

**AFTER RECORDING MAIL TO:
RECORDED AT THE REQUEST OF:**

Joel R. Comfort
MILLER, MERTENS, COMFORT,
WAGAR & KREUTZ, PLLC
1020 N. Center Parkway, Suite B
Kennewick, WA 99336

**DECLARATION OF COVENANTS, CONDITIONS,
RESTRICTIONS AND EASEMENTS FOR PRESERVATION
OF VIEWS AND SLOPES AND USE RESTRICTIONS
FOR EAGLE RIDGE**

Reference numbers of related documents: 94-18376, 2001-021610, 2003-061197, 2005-026398,
2005-030827, and 2007-022828,

Grantor: North Stone Richland, LLC

Grantee: North Stone Richland, LLC

Abbreviated Legal Description: Portions of Section 29, Township 10 North, Range 28 East,
W.M., Benton county, Washington.

Additional legal description: See Exhibit "A"

Assessor's Tax Parcel ID Number: 1-2808-300-0001-011
1-2808-100-0001-008 ; 1-2908-400-0001-016

WHEREAS, Columbia Triangle Venture, L.P., as Declarant, created the Horn Rapids Master Planned Community, and in connection therewith caused to be recorded with the office of the auditor of Benton County, Washington, on May 27, 1994 under Recording No. 94-18376, a Declaration of Covenants, Conditions, Restrictions and Easements for Horn Rapids: A Master Planned Community; and

WHEREAS, Columbia Triangle Venture, L.P. assigned its interest as Declarant under the

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aforesaid Declaration of Covenants, Conditions, Restrictions and Easements for Horn Rapids: A Master Planned Community to North Stone Richland, LLC, by Assignment of Interest of Declarant of Horn Rapids Master Planned Community dated the 19th day of August, 2005 and recorded with the office of the auditor of Benton County, Washington, on the 9th day of September, 2005, under Recording No. 2005-030827; and

WHEREAS, North Stone Richland, LLC desires to create restrictive covenants applicable to a portion of Horn Rapids, known as Eagle Ridge subdivision in order to preserve slopes and views and to place use restrictions upon the subject property.

NOW, THEREFORE, North Stone Richland, LLC hereby covenants, agrees, and declares that all of Eagle Ridge subdivision, as defined herein, and the structures, buildings and improvements hereafter constructed thereon are, and will be, held, sold, and conveyed subject to and burdened by the following covenants, conditions, restrictions, and easements, all of which are for the purpose of enhancing and protecting the value, desirability, and attractiveness of the Lots within Eagle Ridge and for the benefit of the Owners thereof, their heirs, successors, grantees and assigns. All provisions of this Declaration shall be binding upon all parties having or acquiring any right, title, or interest in Eagle Ridge subdivision or any part thereof, and shall inure to the benefit of the Owners thereof and are intended to be and shall be in all respects be regarded as covenants running with the land.

ARTICLE 1

DEFINITIONS

Section 1.1. Except as stated in Section 1.2, the Definitions set forth in Article 1 of the Declaration of Covenants, Conditions, Restrictions and Easements for Horn Rapids: A Master Planned Community, recorded with the office of the auditor of Benton County, Washington, on May 27, 1994 under recording No. 94-18376, are hereby incorporated herein by reference.

Section 1.2. The Property shall mean Eagle Ridge subdivision, being that certain real property described on Exhibit A attached hereto, and such additions thereto as may hereafter be brought within the terms and conditions hereof in accordance with Article 2 of the aforementioned Declaration of Covenants, Conditions, Restrictions and Easements for Horn Rapids: A Master Planned Community.

Section 1.3. Back Yard shall mean that portion of the property that lies between the exterior wall of the Living Unit that is located on the opposite side of the Living Unit from street adjoining the Lot and the boundary opposite of the street side of the Lot.

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ARTICLE 2

EXTERIOR CONSTRUCTION MATERIALS

Section 2.1. Restrictions as to Materials for Exterior Construction. Exteriors of all buildings and structures shall be constructed exclusively of stucco, masonry, rock, stone or a combination thereof. The Initial Construction Committee and the Architectural Control Committee shall not approve the design of any building or structure that does not comply with this restriction.

