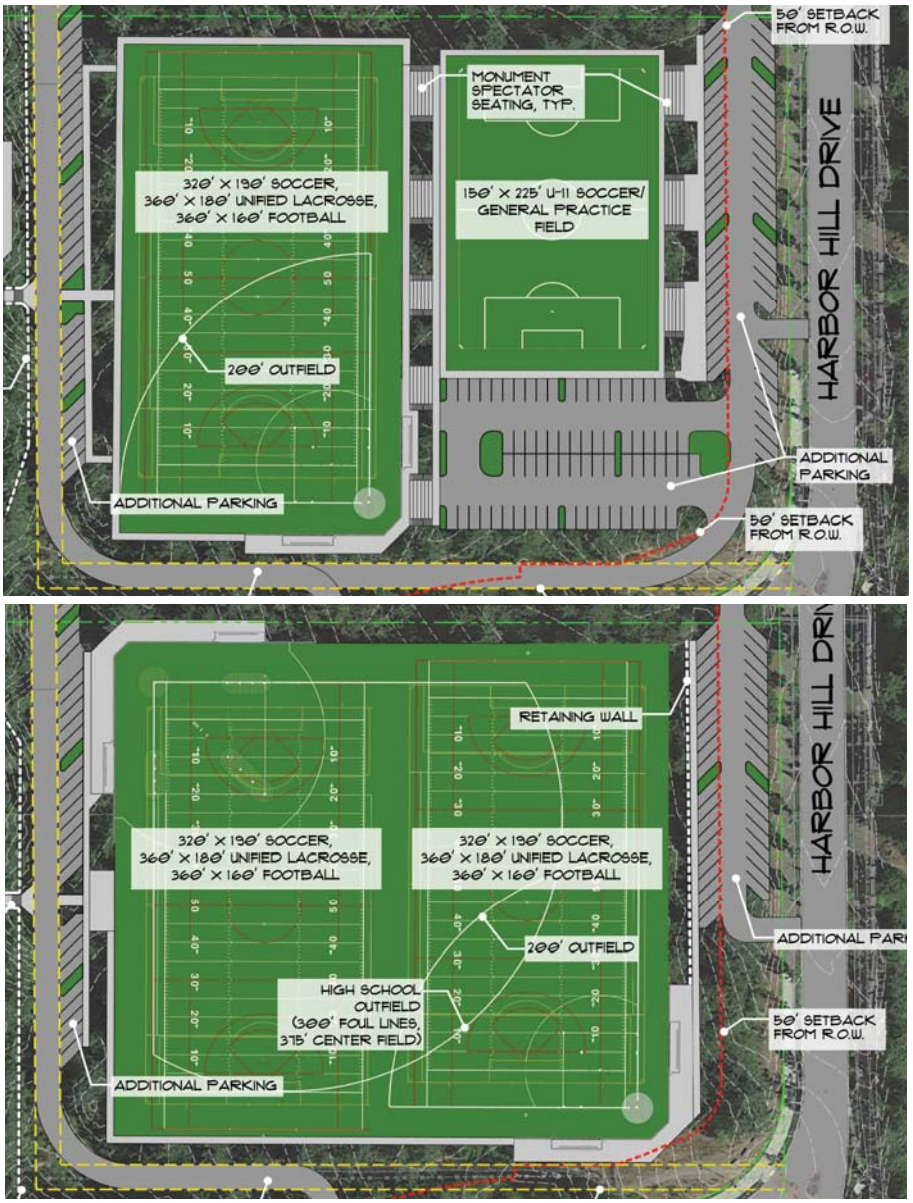
Future Traffic Conditions

While this memorandum presents individual trip and parking generation analysis for only Phase 3 (Lot 3) as part of GHSC Phase 2 & 3 feasibility effort, subsequent analyses should evaluate the entire GHSC impacts wholistically as the various sites/phases are connected physically and inter-related operationally. The two conceptual site plans shown below as **Figure 3** show the potential arrangement of two new ballfields, associated parking, connections to adjacent uses, and access drives.

Figure 3: Conceptual Site Plans



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Parking

For the parking demand analysis, we utilized the Institute of Transportation Engineers (ITE) *Parking Generation Manual*, 5th Edition. **Table 2** below compares estimated parking demand based on the Public Park 411 and Soccer Complex 488 Land Use Codes (LUC). This site is expected to fit the Soccer Complex characteristics more closely. The ITE Parking Generation Manual provided studies for Friday, Saturday, and Sunday with corresponding parking demand values between 104 and 119 vehicles. As a site with two fields, Lot 3 fits closest to the Sunday study which is presented in the table below. ITE parking demand worksheets for all days are included in **Appendix A**.

Table 2: Project Parking Generation

Parking Generation Analysis					
ITE LUC[1]	Land Use	Independent Variable (IV)		Avg Rate	Parking Stalls
411[2]	Public Park	Acres	7.1	0.47	3
488[3]	Soccer Complex	Fields	2	Fitted Curve	104
				Range	3-104

1. Based on 5th Edition ITE Parking Generation Manual
2. Used Sunday data as most applicable to site conditions
3. Used Saturday data as most applicable to site conditions

Trip Generation

For the trip generation analysis, we utilized ITE *Trip Generation manual,* 11th Edition. **Table 3** compares estimated trip generation for the weekday PM Peak hour based on the Public Park 411 LUC and Soccer Complex 488 LUC. The table below uses the fitted curve equations to provide a conservative estimate. However, utilizing the average trip rate, which results in a 33 PM peak hour trip estimate may also be acceptable and should be considered in future analyses. As Lot 3 was originally allotted 167 trips, either approach will fit well below the threshold and not trigger potential future traffic impacts. ITE trip generation worksheets are included in **Appendix A**.

Table 3: Project Trip Generation

Trip Generation Analysis					
ITE LUC[1]	Land Use	Independent Variable (IV)		PM Peak Rate	PM Trips
411[2]	Public Park	Acres	7.1	Fitted Curve	23
488[2]	Soccer Complex	Fields	2	Fitted Curve	63

1. Based on 11th Edition ITE Trip Generation Manual
2. Used fitted curve formula, See ITE Worksheet in Appendices

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Conclusion & Recommendations

Phase 3 of the Gig Harbor Sports Complex is projected to generate up to 63 PM peak hour trips. Based on the originally assigned 167 trips for Lot 3, a balance of 104 trips will remain and offsite traffic impact analysis should not be necessary. Parking demand for the site is estimated to be 104 stalls. Based on this limited trip generation and parking generation analysis we can conclude that the development of Lot 3 as a Soccer Complex consisting of two ballfields is feasible.

We recommend that the next phase of GHSC project development conduct a campuswide traffic analysis evaluating site accesses, internal circulation, comprehensive parking needs, and pedestrian connections. The analysis should include all phases of GHSC site developments and existing related uses.

APPENDIX A

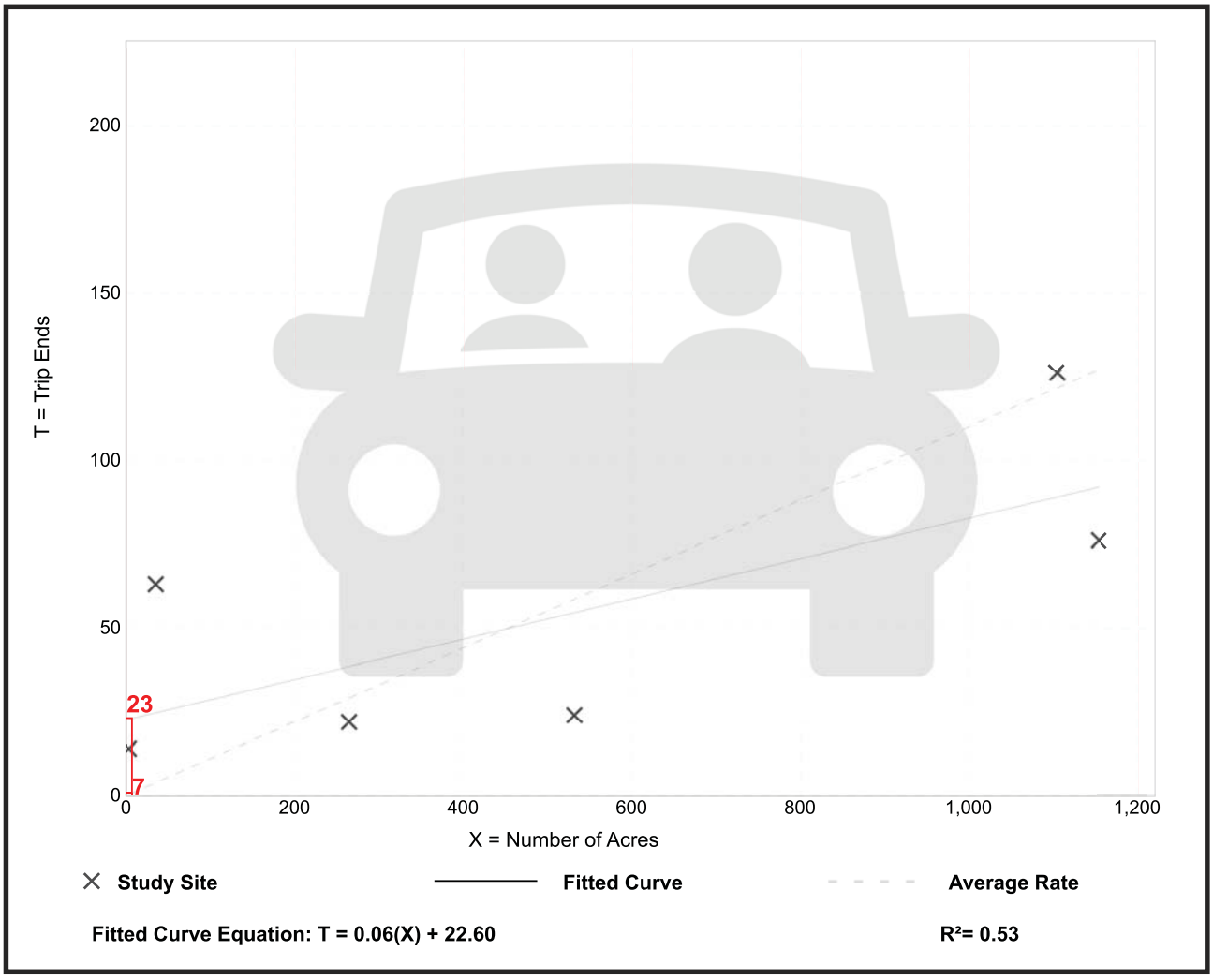
Public Park
(411)

Vehicle Trip Ends vs:	**Acres**
On a:	**Weekday,** **Peak Hour of Adjacent Street Traffic,** **One Hour Between 4 and 6 p.m.**
Setting/Location:	**General Urban/Suburban**
Number of Studies:	6
Avg. Num. of Acres:	516
Directional Distribution:	55% entering, 45% exiting

Vehicle Trip Generation per Acre

Average Rate	Range of Rates	Standard Deviation
0.11	0.05 - 3.50	0.24

Data Plot and Equation



Soccer Complex
(488)

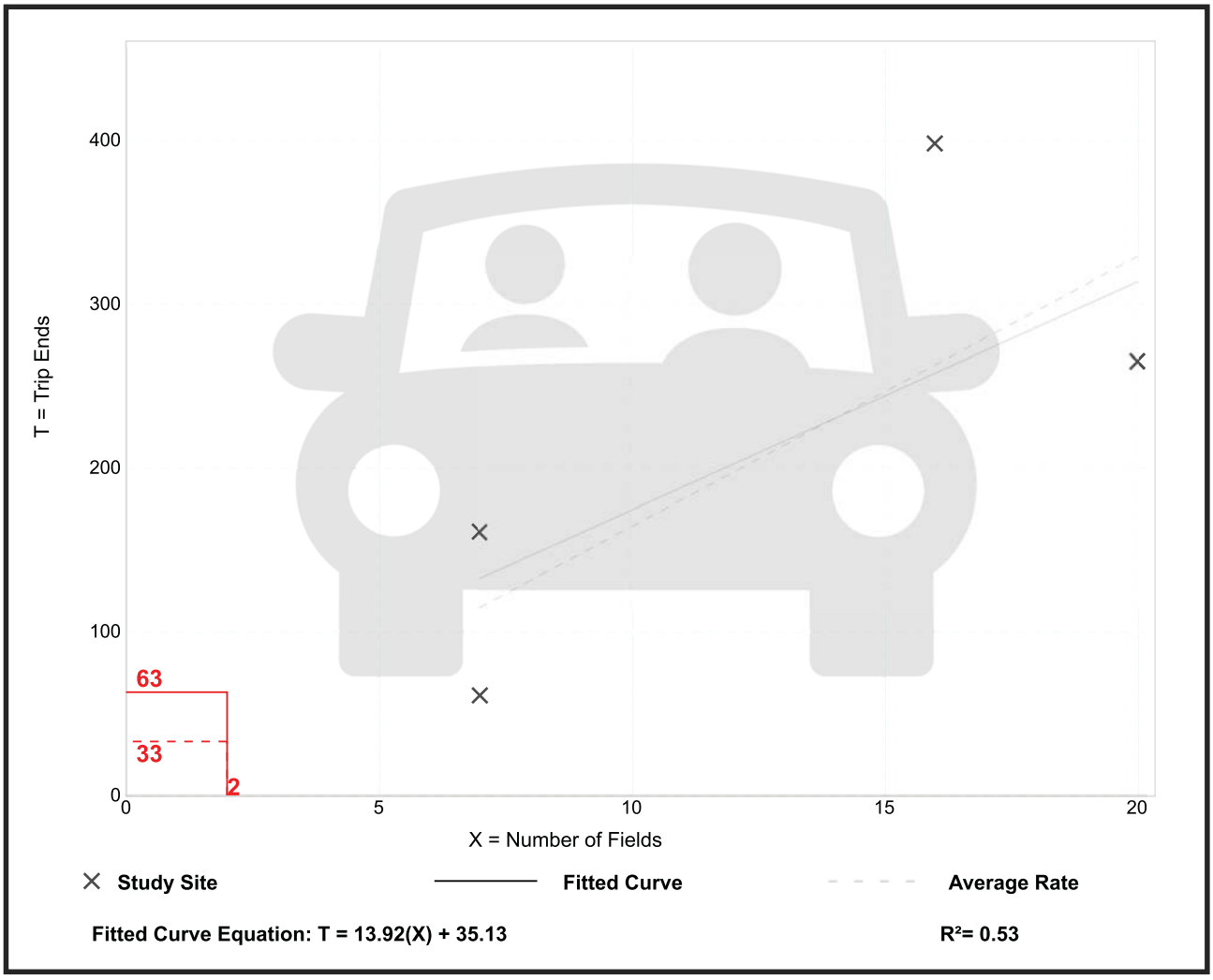
Vehicle Trip Ends vs: **Fields**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 5
Avg. Num. of Fields: 14
Directional Distribution: 66% entering, 34% exiting

Vehicle Trip Generation per Field

Average Rate	Range of Rates	Standard Deviation
16.43	8.71 - 24.88	6.36

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: T = 13.92(X) + 35.13

R^2= 0.53

Public Park
(411)

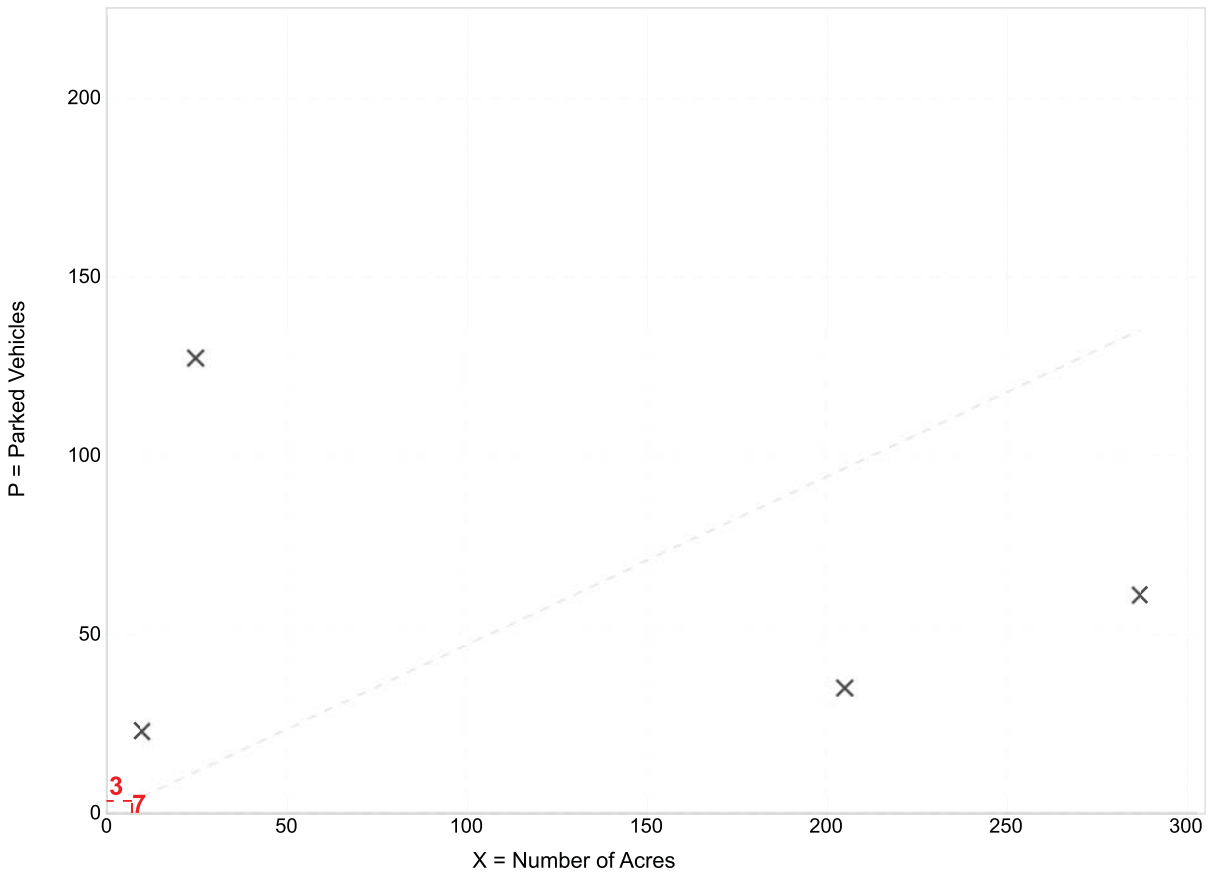
Peak Period Parking Demand vs:	**Acres**
On a:	**Saturday**
Setting/Location:	**General Urban/Suburban**
Peak Period of Parking Demand:	**9:00 a.m. - 3:00 p.m.**
Number of Studies:	4
Avg. Num. of Acres:	132

Peak Period Parking Demand per Acre

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.47	0.17 - 5.08	0.20 / 5.08	***	1.23 (262%)

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: ***

R^2= ***

Public Park
(411)

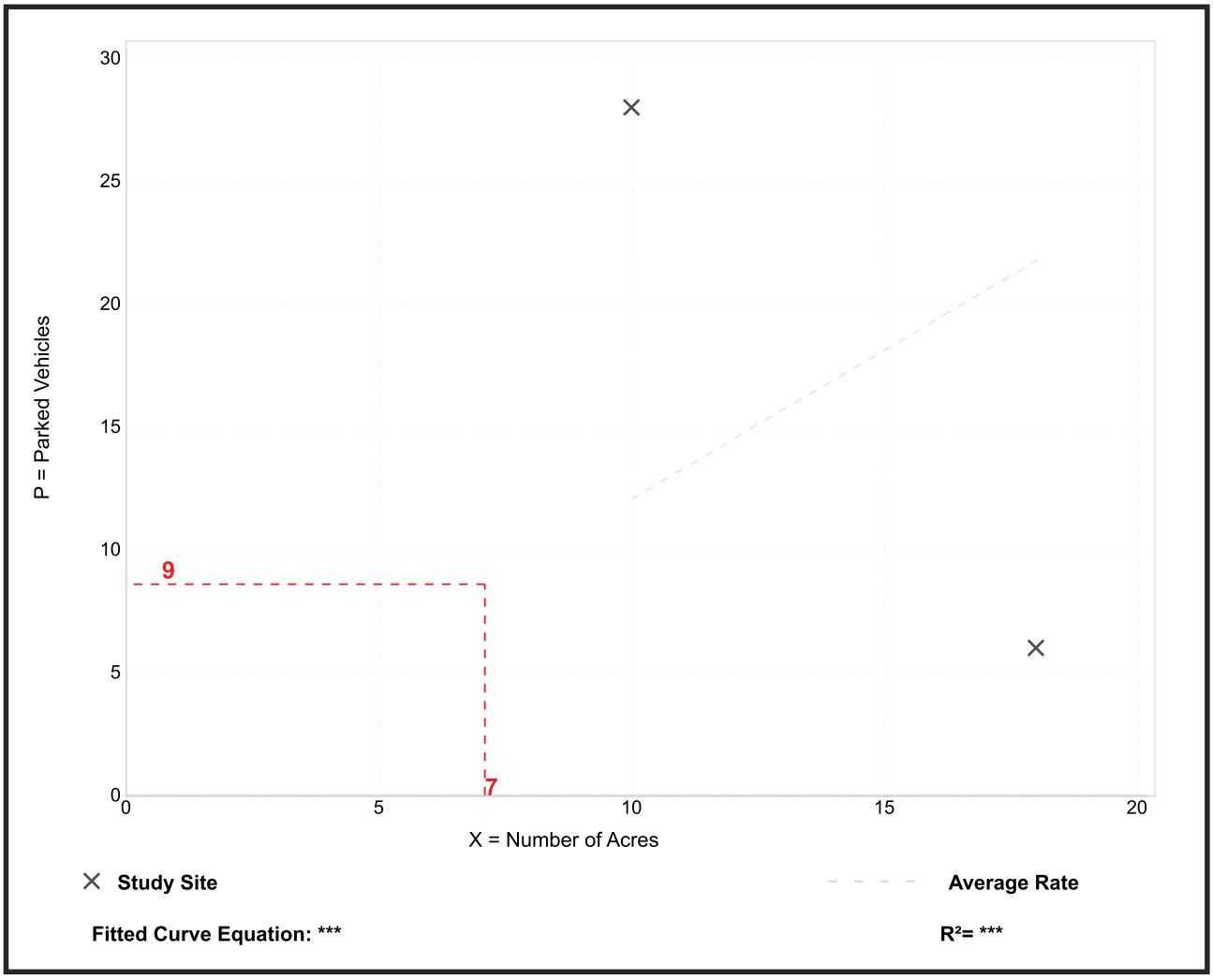
Peak Period Parking Demand vs: **Acres**
On a: **Sunday**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **1:00 - 3:00 p.m.**
Number of Studies: 2
Avg. Num. of Acres: 14

Peak Period Parking Demand per Acre

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.21	0.33 - 2.80	*** / ***	***	***

Data Plot and Equation

Caution – Small Sample Size



Soccer Complex
(488)

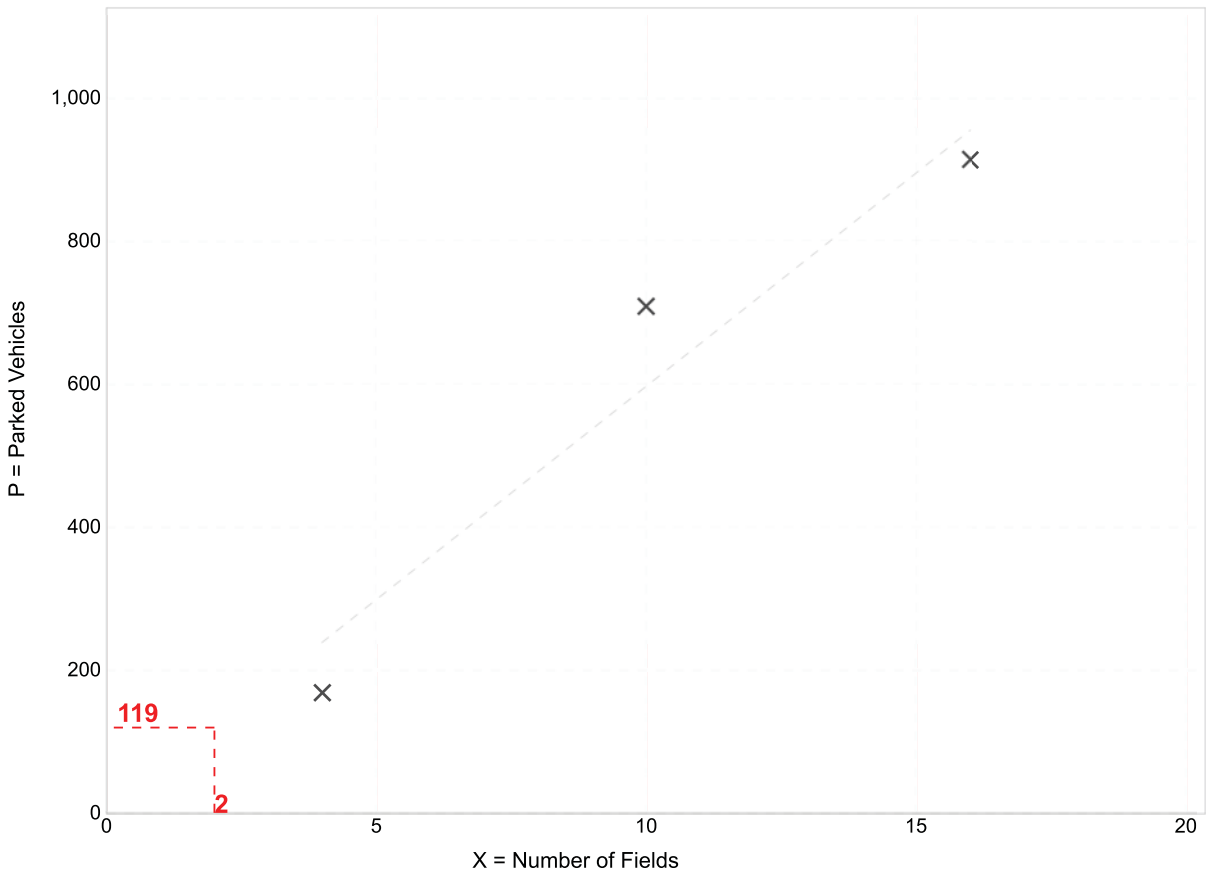
Peak Period Parking Demand vs: **Fields**
On a: **Friday**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **4:00 - 8:00 p.m.**
Number of Studies: 3
Avg. Num. of Fields: 10

