CITY OF KIRKLAND
Planning and Community Development Department
123 Fifth Avenue, Kirkland, WA 98033 425.587-3225
www.ci.kirkland.wa.us

CITY OF KIRKLAND
NOTICE OF SEPA DETERMINATION AND ROAD CONCURRENCY TEST

The City of Kirkland has conducted an environmental review and road concurrency review of the following project:

Permit No.: ZON10-00022/SEP10-00011
Proponent: Larry Ho
Address or Location of proposal: 12630 NE 59th Street
Description of project: Proposal to add a 31,739 square foot single story building to an existing tennis club development. A new 103 stall parking lot will be built to replace the existing lot and the existing entrance will be closed, and a new entrance used along NE 60th Street.

Notice is hereby given that on January 5, 2011 the City of Kirkland issued a Determination of Nonsignificance (DNS) in accordance with the State Environmental Policy Act (SEPA) and Chapter 197-11 of the Washington Administrative Code.

SEPA Comments: Comments must be submitted by **5 PM on January 19, 2011** to the City of Kirkland, Department of Planning and Community Development, 123 Fifth Avenue, Kirkland, WA 98033. Contact Planer Susan Lauinger for further information at (425) 587-3252.

Procedures to Appeal SEPA: You may contact Susan Lauinger at (425) 587-3252 to ask about the procedures for SEPA appeals):
1. A written appeal must be filed with the Environmental Coordinator by **5 PM on January 19, 2011** at the above address.
2. The appeal must contain a brief and concise statement of the matter being appealed, the specific components or aspects that are being appealed, the appellant's basic rationale or contentions on appeal, and a statement demonstrating standing to appeal. The following have standing to appeal: a) the applicant; b) any agency with jurisdiction; c) any individual or other entity who is specifically and directly affected by the proposed action. The appeal may also contain whatever supplemental information the appellant wishes to include.
3. Pay the $207.00 fee to file an appeal.

This project requires a public hearing by the Hearing Examiner. Many issues are most appropriately considered during the hearing process rather than through the SEPA process. However some issues, such as traffic, are usually considered only through SEPA and may only be contested or appealed by filing an appeal of the DNS. **There may be no other opportunity to appeal these issues**. Call Susan Lauinger at (425) 587-3252 if you have questions about what issues are addressed in this DNS.

Notice is hereby given that the proposed project passed the road concurrency review and the City of Kirkland issued a road concurrency test notice in accordance with the Kirkland Municipal Code (KMC) Title 25.

Procedures to Appeal Road Concurrency:
1. Refer to KMC Chapter 25.23 for what decisions may not be appealed.
2. A written appeal must be filed with the Public Works Official, Thang Nguyen, by 5pm on January 19, 2011 at the above address.
3. A concurrency appeal will follow the same process as a SEPA appeal. See No. 2 and 3 above under SEPA appeals for procedures. A separate appeal fee of $195.00 is required.

There is no other opportunity to appeal road concurrency issues. Call Thang Nguyen at (425) 587-3869 if you have questions about what is addressed in concurrency review.

More information is available at www.kirklandpermits.net.

Publishing Date: January 10, 2011

Content of legal notice approved by: _____
(Susan Lauinger)

CITY OF KIRKLAND
Planning and Community Development Department
123 Fifth Avenue, Kirkland, WA 98033 425.828.1257
www.ci.kirkland.wa.us

MEMORANDUM

To: Eric R. Shields, AICP, SEPA Responsible Official

From: Susan Greene, Project Planner

Date: January 5th, 2011

File: SEP10-00011; ZON10-00022

Subject: ENVIRONMENTAL DETERMINATION FOR THE CENTRAL PARK TENNIS CLUB PROPOSAL TO BUILD A NEW 4 INDOOR TENNIS COURT BUILDING AND A NEW PARKING LOT WITH NEW ACCESS POINT; ADDRESS IS 12630 NE 59TH STREET; (SEE VICINITY MAP ENCLOSURE 1).

Proposal

The Central Park Tennis Club has submitted a proposal to add a structure housing 4 new indoor tennis courts, replace their existing parking lot with the creation of a new 103 stall parking lot, and change the entrance to the tennis club from NE 59th Street to NE 60th Street via an existing easement not previously utilized by the tennis club (see Enclosure 2). The proposed new tennis building would contain 31,739 square feet to house 4 indoor tennis courts. The tennis facility is an existing membership club with an existing total of 14 courts (2 buildings with 4 courts each inside and 6 outdoor courts). The existing facility also has a clubhouse and outdoor pool and provides services such as tennis lessons, a workout room for weight lifting/training, classes such as yoga and Pilates, a meeting room, child care, swim lessons, and a café. The club hosts annual tennis tournaments and has other social activities including bridge and a book club.

Environmental Issues:

There are no sensitive areas on the site. The existing facility has numerous mature conifer trees within its existing parking lot and surrounding the perimeter of the facility. Tree retention will be addressed within the analysis of the zoning permit. Additionally, a geotechnical report has been submitted for the site and includes recommendations for the proposed structure, raingarden, pervious parking lot, storm water detention, soil excavations and additional geotechnical evaluations (see Enclosure 3). A traffic report, trip generation study (concurrency) and parking evaluation were submitted by the applicant and evaluated by the City's Transportation Engineer (see below for enclosure list).

I have had an opportunity to visit the site and review the following documents:

- Enclosure 3: Geotechnical Report by GEO Group NW, Inc. dated July 8th, 2010
- Enclosure 4: Environmental checklist.

- Enclosure 5: Trip Generation study for Concurrency review prepared by Transportation Engineering Northwest dated August 4th, 2010. Note: The purpose of traffic concurrency is to ensure that the City roadway network is built concurrent with land use growth.
- Enclosure 6: Traffic Impact Analysis by Transportation Engineering NW dated October 4th, 2010.
- Enclosure 7: Concurrency notice from Thang Nguyen, City of Kirkland Transportation Engineer dated September 19th, 2010.
- Enclosure 8: Parking demand study by Transportation Engineering NW dated August 18th, 2010.
- Enclosure 9: Memo from Thang Nguyen dated November 16th, 2010 concerning traffic impacts and parking.

Public Comments on Traffic:

As a result of the public notice for the zoning permit, ten comment letters have been received, all from residents of The Hunt Club, an equestrian facility with homes surrounding it. The Hunt Club is located south and slightly east of the tennis club property and is accessed via a private drive that is owned by the tennis club, but is also utilized by the Hunt Club homeowners and equestrian center. Most of the comments are associated with the change in access point for the tennis club and the new parking lot, and traffic safety with the close proximity of the elementary school that is directly across the street (Ben Franklin Elementary). A summary of the public comment letters are below and are paraphrased, and not a full listing of every concern—see Enclosures 10 through 19 for comment letters). *Staff responses are in italics:*

Issues taken from comment letters

Access change: Changing the access for the tennis club from its current access point at NE 59th Street to 125th Lane NE will be detrimental to the owners of the homes in the Hunt Club and dangerous for the school children of Ben Franklin Elementary across the street from 125th Lane NE. Adding to this danger is the issue that the café within the tennis club serves alcohol and that the tennis club members exceed traffic speed limits. With the café, tennis club and Hunt Club, three businesses will be accessing from NE 125th Lane. There is a spring under 125th Lane NE and it is in disrepair and can't handle additional traffic.

Staff Response:

Use of 125th Lane*: The easement is shown to be owned by the Central Park Tennis Club and The Hunt Club is allowed to use this access according to the plat language on The Hunt Club Plat. The City can not prohibit the use of this easement for the tennis club. The easement use is a private matter between the tennis club and the Hunt Club residents. As part of the zoning permit conditions required by the City's Public Works Department, the tennis club is required to remove and replace failed portions of the brick road, and install a 5 foot sidewalk along the eastside of the road that extends from the new parking lot to NE 60th Street. This sidewalk will be a public sidewalk even though 125th Lane NE is a private lane.*

Behavior of tennis club members: *There would be numerous instances of places that serve alcoholic beverages that are near to schools. This is not a SEPA-related or traffic-related issue as it deals with an individual's decision to drink alcohol and then drive. Additionally, it is unclear how it could be known that it is tennis club members that exceed speed limits if Hunt Club residents have observed speeding vehicles.*

Safety of the School Children of Ben Franklin Elementary:

The school district has been notified of the change of access to 125th Lane NE. They did not submit a comment. The transportation engineers for the City and the applicant have not identified a hazardous condition for school children based on their analysis of the school bell times and the additional traffic volumes that would occur for the tennis club (see Enclosure 20).

Issues taken from comment letters

Traffic Volumes: The traffic volumes on 125th Lane NE and NE 60th Street will be too high if the tennis club accesses from this easement. The time of year that the traffic volumes were studied (August) is not peak time for the tennis club and is therefore not a sufficient traffic report. Shrubbery and signage at this intersection will dramatically increase car and pedestrian accidents.

Staff Response:

Traffic volumes:

The traffic study by Transportation Engineers NW indicates that the additional volume of traffic created by 4 tennis courts can be accommodated as well as the existing traffic volumes for the tennis club. Additionally, the City's Transportation Engineer, Thang Nguyen agrees with this study as indicated in his review of the traffic study. The traffic report that shows the parking and traffic study were done in August and, as explained in the report, the club was operating "at capacity" during the time the study occurred (see page 11 of Enclosure 6). Although school was not in session for Ben Franklin Elementary School at that time, Transportation Engineers NW have satisfactorily addressed that issue (see Enclosure 20).

Sight distance analysis:

Sight distances at the project driveway were measured by the applicant's traffic engineer and it was found that the project driveway at 125th Lane NE meets the City's sight distance requirements when no vehicles are parked along the south side of NE 60th Street. The City's Transportation Engineer, Thang Nguyen did not observe any potential conflict with vehicles leaving the project proposed driveway. To minimize any conflicts when the parking lot of the tennis club is full, or during events, the city will require with the zoning permit that the tennis club instruct their members not to park on NE 60th Street.

Issues taken from comment letters

Equestrian related conflicts and parking lot safety: The horses that are loaded in the parking lot of the Hunt Club may become afraid due to the parking lot of the tennis club being relocated. This could create danger for horses and people at the Hunt Club. Additionally, the relocation of the parking lot next to the Hunt Club parking lot will create vandalism for the Hunt Club neighborhood.

Staff Response:

Parking lot:

The tennis club does have the ability to change the location of their parking lot. The applicant has submitted comments (see Enclosure 20) that includes the plan to put security cameras in the new parking lot.

Equestrian safety:

The tennis club and Hunt Club have existed together for many years. The Hunt Club should have a safe place on their site to load and unload horses, but the City cannot enforce this as a SEPA related issue upon the tennis club.

The applicant has reviewed the public comment letters and has submitted a letter to address the issues raised in the letters (See Enclosure 21). The neighbor's concerns regarding project traffic impacts have been reviewed by the City's Transportation Engineer (see below), who found no significant impacts. Additional neighborhood concerns not related to traffic regarding the project will be addressed through the zoning permit process.

Summary of Public Works Staff Analysis of Traffic Impacts:

The applicant's traffic impact analysis, concurrency report, and parking demand study were prepared by Transportation Engineering NW (See Enclosure list for reports). Each of these documents was reviewed by Thang Nguyen, Transportation Engineer for the City's Public Works Department. The Public Works Department concluded the following, which can be found in two memos from Thang Nguyen as Enclosures 7 and 9:

- The trip generation for the proposal results in approximately 155 daily net new trips per day with 13 PM peak hour net new trips daily.
- The proposed project was tested for concurrency on September 19, 2010 and passed. The project is allowed to proceed through the development process and must obtain a building or development permit prior to September 19th, 2011 in order to maintain a valid concurrency status.
- Based on the traffic assignment presented in the traffic report by Transportation Engineers NW, no off-site intersection has a proportionate share impact greater than 1%, thus no off-site intersection besides the project driveway was analyzed for traffic impact.
- Staff does not anticipate significant school related pedestrian and traffic impacts with the expansion of the tennis club because the peak parking demand at the tennis club does not occur at the peak drop off and pick up times for the school. Additionally, there are crossing guards during school release times and children use the sidewalk on the north side of NE 60th Street.
- Sight distances at the project driveway were measured and the project driveway meets the City's sight distance requirements when no vehicles are parked along the south side of NE 60th Street. Staff did not observe any potential conflict with vehicles leaving the project proposed driveway as drivers are particularly careful driving through the school zone.
- Based on the applicant's parking analysis, the expansion of the tennis club is forecasted to have a demand of 99 parking stalls and they are proposing 103 stalls, plus overflow parking on their vacant lot for events.
- To minimize impacts and maintain sight distance during special events or when the parking lot is full, the tennis facility should put out signs to instruct attendees not to park on-street, but use the vacant lot instead.
- Employees should be required to park on site.
- Road impact fees shall be paid.

Conclusions

It will be necessary to further analyze certain aspects of the proposal to determine if the project complies with all the applicable City Codes and policies. That analysis is most appropriately addressed as part of the review of the zoning and building permit. In contrast, State law specifies that this environmental review under the State Environmental Policy Act (SEPA) is to focus only on potential significant impacts to the environment that could not be adequately mitigated through the Kirkland regulations and Comprehensive Plan. Traffic volumes and safety have been analyzed and it was found that the project proposal is adequate. The City has the authority through the Zoning Code to require the applicant to utilize the vacant lot for overflow parking and the authority to require that all employees park on site. Therefore no mitigations are required for SEPA review and these issues will be addressed with the analysis of the zoning permit and I recommend that a Determination of Non-significance be issued for this project.

SEPA ENCLOSURES

1. Vicinity Map
2. Applicant plans
3. Geotechnical Report by GEO Group NW, Inc. dated July 8th, 2010
4. Environmental checklist
5. Trip Generation study for Concurrency review prepared by Transportation Engineering Northwest dated August 4th, 2010. Note: The purpose of traffic concurrency is to ensure that the City roadway network is built concurrent with land use growth
6. Traffic Impact Analysis by Transportation Engineering NW dated October 4th, 2010
7. Concurrency notice from Thang Nguyen, City of Kirkland Transportation Engineer dated September 19th, 2010
8. Parking demand study by Transportation Engineering NW dated August 18th, 2010
9. Memo from Thang Nguyen dated November 16th, 2010 concerning traffic impacts and parking.
10. through 19. : Public Comment Letters from Hunt Club residents
20. Email correspondence from Chris Forester of Transportation Engineering NW dated October 28th, 2010
21. Reply to comment letters from applicant of Central Park Tennis Club

_____

Review by Responsible Official:

_____ I concur _____ I do not concur

Comments:_____
_____
_____

_____
Eric R. Shields, Planning Director Date

CITY OF KIRKLAND
123 FIFTH AVENUE, KIRKLAND, WASHINGTON 98033-6189
(425) 587-3225

DETERMINATION OF NONSIGNIFICANCE (DNS) .

CASE #: SEP10-00011 DATE ISSUED: 1/5/2011

DESCRIPTION OF PROPOSAL

Proposal to add a 31,739 square foot single story building to an existing tennis club development. A new 103 stall parking lot will be built to replace the existing lot and the existing entrance will be closed, and a new entrance used along NE 60th Street

PROPONENT: **LARRY HO**

LOCATION OF PROPOSAL: 12630 NE 59TH STREET

LEAD AGENCY IS THE CITY OF KIRKLAND

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21.030 (2) (c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public upon request.

Responsible official: 1/5/11

Eric Shields, Director Date
Department of Planning and Community Development
425-587-3225

Address: City of Kirkland
123 Fifth Avenue
Kirkland, WA 98033-6189

You may appeal this determination to the Planning Department at Kirkland City Hall, 123 Fifth Avenue, Kirkland, WA 98033 no later than 5:00 p.m., January 19, 2011 by WRITTEN NOTICE OF APPEAL.

You should be prepared to make specific factual objections. Contact the Planning Department at 425-587-3225 to read or ask about the procedures for SEPA appeals.

Please reference case # SEP10-00011.

Publish in the Seattle Times (date): 1/10/11

Distribute this form with a copy of the checklist to the following:

X Environmental Review Section, Department of Ecology,
P.O. Box 47703, Olympia, WA 98504-7703

____ Department of Fish and Wildlife (for streams and wetlands - with drawings)
North Lake Washington Tributaries Area Habitat Biologist
16018 Mill Creek Boulevard, Mill Creek, WA 98012

____ Department of Fish and Wildlife (for shorelines and Lake Wa. - with drawings)
Lake Washington Tributaries Area Habitat Biologist

C/O DOE
3190 160th Avenue SE, Bellevue, WA 98008

_____ Seattle District, U.S. Army Corps of Engineers,
P.O. Box C-3755
Seattle, WA 98124

_____ Attn: Lynn Best, Acting Director, Environmental Division, Seattle City Light
700 5th Avenue, Suite 3316
P.O. Box 34023
Seattle, WA 98125-4023

_____ Attn: Environmental Reviewer
Muckleshoot Indian Tribe Fisheries Division
39015 172nd Avenue SE
Auburn, WA 98092

_____ Northshore Utility District
P.O. Box 82489
Kenmore, WA 98028-0489

_____ Shirley Marroquin
Environmental Planning Supervisor
King County Wastewater Treatment Division
201 South Jackson Street, MS KSC-TR-0431
Seattle, WA 98104-3856

_____ Gary Kriedt
King County Metro Transit Environmental Planning
201 South Jackson Street, MS KSC TR-0431
Seattle, WA 98104-3856

X Director of Support Services Center
Lake Washington School District No. 414
P.O. Box 97039
Redmond, WA 98073-9739

_____ David B. Johnson and Lillian Cruz (for projects consisting of more than 9 residential units)
Livengood, Fitzgerald and Alskog PLLC
P.O. Box 908
Kirkland WA 98083-0908

_____ John Sutherland, Developer Services
Washington State Department of Transportation
15700 Dayton Ave. N. MS 240
P.O. Box 330310
Seattle, WA 98133-9710

X ~~Jan McGruder, Executive Director~~ ← Andrew McCormick
East Lake Washington Audubon Society
PO Box 3115
Kirkland, WA 98083

Applicant / Agent: Freiheit & Ho Architects for Central Park Tennis Club

cc: Case # ZON10-00022

Distributed to agencies along with a copy of the checklist. (see attached).

Distributed By: _____ Date: 1/5/11

SEPA_C_A_rev: 1/3/2011

January 5, 2011

Larry Ho
Freiheit and Ho Architects
10230 NE Points Drive Ste 300
Kirkland, WA 98033

Dear Mr. Ho,

Subject: Environmental Determination, File No SEP10-00011 for ZON10-00022; Central Park Tennis Club

The City has completed its environmental review of your application and has issued a Determination of Non Significance for the proposed project (attached). In accordance with local ordinance, the determination will be published in the Seattle Times on Monday, 1/10/11.

Should you wish to appeal the SEPA and road concurrency determination, a written appeal must be submitted to the City by January 19th, 2011. The appeal should include a concise statement of the matter being appealed, the specific components or aspects being appealed, the rationale for contention on appeal, and a statement of standing to appeal. The fee for appealing the Environmental Determination is $207.00.

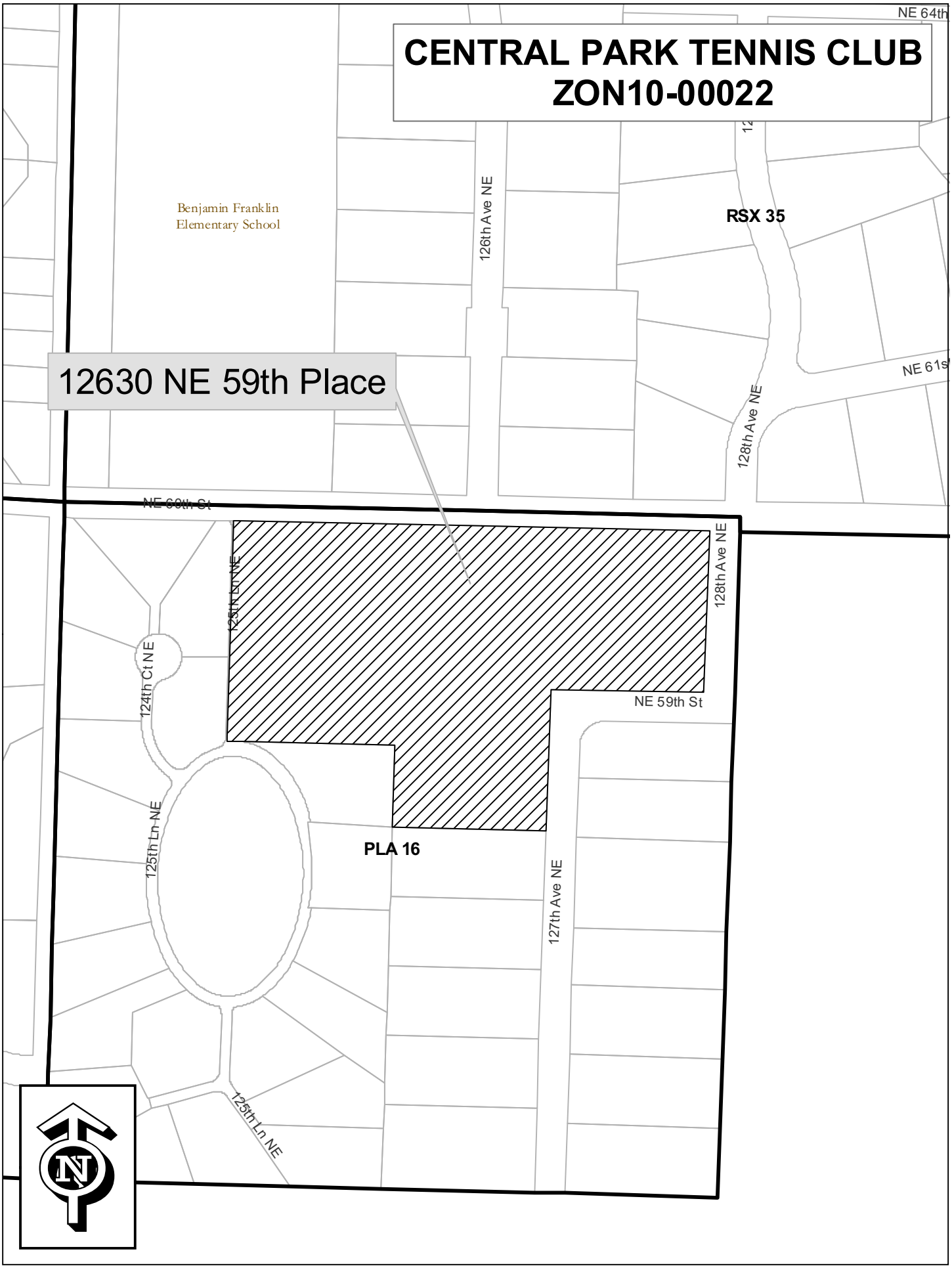
Should you have any questions regarding this letter, please contact me at (425)587-3252, and refer to File No SEP10-00011 and ZON10-00022.

Sincerely,

PLANNING AND COMMUNITY DEVELOPMENT

Susan Lauinger (formerly Greene)
Planner

Attachment: Environmental Determination


CENTRAL PARK TENNIS CLUB
ZON10-00022
12630 NE 59th Place
Benjamin Franklin
Elementary School
126th Ave NE
RSX 35
128th Ave NE
NE 61st
NE 60th St
125th Ln NE
124th Ct NE
128th Ave NE
NE 59th St
125th Ln NE
PLA 16
127th Ave NE
125th Ln NE
N

ATTACHMENT 7
Enclosure 2

Central Park Tennis Club

FOUR COURT TENNIS BUILDING

PROJECT TEAM

OWNER:

CENTRAL PARK TENNIS CLUB
[illegible]
KIRKLAND, WA [illegible]
[illegible]
CONTACT: [illegible], CLUB MANAGER

ARCHITECT:

FREIHEIT & HO ARCHITECTS, INC., P. S.
[illegible]
KIRKLAND, WA [illegible]
[illegible]
CONTACT: LARRY HO

CIVIL ENGINEER:

BLUELINE LAND DEVELOPMENT CONSULTING
[illegible] CENTRAL WAY, [illegible]
KIRKLAND, WA [illegible]
[illegible]
CONTACT: [illegible]

LANDSCAPE ARCHITECT:

INTEGRATED SITE DESIGN
[illegible] AVENUE NE
SEATTLE, WA [illegible]
[illegible]
CONTACT: [illegible]

GEOTECHNICAL ENGINEER:

GEO GROUP NORTHWEST, INC.
[illegible]
BELLEVUE, WA [illegible]
[illegible]
CONTACT: [illegible]

TRAFFIC ENGINEER:

TRANSPORTATION ENGINEERING NORTHWEST
[illegible] STREET SOUTH
KIRKLAND, WA [illegible]
KIRKLAND, WA [illegible]

CONTACT: [illegible]

LEGAL DESCRIPTION

LOT 1 AND 2, FLYING HORSESHOE TRACTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 54 OF PLATS, PAGE 41, IN KING COUNTY, WASHINGTON;

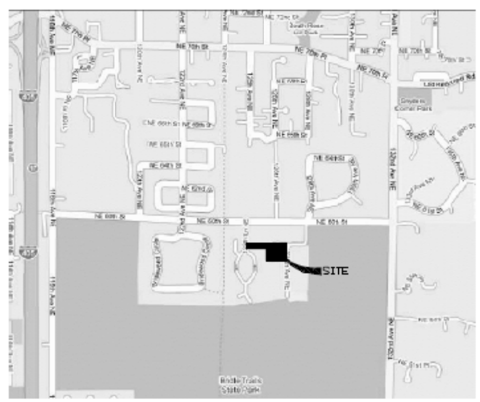
TOGETHER WITH THAT PORTION OF VACATED [illegible] AVENUE NORTHEAST ADJOINING, WHICH ATTACHED THERETO BY OPERATION OF LAW; AND

TOGETHER WITH THE SOUTH [illegible] FEET OF THE NORTH [illegible] FEET OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION [illegible], TOWNSHIP 25 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON;

EXCEPT THE WEST [illegible] FEET THEREOF; AND

EXCEPT THAT PORTION LYING NORTHERLY OF THE [illegible] OF THE NORTH LINE OF SAID LOT 1, FLYING HORSESHOE TRACTS, ACCORDING TO PLAT THEREOF RECORDED IN VOLUME 54 OF PLATS, PAGE 41, IN KING COUNTY, WASHINGTON.

