Area Seattle

Status _____

DocID 14198

Source: DCLU

Project # 2301457

Permit # 737273

Site Address 1531 Grand Ave

Date Copied 1-3-05 By RM

- ☑ **Title page with the following information:**
  - *Company (Author) name*
  - *Report date*
  - *Project Name*
  - *Company's job number*
  - *Site address*
- ☑ Executive Summary / Introduction of the report
- ☐ Table of contents
- ☑ Project Location Map / Vicinity Map
- ☑ **Site / Exploration Plans, Boring Location Plans**
- ☐ Cross-sections / Subsurface profiles
- ☑ **Exploration Logs**
- ☐ Monitoring Well Logs
- ☐ Cone Penetrometer Logs
- ☐ Groundwater Elevation Tables / Data

- ☐ Includes data from Previous Reports
- ☐ No new data /data review
- ☐ Missing Data / Illegible Data
  Explanation _____

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GEOTECH
CONSULTANTS, INC.

13256 Northeast 20th Street, Suite 16
Bellevue, Washington 98005
(425) 747-5618 FAX (425) 747-8561

March 26, 2003

JN 03068

Eric Baldwin
1531 Grand Avenue
Seattle, Washington 98122

1531 Grand Avenue

Subject: **Transmittal Letter – Geotechnical Engineering Study**
Proposed Baldwin Residence Remodel
1531 Grand Avenue
Seattle, Washington

Dear Mr. Baldwin:

We are pleased to present this geotechnical engineering report for the proposed Baldwin residence remodel to be constructed in Seattle, Washington. The scope of our work consisted of exploring site surface and subsurface conditions, and then developing this report to provide recommendations for general earthwork and design criteria for foundations and retaining walls. This work was authorized by your acceptance of our proposal, P-6003, dated February 12, 2003.

The attached report contains a discussion of the study and our recommendations. Please contact us if there are any questions regarding this report, or for further assistance during the design and construction phases of this project.

Respectfully submitted,

GEOTECH CONSULTANTS, INC.

D. Robert Ward, P.E.
Principal

GDB/DRW: esm

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BUILDING ID S 1 PROJECT NR: 2301457
AD CONSTRUCT 3-STORY ADDITION AND AKM (PS)
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REV
REV
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GEOTECHNICAL ENGINEERING STUDY
Proposed Baldwin Residence Remodel
1531 Grand Avenue
Seattle, Washington

This report presents the findings and recommendations of our geotechnical engineering study for the site of the proposed Baldwin Residence remodel to be located in Seattle, Washington.

You provided us with a site plan/topographic map showing the existing residence and proposed addition, and a cross-section of the proposed addition, dated February 10, 2003. You also provided us with revised section views showing a possible foundation alternative in order to minimize shoring, on March 13, 2003. Based on these plans and conversations with you, we understand that a 3-floor addition will be constructed directly east of the existing residence. The existing eastern foundation wall will likely be extended down to an approximate elevation of 101 feet, although it may be somewhat less based on the possible revision. Cuts of up to 10 feet may be necessary to reach the planned excavation bottom, with the deeper cuts located along the eastern edge of the existing residence. Again, cuts may be less based on the possible revision.

If the scope of the project changes from what we have described above, we should be provided with revised plans in order to determine if modifications to the recommendations and conclusions of this report are warranted.

SITE CONDITIONS

SURFACE

The Vicinity Map, Plate 1, illustrates the general location of the property. The generally rectangular shaped property is located in the Madrona area of Seattle along the western side of Grand Avenue. The eastern edge of the property is situated about 40 feet above the street and is accessed via sidewalks from Grand Avenue. The property slopes steeply from east to west over a vertical height of over 30 feet. The site is designated as a Critical Area by the City of Seattle because of the steepness of the slope.

The property is currently developed with a two-story, single-family residence with a basement and crawl space. The basement area is located at the eastern, downslope half of the house. The footings for the basement have an approximate elevation of 111 feet. The backyard (west of the house) is landscaped with a multi-tier wood wall system. Each tier is level and landscaped.