Peak Period Parking Demand per Field

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
59.63	42.00 - 70.80	46.82 / 70.80	***	11.39 (19%)

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: ***

R^2= ***

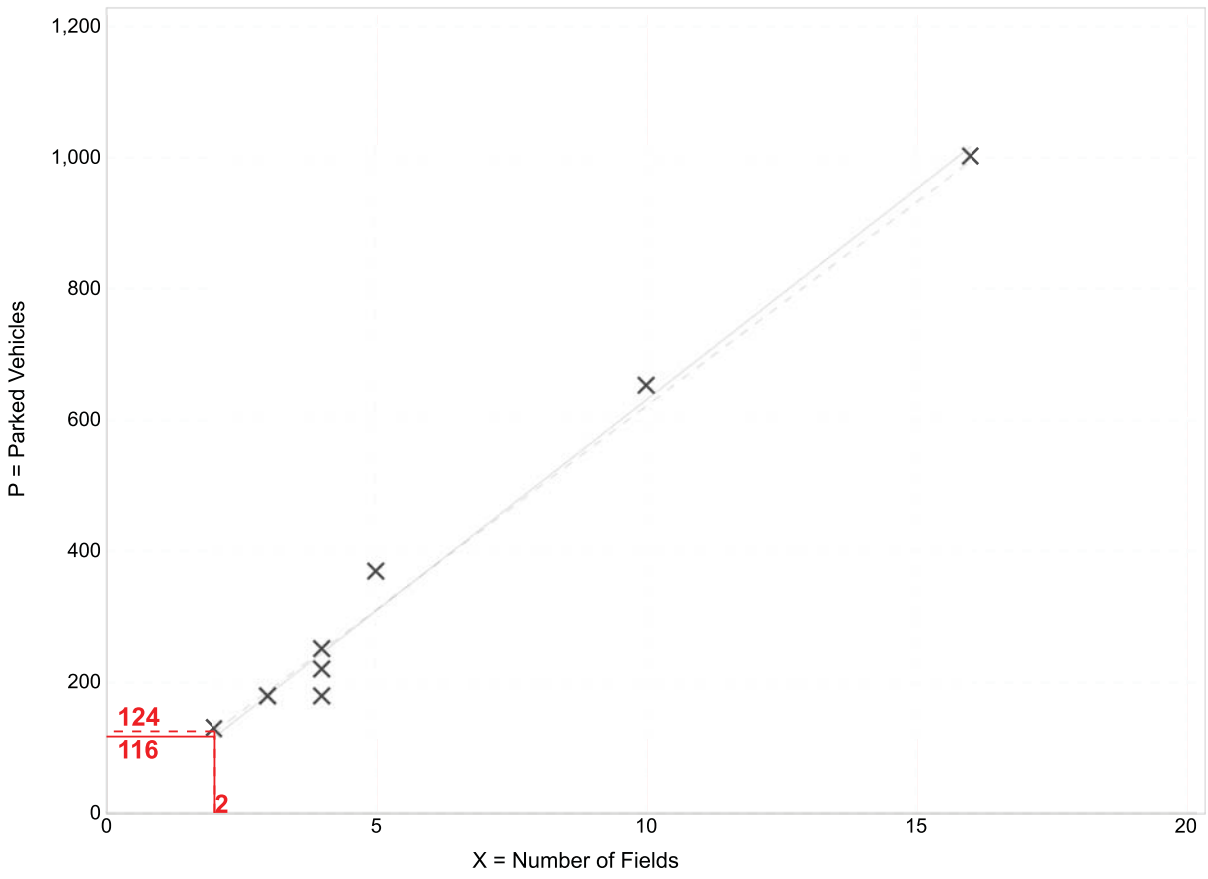
Soccer Complex
(488)

Peak Period Parking Demand vs:	**Fields**
On a:	**Saturday**
Setting/Location:	**General Urban/Suburban**
Peak Period of Parking Demand:	**8:00 a.m. - 2:00 p.m.**
Number of Studies:	9
Avg. Num. of Fields:	5.6

Peak Period Parking Demand per Field

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
62.12	45.00 - 74.00	60.00 / 69.65	***	7.00 (11%)

Data Plot and Equation



Fitted Curve Equation: P = 64.27(X) - 12.21

R^2= 0.99

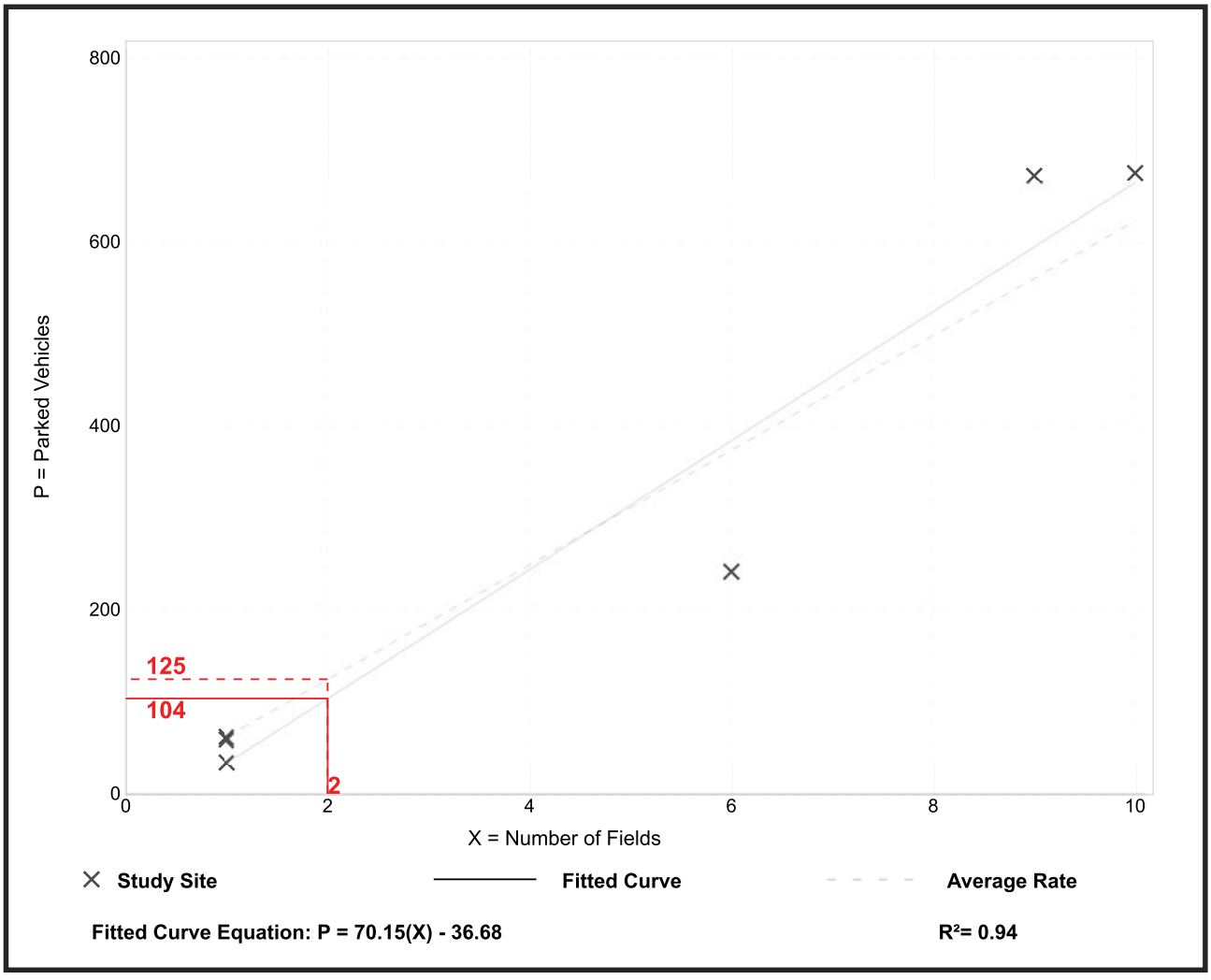
Soccer Complex
(488)

Peak Period Parking Demand vs: **Fields**
On a: **Sunday**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **8:00 a.m. - 12:00 p.m.**
Number of Studies: 6
Avg. Num. of Fields: 4.6

Peak Period Parking Demand per Field

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
62.29	34.00 - 74.67	46.12 / 74.31	***	15.15 (24%)

Data Plot and Equation



GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

GENERAL SCOPE:

This is a preliminary estimate that compares the costs of two proposed scopes to construct Phases 2 and 3 of a Gig Harbor Sports Complex near the Tom Taylor YMCA in Gig Harbor, WA. Specifically excluded are Phases 1A, 1B and 1C, all of which are to be done at different times and under separate contracts. For estimating purposes, Phase 2 and Phase 3 scopes, whether they be Alternates D or E, are treated as separate individual projects in their Base Estimates. If both were done at the same time and under the same contract there might be a $280,000 overall efficiency savings, not taking into account additional savings of avoiding further construction cost escalation premiums. Regardless of what specific scenario gets played out, it is assumed the existing Phase 2 area ballfields will be closed to the public and out of commission when new Phase 2 work takes place there.

The estimate includes full construction costs, plus the equivalent of a 4% to 5% design contingency. Sales tax and other soft costs such as permits, design fees, third party testing, utility connection fees if applicable, owner's administration costs, and a change order construction contingency are excluded. Also, since there is not yet a targeted date of when either Phase 2 or Phase 3 projects would start, all estimate costs are in current dollars. It is suggested that a construction cost escalation premium, calculated at about a 5% to 6% annual compounded rate, be added to the estimate bottom-lines once target dates are decided upon. Current scope information and costs are very preliminary and should be treated as such.

INCLUDED:	EXCLUDED:
320,000 SF of Phase 2 and 300,000 SF of Phase site improvements.	Phase 1A, 1B and 1C work--under a separate contracts.
Site removal of strippings, plus extensive net excavation cut haul-offs.	Significant overexcavation--excavated subgrade cuts used as suitable fills.
Extensive retaining walls in both phases, with some soldier pile walls in Phase 2.	Site improvements beyond Phase 2 & 3 boundaries shown on proposed plans.
Provisions for new outside utility services, still to be defined and laid out.	Any wetlands mitigation work--assumed to be not applicable.
A new water main loop line with fire hydrants in Phase 3.	A new access road, expanded parking, and a fire main loop in Phase 2 work.
Removal of a septic system, replaced w/ a new sewer service to street in Ph. 2.	New storage containers, or removal & reinstallation of existing--by owner.
A new large underground storm detention vault in Phase 2.	A storm detention vault in Phase 3--a storm outlet to an existing pond instead.
Sports field lighting in both Phases 2 and 3.	New parking lot lighting in Phase 2 Base Estimate scope--an Option.
Synthetic turf with underdrainage at new sports fields.	Grandstand type seating--portable type bleachers only.
Fencing at sports fields, plus backstops and scoreboards.	Electronic monitoring, cameras, controlled gates, or street or traffic lighting.
Landscaping & irrigation in both phases.	Extensive improvements in existing south Phase 2 parking lot that remains.
A new Restroom & Concessions building in Phase 3.	A new Restroom & Concessions building in Phase 2--existing remains.
Relocation of an existing Umpire & electrical shed in Phase 2 D.	Fire sprinkler protection, or an outside fire sprinkler service in either phases.
Contractor's general requirements, overhead & profit.	Sales tax, permits, 3rd party testing, design fees, or utility co. fees if applicable.
Contractor's bond & insurance, and B & O tax.	Owner's administration costs, or a change order contingency.
A 4% to 5% design contingency.	Construction cost escalation or LEED administration & certification premiums.

	BUDGETARY COST ESTIMATE				
PROJECT COMPONENT	Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
BASE ESTIMATE PHASING AND COST OPTION SUMMARY: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
ALTERNATE D SCOPE:					
PHASE 2, Alternate D.	1.25	LS	$12,848,200	**$16,060,250**	See Page 2 for an Estimate Summary Breakdown.
PHASE 3, Alternate D.	1.25	LS	$9,860,150	**$12,325,188**	See Page 6 for an Estimate Summary Breakdown.
PHASE 2 & 3 ALTERNATE D TOTAL:				**$28,385,438**	Alternate D, Phase 2 & 3 separate projects in current dollars.
ALTERNATE E SCOPE:					
PHASE 2, Alternate E.	1.25	LS	$12,478,200	**$15,597,750**	See Page 10 for an Estimate Summary Breakdown.
PHASE 3, Alternate E.	1.25	LS	$9,631,300	**$12,039,125**	See Page 11 for an Estimate Summary Breakdown.
PHASE 2 & 3 ALTERNATE E TOTAL:				**$27,636,875**	Alternate D, Phase 2 & 3 separate projects in current dollars.

All Estimate Costs are in Fourth Quarter 2023 Dollars

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

PROJECT COMPONENT	BUDGETARY COST ESTIMATE Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
PHASE 2 D BASE ESTIMATE SUMMARY BREAKDOWN: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
SITE IMPROVEMENTS:					**$15,440,875**
1.1) Site Preparation to Subgrades.	1.25	LS	$1,405,500	$1,756,875	See Pages 3 & 4 for estimate details.
1.2) Retaining Walls.	1.25	LS	$4,411,000	$5,513,750	" " " " " " " " " " "
1.3) Outside Water.	1.25	LS	$15,500	$19,375	" " " " " " " " " " "
1.4) Outside Sanitary Sewer.	1.25	LS	$97,000	$121,250	" " " " " " " " " " "
1.5) Storm Drainage.	1.25	LS	$531,000	$663,750	" " " " " " " " " " "
1.6) Site Electrical & Lighting.	1.25	LS	$224,000	$280,000	" " " " " " " " " " "
1.7) Field Lighting Premium .	1.25	LS	$815,000	$1,018,750	" " " " " " " " " " "
1.8) Site Fixtures & Specialties.	1.25	LS	$334,680	$418,350	See Page 4 for estimate details.
1.9) Synthetic Turf Surfacing.	1.25	LS	$3,483,040	$4,353,800	" " " " " " " " " " "
1.10) Site Concrete Curbing & Paving.	1.25	LS	$310,280	$387,850	" " " " " " " " " " "
1.11) Asphalt Paving & Striping.	1.25	LS	$35,000	$43,750	" " " " " " " " " " "
1.12) Landscaping & Irrigation.	1.25	LS	$379,400	$474,250	" " " " " " " " " " "
1.13) Site Fencing & Backstops. $12,352,700	1.25	LS	$311,300	$389,125	" " " " " " " " " " "
BUILDINGS & STRUCTURES:					**$619,375**
2.1) New Dugout Roof Premiums.	1.25	LS	$113,500	$141,875	See Page 5 for estimate details.
2.2) Minor Restoration of Existing Buildings.	1.25	LS	$12,000	$15,000	" " " " " " " " " " "
2.3) Premium to Relocate Existing Sheds. $495,500	1.25	LS	$370,000	$462,500	" " " " " " " " " " "
PHASE 2 D BASE ESTIMATE MACC:				**$16,060,250**	

BASE ESTIMATE MARK-UP & GENERAL NOTES:

The above Base Estimate costs above and Option costs below include a 25% general contractor's mark-up, intended to cover general requirements, overhead & profit, bond & insurance, B & O tax and a modest 4% to 5% compounded design contingency. Soft costs, such as sales tax, permits, 3rd party testing, utility company connection fees if applicable, design fees, owner's administration costs and a change order contingency are not included. Costs and scope are very preliminary and should be treated as such.

Costs are in current dollars without any projected construction cost escalation figured. Once an approximate anticipated construction start date is targeted, it is suggested that a construction cost escalation premium be added to the estimate bottom-line at about a 5% to 6% compounded annual rate.

Phase 2 D is figured as its own independent project. If it were combined with Phase 3 D work, there might be a $280,000 combined savings between the two projects rather than being done under separate contacts and staggered at different times. These savings would come from incurring just one site mobilization instead of two, deleting site work overlaps at the boundaries between the two phases, and providing a nominal overall site work scope efficiency. This does not include possible savings of avoiding additional construction cost escalation if one of the phases were to be constructed at a later date from the other.

PROJECT COMPONENT	Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
PHASE 2 OPTIONS: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
O-1) Replace Lighting in Existing Parking.	6.00	LS	$6,000.00	$45,000	Creosote pole fixtures to be replaced with all new fixtures.
O-2) New Irrigated & Landscaped Planter.	2,900.00	SF	$8.00	$29,000	In existing south parking island planter with mulch & boulders.
O-3) Reuse Existing Large Ballfield Lighting.	6.00	Ea	-$40,000.00	-$300,000	Existing tower pole fixtures still figured to be relocated.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 2 D SITE IMPROVEMENTS:					
Temporary construction fencing.	2,450.00	LF	$4.00	$9,800.00	Around the site improvement perimeter.
Mobilization.	1.00	LS	$30,000.00	$30,000.00	Allowance for mass earthwork.
Remove of fencing and fixtures.	1.00	LS	$20,000.00	$20,000.00	At ballfields, batting cages, dugouts and elsewhere.
Removal of some existing paving.	12,000.00	SF	$2.50	$30,000.00	At battings cages, selected paving around ballfields, and misc.
Balance of onsite demolition.	1.00	LS	$6,000.00	$6,000.00	A minor allowance for removal of what is not addressed.
Silt fencing.	1,300.00	LF	$7.00	$9,100.00	Allowance around about half of site improvement perimeter.
Temporary construction entrance.	2,000.00	SF	$3.00	$6,000.00	Allowance, presumably at south side of site.
Temporary sediment pond.	1.00	LS	$15,000.00	$15,000.00	Allowance, possibly with a control structure and pump.
Erosion control with maintenance & pick-up.	1.00	LS	$90,000.00	$90,000.00	Allowance, dealing with some steep onsite slopes.
Onsite clearing and strippings.	270,000.00	SF	$0.30	$81,000.00	Mostly ballfields, some trees, less existing paving that remains.
Add for tree removal premium.	1.00	LS	$20,000.00	$20,000.00	Around most of site periphery, to be removed & de-stumped.
Remove strippings from site.	6,700.00	CY	$13.00	$87,100.00	Assumes an 8" avg. striping layer in improvement areas.
Onsite excavation cuts & rough grading.	59,000.00	CY	$5.00	$295,000.00	Based on preliminary BCRA take-offs.
Onsite excavation fills & rough grading.	16,000.00	CY	$5.00	$80,000.00	" " " " " " " " " "
Add to remove excess cuts from site.	43,000.00	CY	$12.00	$516,000.00	Net difference between subgrade cuts & fills after strippings.
Onsite finish grading.	270,000.00	SF	$0.15	$40,500.00	Based on C203&4 layout, mostly open, but with some slopes.
Add for phased site prep overlap work.	1.00	LS	$30,000.00	$30,000.00	Allowance between Phase 2 and Phase 3 boundaries.
Earthwork pick-up and coordination.	1.00	LS	$40,000.00	$40,000.00	Allowance, including de-mob & temp. pond removal.
$4.39			*1.1) Site Preparation to Subgrades:*		*$1,405,500.00*
Soldier piles, soil pins & lagging.	13,600.00	SF	$150.00	$2,040,000	At two east side locations, 440 LF & 240 LF x 20' average.
Prep, excavation, backfills & drainage.	13,600.00	SF	$25.00	$340,000.00	Into existing hillsides, with top and base drains.
Add for cast-in-place fascia panels.	13,600.00	SF	$40.00	$544,000.00	Assumes 5-1/2" pre-cast with a simple smooth finish.
Cast-in-place ballfield retaining walls.	5,840.00	SF	$80.00	$467,200.00	At northwest sports and south ballfields, 730 LF x 8' average.
Cast-in-place ramp and stair walls.	8,600.00	SF	$85.00	$731,000.00	At east grade transition area, 400 LF x 6' average with steps.
Backfills, footing drains & pick-up.	14,440.00	SF	$20.00	$288,800.00	Behind cast-in-place retaining walls.
$13.78			*1.2) Retaining Walls:*		*$4,411,000.00*
Waterline connection.	1.00	LS	$2,500.00	$2,500.00	Allowance from an existing onsite source.
New domestic water services.	1.00	LS	$5,000.00	$5,000.00	Allowance to a new drinking fountain & misc.
Add for domestic & irrigation meters.	1.00	LS	$6,000.00	$6,000.00	Allowance, primarily to accommodate irrigation modifications.
Waterline testing, coordination & pick-up.	1.00	LS	$2,000.00	$2,000.00	Allowance.
$0.05			*1.3) Outside Water:*		*$15,500.00*
Remove existing septic tanks & drainfield.	1.00	LS	$20,000.00	$20,000.00	Allowance at north side of large ballfield.
New sanitary main to McCormick Creek Dr.	600.00	LF	$75.00	$45,000.00	From existing restroom/concessions building to street.
Add for sanitary manholes.	3.00	Ea	$5,000.00	$15,000.00	At new sanitary main.
Add for street tie-in and cuts & patches.	1.00	LS	$10,000.00	$10,000.00	Allowance through existing parking and at street main.
Sanitary testing, coordination & pick-up.	1.00	LS	$7,000.00	$7,000.00	Allowance, including a steep hillside premium.
$0.30			*1.4) Outside Sanitary Sewer:*		*$97,000.00*
New area drains.	5.00	Ea	$1,200.00	$6,000.00	Allowance at extended new pedestrian paving.
Control structure basin fixture.	1.00	Ea	$6,000.00	$6,000.00	Upstream of new storm detention vault.
New storm line mains, 8" to 12".	600.00	LF	$50.00	$30,000.00	From new area drains & underdrainage to new storm vault.
Roof & underdrainage extension lines.	1,200.00	LF	$30.00	$36,000.00	From new dugouts, walls & misc, to main storm system.
New underground storm detention vault.	28,000.00	CF	$16.00	$448,000.00	Roughly 30' x 160' a 6' interior volume, concrete with a lid.
Storm testing, coordination & pick-up.	1.00	LS	$5,000.00	$5,000.00	Onsite allowance.
$1.66			*1.5) Storm Drainage:*		*$531,000.00*
Remove field lighting pole fixture clusters.	10.00	Ea	$5,000.00	$50,000	Four at small ballfields and six at large one.
General site electrical demolition.	1.00	LS	$20,000.00	$20,000	Allowance, includes protection of existing services that remain.
Primary power & transformer coordination.	1.00	LS	$15,000.00	$15,000	Allowance, possibly minor with existing in place.
Electrical services to onsite electrical fixtures.	2,000.00	LF	$32.00	$64,000	Allowance to lighting, dugouts and other site fixtures.
Pedestrian light fixtures.	10.00	Ea	$4,500.00	$45,000	At both new and existing pedestrian paved areas.
Miscellaneous onsite electrical.	1.00	LS	$30,000.00	$30,000	Allowance, including possible handholes & misc.
$0.70			*1.6) Site Electrical & Lighting:*		*$224,000.00*
200 Amp services to light towers.	2,000.00	LF	$35.00	$70,000.00	A supplemental allowance around reconfigured ballfields.
Lighting controller panel.	1.00	LS	$10,000.00	$10,000.00	Allowance in electrical shack.
Sports field lighting towers fixtures, complete.	12.00	LS	$60,000.00	$720,000.00	Around both sports fields, w/ concrete bases, 10 lights on avg.
Site lighting coordination & pick-up.	1.00	LS	$15,000.00	$15,000.00	Allowance, with possible additional handholes and misc.
$2.55			*1.7) Field Lighting Premium:*		*$815,000.00*
PHASE 2 D SITE IMPROVEMENTS, continues on the next page:					

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 2 D SITE IMPROVEMENTS:					
(Continued from the previous page.)					
Backhoe trenching.	24.00	Hr	$220.00	$5,280.00	For site fixtures & specialties.
Steel fabricated handrails, galvanized.	880.00	LF	$150.00	$132,000.00	At new stairs and ramps.
Railings or fencing at tops of walls.	680.00	LF	$80.00	$54,400.00	Allowance at the top sides of soldier pile retaining walls.
Directional & ADA signage.	1.00	LS	$3,000.00	$3,000.00	Allowance at existing parking lot and misc..
Waste & recycle receptacles.	10.00	Ea	$1,000.00	$10,000.00	Allowance at new & existing plaza and around sports fields.
Water fountain and water bottle refiller.	1.00	Ea	$6,000.00	$6,000.00	In extended plaza, vandal resistant.
Bicycle racks.	4.00	Ea	$1,000.00	$4,000.00	Allowance in new & existing plaza areas.
New portable bleachers.	7.00	Ea	$5,000.00	$35,000.00	Pre-fabricated aluminum bleachers where indicated on plan.
Sports field athletic equipment.	1.00	LS	$15,000.00	$15,000.00	Allowance for bases, portable goals and misc.
Electronic scoreboards.	3.00	Ea	$20,000.00	$60,000.00	Two at north field and one at main baseball field.
Miscellaneous site specialties & pick-up.	1.00	LS	$10,000.00	$10,000.00	Allowance for what is not yet addressed.
$1.05			*1.8) Site Fixtures & Specialties:*	*$334,680.00*	
Backhoe trenching.	32.00	Hr	$220.00	$7,040.00	For playground area surfacing work.
Cast-in-place perimeter curbing.	2,450.00	LF	$40.00	$98,000.00	Around synthetic turf perimeters at both sports fields.
Synthetic turf, installed.	186,000.00	SF	$13.00	$2,418,000	Over both new sports fields.
Add for crushed base, underdrainage & prep.	186,000.00	SF	$5.00	$930,000.00	Under both new sports fields.
Add for fixture premiums & pick-up.	1.00	LS	$30,000.00	$30,000.00	Allowance, including possible vendor unloading.
$10.88			*1.9) Synthetic Turf Surfacing:*	*$3,483,040.00*	
Backhoe trenching.	64.00	Hr	$220.00	$14,080.00	For site concrete work.
Cast-in-place curbs & gutters & curbing.	200.00	LF	$50.00	$10,000.00	Allowance at new south entry.
Concrete sidewalks & paving.	17,000.00	SF	$12.00	$204,000.00	Around new sport fields and from existing plaza paving.
Add for cast-in-place ramp & stair premiums.	5,000.00	SF	$10.00	$50,000.00	As laid out on plan, two sets of stairs, one long "U" ramp.
Add for tie-in & accent premiums.	10.00	MD	$1,000.00	$10,000.00	Allowance, with concrete in cut-up quantities.
Add for possible minor concrete repairs.	12.00	MD	$1,100.00	$13,200.00	Allowance at existing concrete paving that remains.
Site concrete pick-up & coordination.	10.00	MD	$900.00	$9,000.00	Allowance, including general site clean-up.
$0.97			*1.10) Site Concrete Curbing & Paving:*	*$310,280.00*	
New asphalt paving.	2,000.00	SF	$5.50	$11,000.00	At new south site entrance, assumes a 3" mix over 6" base.
Asphalt parking lot patching & restoration.	1.00	LS	$12,000.00	$12,000.00	Allowance, including selective crack repairs.
Add for asphalt paving tie-in premiums.	1.00	LS	$4,000.00	$4,000.00	Allowance at new entry paving and misc.
Add for striping.	1.00	LS	$8,000.00	$8,000.00	Over both new and existing paving, including blackouts.
$0.11			*1.11) Asphalt Paving & Striping:*	*$35,000.00*	
Conventional sprinkler head coverage.	30,000.00	SF	$1.60	$48,000.00	In designated new planter areas.
Add for irrigation infrastructure.	1.00	LS	$6,000.00	$6,000.00	Allowance, connecting to existing in plaza area.
Planter areas with topsoil & mulch.	30,000.00	SF	$6.00	$180,000.00	In plaza and high profile areas, with 6" topsoil and 2" mulch.
Seeded onsite areas with topsoil.	30,000.00	SF	$1.00	$30,000.00	In periphery areas, with a 4" layer of topsoil.
Add for new trees.	120.00	Ea	$450.00	$54,000.00	Allowance, assumes mostly native type 2" caliper.
Add for a soft surface trail premium.	400.00	LF	$16.00	$6,400.00	Assumes a 5' wide path of wood chips at south side of site.
Add for phased landscaping overlap work.	1.00	LS	$20,000.00	$20,000.00	Allowance between Phase 2 and Phase 3 boundaries.
Landscaping maintenance & pick-up work.	1.00	LS	$35,000.00	$35,000.00	Allowance, including warranty call-backs.
$1.19			*1.12) Landscaping & Irrigation:*	*$379,400.00*	
10' high chainlink fencing.	2,200.00	LF	$70.00	$154,000.00	Around new sports fields, dugouts and batting cages.
Add for a large backstop & netting premium.	1.00	LS	$30,000.00	$30,000.00	Up to 30' high at main baseball field.
Add for smaller backstop premiums.	2.00	LS	$20,000.00	$40,000.00	At rectangular sports field.
Add for batting cage premiums.	4.00	Ea	$7,500.00	$30,000.00	Two at each sports field area.
Add for PVC coating.	30,000.00	SF	$1.25	$37,500.00	At all new chainlink fencing.
Movable outfield fencing.	550.00	LF	$36.00	$19,800.00	At large baseball field, portable, in sections, 4' high.
$0.97			*1.13) Site Fencing & Backstops:*	*$311,300.00*	
PHASE 2 D SITE IMPROVEMENTS:	*320,000.00*	*SF*	*$38.60*	$12,352,700	
Add 25% for Estimate Mark-Ups:	***320,000.00***	***SF***	***$48.25***	**$15,440,875**	