ARTICLE 3

SLOPE PRESERVATION

Section 3.1. Soil Report. Shannon and Wilson, Inc., Geotechnical and Environmental Consultants, performed a geotechnical engineering study of the Property, the purpose of which was to develop set back recommendations from the steep slopes lying along the westerly boundaries of Lots 1 through 11 and lying along the easterly boundaries of Lots 12 through 23. The results of the geotechnical engineering study were reported in a document entitled "Geotechnical Engineering Study; The Ridge Residential Development; Richland, Washington" and dated July 14, 2006, which is attached hereto as Exhibit E, hereinafter referred to as the "Updated Report".

Section 3.2. Development Restrictions. No Living Unit, building, accessory building, fence, wall, stairway, railing, path, ramp, improvement or other structure may be placed, located, constructed, erected or allowed to remain on any Lot or portion thereof unless the same is consistent with the recommendations set forth in the Updated Report and consistent with this Declaration Of Covenants, Conditions, Restrictions and Easements For Preservation of Views and Slopes and Use Restrictions for Eagle Ridge.

Section 3.3. Use Restrictions. No use may be made of any Lot or portion thereof unless the same is consistent with the recommendations set forth in the Updated Report and consistent with the View Protection Covenants set forth below. No persons or pets shall be permitted to enter any sloped areas on any Lot or Tract due to the sensitive erosion characteristics of the property within the development. Any damage caused as a result of entry on sloped areas shall be professionally repaired at the expense of the Lot Owner and the trespassing party. The Horn Rapids Master Homeowners Association shall have the right to supervise and approve the repairs described herein.

Section 3.4. Debris. No dumping of dirt, mulch, landscaping clippings, debris, trash, solid waste, or other material may be dumped, disposed of or stored on the portion of any Lot lying inside the View Protection Boundary, or on Tracts A, B, or C as depicted on the Plat of Eagle Ridge.

Section 3.5. Irrigation Practices. No irrigation of trees, shrubs, outdoor plants, flowerbeds or non-lawn areas may be accomplished on any portion of the yard areas except by use of

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xergation drip irrigation with outlet pressure range not to exceed 30 PSI and drip emitters not to exceed 5 GPH. Such drip system shall not run more than (1) one hour per 24 hour period.

All lawn areas or grass areas shall use low volume heads that do not exceed a flow rate of 2.5 GPM. Such irrigation system shall not exceed a run time of 30 minutes every 12 hours.

All systems shall have a master valve at the point of connection that will eliminate downstream pressure after the master valve to prevent accidental flooding.

Review Section 6.9 of the Updated Report (Attached Exhibit "B") for additional drainage recommendations.

Section 3.6. Setback. No Living Unit, may be placed, located, constructed, erected or allowed to remain on Lots 1 through 13 less than 25 feet from the slope crest, as depicted on the Slope Crest Map, Exhibit "C", unless the Owner first obtains a report, acceptable to the the Initial Construction Controls Committee, or the Architectural Controls Committees, as appropriate substantiating the suitability of the design, from Shannon & Wilson or other person or firm experienced in matters of geotechnical engineering. This provision shall not be construed so as to authorize design or construction that is not also consistent with the View Protection provisions stated below.

Section 3.7. Bordering Property. The property lying generally west of Lots 1 through 11 is owned by the City of Richland or a non-profit entity as open space, and the access to and conditions of its use shall be determined by the City of Richland, its successors and assigns. The property lying generally east of Lots 12 through 23 is owned by the Horn Rapids Master Homeowners Association as open space, and the access to and conditions of its use shall be determined by the Association, its successors and assigns.

Section 3.8. Rights of Way. None of the Lots situated within Eagle Ridge subdivision includes the adjoining streets, sidewalks, curbs, gutters and rights of way adjacent thereto, except for the Emergency Vehicle Access Drive on Lots 13 and 14, as depicted on Exhibit B.

ARTICLE 4

VIEW PROTECTION

Section 4.1. The purpose of the view protection covenants are to protect views of the Yakima River, Horse Heaven Hills, Badger Mountain and Rattlesnake Mountain for the benefit of all of the owners in Eagle Ridge.