VICINITY MAP



NOT TO SCALE

PROJECT DATA

PRESUBMITTAL CONFERENCE NO. [illegible]

PRESUBMITTAL CONFERENCE DATE: [illegible]

PROPERTY ADDRESS: [illegible] NE [illegible] ST, KIRKLAND, WA.

TAX ASSESSOR'S PARCEL NUMBER: [illegible]

LOT SIZE: [illegible] AC.

ZONE: PLA [illegible]

MAXIMUM ALLOWABLE LOT COVERAGE: [illegible]

PROPOSED LOT COVERAGE: [illegible]

NO. OF EXISTING PARKING STALLS: [illegible]

TOTAL NO. OF PARKING STALLS PROPOSED: [illegible]

GROSS BUILDING AREA: [illegible] SQ. FT.

OCCUPANCY GROUP: [illegible] (INDOOR TENNIS COURT WITHOUT SPECTATOR SEATING)

TYPE OF CONSTRUCTION: TYPE [illegible] SPRINKLED

DRAWING INDEX

ARCHITECTURAL

A0.0	COVER SHEET
[illegible]	SITE PLAN
[illegible]	FLOOR PLAN
[illegible]	BUILDING ELEVATIONS
[illegible]	PERSPECTIVE VIEWS
SURVEY	SURVEY
SHT. 1	SURVEY COVER SHEET
SHT. 2	TOPOGRAPHIC SURVEY
CIVIL	CIVIL
C1	PRELIMINARY UTILITIES PLAN
C2	PRELIMINARY GRADING PLAN
LANDSCAPE	LANDSCAPE
L1.0	OVERALL SITE/ LANDSCAPE PLAN
L2.0	WEST PARKING LOT LANDSCAPE PLAN
L3.0	EAST PARKING LOT AND TENNIS FACILITY LANDSCAPE PLAN
[illegible]	PLANT LISTS AND DETAILS
SK 1.0	RENDERED OVERALL LANDSCAPE PLAN
SK 2.0	VIGNETTES

Freiheit & Ho architects

A0.0

ATTACHMENT 7
Enclosure 2

ARIAL VIEW FROM NORTHWEST CORNER

VIEW OF NEW ENTRANCE

NEW PARKING LOT AND TENNIS BUILDING

ARIAL VIEW FROM WEST

VIEW OF NEW TENNIS BUILDING FROM SOUTHWEST CORNER

VIEW OF TENNIS BUILDING FROM SOUTHEAST CORNER

EXISTING CLUB ENTRY DRIVE TO BE USED FOR DELIVERIES ONLY

ARIAL VIEW FROM NORTH

COURTYARD ENTRANCE TO NEW TENNIS BUILDING

CENTRAL PARK TENNIS CLUB
FOUR COURT TENNIS BUILDING
12630 NE 59TH STREET
KIRKLAND, WASHINGTON

Freiheit & Ho architects

A6.0

NW 1/4, NE 1/4, SEC16, TWP 25N, RNG 5E, W.M.

LEGAL DESCRIPTION

THE NORTH 1/2 OF THE NORTHEAST 1/4, OF THE NORTHWEST 1/4, OF THE NORTHEAST 1/4 OF SECTION 16, TOWNSHIP 25 NORTH, RANGE 5 EAST, W.M., KING COUNTY, WASHINGTON, EXCEPT THE NORTH 20.00 FEET AND THE EAST 60.00 FEET THEREOF;

TOGETHER WITH THE NORTH 13.1 FEET, OF THE SOUTH 1/2, OF THE NORTHEAST 1/4, OF THE NORTHWEST 1/4, OF THE NORTHEAST 1/4 OF SAID SECTION, EXCEPT THE EAST 60.00 FEET THEREOF;

AND LOT 1 AND LOT 2 OF "FLYING HORSESHOE TRACTS" AS RECORDED IN VOL. 54 OF PLATS, PAGE 67, RECORDS OF KING COUNTY, WASHINGTON, TOGETHER WITH THAT PORTION OF VACATED 126TH AVE N.E. ADJOINING;

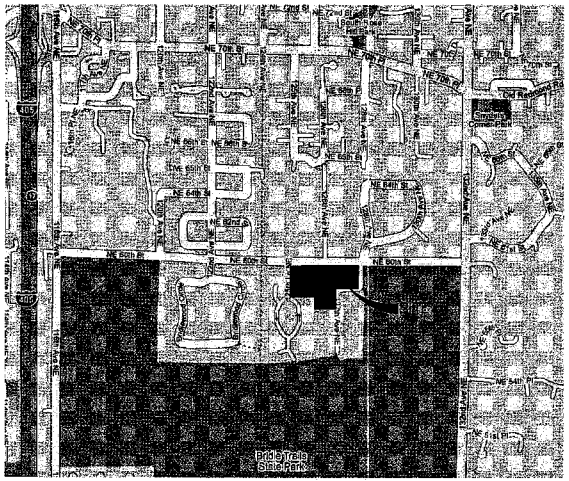
THE SOUTH 428.94 FEET, OF THE NORTH 455.94 FEET, OF THE WEST 1/2, OF THE NORTHWEST 1/4, OF THE NORTHEAST 1/4 OF SAID SECTION, EXCEPT THE WEST 329.50 FEET THEREOF.

BASIS OF BEARINGS

ACCEPTED THE BEARING OF S88°46'56"E FOR THE CENTERLINE OF NE 60TH STREET, BASED ON MONUMENTS FOUND IN CASE, PER PLAT OF FLYING HORSESHOE TRACTS.

GENERAL NOTES

1. THIS SURVEY WAS COMPLETED WITHOUT BENEFIT OF A CURRENT TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST ON THIS PROPERTY THAT ARE NOT SHOWN HEREON.
2. INSTRUMENTATION FOR THIS SURVEY WAS A 5-SECOND NIKON NPL 352 TOTAL STATION. PROCEDURES USED IN THIS SURVEY MEET OR EXCEED STANDARDS SET BY WAC 332-130-090.
3. THE INFORMATION ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE IN SEPTEMBER 2008 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
4. UTILITIES SHOWN ON THIS SURVEY ARE BASED UPON ABOVE GROUND OBSERVATIONS AND AS-BUILT PLANS WHERE AVAILABLE. ACTUAL LOCATIONS OF UNDERGROUND UTILITIES MAY VARY AND UTILITIES NOT SHOWN ON THIS SURVEY MAY EXIST ON THIS SITE.
5. ALL MONUMENTS WERE LOCATED DURING THIS SURVEY UNLESS OTHERWISE NOTED.



VICINITY MAP
NTS

VERTICAL DATUM & CONTOUR INTERVAL

DATUM

ELEVATIONS SHOWN ON THIS DRAWING WERE DERIVED FROM INFORMATION PROVIDED BY THE CITY OF BELLEVUE SURVEY BENCHMARK DATABASE.

4"X4" CONCRETE MONUMENT WITH TACK IN LEAD, DOWN 0.6' IN CASE, AT THE INTERSECTION OF 132ND AVENUE NE AND NE 60TH STREET.

ELEVATION: 490.47 FEET (149.498 METERS) NAVD 88

2.0' CONTOUR INTERVAL - THE EXPECTED VERTICAL ACCURACY IS EQUAL TO 1/2 THE CONTOUR INTERVAL OR PLUS / MINUS 1.0' FOR THIS PROJECT.

PROJECT INFORMATION

ENGINEER/SURVEYOR:	GEODATUM, INC. 1505 NW MALL ST. ISSAQUAH, WA 98027 PHONE: 425 837 8083
PROPERTY OWNER:	CENTRAL PARK TENNIS CLUB 12630 NE 60TH ST KIRKLAND, WA 98033
TAX PARCEL NUMBER:	162505-9019
PROJECT ADDRESS:	12630 NE 60TH ST. KIRKLAND, WA 98033
ZONING:	PLA 1B
JURISDICTION:	KIRKLAND
PARCEL ACREAGE:	410,409 S.F. (9.42 ACRES ±) AS SURVEYED

TREE TABLE			
NO.	CALIPER(IN.)	SPECIES	DRIP LINE RADIUS(FT.)
01	22"	DECIDUOUS *	22'
02	14"	DECIDUOUS *	14'
03	26"	DOUGLAS FIR	26'
04	14"	DOUGLAS FIR	14'
05	14"	DOUGLAS FIR	14'
06	20"	DOUGLAS FIR *	20'
07	20"	DOUGLAS FIR	20'
08	16"	DOUGLAS FIR *	16'
09	16"	DOUGLAS FIR	16'
10	18"	DOUGLAS FIR	18'
11	14"	DOUGLAS FIR	14'
12	26"	DOUGLAS FIR	26'
13	26"	DOUGLAS FIR	26'
14	26"	DOUGLAS FIR	26'
15	26"	DOUGLAS FIR	26'
16	26"	DOUGLAS FIR	26'
17	20"	DOUGLAS FIR	20'
18	20"	DOUGLAS FIR	20'
19	22"	DOUGLAS FIR	22'
20	26"	DOUGLAS FIR	26'
21	24"	DOUGLAS FIR	24'
22	22"	DOUGLAS FIR	22'
23	26"	DOUGLAS FIR	26'
24	20"	DOUGLAS FIR	20'
25	20"	DOUGLAS FIR	20'
26	20"	DOUGLAS FIR	20'
27	20"	DOUGLAS FIR	20'
28	20"	DOUGLAS FIR	20'
29	20"	DOUGLAS FIR	20'
30	20"	DOUGLAS FIR	20'
31	22"	DOUGLAS FIR	22'
32	22"	DOUGLAS FIR	22'
33	20"	DOUGLAS FIR	20'
34	20"	DOUGLAS FIR	20'
35	20"	DOUGLAS FIR	20'

TREE TABLE			
NO.	CALIPER(IN.)	SPECIES	DRIP LINE RADIUS(FT.)
36	20"	DOUGLAS FIR	20'
37	20"	DOUGLAS FIR	20'
38	20"	DOUGLAS FIR	20'
39	16"	DOUGLAS FIR	16'
40	22"	DOUGLAS FIR	22'
41	18"	DOUGLAS FIR	18'
42	16"	DOUGLAS FIR	16'
43	12"	DOUGLAS FIR	12'
44	20"	DOUGLAS FIR	20'
45	20"	DOUGLAS FIR	20'
46	28"	DOUGLAS FIR	28'
47	26"	DOUGLAS FIR	26'
48	12"	DOUGLAS FIR	12'
49	14"	DOUGLAS FIR	14'
50	14"	DOUGLAS FIR	14'
51	16"	DOUGLAS FIR	16'
52	18"	DOUGLAS FIR	18'
53	14"	DOUGLAS FIR	14'
54	8"	CEDAR	8'
55	22"	DOUGLAS FIR	22'
56	16"	DOUGLAS FIR	16'
57	18"	DOUGLAS FIR	18'
58	16"	DOUGLAS FIR	16'
59	16"	DOUGLAS FIR	16'
60	16"	DOUGLAS FIR	16'
61	8"	DOUGLAS FIR	8'
62	20"	DOUGLAS FIR	20'
63	16"	DOUGLAS FIR	16'
64	16"	DOUGLAS FIR	16'
65	16"	DOUGLAS FIR	16'
66	16"	DOUGLAS FIR	16'
67	14"	DOUGLAS FIR	14'
68	26"	DOUGLAS FIR	26'
69	18"	DOUGLAS FIR	18'
70	16"	DOUGLAS FIR	16'

TREE TABLE			
NO.	CALIPER(IN.)	SPECIES	DRIP LINE RADIUS(FT.)
71	28"	DOUGLAS FIR	28'
72	18"	DOUGLAS FIR	18'
73	20"	DOUGLAS FIR	20'
74	14"	DOUGLAS FIR	14'
75	24"	DOUGLAS FIR	24'
76	18"	DOUGLAS FIR	18'
77	16"	DOUGLAS FIR	16'
78	20"	DOUGLAS FIR	20'
79	18"	DOUGLAS FIR	18'
80	22"	DOUGLAS FIR	22'
81	22"	DOUGLAS FIR	22'
82	18"	DOUGLAS FIR	18'
83	28"	DOUGLAS FIR	28'
84	28"	DOUGLAS FIR	28'
85	12"	DOUGLAS FIR	12'
86	14"	ALDER	14'
87	18"	DOUGLAS FIR	18'
88	18"	DOUGLAS FIR	18'
89	20"	DOUGLAS FIR	20'
90	12"	DOUGLAS FIR	12'
91	16"	DOUGLAS FIR	16'
92	18"	DOUGLAS FIR	18'
93	14"	DOUGLAS FIR	14'
94	28"	DOUGLAS FIR	28'
95	14"	DOUGLAS FIR	14'
96	28"	DOUGLAS FIR	28'
97	20"	DOUGLAS FIR	20'
98	16"	DOUGLAS FIR	16'
99	26"	DOUGLAS FIR	26'
100	22"	DOUGLAS FIR	22'
101	16"	CEDAR	16'
102	16"	DOUGLAS FIR	16'
103	16"	DOUGLAS FIR	16'
104	20"	DOUGLAS FIR	20'
105	18"	DOUGLAS FIR	18'

TREE TABLE			
NO.	CALIPER(IN.)	SPECIES	DRIP LINE RADIUS(FT.)
106	24"	DOUGLAS FIR	24'
107	26"	DOUGLAS FIR	26'
108	22"	DOUGLAS FIR	22'
109	20"	DOUGLAS FIR	20'
110	26"	DOUGLAS FIR	26'
111	14"	DOUGLAS FIR	14'
112	20"	DOUGLAS FIR	20'
113	12"	DOUGLAS FIR	12'
114	14"	DOUGLAS FIR	14'
115	16"	DOUGLAS FIR	16'
116	20"	DOUGLAS FIR	20'
117	18"	DOUGLAS FIR	18'
118	18"	DOUGLAS FIR	18'
119	8"	DOUGLAS FIR	8'
120	16"	DOUGLAS FIR	16'
121	26"	DOUGLAS FIR	26'
122	20"	DOUGLAS FIR	20'
123	20"	DOUGLAS FIR	20'
124	20"	DOUGLAS FIR	20'
125	20"	DOUGLAS FIR	20'
126	20"	DOUGLAS FIR	20'
127	14"	DOUGLAS FIR	14'
128	18"	DOUGLAS FIR	18'
129	22"	DOUGLAS FIR	22'
130	16"	DOUGLAS FIR	16'
131	12"	DOUGLAS FIR	12'
132	16"	DOUGLAS FIR	16'
133	14"	DOUGLAS FIR	14'
134	14"	DOUGLAS FIR	14'
135	12"	DOUGLAS FIR	12'
136	12"	DOUGLAS FIR	12'
137	12"	DOUGLAS FIR	12'
138	12"	DOUGLAS FIR	12'
139	14"	ALDER	14'
140	20"	DOUGLAS FIR	20'
141	24"	DOUGLAS FIR	24'

* MULTITRUNK

STORM SCHEDULE:

CB#1
RIM=522.08
INV=518.98 (E)

CB#2
RIM=519.90
INV=516.15 (E)
INV=516.05 (W)

CB#3
RIM=515.97
INV=512.67 (N)
INV=513.17 (W)

CB#4
RIM=513.64
INV=510.14 (N)
INV=510.49 (S)

CB#5
RIM=516.68
INV=506.08 (E)
INV=506.68 (S)

CB#6
RIM=515.62
INV=505.32 (E&W)

CB#7
RIM=505.19
INV=503.89 (E)

CB#8
RIM=505.77
INV=503.37 (NW&W)
INV=503.97 (E)
INV=503.62 (S)

CB#9
RIM=518.99
INV=518.24 (N)
INV=515.49 (E)
INV=515.49 (W)

CB#10
RIM=519.97
INV=516.59 (W)

CB#11
RIM=515.37
INV=514.07 (E)
INV=513.97 (S)

CB#12
RIM=515.14
INV=513.64 (E,S,W)

CB#13
RIM=514.46
INV=N/A

CB#14
RIM=507.06
INV=505.60

CB#15
RIM= 512.57
INV=501.92 (E)

CB#16
RIM=512.20
INV=505.80 (E)
INV=506.90 (W)

CB#17
RIM=511.98
INV=505.45 (E&W)

CB#18
RIM=510.98
INV=505.24 (E&W)

CB#19
RIM=510.43
INV=504.93 (E&W)

CB#20
RIM=507.65
INV=505.75 (E&W)

CB#21
RIM=506.83
INV=504.83 (E&W)
INV=507.53 (W)

CB#22
RIM=507.37
INV=503.57 (E&W)

CB#23
RIM=507.42
INV=503.57 (E&W)

CB#24
RIM=509.39
INV=N/A

CB#25
RIM=516.46
INV=514.96 (S)

CB#26
RIM=516.66
INV=515.46 (S)

CB#27
RIM=516.59
INV=511.97 (S)
INV=514.34 (W)

CB#28 (MH)
RIM=516.76
INV=511.21 (SE)
INV=511.03 (SW)
INV=510.28 (N)

SEWER SCHEDULE:

SSMH #1
RIM=526.20
INV=511.56 (N)
INV=511.66 (SE)

SSMH #2
RIM=523.39
INV=510.37 (S)
INV=510.27 (W)

SSMH #3
RIM=519.69
INV=508.69 (E)
INV=508.79 (W)

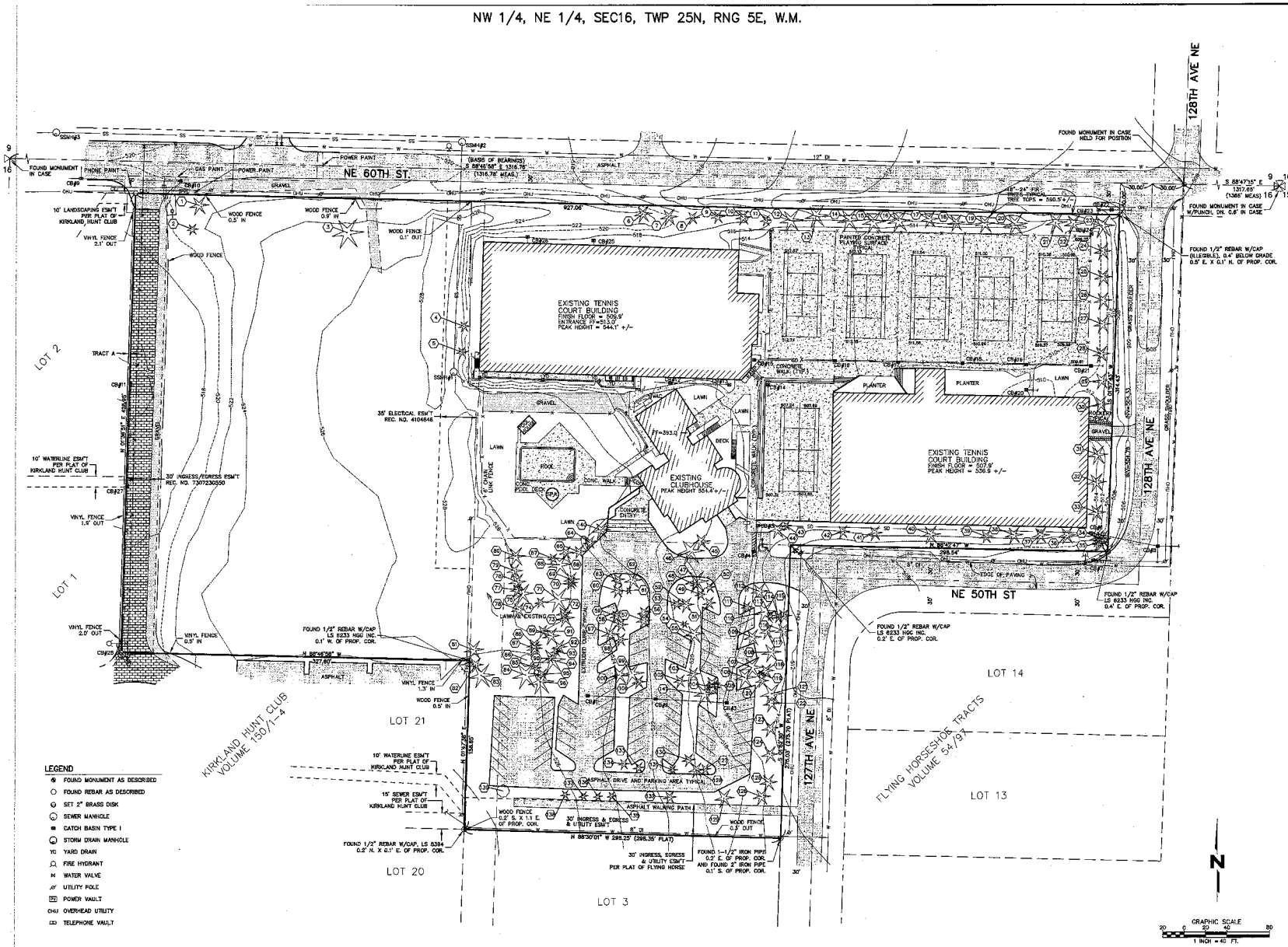
TOPOGRAPHIC SURVEY
CENTRAL PARK TENNIS CLUB
12630 NE 60TH ST
KIRKLAND, WA 98033

GeoDatum
SURVEY - CIVIL - STRUCTURAL
1505 NW Mall Street
Issaquah, WA 98027
(425) 837-8083
www.geodatum.com