About 320,000 SF of site improvements is figured in Phase 2 D. Some factors that make the overall site $/SF seem higher than the norm are: 1) extensive excavation cuts into a some steep hillsides that entail a large amount excess cut haul-offs and high retaining walls, nearly half of which with solider piles, 2) a large underground storm detention vault, 3) new sports field lighting, and 4) over half the site is covered with new synthetic sports turf with underdrainage. The existing south parking lot for the most part remains as-is. The existing onsite septic system and drainfield is figured to be removed and replaced with a new sanitary sewer service that ties into an existing street side main running along McCormick Creek Drive.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 2 D BUILDINGS & STRUCTURES:					
Dugout gate & roof support premiums.	5.00	LS	$1,000.00	$5,000.00	Allowance under new dugout roofs.
Dugout roof & shed assemblies.	2,400.00	SF	$40.00	$96,000.00	Simple metal roofing & framing, 5 x 500 SF.
Add for dugout lighting & other electrical.	2,500.00	SF	$5.00	$12,500.00	Allowance for simple vandal resistant lighting & power outlets.
$0.35			*2.1) New Dugout Roof Premiums:*	*$113,500.00*	
Restoration of existing tower building.	1.00	LS	$200.00	$200.00	Allowance for mainly cosmetic exterior restoration.
Restoration of existing dugout that remains.	1.00	LS	$1,800.00	$1,800.00	New roofing and cosmetic finishes.
Restoration of Umpire & electrical sheds.	1.00	LS	$10,000.00	$10,000.00	Allowance for mainly cosmetic exterior restoration.
$0.04			*2.2) Minor Restoration of Existing Buildings:*	*$12,000.00*	
Relocated existing Umpire shed.	1.00	LS	$5,000.00	$5,000.00	A semi-portable building set on piers.
Add for electrical disconnects & reconnects.	1.00	LS	$5,000.00	$5,000.00	Allowance for relocated Umpire shed work.
Demo existing electrical shack.	1.00	LS	N/C	N/C	A wash with Item #2.2 cosmetic finishes.
Electrical infrastructure extensions.	1.00	LS	$120,000.00	$120,000.00	Allowance to relocate, revamp & upgrade switchgear.
New electrical shed building, complete.	1.00	LS	$240,000.00	$240,000.00	A new slab-on-grade structure, finished out.
$1.16			*2.3) Premium to Relocate Existing Sheds:*	*$370,000.00*	
PHASE 2 D BUILDINGS & STRUCTURES:	*320,000.00*	*SF*	*$1.55*	$495,500	
Add 25% for Estimate Mark-Ups:	***320,000.00***	***SF***	***$1.94***	**$619,375**	

Simple metal roofing and gage framing is figured over the new dugouts, along with some Spartan type but vandal resistant lighting and power outlets.

An existing dugout and tower building at the large baseball field is figured to remain as-is, with provisions included for some minor exterior restoration. An existing Umpire's shed and adjoining electrical shack are figured to be relocated about 20' to 30' eastwards in order to provide better pedestrian circulation between sports fields. While the Umpire's shed appears to be portable and can be reset on small concrete piers. the electrical shack is figured to be completely demo'd and replaced with a simple and small but all-new field constructed utility building. Large allowances are included for electrical infrastructure revamping & upgrades since the shed appears to house most of the existing onsite electrical panels and switchgear.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

PROJECT COMPONENT	BUDGETARY COST ESTIMATE Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
PHASE 3 D BASE ESTIMATE SUMMARY BREAKDOWN: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
SITE IMPROVEMENTS:					**$11,355,350**
1.1) Site Preparation to Subgrades.	1.25	LS	$1,244,900	$1,556,125	See Pages 7 & 8 for estimate details.
1.2) Retaining Walls.	1.25	LS	$1,236,500	$1,545,625	" " " " " " " " " " "
1.3) Outside Water.	1.25	LS	$216,000	$270,000	" " " " " " " " " " "
1.4) Outside Sanitary Sewer.	1.25	LS	$65,000	$81,250	" " " " " " " " " " "
1.5) Storm Drainage.	1.25	LS	$246,100	$307,625	" " " " " " " " " " "
1.6) Site Electrical & Lighting.	1.25	LS	$225,000	$281,250	" " " " " " " " " " "
1.7) Field Lighting Premium .	1.25	LS	$808,000	$1,010,000	" " " " " " " " " " "
1.8) Site Fixtures & Specialties.	1.25	LS	$331,040	$413,800	See Page 8 for estimate details.
1.9) Synthetic Turf Surfacing.	1.25	LS	$3,345,040	$4,181,300	" " " " " " " " " " "
1.10) Site Concrete Curbing & Paving.	1.25	LS	$495,100	$618,875	" " " " " " " " " " "
1.11) Asphalt Paving & Striping.	1.25	LS	$240,500	$300,625	" " " " " " " " " " "
1.12) Landscaping & Irrigation.	1.25	LS	$414,600	$518,250	" " " " " " " " " " "
1.13) Site Fencing & Backstops. $9,084,280	1.25	LS	$216,500	$270,625	" " " " " " " " " " "
BUILDINGS & STRUCTURES:					**$969,838**
2.1) New Dugout Roof Premiums.	1.25	LS	$94,000	$117,500	See Page 9 for estimate details.
2.2) New Comfort Station. $775,870	1.25	LS	$681,870	$852,338	" " " " " " " " " " "
PHASE 3 D BASE ESTIMATE MACC:				**$12,325,188**	

BASE ESTIMATE MARK-UP & GENERAL NOTES:

The above Base Estimate costs above include a 25% general contractor's mark-up, intended to cover general requirements, overhead & profit, bond & insurance, B & O tax and a modest 4% to 5% compounded design contingency. Soft costs, such as sales tax, permits, 3rd party testing, utility company connection fees if applicable, design fees, owner's administration costs and a change order contingency are not included. Costs and scope are very preliminary and should be treated as such.

Costs are in current dollars without any projected construction cost escalation figured. Once an approximate anticipated construction start date is targeted, it is suggested that a construction cost escalation premium be added to the estimate bottom-line at about a 5% to 6% compounded annual rate.

Phase 3 D is figured as its own independent project. If it were combined with Phase 2 D work, there might be a $280,000 combined savings between the two projects rather than being done under separate contacts and staggered at different times. These savings would come from incurring one just site mobilization instead of two, deleting site work overlaps at the boundaries between the two phases, and providing a nominal overall site work scope efficiency. This does not include possible savings of avoiding additional construction cost escalation if one of the phases were to be constructed at a later date from the other.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 D SITE IMPROVEMENTS:					
Temporary construction fencing.	2,300.00	LF	$4.00	$9,200.00	Around the site improvement perimeter.
Mobilization.	1.00	LS	$30,000.00	$30,000.00	Allowance for mass earthwork.
Minor site demolition.	1.00	LS	$10,000.00	$10,000.00	At new site entries and misc.
Silt fencing.	2,200.00	LF	$7.00	$15,400.00	Allowance around most of site improvement perimeter.
Temporary construction entrance.	3,000.00	SF	$3.00	$9,000.00	Allowance, presumably at east or south side of site.
Temporary sediment pond.	1.00	LS	$20,000.00	$20,000.00	Allowance, possibly with a control structure and pump.
Erosion control with maintenance & pick-up.	1.00	LS	$120,000.00	$120,000.00	Allowance, dealing with some steep onsite slopes.
Onsite clearing and strippings.	300,000.00	SF	$0.40	$120,000.00	Mostly heavily treed with some site slopes.
Add for tree removal premium.	1.00	LS	$50,000.00	$50,000.00	To be removed & de-stumped.
Remove strippings from site.	7,500.00	CY	$13.00	$97,500.00	Assumes an 8" avg. striping layer in improvement areas.
Onsite excavation cuts & rough grading.	44,500.00	CY	$5.00	$222,500.00	Based on preliminary BCRA take-offs.
Onsite excavation fills & rough grading.	16,100.00	CY	$5.00	$80,500.00	" " " " " " " " " "
Add to remove excess cuts from site.	28,400.00	CY	$12.00	$340,800.00	Net difference between subgrade cuts & fills after strippings.
Onsite finish grading.	300,000.00	SF	$0.15	$45,000.00	Based on C203&4 layout, mostly open, but with some slopes.
Add for phased site prep overlap work.	1.00	LS	$30,000.00	$30,000.00	Allowance between Phase 3 and Phase 2 boundaries.
Earthwork pick-up and coordination.	1.00	LS	$45,000.00	$45,000.00	Allowance, including de-mob & temp. pond removal.
$4.15			*1.1) Site Preparation to Subgrades:*	*$1,244,900.00*	
Cast-in-place ballfield retaining walls.	11,000.00	SF	$80.00	$880,000.00	From 2' to 16' high, roughly 1,100 LF x 10' average.
Cast-in-place ramp walls.	1,300.00	SF	$85.00	$110,500.00	At east grade transition area, 260 LF x 5' average with steps.
Backfills, footing drains & pick-up.	12,300.00	SF	$20.00	$246,000.00	Behind cast-in-place retaining walls.
$4.12			*1.2) Retaining Walls:*	*$1,236,500.00*	
Waterline connection.	1.00	LS	$7,000.00	$7,000.00	Allowance at an existing Harbor Hill Drive main.
New water mains, with fittings.	1,500.00	LF	$100.00	$150,000.00	Assumes 8" Class 52 ductile iron along new loop road.
New fire hydrant assemblies & branch lines.	4.00	Ea	$8,000.00	$32,000.00	Allowance along new onsite loop road.
New domestic water services.	1.00	LS	$12,000.00	$12,000.00	Allowance to a new Comfort Station, drinking fountain & misc.
Add for domestic & irrigation meters.	1.00	LS	$10,000.00	$10,000.00	Allowance to accommodate domestic & irrigation services.
Waterline testing, coordination & pick-up.	1.00	LS	$5,000.00	$5,000.00	Allowance.
$0.72			*1.3) Outside Water:*	*$216,000.00*	
Sanitary line connection.	1.00	LS	$5,000.00	$5,000.00	Allowance at an existing Harbor Hill Drive main.
New onsite sanitary mains.	600.00	LF	$75.00	$45,000.00	To new Comfort Station from Harbor Hill Drive.
Add for sanitary manholes.	2.00	Ea	$5,000.00	$10,000.00	At new sanitary main.
Sanitary testing, coordination & pick-up.	1.00	LS	$5,000.00	$5,000.00	Allowance, including possible cleanouts.
$0.22			*1.4) Outside Sanitary Sewer:*	*$65,000.00*	
New Type #1 catch basins.	10.00	Ea	$2,200.00	$22,000.00	At new onsite loop road and parking asphalt paving.
New area drains.	10.00	Ea	$1,200.00	$12,000.00	Allowance at extended new pedestrian paving.
Control structure basin fixture.	1.00	Ea	$6,000.00	$6,000.00	Allowance at east side of site.
New storm line mains, mostly 12".	2,500.00	LF	$65.00	$162,500.00	From new basins & underdrainage to offsite storm outlet.
Roof & underdrainage extension lines.	800.00	LF	$32.00	$25,600.00	From new dugouts, walls & misc, to main storm system.
New offsite storm outlet.	1.00	LS	$10,000.00	$10,000.00	Allowance to an existing storm main that drains into a pond.
Storm testing, coordination & pick-up.	1.00	LS	$8,000.00	$8,000.00	Onsite allowance.
$0.82			*1.5) Storm Drainage:*	*$246,100.00*	
Primary power & transformer coordination.	1.00	LS	$20,000.00	$20,000	Allowance, transformer & primary wire by power company.
Electrical services to onsite electrical fixtures.	2,600.00	LF	$25.00	$65,000	Allowance to lighting, dugouts and other site fixtures.
Parking lot pole light fixtures.	10.00	Ea	$5,000.00	$50,000	Along new onsite loop road.
Pedestrian light fixtures.	10.00	Ea	$4,500.00	$45,000	Primarily at new pedestrian paved areas.
Miscellaneous onsite electrical.	1.00	LS	$45,000.00	$45,000	Allowance, including possible handholes & misc.
$0.75			*1.6) Site Electrical & Lighting:*	*$225,000.00*	
200 Amp services to light towers.	1,800.00	LF	$35.00	$63,000.00	A supplemental allowance around new sports fields.
Lighting controller panel.	1.00	LS	$10,000.00	$10,000.00	Allowance in electrical shack.
Sports field lighting towers fixtures, complete.	12.00	LS	$60,000.00	$720,000.00	Around both sports fields, w/ concrete bases, 10 lights on avg.
Site lighting coordination & pick-up.	1.00	LS	$15,000.00	$15,000.00	Allowance, with possible additional handholes and misc.
$2.69			*1.7) Field Lighting Premium:*	*$808,000.00*	
PHASE 3 D SITE IMPROVEMENTS, continues on the next page:					

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 D SITE IMPROVEMENTS:					
(Continued from the previous page.)					
Backhoe trenching.	32.00	Hr	$220.00	$7,040.00	For site fixtures & specialties.
Steel fabricated swing access gate.	4.00	Ea	$8,000.00	$32,000.00	Allowance at all new onsite road loop access areas.
New monument sign.	1.00	LS	$7,500.00	$7,500.00	Allowance to be addressed.
Steel fabricated handrails, galvanized.	500.00	LF	$150.00	$75,000.00	At new east ramps.
Railings or fencing at tops of walls.	1,000.00	LF	$80.00	$80,000.00	Allowance at the tops of most cast-in-place retaining walls.
Directional & ADA signage.	1.00	LS	$4,500.00	$4,500.00	Allowance at new parking lots and misc..
Waste & recycle receptacles.	10.00	Ea	$1,000.00	$10,000.00	Allowance at new plazas and around sports fields.
Water fountain and water bottle refiller.	1.00	Ea	$6,000.00	$6,000.00	In extended plaza, vandal resistant.
Bicycle racks.	4.00	Ea	$1,000.00	$4,000.00	Allowance in new plaza areas.
New portable bleachers.	8.00	Ea	$5,000.00	$40,000.00	Pre-fabricated aluminum bleachers where indicated on plan.
Sports field athletic equipment.	1.00	LS	$15,000.00	$15,000.00	Allowance for bases, portable goals and misc.
Electronic scoreboards.	2.00	Ea	$20,000.00	$40,000.00	One at north and south sides of field.
Miscellaneous site specialties & pick-up.	1.00	LS	$10,000.00	$10,000.00	Allowance for what is not yet addressed.
$1.10			*1.8) Site Fixtures & Specialties:*	*$331,040.00*	
Backhoe trenching.	32.00	Hr	$220.00	$7,040.00	For playground area surfacing work.
Cast-in-place perimeter curbing.	1,700.00	LF	$40.00	$68,000.00	Around synthetic turf perimeters at both sports fields.
Synthetic turf, installed.	180,000.00	SF	$13.00	$2,340,000	Over both new sports fields.
Add for crushed base, underdrainage & prep.	180,000.00	SF	$5.00	$900,000.00	Under both new sports fields.
Add for fixture premiums & pick-up.	1.00	LS	$30,000.00	$30,000.00	Allowance, including possible vendor unloading.
$11.15			*1.9) Synthetic Turf Surfacing:*	*$3,345,040.00*	
Backhoe trenching.	80.00	Hr	$220.00	$17,600.00	For site concrete work.
Cast-in-place curbs & gutters & curbing.	3,250.00	LF	$42.00	$136,500.00	At the edges of most new asphalt paving.
Concrete sidewalks & paving.	25,000.00	SF	$12.00	$300,000.00	Around new sport fields and misc.
Add for cast-in-place ramp premium.	2,000.00	SF	$10.00	$20,000.00	As laid out on plan, a long "U" ramp.
Add for tie-in & accent premiums.	12.00	MD	$1,000.00	$12,000.00	Allowance, including minor street patches.
Site concrete pick-up & coordination.	10.00	MD	$900.00	$9,000.00	Allowance, including general site clean-up.
$1.65			*1.10) Site Concrete Curbing & Paving:*	*$495,100.00*	
New asphalt paving.	50,000.00	SF	$4.50	$225,000.00	As laid out on plan, assumes a 3" mix over 6" base.
Add for asphalt paving tie-in premiums.	1.00	LS	$7,500.00	$7,500.00	Allowance, including minor street patches.
Add for striping.	1.00	LS	$8,000.00	$8,000.00	Over new onsite paving.
$0.80			*1.11) Asphalt Paving & Striping:*	*$240,500.00*	
Conventional sprinkler head coverage.	35,000.00	SF	$1.60	$56,000.00	In designated new planter areas.
Add for irrigation infrastructure.	1.00	LS	$6,000.00	$6,000.00	Allowance, including a point-of-connection to new meter.
Planter areas with topsoil & mulch.	35,000.00	SF	$6.00	$210,000.00	In plaza and high profile areas, with 6" topsoil and 2" mulch.
Seeded onsite areas with topsoil.	10,000.00	SF	$1.00	$10,000.00	In periphery areas, with a 4" layer of topsoil.
Add for new trees.	140.00	Ea	$450.00	$63,000.00	Allowance, assumes mostly native type 2" caliper.
Add for a soft surface trail premium.	600.00	LF	$16.00	$9,600.00	Assumes a 5' wide path of wood chips at south side of site.
Add for phased landscaping overlap work.	1.00	LS	$20,000.00	$20,000.00	Allowance between Phase 3 and Phase 2 boundaries.
Landscaping maintenance & pick-up work.	1.00	LS	$40,000.00	$40,000.00	Allowance, including warranty call-backs.
$1.38			*1.12) Landscaping & Irrigation:*	*$414,600.00*	
10' high chainlink fencing.	1,950.00	LF	$70.00	$136,500.00	Around new sports fields and dugouts.
Add for backstop premiums.	2.00	LS	$25,000.00	$50,000.00	At rectangular sports field.
Add for PVC coating.	24,000.00	SF	$1.25	$30,000.00	At all new chainlink fencing.
$0.72			*1.13) Site Fencing & Backstops:*	*$216,500.00*	
PHASE 3 D SITE IMPROVEMENTS:	*300,000.00*	*SF*	*$30.28*	$9,084,280	
Add 25% for Estimate Mark-Ups:	***300,000.00***	***SF***	***$37.85***	**$11,355,350**	

About 300,000 SF of is figured in Phase 3 D. Like Phase 2 D, extensive earthwork cuts, fills and haul-offs are figured, along with retaining walls, but not as much. Also, no soldier pile walls are figured in Phase 3 D. The primary reason why the Phase 3 D cost is less than Phase 2 D is the latter has nearly $4 millions less is retaining walls. Also, no new underground storm detention vault is figured in Phase 3 D. Instead, excess storm run-off is figured to tie into an existing near-by onsite storm main that drains into an existing large detention pond that has enough capacity to handle the additional loads. Unlike Phase 2 D, Phase 3 D includes an onsite loop road with a new water main loop and fire hydrants.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 D BUILDINGS & STRUCTURES:					
Dugout gate & roof support premiums.	4.00	LS	$1,000.00	$4,000.00	Allowance under new dugout roofs.
Dugout roof & shed assemblies.	2,000.00	SF	$40.00	$80,000.00	Simple metal roofing & framing, 4 x 500 SF.
Add for dugout lighting & other electrical.	2,000.00	SF	$5.00	$10,000.00	Allowance for simple vandal resistant lighting & power outlets.
$0.29		*2.1) New Dugout Roof Premiums:*		*$94,000.00*	
Building foundation, complete.	960.00	SF	$50.00	$48,000.00	Based on Sports Complex Phase 1B comfort station design.
Architectural CMU exterior walls.	2,200.00	SF	$40.00	$88,000.00	" " " " " " " " " " " " " "
Building framing & sheathing.	960.00	SF	$90.00	$86,400.00	" " " " " " " " " " " " " "
Roofing & sheet metal.	1,500.00	SF	$35.00	$52,500.00	" " " " " " " " " " " " " "
Exterior wall & soffit finishes.	1,800.00	SF	$20.00	$36,000.00	" " " " " " " " " " " " " "
Exterior doors & windows.	960.00	SF	$32.00	$30,720.00	" " " " " " " " " " " " " "
Interior finishes.	960.00	SF	$50.00	$48,000.00	" " " " " " " " " " " " " "
Building specialties & equipment.	960.00	SF	$55.00	$52,800.00	" " " " " " " " " " " " " "
Building plumbing, vandal resistant.	960.00	SF	$160.00	$153,600.00	" " " " " " " " " " " " " "
Building heat & mechanical ventilation.	960.00	SF	$35.00	$33,600.00	" " " " " " " " " " " " " "
Building electrical, vandal resistant.	950.00	SF	$55.00	$52,250.00	" " " " " " " " " " " " " "
$2.27		*2.2) Comfort Station Building, Complete:*		*$681,870.00*	
PHASE 3 D BUILDINGS & STRUCTURES:	*300,000.00*	*SF*	*$2.59*	$775,870	
Add 25% for General Contractor Mark-Ups:	***300,000.00***	***SF***	***$3.23***	**$969,838**	

As with Phase 2 D, simple metal roofing and gage framing is figured over the new Phase 3 D dugouts, along with some Spartan type but vandal resistant lighting and power outlets.

A field constructed Comfort Station building is included, for now figured to follow the same design and scope layout of a new Restroom and Concession building figured in the Gig Harbor Sports Complex Phase 1B project.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

PROJECT COMPONENT	BUDGETARY COST ESTIMATE Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
PHASE 2 E BASE ESTIMATE SUMMARY BREAKDOWN: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
SITE IMPROVEMENTS:					**$15,440,875**
1.1) Site Preparation to Subgrades.	1.25	LS	$1,405,500	$1,756,875	Same as Phase 2 D scope, see Pages 3 & 4 for details.
1.2) Retaining Walls.	1.25	LS	$4,411,000	$5,513,750	" " " " " " " " " " " " " "
1.3) Outside Water.	1.25	LS	$15,500	$19,375	" " " " " " " " " " " " " "
1.4) Outside Sanitary Sewer.	1.25	LS	$97,000	$121,250	" " " " " " " " " " " " " "
1.5) Storm Drainage.	1.25	LS	$531,000	$663,750	" " " " " " " " " " " " " "
1.6) Site Electrical & Lighting.	1.25	LS	$224,000	$280,000	" " " " " " " " " " " " " "
1.7) Field Lighting Premium .	1.25	LS	$815,000	$1,018,750	" " " " " " " " " " " " " "
1.8) Site Fixtures & Specialties.	1.25	LS	$334,680	$418,350	Same as Phase 2 D scope, see Page 4 for details.
1.9) Synthetic Turf Play Surfacing.	1.25	LS	$3,483,040	$4,353,800	" " " " " " " " " " " " "
1.10) Site Concrete Curbing & Paving.	1.25	LS	$310,280	$387,850	" " " " " " " " " " " " "
1.11) Asphalt Paving & Striping.	1.25	LS	$35,000	$43,750	" " " " " " " " " " " " "
1.12) Landscaping & Irrigation.	1.25	LS	$379,400	$474,250	" " " " " " " " " " " " "
1.13) Site Fencing & Backstops.	1.25	LS	$311,300	$389,125	" " " " " " " " " " " " "
$12,352,700					
BUILDINGS & STRUCTURES:					**$156,875**
2.1) New Dugout Roof Premiums.	1.25	LS	$113,500	$141,875	Same as Phase 2 D scope, see Page 5 for details.
2.2) Minor Restoration of Existing Buildings.	1.25	LS	$12,000	$15,000	" " " " " " " " " " " " "
2.3) Premium to Relocate Existing Sheds.	1.25	LS	N/A	N/A	Not part of Phase 2 E scope.
$125,500					
PHASE 2 E BASE ESTIMATE MACC:				**$15,597,750**	

BASE ESTIMATE MARK-UP & GENERAL NOTES:

The above Base Estimate costs above and Option costs below include a 25% general contractor's mark-up, intended to cover general requirements, overhead & profit, bond & insurance, B & O tax and a modest 4% to 5% compounded design contingency. Soft costs, such as sales tax, permits, 3rd party testing, utility company connection fees if applicable, design fees, owner's administration costs and a change order contingency are not included. Costs and scope are very preliminary and should be treated as such.