Bordering the property to the north and south are two-story, single-family residences. The southern residence contains a basement with an approximate floor elevation of 105 feet. At its closest point, the southern residence is located approximately 5 feet from the south property line of the subject site. The northern residence appears to contain a basement with an approximate floor elevation of 106 to 108 feet. This residence is located approximately 3 to 4 feet from the north property line of the subject site. Single-family residences border the site to the west.

SUBSURFACE

The subsurface conditions were explored by drilling one boring at the approximate location shown on the Site Exploration Plan, Plate 2. Our exploration program was based on the proposed construction, anticipated subsurface conditions and those encountered during exploration, and the scope of work outlined in our proposal.

The boring was drilled on February 26, 2003, using a portable Acker drill. This drill system utilizes a small, gasoline-powered engine to advance a hollow-stem auger to the sampling depth. Samples were taken at 2.5- and 5-foot intervals with a standard penetration sampler. This split-spoon sampler, which has a 2-inch outside diameter, is driven into the soil with a 140-pound hammer falling 30 inches. The number of blows required to advance the sampler a given distance is an indication of the soil density or consistency. A geotechnical engineer from our staff observed the drilling process, logged the test boring, and obtained representative samples of the soil encountered. The Test Boring Log is attached as Plate 3.

Soil Conditions

The boring encountered approximately 5 feet of loose fill overlying 7 feet of loose, native silty sand and sandy silt. This soil was underlain by dense, non-plastic silt and silty sand. The boring was drilled to a depth of 29 feet below existing grade.

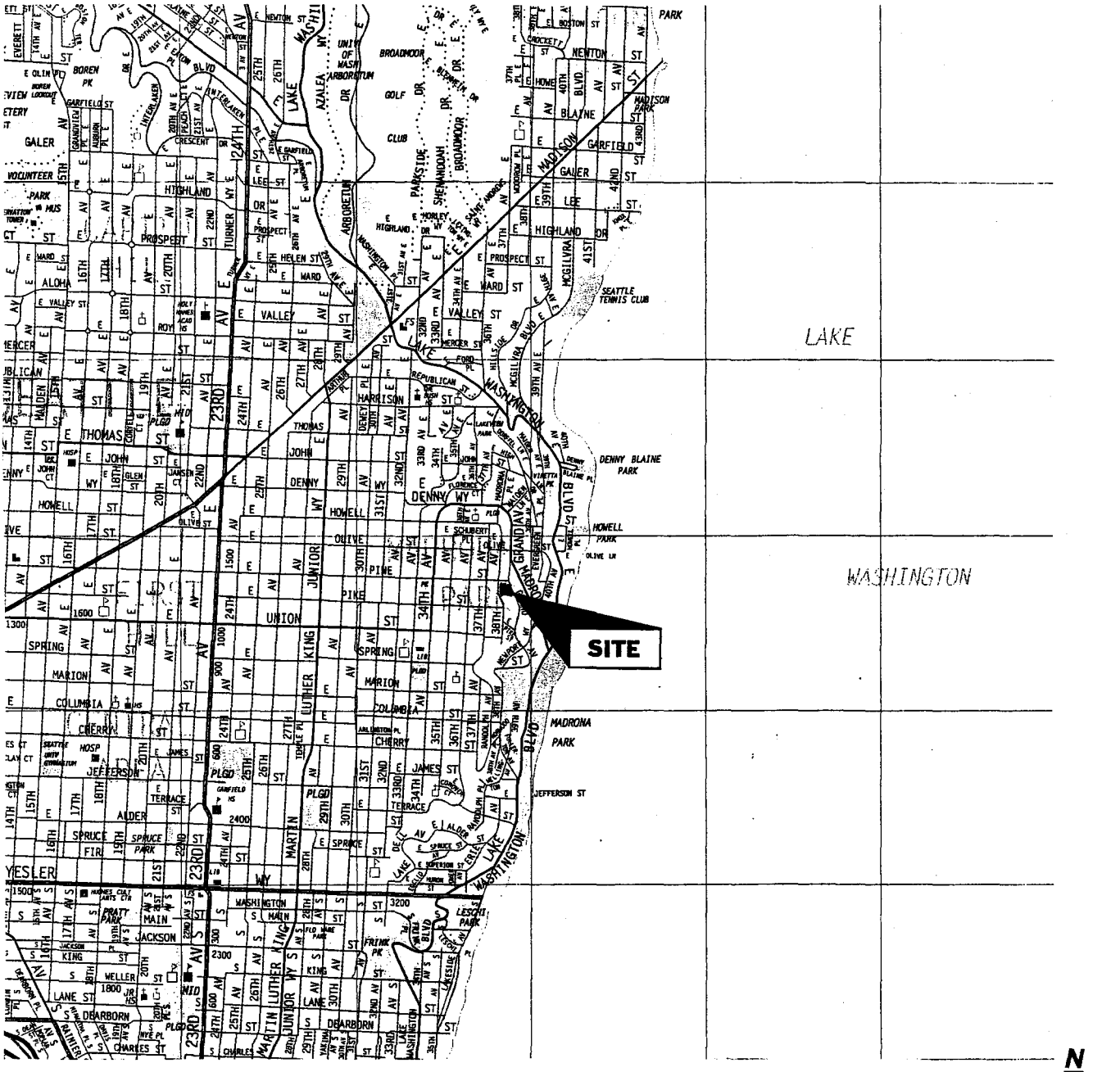
The depths of soil layers, including topsoil, that are indicated on the log are approximate. More exact definition of soil unit thicknesses would require more explorations. No obstructions were revealed by our exploration. However, debris, buried utilities, and old foundation and slab elements are commonly encountered on sites that have had previous development.