DATE	REVISION	BY

DRAFTER: MAB
DESIGNER:
PROJ. ENGR./SURV.: TNW
DATE: 09-30-08
PROJECT NO.: 08309

SHEET 1 OF 2



GeoDatum
SURVEY - CIVIL - STRUCTURAL
1505 NW Mall Street
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TOPOGRAPHIC SURVEY
CENTRAL PARK TENNIS CLUB
12630 NE 60TH ST
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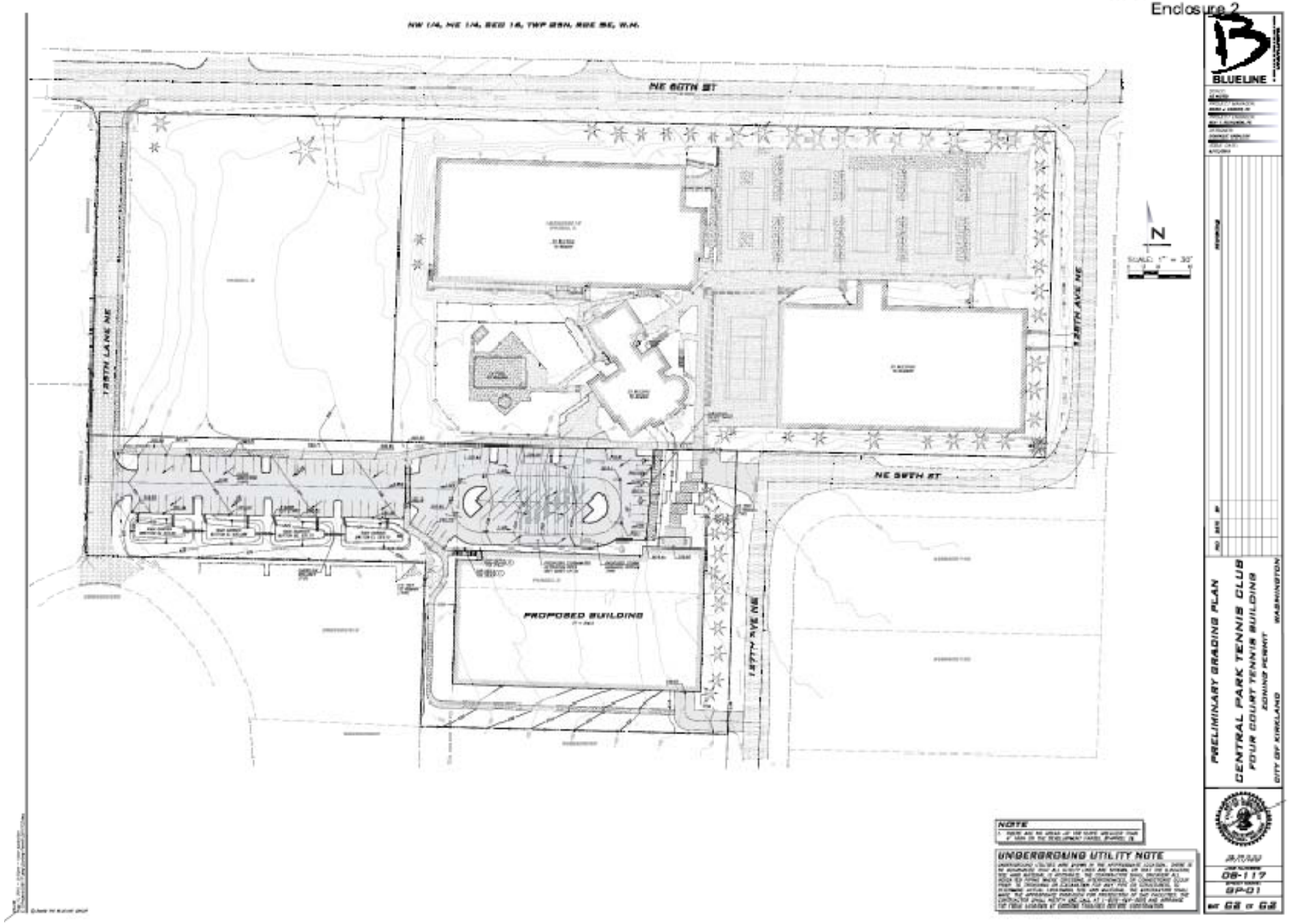
DRAFTER: MAB
DESIGNER:
PROJ. ENGR./SURV.: TNW
DATE: 09-30-08
PROJECT NO.: 08309
SHEET 2 OF 2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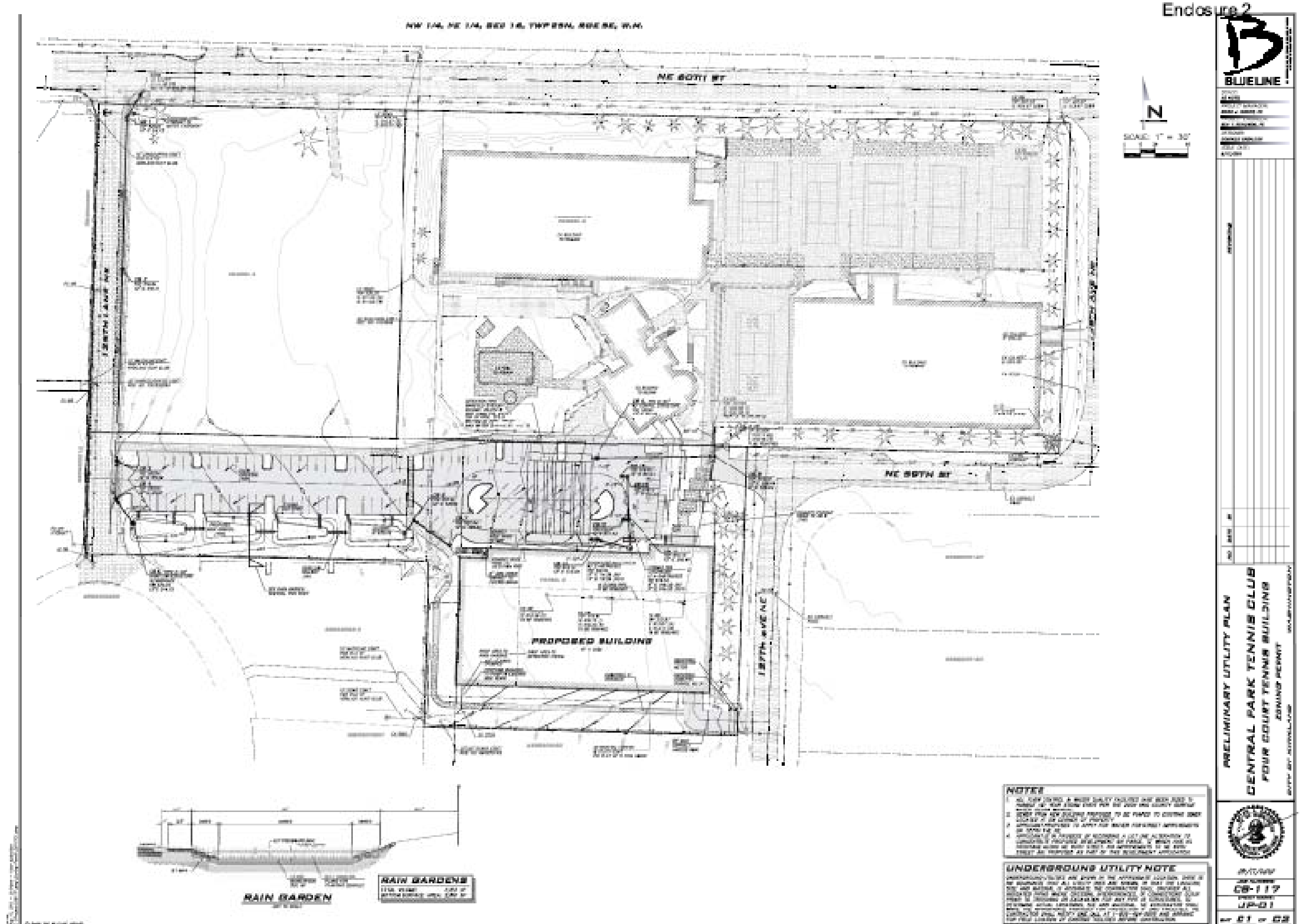
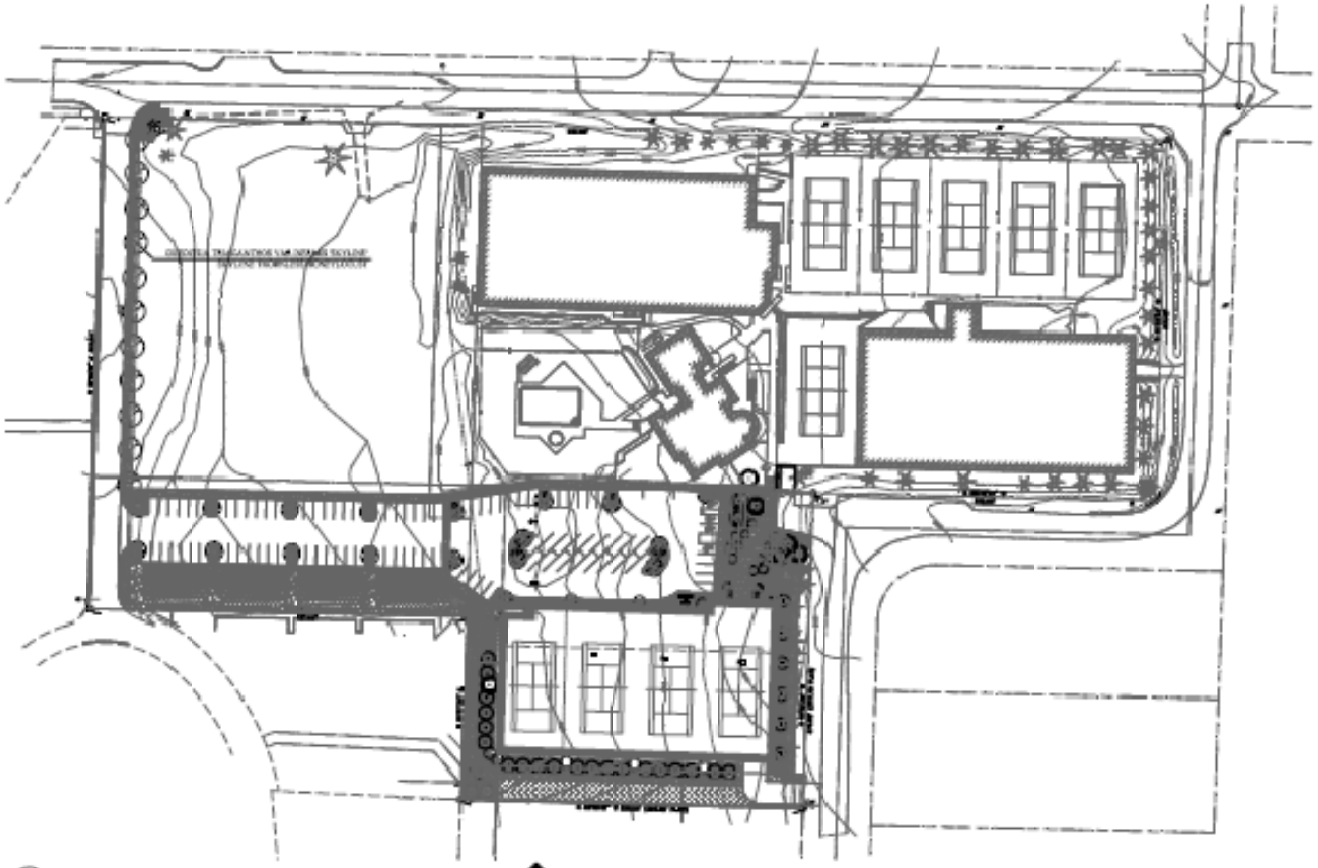
NE 85TH ST
132ND LANE NE
132ND AVE NE
NE 84TH ST
PROPOSED BUILDING
132ND AVE NE
N
SCALE: 1" = 30'
NOTE
UNDERGROUND UTILITY NOTE
BLUELINE
PRELIMINARY GRADING PLAN
CENTRAL PARK TENNIS CLUB
FOUR COURT TENNIS BUILDING
ZONING PERMIT
CITY OF KIRKLAND WASHINGTON
JK/JJ
08-117
SP-01
of G2 of G2

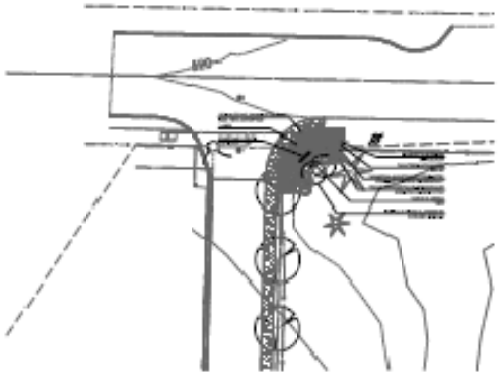
ATTACHMENT 7

Enclosure 2





1 OVERALL LANDSCAPE PLAN



2 LANDSCAPE PLAN – MAIN ENTRY

CODE COMPLIANCE

TREE PRESERVATION NOTES:

GENERAL NOTES

SHEET INDEX

L-1 SITE PLAN
L-2 ENTRY DRIVE LANDSCAPE PLAN
L-3 MAIN PARKING LANDSCAPE PLAN
L-4 PLANT LIST & DETAILS

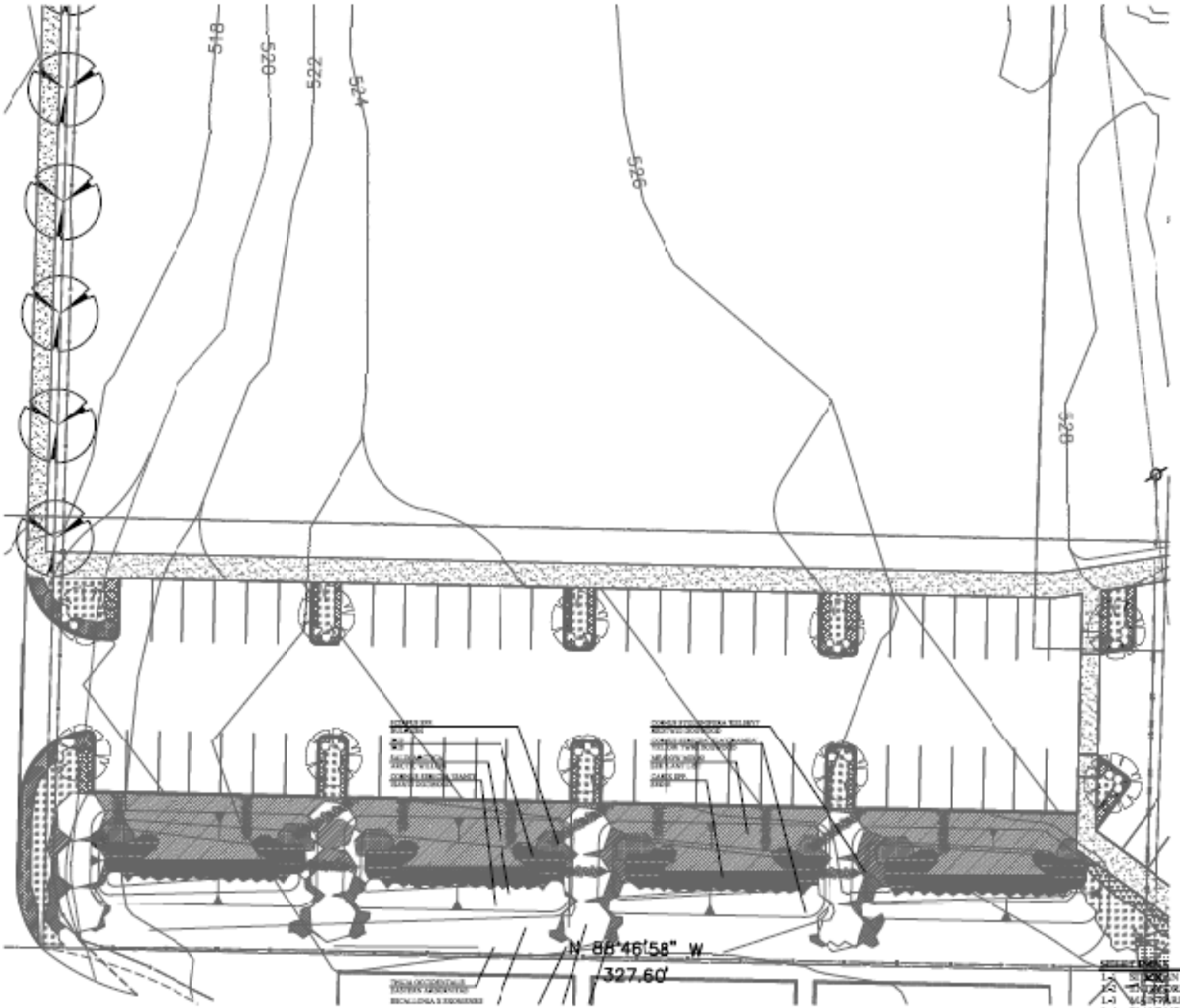
CLIENT:

CENTRAL PARK TENNIS CLUB

CENTRAL PARK TENNIS CLUB
FOUR COURT TENNIS BUILDING
12424 NE 95th Street
Kirkland Washington, 98033

LANDSCAPE PLAN
OVERALL SITE &
MAIN ENTRY

L-1.0



1 LANDSCAPE PLAN - ENTRY DRIVE

CLIENT:
CENTRAL PARK TENNIS CLUB

CENTRAL PARK TENNIS CLUB
FOUR COURT TENNIS BUILDING

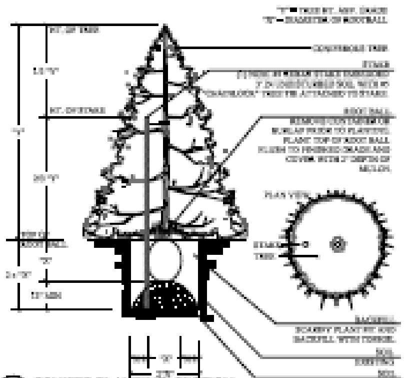
Freiheit & Ha
architects

ENTRY DRIVE
LANDSCAPE PLAN

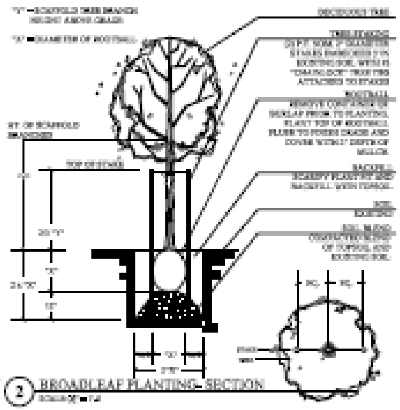
L-2.0

L-1 LANDSCAPE PLAN
L-2 ENTRY DRIVE LANDSCAPE PLAN
L-3 MAIN PARKING LANDSCAPE PLAN
L-4 PLANT LIST & DETAILS

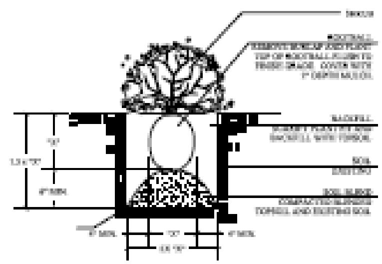
ATTACHMENT 7
Enclosure 2



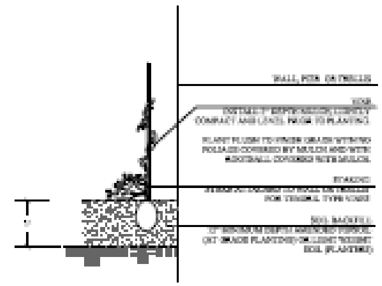
1 CONIFER PLANTING- SECTION



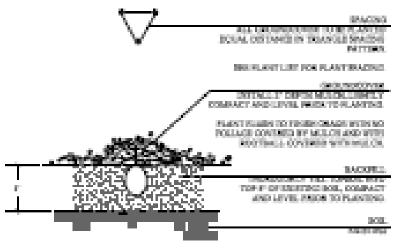
2 BROADLEAF PLANTING- SECTION



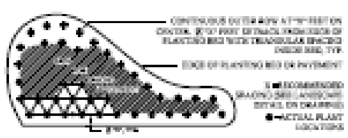
3 SHRUB PLANTING- SECTION



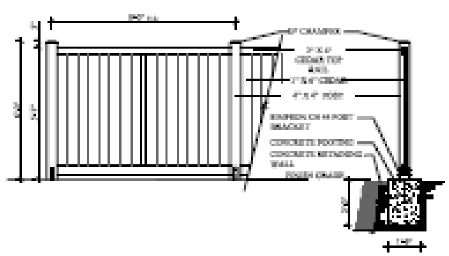
4 VINE PLANTING- SECTION



5 GROUNDCOVER PLANTING- SECTION



6 GROUNDCOVER PLANTING- PLAN



7 SCREENING FENCE

PLANT LISTS

Entry Drive and Sign Monument Areas

Code Name	Quantity	Scientific Name	Common Name	Planting Size	Spacing
Broadleaf Trees					
[illegible]	[illegible]	[illegible]	[illegible]	1 1/2" Cal.	As Shown
PtE	2	Populus tremula 'Erecta'	Swedish Poplar	1 1/2" Cal.	As Shown
Conifer Trees					
Tm	3	Taxus x media	Yew	4' Ht.	30" o.c.
ToP	6	Thuja occidentalis 'Pyramidalis'	[illegible]	5' Ht.	4' o.c.
Shrubs					
CsK	[illegible]	Cornus stolonifera 'Kelseyi'	Dwarf Redtwig Dogwood	1-Gal	2' o.c.
Gs	[illegible]	Gaultheria shallon	Salal	1-Gal	18" o.c.
MaC	12	Mahonia aquifolium 'Compacta'	Compact Oregon grapeholly	1-Gal	30" o.c.
SC	[illegible]	Seasonal Color	Seasonal Color	1-Gal	1' o.c.
Groundcover					
Er	[illegible]	Epimedium rubrum	Dwarf Epimedium	1-Gal	18" o.c.
Lawn	[illegible]	Lawn			

Parking Lots

Code Name	Quantity	Scientific Name	Common Name	Planting Size	Spacing
Broadleaf Trees					
CK	[illegible]	Cornus kousa	Kousa Dogwood	1 1/2" Cal.	As Shown
Shrubs					
Gs	[illegible]	Gaultheria shallon	Salal	1-Gal	18" o.c.
R	6	Rhododendron	Rhododendron	5-Gal	4' o.c.
Grasses					
Ct	[illegible]	Carex testacea	Carex	1-Gal	2' o.c.
Groundcover					
Er	[illegible]	Epimedium rubrum	Dwarf Epimedium	1-Gal	18" o.c.
Fc	[illegible]	Fragaria chiloensis	Creeping Strawberry	1-Gal	18" o.c.

Rain Garden/Detention Ponds

Code Name	Quantity	Scientific Name	Common Name	Planting Size	Spacing
Broadleaf Trees					
Bn	12	Betula nigra	River Birch	1 1/2" Cal.	As Shown
Conifer Trees					
ToP	48	Thuja occidentalis 'Pyramidalis'	American arborvitae	5' Ht.	4' o.c.
Shrubs					
Csf	24	Cornus stolonifera 'Flaviramea'	Goldentwig dogwood	1-Gal	3' o.c.
Csi	38	Cornus stolonifera 'Isanti'	Isanti Red Twig Dogwood	1-Gal	3' o.c.
CsK	[illegible]	Cornus stolonifera 'Kelseyi'	Dwarf Redtwig Dogwood	1-Gal	3' o.c.
Ec	[illegible]	Escallonia x exoniensis	Escallonia	1-Gal	3' o.c.
I	[illegible]	Ilex spp.	Ilex	1-Gal	3' o.c.
Ma	[illegible]	Mahonia aquifolium	Oregon grapeholly	1-Gal	3' o.c.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3' o.c.
Sx	46	Salix [illegible]	Willow	1-Gal	3' o.c.
Grasses					
Cs	[illegible]	Carex spp.	Carex	2-Gal	18" o.c.
S	[illegible]	Scirpus spp.	Sedge	2-Gal	18" o.c.
Groundcover					
MM#2	[illegible]	Meadow Mix #2		Hydroseed	

NOTE: [illegible]

Entry Walkway to New Tennis Court Building

Code Name	Quantity	Scientific Name	Common Name	Planting Size	Spacing
Broadleaf Trees					
ApA	2	Acer palmatum 'Atropurpureum'	Japanese Maple	1 1/2" Cal	As Shown
Bj	12	Betula jacquemontii	Jacquemontii Birch	1 1/2" Cal	As Shown
Conifer Trees					
Pm	4	Pseudotsuga menziesii	Douglas Fir	8' Ht.	As Shown
Tm	3	Taxus x media	Yew	4' Ht.	30" o.c.
Shrubs					
CsK	[illegible]	Cornus stolonifera 'Kelseyi'	Dwarf Redtwig Dogwood	1-Gal	3' o.c.
Do	6	Daphne odora 'Variegata'	[illegible]	2-Gal	3' o.c.
Ec	[illegible]	Escallonia x exoniensis	Escallonia	5-Gal	3' o.c.
Fj	1	Fatsia japonica	Japanese Aralia	5-Gal	3' o.c.
Gs	[illegible]	Gaultheria shallon	Salal	2-Gal	18" o.c.
MaO	[illegible]	Mahonia aquifolium 'Orange Flame'	Orange Flame Oregon grapeholly	5-Gal	3' o.c.
Nd	6	Nandina domestica	Heavenly Bamboo	5-Gal	3' o.c.
R	6	Rhododendron	Rhododendron	5-Gal	3' o.c.
SM-1	[illegible]	Shrub Mix #1 - Snowberry and Mahonia		1-Gal	3' o.c.
Grasses					
Ct	5	Carex testacea	Carex	1-Gal	18" o.c.
Hm	[illegible]	Hakonechloa macra	Japanese Forest Grass	1-Gal	2' o.c.
Groundcover					
AuR	[illegible]	Arctostaphylos uva-ursi [illegible]	[illegible]	1-Gal	[illegible]
Er	[illegible]	Epimedium rubrum	Dwarf Epimedium	1-Gal	18" o.c.
Fc	[illegible]	Fragaria chiloensis	Creeping Strawberry	1-Gal	18" o.c.
Mr	[illegible]	Mahonia repens	Creeping Mahonia	1-Gal	18" o.c.
Ssh	[illegible]	Sarcococca hookeriana humilis	Sweet Box	1-Gal	1' o.c.
[illegible]	[illegible]	[illegible]	Foam Flower	1-Gal	18" o.c.

Landscape Buffers

Code Name	Quantity	Scientific Name	Common Name	Planting Size	Spacing
Broadleaf Trees					
Ac	6	Acer circinatum	Vine Maple	1 1/2" Cal	As Shown
Mg	20	Magnolia grandiflora	Magnolia	1 1/2" Cal	As Shown
PtE	10	Populus tremula 'Erecta'	Swedish Poplar	1 1/2" Cal	As Shown
Conifer Trees					
Pm	4	Pseudotsuga menziesii	Douglas Fir	8' Ht.	As Shown
Tm	[illegible]	Taxus x media	Yew	4' Ht.	30" o.c.
Shrubs					
Do	2	Daphne odora 'Variegata'	[illegible]	2-Gal	3' o.c.
Fj	1	Fatsia japonica	Japanese Aralia	5-Gal	3' o.c.
Gs	[illegible]	Gaultheria shallon	Salal	2-Gal	18" o.c.
MaO	[illegible]	Mahonia aquifolium 'Orange Flame'	Orange Flame Oregon grapeholly	5-Gal	3' o.c.
R	[illegible]	Rhododendron	Rhododendron	5-Gal	3' o.c.
SM-1	[illegible]	Shrub Mix #1 - Snowberry and Mahonia		[illegible]	3' o.c.
Grasses					
Ct	[illegible]	Carex testacea	Carex	1-Gal	18" o.c.
Groundcover					
Er	[illegible]	Epimedium rubrum	Dwarf Epimedium	1-Gal	18" o.c.
Fc	[illegible]	Fragaria chiloensis	Creeping Strawberry	1-Gal	18" o.c.
MM#1	[illegible]	Meadow Mix #1		Hydroseed	

SHEET INDEX

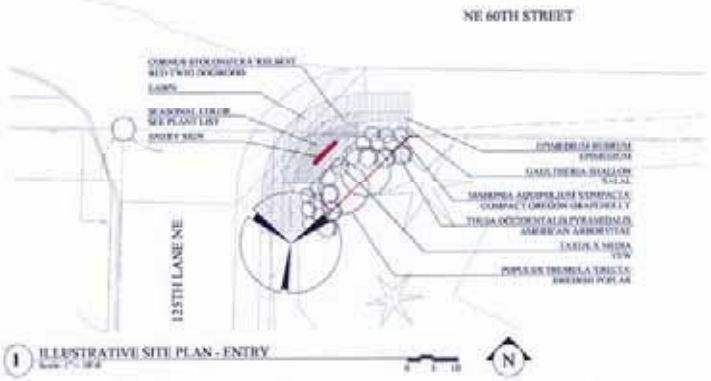
L-1 SITE PLAN
L-2 ENTRY DRIVE LANDSCAPE PLAN
L-3 MAIN PARKING LANDSCAPE PLAN
L-4 PLANT LIST & DETAILS

CLIENT:
CENTRAL PARK TENNIS CLUB

CENTRAL PARK TENNIS CLUB
FOUR COURT TENNIS BUILDING
Kirkland Washington [illegible]

PLANT LIST & DETAILS

L-4.0



1 ILLUSTRATIVE SITE PLAN - ENTRY

2 ILLUSTRATIVE SITE PLAN - OVERALL

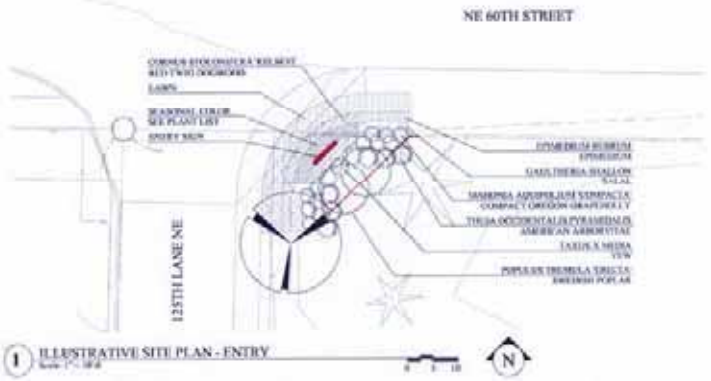
3 ILLUSTRATIVE SITE PLAN - PROPOSED TENNIS COURT FACILITY

CENTRAL PARK TENNIS CLUB
FOUR COURT TENNIS BUILDING
12630 NE 59th Street
Kirkland Washington 98033