Costs are in current dollars without any projected construction cost escalation figured. Once an approximate anticipated construction start date is targeted, it is suggested that a construction cost escalation premium be added to the estimate bottom-line at about a 5% to 6% compounded annual rate.

Phase 2 E is figured as its own independent project. If it were combined with Phase 3 E work, there might be a $280,000 combined savings between the two projects rather than being done under separate contacts and staggered at different times. These savings would come from incurring just one site mobilization instead of two, deleting site work overlaps at the boundaries between the two phases, and providing a nominal overall site work scope efficiency. This does not include possible savings of avoiding additional construction cost escalation if one of the phases were to be constructed at a later date from the other.

For estimating purposes, Phase 2 D and Phase 2 E scopes are figured to be the same, with the exception that in 2 E an existing Umpire's Shed and adjoining electrical shack remain in the same location with some minor exterior restoration included, rather get relocated and at least partially replaced.

PROJECT COMPONENT	Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
PHASE 2 OPTIONS: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
O-1) Replace Lighting in Existing Parking.	6.00	LS	$6,000.00	$45,000	Creosote pole fixtures to be replaced with all new fixtures.
O-2) New Irrigated & Landscaped Planter.	2,900.00	SF	$8.00	$29,000	In existing south parking island planter with mulch & boulders.
O-3) Reuse Existing Large Ballfield Lighting.	6.00	Ea	-$40,000.00	-$300,000	Existing tower pole fixtures still figured to be relocated.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

PROJECT COMPONENT	BUDGETARY COST ESTIMATE Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
PHASE 3 E BASE ESTIMATE SUMMARY BREAKDOWN: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
SITE IMPROVEMENTS:					**$11,069,288**
1.1) Site Preparation to Subgrades.	1.25	LS	$1,032,100	$1,290,125	See Pages 12 & 13 for estimate details.
1.2) Retaining Walls.	1.25	LS	$1,095,500	$1,369,375	" " " " " " " " " " "
1.3) Outside Water.	1.25	LS	$219,000	$273,750	" " " " " " " " " " "
1.4) Outside Sanitary Sewer.	1.25	LS	$65,000	$81,250	" " " " " " " " " " "
1.5) Storm Drainage.	1.25	LS	$265,500	$331,875	" " " " " " " " " " "
1.6) Site Electrical & Lighting.	1.25	LS	$216,000	$270,000	" " " " " " " " " " "
1.7) Field Lighting Premium .	1.25	LS	$688,000	$860,000	" " " " " " " " " " "
1.8) Site Fixtures & Specialties.	1.25	LS	$378,040	$472,550	See Page 13 for estimate details.
1.9) Synthetic Turf Surfacing.	1.25	LS	$3,359,040	$4,198,800	" " " " " " " " " " "
1.10) Site Concrete, Pads & Paving.	1.25	LS	$583,700	$729,625	" " " " " " " " " " "
1.11) Asphalt Paving & Striping.	1.25	LS	$213,500	$266,875	" " " " " " " " " " "
1.12) Landscaping & Irrigation.	1.25	LS	$482,300	$602,875	" " " " " " " " " " "
1.13) Site Fencing & Backstops. $8,855,430	1.25	LS	$257,750	$322,188	" " " " " " " " " " "
BUILDINGS & STRUCTURES:					**$969,838**
2.1) New Dugout Roof Premiums.	1.25	LS	$94,000	$117,500	See Page 14 for estimate details.
2.2) New Comfort Station. $775,870	1.25	LS	$681,870	$852,338	" " " " " " " " " " "
PHASE 3 E BASE ESTIMATE MACC:				**$12,039,125**	

BASE ESTIMATE MARK-UP & GENERAL NOTES:

The above Base Estimate costs above include a 25% general contractor's mark-up, intended to cover general requirements, overhead & profit, bond & insurance, B & O tax and a modest 4% to 5% compounded design contingency. Soft costs, such as sales tax, permits, 3rd party testing, utility company connection fees if applicable, design fees, owner's administration costs and a change order contingency are not included. Costs and scope are very preliminary and should be treated as such.

Costs are in current dollars without any projected construction cost escalation figured. Once an approximate anticipated construction start date is targeted, it is suggested that a construction cost escalation premium be added to the estimate bottom-line at about a 5% to 6% compounded annual rate.

Phase 3 E is figured as its own independent project. If it were combined with Phase 2 E work, there might be a $280,000 combined savings between the two projects rather than being done under separate contacts and staggered at different times. These savings would come from incurring one just site mobilization instead of two, deleting site work overlaps at the boundaries between the two phases, and providing a nominal overall site work scope efficiency. This does not include possible savings of avoiding additional construction cost escalation if one of the phases were to be constructed at a later date from the other.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 E SITE IMPROVEMENTS:					
Temporary construction fencing.	2,300.00	LF	$4.00	$9,200.00	Around the site improvement perimeter.
Mobilization.	1.00	LS	$30,000.00	$30,000.00	Allowance for mass earthwork.
Minor site demolition.	1.00	LS	$10,000.00	$10,000.00	At new site entries and misc.
Silt fencing.	2,200.00	LF	$7.00	$15,400.00	Allowance around most of site improvement perimeter.
Temporary construction entrance.	3,000.00	SF	$3.00	$9,000.00	Allowance, presumably at east or south side of site.
Temporary sediment pond.	1.00	LS	$20,000.00	$20,000.00	Allowance, possibly with a control structure and pump.
Erosion control with maintenance & pick-up.	1.00	LS	$120,000.00	$120,000.00	Allowance, dealing with some steep onsite slopes.
Onsite clearing and strippings.	300,000.00	SF	$0.40	$120,000.00	Mostly heavily treed with some site slopes.
Add for tree removal premium.	1.00	LS	$50,000.00	$50,000.00	To be removed & de-stumped.
Remove strippings from site.	7,500.00	CY	$13.00	$97,500.00	Assumes an 8" avg. striping layer in improvement areas.
Onsite excavation cuts & rough grading.	34,100.00	CY	$5.00	$170,500.00	Based on preliminary BCRA take-offs, less a raised east field.
Onsite excavation fills & rough grading.	16,100.00	CY	$5.00	$80,500.00	Based on preliminary BCRA take-offs.
Add to remove excess cuts from site.	15,000.00	CY	$12.00	$180,000.00	Net difference between subgrade cuts & fills after strippings.
Onsite finish grading.	300,000.00	SF	$0.15	$45,000.00	Based on C203&4 layout, mostly open, but with some slopes.
Add for phased site prep overlap work.	1.00	LS	$30,000.00	$30,000.00	Allowance between Phase 3 and Phase 2 boundaries.
Earthwork pick-up and coordination.	1.00	LS	$45,000.00	$45,000.00	Allowance, including de-mob & temp. pond removal.
$3.44			*1.1) Site Preparation to Subgrades:*		*$1,032,100.00*
Cast-in-place ballfield retaining walls.	9,000.00	SF	$80.00	$720,000.00	From 2' to 12' high, roughly 1,000 LF x 9' average.
Cast-in-place ramp and stair walls.	1,100.00	SF	$85.00	$93,500.00	At east grade transition area, 220 LF x 5' average with steps.
Short cast-in-place ramp & stair walls.	800.00	SF	$80.00	$64,000.00	At 3' grade step between sports fields, 200 LF x 4' average.
Backfills, footing drains & pick-up.	10,900.00	SF	$20.00	$218,000.00	Behind cast-in-place retaining walls.
$3.65			*1.2) Retaining Walls:*		*$1,095,500.00*
Waterline connection.	1.00	LS	$7,000.00	$7,000.00	Allowance at an existing Harbor Hill Drive main.
New water mains, with fittings.	1,500.00	LF	$100.00	$150,000.00	Assumes 8" Class 52 ductile iron along new loop road.
New fire hydrant assemblies & branch lines.	4.00	Ea	$8,000.00	$32,000.00	Allowance along new onsite loop road.
New domestic water services.	1.00	LS	$15,000.00	$15,000.00	Allowance to a new Comfort Station, drinking fountain & misc.
Add for domestic & irrigation meters.	1.00	LS	$10,000.00	$10,000.00	Allowance to accommodate domestic & irrigation services.
Waterline testing, coordination & pick-up.	1.00	LS	$5,000.00	$5,000.00	Allowance.
$0.73			*1.3) Outside Water:*		*$219,000.00*
Sanitary line connection.	1.00	LS	$5,000.00	$5,000.00	Allowance at an existing Harbor Hill Drive main.
New onsite sanitary mains.	600.00	LF	$75.00	$45,000.00	To new Comfort Station from Harbor Hill Drive.
Add for sanitary manholes.	2.00	Ea	$5,000.00	$10,000.00	At new sanitary main.
Sanitary testing, coordination & pick-up.	1.00	LS	$5,000.00	$5,000.00	Allowance, including possible cleanouts.
$0.22			*1.4) Outside Sanitary Sewer:*		*$65,000.00*
New Type #1 catch basins.	10.00	Ea	$2,200.00	$22,000.00	At new onsite loop road and parking asphalt paving.
New area drains.	10.00	Ea	$1,200.00	$12,000.00	Allowance at extended new pedestrian paving.
Control structure basin fixture.	1.00	Ea	$6,000.00	$6,000.00	Allowance at east side of site.
New storm line mains, mostly 12".	2,700.00	LF	$65.00	$175,500.00	From new basins & underdrainage to offsite storm outlet.
Roof & underdrainage extension lines.	1,000.00	LF	$32.00	$32,000.00	From new dugouts, walls & misc, to main storm system.
New offsite storm outlet.	1.00	LS	$10,000.00	$10,000.00	Allowance to an existing storm main that drains into a pond.
Storm testing, coordination & pick-up.	1.00	LS	$8,000.00	$8,000.00	Onsite allowance.
$0.89			*1.5) Storm Drainage:*		*$265,500.00*
Primary power & transformer coordination.	1.00	LS	$20,000.00	$20,000	Allowance, transformer & primary wire by power company.
Electrical services to onsite electrical fixtures.	2,600.00	LF	$25.00	$65,000	Allowance to lighting, dugouts and other site fixtures.
Parking lot pole light fixtures.	10.00	Ea	$5,000.00	$50,000	Along new onsite loop road.
Pedestrian light fixtures.	8.00	Ea	$4,500.00	$36,000	Primarily at new pedestrian paved areas.
Miscellaneous onsite electrical.	1.00	LS	$45,000.00	$45,000	Allowance, including possible handholes & misc.
$0.72			*1.6) Site Electrical & Lighting:*		*$216,000.00*
200 Amp services to light towers.	1,800.00	LF	$35.00	$63,000.00	A supplemental allowance around new sports fields.
Lighting controller panel.	1.00	LS	$10,000.00	$10,000.00	Allowance in electrical shack.
Field lighting towers, facing a single side.	6.00	LS	$60,000.00	$360,000.00	Around both sports fields, w/ concrete bases, 10 lights on avg.
Field lighting towers, facing two sides.	3.00	LS	$80,000.00	$240,000.00	Between sports fields, with concrete bases, 20 lights on avg.
Site lighting coordination & pick-up.	1.00	LS	$15,000.00	$15,000.00	Allowance, with possible additional handholes and misc.
$2.29			*1.7) Field Lighting Premium:*		*$688,000.00*
PHASE 3 E SITE IMPROVEMENTS, continues on the next page:					

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 E SITE IMPROVEMENTS:					
(Continued from the previous page.)					
Backhoe trenching.	32.00	Hr	$220.00	$7,040.00	For site fixtures & specialties.
Steel fabricated swing access gate.	4.00	Ea	$8,000.00	$32,000.00	Allowance at all new onsite road loop access areas.
New monument sign.	1.00	LS	$7,500.00	$7,500.00	Allowance to be addressed.
Steel fabricated handrails, galvanized.	860.00	LF	$150.00	$129,000.00	At new east ramps, and ramp & steps between fields.
Railings or fencing at tops of walls.	900.00	LF	$80.00	$72,000.00	Allowance at the tops of most cast-in-place retaining walls.
Directional & ADA signage.	1.00	LS	$4,500.00	$4,500.00	Allowance at new parking lots and misc..
Waste & recycle receptacles.	10.00	Ea	$1,000.00	$10,000.00	Allowance at new plazas and around sports fields.
Water fountain and water bottle refiller.	1.00	Ea	$6,000.00	$6,000.00	In extended plaza, vandal resistant.
Bicycle racks.	4.00	Ea	$1,000.00	$4,000.00	Allowance in new plaza areas.
New portable bleachers.	8.00	Ea	$5,000.00	$40,000.00	Pre-fabricated aluminum bleachers where indicated on plan.
Sports field athletic equipment.	1.00	LS	$16,000.00	$16,000.00	Allowance for bases, portable goals and misc.
Electronic scoreboards.	2.00	Ea	$20,000.00	$40,000.00	Assumes one at each sports field though not noted on plan.
Miscellaneous site specialties & pick-up.	1.00	LS	$10,000.00	$10,000.00	Allowance for what is not yet addressed.
$1.26			*1.8) Site Fixtures & Specialties:*		*$378,040.00*
Backhoe trenching.	32.00	Hr	$220.00	$7,040.00	For playground area surfacing work.
Cast-in-place perimeter curbing.	2,450.00	LF	$40.00	$98,000.00	Around synthetic turf perimeters at both sports fields.
Synthetic turf, installed.	179,000.00	SF	$13.00	$2,327,000	Over both new sports fields.
Add for crushed base, underdrainage & prep.	179,000.00	SF	$5.00	$895,000.00	Under both new sports fields.
Add for fixture premiums & pick-up.	1.00	LS	$32,000.00	$32,000.00	Allowance, including possible vendor unloading.
$11.20			*1.9) Synthetic Turf Surfacing:*		*$3,359,040.00*
Backhoe trenching.	80.00	Hr	$220.00	$17,600.00	For site concrete work.
Cast-in-place curbs & gutters & curbing.	3,250.00	LF	$42.00	$136,500.00	At the edges of most new asphalt paving.
Concrete sidewalks & paving.	27,000.00	SF	$12.00	$324,000.00	Around and between new sport fields and misc.
Add for cast-in-place ramp premium.	2,400.00	SF	$10.00	$24,000.00	As laid out on plan, a long "U" ramp, plus one between fields.
Add for steps between sports fields.	320.00	LF	$180.00	$57,600.00	A 3' high stepped elevation change between an ADA ramp.
Add for tie-in & accent premiums.	15.00	MD	$1,000.00	$15,000.00	Allowance, including minor street patches.
Site concrete pick-up & coordination.	10.00	MD	$900.00	$9,000.00	Allowance, including general site clean-up.
$1.95			*1.10) Site Concrete Curbing & Paving:*		*$583,700.00*
New asphalt paving.	44,000.00	SF	$4.50	$198,000.00	As laid out on plan, assumes a 3" mix over 6" base.
Add for asphalt paving tie-in premiums.	1.00	LS	$7,500.00	$7,500.00	Allowance, including minor street patches.
Add for striping.	1.00	LS	$8,000.00	$8,000.00	Over new onsite paving.
$0.71			*1.11) Asphalt Paving & Striping:*		*$213,500.00*
Conventional sprinkler head coverage.	42,000.00	SF	$1.60	$67,200.00	In designated new planter areas.
Add for irrigation infrastructure.	1.00	LS	$6,500.00	$6,500.00	Allowance, including a point-of-connection to new meter.
Planter areas with topsoil & mulch.	42,000.00	SF	$6.00	$252,000.00	In plaza and high profile areas, with 6" topsoil and 2" mulch.
Seeded onsite areas with topsoil.	10,000.00	SF	$1.00	$10,000.00	In periphery areas, with a 4" layer of topsoil.
Add for new trees.	160.00	Ea	$450.00	$72,000.00	Allowance, assumes mostly native type 2" caliper.
Add for a soft surface trail premium.	600.00	LF	$16.00	$9,600.00	Assumes a 5' wide path of wood chips at south side of site.
Add for phased landscaping overlap work.	1.00	LS	$20,000.00	$20,000.00	Allowance between Phase 3 and Phase 2 boundaries.
Landscaping maintenance & pick-up work.	1.00	LS	$45,000.00	$45,000.00	Allowance, including warranty call-backs.
$1.61			*1.12) Landscaping & Site Clean-Up:*		*$482,300.00*
10' high chainlink fencing.	2,450.00	LF	$70.00	$171,500.00	Around new sports fields and dugouts.
Add for backstop premiums.	2.00	LS	$25,000.00	$50,000.00	One at each sports field.
Add for PVC coating.	29,000.00	SF	$1.25	$36,250.00	At all new chainlink fencing.
$0.86			*1.13) Site Fencing & Backstops:*		*$257,750.00*
PHASE 3 E SITE IMPROVEMENTS:	*300,000.00*	*SF*	*$29.52*	$8,855,430	
Add 25% for Estimate Mark-Ups:	***300,000.00***	***SF***	***$36.90***	**$11,069,288**	

About 300,000 SF of site improvements is included. Most of the Phase 3 E scope assumptions follow those in Phase 3 D. A big difference is that in Phase 3 E, one large sports field figured in Phase 3 D is instead broken up into two smaller sports fields. Also, in Phase 3 E, the east sports field finish grade is raised 3', which reduces excess subgrade excavation and haul-offs, plus overall retaining wall surface areas quantities. Added to the Phase 3 E scope is a set of concrete steps and an ADA ramp in the plaza paving between the two sports fields.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 E BUILDINGS & STRUCTURES:					
Dugout gate & roof support premiums.	4.00	LS	$1,000.00	$4,000.00	Allowance under new dugout roofs.
Dugout roof & shed assemblies.	2,000.00	SF	$40.00	$80,000.00	Simple metal roofing & framing, 4 x 500 SF.
Add for dugout lighting & other electrical.	2,000.00	SF	$5.00	$10,000.00	Allowance for simple vandal resistant lighting & power outlets.
$0.29		*2.1) New Dugout Roof Premiums:*			*$94,000.00*
Building foundation, complete.	960.00	SF	$50.00	$48,000.00	Based on Sports Complex Phase 1B comfort station design.
Architectural CMU exterior walls.	2,200.00	SF	$40.00	$88,000.00	" " " " " " " " " " " " " "
Building framing & sheathing.	960.00	SF	$90.00	$86,400.00	" " " " " " " " " " " " " "
Roofing & sheet metal.	1,500.00	SF	$35.00	$52,500.00	" " " " " " " " " " " " " "
Exterior wall & soffit finishes.	1,800.00	SF	$20.00	$36,000.00	" " " " " " " " " " " " " "
Exterior doors & windows.	960.00	SF	$32.00	$30,720.00	" " " " " " " " " " " " " "
Interior finishes.	960.00	SF	$50.00	$48,000.00	" " " " " " " " " " " " " "
Building specialties & equipment.	960.00	SF	$55.00	$52,800.00	" " " " " " " " " " " " " "
Building plumbing, vandal resistant.	960.00	SF	$160.00	$153,600.00	" " " " " " " " " " " " " "
Building heat & mechanical ventilation.	960.00	SF	$35.00	$33,600.00	" " " " " " " " " " " " " "
Building electrical, vandal resistant.	950.00	SF	$55.00	$52,250.00	" " " " " " " " " " " " " "
$2.27		*2.2) Comfort Station Building, Complete:*			*$681,870.00*
PHASE 3 E BUILDINGS & STRUCTURES:	*300,000.00*	*SF*	*$2.59*	$775,870	
Add 25% for General Contractor Mark-Ups:	***300,000.00***	***SF***	***$3.23***	**$969,838**	

For estimating purposes, the Phase 3 E and 3 D Buildings and Structures scope is figured to be identical to each other.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

GENERAL SCOPE:

This is a preliminary estimate that compares the costs of two proposed scopes to construct Phases 2 and 3 of a Gig Harbor Sports Complex near the Tom Taylor YMCA in Gig Harbor, WA. Specifically excluded are Phases 1A, 1B and 1C, all of which are to be done at different times and under separate contracts. For estimating purposes, Phase 2 and Phase 3 scopes, whether they be Alternates D or E, are treated as separate individual projects in their Base Estimates. If both were done at the same time and under the same contract there might be a $280,000 overall efficiency savings, not taking into account additional savings of avoiding further construction cost escalation premiums. Regardless of what specific scenario gets played out, it is assumed the existing Phase 2 area ballfields will be closed to the public and out of commission when new Phase 2 work takes place there.

The estimate includes full construction costs, plus the equivalent of a 4% to 5% design contingency. Sales tax and other soft costs such as permits, design fees, third party testing, utility connection fees if applicable, owner's administration costs, and a change order construction contingency are excluded. Also, since there is not yet a targeted date of when either Phase 2 or Phase 3 projects would start, all estimate costs are in current dollars. It is suggested that a construction cost escalation premium, calculated at about a 5% to 6% annual compounded rate, be added to the estimate bottom-lines once target dates are decided upon. Current scope information and costs are very preliminary and should be treated as such.

On this update to the cost report, dated 12/22/2023 BCRA, Inc. has made revisions to the original cost report, produced by Acker Consulting, dated 11/01/23, to incorporate suggested value engineering strategies.

INCLUDED:	EXCLUDED:
320,000 SF of Phase 2 and 300,000 SF of Phase site improvements.	Phase 1A, 1B and 1C work--under a separate contracts.
Site removal of strippings, plus extensive net excavation cut haul-offs.	Significant overexcavation--excavated subgrade cuts used as suitable fills.
Extensive retaining walls in both phases, with some soldier pile walls in Phase 3.	Site improvements beyond Phase 2 & 3 boundaries shown on proposed plans.
Provisions for new outside utility services, still to be defined and laid out.	Any wetlands mitigation work--assumed to be not applicable.
A new water main loop line with fire hydrants in Phase 3.	A new access road, expanded parking, and a fire main loop in Phase 2 work.
Removal of a septic system, replaced w/ a new sewer service to street in Ph. 2.	New storage containers, or removal & reinstallation of existing--by owner.
A new Contech underground storm detention vault in Phase 2.	No storm detention vault in Phase 3-a storm outlet to an existing pond instead.
Sports field lighting in both Phases 2 and 3.	Improvements to Phase 2 parking lot that remains aside from restriping.
Synthetic turf with underdrainage at new sports fields.	Grandstand type seating--portable type bleachers only. Reuse existing
Fencing at sports fields, plus backstops and scoreboards.	bleachers to maximum extent feasible.
Landscaping & irrigation in both phases.	Electronic monitoring, cameras, controlled gates, or street or traffic lighting.
A new Restroom & Concessions building in Phase 3.	Restriping of existing south Phase 2 parking lot that remains.
Contractor's general requirements, overhead & profit.	A new Restroom & Concessions building in Phase 2--existing remains.
Contractor's bond & insurance, and B & O tax.	Fire sprinkler protection, or an outside fire sprinkler service in either phases.
A 4% to 5% design contingency.	Sales tax, permits, 3rd party testing, design fees, or utility co. fees if applicable.
Material costs for 1:1 offsite tree replacement.	Owner's administration costs, or a change order contingency.
Restriping of existing south Phase 2 parking lot that remains.	Construction cost escalation or LEED administration & certification premiums.

	BUDGETARY COST ESTIMATE				
PROJECT COMPONENT	Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
BASE ESTIMATE PHASING AND COST OPTION SUMMARY: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
ALTERNATE D SCOPE:					
PHASE 2, Alternate D.	1.25	LS	$6,833,922	**$8,542,403**	See Page 2 for an Estimate Summary Breakdown.
PHASE 3, Alternate D.	1.25	LS	$9,387,254	**$11,734,068**	See Page 6 for an Estimate Summary Breakdown.
PHASE 2 & 3 ALTERNATE D TOTAL:				**$20,276,470**	Alternate D, Phase 2 & 3 separate projects in current dollars.
ALTERNATE E SCOPE:					
PHASE 2, Alternate E.	1.25	LS	$6,833,922	**$8,542,403**	See Page 10 for an Estimate Summary Breakdown.
PHASE 3, Alternate E.	1.25	LS	$9,458,674	**$11,823,343**	See Page 11 for an Estimate Summary Breakdown.
PHASE 2 & 3 ALTERNATE E TOTAL:				**$20,365,745**	Alternate D, Phase 2 & 3 separate projects in current dollars.

All Estimate Costs are in Fourth Quarter 2023 Dollars

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

PROJECT COMPONENT	BUDGETARY COST ESTIMATE Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
PHASE 2 D BASE ESTIMATE SUMMARY BREAKDOWN: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
SITE IMPROVEMENTS:					**$8,409,903**
1.1) Site Preparation to Subgrades.	1.25	LS	$574,590	$718,238	See Pages 3 & 4 for estimate details.
1.2) Retaining Walls.	1.25	LS	$1,320,400	$1,650,500	" " " " " " " " " " "
1.3) Outside Water.	1.25	LS	$15,500	$19,375	" " " " " " " " " " "
1.4) Outside Sanitary Sewer.	1.25	LS	$87,000	$108,750	" " " " " " " " " " "
1.5) Storm Drainage.	1.25	LS	$244,042	$305,053	" " " " " " " " " " "
1.6) Site Electrical & Lighting.	1.25	LS	$194,000	$242,500	" " " " " " " " " " "
1.7) Field Lighting Premium .	1.25	LS	$815,000	$1,018,750	" " " " " " " " " " "
1.8) Site Fixtures & Specialties.	1.25	LS	$286,440	$358,050	See Page 4 for estimate details.
1.9) Synthetic Turf Surfacing.	1.25	LS	$2,549,440	$3,186,800	" " " " " " " " " " "
1.10) Site Concrete Curbing & Paving.	1.25	LS	$142,280	$177,850	" " " " " " " " " " "
1.11) Asphalt Striping.	1.25	LS	$8,000	$10,000	" " " " " " " " " " "
1.12) Landscaping & Irrigation.	1.25	LS	$251,030	$313,788	" " " " " " " " " " "
1.13) Site Fencing & Backstops. $6,727,922	1.25	LS	$240,200	$300,250	" " " " " " " " " " "
BUILDINGS & STRUCTURES:					**$132,500**
2.1) New Dugout Roof Premiums.	1.25	LS	$94,000	$117,500	See Page 5 for estimate details.
2.2) Minor Restoration of Existing Buildings. $106,000	1.25	LS	$12,000	$15,000	" " " " " " " " " " "
PHASE 2 D BASE ESTIMATE MACC:				**$8,542,403**	

BASE ESTIMATE MARK-UP & GENERAL NOTES:

The above Base Estimate costs above and Option costs below include a 25% general contractor's mark-up, intended to cover general requirements, overhead & profit, bond & insurance, B & O tax and a modest 4% to 5% compounded design contingency. Soft costs, such as sales tax, permits, 3rd party testing, utility company connection fees if applicable, design fees, owner's administration costs and a change order contingency are not included. Costs and scope are very preliminary and should be treated as such.