Groundwater Conditions

Groundwater seepage was observed at a depth of 12 feet. The boring was left open for only a short time period. Therefore, the seepage levels on the log represent the location of transient water seepage and may not indicate the static groundwater level. Groundwater levels encountered during drilling can be deceptive, because seepage into the boring can be blocked or slowed by the auger itself.

It should be noted that groundwater levels vary seasonally with rainfall and other factors. The boring was drilled during a dry period in February. We anticipate that groundwater could be found overlying the dense silt during the normally wet winter and spring months.

The final log represents our interpretations of the field log. The stratification lines on the log represent the approximate boundaries between soil types at the exploration location. The actual transition between soil types may be gradual, and subsurface conditions can vary away from the exploration location. The log provides specific subsurface information only at the location tested. If a transition in soil type occurred between samples in the boring, the depth of the transition was interpreted. The relative densities and moisture descriptions indicated on the boring log are interpretive descriptions based on the conditions observed during drilling.



(Source: The Thomas Guide, King County, Washington, 1998)

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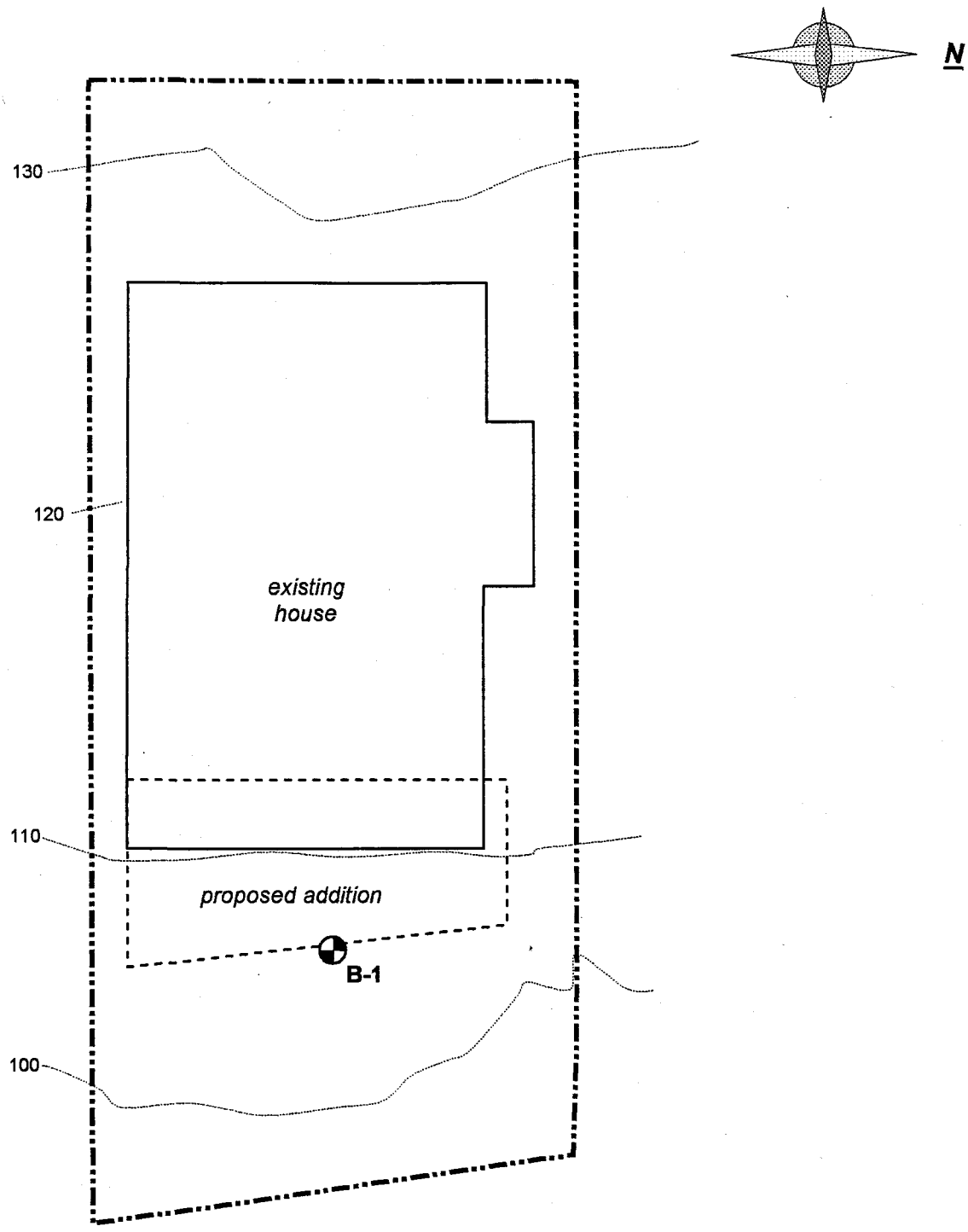
VICINITY MAP

1531 Grand Avenue
Seattle, Washington

Job No:	Date:		Plate:
03068	Mar. 2003		1



Legend:

⊕ approximate location of test boring

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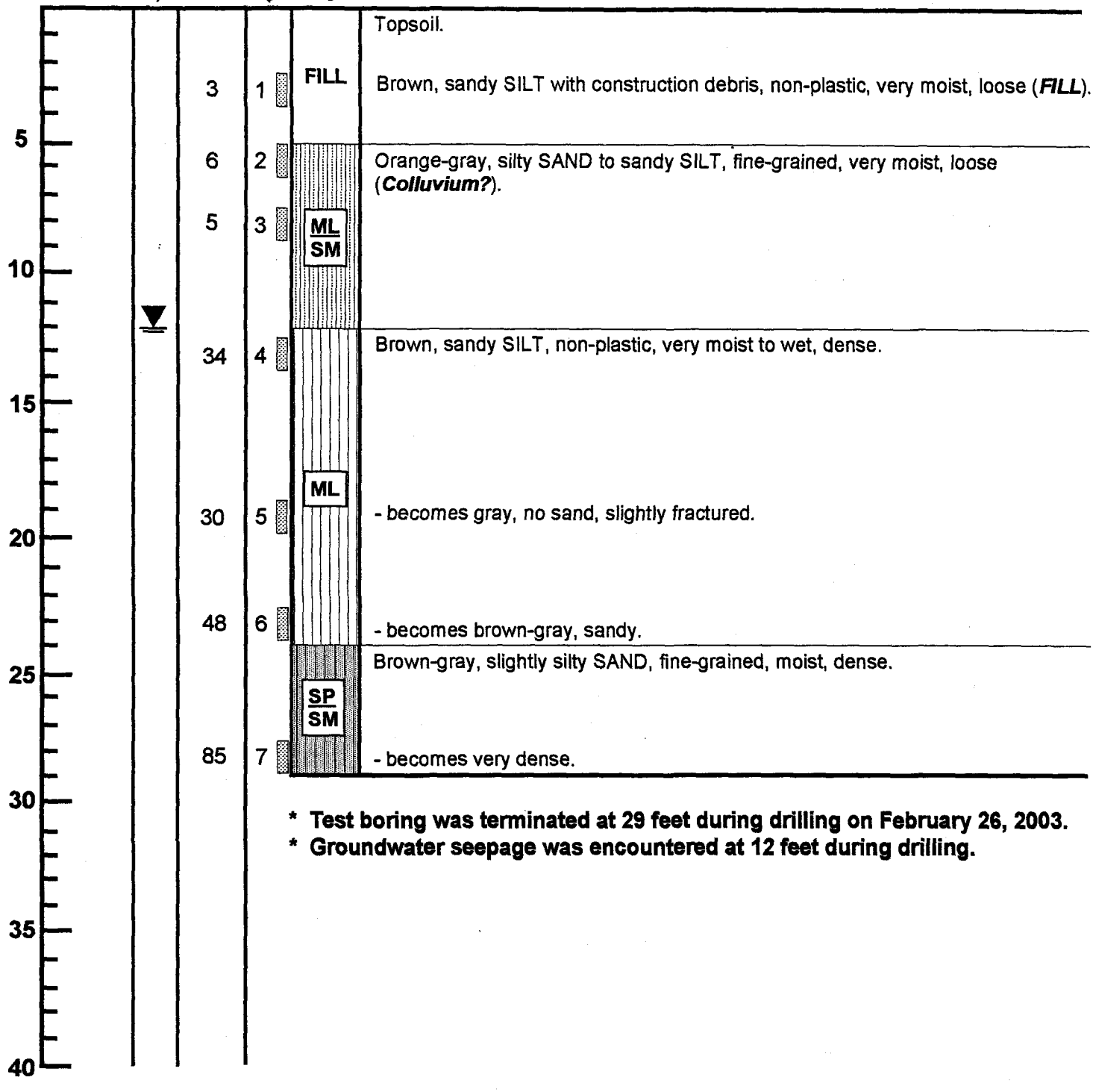
SITE EXPLORATION PLAN

1531 Grand Avenue
Seattle, Washington

Job No:	Date:		Plate:
03068	Mar. 2003	No Scale	2

BORING 1



* **Test boring was terminated at 29 feet during drilling on February 26, 2003.**
* **Groundwater seepage was encountered at 12 feet during drilling.**