Freiheit & Ho architects

ILLUSTRATIVE SITE PLAN

SK-1.0



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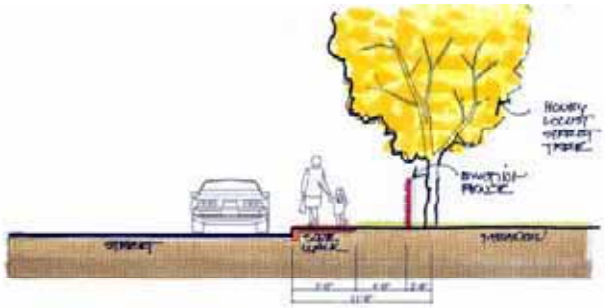
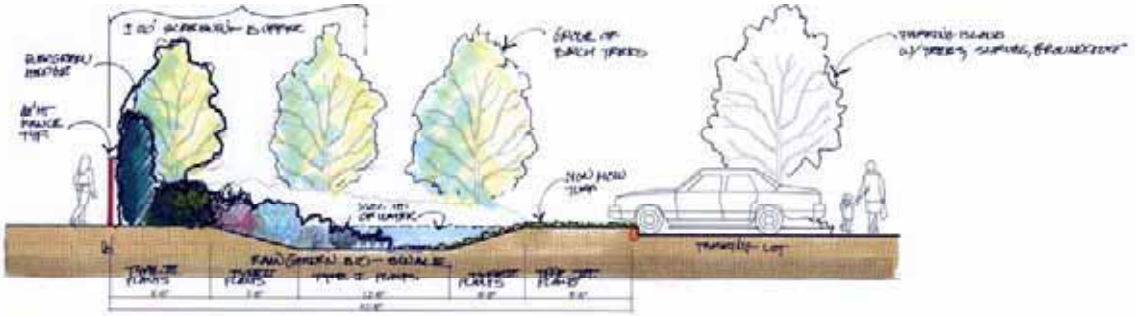
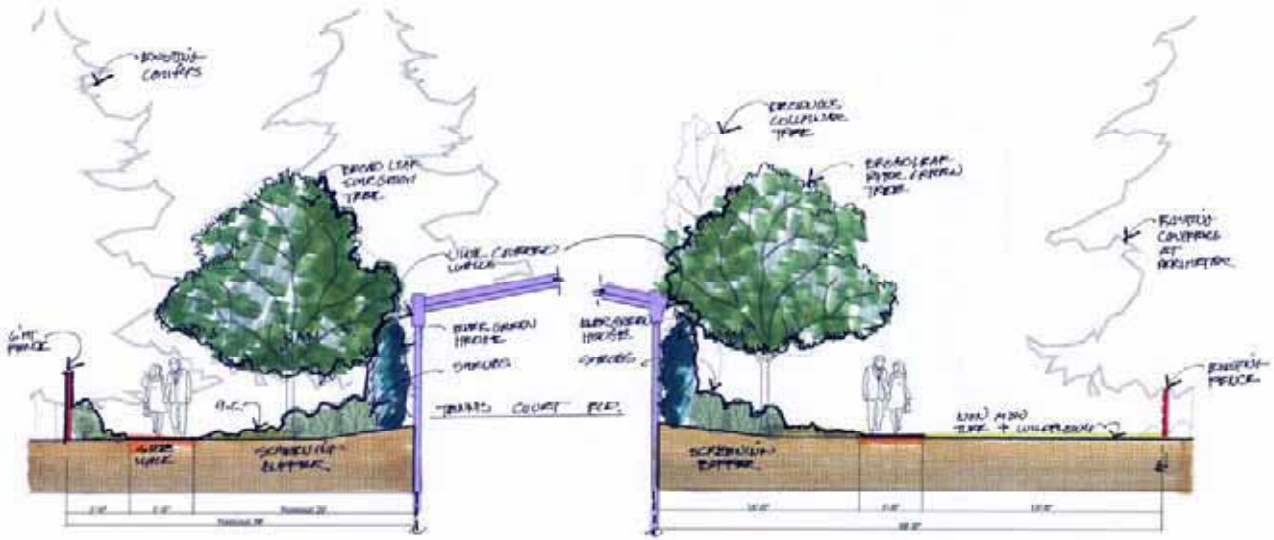


A TYPICAL STREET TREE PLANTINGS ON 125TH LANE NE

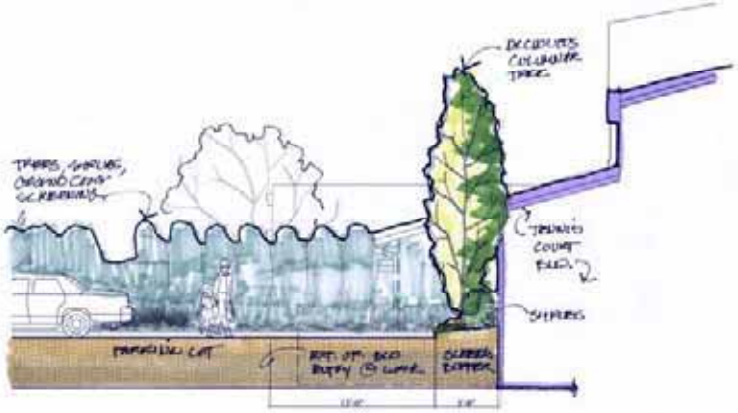


B TYPICAL SECTION AT SCREENING BUFFER AND RAIN GARDEN

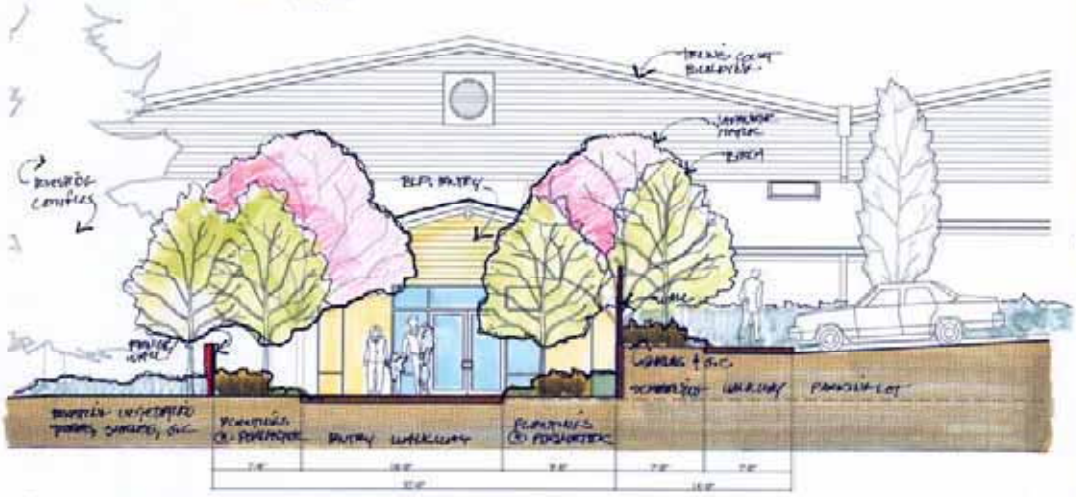


C WEST LANDSCAPE BUFFER AT NEW TENNIS COURT BUILDING

D SOUTH LANDSCAPE BUFFER AT NEW TENNIS COURT BUILDING



E PARKING LOT AT NORTH SIDE OF NEW TENNIS COURT BUILDING



F ENTRY WALKWAY LOOKING TOWARDS NEW TENNIS COURT BUILDING

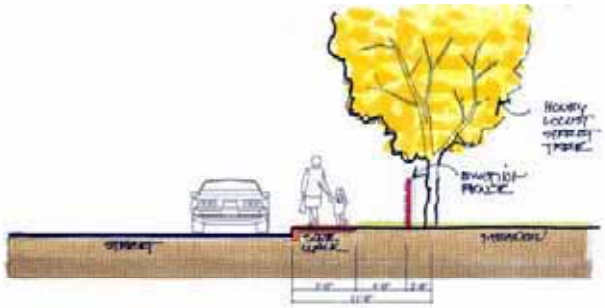
CLIENT:
CENTRAL PARK TENNIS CLUB

CENTRAL PARK TENNIS CLUB
FOUR COURT TENNIS BUILDING

Freiheit & Ho architects

VIGNETTES

SK-2.0



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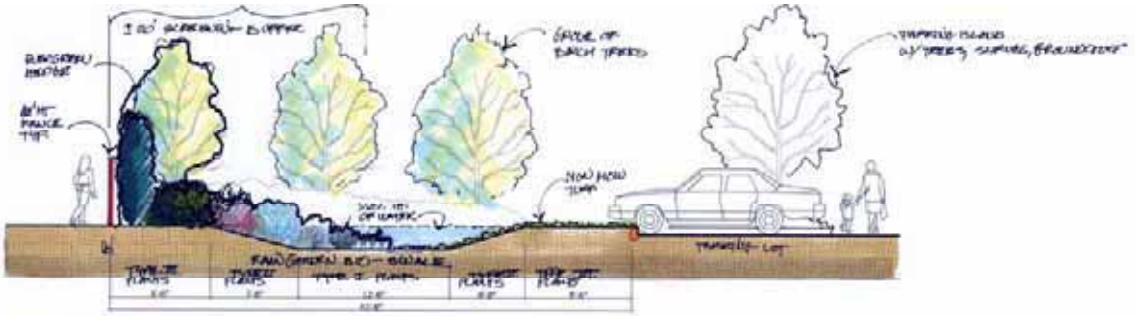

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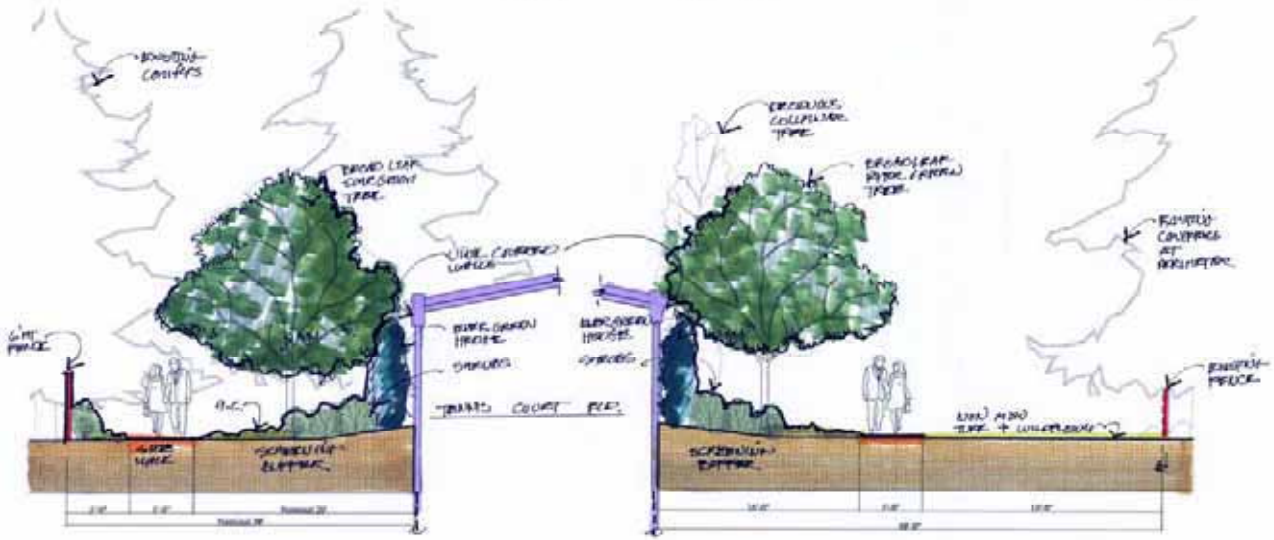
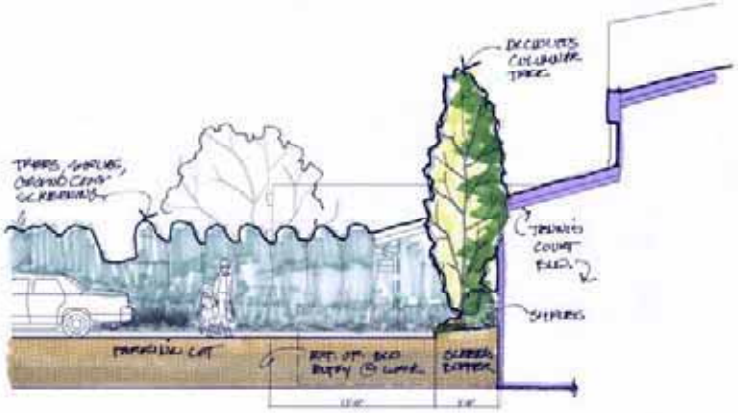
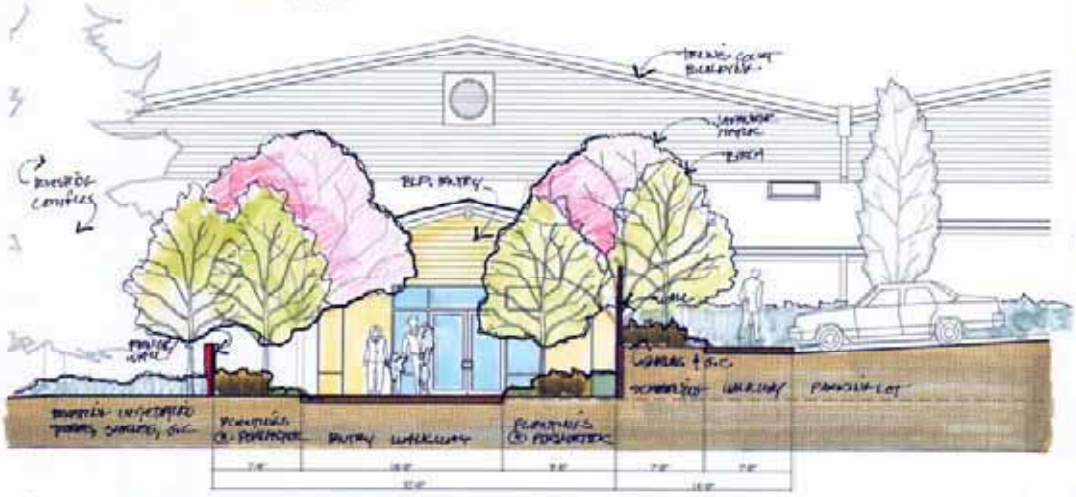


C WEST LANDSCAPE BUFFER AT NEW TENNIS COURT BUILDING

D SOUTH LANDSCAPE BUFFER AT NEW TENNIS COURT BUILDING



E PARKING LOT AT NORTH SIDE OF NEW TENNIS COURT BUILDING



F ENTRY WALKWAY LOOKING TOWARDS NEW TENNIS COURT BUILDING

CLIENT:
CENTRAL PARK TENNIS CLUB

CENTRAL PARK TENNIS CLUB
FOUR COURT TENNIS BUILDING

Freiheit & Ho architects

VIGNETTES

SK-2.0

BUILDING HEIGHT CALCULATIONS

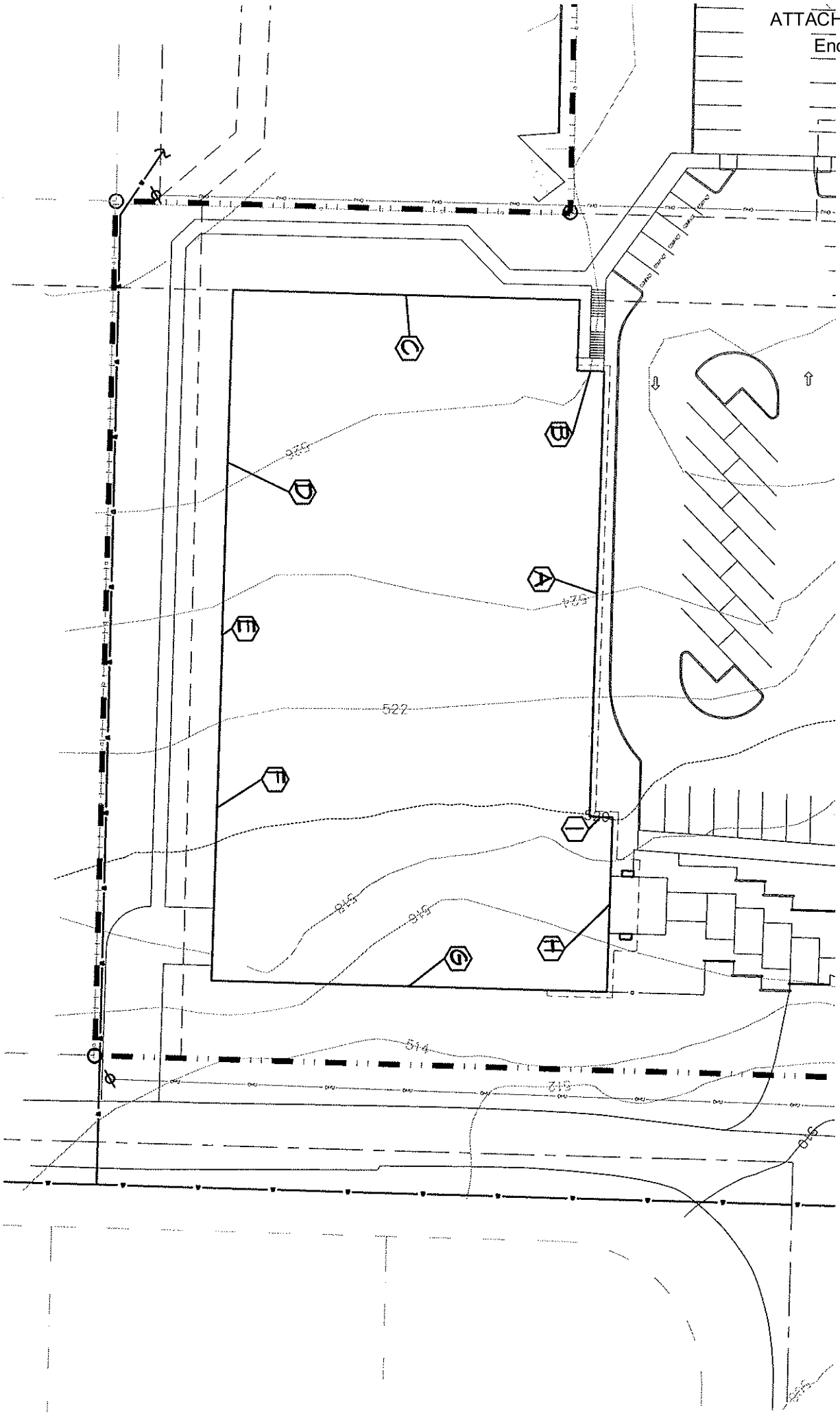
AVERAGE BUILDING ELEVATION:

POINT	LENGTH (FT.)	ELEVATION	LENGTH X ELEV.
A	155.50	524.1	81497.55
B	9.38	526.0	4931.25
C	121.25	526.9	63886.63
D	120.63	526.3	63484.94
E	0.13	523.5	65.44
F	120.50	520.7	62744.35
G	138.50	515.0	71327.50
H	61.00	516.9	31530.90
I	8.00	520.0	4160.00
	734.88		383628.55

AVERAGE GRADE= 522.0

HIGHEST POINT OF BUILDING= 555.7

BUILDING HEIGHT= 33.7


525
522
518
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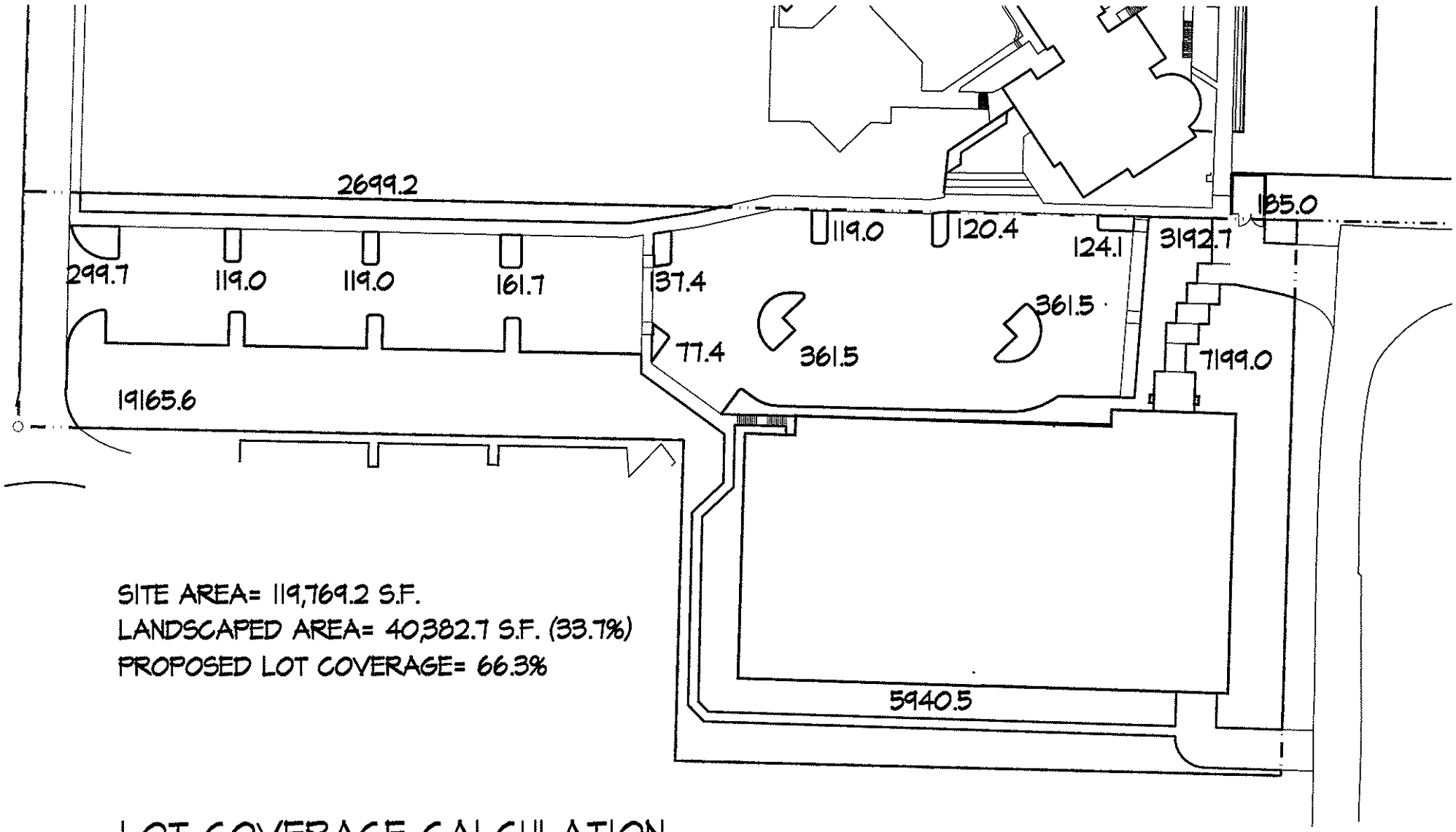
CENTRAL PARK TENNIS CLUB 4 COURT BUILDING
ZONING CODE COMPLIANCE WORKSHEET

ISSUES	*CODE REQUIREMENT*	*PROPOSAL*
Use	Allows Commerical Recreation Area and Use (Use may include activities such as: indoor and outdoor tennis courts, club house, swimming pool, other sport court games and ancillary commercial recreation activities.)	Indoor tennis court (4 courts in one building)
Lot Size	1 acre min.	2.75 acres
Front Yard	20' min.	27'-3 3/4"
Side Yard	20' min.	40' on south and 88'-2 3/4" on north
Rear Yard	20' min.	30'
Lot Coverage	80% max.	65%
Height of Structure	38' above average building elevation. (Structures exceeding 25' above average building elevation must have the ground floor placed below existing grade to the extent possible and screened by a vegetative earthen berm. Structures can be placed at the existing grade if the structures are located on lower ground than adjacent properties and if the adjacent properties are developed and do not contain residential use.)	33.7' Proposed building is placed below existing grade as seen from the north, south and west. The building is screened from the east side by a row of existing matured evergreen trees. Decidious trees and shrubs are added to augment the existing trees. Vegetative screens are proposed on the west and south side of the builidng.
Landscape	Category C	15' min. landscaping and 6' solid fence adjacent to low density use.



SITE AREA= 119,769.2 S.F.
LANDSCAPED AREA= 40,382.7 S.F. (33.7%)
PROPOSED LOT COVERAGE= 66.3%

LOT COVERAGE CALCULATION

ATTACHMENT 7
Enclosure 2

GEOTECHNICAL ENGINEERING STUDY

NEW 4-COURT INDOOR TENNIS BUILDING & PARKING
12630 NE 59th STREET
KIRKLAND, WASHINGTON 98033
Project No. G-3022

Prepared for

Central Park Tennis Club
Mr. Jack Goldberg, Club President
12630 NE 59th Street
Kirkland, WA 98033

July 8, 2010

By

GEO GROUP NORTHWEST, INC.
13240 NE 20th Street, Suite 10
Bellevue, WA 98005
Phone: (425) 649-8757
Fax: (425) 649-8758

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists
& Environmental Scientists

July 8, 2010

Project No. G - 3022

Central Park Tennis Club
Mr. Jack Goldberg - Club President
12630 NE 59th Street
Kirkland, WA 98033

Subject: **Geotechnical Engineering Report**
New 4-court Indoor Tennis Building & Parking
12630 NE 59th Street
Kirkland, Washington

Dear Mr. Goldberg:

This geotechnical report presents the results of our subsurface findings and geotechnical recommendations for construction of the proposed new building for 4 new indoor tennis courts and adjacent new parking lot.

The purpose of the study is to evaluate the site conditions, address geotechnical site development issues and provide earthwork recommendations for the planned development. Based on site development plans, we understand the site development will consist of constructing a new building to house 4 indoor tennis courts and a new adjacent parking lot at the southwest corner of the property. The new building is to be built into the east facing slope.

GEO Group Northwest, Inc., explored the subsurface site conditions with 8 borings to evaluate the subsurface soil conditions. In general the site's subsurface consists of up to 7.5 feet of fill or loose soils at the surface underlain by dense to very dense silty sands or sands with some silt. Fills at the surface of 3 to 5.5 feet deep were encountered in the western portion of the site under the proposed parking lot. The underlying soils are consistent with the description of Till mapped onsite. Dense bearing soils at the proposed new tennis court building ranged from 7.5 feet below the surface at the west end to as little as 3 feet on the east end of the building. No groundwater seepage was encountered in the subsurface explorations.

It is our opinion that the site is geotechnically suitable for the proposed development. Building structures may be supported on conventional spread footing foundations. The main geotechnical site development issues include:

- Site Preparation: Stripping and removing large trees, cutting and filling to achieve the final grades, use of the onsite soils and imported soil, and compaction specifications for structural fill supported buildings and pavements.

- Excavation and slope recommendations for both temporary cuts and permanent slopes.
- Geotechnical design criteria for the new building and retaining walls.
- Subsurface drainage around foundations, behind retaining walls and basement walls.
- Pavement subgrade preparation and pavement section design for the new parking lot and roadways.
- Pervious pavement design, and evaluation of site soils to determine if infiltration onsite is possible.