Costs are in current dollars without any projected construction cost escalation figured. Once an approximate anticipated construction start date is targeted, it is suggested that a construction cost escalation premium be added to the estimate bottom-line at about a 5% to 6% compounded annual rate.

Phase 2 D is figured as its own independent project. If it were combined with Phase 3 D work, there might be a $280,000 combined savings between the two projects rather than being done under separate contacts and staggered at different times. These savings would come from incurring just one site mobilization instead of two, deleting site work overlaps at the boundaries between the two phases, and providing a nominal overall site work scope efficiency. This does not include possible savings of avoiding additional construction cost escalation if one of the phases were to be constructed at a later date from the other.

PROJECT COMPONENT	Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
PHASE 2 OPTIONS: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
O-1) Reuse Existing Large Ballfield Tower Pole	6.00	Ea	-$20,000.00	-$150,000	Existing light fixtures still figured to be replaced.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 2 D SITE IMPROVEMENTS:					
Temporary construction fencing.	2,450.00	LF	$4.00	$9,800.00	Around the site improvement perimeter.
Mobilization.	1.00	LS	$30,000.00	$30,000.00	Allowance for mass earthwork.
Remove of fencing and fixtures.	1.00	LS	$20,000.00	$20,000.00	At ballfields, batting cages, dugouts and elsewhere.
Removal of some existing paving.	1,000.00	SF	$2.50	$2,500.00	At battings cages, selected paving around ballfields, and misc.
Balance of onsite demolition.	1.00	LS	$6,000.00	$6,000.00	A minor allowance for removal of what is not addressed.
Silt fencing.	1,300.00	LF	$7.00	$9,100.00	Allowance around about half of site improvement perimeter.
Temporary construction entrance.	2,000.00	SF	$3.00	$6,000.00	Allowance, presumably at south side of site.
Temporary sediment pond.	1.00	LS	$15,000.00	$15,000.00	Allowance, possibly with a control structure and pump.
Erosion control with maintenance & pick-up.	1.00	LS	$90,000.00	$90,000.00	Allowance, dealing with some steep onsite slopes.
Onsite clearing and strippings.	200,000.00	SF	$0.30	$60,000.00	Mostly ballfields, some trees, less existing paving that remains.
Add for tree removal premium.	1.00	LS	$20,000.00	$20,000.00	Around most of site periphery, to be removed & de-stumped.
Remove strippings from site.	4,950.00	CY	$13.00	$64,350.00	Assumes an 8" avg. striping layer in improvement areas.
Onsite excavation cuts & rough grading.	10,180.00	CY	$5.00	$50,900.00	Based on preliminary BCRA take-offs.
Onsite excavation fills & rough grading.	4,460.00	CY	$5.00	$22,300.00	" " " " " " " " " "
Add to remove excess cuts from site.	5,720.00	CY	$12.00	$68,640.00	Net difference between subgrade cuts & fills after strippings.
Onsite finish grading.	200,000.00	SF	$0.15	$30,000.00	Based Phase 2 layout, mostly open, but with some slopes.
Add for phased site prep overlap work.	1.00	LS	$30,000.00	$30,000.00	Allowance between Phase 2 and Phase 3 boundaries.
Earthwork pick-up and coordination.	1.00	LS	$40,000.00	$40,000.00	Allowance, including de-mob & temp. pond removal.
$1.80			*1.1) Site Preparation to Subgrades:*	*$574,590.00*	
Cast-in-place ballfield retaining walls.	6,660.00	SF	$80.00	$532,800.00	At north and east sides of multipurpose fields, ending at monument stairs.
Cast-in-place stair walls.	6,200.00	SF	$85.00	$527,000.00	At east grade transition area, monument stairs
Rockery walls	340.00	LF	$10.00	$3,400.00	At east grade transition area, just south of monument stairs
Backfills, footing drains & pick-up.	12,860.00	SF	$20.00	$257,200.00	Behind cast-in-place retaining walls.
$4.13			*1.2) Retaining Walls:*	*$1,320,400.00*	
Waterline connection.	1.00	LS	$2,500.00	$2,500.00	Allowance from an existing onsite source.
New domestic water services.	1.00	LS	$5,000.00	$5,000.00	Allowance to a new drinking fountain & misc.
Add for domestic & irrigation meters.	1.00	LS	$6,000.00	$6,000.00	Allowance, primarily to accommodate irrigation modifications.
Waterline testing, coordination & pick-up.	1.00	LS	$2,000.00	$2,000.00	Allowance.
$0.05			*1.3) Outside Water:*	*$15,500.00*	
Remove existing septic tanks & drainfield.	1.00	LS	$20,000.00	$20,000.00	Allowance at north side of large ballfield.
New sanitary main to McCormick Creek Dr.	600.00	LF	$75.00	$45,000.00	From existing restroom/concessions building to street.
Add for sanitary manholes.	3.00	Ea	$5,000.00	$15,000.00	At new sanitary main.
Sanitary testing, coordination & pick-up.	1.00	LS	$7,000.00	$7,000.00	Allowance, including a steep hillside premium.
$0.27			*1.4) Outside Sanitary Sewer:*	*$87,000.00*	
New area drains.	5.00	Ea	$1,200.00	$6,000.00	Allowance at extended new pedestrian paving.
Control structure basin fixture.	1.00	Ea	$6,000.00	$6,000.00	Upstream of new storm detention vault.
New storm line mains, 8" to 12".	600.00	LF	$50.00	$30,000.00	From new area drains & underdrainage to new storm vault.
Roof & underdrainage extension lines.	1,200.00	LF	$30.00	$36,000.00	From new dugouts, walls & misc, to main storm system.
Infiltration bed excavation & haul-offs.	1,109.00	CY	$23.00	$25,507.00	For Contech storm detention system.
Infiltration bed chambers & accessories.	63.00	Ea	$1,500.00	$94,500.00	For Contech storm detention system.
Add for inlet piping.	2.00	LS	$2,000.00	$4,000.00	For Contech storm detention system.
Infiltration backfills.	690.00	CY	$43.00	$29,670.00	For Contech storm detention system.
Add for filter fabric wraps. Top-btm & perimeter	1892	SF	$1.25	$2,365.00	For Contech storm detention system.
Infiltration bed coordination & pick-up.	1.00	LS	$5,000.00	$5,000.00	For Contech storm detention system.
Storm testing, coordination & pick-up.	1.00	LS	$5,000.00	$5,000.00	Onsite allowance.
$0.76			*1.5) Storm Drainage:*	*$244,042.00*	
Remove field lighting pole fixture clusters.	4.00	Ea	$5,000.00	$20,000	Four at small ballfields.
General site electrical demolition.	1.00	LS	$20,000.00	$20,000	Allowance, includes protection of existing services that remain.
Primary power & transformer coordination.	1.00	LS	$15,000.00	$15,000	Allowance, possibly minor with existing in place.
Electrical services to onsite electrical fixtures.	2,000.00	LF	$32.00	$64,000	Allowance to lighting, dugouts and other site fixtures.
Pedestrian light fixtures.	10.00	Ea	$4,500.00	$45,000	At both new and existing pedestrian paved areas.
Miscellaneous onsite electrical.	1.00	LS	$30,000.00	$30,000	Allowance, including possible handholes & misc.
$0.61			*1.6) Site Electrical & Lighting:*	*$194,000.00*	
200 Amp services to light towers.	2,000.00	LF	$35.00	$70,000.00	A supplemental allowance around reconfigured ballfields.
Lighting controller panel.	1.00	LS	$10,000.00	$10,000.00	Allowance in electrical shack.
Sports field lighting towers fixtures, complete.	12.00	LS	$60,000.00	$720,000.00	Around both sports fields, w/ concrete bases, 10 lights on avg.
Site lighting coordination & pick-up.	1.00	LS	$15,000.00	$15,000.00	Allowance, with possible additional handholes and misc.
$2.55			*1.7) Field Lighting Premium:*	*$815,000.00*	

PHASE 2 D SITE IMPROVEMENTS, continues on the next page:

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 2 D SITE IMPROVEMENTS:					
(Continued from the previous page.)					
Backhoe trenching.	24.00	Hr	$220.00	$5,280.00	For site fixtures & specialties.
Steel fabricated handrails, galvanized.	740.00	LF	$150.00	$111,000.00	At new stairs and ramps.
Railings or fencing at tops of walls.	652.00	LF	$80.00	$52,160.00	Allowance at the top sides of retaining walls.
Directional & ADA signage.	1.00	LS	$3,000.00	$3,000.00	Allowance at existing parking lot and misc..
Waste & recycle receptacles.	10.00	Ea	$1,000.00	$10,000.00	Allowance at new & existing plaza and around sports fields.
Water fountain and water bottle refiller.	1.00	Ea	$6,000.00	$6,000.00	In extended plaza, vandal resistant.
Bicycle racks.	4.00	Ea	$1,000.00	$4,000.00	Allowance in new & existing plaza areas.
New portable bleachers.	2.00	Ea	$5,000.00	$10,000.00	Pre-fabricated aluminum bleachers (1 at ea. New small ballfields. - rest to be re-used existing bleachers.
Sports field athletic equipment.	1.00	LS	$15,000.00	$15,000.00	Allowance for bases, portable goals and misc.
Electronic scoreboards.	3.00	Ea	$20,000.00	$60,000.00	Two at north field and one at main baseball field.
Miscellaneous site specialties & pick-up.	1.00	LS	$10,000.00	$10,000.00	Allowance for what is not yet addressed.
$0.90			*1.8) Site Fixtures & Specialties:*	*$286,440.00*	
Backhoe trenching.	32.00	Hr	$220.00	$7,040.00	For playground area surfacing work.
Cast-in-place perimeter curbing.	2,060.00	LF	$40.00	$82,400.00	Around synthetic turf perimeters at both sports fields.
Synthetic turf, installed.	135,000.00	SF	$13.00	$1,755,000	Over both new sports fields.
Add for crushed base, underdrainage & prep.	135,000.00	SF	$5.00	$675,000.00	Under both new sports fields.
Add for fixture premiums & pick-up.	1.00	LS	$30,000.00	$30,000.00	Allowance, including possible vendor unloading.
$7.97			*1.9) Synthetic Turf Surfacing:*	*$2,549,440.00*	
Backhoe trenching.	64.00	Hr	$220.00	$14,080.00	For site concrete work.
Concrete sidewalks & paving.	7,000.00	SF	$12.00	$84,000.00	Around new sport fields and from existing plaza paving.
Add for stair premiums.	1,200.00	SF	$10.00	$12,000.00	As laid out on plan, one set of stairs
Add for tie-in & accent premiums.	10.00	MD	$1,000.00	$10,000.00	Allowance, with concrete in cut-up quantities.
Add for possible minor concrete repairs.	12.00	MD	$1,100.00	$13,200.00	Allowance at existing concrete paving that remains.
Site concrete pick-up & coordination.	10.00	MD	$900.00	$9,000.00	Allowance, including general site clean-up.
$0.44			*1.10) Site Concrete Curbing & Paving:*	*$142,280.00*	
Add for striping.	1.00	LS	$8,000.00	$8,000.00	Over both new and existing paving, including blackouts.
$0.03			*1.11) Asphalt Striping:*	*$8,000.00*	
Conventional sprinkler head coverage.	15,000.00	SF	$1.60	$24,000.00	In designated new planter areas.
Add for irrigation infrastructure.	1.00	LS	$6,000.00	$6,000.00	Allowance, connecting to existing in plaza area.
Planter areas with topsoil & mulch.	15,000.00	SF	$6.00	$90,000.00	In plaza and high profile areas, with 6" topsoil and 2" mulch.
Seeded onsite areas with topsoil.	15,000.00	SF	$1.00	$15,000.00	In periphery areas, with a 4" layer of topsoil.
Add for new trees.	120.00	Ea	$450.00	$54,000.00	Allowance, assumes mostly native type 2" caliper.
Allowance for offsite tree replacement	45.00	Ea	$14.00	$630.00	Allowance, assumes 2 gallon trees - labor not included
Add for a soft surface trail premium.	400.00	LF	$16.00	$6,400.00	Assumes a 5' wide path of wood chips at south side of site.
Add for phased landscaping overlap work.	1.00	LS	$20,000.00	$20,000.00	Allowance between Phase 2 and Phase 3 boundaries.
Landscaping maintenance & pick-up work.	1.00	LS	$35,000.00	$35,000.00	Allowance, including warranty call-backs.
$0.78			*1.12) Landscaping & Irrigation:*	*$251,030.00*	
10' high chainlink fencing.	2,200.00	LF	$70.00	$154,000.00	Around new sports fields, dugouts and batting cages.
Add for a large backstop & netting premium.	1.00	LS	$30,000.00	$30,000.00	Up to 30' high at main baseball field.
Add for smaller backstop premiums.	2.00	LS	$20,000.00	$40,000.00	At rectangular sports field.
Movable outfield fencing.	450.00	LF	$36.00	$16,200.00	At large baseball field, portable, in sections, 4' high.
$0.75			*1.13) Site Fencing & Backstops:*	*$240,200.00*	
PHASE 2 D SITE IMPROVEMENTS:	*250,000.00*	*SF*	*$26.91*	$6,727,922	
Add 25% for Estimate Mark-Ups:	***250,000.00***	***SF***	***$33.64***	**$8,409,903**	

About 250,000 SF of site improvements is figured in Phase 2 D. Some factors that make the overall site $/SF seem higher than the norm are: 1) extensive excavation cuts into a some steep hillsides that entail a large amount excess cut haul-offs and high retaining walls, 2) a large underground storm detention system, 3) new sports field lighting poles at the small ballfields and new lighting fixtures, and 4) over half the site is covered with new synthetic sports turf with underdrainage. The existing south parking lot for the most part remains as-is. The existing onsite septic system and drainfield is figured to be removed and replaced with a new sanitary sewer service that ties into an existing street side main running along McCormick Creek Drive.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 2 D BUILDINGS & STRUCTURES:					
Dugout gate & roof support premiums.	4.00	LS	$1,000.00	$4,000.00	Allowance under new dugout roofs.
Dugout roof & shed assemblies.	2,000.00	SF	$40.00	$80,000.00	Simple metal roofing & framing, 4 x 500 SF.
Add for dugout lighting & other electrical.	2,000.00	SF	$5.00	$10,000.00	Allowance for simple vandal resistant lighting & power outlets.
$0.29		*2.1) New Dugout Roof Premiums:*		*$94,000.00*	
Restoration of existing tower building.	1.00	LS	$200.00	$200.00	Allowance for mainly cosmetic exterior restoration.
Restoration of existing dugout that remains.	1.00	LS	$1,800.00	$1,800.00	New roofing and cosmetic finishes.
Restoration of Umpire & electrical sheds.	1.00	LS	$10,000.00	$10,000.00	Allowance for mainly cosmetic exterior restoration.
$0.04		*2.2) Minor Restoration of Existing Buildings:*		*$12,000.00*	
PHASE 2 D BUILDINGS & STRUCTURES:	*320,000.00*	*SF*	*$0.33*	$106,000	
Add 25% for Estimate Mark-Ups:	***320,000.00***	***SF***	***$0.41***	**$132,500**	

Simple metal roofing and gage framing is figured over the new dugouts, along with some Spartan type but vandal resistant lighting and power outlets.

An existing dugout and tower building at the large baseball field is figured to remain as-is, with provisions included for some minor exterior restoration. An existing Umpire's shed and adjoining electrical shack are figured to remain in place with provisions included for some minor exterior restoration. An existing restroom and concessions stand is figured to remain as-is.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

PROJECT COMPONENT	BUDGETARY COST ESTIMATE Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
PHASE 3 D BASE ESTIMATE SUMMARY BREAKDOWN: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
SITE IMPROVEMENTS:					**$10,764,230**
1.1) Site Preparation to Subgrades.	1.25	LS	$1,334,850	$1,668,563	See Pages 7 & 8 for estimate details.
1.2) Retaining Walls.	1.25	LS	$1,059,000	$1,323,750	"
1.3) Outside Water.	1.25	LS	$216,000	$270,000	"
1.4) Outside Sanitary Sewer.	1.25	LS	$65,000	$81,250	"
1.5) Storm Drainage.	1.25	LS	$246,100	$307,625	"
1.6) Site Electrical & Lighting.	1.25	LS	$225,000	$281,250	"
1.7) Field Lighting Premium .	1.25	LS	$808,000	$1,010,000	"
1.8) Site Fixtures & Specialties.	1.25	LS	$329,540	$411,925	See Page 8 for estimate details.
1.9) Synthetic Turf Surfacing.	1.25	LS	$3,255,040	$4,068,800	"
1.10) Site Concrete Curbing & Paving.	1.25	LS	$447,100	$558,875	"
1.11) Asphalt Paving & Striping.	1.25	LS	$240,500	$300,625	"
1.12) Landscaping & Irrigation.	1.25	LS	$258,254	$322,818	"
1.13) Site Fencing & Backstops.	1.25	LS	$127,000	$158,750	"
$8,611,384					
BUILDINGS & STRUCTURES:					**$969,838**
2.1) New Dugout Roof Premiums.	1.25	LS	$94,000	$117,500	See Page 9 for estimate details.
2.2) New Comfort Station.	1.25	LS	$681,870	$852,338	"
$775,870					
PHASE 3 D BASE ESTIMATE MACC:				**$11,734,068**	

BASE ESTIMATE MARK-UP & GENERAL NOTES:

The above Base Estimate costs above include a 25% general contractor's mark-up, intended to cover general requirements, overhead & profit, bond & insurance, B & O tax and a modest 4% to 5% compounded design contingency. Soft costs, such as sales tax, permits, 3rd party testing, utility company connection fees if applicable, design fees, owner's administration costs and a change order contingency are not included. Costs and scope are very preliminary and should be treated as such.

Costs are in current dollars without any projected construction cost escalation figured. Once an approximate anticipated construction start date is targeted, it is suggested that a construction cost escalation premium be added to the estimate bottom-line at about a 5% to 6% compounded annual rate.

Phase 3 D is figured as its own independent project. If it were combined with Phase 2 D work, there might be a $280,000 combined savings between the two projects rather than being done under separate contacts and staggered at different times. These savings would come from incurring one just site mobilization instead of two, deleting site work overlaps at the boundaries between the two phases, and providing a nominal overall site work scope efficiency. This does not include possible savings of avoiding additional construction cost escalation if one of the phases were to be constructed at a later date from the other.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 D SITE IMPROVEMENTS:					
Temporary construction fencing.	2,300.00	LF	$4.00	$9,200.00	Around the site improvement perimeter.
Mobilization.	1.00	LS	$30,000.00	$30,000.00	Allowance for mass earthwork.
Minor site demolition.	1.00	LS	$10,000.00	$10,000.00	At new site entries and misc.
Silt fencing.	2,200.00	LF	$7.00	$15,400.00	Allowance around most of site improvement perimeter.
Temporary construction entrance.	3,000.00	SF	$3.00	$9,000.00	Allowance, presumably at east or south side of site.
Temporary sediment pond.	1.00	LS	$20,000.00	$20,000.00	Allowance, possibly with a control structure and pump.
Erosion control with maintenance & pick-up.	1.00	LS	$120,000.00	$120,000.00	Allowance, dealing with some steep onsite slopes.
Onsite clearing and strippings.	300,000.00	SF	$0.40	$120,000.00	Mostly heavily treed with some site slopes.
Add for tree removal premium.	1.00	LS	$50,000.00	$50,000.00	To be removed & de-stumped.
Remove strippings from site.	7,500.00	CY	$13.00	$97,500.00	Assumes an 8" avg. stripping layer in improvement areas.
Onsite excavation cuts & rough grading.	47,370.00	CY	$5.00	$236,850.00	Based on preliminary BCRA take-offs.
Onsite excavation fills & rough grading.	10,220.00	CY	$5.00	$51,100.00	" " " " " " " " " "
Add to remove excess cuts from site.	37,150.00	CY	$12.00	$445,800.00	Net difference between subgrade cuts & fills after strippings.
Onsite finish grading.	300,000.00	SF	$0.15	$45,000.00	Based on Phase 3D layout, mostly open, but with some slopes.
Add for phased site prep overlap work.	1.00	LS	$30,000.00	$30,000.00	Allowance between Phase 3 and Phase 2 boundaries.
Earthwork pick-up and coordination.	1.00	LS	$45,000.00	$45,000.00	Allowance, including de-mob & temp. pond removal.
$4.45			*1.1) Site Preparation to Subgrades:*	*$1,334,850.00*	
Cast-in-place ballfield retaining walls.	5,270.00	SF	$80.00	$421,600.00	From 2' to 13' high.
Cast-in-place ramp walls.	1,300.00	SF	$85.00	$110,500.00	At east grade transition area, 260 LF x 5' average with steps.
Soldier piles, soil pins & lagging.	2,260.00	SF	$150.00	$339,000	Along north edge of phase 3 fields - no fascia panels.
Prep, excavation, backfills & drainage.	2,260.00	SF	$25.00	$56,500.00	Into existing hillsides, with top and base drains.
Backfills, footing drains & pick-up.	6,570.00	SF	$20.00	$131,400.00	Behind cast-in-place retaining walls.
$3.53			*1.2) Retaining Walls:*	*$1,059,000.00*	
Waterline connection.	1.00	LS	$7,000.00	$7,000.00	Allowance at an existing Harbor Hill Drive main.
New water mains, with fittings.	1,500.00	LF	$100.00	$150,000.00	Assumes 8" Class 52 ductile iron along new loop road.
New fire hydrant assemblies & branch lines.	4.00	Ea	$8,000.00	$32,000.00	Allowance along new onsite loop road.
New domestic water services.	1.00	LS	$12,000.00	$12,000.00	Allowance to a new Comfort Station, drinking fountain & misc.
Add for domestic & irrigation meters.	1.00	LS	$10,000.00	$10,000.00	Allowance to accommodate domestic & irrigation services.
Waterline testing, coordination & pick-up.	1.00	LS	$5,000.00	$5,000.00	Allowance.
$0.72			*1.3) Outside Water:*	*$216,000.00*	
Sanitary line connection.	1.00	LS	$5,000.00	$5,000.00	Allowance at an existing Harbor Hill Drive main.
New onsite sanitary mains.	600.00	LF	$75.00	$45,000.00	To new Comfort Station from Harbor Hill Drive.
Add for sanitary manholes.	2.00	Ea	$5,000.00	$10,000.00	At new sanitary main.
Sanitary testing, coordination & pick-up.	1.00	LS	$5,000.00	$5,000.00	Allowance, including possible cleanouts.
$0.22			*1.4) Outside Sanitary Sewer:*	*$65,000.00*	
New Type #1 catch basins.	10.00	Ea	$2,200.00	$22,000.00	At new onsite loop road and parking asphalt paving.
New area drains.	10.00	Ea	$1,200.00	$12,000.00	Allowance at extended new pedestrian paving.
Control structure basin fixture.	1.00	Ea	$6,000.00	$6,000.00	Allowance at east side of site.
New storm line mains, mostly 12".	2,500.00	LF	$65.00	$162,500.00	From new basins & underdrainage to offsite storm outlet.
Roof & underdrainage extension lines.	800.00	LF	$32.00	$25,600.00	From new dugouts, walls & misc, to main storm system.
New offsite storm outlet.	1.00	LS	$10,000.00	$10,000.00	Allowance to an existing storm main that drains into a pond.
Storm testing, coordination & pick-up.	1.00	LS	$8,000.00	$8,000.00	Onsite allowance.
$0.82			*1.5) Storm Drainage:*	*$246,100.00*	
Primary power & transformer coordination.	1.00	LS	$20,000.00	$20,000	Allowance, transformer & primary wire by power company.
Electrical services to onsite electrical fixtures.	2,600.00	LF	$25.00	$65,000	Allowance to lighting, dugouts and other site fixtures.
Parking lot pole light fixtures.	10.00	Ea	$5,000.00	$50,000	Along new onsite loop road.
Pedestrian light fixtures.	10.00	Ea	$4,500.00	$45,000	Primarily at new pedestrian paved areas.
Miscellaneous onsite electrical.	1.00	LS	$45,000.00	$45,000	Allowance, including possible handholes & misc.
$0.75			*1.6) Site Electrical & Lighting:*	*$225,000.00*	
200 Amp services to light towers.	1,800.00	LF	$35.00	$63,000.00	A supplemental allowance around new sports fields.
Lighting controller panel.	1.00	LS	$10,000.00	$10,000.00	Allowance in electrical shack.
Sports field lighting towers fixtures, complete.	12.00	LS	$60,000.00	$720,000.00	Around both sports fields, w/ concrete bases, 10 lights on avg.
Site lighting coordination & pick-up.	1.00	LS	$15,000.00	$15,000.00	Allowance, with possible additional handholes and misc.
$2.69			*1.7) Field Lighting Premium:*	*$808,000.00*	

PHASE 3 D SITE IMPROVEMENTS, continues on the next page:

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 D SITE IMPROVEMENTS:					
(Continued from the previous page.)					
Backhoe trenching.	32.00	Hr	$220.00	$7,040.00	For site fixtures & specialties.
Steel fabricated swing access gate.	4.00	Ea	$8,000.00	$32,000.00	Allowance at all new onsite road loop access areas.
New monument sign.	1.00	LS	$7,500.00	$7,500.00	Allowance to be addressed.
Steel fabricated handrails, galvanized.	490.00	LF	$150.00	$73,500.00	At new east ramps.
Railings or fencing at tops of walls.	1,000.00	LF	$80.00	$80,000.00	Allowance at the tops of most cast-in-place retaining walls.
Directional & ADA signage.	1.00	LS	$4,500.00	$4,500.00	Allowance at new parking lots and misc..
Waste & recycle receptacles.	10.00	Ea	$1,000.00	$10,000.00	Allowance at new plazas and around sports fields.
Water fountain and water bottle refiller.	1.00	Ea	$6,000.00	$6,000.00	In extended plaza, vandal resistant.
Bicycle racks.	4.00	Ea	$1,000.00	$4,000.00	Allowance in new plaza areas.
New portable bleachers.	8.00	Ea	$5,000.00	$40,000.00	Pre-fabricated aluminum bleachers where indicated on plan.
Sports field athletic equipment.	1.00	LS	$15,000.00	$15,000.00	Allowance for bases, portable goals and misc.
Electronic scoreboards.	2.00	Ea	$20,000.00	$40,000.00	One at north and south sides of field.
Miscellaneous site specialties & pick-up.	1.00	LS	$10,000.00	$10,000.00	Allowance for what is not yet addressed.
$1.10			*1.8) Site Fixtures & Specialties:*	*$329,540.00*	
Backhoe trenching.	32.00	Hr	$220.00	$7,040.00	For surfacing work.
Cast-in-place perimeter curbing.	1,700.00	LF	$40.00	$68,000.00	Around synthetic turf perimeters at both sports fields.
Synthetic turf, installed.	175,000.00	SF	$13.00	$2,275,000	Over both new sports fields.
Add for crushed base, underdrainage & prep.	175,000.00	SF	$5.00	$875,000.00	Under both new sports fields.
Add for fixture premiums & pick-up.	1.00	LS	$30,000.00	$30,000.00	Allowance, including possible vendor unloading.
$10.85			*1.9) Synthetic Turf Surfacing:*	*$3,255,040.00*	
Backhoe trenching.	80.00	Hr	$220.00	$17,600.00	For site concrete work.
Cast-in-place curbs & gutters & curbing.	3,250.00	LF	$42.00	$136,500.00	At the edges of most new asphalt paving.
Concrete sidewalks & paving.	21,000.00	SF	$12.00	$252,000.00	Around new sport fields and misc.
Add for cast-in-place ramp premium.	2,000.00	SF	$10.00	$20,000.00	As laid out on plan, a long "U" ramp.
Add for tie-in & accent premiums.	12.00	MD	$1,000.00	$12,000.00	Allowance, including minor street patches.
Site concrete pick-up & coordination.	10.00	MD	$900.00	$9,000.00	Allowance, including general site clean-up.
$1.49			*1.10) Site Concrete Curbing & Paving:*	*$447,100.00*	
New asphalt paving.	50,000.00	SF	$4.50	$225,000.00	As laid out on plan, assumes a 3" mix over 6" base.
Add for asphalt paving tie-in premiums.	1.00	LS	$7,500.00	$7,500.00	Allowance, including minor street patches.
Add for striping.	1.00	LS	$8,000.00	$8,000.00	Over new onsite paving.
$0.80			*1.11) Asphalt Paving & Striping:*	*$240,500.00*	
Conventional sprinkler head coverage.	12,500.00	SF	$1.60	$20,000.00	In designated new planter areas.
Add for irrigation infrastructure.	1.00	LS	$6,000.00	$6,000.00	Allowance, including a point-of-connection to new meter.
Planter areas with topsoil & mulch.	12,500.00	SF	$6.00	$75,000.00	In plaza and high profile areas, with 6" topsoil and 2" mulch.
Seeded onsite areas with topsoil.	14,000.00	SF	$1.00	$14,000.00	In periphery areas, with a 4" layer of topsoil.
Add for new trees.	140.00	Ea	$450.00	$63,000.00	Allowance, assumes mostly native type 2" caliper.
Allowance for offsite tree replacement	761.00	Ea	$14.00	$10,654.00	Allowance, assumes 2 gallon trees, labor not included
Add for a soft surface trail premium.	600.00	LF	$16.00	$9,600.00	Assumes a 5' wide path of wood chips at south side of site.
Add for phased landscaping overlap work.	1.00	LS	$20,000.00	$20,000.00	Allowance between Phase 3 and Phase 2 boundaries.
Landscaping maintenance & pick-up work.	1.00	LS	$40,000.00	$40,000.00	Allowance, including warranty call-backs.
$0.86			*1.12) Landscaping & Irrigation:*	*$258,254.00*	
10' high chainlink fencing.	1,100.00	LF	$70.00	$77,000.00	Around new sports fields and dugouts - except where retaining walls serve as ball protection
Add for backstop premiums.	2.00	LS	$25,000.00	$50,000.00	At rectangular sports field.
$0.42			*1.13) Site Fencing & Backstops:*	*$127,000.00*	
PHASE 3 D SITE IMPROVEMENTS:	*300,000.00*	*SF*	*$28.70*	$8,611,384	
Add 25% for Estimate Mark-Ups:	***300,000.00***	***SF***	***$35.88***	**$10,764,230**	

About 300,000 SF of is figured in Phase 3 D. Like Phase 2 D, extensive earthwork cuts, fills and haul-offs are figured, along with retaining walls, but not as much. The primary reason why the Phase 3 D cost is more than Phase 2 D is the latter has more synthetic turf and more retaining walls. Also, no new underground storm detention vault is figured in Phase 3 D. Instead, excess storm run-off is figured to tie into an existing near-by onsite storm main that drains into an existing large detention pond that has enough capacity to handle the additional loads. Unlike Phase 2 D, Phase 3 D includes an onsite loop road with a new water main loop and fire hydrants.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 D BUILDINGS & STRUCTURES:					
Dugout gate & roof support premiums.	4.00	LS	$1,000.00	$4,000.00	Allowance under new dugout roofs.
Dugout roof & shed assemblies.	2,000.00	SF	$40.00	$80,000.00	Simple metal roofing & framing, 4 x 500 SF.
Add for dugout lighting & other electrical.	2,000.00	SF	$5.00	$10,000.00	Allowance for simple vandal resistant lighting & power outlets.
$0.29		*2.1) New Dugout Roof Premiums:*		*$94,000.00*	
Building foundation, complete.	960.00	SF	$50.00	$48,000.00	Based on Sports Complex Phase 1B comfort station design.
Architectural CMU exterior walls.	2,200.00	SF	$40.00	$88,000.00	" " " " " " " " " " " " " "
Building framing & sheathing.	960.00	SF	$90.00	$86,400.00	" " " " " " " " " " " " " "
Roofing & sheet metal.	1,500.00	SF	$35.00	$52,500.00	" " " " " " " " " " " " " "
Exterior wall & soffit finishes.	1,800.00	SF	$20.00	$36,000.00	" " " " " " " " " " " " " "
Exterior doors & windows.	960.00	SF	$32.00	$30,720.00	" " " " " " " " " " " " " "
Interior finishes.	960.00	SF	$50.00	$48,000.00	" " " " " " " " " " " " " "
Building specialties & equipment.	960.00	SF	$55.00	$52,800.00	" " " " " " " " " " " " " "
Building plumbing, vandal resistant.	960.00	SF	$160.00	$153,600.00	" " " " " " " " " " " " " "
Building heat & mechanical ventilation.	960.00	SF	$35.00	$33,600.00	" " " " " " " " " " " " " "
Building electrical, vandal resistant.	950.00	SF	$55.00	$52,250.00	" " " " " " " " " " " " " "
$2.27		*2.2) Comfort Station Building, Complete:*		*$681,870.00*	
PHASE 3 D BUILDINGS & STRUCTURES:	*300,000.00*	*SF*	*$2.59*	$775,870	
Add 25% for General Contractor Mark-Ups:	***300,000.00***	***SF***	***$3.23***	**$969,838**	

As with Phase 2 D, simple metal roofing and gage framing is figured over the new Phase 3 D dugouts, along with some Spartan type but vandal resistant lighting and power outlets.

A field constructed Comfort Station building is included, for now figured to follow the same design and scope layout of a new Restroom and Concession building figured in the Gig Harbor Sports Complex Phase 1B project.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

PROJECT COMPONENT	BUDGETARY COST ESTIMATE Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
PHASE 2 E BASE ESTIMATE SUMMARY BREAKDOWN: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
SITE IMPROVEMENTS:					**$8,409,903**
1.1) Site Preparation to Subgrades.	1.25	LS	$574,590	$718,238	Same as Phase 2 D scope, see Pages 3 & 4 for details.
1.2) Retaining Walls.	1.25	LS	$1,320,400	$1,650,500	" " " " " " " " " " " " " "
1.3) Outside Water.	1.25	LS	$15,500	$19,375	" " " " " " " " " " " " " "
1.4) Outside Sanitary Sewer.	1.25	LS	$87,000	$108,750	" " " " " " " " " " " " " "
1.5) Storm Drainage.	1.25	LS	$244,042	$305,053	" " " " " " " " " " " " " "
1.6) Site Electrical & Lighting.	1.25	LS	$194,000	$242,500	" " " " " " " " " " " " " "
1.7) Field Lighting Premium .	1.25	LS	$815,000	$1,018,750	" " " " " " " " " " " " " "
1.8) Site Fixtures & Specialties.	1.25	LS	$286,440	$358,050	Same as Phase 2 D scope, see Page 4 for details.
1.9) Synthetic Turf Play Surfacing.	1.25	LS	$2,549,440	$3,186,800	" " " " " " " " " " " " " "
1.10) Site Concrete Curbing & Paving.	1.25	LS	$142,280	$177,850	" " " " " " " " " " " " " "
1.11) Asphalt Paving & Striping.	1.25	LS	$8,000	$10,000	" " " " " " " " " " " " " "
1.12) Landscaping & Irrigation.	1.25	LS	$251,030	$313,788	" " " " " " " " " " " " " "
1.13) Site Fencing & Backstops.	1.25	LS	$240,200	$300,250	" " " " " " " " " " " " " "
$6,727,922					
BUILDINGS & STRUCTURES:					**$132,500**
2.1) New Dugout Roof Premiums.	1.25	LS	$94,000	$117,500	Same as Phase 2 D scope, see Page 5 for details.
2.2) Minor Restoration of Existing Buildings.	1.25	LS	$12,000	$15,000	" " " " " " " " " " " " " "
2.3) Premium to Relocate Existing Sheds.	1.25	LS	N/A	N/A	Not part of Phase 2 E scope.
$106,000					
PHASE 2 E BASE ESTIMATE MACC:				**$8,542,403**	

BASE ESTIMATE MARK-UP & GENERAL NOTES:

The above Base Estimate costs above and Option costs below include a 25% general contractor's mark-up, intended to cover general requirements, overhead & profit, bond & insurance, B & O tax and a modest 4% to 5% compounded design contingency. Soft costs, such as sales tax, permits, 3rd party testing, utility company connection fees if applicable, design fees, owner's administration costs and a change order contingency are not included. Costs and scope are very preliminary and should be treated as such.

Costs are in current dollars without any projected construction cost escalation figured. Once an approximate anticipated construction start date is targeted, it is suggested that a construction cost escalation premium be added to the estimate bottom-line at about a 5% to 6% compounded annual rate.

Phase 2 E is figured as its own independent project. If it were combined with Phase 3 E work, there might be a $280,000 combined savings between the two projects rather than being done under separate contacts and staggered at different times. These savings would come from incurring just one site mobilization instead of two, deleting site work overlaps at the boundaries between the two phases, and providing a nominal overall site work scope efficiency. This does not include possible savings of avoiding additional construction cost escalation if one of the phases were to be constructed at a later date from the other.

PROJECT COMPONENT	Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
PHASE 2 OPTIONS: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
O-1) Reuse Existing Large Field Tower Poles	6.00	Ea	-$20,000.00	-$150,000	Existing light fixtures still figured to be replaced.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

PROJECT COMPONENT	BUDGETARY COST ESTIMATE Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
PHASE 3 E BASE ESTIMATE SUMMARY BREAKDOWN: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
SITE IMPROVEMENTS:					**$10,853,505**
1.1) Site Preparation to Subgrades.	1.25	LS	$1,067,520	$1,334,400	See Pages 12 & 13 for estimate details.
1.2) Retaining Walls.	1.25	LS	$1,132,250	$1,415,313	" " " " " " " " " " "
1.3) Outside Water.	1.25	LS	$219,000	$273,750	" " " " " " " " " " "
1.4) Outside Sanitary Sewer.	1.25	LS	$65,000	$81,250	" " " " " " " " " " "
1.5) Storm Drainage.	1.25	LS	$265,500	$331,875	" " " " " " " " " " "
1.6) Site Electrical & Lighting.	1.25	LS	$216,000	$270,000	" " " " " " " " " " "
1.7) Field Lighting Premium .	1.25	LS	$688,000	$860,000	" " " " " " " " " " "
1.8) Site Fixtures & Specialties.	1.25	LS	$324,790	$405,988	See Page 13 for estimate details.
1.9) Synthetic Turf Surfacing.	1.25	LS	$3,320,040	$4,150,050	" " " " " " " " " " "
1.10) Site Concrete, Pads & Paving.	1.25	LS	$511,700	$639,625	" " " " " " " " " " "
1.11) Asphalt Paving & Striping.	1.25	LS	$213,500	$266,875	" " " " " " " " " " "
1.12) Landscaping & Irrigation.	1.25	LS	$401,754	$502,193	" " " " " " " " " " "
1.13) Site Fencing & Backstops. $8,682,804	1.25	LS	$257,750	$322,188	" " " " " " " " " " "
BUILDINGS & STRUCTURES:					**$969,838**
2.1) New Dugout Roof Premiums.	1.25	LS	$94,000	$117,500	See Page 14 for estimate details.
2.2) New Comfort Station. $775,870	1.25	LS	$681,870	$852,338	" " " " " " " " " " "
PHASE 3 E BASE ESTIMATE MACC:				**$11,823,343**	

BASE ESTIMATE MARK-UP & GENERAL NOTES:

The above Base Estimate costs above include a 25% general contractor's mark-up, intended to cover general requirements, overhead & profit, bond & insurance, B & O tax and a modest 4% to 5% compounded design contingency. Soft costs, such as sales tax, permits, 3rd party testing, utility company connection fees if applicable, design fees, owner's administration costs and a change order contingency are not included. Costs and scope are very preliminary and should be treated as such.

Costs are in current dollars without any projected construction cost escalation figured. Once an approximate anticipated construction start date is targeted, it is suggested that a construction cost escalation premium be added to the estimate bottom-line at about a 5% to 6% compounded annual rate.

Phase 3 E is figured as its own independent project. If it were combined with Phase 2 E work, there might be a $280,000 combined savings between the two projects rather than being done under separate contacts and staggered at different times. These savings would come from incurring one just site mobilization instead of two, deleting site work overlaps at the boundaries between the two phases, and providing a nominal overall site work scope efficiency. This does not include possible savings of avoiding additional construction cost escalation if one of the phases were to be constructed at a later date from the other.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 E SITE IMPROVEMENTS:					
Temporary construction fencing.	2,300.00	LF	$4.00	$9,200.00	Around the site improvement perimeter.
Mobilization.	1.00	LS	$30,000.00	$30,000.00	Allowance for mass earthwork.
Minor site demolition.	1.00	LS	$10,000.00	$10,000.00	At new site entries and misc.
Silt fencing.	2,200.00	LF	$7.00	$15,400.00	Allowance around most of site improvement perimeter.
Temporary construction entrance.	3,000.00	SF	$3.00	$9,000.00	Allowance, presumably at east or south side of site.
Temporary sediment pond.	1.00	LS	$20,000.00	$20,000.00	Allowance, possibly with a control structure and pump.
Erosion control with maintenance & pick-up.	1.00	LS	$120,000.00	$120,000.00	Allowance, dealing with some steep onsite slopes.
Onsite clearing and strippings.	300,000.00	SF	$0.40	$120,000.00	Mostly heavily treed with some site slopes.
Add for tree removal premium.	1.00	LS	$50,000.00	$50,000.00	To be removed & de-stumped.
Remove strippings from site.	7,500.00	CY	$13.00	$97,500.00	Assumes an 8" avg. stripping layer in improvement areas.
Onsite excavation cuts & rough grading.	31,690.00	CY	$5.00	$158,450.00	Based on preliminary BCRA take-offs.
Onsite excavation fills & rough grading.	10,330.00	CY	$5.00	$51,650.00	Based on preliminary BCRA take-offs.
Add to remove excess cuts from site.	21,360.00	CY	$12.00	$256,320.00	Net difference between subgrade cuts & fills after strippings.
Onsite finish grading.	300,000.00	SF	$0.15	$45,000.00	Based on Phase 3E layout,mostly open but with some slopes.
Add for phased site prep overlap work.	1.00	LS	$30,000.00	$30,000.00	Allowance between Phase 3 and Phase 2 boundaries.
Earthwork pick-up and coordination.	1.00	LS	$45,000.00	$45,000.00	Allowance, including de-mob & temp. pond removal.
$3.56			*1.1) Site Preparation to Subgrades:*		*$1,067,520.00*
Cast-in-place ballfield retaining walls.	4,190.00	SF	$80.00	$335,200.00	From 2' to 12' high
Cast-in-place ramp and stair walls.	1,100.00	SF	$85.00	$93,500.00	At east grade transition area, 220 LF x 5' average with steps.
Soldier piles, soil pins & lagging.	3,050.00	SF	$150.00	$457,500	Along north edge of Phase 3 fields
Prep, excavation, backfills & drainage.	3,050.00	SF	$25.00	$76,250.00	Into existing hillsides, with top and base drains.
Short cast-in-place ramp & stair walls.	800.00	SF	$80.00	$64,000.00	At 3' grade step between sports fields, 200 LF x 4' average.
Backfills, footing drains & pick-up.	5,290.00	SF	$20.00	$105,800.00	Behind cast-in-place retaining walls.
$3.77			*1.2) Retaining Walls:*		*$1,132,250.00*
Waterline connection.	1.00	LS	$7,000.00	$7,000.00	Allowance at an existing Harbor Hill Drive main.
New water mains, with fittings.	1,500.00	LF	$100.00	$150,000.00	Assumes 8" Class 52 ductile iron along new loop road.
New fire hydrant assemblies & branch lines.	4.00	Ea	$8,000.00	$32,000.00	Allowance along new onsite loop road.
New domestic water services.	1.00	LS	$15,000.00	$15,000.00	Allowance to a new Comfort Station, drinking fountain & misc.
Add for domestic & irrigation meters.	1.00	LS	$10,000.00	$10,000.00	Allowance to accommodate domestic & irrigation services.
Waterline testing, coordination & pick-up.	1.00	LS	$5,000.00	$5,000.00	Allowance.
$0.73			*1.3) Outside Water:*		*$219,000.00*
Sanitary line connection.	1.00	LS	$5,000.00	$5,000.00	Allowance at an existing Harbor Hill Drive main.
New onsite sanitary mains.	600.00	LF	$75.00	$45,000.00	To new Comfort Station from Harbor Hill Drive.
Add for sanitary manholes.	2.00	Ea	$5,000.00	$10,000.00	At new sanitary main.
Sanitary testing, coordination & pick-up.	1.00	LS	$5,000.00	$5,000.00	Allowance, including possible cleanouts.
$0.22			*1.4) Outside Sanitary Sewer:*		*$65,000.00*
New Type #1 catch basins.	10.00	Ea	$2,200.00	$22,000.00	At new onsite loop road and parking asphalt paving.
New area drains.	10.00	Ea	$1,200.00	$12,000.00	Allowance at extended new pedestrian paving.
Control structure basin fixture.	1.00	Ea	$6,000.00	$6,000.00	Allowance at east side of site.
New storm line mains, mostly 12".	2,700.00	LF	$65.00	$175,500.00	From new basins & underdrainage to offsite storm outlet.
Roof & underdrainage extension lines.	1,000.00	LF	$32.00	$32,000.00	From new dugouts, walls & misc, to main storm system.
New offsite storm outlet.	1.00	LS	$10,000.00	$10,000.00	Allowance to an existing storm main that drains into a pond.
Storm testing, coordination & pick-up.	1.00	LS	$8,000.00	$8,000.00	Onsite allowance.
$0.89			*1.5) Storm Drainage:*		*$265,500.00*
Primary power & transformer coordination.	1.00	LS	$20,000.00	$20,000	Allowance, transformer & primary wire by power company.
Electrical services to onsite electrical fixtures.	2,600.00	LF	$25.00	$65,000	Allowance to lighting, dugouts and other site fixtures.
Parking lot pole light fixtures.	10.00	Ea	$5,000.00	$50,000	Along new onsite loop road.
Pedestrian light fixtures.	8.00	Ea	$4,500.00	$36,000	Primarily at new pedestrian paved areas.
Miscellaneous onsite electrical.	1.00	LS	$45,000.00	$45,000	Allowance, including possible handholes & misc.
$0.72			*1.6) Site Electrical & Lighting:*		*$216,000.00*
200 Amp services to light towers.	1,800.00	LF	$35.00	$63,000.00	A supplemental allowance around new sports fields.
Lighting controller panel.	1.00	LS	$10,000.00	$10,000.00	Allowance in electrical shack.
Field lighting towers, facing a single side.	6.00	LS	$60,000.00	$360,000.00	Around both sports fields, w/ concrete bases, 10 lights on avg.
Field lighting towers, facing two sides.	3.00	LS	$80,000.00	$240,000.00	Between sports fields, with concrete bases, 20 lights on avg.
Site lighting coordination & pick-up.	1.00	LS	$15,000.00	$15,000.00	Allowance, with possible additional handholes and misc.
$2.29			*1.7) Field Lighting Premium:*		*$688,000.00*

PHASE 3 E SITE IMPROVEMENTS, continues on the next page:

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 E SITE IMPROVEMENTS:					
(Continued from the previous page.)					
Backhoe trenching.	32.00	Hr	$220.00	$7,040.00	For site fixtures & specialties.
Steel fabricated swing access gate.	4.00	Ea	$8,000.00	$32,000.00	Allowance at all new onsite road loop access areas.
New monument sign.	1.00	LS	$7,500.00	$7,500.00	Allowance to be addressed.
Steel fabricated handrails, galvanized.	505.00	LF	$150.00	$75,750.00	At new east ramps, and ramp & steps between fields.
Railings or fencing at tops of walls.	900.00	LF	$80.00	$72,000.00	Allowance at the tops of most cast-in-place retaining walls.
Directional & ADA signage.	1.00	LS	$4,500.00	$4,500.00	Allowance at new parking lots and misc..
Waste & recycle receptacles.	10.00	Ea	$1,000.00	$10,000.00	Allowance at new plazas and around sports fields.
Water fountain and water bottle refiller.	1.00	Ea	$6,000.00	$6,000.00	In extended plaza, vandal resistant.
Bicycle racks.	4.00	Ea	$1,000.00	$4,000.00	Allowance in new plaza areas.
New portable bleachers.	8.00	Ea	$5,000.00	$40,000.00	Pre-fabricated aluminum bleachers where indicated on plan.
Sports field athletic equipment.	1.00	LS	$16,000.00	$16,000.00	Allowance for bases, portable goals and misc.
Electronic scoreboards.	2.00	Ea	$20,000.00	$40,000.00	Assumes one at each sports field though not noted on plan.
Miscellaneous site specialties & pick-up.	1.00	LS	$10,000.00	$10,000.00	Allowance for what is not yet addressed.
$1.08			*1.8) Site Fixtures & Specialties:*	*$324,790.00*	
Backhoe trenching.	32.00	Hr	$220.00	$7,040.00	For surfacing work.
Cast-in-place perimeter curbing.	2,375.00	LF	$40.00	$95,000.00	Around synthetic turf perimeters at both sports fields.
Synthetic turf, installed.	177,000.00	SF	$13.00	$2,301,000	Over both new sports fields.
Add for crushed base, underdrainage & prep.	177,000.00	SF	$5.00	$885,000.00	Under both new sports fields.
Add for fixture premiums & pick-up.	1.00	LS	$32,000.00	$32,000.00	Allowance, including possible vendor unloading.
$11.07			*1.9) Synthetic Turf Surfacing:*	*$3,320,040.00*	
Backhoe trenching.	80.00	Hr	$220.00	$17,600.00	For site concrete work.
Cast-in-place curbs & gutters & curbing.	3,250.00	LF	$42.00	$136,500.00	At the edges of most new asphalt paving.
Concrete sidewalks & paving.	21,000.00	SF	$12.00	$252,000.00	Around and between new sport fields and misc.
Add for cast-in-place ramp premium.	2,400.00	SF	$10.00	$24,000.00	As laid out on plan, a long "U" ramp, plus one between fields.
Add for steps between sports fields.	320.00	LF	$180.00	$57,600.00	A 3' high stepped elevation change between an ADA ramp.
Add for tie-in & accent premiums.	15.00	MD	$1,000.00	$15,000.00	Allowance, including minor street patches.
Site concrete pick-up & coordination.	10.00	MD	$900.00	$9,000.00	Allowance, including general site clean-up.
$1.71			*1.10) Site Concrete Curbing & Paving:*	*$511,700.00*	
New asphalt paving.	44,000.00	SF	$4.50	$198,000.00	As laid out on plan, assumes a 3" mix over 6" base.
Add for asphalt paving tie-in premiums.	1.00	LS	$7,500.00	$7,500.00	Allowance, including minor street patches.
Add for striping.	1.00	LS	$8,000.00	$8,000.00	Over new onsite paving.
$0.71			*1.11) Asphalt Paving & Striping:*	*$213,500.00*	
Conventional sprinkler head coverage.	30,000.00	SF	$1.60	$48,000.00	In designated new planter areas.
Add for irrigation infrastructure.	1.00	LS	$6,500.00	$6,500.00	Allowance, including a point-of-connection to new meter.
Planter areas with topsoil & mulch.	30,000.00	SF	$6.00	$180,000.00	In plaza and high profile areas, with 6" topsoil and 2" mulch.
Seeded onsite areas with topsoil.	10,000.00	SF	$1.00	$10,000.00	In periphery areas, with a 4" layer of topsoil.
Add for new trees.	160.00	Ea	$450.00	$72,000.00	Allowance, assumes mostly native type 2" caliper.
Allowance for offsite tree replacement	761.00	Ea	$14.00	$10,654.00	Allowance, assumes 2 gallon trees, labor not included
Add for a soft surface trail premium.	600.00	LF	$16.00	$9,600.00	Assumes a 5' wide path of wood chips at south side of site.
Add for phased landscaping overlap work.	1.00	LS	$20,000.00	$20,000.00	Allowance between Phase 3 and Phase 2 boundaries.
Landscaping maintenance & pick-up work.	1.00	LS	$45,000.00	$45,000.00	Allowance, including warranty call-backs.
$1.34			*1.12) Landscaping & Site Clean-Up:*	*$401,754.00*	
10' high chainlink fencing.	2,450.00	LF	$70.00	$171,500.00	Around new sports fields and dugouts.
Add for backstop premiums.	2.00	LS	$25,000.00	$50,000.00	One at each sports field.
Add for PVC coating.	29,000.00	SF	$1.25	$36,250.00	At all new chainlink fencing.
$0.86			*1.13) Site Fencing & Backstops:*	*$257,750.00*	
PHASE 3 E SITE IMPROVEMENTS:	*300,000.00*	*SF*	*$28.94*	$8,682,804	
Add 25% for Estimate Mark-Ups:	***300,000.00***	***SF***	***$36.18***	**$10,853,505**	

About 300,000 SF of site improvements is included. Most of the Phase 3 E scope assumptions follow those in Phase 3 D. A big difference is that in Phase 3 E, one large sports field figured in Phase 3 D is instead broken up into two smaller sports fields. Also, in Phase 3 E, the east sports field finish grade is raised 3', which reduces excess subgrade excavation and haul-offs, plus overall retaining wall surface areas quantities. Added to the Phase 3 E scope is a set of concrete steps and an ADA ramp in the plaza paving between the two sports fields.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 ALTERNATES FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 E BUILDINGS & STRUCTURES:					
Dugout gate & roof support premiums.	4.00	LS	$1,000.00	$4,000.00	Allowance under new dugout roofs.
Dugout roof & shed assemblies.	2,000.00	SF	$40.00	$80,000.00	Simple metal roofing & framing, 4 x 500 SF.
Add for dugout lighting & other electrical.	2,000.00	SF	$5.00	$10,000.00	Allowance for simple vandal resistant lighting & power outlets.
$0.29		*2.1)*	*New Dugout Roof Premiums:*		*$94,000.00*
Building foundation, complete.	960.00	SF	$50.00	$48,000.00	Based on Sports Complex Phase 1B comfort station design.
Architectural CMU exterior walls.	2,200.00	SF	$40.00	$88,000.00	" " " " " " " " " " " " " "
Building framing & sheathing.	960.00	SF	$90.00	$86,400.00	" " " " " " " " " " " " " "
Roofing & sheet metal.	1,500.00	SF	$35.00	$52,500.00	" " " " " " " " " " " " " "
Exterior wall & soffit finishes.	1,800.00	SF	$20.00	$36,000.00	" " " " " " " " " " " " " "
Exterior doors & windows.	960.00	SF	$32.00	$30,720.00	" " " " " " " " " " " " " "
Interior finishes.	960.00	SF	$50.00	$48,000.00	" " " " " " " " " " " " " "
Building specialties & equipment.	960.00	SF	$55.00	$52,800.00	" " " " " " " " " " " " " "
Building plumbing, vandal resistant.	960.00	SF	$160.00	$153,600.00	" " " " " " " " " " " " " "
Building heat & mechanical ventilation.	960.00	SF	$35.00	$33,600.00	" " " " " " " " " " " " " "
Building electrical, vandal resistant.	950.00	SF	$55.00	$52,250.00	" " " " " " " " " " " " " "
$2.27		*2.2)*	*Comfort Station Building, Complete:*		*$681,870.00*
PHASE 3 E BUILDINGS & STRUCTURES:	*300,000.00*	*SF*	*$2.59*	$775,870	
Add 25% for General Contractor Mark-Ups:	***300,000.00***	***SF***	***$3.23***	**$969,838**	

For estimating purposes, the Phase 3 E and 3 D Buildings and Structures scope is figured to be identical to each other.