Section 4.2. A View Preservation Boundary is hereby established to exist and to remain on

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and across Lots 1 through 12, in the location and as generally depicted on the map attached hereto as Exhibit "D". The View Preservation Boundary for Lots 1 through 9 is situated beginning 110 feet west of the front property pins of the Lots, and ending at the rear property pins. The View Preservation Boundary for Lot 10 is situated beginning 1 foot from the Irrigation Easement toward the front property pins, and ending at the rear property pins. The View Preservation Boundary for Lot 11 and 12 is situated as shown in Exhibit "D". The View Preservation Boundary does not apply to Lot 13, but any buildings or structures (excluding fences) shall be set back 10 feet from crest of slope.

Section 4.3. Except as provided below, no tree, shrub, bush, plant, landscaping element, Living Unit, building, accessory building, fence, stairway, railing, path, ramp, improvement, swimming pool, structure, or other improvement may be placed, constructed, located, grown, cultivated or allowed to remain in the View Preservation Boundary wherein the height of the tree, shrub, bush, plant, landscaping element, Living Unit, building, accessory building, fence, wall, stairway, railing, path, ramp, improvement, swimming pool, structure, or other improvement is greater than 24 inches above the highest elevation of the curb adjacent to each respective Lot. No retaining walls, decorative masonry or concrete walls or similar structures may be placed, constructed, located or allowed to remain in the View Preservation Boundary wherein the height of the wall is greater than 6 inches above the highest elevation of the curb adjacent to each respective Lot.

Section 4.4. Notwithstanding the foregoing, trees may be kept and maintained in the View Preservation Boundary if the trees have no limbs, branches, leaves or other part thereof (except the roots and trunk) that are less than ten feet above the highest elevation of the curb of adjacent to each respective Lot. Provided, however, trees may be planted that do not comply with this restriction so long as the trees are pruned or cultivated so as to comply within 3 years after the date planted. The location of all trees planted in the View Preservation Boundary must be approved in advance by the Initial Construction Controls Committee, or the Architectural Controls Committees, as appropriate, and the proposed location may be rejected if in the Committee's judgment the proposed tree placement will interfere with the view.

Section 4.5. Fences and Handrailings.

(a) Lots 1 through 12. Fences and hand railings erected in the View Protection Boundary on Lots 1 through 12 shall comply with the provisions of this Section and shall not be constructed or altered unless the design thereof has been approved by the Initial Construction Controls Committee, or the Architectural Controls Committees, as appropriate. Except as authorized under Section 4.6, fences and hand railings may not exceed 48 inches in height above the highest elevation of the curb adjacent to each respective Lot. Fences and hand railings must be black in color. Fences and hand railings may only be an open design, without any of wood, stone, masonry, stucco or any other material covering the tubular frame and pickets. Fences and hand railings shall have no more than two horizontal rails, and the same shall be made of tubular material with a maximum outer diameter of one inch. Posts shall be made of tubular material

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with a maximum outer diameter of four inches. Posts shall be generally spaced eight feet apart, but may be spaced closer in corners, so long as no posts are less than four feet apart.

(b) Lots 13 through 23. Fences and hand railings erected on Lots 13 through 23 shall comply with the provisions of this Section and shall not be constructed or altered unless the design thereof has been approved by the Initial Construction Controls Committee, or the Architectural Controls Committees, as appropriate. Fences and hand railings may be an open or closed design, and the Initial Construction Controls Committee or the Architectural Controls Committee may adopt guidelines for the construction, repair, replacement, or extension of fences and hand railings. Except as authorized under Section 4.6, fences and hand railings may not exceed 6 feet in height above the highest elevation of the curb adjacent to each respective Lot.

Section 4.6. Notwithstanding the foregoing, swimming pools, together with required fencing, may be constructed and allowed to remain in the View Protection Boundary only if the fence design is as set forth in Section 4.5 and the height of the fence is the minimum height necessary to comply with applicable statute, rule or ordinance, as now in effect or hereafter amended.