Our recommendations, along with other geotechnical related aspects of the project, are discussed in detail in the text of the attached report. Please call us if you have any questions about the contents of this report or if we can be of further assistance.

Sincerely,
GEO GROUP NORTHWEST, INC.

Andy Wade
Geologist

William Chang, P.E.
Principal

GEOTECHNICAL ENGINEERING REPORT
NEW 4-COURT INDOOR TENNIS BUILDING & PARKING
12630 NE 59TH STREET
KIRKLAND, WASHINGTON
Project No. G - 3022

1.0 INTRODUCTION

1.1 Project Description

The property is located on the southwest corner of NE 60th Street and 128th Avenue NE, as shown on the attached Vicinity Map, **Plate 1**. The subject site is 9.6 acres in size.

Based on a review of preliminary site plans provided by Freiheit & Ho Architects, it is our understanding that a new 4 court indoor tennis court building and additional onsite parking is planned. The indoor tennis court building will consist of a 30 foot tall 120 foot by 240 foot building to be constructed on the southern end of the existing parking lot. Preliminary plans suggest a finished floor elevation of 516 feet for the tennis court building slab on grade. Additional parking is to be created west of the new building adjacent to the southern property line. The location of the planned building and additional parking is shown on **Plate 2**, Site Plan.

1.2 Scope of Services

The scope of our geotechnical engineering study included:

1. Investigating the subsurface soil and groundwater conditions by drilling 8 borings onsite. Borings were logged by a geologist from our office, soils samples were collected.

2. Soil samples were tested for moisture content in our laboratory. Representative samples were analyzed to determine if onsite infiltration will be feasible. Boring logs were prepared containing the soil classification and moisture test data. Gradation reports were prepared describing the physical properties of soils where infiltration may be possible.

3. Based on the results of our findings and preliminary development plans we have provided an evaluation of the subsurface soil and groundwater conditions, performed engineering analyses, and provided recommendations for the following:
   - Site development strategies;
   - Site preparation;
   - Roadway subgrade preparation;

- Pervious pavement design and rain garden placement recommendations;
- Foundation and retaining wall design parameters;
- Allowable soil bearing capacity;
- Slab-on-grade floors and capillary break;
- Excavations, including temporary and permanent cut slopes;
- Grading and earthwork, including structural fill specifications, utility trench backfill recommendations, and an evaluation of site soils for use as fill material;
- Drainage, including basement wall drainage and footing drains.

4. Preparation of this written geotechnical report with the results of the study.

2.0 SITE CONDITIONS

2.1 Surface Conditions

The subject site is being used as a private tennis club. The northern and eastern portions of the site have numerous outdoor and indoor tennis courts, in addition to the clubhouse and outdoor pool at the center of the property. The western end of the property, also known as Parcel B, is a large flat grass field which slopes down to meet 125th Lane NE at the west end. Parking for the facility is terraced into a gentle east facing slope to the south of the existing clubhouse on the southern portion of the property. The southern parking lot and perimeter of the property are lined with douglas fir trees which are 1 to 3 feet in diameter.

Mr. Vlad Radojevic, Maintenance Supervisor was interviewed about what changes have been made to the property and where onsite utilities are located. He informed us that an excavator was used to dig a large hole between Borings B-2 and B-3 under the proposed parking lot. Mr. Radojevic informed us that a hole approximately 40 feet wide by 40 feet long and 6 to 8 feet deep was excavated at the location noted on the attached site plan - **Plate 2**. The hole was filled with yard waste and tree debris and then covered with the soil which was removed. Fills were compacted by bucket slamming with the excavator. A depression is visible at the surface marking the location of the excavation. Mr Radojevic informed us that he has graded the area several times over the years to re-level it after the ground had subsided.

2.2 Subsurface Conditions

According to, the "Geologic Map of the Kirkland Quadrangle, Washington" by Minard, 1983, the site's surface is mapped as Till(Qvt). Till typically consists of an unsorted, unstratified, highly compacted mixture of silt, sand, gravel, and boulders deposited during the advance of the over-riding glacier 14,000 years ago.

GEO Group Northwest, Inc., visited the site on June 21, 2010 and drilled 8 borings to evaluate the subsurface soil and groundwater conditions. Borings 1-3 were drilled below the new parking lot, while borings 4-8 were drilled at the location of the proposed new building. Locations of the borings are shown on the Site Plan, **Plate 2** with boring logs attached in **Appendix A**.

As discussed earlier subsurface soil conditions were found to be consistent with the mapped geology. Surficial loose fills gave way to very dense silty sand and sand with silt soils at depth. The depth of loose surficial soils varied by location. At the proposed new tennis court building location dense bearing soils were encountered 3 feet below the surface with bearing soils 4 to 4.5 feet deep encountered along the western side of the building where the foundations will be the deepest. Soils below the proposed new western parking lot were found to consist of 5.5 feet of loose fill at the surface underlain by dense and very dense soils. The chart below summarizes our subsurface findings noting the depth of loose soils, depth to bearing soils, and the depth to very dense soils at each boring location.

BORING NUMBER	DEPTH OF LOOSE SOILS	DEPTH TO BEARING SOILS
B-1	5.5	7
B-2	3	3
B-3	5.5	5.5
B-4	0	4.5
B-5	0	4
B-6	2.5	3
B-7	0	3
B-8	2	3

3.0 SEISMICITY

The project site is classified as Site Class = C (very dense soil and soft rock) from Table 1613.5.2 of the 2006 IBC.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Site Preparation Strategy

Based on geotechnical explorations of the site, it is our opinion that the site can be developed with the planned tennis court building and additional parking. The tennis court building may be supported on the underlying dense to very dense soils or on structural fill which extends down to the dense native soils. The tennis court slab on grade currently estimated to have a finished grade elevation of 516 feet should be similarly supported on dense native soils or on compacted structural fill as discussed in **Section 4.2.3**. The parking lot subgrade should be prepared to consolidate or bridge over loose fill soils encountered to be 3 to 7 feet deep under the proposed parking area. However the known buried debris cannot be bridged over and should be removed as part of the anticipated parking lot site preparation. Detailed recommended procedures for parking lot site preparation methods are included in **Section 4.2.5**.

Onsite infiltration appears to be feasible. Results of soil analysis and infiltration rate determinations are discussed in the drainage section below. Applicability of rain gardens, infiltration and/or dispersion trenches, and porous asphalt pavement are also discussed in **Section 4.6**.

4.2 Site Preparation

4.2.1 General

Structural surfaces, including areas planned below buildings, sidewalks and pavement areas, should be stripped and cleared of surface vegetation. Remaining organic topsoil must be removed from all structural surfaces prior to construction. Where trees and their roots are removed, isolated areas of over-excavation should be anticipated to reach the undisturbed native surface below.

The parking lot subgrade should be prepared to consolidate or bridge over loose fill soils encountered to be 3 to 7 feet deep under the proposed parking area. However the known buried debris whose location is shown on **Plate 2** cannot be bridged over and should be removed and the resulting excavation filled with compacted structural fills meeting specifications of **Section 4.2.3**.

We recommend the new parking lot be prepared as described below and then proof rolled with a loaded haul truck or other heavy machinery to evaluate the stability of the site's subgrade prior to placement of the paving section. Areas where the ground

surface is found to significantly deflect under the wheels of the truck as identified by the geotechnical engineer will require further subgrade stabilization measures.

Onsite soils free of roots and organic materials may be suitable for placement as structural fill after approval by the geotechnical engineer at the time of fill placement. Fill stockpiled onsite should be covered with plastic sheeting to protect soils.

4.2.2 Structural Fill Materials

Structural fill is defined as fill material placed below buildings, sidewalks, pavements, or other structures. The excavated onsite silty sands and sands with gravel and sands with silt and gravel may be suitable as structural fill if they are free of roots and organic material and approved by the geotechnical engineer. During wet weather or under wet conditions we recommend the use of a free draining granular material with no greater than 5% passing the No. 200 sieve (measured on that portion which passes the 3/4 inch sieve) also known as 'select borrow'. Onsite native silty sands are not acceptable as free draining structural fill and do not meet the specifications for 'select borrow.'

4.2.3 Structural Fill Compaction

Structural fill should be placed above unyielding native site soils in maximum 10 inch thick loose lifts and compacted to a minimum of 95% of the Modified Proctor (ASTM D1557) standard. Structural fill material should be placed at or near the material's optimum moisture content. The optimum moisture content is the water content in the soil that enables the soil to be compacted to the highest dry density for a given compaction effort. To properly transfer roadway and building loads to the bearing soils, structural fill should extend out beyond the edges of the structure below an imaginary line extending at 1H:1V (Horizontal:Vertical) from the edge of the structure. So, for 3 feet of fill placed between the existing subgrade and the planned structure above, the structural fill should extend out at least 3 feet beyond the outside edges of the structure.

Structural fill should be placed on a firm and unyielding subgrade. Fills should be placed in thin horizontal lifts not exceeding 10 inches in loose thickness and should be compacted to meet the following specifications:

STRUCTURAL FILL COMPACTION SPECIFICATIONS	
APPLICATION	**MINIMUM COMPACTION % of Maximum Dry Density**
Roadway Fills and Under Pavements (Private)	95% for the top 12-inches 90% below the top 12-inches Based on ASTM D-1557 - Modified Proctor
Backfill Behind Rockeries, Segmental Block Retaining Walls & Basement Walls	90% Based on ASTM D-1557 - Modified Proctor
Roadway Fills & Utility Trench Backfill (County Roadways and Utility Easements)	95% Based on ASTM D-1557 - Modified Proctor (Verify With the County and Local Utility District)
Under Building Foundations and Slab-On-Grade Floors	95% Based on ASTM D-1557 - Modified Proctor

4.2.4 Utility Trench Backfill

Onsite native soils may be usable as utility trench backfill if the soils are within 2% of their optimum moisture content as determined by ASTM D1557 modified proctor standard. Moisture content analysis results show the onsite soils at depth are at or below the expected optimum moisture content for the soil type at this time. Utility trench backfill material must be able to be compacted into narrow utility trenches and around the pipes below at various moisture conditions. A backfill material which is more easily compacted and which is not moisture sensitive will allow utilities to be installed in a shorter amount of time and with less labor costs for reworking a marginal material. For these reasons structural fill material within 2% of it's optimum moisture content as discussed in ***Section 4.2.3*** may be preferable as trench backfill material around and below utilities onsite. Engineered fills such as recycled concrete that are shown to be free of deleterious materials such as asphalt, brick, and appreciable amounts of topsoil or organic materials may provide a more cost effective structural fill material for this purpose. During wet weather or under wet conditions we recommend the use of a free draining granular material with no greater than 5% passing the No. 200 sieve (measured on that portion which passes the 3/4 inch sieve) also known as 'select borrow.'

The onsite sands with silt that is free of organic material and debris that are excavated from the utility trenches may be usable as fill onsite. The most silty soils may also be usable as backfill around the structure as the impervious material recommended for the upper foot of the backfill as shown on **Plate 3**. Alternatively silty soils may be used as a general site fill where the material can be placed in thin lifts and reworked as needed to reach the material's optimum moisture content. The soils should be placed in such a manner that they will not be re-disturbed by trenching. Mixing these soils with a granular fill is not advisable and will likely render both materials unusable. Silty soils stockpiled onsite should be covered with plastic during wet weather to protect them from rainwater infiltration.

4.2.5 Roadway and Parking Lot Subgrade Preparation

Roadway and parking lot subgrade stability should be verified by a "proof roll" observed by the geotechnical engineer prior to placement of pavement or crushed rock underlayment. A "proof roll" is conducted by driving a loaded haul truck over the subgrade and observing the amount of softness and/or deflection in the subgrade under the load of the truck. A loaded haul truck represents the maximum expected load for the roadway. The subgrade's ability to perform under such a load constitutes 'proof' that the surface will perform as intended. Areas of the subgrade identified during the proof roll to be soft or deflecting should be repaired or improved as recommended by the geotechnical engineer in the field at the time of construction.

An area of known buried wood and yard debris located under the proposed parking lot is shown on **Plate 2**. This area cannot be bridged over or adequately consolidated stabilize the subgrade for the parking lot. We recommend the buried debris be removed down to the underlying dense soils and the resulting excavation backfilled with compacted structural fills. Alternatively it may be possible to utilize this area as part of an onsite infiltration and/or detention system (see Section 4.6.3).

4.2.6 Temporary and Permanent Excavation Slopes

Temporary cuts greater than four feet in height, such as those for foundation and detention vault excavations, should be sloped at an overall inclination no greater than 1H:1V (Horizontal: Vertical) in the loose to medium-dense site soils. Near vertical slopes, in the underlying dense to very dense glacial till, may be attempted under the full-time supervision of the geotechnical engineer or his representative. The geotechnical engineer should be retained to inspect the stability of excavations during construction.

Trenching for utilities may include water, sewer, gas, and electrical utilities. For safety, utility trench sidewall slopes should follow the criteria described above. We recommend utility lines be bedded in 6 inches of sand above and below the pipe, or follow the Washington State Department of Transportation and American Public Works Association (APWA) specifications, 1996 Standard Specifications for Road, Bridge and Municipal Construction, Sections 69-03.15 and 69-03.16.

Permanent slopes should not exceed a 2H:1V slope. Surface runoff should not be allowed to flow over the top of the slopes into the excavated areas. During wet weather construction, exposed cut slopes should be covered with plastic sheets to minimize erosion.

4.3 Foundation Design Criteria

4.3.1 General

The indoor tennis court building may be supported on conventional spread footings that are anticipated to extend down to dense bearing soils. We recommend the geotechnical engineer verify the bearing soils are encountered in the field at the time of construction. Individual spread footings may be used for supporting columns and strip footings for bearing walls.

4.3.2 Design Criteria for Spread Footing Foundations

Our recommended design criteria for the foundation systems are as follows:

Allowable bearing pressure, including all dead and live loads:

Compacted structural fill (not anticipated)	=	2,000 psf
Dense glacial till soils (tennis court building)	=	4,000 psf
Minimum depth to bottom of perimeter footing below adjacent final exterior grade:	=	18 inches
Minimum depth to bottom of interior footings below top of floor slab:	=	12 inches
Minimum width of wall footings:	=	16 inches
Minimum lateral dimension of column footings:	=	24 inches
Estimated post-construction settlement:	=	1/4 inch

Estimated post-construction differential settlement across building width: = 1/4 inch

A one-third increase in the above allowable bearing pressures can be used when considering short-term transitory wind or seismic loads. Lateral loads can also be resisted by friction between the foundation and the supporting compacted fill subgrade or by passive earth pressure acting on the buried portions of the foundations. For the latter, the foundations must be poured "neat" against the existing undisturbed soil or backfilled with a compacted fill meeting the requirements of structural fill. Our recommended design parameters are as follows:

Passive Pressure (Lateral Resistance)	350 pcf equivalent fluid weight
Coefficient of Friction (Friction Factor)	0.35

4.4 Retaining Wall Design Parameters

Both retaining walls and permanent basement walls should be designed using the retaining wall design parameters in the following subsections. Permanent basement walls restrained horizontally on top are considered unyielding and should be designed for a lateral soil pressure under the at-rest condition; while conventional reinforced concrete walls free to rotate on top should be designed for a active lateral soil pressure. Load or surcharge pressures from adjacent slopes and traffic should be added to the design pressures if the load or surcharge is located within a 1/2H:1V line projected up from the bottom of the planned excavation wall.

The below values are based on the wall backfill being fully drained. The below values do not include the effects of surcharges. For sloped ground behind the wall, a surcharge load equivalent to 50 percent of the soil height above the wall should be considered in addition to the above soil pressures. Traffic surcharge loads can be assumed equivalent to 2 feet of soil (unit weight = 130 pcf) acting over the full depth of the active pressure.

4.4.1 Active Earth Pressures

Conventional reinforced concrete walls that are designed to yield an amount equal to 0.002 times the wall height, should be designed to resist the lateral earth pressure imposed by an equivalent fluid with a unit weight of 30 pcf for level backfill behind yielding retaining walls.

4.4.2 At-Rest Earth Pressure

Walls supported horizontally by floor slabs are considered unyielding and should be designed for lateral soil pressure under the at-rest condition using a design lateral soil pressure having an equivalent fluid pressure of 50 pcf for level ground behind permanent unyielding retaining walls.

4.4.3 Passive Earth Pressure and Base Friction

The available passive earth pressure that can be mobilized to resist lateral forces may be assumed to be equal to 400 pcf equivalent fluid weight for both undisturbed soils and engineered structural backfill. The base friction that can be generated between concrete and undisturbed bearing soils or engineered structural backfill may be based on an assumed 0.40 friction coefficient.

4.4.4 Seismic Lateral Pressure

To design for a 100 year earthquake we recommend adding a lateral pressure of 6H to the above active and at-rest earth pressures.

4.5 Slab-on-Grade Floors

Slab-on grade floors should be constructed on native dense to very dense soils, or on structural fill that extends down to these soils. Preliminary plans indicate a finished floor elevation of 116 feet, thus we assume a slab subgrade elevation of approximately 115 feet elevation to make room for slab and capillary break. Dense bearing soils are anticipated at or above the proposed slab subgrade over most of the building footprint with only a small area at the northeast corner where the dense soils may be a foot below the slab subgrade. Loose soils should be removed and replaced with structural fill, meeting minimum compaction standards as specified in ***Section 4.2.3***. Compaction and placement of structural fill should be monitored by the geotechnical engineer and verified by field density testing.

4.5.1 Capillary Break

Slab-on-grade floors should be constructed on a capillary break layer to prevent wicking of moisture through the slab. The capillary break should consist of a minimum 6 inch thick free-draining layer of clean crushed rock or an equivalent material containing less than 5% passing the No. 4 (1/4 inch) sieve.

4.5.2 Vapor Barrier

To avoid water vapor build-up on the subgrade and transmission through the slab we recommend installing a 10-mil reinforced vapor barrier, such as Moistop by Fortifiber Corporation, between the capillary break and the concrete floor slab.

4.6 Drainage Recommendations

4.6.1 Surface Drainage

The finished ground surface should be graded so surface water is directed away from structures. Final site grades and impervious areas should be designed such that the surface water runoff is collected into catch basins and tight-lined to the storm system or onsite infiltration facility.

Roof down-spout drain lines should not be connected to the footing drain system. All roof down-spouts should be tightlined to the onsite catch basin separate from footing drains. We recommend that sufficient clean-outs be installed to allow for periodic maintenance of the down-spout tightline systems.

4.6.2 Footing Drains

We recommend that footing drains be installed around perimeter foundations. The drains should consist of a 4 inch minimum diameter, perforated or slotted, rigid drain pipe laid at the invert of the footing with a gradient sufficient to generate flow. We recommend the perforated drain line be bedded on, surrounded by, and covered with drain rock, or other free draining granular material. The drain rock should be wrapped with a non-woven geotextile, such as Mirafi 140N or equal. A typical footing drain detail is attached as **Plate 3**. We recommend that foundation drains be tight-lined for discharge into the storm water drainage system. We recommend that the geotechnical engineer inspect the footing drainage systems before backfilling.

4.6.3 Infiltration/Dispersion Facilities

Particle size distribution analysis was conducted on 3 samples representative of soils encountered onsite. An infiltration rate was calculated for each sample according to its D_{10} particle size (the particle size which 10% of the particles are finer than). The chart below gives the location of each of the samples, their approximate depth, elevation, and infiltration rate. Suitable correction factors should be applied to these values to determine a design infiltration rate:

BORING NUMBER	DEPTH BELOW SURFACE	APPROXIMATE ELEVATION	INFILTRATION RATE
B-1	1 - 4 ft	522.5 ft - 524.5 ft	0.001 inches/hr
B-2	5 - 6.5 feet	520 ft - 521.5 ft	8.0 inches/hr
B-7	7.5 - 9 feet	510.5 ft - 509 ft	1.9 inches/hr

Based on the above calculated infiltration rates, onsite infiltration is feasible in some of the site soils. Onsite infiltration facilities can be located on the east side of the new tennis court building and on the north side of the new parking lot. Infiltratable soils were encountered below 7 feet in boring B-7, and below 4.5 feet in boring B-2. The facilities can be extended up to the surface to allow overflow to be dispersed onto the adjacent vegetated areas. The yard debris and small trees known to be buried between borings B-2 and B-3 should be removed prior to paving the parking lot. We suggest this excavation be cleaned out and utilized as an onsite detention and/or infiltration facility. For example, simply filling the excavation with a poorly graded crushed rock will adequately prepare the area to support the parking lot above while maintaining 30% of the volume for infiltration storage. GEO Group should be retained to inspect infiltration facilities to verify that onsite soil conditions have not changed and that sufficient infiltratable soils exist to facilitate drainage.

4.6.4 Porous Pavement

Due to the very low permeability of fills encountered at the surface below the new parking lot porous pavement is not a viable alternative to reduce the amount of impermeable surface created by the proposed development. A D_{10} particle size infiltration rate of 0.001 inches/hour was calculated for the onsite fills found between 1 and 4 feet deep in boring B-1 which are representative of fills found across the majority of the parking lot. However if the loose fills were removed to expose infiltratable soils at depth porous pavement could be considered.

4.7 Permanent Retaining Walls and Rockeries

4.7.1 General

We understand the new building to be cut into the east facing slope will likely utilize tilt-up concrete walls. Tilt up walls extending up from footings with the same elevation around the entire building will create permanent cut slopes around the west end of the structure. Measures will have to be taken to prevent erosion of the temporary slopes over time. A geogrid supported block wall, rockery, or ecology block wall may be constructed as alternatives to a cast in place concrete retaining wall to serve this purpose. After wall construction is completed any number of groundcover agents can be planted to cover the wall and provide a more aesthetically pleasing feature as

desired. The existing indoor tennis court building north of the clubhouse has utilized a geogrid reinforced block wall to supports raised grades around the south and west sides of the existing building. The sections below outline a few possible typical sections that are only applicable to cuts into dense glacial till soils. Specific design details can be addressed by GEO Group Northwest, Inc., if needed.

4.7.2 Rockeries

A rockery may be used to face the temporary excavation slopes around the new tennis court building. Utilizing a rockery wall to cover steep temporary excavation slopes will minimize costs associated with excavation by minimizing the area exterior to the building to be disturbed. Rockeries should be used to face stable cut slopes to retard erosion over time. However rockeries should not be used to face fill slopes without additional geogrid reinforcement placed in the fills behind the rockery wall.

By its nature, a rockery is not a designed or engineered retaining wall such as a reinforced concrete wall. Successful rockery wall construction is to a large extent an art, and is not entirely controllable by engineering methods. Because of this, it is imperative that rockeries be constructed in the proper manner by an experienced contractor with proven capability in rockery construction. Although a rockery wall can provide some degree of retention capability, its main function is to serve as a protective facing to help retard the weathering and erosion processes that act on the earth embankment behind the rockery. To have a satisfactory rockery system, the earth embankment behind the rockery must be initially stable, and provisions must be made to ensure it remains stable on a long term basis.

Rockeries constructed onsite should be constructed in accordance with the Association of Rockery Contractors Typical Rockery Details and notes presented as **Plate 4**. The rockery should be embedded 12 inches into the onsite soils, constructed with a 6:1 batter (Horizintal:Vertical), and drainage system as described on **Plate 4**. The stone to be used by the contractor should provide a durable non-weathering stone from which the rockery may be constructed. Rock size should be selected according to the intended rockery height as specified on **Plate 4**. As specified in the ARC notes walls greater than 8 feet high should be constructed with 5-6 man rocks on the lower two thirds of the wall. The geotechnical engineer should confirm that keyway depth, drainage installation, and rockery construction are in accordance with specifications described in this report. Rockeries placed against fill should be reinforced with a geotextile fabric to provide the needed lateral support. GEO Group NW can provide the required geogrid reinforcement design for an extra fee as needed.

4.7.3 Ecology Block Walls

An ecology block wall can be designed similar to a rockery by utilizing the shear weight of the blocks, or additional geogrid support can be integrated into the wall similar to a segmented block wall as discussed in the section below. Construction of an ecology block wall may be a preferable alternative to a rockery or a geogrid reinforced segmented masonry block wall due to the much lower cost of ecology blocks in the current market as apposed to quarry rock or segmented masonry blocks.

Ecology blocks are rectangular concrete blocks weighing between 2 and 3 tons each depending on which type of block is used. The blocks fit together with a tongue and groove interface built into the top and bottom of each block which ensures that blocks will not fall out of the wall as can be a concern with a rockery wall. By offsetting blocks the wall is integrated together similar to a typical brick wall.

Ecology block walls should be constructed with a (1H:6V) batter. To construct the required batter the keyway the base of the excavation for the wall should be sloped at a 6H:1V slope facing towards the cut to be supported. This allows the proper batter to be achieved when blocks are stacked on the sloped cut base while maintaining full contact between blocks. Minimum 1 foot of embedment is required for walls under 8 feet tall with 1.5 feet of embedment required for walls 8 to 15 feet tall. Compacted fill placed in front of the wall as backfill for a nearby structure can provide embedment for the ecology block wall, as shown on **Plate 5**.

For walls above 8 feet high additional wall thickness is required similar to a rockery wall. To achieve this ecology blocks can be stacked 2 blocks deep or aligned with the long axis perpendicular to the cut face as needed. Ecology block walls over 4 feet tall will require an engineered design which GEO Group Northwest can provide at an additional cost. A typical ecology block wall detail for a 6 foot tall wall is attached as **Plate 5**.

A wall drain should be installed at the base of the block wall and drain zone installed behind the wall as shown on **Plate 5** to ensure the ecology block wall remains fully drained. The wall drain should consist of a rigid 4-inch diameter perforated PVC pipe laid behind the base of the wall and connected to a suitable discharge facility. The drain pipe should be bedded in and covered with clean crushed rock of minimum 1/4 inch size. A non-woven filter fabric such as Mirafi 140N should be wrapped around the wall drain exterior to the crushed rock to separate the rock and drain pipe from adjacent silty soils both above and below the drain pipe. Please refer to **Plate 5** for the proper installation configuration.

For the upper 5 to 7 feet of the western side of the building where fills behind the wall are anticipated geogrid reinforcement can be added to stabilize fills as needed without

additional significant changes to the ecology block wall construction. A geogrid reinforcement design can be provided at an additional cost after the desired wall configuration has been determined.