Preferred Alternative

CONCEPTUAL FIELD LAYOUT

Legend

01 180' Outfield
02 Retaining Wall
03 Scoreboard
04 Trash Enclosure
05 Dugout, typ.
06 Relocated Existing Spectator Bleachers
07 Spectator Bleachers, typ.
08 Comfort Station
09 Stair Connection Between Pase 2 and Phase 3 Fields
10 Drop-off Area
11 Equipment/Storage Sheds (40' x 10')
12 Parallel Parking (8 stalls)
13 Maintenance Access Road & Main Pedestrian Access Between Upper and Lower Fields
14 Accessible Ramp Connection from Parking to Fields
15 Head in/Angled Parking (42 stalls)
16 Head in/Angled Parking (26 stalls)
17 330' x 195' Soccer (FIFA), 360' x 180' Unified Lacrosse, 360' x 160' Football
18 330' x 190' Soccer, 360' x 180' Unified Lacrosse, 360' x 160' Football
19 Connection to Phase 1C Parking
20 200' Outfield
21 Outfield Fence
22 Reconfigured Soft Surface Trail (no significant grading anticipatated)
23 Accessible Ramp Connection Between Phase 2 and Phase 3
24 Synthetic Turf FIeld (208' radius)
25 Preserve Existing Historic Umpire Shack
26 Existing Tower Building to Remain
27 Existing Dugout to Remain
28 Existing Restroom/Snack Shack to Remain
29 Existing Batting Cages to Remain
30 Existing Retaining Wall
31 Parking Lot Restriped to add 10 Stalls
32 Existing Soft-surface Trail
33 Existing Parking Along McCormick Creek Drive
34 Full-size Baseball Outfield (300' foul Lines, 375' center field)
35 ADA Accessible Parking Stalls
36 Dense Vegetated Buffer at Phase 2 South Property Line

Field Inventory

1 375' Outfield field (Baseball/Softball)
1 208' Outfield field (Baseball/Softball)
1 200' Outfield fields (Baseball/Softball)
2 180' Outfield fields (Baseball/Softball
2 360' x 195' and 1 360' x 90' Multi-purpose fields (Football, Soccer, and Lacrosse)
1 150' x 225 U-11 Soccer/General practice field

Total by Sport:
5 Baseball/Softball
3 Football
3 Soccer (2 FIFA sized)
3 Lacrosse

Preferred Alternative

CONCEPTUAL GRADING AND STORMWATER DESIGN

GRADING CONCEPT:

GENERALLY, THE GRADING CONCEPT REQUIRES SEVERAL RETAINING WALLS TO MANAGE THE GRADE CHANGE ACROSS THE SITE. A RETAINING WALL WOULD WRAP THE ENTIRE NORTH EDGE AND EAST EDGE OF THE PHASE 3 FIELDS, AND WOULD MAX OUT AT 16' HIGH AT THE NORTHEAST CORNER. ANOTHER RETAINING WALL SEPARATING THE NORTHERN PORTION OF PHASES 2 AND THREE WOULD BE AT ITS HIGHEST AT THE NORTHEAST CORNER OF THE PROPOSED PHASE 2 MULTIPURPOSE FIELD, MAXING OUT AT 21' HIGH. THE LARGE BASEBALL FIELD IN PHASE 2 WOULD REMAIN WITHIN IT'S EXISTING FOOTPRINT, ELIMINATING THE NEED FOR ADDITIONAL RETAINING WALLS AT THE OURFIELD. ALL THE SYNTHETIC TURF FIELDS ARE ASSUMED TO BE FLAT. THE PHASE TWO FIELDS ARE AT APPROXIMATELY 206 ELEVATION, WHILE THE PHASE 3 FIELDS ARE AT APPROXIMATELY 228 ELEVATION (DIFFERENCE OF 22 FEET).TWO ACCESSIBLE RAMPS AT A SLOPE OF APPROXIMATELY 7.8% PROVIDE AN ACCESSIBLE CONNECTION BETWEEN PHASE 2 AND PHASE THREE, AND AN ACCESSIBLE CONNECTION BETWEEN THE UPPER PARKING ON THE EAST SIDE OF PHASE 3 AND THE PHASE 3 FIELDS.

STORMWATER CONCEPT:

THE ARTIFICAL TURF FIELDS ARE ASSUMED TO BE IMPERVIOUS SURFACES DUE TO THEIR RUNOFF CHARACTERISTICS AND ARE EXPECTED TO INCLUDE AN UNDERDRAIN SYSTEM. PRELIMINARY GEOTECHNICAL INVESTIGATIONS INDICATE RELATIVELY LOW PERMEABILITY SOILS AND A RECOMMENDED DESIGN INFILTRATION RATE OF 0.1 INCHES PER HOUR. WE EXPECT TO APPLY THIS INFILTRATION RATE UNDER ALL ARTIFICIAL TURF SURFACES.

THE PHASE 3 IMPROVEMENTS LIE WITHIN LOT 3 OF THE BUSINESS PARK AT HARBOR HILL. THIS PARCEL WAS INCLUDED IN THE DESIGN FOR THE HARBOR HILL WEST REGIONAL STORMWATER FACILITY. WE INTEND THAT RUNOFF FROM PHASE 3 THAT DOES NOT INFILTRATE WILL BE CONVEYED TO THE REGIONAL FACILITY. IT APPEARS THAT PHASE 3 IMPROVEMENTS WILL EXCEED THE HARD SURFACE AREA ASSUMPTIONS OF THE REGIONAL FACILITY DESIGN. HOWEVER, DUE TO THE LARGE AREA OF TURF FIELDS WHICH CAN INFILTRATE STORMWATER BELOW GRADE, WE EXPECT THE FLOW CHARACTERISTICS OF THE PROPOSED DESIGN TO MATCH THE ORIGINAL ASSUMPTIONS OF THE REGIONAL FACILITY.

WE EXPECT PHASE 2 IMPROVEMENTS WILL BE SUBJECT TO MINIMUM REQUIREMENTS 1-10 UNDER THE 2023 GIG HARBOR STORMWATER MANAGEMENT AND SITE DEVELOPMENT MANUAL, AND WILL HAVE AN INFILTRATION RATE OF 0.1 INCHES PER HOUR UNDER THE TURF SURFACES, SIMILAR TO THE PHASE 3 IMPROVEMENTS. FOR NEW AND REPLACED IMPERVIOUS SURFACES TO MATCH THE FORESTED CONDITION, AN UNDERGROUND DETENTION SYSTEM IS PROPOSED. THIS DESIGN MAINTAINS THE EXISTING DISCHARGE CONDITION AS THE EXISTING CONDITIONS.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 PREFERRED ALTERNATE D FOR THE CITY OF GIG HARBOR

GENERAL SCOPE:

This is a preliminary cost study update that estimates a preferred Alternative D to construct Phases 2 and 3 of a Gig Harbor Sports Complex near the Tom Taylor YMCA in Gig Harbor, WA. Specifically excluded are Phases 1A, 1B and 1C, all of which are to be done at different times and under separate contracts. For estimating purposes, Phase 2 and Phase 3 scopes are still treated as separate individual projects in their Base Estimates. If both phases were to be done at the same time and under the same contract there might be a $250,000 to $300,000 overall efficiency savings, not taking into account additional savings of avoiding further construction cost escalation premiums. It is assumed the existing Phase 2 area ballfields will be closed to the public and out of commission when new Phase 2 work takes place there.

In this update a number of scope reductions have been implemented. In Phase 2 proposed grades have been adjusted which significantly reduce the cut/fill quantities of mass earthwork and overall surface areas of retaining walls. Also, premium soldier pile retaining walls have been eliminated in Phase 2. Lastly, the size of a replaced and expanded baseball field in Phase 2 has been reduced, and improvements in existing south areas have been minimized. Several minor scope reductions have been implemented in Phase 3 scope, but have been more than offset by the addition of a soldier pile retaining wall at its north side.

The estimate includes full construction costs, plus the equivalent of a 4% to 5% design contingency. Sales tax and other soft costs such as permits, design fees, third party testing, utility connection fees if applicable, owner's administration costs, a change order construction contingency, and third party project management costs are excluded. Also, since there is not yet a targeted date of when either Phase 2 or Phase 3 projects would start, all estimate costs are in current dollars. It is suggested that a construction cost escalation premium, calculated at about a 5% to 6% annual compounded rate, be added to the estimate bottom-lines once target dates are decided upon. Current scope information and costs are very preliminary and should be treated as such.

On this update to the cost report, dated 2/29/2024, BCRA, Inc. has made revisions to the original cost report, produced by Acker Consulting,

INCLUDED:	EXCLUDED:
200,000 SF of Phase 2 and 305,000 SF of graded Phase 3 site improvements.	Phase 1A, 1B and 1C work--under separate contracts.
Site removal of strippings, plus extensive net excavation cut haul-offs.	Significant overexcavation--excavated subgrade cuts used as suitable fills.
Extensive retaining walls in both Phase 2 and Phase 3 sites.	Site improvements beyond Phase 2 & 3 boundaries indicated on plans.
Premiums for a soldier pile retaining wall along the north boundary of Phase 3.	Precast fascia panels over new soldier pile retaining wall.
Provisions for new outside utility services, still to be defined and clarified.	Any wetlands mitigation work--assumed to be not applicable.
A new water main loop line with fire hydrants in Phase 3.	A new access road, expanded parking, and a fire main loop in Phase 2 work.
Removal of a septic system, and replaced with a new sewer line in Phase 2.	New storage containers, or removal & reinstallation of existing--by owner.
A new large underground storm detention vault in the south portion of Phase 2.	A storm detention vault in Phase 3, or in the north portion of Phase 2.
Sports field lighting in both Phases 2 and 3.	New parking lot lighting in Phase 2--existing remains.
Synthetic turf with underdrainage at new sports fields.	Grandstand type seating--portable type bleachers only.
Fencing at sports fields, plus backstops and scoreboards.	Electronic monitoring, cameras, controlled gates, or traffic control lighting.
Provisions for landscaping & irrigation in both phases.	Extensive improvements in existing south Phase 2 parking lot that remains.
Re-painting and minor repair at existing Phase 2 building exteriors.	Relocation of an existing Umpire & electrical shed in Phase 2 D--they remain.
A new Restroom & Concessions building in Phase 3.	A new Restroom & Concessions building in Phase 2--existing remains.
Simple roofs and lighting over new dugouts.	Fire sprinkler protection, or an outside fire sprinkler service in either phases.
Contractor's general requirements, overhead & profit.	Sales tax, permits, 3rd party testing, design fees, or utility co. fees if applicable.
Contractor's bond & insurance, and B & O tax.	Owner's administration costs, or a change order contingency.
A 4% to 5% design contingency.	Construction cost escalation, or third party project management costs.

	BUDGETARY COST ESTIMATE				
PROJECT COMPONENT	Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
BASE ESTIMATE PHASING AND PREFERRED OPTION D SUMMARY:					
(Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
PREFERRED ALTERNATE D SCOPE:					
PHASE 2, Alternate D.	1.25	LS	$7,017,190	**$8,771,488**	See Page 2 for an Estimate Summary Breakdown.
PHASE 3, Alternate D.	1.25	LS	$9,287,130	**$11,608,913**	See Page 6 for an Estimate Summary Breakdown.
PHASE 2 & 3 PREFERRED ALTERNATE D MACC TOTAL:				**$20,380,400**	Alternate D, Phase 2 & 3 separate projects in current dollars.

All Estimate Costs are in First Quarter 2024 Dollars

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 PREFERRED ALTERNATE D FOR THE CITY OF GIG HARBOR

PROJECT COMPONENT	Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
			BUDGETARY COST ESTIMATE		
PHASE 2 D BASE ESTIMATE SUMMARY BREAKDOWN: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
SITE IMPROVEMENTS:					**$8,618,988**
1.1) Site Preparation to Subgrades.	1.25	LS	$551,920	$689,900	See Pages 3 & 4 for estimate details.
1.2) Retaining Walls.	1.25	LS	$1,150,000	$1,437,500	" " " " " " " " " " "
1.3) Outside Water.	1.25	LS	$16,000	$20,000	" " " " " " " " " " "
1.4) Outside Sanitary Sewer.	1.25	LS	$116,000	$145,000	" " " " " " " " " " "
1.5) Storm Drainage.	1.25	LS	$488,800	$611,000	" " " " " " " " " " "
1.6) Site Electrical & Lighting.	1.25	LS	$210,000	$262,500	" " " " " " " " " " "
1.7) Field Lighting Premium .	1.25	LS	$815,000	$1,018,750	" " " " " " " " " " "
1.8) Site Fixtures & Specialties.	1.25	LS	$256,880	$321,100	See Page 4 for estimate details.
1.9) Synthetic Turf Surfacing.	1.25	LS	$2,623,040	$3,278,800	" " " " " " " " " " "
1.10) Site Concrete Curbing & Paving.	1.25	LS	$180,760	$225,950	" " " " " " " " " " "
1.11) Asphalt Paving & Striping.	1.25	LS	$18,000	$22,500	" " " " " " " " " " "
1.12) Landscaping & Irrigation.	1.25	LS	$241,640	$302,050	" " " " " " " " " " "
1.13) Site Fencing & Backstops. $6,895,190	1.25	LS	$227,150	$283,938	" " " " " " " " " " "
BUILDINGS & STRUCTURES:					**$152,500**
2.1) New Dugout Roof Premiums.	1.25	LS	$96,000	$120,000	See Page 5 for estimate details.
2.2) Minor Restoration of Existing Buildings.	1.25	LS	$26,000	$32,500	" " " " " " " " " " "
2.3) Premium to Relocate Existing Sheds. $122,000	1.25	LS	N/A	N/A	Deleted from scope of work.
PHASE 2 D ESTIMATE MACC:				**$8,771,488**	

BASE ESTIMATE MARK-UP & GENERAL NOTES:

The above Base Estimate costs above and Option cost below include a 25% general contractor's mark-up, intended to cover general requirements, overhead & profit, bond & insurance, B & O tax, and a modest 4% to 5% compounded design contingency. Soft costs, such as sales tax, permits, 3rd party testing, utility company connection fees if applicable, design fees, owner's administration costs and a change order contingency are not included. Ditto with third party project management costs for construction, if applicable. Estimate costs and scope are very preliminary and should be treated as such.

Costs are in current dollars without any projected construction cost escalation figured. Once an approximate anticipated construction start date is targeted, it is suggested that a construction cost escalation premium be added to the estimate bottom-line at about a 5% to 6% compounded annual rate.

Phase 2 D is currently figured as its own independent project. If it were combined with Phase 3 D work, there might be a $250,000 to $300,000 combined savings between the two projects. These savings would come from incurring just one site mobilization instead of two, deleting site work overlaps at the boundaries between the two phases, and providing a nominal overall site work scope efficiency. This does not include possible savings of avoiding additional construction cost escalation if

PROJECT COMPONENT	Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
PHASE 2 OPTION: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
O-1) Replace All Existing Ballfield Lighting.	6.00	Ea	$20,000.00	$150,000	Rather than relocating & replacing lamps in Ph. 2 Base Est.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 PREFERRED ALTERNATE D FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 2 D SITE IMPROVEMENTS:					
Temporary construction fencing.	2,300.00	LF	$4.00	$9,200.00	Around the site improvement perimeter.
Mobilization.	1.00	LS	$30,000.00	$30,000.00	Allowance for mass earthwork.
Removal of fencing and fixtures.	1.00	LS	$15,000.00	$15,000.00	At ballfields, some dugouts and misc.
Removal of some existing paving.	10,000.00	SF	$2.40	$24,000.00	At selected paving around ballfields, and misc.
Balance of onsite demolition.	1.00	LS	$5,000.00	$5,000.00	A minor allowance for removal of what is not addressed.
Silt fencing.	1,200.00	LF	$7.00	$8,400.00	Allowance around about half of site improvement perimeter.
Temporary construction entrance.	2,000.00	SF	$3.00	$6,000.00	Allowance, presumably at south side of site.
Temporary sediment pond.	1.00	LS	$15,000.00	$15,000.00	Allowance, possibly with a control structure and pump.
Erosion control with maintenance & pick-up.	1.00	LS	$75,000.00	$75,000.00	Allowance, dealing with some steep onsite slopes.
Onsite clearing and strippings.	200,000.00	SF	$0.30	$60,000.00	Mostly ballfields, some trees, less existing paving that remains.
Add for tree removal premium.	66.00	Ea	$200.00	$13,200.00	Around some of site periphery, to be removed & de-stumped.
Remove strippings from site.	4,940.00	CY	$12.00	$59,280.00	Assumes an 8" avg. striping layer in improvement areas.
Onsite excavation cuts & rough grading.	10,180.00	CY	$5.00	$50,900.00	Based on preliminary updated BCRA take-offs.
Onsite excavation fills & rough grading.	4,460.00	CY	$5.00	$22,300.00	" " " " " " " " " " " "
Add to remove excess cuts from site.	5,720.00	CY	$12.00	$68,640.00	Net difference between subgrade cuts & fills after strippings.
Onsite finish grading.	200,000.00	SF	$0.15	$30,000.00	Based on C203&4 layout, mostly open, but with some slopes.
Add for phased site prep overlap work.	1.00	LS	$25,000.00	$25,000.00	Allowance between Phase 2 and Phase 3 boundaries.
Earthwork pick-up and coordination.	1.00	LS	$35,000.00	$35,000.00	Allowance, including de-mob & temp. pond removal.
$2.76			*1.1) Site Preparation to Subgrades:*		*$551,920.00*
Cast-in-place ballfield retaining walls.	9,240.00	SF	$80.00	$739,200.00	At north, NE and east Phase 2 boundaries, 660 LF x 14' avg.
Cast-in-place stair walls.	960.00	SF	$85.00	$81,600.00	At both sides of Phase 2 to 3 stairs, 120 LF x 8' avg. w/ steps.
Cast-in-place supplemental ramp walls.	1,600.00	SF	$90.00	$144,000.00	East ADA ramp, one side, 320 LF x 5' avg. w/ curves & steps.
Backfills, footing drains & pick-up.	11,800.00	SF	$14.00	$165,200.00	Behind cast-in-place retaining walls.
Rock retaining walls.	800.00	SF	$20.00	$16,000.00	In east ADA ramp area, two locations, 160 LF x 5' avg.
Backfills, footing drains & pick-up.	800.00	SF	$5.00	$4,000.00	Behind rock retaining walls.
$5.75			*1.2) Retaining Walls:*		*$1,150,000.00*
Waterline connection.	1.00	LS	$3,000.00	$3,000.00	Allowance from an existing onsite source.
New domestic water services.	1.00	LS	$5,000.00	$5,000.00	Allowance to a new drinking fountain & misc.
Add for domestic & irrigation meters.	1.00	LS	$6,000.00	$6,000.00	Allowance, primarily to accommodate irrigation modifications.
Waterline testing, coordination & pick-up.	1.00	LS	$2,000.00	$2,000.00	Allowance.
$0.08			*1.3) Outside Water:*		*$16,000.00*
Remove existing septic tanks & drainfield.	1.00	LS	$20,000.00	$20,000.00	Allowance at north side of large ballfield.
New sanitary main to McCormick Creek Dr.	150.00	LF	$80.00	$12,000.00	From McCormick Creek Drive, serving both Phases 2 & 3.
Service from new main to Concessions.	400.00	LF	$70.00	$28,000.00	From new main break to existing concessions building.
Service from new main to Phase 3 area.	400.00	LF	$70.00	$28,000.00	From new main break to east Phase 2 boundary.
Add for sanitary manholes.	3.00	Ea	$5,000.00	$15,000.00	At new sanitary mains.
Add for street tie-in and cuts & patches.	1.00	LS	$8,000.00	$8,000.00	Allowance at existing at street main.
Sanitary testing, coordination & pick-up.	1.00	LS	$5,000.00	$5,000.00	Allowance, including some steep slope premiums & cleanouts.
$0.58			*1.4) Outside Sanitary Sewer:*		*$116,000.00*
New area drains.	4.00	Ea	$1,200.00	$4,800.00	Allowance at extended new pedestrian paving.
New storm line mains, 8" to 12".	600.00	LF	$50.00	$30,000.00	From new area drains & other lines to turf underdrainage.
Storm drainage control structure basins.	3.00	Ea	$5,000.00	$15,000.00	Allowance at storm to turf underdrainage and detention vault.
Underground concrete storm detention vault.	26,250.00	CF	$16.00	$420,000.00	At south side of site, 30' x 125' x 7' deep.
South storm outlet.	100.00	LF	$70.00	$7,000.00	From storm detention vault to a south outfall area.
Roof & underdrainage extension lines.	400.00	LF	$30.00	$12,000.00	From new dugouts, walls & misc, to main storm system.
$2.44			*1.5) Storm Drainage:*		*$488,800.00*
Remove field lighting pole fixture clusters.	10.00	Ea	$5,000.00	$50,000	Four at small ballfields, 6 others to be relocated.
General site electrical demolition.	1.00	LS	$20,000.00	$20,000	Allowance, includes protection of existing services that remain.
Primary power & transformer coordination.	1.00	LS	$10,000.00	$10,000	Allowance, possibly minor with existing in place.
Electrical services to onsite electrical fixtures.	2,000.00	LF	$30.00	$60,000	Allowance to lighting, dugouts and other site fixtures.
Pedestrian light fixtures.	10.00	Ea	$4,500.00	$45,000	At both new and existing pedestrian paved areas.
Miscellaneous onsite electrical.	1.00	LS	$25,000.00	$25,000	Allowance, including possible handholes & misc.
$1.05			*1.6) Site Electrical & Lighting:*		*$210,000.00*
200 Amp services to light towers.	2,000.00	LF	$35.00	$70,000.00	A supplemental allowance around reconfigured ballfields.
Lighting controller panel.	1.00	LS	$10,000.00	$10,000.00	Allowance in electrical shack.
Sports field lighting towers fixtures, complete.	8.00	LS	$60,000.00	$480,000.00	Around both sports fields, w/ concrete bases, 10 lights on avg.
Relocate existing lighting light tower fixtures.	6.00	Ea	$40,000.00	$240,000.00	To accommodate new field layouts, existing lamps replaced.
Site lighting coordination & pick-up.	1.00	LS	$15,000.00	$15,000.00	Allowance, with possible additional handholes and misc.
$4.08			*1.7) Field Lighting Premium:*		*$815,000.00*

PHASE 2 D SITE IMPROVEMENTS, continues on the next page:

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 PREFERRED ALTERNATE D FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 2 D SITE IMPROVEMENTS:					
(Continued from the previous page.)					
Backhoe trenching.	24.00	Hr	$220.00	$5,280.00	For site fixtures & specialties.
Steel fabricated handrails, galvanized.	760.00	LF	$150.00	$114,000.00	At new stairs and ramps.
Railings or fencing at tops of walls.	660.00	LF	$60.00	$39,600.00	Allowance at the top sides of soldier pile retaining walls.
Directional & ADA signage.	1.00	LS	$3,000.00	$3,000.00	Allowance at existing parking lot and misc..
Waste & recycle receptacles.	10.00	Ea	$1,000.00	$10,000.00	Allowance at new & existing plaza and around sports fields.
Water fountain and water bottle refiller.	1.00	Ea	$6,000.00	$6,000.00	In extended plaza, vandal resistant.
Bicycle racks.	4.00	Ea	$1,000.00	$4,000.00	Allowance in new & existing plaza areas.
New portable bleachers.	2.00	Ea	$5,000.00	$10,000.00	Pre-fabricated aluminum bleachers where indicated on plan.
Sports field athletic equipment.	1.00	LS	$15,000.00	$15,000.00	Allowance for bases, portable goals and misc.
Electronic scoreboards.	2.00	Ea	$20,000.00	$40,000.00	One at north field and one at south baseball field.
Miscellaneous site specialties & pick-up.	1.00	LS	$10,000.00	$10,000.00	Allowance for what is not yet addressed.
$1.28			*1.8) Site Fixtures & Specialties:*	*$256,880.00*	
Backhoe trenching.	32.00	Hr	$220.00	$7,040.00	For turf area curbing & misc.
Cast-in-place perimeter curbing.	2,100.00	LF	$40.00	$84,000.00	Around synthetic turf perimeters at both sports fields.
Synthetic turf, installed.	139,000.00	SF	$13.00	$1,807,000	Over both new sports fields.
Add for crushed base, underdrainage & prep.	139,000.00	SF	$5.00	$695,000.00	Under both new sports fields.
Add for fixture premiums & pick-up.	1.00	LS	$30,000.00	$30,000.00	Allowance, including possible vendor unloading.
$13.12			*1.9) Synthetic Turf Surfacing:*	*$2,623,040.00*	
Backhoe trenching.	48.00	Hr	$220.00	$10,560.00	For site concrete work.
Concrete sidewalks & paving.	9,000.00	SF	$12.00	$108,000.00	Around new sport fields and from existing plaza paving.
Add for cast-in-place ramp & stair premiums.	3,000.00	SF	$10.00	$30,000.00	As laid out on plan, two sets of stairs, one long "U" ramp.
Add for tie-in & accent premiums.	10.00	MD	$1,000.00	$10,000.00	Allowance, with concrete in cut-up quantities.
Add for possible minor concrete repairs.	12.00	MD	$1,100.00	$13,200.00	Allowance at existing concrete paving that remains.
Site concrete pick-up & coordination.	10.00	MD	$900.00	$9,000.00	Allowance, including general site clean-up.
$0.90			*1.10) Site Concrete Curbing & Paving:*	*$180,760.00*	
Minor asphalt paving patching & restoration.	1.00	LS	$10,000.00	$10,000.00	Allowance, including selective crack repairs.
Add for striping.	1.00	LS	$8,000.00	$8,000.00	Over existing paving, including blackouts.
$0.09			*1.11) Asphalt Paving & Striping:*	*$18,000.00*	
Conventional sprinkler head coverage.	15,000.00	SF	$1.50	$22,500.00	In designated new planter areas.
Add for irrigation infrastructure.	1.00	LS	$6,000.00	$6,000.00	Allowance, connecting to existing in plaza area.
Planter areas with topsoil & mulch.	15,000.00	SF	$5.50	$82,500.00	In plaza and high profile areas, with 6" topsoil and 2" mulch.
Seeded onsite areas with topsoil.	20,000.00	SF	$1.00	$20,000.00	In periphery areas, with a 4" layer of topsoil.
Add for new trees.	120.00	Ea	$450.00	$54,000.00	Allowance, assumes mostly native type 2" caliper.
Add for offsite tree replacement.	66.00	Ea	$60.00	$3,960.00	2 gallon trees only in native areas.
Add for a soft surface trail premium.	480.00	LF	$16.00	$7,680.00	Assumes a 5' wide path of wood chips at south side of site.
Add for phased landscaping overlap work.	1.00	LS	$15,000.00	$15,000.00	Allowance between Phase 2 and Phase 3 boundaries.
Landscaping maintenance & pick-up work.	1.00	LS	$30,000.00	$30,000.00	Allowance, including warranty call-backs.
$1.21			*1.12) Landscaping & Irrigation:*	*$241,640.00*	
10' high chainlink fencing.	1,500.00	LF	$70.00	$105,000.00	Around new sports fields and dugouts.
Add for a large backstop & netting premium.	1.00	LS	$30,000.00	$30,000.00	Up to 30' high at main baseball field.
Add for smaller backstop premiums.	2.00	LS	$20,000.00	$40,000.00	At rectangular sports field.
Add for PVC coating.	25,000.00	SF	$1.25	$31,250.00	At all new chainlink fencing.
Movable outfield fencing.	550.00	LF	$38.00	$20,900.00	At large baseball field, portable, in sections, 4' high.
$1.14			*1.13) Site Fencing & Backstops:*	*$227,150.00*	
PHASE 2 D SITE IMPROVEMENTS:	*200,000.00*	*SF*	*$34.48*	$6,895,190	
Add 25% for Estimate Mark-Ups:	***200,000.00***	***SF***	***$43.09***	**$8,618,988**	

About 200,000 SF of graded site improvements is now figured in Phase 2 D, as the existing south parking lot for the most part remains as-is. An existing onsite septic system and drainfield is figured to be removed and replaced with a new sanitary sewer service that ties into an existing street side main running along McCormick Creek Drive. A supplemental sanitary service has been added to the new main line, which is figured to branch off and extend to the east boundary where it will serve a new Phase 3 D Comfort Station Building.

Some other notable Phase 2 D changes in this update are: 1) with revised proposed grades the overall quantity of mass earthwork quantities has significantly been reduced, 2) soldier pile walls have been deleted in this Phase, and the overall quantity of cast-in-place retaining walls have been reduced, 3) the south large ballfield has been reduced in size, and 4) more of existing south area improvements remain as-is rather than get replaced.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 PREFERRED ALTERNATE D FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 2 D BUILDINGS & STRUCTURES:					
Dugout gate & roof support premiums.	4.00	LS	$1,000.00	$4,000.00	Allowance under new dugout roofs.
Dugout roof & shed assemblies.	2,000.00	SF	$40.00	$80,000.00	Simple metal roofing & framing, 4 x 500 SF.
Add for dugout lighting & other electrical.	2,000.00	SF	$6.00	$12,000.00	Allowance for simple vandal resistant lighting & power outlets.
$0.48			*2.1) New Dugout Roof Premiums:*		*$96,000.00*
Restoration of existing tower building.	1.00	LS	$12,000.00	$12,000.00	Allowance for mainly cosmetic exterior restoration.
Restoration of existing dugouts that remain.	2.00	LS	$2,000.00	$4,000.00	New roofing and cosmetic finishes.
Restoration of Umpire & electrical sheds.	1.00	LS	$10,000.00	$10,000.00	Allowance for mainly cosmetic exterior restoration.
$0.13			*2.2) Minor Restoration of Existing Buildings:*		*$26,000.00*
PHASE 2 D BUILDINGS & STRUCTURES:	*200,000.00*	*SF*	*$0.61*	$122,000	
Add 25% for Estimate Mark-Ups:	***200,000.00***	***SF***	***$0.76***	**$152,500**	

Simple metal roofing and gage framing is figured over the new dugouts, along with some Spartan type but vandal resistant lighting and power outlets.

Two existing dugouts and a tower building at the large baseball field are figured to remain as-is, with provisions included for exterior re-painting and some other minor superficial repairs and restoration. This includes an existing Umpire's shed and adjoining electrical shack, which was previously figured to be relocated, but now remains in-place. Keeping both buildings in-place not only saves the costs of relocation, but also the expense of revamping and at least partially replacing existing onsite electrical infrastructure that the electrical shed houses.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 PREFERRED ALTERNATE D FOR THE CITY OF GIG HARBOR

	BUDGETARY COST ESTIMATE				
PROJECT COMPONENT	Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
PHASE 3 D ESTIMATE SUMMARY BREAKDOWN: (Includes Contractor G.R, OH&P, B&I, B&O Tax Mark-Ups, No Sales Tax.)					
SITE IMPROVEMENTS:					**$10,630,388**
1.1) Site Preparation to Subgrades.	1.25	LS	$1,345,400	$1,681,750	See Pages 7 & 8 for estimate details.
1.2) Retaining Walls.	1.25	LS	$1,000,120	$1,250,150	" " " " " " " " " " "
1.3) Outside Water.	1.25	LS	$210,500	$263,125	" " " " " " " " " " "
1.4) Outside Sanitary Sewer.	1.25	LS	$9,600	$12,000	" " " " " " " " " " "
1.5) Storm Drainage.	1.25	LS	$115,200	$144,000	" " " " " " " " " " "
1.6) Site Electrical & Lighting.	1.25	LS	$217,000	$271,250	" " " " " " " " " " "
1.7) Field Lighting Premium .	1.25	LS	$804,500	$1,005,625	" " " " " " " " " " "
1.8) Site Fixtures & Specialties.	1.25	LS	$321,040	$401,300	See Page 8 for estimate details.
1.9) Synthetic Turf Surfacing.	1.25	LS	$3,309,040	$4,136,300	" " " " " " " " " " "
1.10) Site Concrete Curbing & Paving.	1.25	LS	$431,000	$538,750	" " " " " " " " " " "
1.11) Asphalt Paving & Striping.	1.25	LS	$253,100	$316,375	" " " " " " " " " " "
1.12) Landscaping & Irrigation.	1.25	LS	$317,260	$396,575	" " " " " " " " " " "
1.13) Site Fencing & Backstops.	1.25	LS	$170,550	$213,188	" " " " " " " " " " "
$8,504,310					
BUILDINGS & STRUCTURES:					**$978,525**
2.1) New Dugout Roof Premiums.	1.25	LS	$96,000	$120,000	See Page 9 for estimate details.
2.2) New Comfort Station.	1.25	LS	$686,820	$858,525	" " " " " " " " " " "
$782,820					
PHASE 3 D BASE ESTIMATE MACC:				**$11,608,913**	

BASE ESTIMATE MARK-UP & GENERAL NOTES:

The above Base Estimate costs above include a 25% general contractor's mark-up, intended to cover general requirements, overhead & profit, bond & insurance, B & O tax, and a modest 4% to 5% compounded design contingency. Soft costs, such as sales tax, permits, 3rd party testing, utility company connection fees if applicable, design fees, owner's administration costs and a change order contingency are not included. Ditto with third party project management costs for construction, if applicable. Costs and scope are very preliminary and should be treated as such.

Costs are in current dollars without any projected construction cost escalation figured. Once an approximate anticipated construction start date is targeted, it is suggested that a construction cost escalation premium be added to the estimate bottom-line at about a 5% to 6% compounded annual rate.

Phase 3 D is currently figured as its own independent project. If it were combined with Phase 2 D work, there might be a $250,000 to $300,000 combined savings between the two projects. These savings would come from incurring one just site mobilization instead of two, deleting site work overlaps at the boundaries between the two phases, and providing a nominal overall site work scope efficiency. This does not include possible savings of avoiding additional construction cost escalation if one of the phases were to be constructed at a later date from the other.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 PREFERRED ALTERNATE D FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 D SITE IMPROVEMENTS:					
Temporary construction fencing.	2,300.00	LF	$4.00	$9,200.00	Around the site improvement perimeter.
Mobilization.	1.00	LS	$30,000.00	$30,000.00	Allowance for mass earthwork.
Minor site demolition.	1.00	LS	$10,000.00	$10,000.00	At new site entries and misc.
Silt fencing.	1,700.00	LF	$7.00	$11,900.00	Allowance around most of site improvement perimeter.
Temporary construction entrance.	2,000.00	SF	$3.00	$6,000.00	Allowance, presumably at east or south side of site.
Temporary sediment pond.	1.00	LS	$20,000.00	$20,000.00	Allowance, possibly with a control structure and pump.
Erosion control with maintenance & pick-up.	1.00	LS	$110,000.00	$110,000.00	Allowance, dealing with some steep onsite slopes.
Onsite clearing and strippings.	305,000.00	SF	$0.40	$122,000.00	Mostly heavily treed with some site slopes.
Add for tree removal premium.	761.00	Ea	$120.00	$91,320.00	Based on BCRA survey, to be removed & de-stumped.
Remove strippings from site.	7,540.00	CY	$12.00	$90,480.00	Assumes an 8" avg. striping layer in improvement areas.
Onsite excavation cuts & rough grading.	47,370.00	CY	$5.00	$236,850.00	Based on preliminary BCRA updated take-offs.
Onsite excavation fills & rough grading.	10,220.00	CY	$5.00	$51,100.00	" " " " " " " " " " " "
Add to remove excess cuts from site.	37,150.00	CY	$12.00	$445,800.00	Net difference between subgrade cuts & fills after strippings.
Onsite finish grading.	305,000.00	SF	$0.15	$45,750.00	Based on C203&4 layout, mostly open, but with some slopes.
Add for phased site prep overlap work.	1.00	LS	$20,000.00	$20,000.00	Allowance between Phase 3 and Phase 2 boundaries.
Earthwork pick-up and coordination.	1.00	LS	$45,000.00	$45,000.00	Allowance, including de-mob & temp. pond removal.
$4.41			*1.1) Site Preparation to Subgrades:*	*$1,345,400.00*	
Soldier piles, soil pins & lagging.	2,260.00	SF	$150.00	$339,000.00	Along north side boundary, 480 LF x 10' average.
Prep, excavation, backfills & drainage.	2,260.00	SF	$20.00	$45,200.00	Into existing hillside, with top and base drainage.
Cast-in-place ballfield retaining walls.	5,270.00	SF	$80.00	$421,600.00	From 3' to 16' high, roughly 620 LF x 12' average.
Add for curved retaining wall premium.	1,020.00	SF	$25.00	$25,500.00	At southeast site corner, roughly 85 LF x 12'.
Cast-in-place ramp walls.	960.00	SF	$85.00	$81,600.00	At east grade transition area, 240 LF x 4' average with steps.
Backfills, footing drains & pick-up.	6,230.00	SF	$14.00	$87,220.00	Behind cast-in-place retaining walls.
$3.28			*1.2) Retaining Walls:*	*$1,000,120.00*	
Waterline connection.	1.00	LS	$7,000.00	$7,000.00	Allowance at an existing Harbor Hill Drive main.
New water mains, with fittings.	1,500.00	LF	$100.00	$150,000.00	Assumes 8" Class 52 ductile iron along new loop road.
New fire hydrant assemblies & branch lines.	4.00	Ea	$7,500.00	$30,000.00	Allowance along new onsite loop road.
New domestic water services.	1.00	LS	$12,000.00	$12,000.00	Allowance to a new Comfort Station, drinking fountain & misc.
Add for domestic & irrigation meters.	1.00	LS	$7,500.00	$7,500.00	Allowance to accommodate domestic & irrigation services.
Waterline testing, coordination & pick-up.	1.00	LS	$4,000.00	$4,000.00	Allowance.
$0.69			*1.3) Outside Water:*	*$210,500.00*	
Sanitary line connection.	1.00	LS	$1,000.00	$1,000.00	At the east end of a new Phase 2 main.
New onsite sanitary mains.	80.00	LF	$70.00	$5,600.00	To new Comfort Station from Phase 2 line at west boundary.
Sanitary testing, coordination & pick-up.	1.00	LS	$3,000.00	$3,000.00	Allowance, including cleanouts.
$0.03			*1.4) Outside Sanitary Sewer:*	*$9,600.00*	
Storm connections and Type #2 catch basins.	3.00	LS	$5,000.00	$15,000.00	To existing west and south main lines, perhaps 8' deep.
New Type #1 catch basins.	5.00	Ea	$2,200.00	$11,000.00	At new onsite loop road and parking asphalt paving.
Possible storm control structure.	1.00	Ea	$6,000.00	$6,000.00	Allowance at new south storm outlet.
New area drains.	8.00	Ea	$1,200.00	$9,600.00	Allowance at extended new pedestrian paving.
New storm line mains, mostly 12".	500.00	LF	$70.00	$35,000.00	To new basins & underdrainage, at three sides of site.
Roof & underdrainage extension lines.	800.00	LF	$32.00	$25,600.00	From new dugouts, walls & misc, to main storm system.
New offsite storm outlet.	1.00	LS	$8,000.00	$8,000.00	Allowance to an existing storm main that drains into a pond.
Storm testing, coordination & pick-up.	1.00	LS	$5,000.00	$5,000.00	Onsite allowance.
$0.38			*1.5) Storm Drainage:*	*$115,200.00*	
Primary power & transformer coordination.	1.00	LS	$15,000.00	$15,000	Allowance, transformer & primary wire by power company.
Electrical services to onsite electrical fixtures.	2,400.00	LF	$30.00	$72,000	Allowance to lighting, dugouts and other site fixtures.
Parking lot pole light fixtures.	10.00	Ea	$5,000.00	$50,000	Along new onsite loop road.
Pedestrian light fixtures.	10.00	Ea	$4,500.00	$45,000	Primarily at new pedestrian paved areas.
Miscellaneous onsite electrical.	1.00	LS	$35,000.00	$35,000	Allowance, including possible handholes & misc.
$0.71			*1.6) Site Electrical & Lighting:*	*$217,000.00*	
200 Amp services to light towers.	1,700.00	LF	$35.00	$59,500.00	A supplemental allowance around new sports fields.
Lighting controller panel.	1.00	LS	$10,000.00	$10,000.00	Allowance, to be housed or weather enclosed.
Sports field lighting towers fixtures, complete.	12.00	LS	$60,000.00	$720,000.00	Around both sports fields, w/ concrete bases, 10 lights on avg.
Site lighting coordination & pick-up.	1.00	LS	$15,000.00	$15,000.00	Allowance, with possible additional handholes and misc.
$2.64			*1.7) Field Lighting Premium:*	*$804,500.00*	
PHASE 3 D SITE IMPROVEMENTS, continues on the next page:					

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 PREFERRED ALTERNATE D FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 D SITE IMPROVEMENTS:					
(Continued from the previous page.)					
Backhoe trenching.	32.00	Hr	$220.00	$7,040.00	For site fixtures & specialties.
Steel fabricated swing access gate.	4.00	Ea	$9,000.00	$36,000.00	Allowance at all new onsite road loop access areas.
New monument sign.	1.00	LS	$7,500.00	$7,500.00	Allowance to be addressed.
Steel fabricated handrails, galvanized.	500.00	LF	$150.00	$75,000.00	At new east ramps and stairs.
Railings or fencing at tops of walls.	1,100.00	LF	$60.00	$66,000.00	Allowance at the tops of most cast-in-place retaining walls.
Directional & ADA signage.	1.00	LS	$4,500.00	$4,500.00	Allowance at new parking lots and misc..
Waste & recycle receptacles.	10.00	Ea	$1,000.00	$10,000.00	Allowance at new plazas and around sports fields.
Water fountain and water bottle refiller.	1.00	Ea	$6,000.00	$6,000.00	In extended plaza, vandal resistant.
Bicycle racks.	4.00	Ea	$1,000.00	$4,000.00	Allowance in new plaza areas.
New portable bleachers.	8.00	Ea	$5,000.00	$40,000.00	Pre-fabricated aluminum bleachers where indicated on plan.
Sports field athletic equipment.	1.00	LS	$15,000.00	$15,000.00	Allowance for bases, portable goals and misc.
Electronic scoreboards.	2.00	Ea	$20,000.00	$40,000.00	One at north and south sides of field.
Miscellaneous site specialties & pick-up.	1.00	LS	$10,000.00	$10,000.00	Allowance for what is not yet addressed.
$1.05			*1.8) Site Fixtures & Specialties:*	*$321,040.00*	
Backhoe trenching.	32.00	Hr	$220.00	$7,040.00	For turf area curbing & misc.
Cast-in-place perimeter curbing.	1,700.00	LF	$40.00	$68,000.00	Around synthetic turf perimeters at both sports fields.
Synthetic turf, installed.	178,000.00	SF	$13.00	$2,314,000	Over both new sports fields.
Add for crushed base, underdrainage & prep.	178,000.00	SF	$5.00	$890,000.00	Under both new sports fields.
Add for fixture premiums & pick-up.	1.00	LS	$30,000.00	$30,000.00	Allowance, including possible vendor unloading.
$10.85			*1.9) Synthetic Turf Surfacing:*	*$3,309,040.00*	
Backhoe trenching.	80.00	Hr	$220.00	$17,600.00	For site concrete work.
Cast-in-place curbs & gutters & curbing.	3,200.00	LF	$42.00	$134,400.00	At the edges of most new asphalt paving.
Concrete sidewalks & paving.	20,000.00	SF	$12.00	$240,000.00	Around new sport fields and misc.
Add for cast-in-place ramp premium.	2,000.00	SF	$10.00	$20,000.00	As laid out on plan, a long "U" ramp.
Add for tie-in & accent premiums.	10.00	MD	$1,000.00	$10,000.00	Allowance, including minor street patches.
Site concrete pick-up & coordination.	10.00	MD	$900.00	$9,000.00	Allowance, including general site clean-up.
$1.41			*1.10) Site Concrete Curbing & Paving:*	*$431,000.00*	
New asphalt paving.	54,000.00	SF	$4.40	$237,600.00	As laid out on plan, assumes a 3" mix over 6" base.
Add for asphalt paving tie-in premiums.	1.00	LS	$7,500.00	$7,500.00	Allowance, including minor street patches.
Add for striping.	1.00	LS	$8,000.00	$8,000.00	Over new onsite paving.
$0.83			*1.11) Asphalt Paving & Striping:*	*$253,100.00*	
Conventional sprinkler head coverage.	15,000.00	SF	$1.50	$22,500.00	In designated new planter areas.
Add for irrigation infrastructure.	1.00	LS	$6,000.00	$6,000.00	Allowance, including a point-of-connection to new meter.
Planter areas with topsoil & mulch.	15,000.00	SF	$5.50	$82,500.00	In plaza and high profile areas, with 6" topsoil and 2" mulch.
Seeded onsite areas with topsoil.	38,000.00	SF	$1.00	$38,000.00	In periphery areas, with a 4" layer of topsoil.
Add for new trees.	140.00	Ea	$450.00	$63,000.00	Allowance, assumes mostly native type 2" caliper.
Add for offsite tree replacement.	761.00	Ea	$60.00	$45,660.00	2 gallon trees only in native areas.
Add for a soft surface trail premium.	600.00	LF	$16.00	$9,600.00	Assumes a 5' wide path of wood chips at south side of site.
Add for phased landscaping overlap work.	1.00	LS	$15,000.00	$15,000.00	Allowance between Phase 3 and Phase 2 boundaries.
Landscaping maintenance & pick-up work.	1.00	LS	$35,000.00	$35,000.00	Allowance, including warranty call-backs.
$1.04			*1.12) Landscaping & Irrigation:*	*$317,260.00*	
10' high chainlink fencing.	1,240.00	LF	$70.00	$86,800.00	Around new sports fields & dugouts, less high retaining walls.
Add for backstop premiums.	2.00	LS	$25,000.00	$50,000.00	At rectangular sports field.
Add for PVC coating.	27,000.00	SF	$1.25	$33,750.00	At all new chainlink fencing.
$0.56			*1.13) Site Fencing & Backstops:*	*$170,550.00*	
PHASE 3 D SITE IMPROVEMENTS:	*305,000.00*	*SF*	*$27.88*	$8,504,310	
Add 25% for Estimate Mark-Ups:	***305,000.00***	***SF***	***$34.85***	**$10,630,388**	

About 305,000 SF of is now figured in Phase 3 D. Like Phase 2 D, extensive earthwork cuts, fills and haul-offs are figured, along with retaining walls. Overall, mass Phase 3 D earthwork cuts & haul-offs have increased in this update, plus a retaining wall running along the north boundary is now figured to be a soldier pile wall. These Phase 3 D cost increases in mass earthwork and a soldier pile wall more than offset a variety of minor Phase 3 D scope savings that have been implemented in this update. However, the accompanying Phase 2 D mass earthwork and retaining wall update adjustments far more than offset the Phase 3 D increases. As in the previous estimate, no new underground storm detention vault is figured in Phase 3 D. Instead, excess storm run-off ties into an existing near-by onsite storm main that drains into an already in-place detention pond that has enough capacity to handle the additional loads. Phase 3 D still includes an onsite loop road with a new water main loop and fire hydrants. Some savings have been implemented in the landscaping & irrigation scope.

GIG HARBOR SPORTS COMPLEX

PHASE 2 AND PHASE 3 PREFERRED ALTERNATE D FOR THE CITY OF GIG HARBOR

	Quantity	Unit	$$$	Est. Cost	
PHASE 3 D BUILDINGS & STRUCTURES:					
Dugout gate & roof support premiums.	4.00	LS	$1,000.00	$4,000.00	Allowance under new dugout roofs.
Dugout roof & shed assemblies.	2,000.00	SF	$40.00	$80,000.00	Simple metal roofing & framing, 4 x 500 SF.
Add for dugout lighting & other electrical.	2,000.00	SF	$6.00	$12,000.00	Allowance for simple vandal resistant lighting & power outlets
$0.31		*2.1)*	*New Dugout Roof Premiums:*	*$96,000.00*	
Building foundation, complete.	960.00	SF	$50.00	$48,000.00	Based on Sports Complex Phase 1B comfort station design.
Architectural CMU exterior walls.	2,200.00	SF	$42.00	$92,400.00	" " " " " " " " " " " " " " " "
Building framing & sheathing.	960.00	SF	$90.00	$86,400.00	" " " " " " " " " " " " " " " "
Roofing & sheet metal.	1,500.00	SF	$35.00	$52,500.00	" " " " " " " " " " " " " " " "
Exterior wall & soffit finishes.	1,800.00	SF	$20.00	$36,000.00	" " " " " " " " " " " " " " " "
Exterior doors & windows.	960.00	SF	$32.00	$30,720.00	" " " " " " " " " " " " " " " "
Interior finishes.	960.00	SF	$50.00	$48,000.00	" " " " " " " " " " " " " " " "
Building specialties & equipment.	960.00	SF	$55.00	$52,800.00	" " " " " " " " " " " " " " " "
Building plumbing, vandal resistant.	960.00	SF	$160.00	$153,600.00	" " " " " " " " " " " " " " " "
Building heat & mechanical ventilation.	960.00	SF	$35.00	$33,600.00	" " " " " " " " " " " " " " " "
Building electrical, vandal resistant.	960.00	SF	$55.00	$52,800.00	" " " " " " " " " " " " " " " "
$2.25		*2.2)*	*Comfort Station Building, Complete:*	*$686,820.00*	
PHASE 3 D BUILDINGS & STRUCTURES:	*305,000.00*	*SF*	*$2.57*	$782,820	
Add 25% for General Contractor Mark-Ups:	***305,000.00***	***SF***	***$3.21***	**$978,525**	

As with Phase 2 D, simple metal roofing and gage framing is figured over the new Phase 3 D dugouts, along with some Spartan type but vandal resistant lighting and power outlets.

A field constructed Comfort Station building is included, for now figured to follow the same design and scope layout of a new Restroom and Concession building in the Gig Harbor Sports Complex Phase 1B project.