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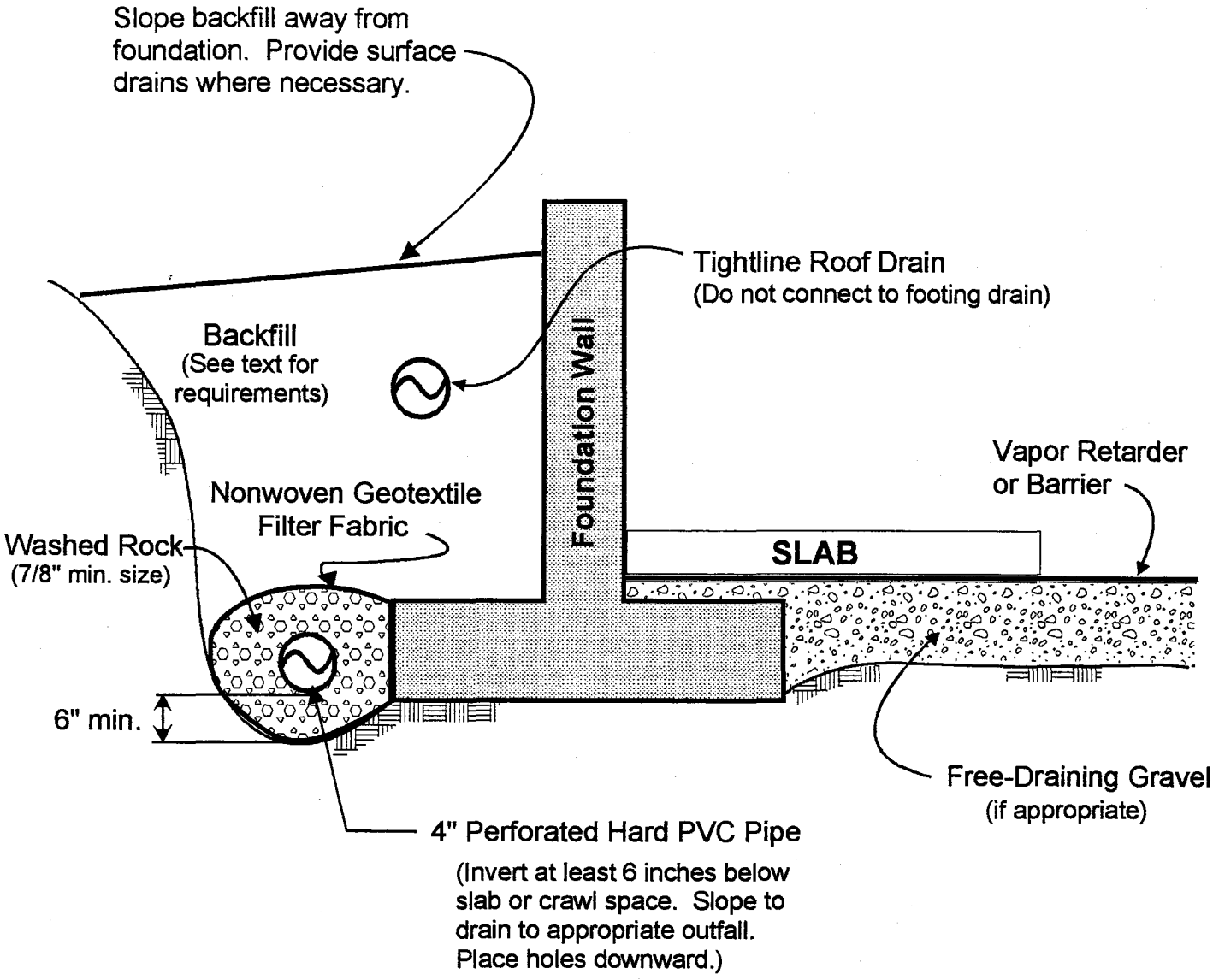
BORING LOG

1531 Grand Avenue
Seattle, Washington

Job No:	Date:	Logged by:	Plate:
03068	Mar. 2003	GDB	3



NOTES:

(1) In crawl spaces, provide an outlet drain to prevent buildup of water that bypasses the perimeter footing drains.

(2) Refer to report text for additional drainage and waterproofing considerations.

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FOOTING DRAIN DETAIL

1531 Grand Avenue
Seattle, Washington

Job No:	Date:		Plate:
03068	Mar. 2003		4