4.8 Parking Lot Pavement

The adequacy of site pavements is strictly related to the condition of the underlying subgrade. If this is inadequate, settlement or movement of the subgrade will be reflected up through the asphalt-concrete surfacing. No matter what pavement section is constructed the pavement subgrade should be compacted to structural fill specifications and proof-rolled with a loaded dump truck under the observation of the geotechnical engineer prior to paving. Areas of soft, wet, or unstable subgrade may require over-excavation and replacement with compacted structural fill or crushed rock. Buried wood debris and yard waste under the proposed parking lot should be removed and replaced with structural fill to stabilize the subgrade in the area shown on **Plate 2**. Subgrade stabilization recommendations should be provided by the geotechnical engineer based on an evaluation of the site conditions as discussed in **Section 4.2.5**.

For private parking and driveways with light traffic loads, we recommend the following minimum pavement sections:

Class "B" Asphalt Concrete (AC)	2-inches, over
Crushed Rock Base (1 1/4-inch minus)	4-inches, or
Asphalt Treated Base	2-inches

In the event of poor subgrade conditions, the geotechnical engineer or his representative should be notified so that we can review the conditions, provide subgrade stabilization recommendations, or redesign the minimum pavement sections presented above.

5.0 LIMITATIONS

This report has been prepared for the specific application to this project for exclusive use by Central Park Tennis Club and its authorized representatives. Our findings and recommendations stated herein are based on field observation, our experience, and our judgement. The recommendations are our professional opinion derived in a manner consistent with the level of care and skill ordinarily exercised by other members of the profession currently practicing under similar conditions in this area and within the budget constraint. No warranty is expressed or implied. In the event the soil conditions are found to vary from those described herein, or construction plans change, GEO

Group Northwest, Inc., should be notified and the recommendations herein re-evaluated.

6.0 ADDITIONAL SERVICES

We recommend that GEO Group Northwest, Inc. be retained to perform a general review of the final design and specifications for the proposed development, to verify that the earthwork and foundation recommendations have been properly interpreted and implemented in the design and in the construction documents. In addition we recommend that GEO Group Northwest, Inc. be retained to provide monitoring and testing services for the geotechnical-related work during construction, including verifying bearing capacities, subsurface drainage installation, utility trench backfill and required compaction, and roadway subgrade preparation. This is to observe compliance with the design concepts, specifications or recommendations and to allow timely design changes in the event subsurface conditions differ from those anticipated prior to the start of construction.

We appreciate the opportunity to perform this geotechnical evaluation and look forward to working with you and your design team in the construction phase. If you have any questions about this report, or if we can be of further assistance, please call.

Sincerely,
GEO Group Northwest, Inc.

Andy J. Wade
Geologist

William Chang, P.E.
Principal

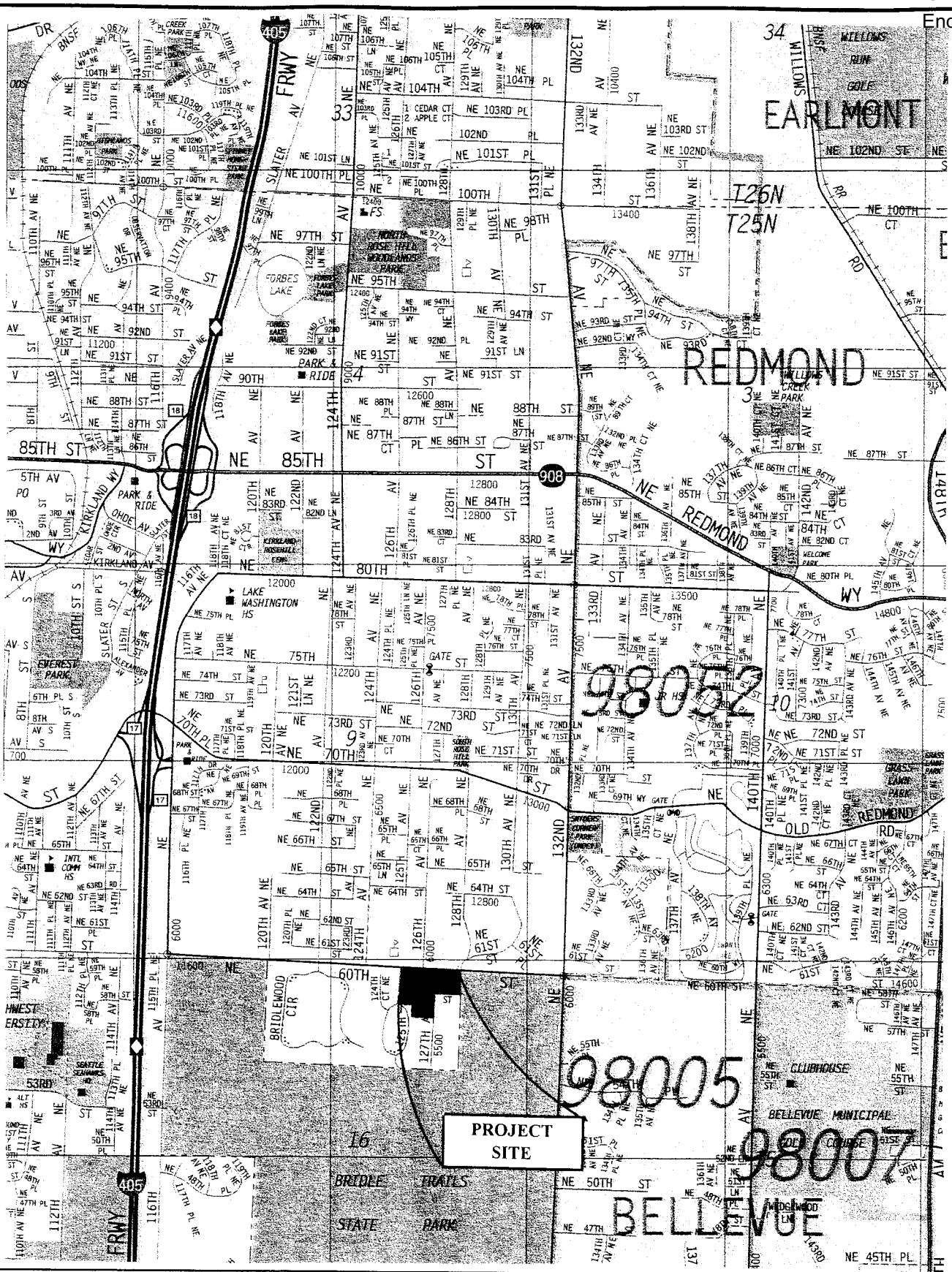
Attachments:
Plate 1 - Vicinity Map;
Plate 2 - Site Plan;
Plate 3 - Drainage Detail;
Plate 4 - ARC Typical Rockery Details;
Plate 5 - Typical Ecology Block Wall Detail.

Appendix A
USCS Legend of Classification and Penetration Test
Boring Logs
USDA Textural Triangle
Sieve Analyses & Infiltration Rate Determinations

ATTACHMENTS

G - 3022

CENTRAL PARK TENNIS CLUB

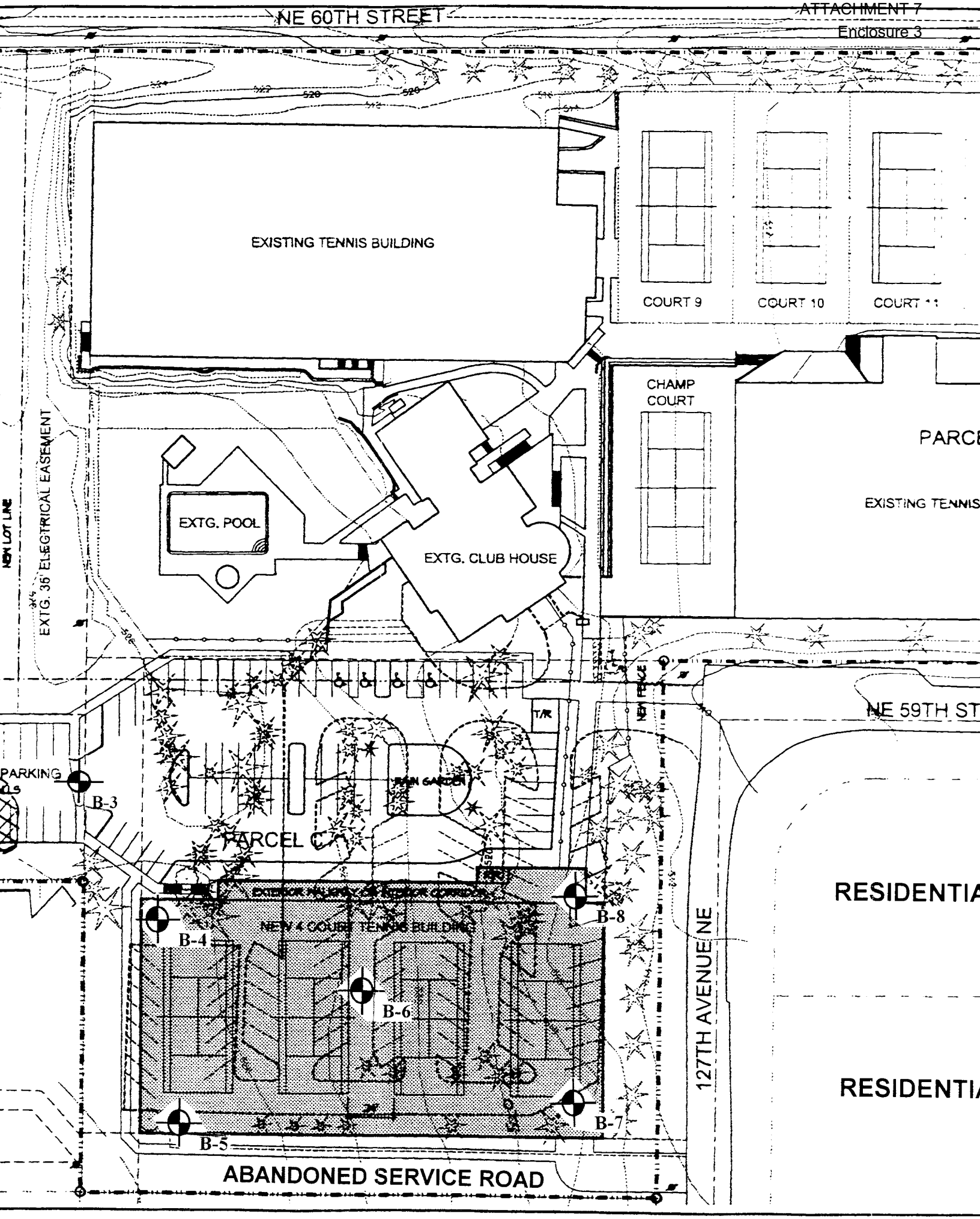


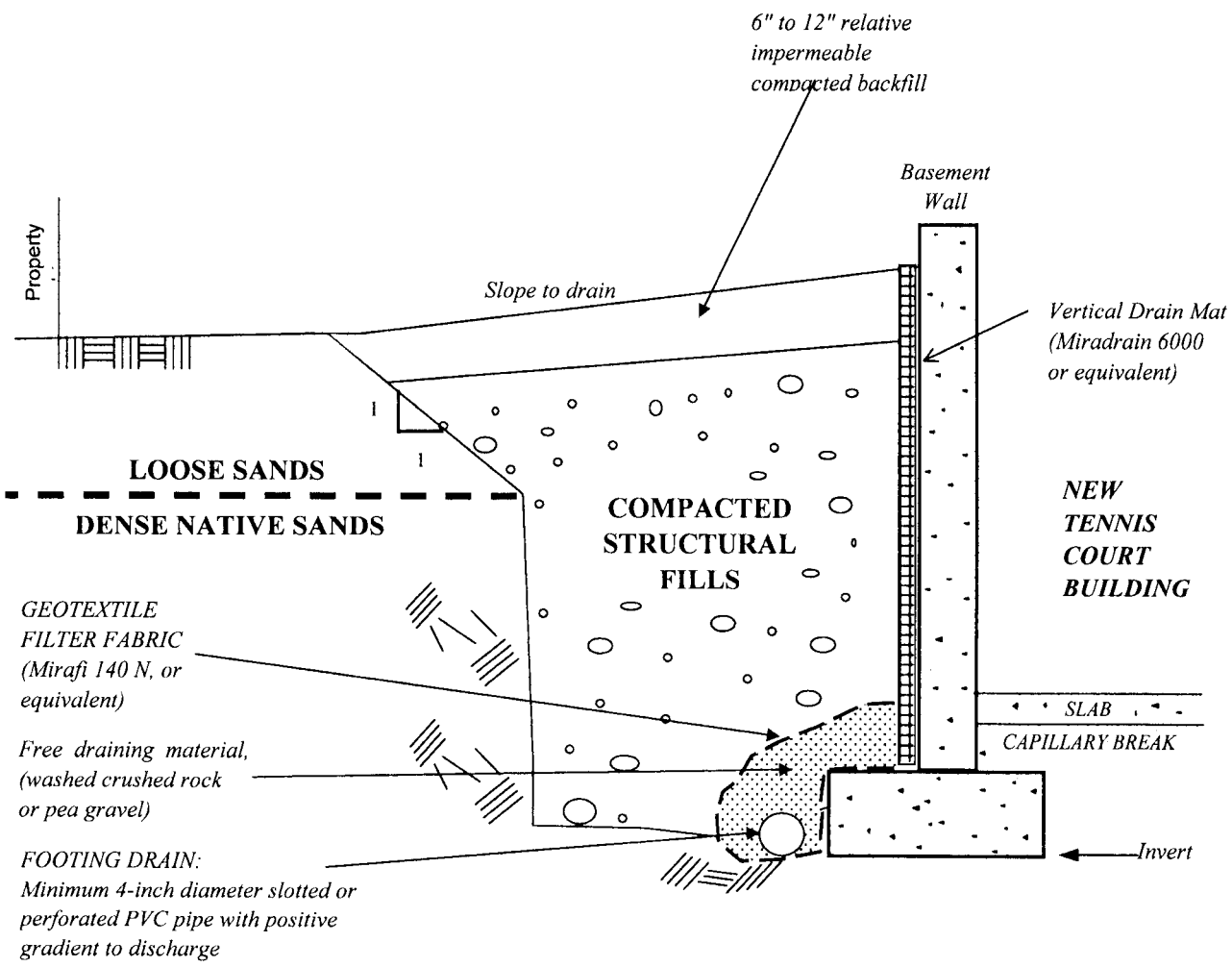
VICINITY MAP

CENTRAL PARK TENNIS CLUB
12630 NE 59TH STREET
KIRKLAND, WA 98033

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

SCALE	DATE	MADE	CHKD	JOB NO.	PLATE
1"=1900 feet	7/8/2010	AJW	WC	G - 3022	1


NE 60TH STREET
EXISTING TENNIS BUILDING
COURT 9
COURT 10
CHAMP COURT
EXTG. POOL
EXTG. CLUB HOUSE
EXTG. 36' ELECTRICAL EASEMENT
NEW LOT LINE
NE 59TH ST
PARKING
B-3
PARCEL C
RAIN GARDEN
EXTERIOR WALKWAY OR INTERIOR CORRIDOR
NEW 4 COURT TENNIS BUILDING
B-4
B-5
B-6
B-7
B-8
127TH AVENUE NE
ABANDONED SERVICE ROAD
RESIDENTIA
RESIDENTIA



NOT TO SCALE

NOTES:

1.) If free draining material is used for backfill the vertical drain mat , footing drain, and filter fabric shown may be eliminated.

2.) Do not replace rigid PVC pipe with flexiible corrugated plastic pipe.

3.) Perforated or slotted PVC pipe should be tight jointed and laid with perforations or slots down, with positive gradient to discharge.

4.) Do not connect roof downspout drains into the footing drain lines.

5.) Backfill should be compacted to 90% of maximum dry density based on Modified Proctor. The top 12-inches to be compacted to 95% of maximum dry density if backfill is to support sidewalks, driveway, etc.

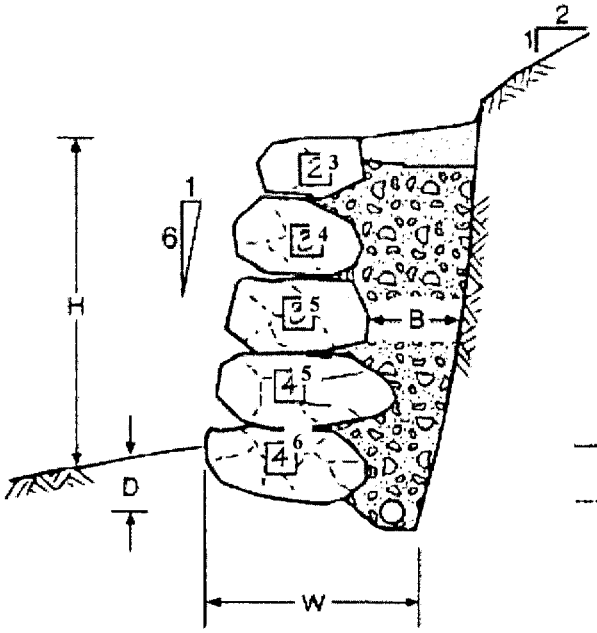
GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

DRAINAGE DETAIL

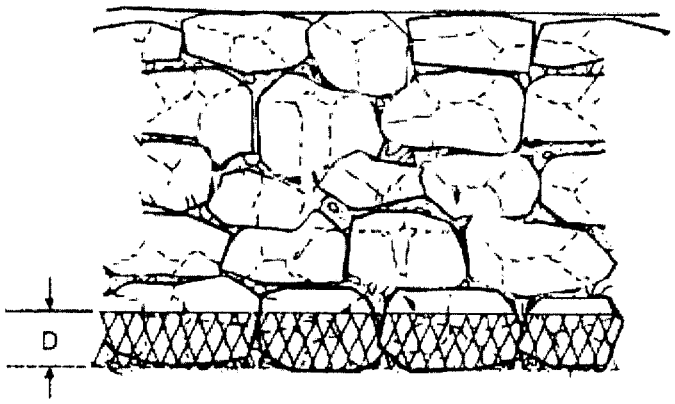
CENTRAL PARK TENNIS CLUB
12630 NE 59TH STREET
KIRKLAND, WA 98033

SCALE NONE	DATE 7/8/2010	MADE AJW	CHKD WC	JOB NO. G-3022	PLATE 3

Schematic Only - Not to Scale



Rock Wall Section



Rock Wall Elevation

NOTES:

- Rock wall construction is a craft and depends largely on the skill and experience of the builder
- A rock wall is a protective system which helps retard the weathering and erosion process on an exposed soil face
- While by its nature (mass, size and shape of the rocks) it will provide some degree of retention, it is not a designed or engineered system in the sense a reinforced concrete retaining wall would be considered designed or engineered
- The degree of retention achieved is dependent on the size of the rock used; that is, the mass or weight, and the height of the wall being constructed. The larger the rock, the more competent the rock wall should be.
- Rock walls should be considered maintenance items that will require periodic inspection and repair. They should be located so that they can be reached by a contractor if repairs become necessary.
- Maximum inclination of the slopes above and behind rock walls should be 2:1 (Horizontal:Vertical).
- Minimum thickness of rock filter layer B = 12 inches, Minimum embedment D = 12 inches undistur 14 native soil or compacted fill placed in accordance with report recommendations.
- Maximum rock wall height H = _____ feet.
- Rock walls greater than 8 feet in height to be installed under periodic or full time observation of the geotechnical engineer.
- Rock should be placed to gradually decrease in size with increasing wall height in accordance with geotechnical engineers recommendations.
- Minimum width of keyway excavation, W, should be equal to the thickness of the basal rock (as determined by geotechnical engineer's design) plus B.

- The long dimension of the rocks should extend back towards the cut or fill face to provide maximum stability. Rocks should not be stacked like shoe boxes. They should be placed to avoid continuous joint planes in vertical or lateral directions. Whenever possible each rock should bear on two or more rocks below it, with good flat-to-flat contact.
- All rock walls over 4 feet in height should be constructed on basis of wall mass, not square footage of face.

Size	Approximate Weight - lbs.	Approximate Diameter
1 Man	50 - 200	12 - 18"
2 Man	200 - 700	18 - 28"
3 Man	700 - 2000	28 - 36"
4 Man	2000 - 4000	36 - 48"
5 Man	4000 - 6000	48 - 54"
6 Man	6000 - 8000	54 - 60"

Reference: Local quarry weight study using average weights of no less than six rocks of each man size conducted in January 1, 1988.

LEGEND:

Drainage materials to consist of clean angular 4 to 2 inch spalls, or other material , approved by the geotechnical engineer

Surface seal: may consist of impervious soil or a fine free draining granular material

Undisturbed firm Native soil

Drainpipe: 4-inch minimum diameter, perforated or slotted rigid plastic ADS pipe laid with a positive gradient to discharge under control well away from the wall.

4 4

[4] Designates size of rock required, i.e. 4 man.

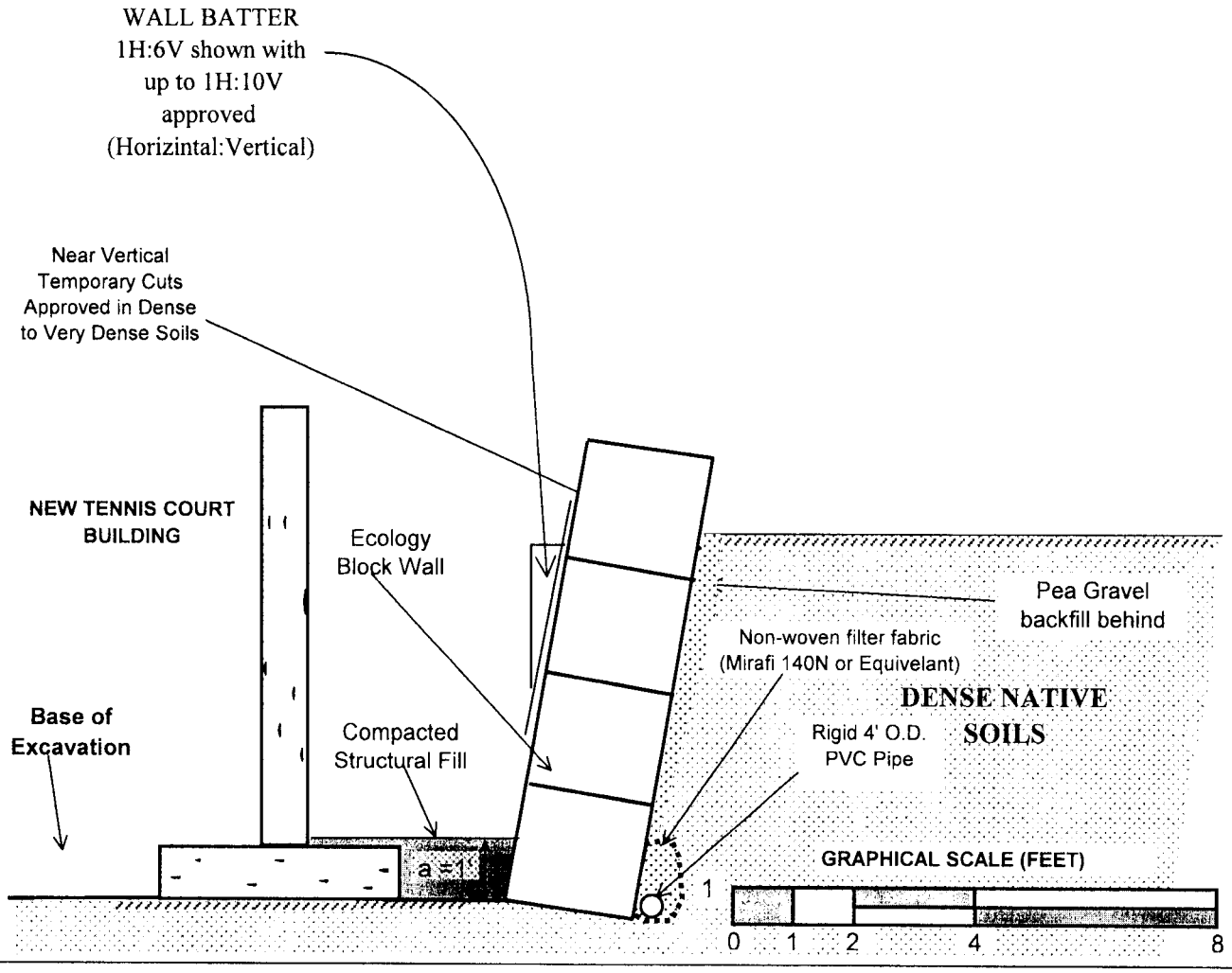
GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

TYPICAL ROCKERY DETAIL

CENTRAL PARK TENNIS CLUB
12630 NE 59TH STREET
KIRKLAND, WA 98033

SCALE	DATE	MADE	CHKD	JOB NO.	PLATE
NONE	7/8/2010	AJW	WC	G - 3022	4

ECOBLOCK TYPICAL RETAINING WALL DETAIL



NOTES:

1. Temporary excavation slopes shall be no steeper than 1H:1V in loose soils.
2. Temporary slopes up to 1H:1V may be constructed below stable existing retaining walls (as shown).
3. Ecology blocks (2ft X 2ft X 6ft) and weigh 4,000 pounds may be used as shoring.
4. The retaining wall may consist of a maximum 4 Ecology blocks tall set with a 1H:6V batter.
5. Ecology block shoring should be installed in 8 foot wide bays under full-time inspection by GEO Group Northwest, Inc., as described in the geotechnical report dated July, 2010.
6. Ecology block wall may be installed with a minimum 1 foot embeddment (a).
7. All voids behind the ecology block wall shall be filled with pea gravel.
8. GEO Group Nw, Inc. or other "competent person" should monitor wall for movement during construction. Monitoring schedule to be determined by general contractor according to site conditions.

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

TYPICAL ECOLOGY BLOCK WALL RETAINING WALL
CENTRAL PARK TENNIS CLUB
12630 NE 59TH STREET
KIRKLAND, WA 98033

SCALE 1" = 3 feet	DATE 7/8/2010	MADE AW	CHKD WC	JOB NO. G3022	PLATE 5

APPENDIX A

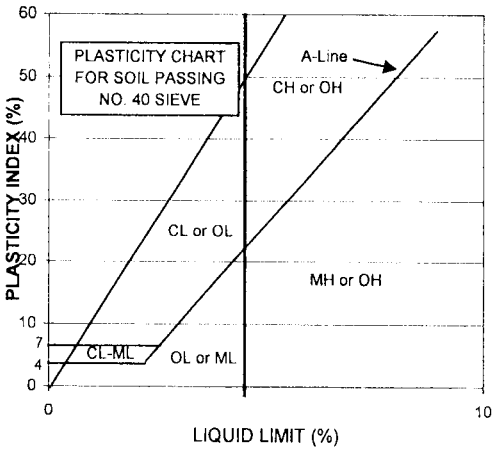
UNIFIED SOIL CLASSIFICATION SYSTEM LEGEND,

AND

BORING LOGS

LEGEND OF SOIL CLASSIFICATION AND PENETRATION TEST

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)

MAJOR DIVISION			GROUP SYMBOL	TYPICAL DESCRIPTION	LABORATORY CLASSIFICATION CRITERIA		
COARSE GRAINED SOILS	GRAVELS (More Than Half Coarse Grains Larger Than No. 4 Sieve)	CLEAN GRAVELS (little or no fines)	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURE, LITTLE OR NO FINES	DETERMINE PERCENTAGES OF GRAVEL AND SAND FROM GRAIN SIZE DISTRIBUTION CURVE. COARSE GRAINED SOILS ARE CLASSIFIED AS FOLLOWS: < 5% Fine Grained: GW, GP, SW, SP > 12% Fine Grained: GM, GC, SM, SC; 5 to 12% Fine Grained: use dual symbols.	Cu = (D60 / D10) greater than 4 Cc = (D30 * D30 / D10 / D60) between 1 and 3	
			GP	POORLY GRADED GRAVELS, AND GRAVEL-SAND MIXTURES LITTLE OR NO FINES		NOT MEETING ABOVE REQUIREMENTS	
		DIRTY GRAVELS (with some fines)	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES	CONTENT OF FINES EXCEEDS 12%	ATTERBERG LIMITS BELOW "A" LINE. or P.I. LESS THAN 4	
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES		ATTERBERG LIMITS ABOVE "A" LINE. or P.I. MORE THAN 7	
More Than Half by Weight Larger Than No. 200 Sieve	SANDS (More Than Half Coarse Grains Smaller Than No. 4 Sieve)	CLEAN SANDS (little or no fines)	SW	WELL GRADED SANDS, GRAVELLY SANDS, LIITLE OR NO FINES		Cu = (D60 / D10) greater than 6 Cc = (D30 * D30 / D10 / D60) between 1 and 3	
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES		NOT MEETING ABOVE REQUIREMENTS	
		DIRTY SANDS (with some fines)	SM	SILTY SANDS, SAND-SILT MIXTURES	CONTENT OF FINES EXCEEDS 12%	ATTERBERG LIMITS BELOW "A" LINE with P.I. LESS THAN 4	
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES		ATTERBERG LIMITS ABOVE "A" LINE with P.I. MORE THAN 7	
FINE-GRAINED SOILS More Than Half by Weight Smaller Than No. 200 Sieve	SILTS (Below A-Line on Plasticity Chart, Negligible Organic)	Liquid Limit < 50%	ML	INORGANIC SILTS, ROCK FLOUR, SANDY SILTS OF SLIGHT PLASTICITY			
		Liquid Limit > 50%	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS, FINE SANDY OR SILTY SOIL			
	CLAYS (Above A-Line on Plasticity Chart, Negligible Organic)	Liquid Limit < 30%	CL	INORGANIC CLAYS OF LOW PLASTICITY, GRAVELLY, SANDY, OR SILTY CLAYS, CLEAN CLAYS			
		Liquid Limit > 50%	CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS			
	ORGANIC SILTS & CLAYS (Below A-Line on Plasticity Chart)	Liquid Limit < 50%	OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY			
		Liquid Limit > 50%	OH	ORGANIC CLAYS OF HIGH PLASTICITY			
HIGHLY ORGANIC SOILS			Pt	PEAT AND OTHER HIGHLY ORGANIC SOILS			

SOIL PARTICLE SIZE

FRACTION	U.S. STANDARD SIEVE Passing Sieve	Passing Size (mm)	Retained Sieve	Retained Size (mm)
SILT / CLAY	#200	0.075		
SAND				
FINE	#40	0.425	#200	0.075
MEDIUM	#10	0	#40	0.425
COURSE	#4	4.75	#10	2
GRAVEL				
FINE		19	#4	4.75
COURSE		76		19
COBBLES	76 mm to 203 mm			
BOULDERS	> 203 mm			
ROCK FRAGMENTS	> 76 mm			
ROCK	>0.76 cubic meter in volume			

GENERAL GUIDANCE OF SOIL ENGINEERING PROPERTIES FROM STANDARD PENETRATION TEST (SPT)

SANDY SOILS Blow Counts N	Relative Density %	Friction Angle Ø, degree	Description	SILTY & CLAYEY SOILS Blow Counts N	Unconfined Strength qu, tsf	Description
0 - 4	0 -15		Very Loose	< 2	< 0.25	Very soft
4 - 10	15 - 35	26 - 30	Loose	2 - 4	0.25 - 0.50	Soft
10 - 30	35 - 65	28 - 35	Medium Dense	4 - 8	0.50 - 1.00	Medium Stiff
30 - 50	65 - 85	35 - 42	Dense	8 - 15	1.00 - 2.00	Stiff
> 50	85 - 100	38 - 46	Very Dense	15 - 30	2.00 - 4.00	Very Stiff
				> 30	> 4.00	Hard

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists
13240 NE 20th Street, Suite 12 Bellevue, WA 98005
Phone (425) 649-8757 Fax (425) 649-8758

PLATE A1

BORING NO. B-1

Logged By: Andy Wade Date Drilled: 6/21/2010 Surface Elev. 523.5 ft elev.

Depth (ft)	USCS	Soil Description	SAMPLE Type	SAMPLE No.	SPT (N) Blows per 6-inches	Water Content %	Drilling/ Sampling Information & Observations
1	SM	Gravelly-Silty SAND with organics, dark brown, medium to very fine grained, moist, loose to medium dense (fill)		S1	4,4,3 N= 7	18.6	
2							
3				S2	11,10,7 N= 17	7.1	
4							Cobble at 4 feet
5				S3	8,4,7 N= 11	9.4	
6	SM	Gravelly-Silty SAND red brown, moist, medium dense, (topsoil & weathered till)					1" thick topsoil layer at 5.5 feet
7							
8	SM	Silty SAND with gravel, gray, medium to very fine grained, moist to dry, very dense (till)		S4	21,28,39 N= 67	7.8	
9							
10				S5	25,25,28 N= 63	9.9	
11							
12		Total Depth = 11.5 feet					
13		No groundwater encountered					
14		Bearing soils were encountered below 6.75 ft Boring Location: West end of new parking lot as shown on Plate 2.					
15		Drilling Co: Geologic Drill, Inc. Drilling Method: Hollow Stem Auger					
16		Drilling Rig Used: XL trailer rig					

LEGEND ⊤ 2-inch Split Spoon Sample Interval
⊥ Sampler driven with 140 lb. Hammer (Standard SPT)

N: Number of blow counts for 1 foot of sampler advancement.

N': Number of blow counts corrected for overburden stress.

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

BORING LOG

CENTRAL PARK TENNIS CLUB NEW INDOOR COURTS
12630 NE 59TH STREET
KIRKLAND, WASHINGTON

JOB NO. G-3022 **DATE** 7/8/2010 **PLATE** A2

BORING NO. B-2

Logged By: Andy Wade Date Drilled: 6/21/2010 Surface Elev. 525 ft elev.

Depth (ft)	USCS	Soil Description	SAMPLE Type	SAMPLE No.	SPT (N) Blows per 6-inches	Water Content %	Drilling/ Sampling Information & Observations
1–2	SM	Gravelly-Silty SAND with organics, dark brown, medium to very fine grained, moist, mottled loose (fill)		S1	4,2,3 N= 5	14.6	
3				S2	2,31,37 N= 68	8.2	
4	SP/ SM	SAND with some silt and gravel, gray, medium to very fine grained, dry, very dense, (till)					
5–6	SP/ SM	SAND with gravel and trace silt, gray, medium to very fine grained, dry, very dense (till)		S3	14, 23, 31 N= 54	3.3	Cobbles, hard drilling
7		Total Depth = 6.5 feet No groundwater encountered Bearing soils were encountered below 3 ft Boring Location: Center of new parking lot as shown on Plate 2. Drilling Co: Geologic Drill, Inc. Drilling Method: Hollow Stem Auger Drilling Rig Used: XL trailer rig					
8							
9							
10							
11							
12							
13							
14							
15							
16							

LEGEND ⊤⊥ 2-inch Split Spoon Sample Interval; Sampler driven with 140 lb. Hammer (Standard SPT)

N: Number of blow counts for 1 foot of sampler advancement.

N': Number of blow counts corrected for overburden stress.

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

BORING LOG

CENTRAL PARK TENNIS CLUB NEW INDOOR COURTS
12630 NE 59TH STREET
KIRKLAND, WASHINGTON

JOB NO. G-3022 **DATE** 7/8/2010 **PLATE** A3

BORING NO. B-3

Logged By: Andy Wade Date Drilled: 6/21/2010 Surface Elev. 527 ft elev.

Depth (ft)	USCS	Soil Description	SAMPLE Type	SAMPLE No.	SPT (N) Blows per 6-inches	Water Content %	Drilling/ Sampling Information & Observations
1	SM	Gravelly-Silty SAND red brown, no gravels below 2 feet, mottled, medium to very fine grained, moist, loose (topsoil & weathered till)		S1	3,4,4 N= 8	20.6	
2							
3				S2	3,3,6 N= 9	15.9	
4							
5				S3	10,22,32 N= 54	10.6	
6							
7	SP/ SM	SAND with gravel and some silt, gray, medium to very fine grained, moist to wet, dense to very dense, (till)					
8				S4	15,33,50 for 5.5" N= 109	10.6	
9							
10		Total Depth = 9 feet No groundwater encountered Bearing soils were encountered below 5.5 ft Boring Location: East end of new parking lot as shown on Plate 2. Drilling Co: Geologic Drill, Inc. Drilling Method: Hollow Stem Auger Drilling Rig Used: XL trailer rig					
11							
12							
13							
14							
15							
16							

LEGEND ⊤⊥ 2-inch Split Spoon Sample Interval
Sampler driven with 140 lb. Hammer (Standard SPT)

N: Number of blow counts for 1 foot of sampler advancement.

N': Number of blow counts corrected for overburden stress.

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

BORING LOG

CENTRAL PARK TENNIS CLUB NEW INDOOR COURTS
12630 NE 59TH STREET
KIRKLAND, WASHINGTON

JOB NO. G-3022 **DATE** 7/8/2010 **PLATE** A4

BORING NO. B-4

Logged By: Andy Wade Date Drilled: 6/21/2010 Surface Elev. 527 ft elev.

Depth (ft)	USCS	Soil Description	SAMPLE Type	SAMPLE No.	SPT (N) Blows per 6-inches	Water Content %	Drilling/ Sampling Information & Observations
1		2 inch gravels at surface					
2	SP/ SM	SAND with gravel and some silt and occasional silt lenses, mottled gray to brown, medium to very fine grained, no gravels		S1	3,5,10 N= 15	14.6	
3		below 2 feet, mottled, moist to dry, medium dense		S2	6,12,16 N= 28	10.6	
4							
5				S3	15,22,18 N= 40	8.8	
6							
7	SP/ SM	SAND with some silt, gray, medium to very fine grained, moist to dry, dense to very dense (till)		S4	42,38,35 N= 83	6.3	
8							
9							
10				S5	23,36,50 for 5.5" N= 109	6.0	
11							
12		Total Depth = 11.5 feet					
13		No groundwater encountered					
14		Bearing soils were encountered below 4.5 ft Boring Location: NW corner of new building as shown on Plate 2.					
15		Drilling Co: Geologic Drill, Inc. Drilling Method: Hollow Stem Auger					
16		Drilling Rig Used: XL trailer rig					

LEGEND ⊤ 2-inch Split Spoon Sample Interval
⊥ Sampler driven with 140 lb. Hammer (Standard SPT)

N: Number of blow counts for 1 foot of sampler advancement.

N': Number of blow counts corrected for overburden stress.

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

BORING LOG

CENTRAL PARK TENNIS CLUB NEW INDOOR COURTS
12630 NE 59TH STREET
KIRKLAND, WASHINGTON

JOB NO. G-3022 **DATE** 7/8/2010 **PLATE** A6

BORING NO. B-5

Logged By: Andy Wade Date Drilled: 6/21/2010 Surface Elev. 527 ft elev.

Depth (ft)	USCS	Soil Description	SAMPLE Type	SAMPLE No.	SPT (N) Blows per 6-inches	Water Content %	Drilling/ Sampling Information & Observations
1–4	SP & SM	SAND with gravel and some silt and occasional silt lenses, mottled gray to brown, medium to very fine grained, no gravels below 2 feet, mottled, moist to dry, medium dense		S1	3,5,10 N= 15	14.6	
				S2	6,12,16 N= 28	10.6	gravels
5–7				S3	15,22,18 N= 40	8.8	
8–9	SP/ SM	SAND with gravel and some silt, gray, fine to very fine grained, moist to dry, very dense (till)		S4	42,38,35 N= 83	6.3	
10–11				S5	23,36,50 for 5.5" N= 109	6.0	
	SP	SAND gray fine grained, dry, very dense					
12–16		Total Depth = 11.5 feet No groundwater encountered Bearing soils were encountered below 4 ft Boring Location: SW corner of new building as shown on Plate 2. Drilling Co: Geologic Drill, Inc. Drilling Method: Hollow Stem Auger Drilling Rig Used: XL trailer rig					

LEGEND ⊤ 2-inch Split Spoon Sample Interval
⊥ Sampler driven with 140 lb. Hammer (Standard SPT)

N: Number of blow counts for 1 foot of sampler advancement.

N': Number of blow counts corrected for overburden stress.

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

BORING LOG

CENTRAL PARK TENNIS CLUB NEW INDOOR COURTS
12630 NE 59TH STREET
KIRKLAND, WASHINGTON

JOB NO. G-3022 **DATE** 7/8/2010 **PLATE** A6

BORING NO. B-6

Logged By: Andy Wade Date Drilled: 6/21/2010 Surface Elev. 523 ft elev.

Depth (ft)	USCS	Soil Description	SAMPLE Type	SAMPLE No.	SPT (N) Blows per 6-inches	Water Content %	Drilling/ Sampling Information & Observations
1–2	SM	Silty SAND with gravel red brown, medium to very fine grained, moist, loose (fill)		S1	2,2,4 N= 6	14.6	
3–4	SM	Silty SAND with gravel and occasional silt lenses, mottled gray to brown above 5 feet and gray below, medium to very fine grained, moist to dry, very dense (topsoil & weathered till)		S2	15,22,22 N= 44	10.6	
5–7	SM			S3	20, 32, 37 N= 69	8.8	thin wet layer
8–9	SP	SAND with gravel, gray, medium fine to very fine grained, dry, very dense (till)		S4	27,40,29 N= 69	6.3	thin wet layer
10–11	SP			S5	17,39,50 for 5.5" N= 109	6.0	
12–16		Total Depth = 11.5 feet No groundwater encountered Bearing soils were encountered below 3 ft Boring Location: Center of new building as shown on Plate 2. Drilling Co: Geologic Drill, Inc. Drilling Method: Hollow Stem Auger Drilling Rig Used: XL trailer rig					

LEGEND ⊥ 2-inch Split Spoon Sample Interval
Sampler driven with 140 lb. Hammer (Standard SPT)

N: Number of blow counts for 1 foot of sampler advancement.

N': Number of blow counts corrected for overburden stress.

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

BORING LOG

CENTRAL PARK TENNIS CLUB NEW INDOOR COURTS
12630 NE 59TH STREET
KIRKLAND, WASHINGTON

JOB NO. G-3022 **DATE** 7/8/2010 **PLATE** A7

BORING NO. B-7

Logged By: Andy Wade Date Drilled: 6/21/2010 Surface Elev. 518 ft elev.

Depth (ft)	USCS	Soil Description	SAMPLE Type	SAMPLE No.	SPT (N) Blows per 6-inches	Water Content %	Drilling/ Sampling Information & Observations
1–3	SM	Gravelly-Silty SAND with organics, dark brown, medium to very fine grained, moist, loose to medium dense (fill)		S1	12,10,8 N= 18	20.6	
				S2	8,19,50 for 5.5" N= 109	11.8	
4–6	SM	Silty SAND with gravel and some silt, gray, fine to medium fine grained, coarsening downdards, dry, very dense (till)		S3	50 for 5.5" N=109	7.4	thin wet layer
7–9	SM	Silty SAND with gravel, gray, medium to very fine grained, dry, coarsening downwards, very dense (till)		S4	33,27,34 N= 61	6.0	thin wet layer
10–11				S5	21,26,30 N= 56	7.2	
12–16		Total Depth = 11.5 feet No groundwater encountered Bearing soils were encountered below 3 ft Boring Location: SE corner of new building as shown on Plate 2. Drilling Co: Geologic Drill, Inc. Drilling Method: Hollow Stem Auger Drilling Rig Used: XL trailer rig					

LEGEND ⊥ 2-inch Split Spoon Sample Interval; Sampler driven with 140 lb. Hammer (Standard SPT)

N: Number of blow counts for 1 foot of sampler advancement.

N': Number of blow counts corrected for overburden stress.

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

BORING LOG

CENTRAL PARK TENNIS CLUB NEW INDOOR COURTS
12630 NE 59TH STREET
KIRKLAND, WASHINGTON

JOB NO. G-3022 **DATE** 7/8/2010 **PLATE** A8

BORING NO. B-8

Logged By: Andy Wade Date Drilled: 6/21/2010 Surface Elev. 517 ft elev.

Depth (ft)	USCS	Soil Description	SAMPLE Type	SAMPLE No.	SPT (N) Blows per 6-inches	Water Content %	Drilling/ Sampling Information & Observations
1	SM	Gravelly-Silty SAND with organics, dark brown, medium to very fine grained, moist, loose to medium dense (fill)		S1	6,5,4 N= 9	20.6	
2							
3	SM	Silty SAND red brown, medium to fine grained, dry, dense, (topsoil & weathered till)		S2	8,23,25 N= 48	11.8	
4							
5	SP/ SM	SAND with cobbles and some silt, gray, medium to very fine grained, dry, very dense (till)		S3	21,29,44 N=73	7.4	Cobbles @ 4-5'
6							
7		Total Depth = 6.5 feet No groundwater encountered Bearing soils were encountered below 3 ft Boring Location: NE corner of new building as shown on Plate 2. Drilling Co: Geologic Drill, Inc. Drilling Method: Hollow Stem Auger Drilling Rig Used: XL trailer rig **NOTE:** Topographic map is inacurate in this area (likely due to cut and fill regrading for the parking lot). Elevation above reflects elevation relative to boring B-7.					
8							
9							
10							
11							
12							
13							
14							
15							
16							

LEGEND ⊤ 2-inch Split Spoon Sample Interval
Sampler driven with 140 lb. Hammer (Standard SPT)

N: Number of blow counts for 1 foot of sampler advancement.

N': Number of blow counts corrected for overburden stress.

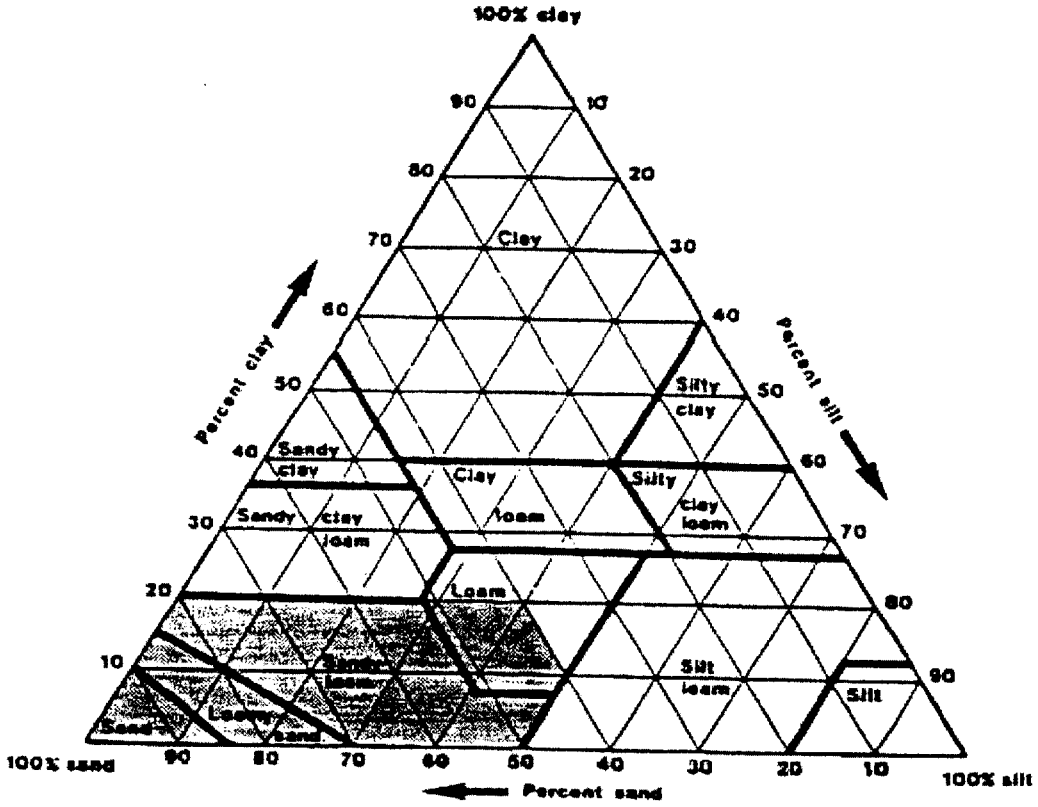
GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

BORING LOG

CENTRAL PARK TENNIS CLUB NEW INDOOR COURTS
12630 NE 59TH STREET
KIRKLAND, WASHINGTON

JOB NO. G-3022	DATE 7/8/2010	PLATE A9

Textural Triangle U.S.D.A.



SKYLINE PROPERTIES, LLC
22729 SE 283RD STREET
MAPLE VALLEY, WASHINGTON

SKYLINE PROPERTIES, LLC
22729 SE 283RD STREET
MAPLE VALLEY, WASHINGTON

SKYLINE PROPERTIES, LLC
22729 SE 283RD STREET
MAPLE VALLEY, WASHINGTON

SKYLINE PROPERTIES, LLC
22729 SE 283RD STREET
MAPLE VALLEY, WASHINGTON

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

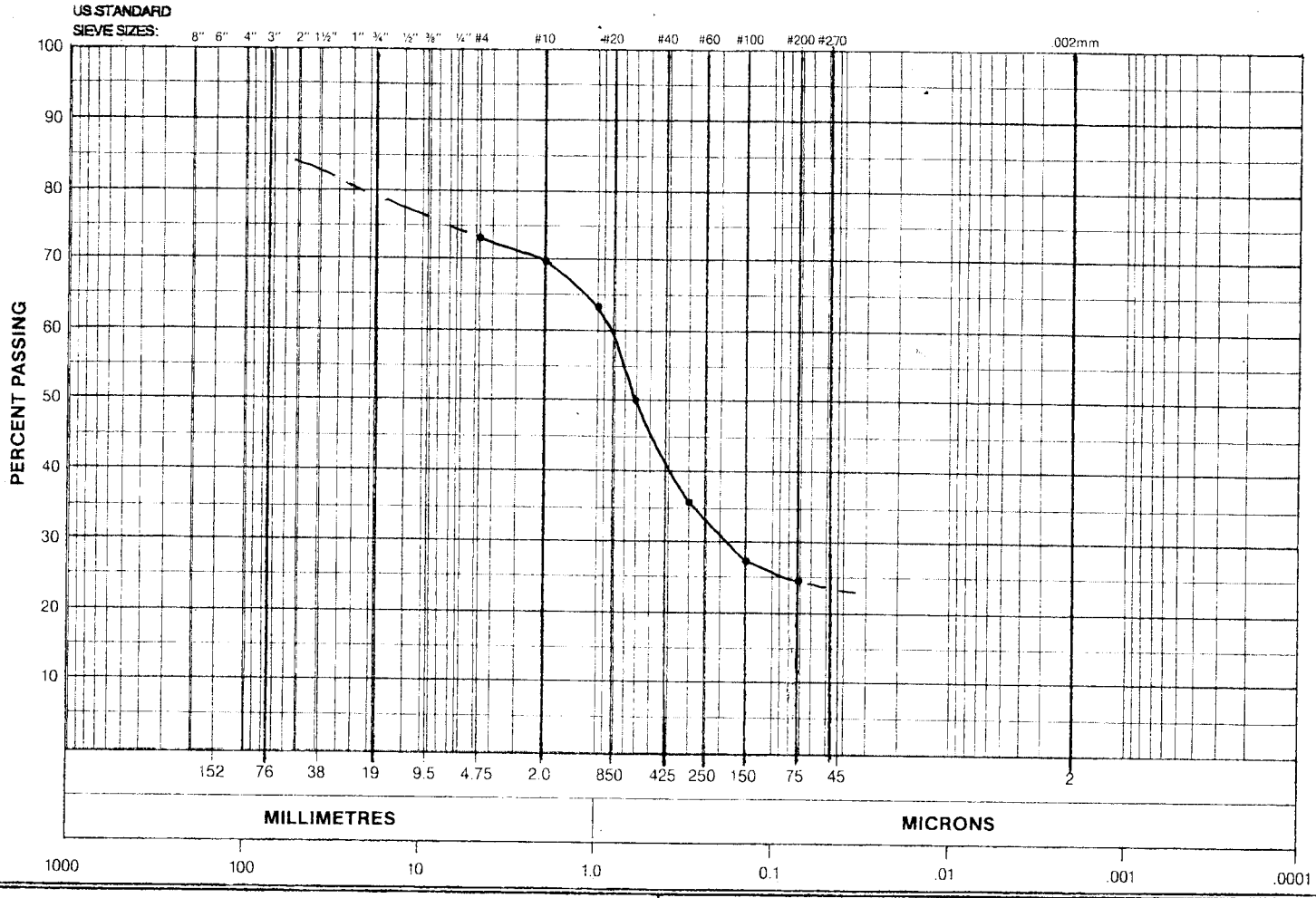
USDA TEXTURAL TRIANGLE

CENTRAL PARK TENNIS CLUB NEW INDOOR COURTS
12630 NE 59TH STREET
KIRKLAND, WASHINGTON

SCALE	DATE	MADE	CHKD	JOB NO.	PLATE
NONE	7/8/2010	AJW	WC	G-2740	A10

UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) Enclosure 3

	GRAVEL		SAND					SILT	CLAY
	COARSE	FINE	VC	C	M	F	VF		



UNITED STATED DEPARTMENT OF AGRICULTURE TEXTURAL TRIANGLE SUMMARY

D_{10} = 0.001 mm SAND = 66.8 %

D_{30} = 0.185 mm SILT = 33.2 %

D_{60} = 0.870 mm CLAY = NA %

C_u = 870

C_c = 39

THIS SOIL IS CLASSIFIED AS HYDROLOGIC SOIL GROUP B.

IT IS TYPICALLY DESCRIBED AS SANDY LOAM

SAMPLE DESCRIPTIONS

SAMPLE LOCATION: Boring B-1, 1-4 feet

DATE SAMPLED: June 21, 2010

BUILDING PERMIT NO.:

OTHERS:

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

GRAIN SIZE DISTRIBUTION

JOB No.	TESTED	CHKD	DATE	PLATE
G-3022	AW	WC	7/2/10	S-1

Permeability Coeffecient Estimate

Project:	**Central Park Tennis Club - New 4 court Building**		
Job#:	**G-3022**	Jun-10	
Sieve Analysis Results From:	**B-1**	Soil Type:	SM
Depth of Sample:	**1-4 ft**		

From Darcy's Law, Permeability = 1/K
The permeability coeffecient (K) can be estimated using the following equation:
***k* (cm/sec) = C1 x D10^2** (Hazen, 1930)
where:
k is the "coeffecient of permeability"
C is a constant that varies from about 100 to 150 (1/cm sec)
and D10 is the effective size in centimeters of the portion of soil that passes the 10% value

D10 = 0.001 mm (From Sieve Analysis)
D10 = **0.0001** cm

For C1 = 100
k cm^2 = 100 x 0.00000001
k = 0.000001 cm/sec

Conversion to inches/minute
(60sec/1min)*(1in/2.54cm)
= 23.622047

23.6220 sec/cm x 0.000001 ***k* =** **0.00002 in/min**
= **0.00000 ft/min**
= **0.00012 ft/hr**
= **0.00142 in/hr**

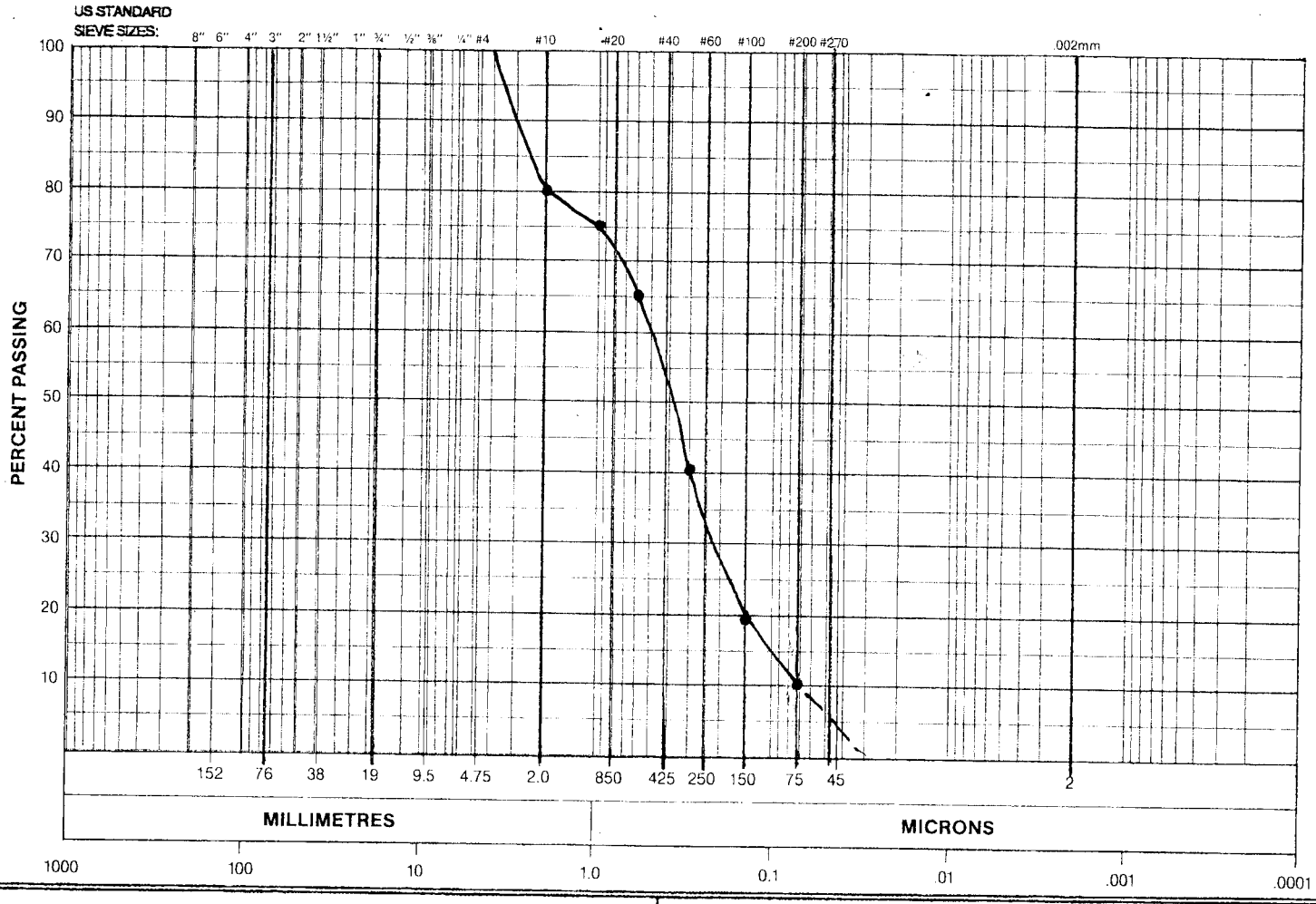
For C1 = 150
k = 150 x 0.00000001
k = 0.0000015 cm/sec

Conversion to minutes/inch
(60sec/1min)*(1in/2.54cm)
= 23.62205 = 0.000 in/min
= 0.002 in/hr

The above permeability coeffecient value can be cross checked using the
Naval Soils Mechanics Design Manual 7.01 - Permeability of Drainage Materials (Pg. 7.1-277)

UNITED STATES DEPARTMENT OF AGRICULTURE (USDA)

	GRAVEL		SAND					SILT	CLAY
	COARSE	FINE	VC	C	M	F	VF		



UNITED STATED DEPARTMENT OF AGRICULTURE TEXTURAL TRIANGLE SUMMARY

D_{10} = 0.075 mm

D_{30} = 0.22 mm

D_{60} = 0.50 mm

u = 6.7

c = 1.3

SAND = 92.5 %

SILT = 7.5 %

CLAY = NA %

THIS SOIL IS CLASSIFIED AS HYDROLOGIC SOIL GROUP A.

IT IS TYPICALLY DESCRIBED AS SAND

SAMPLE DESCRIPTIONS

SAMPLE LOCATION: Boring B-2, 5-6.5 feet

DATE SAMPLED: June 21, 2010

BUILDING PERMIT NO.:

OTHERS:

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

GRAIN SIZE DISTRIBUTION

JOB No.	TESTED	CHKD	DATE	PLATE
G-3022	AW	WC	7/2/2010	S-2

Permeability Coeffecient Estimate

Project: **Central Park Tennis Club - New 4 court Building**
Job#: **G-3022** Jun-10
Sieve Analysis Results From: **B-2** Soil Type: SP/SM
Depth of Sample: **5-6.5 feet**

From Darcy's Law, Permeability = 1/K
The permeability coeffecient (K) can be estimated using the following equation:
***k* (cm/sec) = C1 x D10^2** (Hazen, 1930)
where:
k is the "coeffecient of permeability"
C is a constant that varies from about 100 to 150 (1/cm sec)
and D10 is the effective size in centimeters of the portion of soil that passes the 10% value

D10 = 0.075 mm (From Sieve Analysis)
D10 = **0.0075** cm

For C1 = 100
k cm^2 = 100 x 0.00005625
k = 0.005625 cm/sec

Conversion to inches/minute
(60sec/1min)*(1in/2.54cm)
= 23.622047

23.6220 sec/cm x 0.005625 ***k* = 0.13287 in/min**
= **0.01107 ft/min**
= **0.66437 ft/hr**
= **7.97244 in/hr**

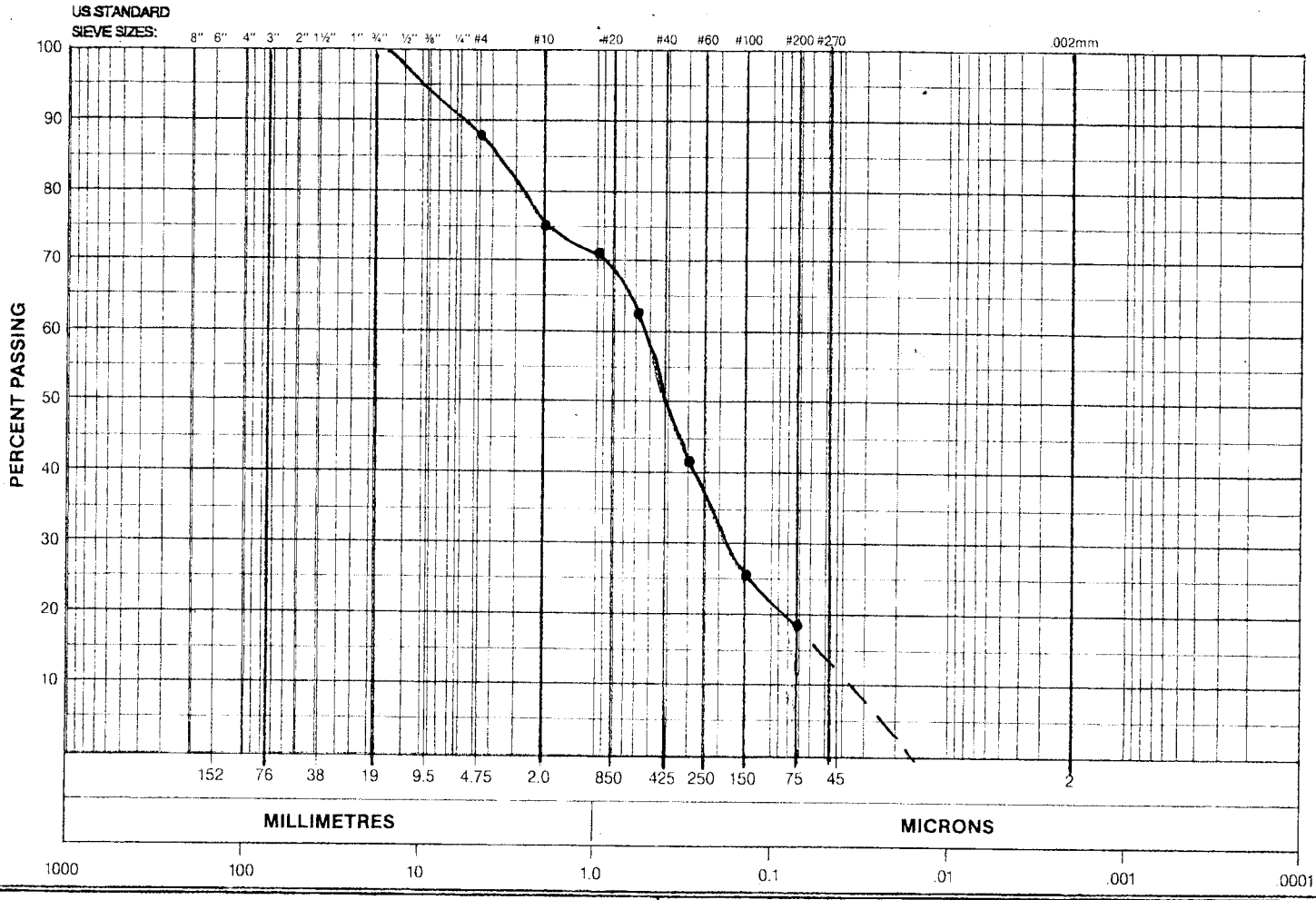
For C1 = 150
k = 150 x 0.00005625
k = 0.0084375 cm/sec

Conversion to minutes/inch
(60sec/1min)*(1in/2.54cm)
= 23.62205 = 0.199 in/min
= 11.959 in/hr

The above permeability coeffecient value can be cross checked using the
Naval Soils Mechanics Design Manual 7.01 - Permeability of Drainage Materials (Pg. 7.1-277)

UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) Enclosure 3

	GRAVEL		SAND					SILT	CLAY
	COARSE	FINE	VC	C	M	F	VF		



UNITED STATED DEPARTMENT OF AGRICULTURE TEXTURAL TRIANGLE SUMMARY

D_{10} = 0.037 mm

D_{30} = 0.18 mm

D_{60} = 0.54 mm

C_u = 14.6

C_c = 1.6

SAND = 82.9 %

SILT = 17.1 %

CLAY = NA %

THIS SOIL IS CLASSIFIED AS HYDROLOGIC SOIL GROUP B.

IT IS TYPICALLY DESCRIBED AS LOAMY SAND

SAMPLE DESCRIPTIONS

SAMPLE LOCATION: Boring B-7, 7.5-9 feet

DATE SAMPLED: June 21, 2010

BUILDING PERMIT NO.:

OTHERS:

GEO Group Northwest, Inc.
Geotechnical Engineers, Geologists, & Environmental Scientists

GRAIN SIZE DISTRIBUTION

JOB No. G-3022	TESTED AW	CHKD WC	DATE 7/2/2010		PLATE S-3

Permeability Coeffecient Estimate

Project:	**Central Park Tennis Club - New 4 court Building**		
Job#:	**G-3022**	Jun-10	
Sieve Analysis Results From:	**B-7**	Soil Type:	SM
Depth of Sample:	**7.5-9 feet**		

From Darcy's Law, Permeability = 1/K
The permeability coeffecient (K) can be estimated using the following equation:
***k* (cm/sec) = C1 x D10^2** (Hazen, 1930)
where:
k is the "coeffecient of permeability"
C is a constant that varies from about 100 to 150 (1/cm sec)
and D10 is the effective size in centimeters of the portion of soil that passes the 10% value

D10 =	0.037	mm	(From Sieve Analysis)
D10 =	**0.0037**	cm	

For C1 = 100

k cm^2 =	100	x	0.00001369
k =	0.001369	cm/sec	

Conversion to inches/minute
(60sec/1min)*(1in/2.54cm)

		=	23.622047			
23.6220	sec/cm	x	0.001369	***k* =**	**0.03234**	**in/min**
				=	**0.00269**	**ft/min**
				=	**0.16169**	**ft/hr**
				=	**1.94031**	**in/hr**

For C1 = 150

k =	150	x	0.00001369
k =	0.0020535	cm/sec	

Conversion to minutes/inch
(60sec/1min)*(1in/2.54cm)

=	23.62205	=	0.049	in/min
		=	2.910	in/hr

The above permeability coeffecient value can be cross checked using the
Naval Soils Mechanics Design Manual 7.01 - Permeability of Drainage Materials (Pg. 7.1-277)

CITY OF KIRKLAND ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), Chapter 43.21C RCW, requires all governmental agencies to consider the environmental im proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significa impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the City identify imp your proposal, and to reduce or avoid impacts from the proposal, whenever possible

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Answer the questions briefly with the mo information known, or give the best description you can.

You must answer each question accurately and carefully to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the City staff can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The City may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impacts.

Use of Checklist for Non-project Proposals:

Complete this checklist for non-project proposals also, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON-PROJECT ACTIONS (Part D).

For non-project actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable: ***Central Park Tennis Club Four Court Tennis Building***
2. Name of applicant: ***Central Park Tennis Club***
3. Tax parcel number: ***1625059019***

ATTACHMENT 7
Enclosure 4

4. Address and phone number of applicant and contact person: *Larry Ho, Freiheit & Ho Architects, Inc., P. S., 10230 NE Points Dr., #300, Kirkland, WA 98033. (4250 827-2100*

5. Date checklist prepared: *8/2/10*

6. Agency requesting checklist: ***City of Kirkland, Planning Department***

7. Proposed timing or schedule (including phasing, if applicable): ***Construction start summer of 2011. It will last 6 months.***

8. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal?

   No.

9. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

   Geotechnical Engineering Study by Geo Group NW 7/8/2010 and Traffic and Parking Study by TENW.

10. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

    LLA in City of Kirkland. File No. LLA10-00002. The existing lot lines are rearranged to limit developement of current project on one lot.

11. List any government approvals or permits that will be needed for your proposal, if known.

    City of Kirkland Process IIB, Building Permit, LSM Permit.

12. Give brief, complete description of your proposal, including the proposed uses, the size and scope of the project and site including dimensions and use of all proposed improvements. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

    Build a 31,739 sq. ft. single story building to house 4 tennis courts, lobby, corridor and restrooms. Reconfigure new access to property and install new parking lot.

13. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

    Central Park Tennis Club is located at 12630 NE 59th Street, Kirkland, WA. The new building will be located on the southern portion of the existing parking lot.

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TO BE COMPLETED BY APPLICANT

EVALUATION FOR
AGENCY USE ONLY
REVIEWED BY:

B. ENVIRONMENTAL ELEMENTS

1. EARTH

a. General description of the site (circle one): Flat, rolling, hilly, steep, slopes, mountainous, other
Generally flat. Property slope from west to east at building area.

b. What is the steepest slope on the site (approximate percent slope)?
17.4%

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.
Glacial Till. Please refer to geotechnical report dated July 8, 2010, prepared by Geo Group Northwest, Inc., for additional information.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
No.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
Grading will be limited to the construction of the proposed building, parking lot, storm water facilities and utilities. A detailed grading plan will be prepared as part of building permit submittal and will be approved by the City prior to construction. Any necessary fill material will come from the other portions of the site or fram a City approved source of fill to be determined during final engineering review. At this time, we espect the total project to grade approximately 82,00 cubic yards of cut and 2,000 cubic yards of fill.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Some erosion could occur on-site as a result of construcion activities; however, temporary erosion and sedimentation control measures to be approved by the City of Kirkland will be employed to reduce erosion impacts.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt, buildings)?

66.3%

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
During construction, the contrctor will follow an approved temporary erosion and sedimentation control plan meeting the City of Kirkland standards. Typical measures, which may be employed, include the use of silt fences, straw bales, and temporary storm drainage features. Hydroseeding exposed soils and cleared areas after construction may also be used to reduce the totential for erosion. Department of Ecology approved coagulants such as chitosan may also be used for water treatment purposes, if necessary.

2. AIR

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities, if known.
Emissions from construction machinery during construction. Exhausts from gas heaters during winter months at project completion.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
No.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:
None.

3. WATER

a. Surface

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.
None.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.
No.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.
Does not apply.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.
No.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
No.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
No.

b. Ground

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.
No ground water will be withdrawn, but some storm water may be dischared to ground water through the use of the propposed rain garderns. The rain gardens are intended to provide storm water treatment prior to any discharge to ground water. The use of rain gardens to discharge storm water to ground water is a low impact development technique encouraged by City of Kirkland and many other juristictions.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.) Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.
No waste will be discharged into the ground.

c. Water Runoff (including storm water):

1) Describe the source of runoff (include storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.
On-site storm water runoff will primarily be generated from the new tennis building, parking area and sidewalks. On the western portion of the site, storm water is proposed to be directed to a series of rain gardens that will provide flow control and water quality. Although the rain gardens will be sized to handle the 100- year storm event, an emergency overflow conveyance system will be provided to convey storm water from the rain gardens to the existing conveyance system in NE 60th Street during periods of extreme rainfall.

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On the eastern portion of the site, storm water is proposed to be collected and conveyed to two media filter type water quality facilities before entering an underground detention facility located under the proposed parking lot. the detention facility will be sized to handle the 100-year storm event. After the storm water is detained and treated, it will ultimately discharge to the existing conveyance system located in 128th Avenue NE. The detention system will also contain an emergency overflow provision to convey storm water to the storm system located in 128th Avenue NE during periods of extreme rainfall.

2) Could waste materials enter ground or surface waters? If so, generally describe.
Some pollutants normally associated with grading activities could enter ground or surface water. However, the amount would be minimal since the on-site drainage will include the use of a sediment pond in conformance with the 2009 King County Surface Water Design Manual. Any pollutants after construction wil be minimuzed through the use of the proposed rain gardens ad media filter water quality faicilites which comply with the 2009 King County Surface Water Design Manual.

?roposed measures to reduce or control surface, ground, and runoff water impacts, if any:
The project will comply with the 2009 King County Surface Water Design Manual which employs many of the latest technologies for reducing the impacts of storm water runoff. Rain gardens, media filters and the underground detnetion facilities described above are proposed to provide flow control and water quality from the proposed development.

4. PLANTS

a. Check or circle types of vegetation found on the site:

- ☐ deciduous tree: alder, maple, aspen, other
- ☒ evergreen tree: fir, cedar, pine, other
- ☒ shrubs
- ☒ grass
- ☐ pasture
- ☐ crop or grain
- ☐ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- ☐ water plants: water lily, eelgrass, milfoil, other
- ☐ other types of vegetation:

b. What kind and amount of vegetation will be removed or altered?
74 evergreen trees, 2 decidious trees and various shrubs will be removed.

The project will cause removal of approximately 75-95 high retention value, mature, healthy douglas fir trees

c. List threatened or endangered species known to be on or near the site.
None known.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
Existing native plants such as alder, Douglas Fir, salal, oregon grape and kinikinnick will be preserved. Proposed plantings include native species (Douglas Fir, Vine Maple, Red and Yellow Twig dogwood, artic willow, salal, oregon grape, rubus, snowberry, sedges, bulrush, iris are some), and Northwest hardy tress, shrubs, groundcover, and perennials. These plants in combination are appropriate to the site, soils, and water regime and will thrive in this location.

Very few existing mature trees will be retained

5. ANIMALS

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other ***Songbirds***
mammals: deer, bear, elk, beaver, other ***Squirrels***
fish: bass, salmon, trout, herring, shellfish, other

Site is next to a State Park - Bridle Trails.

b. List any threatened or endangered species known to be on or near the site.
None known.

c. Is the site part of a migration route? If so, explain.
No.

d. Proposed measures to preserve or enhance wildlife, if any:
The proposed development will provide new landscaping including shrubs, screening trees and vegetated rain gardens that birds and other urban tolerant wildlife will undoubtedly inhabit. Significant trees and vegetation located along th eeastern property boundary will also be retained.

The loss of the mature trees are not mitigated, their habitat value has not been speaifically evaluated

6. ENERGY AND NATURAL RESOURCES

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
Electricity for general power and lighting. Gas for heating.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Building will meet energy code. Lighting control will be computerized.

7. ENVIRONMENTAL HEALTH

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.
No.

1) Describe special emergency services that might be required.
Police, Fire and Medical emergencies associated with normal occupancy.

2) Proposed measures to reduce or control environmental health hazards, if any:
None.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
None.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.
Traffic and construction equipment noice during construction. None after occupancy.

3) Proposed measures to reduce or control noise impacts, if any:
Limit operating hours to 10 pm at night.

8. LAND AND SHORELINE USE

a. What is the current use of the site and adjacent properties?
The site is currently used for parking for the tennis club. Tennis club use to north. Single family residences to east, south and west.

b. Has the site been used for agriculture? If so, describe.
No.

c. Describe any structures on the site.
None.

d. Will any structures be demolished? If so, what?
No.

e. What is the current zoning classification of the site?
PLA 16

f. If applicable, what is the current shoreline master program designation of the site?
N/A

g. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
No.

h. Approximately how many people would reside or work in the completed project.
The finished project will have no residnece. There will not be additional work force other than the current staffs of the club.

i. Approximately how many people would the completed project displace?
None.

j. Proposed measures to avoid or reduce displacement impacts, if any:
N/A/

k. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
Proposed use is allowable outright and is existing since 1970's. The new building will be screened on the east, west and south side.

9. HOUSING

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
None.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
None.

c. Proposed measures to reduce or control housing impacts, if any:
None.

10. AESTHETICS

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

33.7' from average existing grade. Principal exterior building materials are concrete, horizontal wood siding and asphalt roof shingles.

b. What views in the immediate vicinity would be altered or obstructed?
None.

c. Proposed measures to reduce or control aesthetic impacts, if any:
Building will be screened on all sides which faces single family developments.

11. LIGHT AND GLARE

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
None.

b. Could light or glare from the finished project be a safety hazard or interfere with views?
No.

c. What existing off-site sources of light or glare may affect your proposal?
None.

d. Proposed measures to reduce or control light and glare impacts, if any:
None.

12. RECREATION

a. What designated and informal recreational opportunities are in the immediate vicinity?
The property is adjacent to Bridle Trail State Park. Central Park Tennis Club is a private club that offers tennis, excercis programs and swimming.

b. Would the proposed project displace any existing recreational uses? If so, describe.
No.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
None.

13. HISTORICAL AND CULTURAL PRESERVATION

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a. Are there any places or objects listed in, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
No.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.
None.

c. Proposed measures to reduce or control impacts, if any:
None.

14. TRANSPORTATION

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on-site plans, if any.
The project will be access from NE 60th Street upon completion.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
Nearest transit stop is at NE 70th Street and 128th Ave. NE. It is approximately .6 miles away.

c. How many parking spaces would the completed project have? How many would the project eliminate?
The completed project will have 105 stalls. The project will not eliminate any parking stall.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).
No.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No.

f. How many vehicular trips per day would be generated by the completed project? If know, indicate when peak volumes would occur.
13 new vehicular trips in the afternoon.

g. Proposed measures to reduce or control transportation impacts, if any:
Reroute access to existing tennis club through NE 60th Street (arterial) instead of 127th Avenue NE (neighborhood street).

15. PUBLIC SERVICES

Access easement called (private) will be utilized – 125th Place NE

Plans say 103 stalls total

Sidewalks are required. Also a pedestrian path thru the site and along the private easement reqd.

traffic report indicates no impacts from new access point

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.
The project will increase the need for fire, police and health care due to the increased occupancy during operating hours.

b. Proposed measures to reduce or control direct impacts on public services, if any.
None.

16. UTILITIES

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other
The site is served by electricity, gas, water, refuse, telephone, sanitary sewer and cable TV.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.
Sewer: City of Kirkland; Water: City of Kirkland; Power: Puget Sound Energy; Gas: Puget Sound Energy; Cable TV: Comcast.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: FREIHEIT & HO ARCHITECTS

Date Submitted: 8/18/2010

D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

(Do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Proposed measures to protect such resources or to avoid or reduce impacts are:

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public services and utilities?