Section 4.7. Fences and hand railings erected outside of the View Protection Boundary shall not be constructed or altered unless the design thereof has been approved by the Initial Construction Controls Committee, or the Architectural Controls Committees, as appropriate. Fences and hand railings erected outside of the View Protection Boundary may be up to six feet in height and may obscure views from adjoining Lots and properties.

Section 4.8. Notwithstanding the foregoing, awnings and deck roofs, whether permanently attached or detached to Living Units, and the columns supporting the same may be constructed in the View Protection Boundary only if: (1) approved by the City of Richland Building Department; (2) the largest cross-sectional dimension of the column is less than twelve inches; (3) the roof and all other structural members and other elements affixed thereto are at a height greater than nine feet above the highest elevation of the curb of adjacent to each respective Lot; and (4) the awning or deck roof extends no more than sixteen feet from the exterior wall of the residential structure. Awnings and deck roofs must be approved in advance by the Initial Construction Controls Committee, or the Architectural Controls Committees, and may be rejected if in the Committee's judgment the proposed awning or deck roof will interfere with the view.

Section 4.9. In addition to the restrictions stated above, no continuous or solid hedge shall be grown, cultivated, allowed or maintained in the View Protection Boundary with a height in excess of 24 inches above the highest elevation of the curb adjacent to each respective Lot.

Section 4.10. No Living Units, buildings, accessory buildings, structures, or other improvements may be built, whether temporary or permanent, on Tracts A, B, or C without the prior written permission of the Horn Rapids Homeowners Association Initial Construction Controls Committee or the Architectural Controls Committee, as appropriate.

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ARTICLE 5

OTHER USE COVENANTS, CONDITIONS AND RESTRICTIONS

Section 5.1 Fence and Landscape Easement. An easement is hereby conveyed to the Horn Rapids Master Homeowners Association for the construction and maintenance of a fence and landscaping to be placed on Lots 1 and 23 as depicted on Exhibit "B" hereto. This easement shall be for the purpose of constructing maintaining, repairing, replacing, and otherwise managing the fence and landscaping now or hereafter situated on the easement. Horn Rapids Master Homeowners Association shall be entitled to reasonable access on and across the easement for doing the proper acts of maintaining, repairing, replacing, and otherwise managing the fence and landscaping now or hereafter situated on the easement. The Horn Rapids Master Homeowners Association shall be responsible for pruning and replacing the shrubs and plants on the easement. The Owners of Lots 1 and 23 shall be responsible for mowing, weeding, and the general care and maintenance of the landscaping on the easement. No structures, landscaping element, fence, or other improvement may be placed, constructed, located, grown, cultivated or allowed to remain in the easement without the express written consent of the Horn Rapids Master Homeowners Association. The Owners of Lots 1 and 23 hereby acknowledge and consent to allow the Horn Rapids Master Homeowners Association to connect to the water supply and irrigation system for Lots 1 and 23 for the purposes of irrigating the landscaping placed on the easement. The Homeowners Association shall be responsible for maintaining the irrigation system on the easement, but shall not be obligated to compensate the Owners of Lots 1 and 23 for water usage.

Section 5.2. Current Use of Adjoining Lands. The Lots within the Eagle Ridge subdivision are located in close proximity to land which is currently being farmed. Farming is consistent with the zoning or other use restriction rules, regulations, ordinances and comprehensive plan applicable to said land. By acquiring a Lot, every Owner hereby agrees that the Owner will not make application for, nor petition, the applicable governmental agency seeking to amend or revise the zoning or other use restriction rules, regulations, ordinances or comprehensive plan where the effect of said application or modification is to cause farming to be inconsistent with the zoning or other use restriction rules, regulations, ordinances, comprehensive plan applicable to said land.

Section 5.3. Windblown Sand. During the Development Period, the Declarant, Initial Construction Controls Committee, or the Architectural Controls Committee shall have the right to require that the Owner of any unimproved Lot install a grass lawn on the Lot to prevent windblown sand. The Owner shall maintain the lawn in accordance with the requirements of the Declaration of Covenants, Conditions, Restrictions and Easements for Horn Rapids: A Master Planned Community.

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ARTICLE 6

ENFORCEMENT

Section 6.1. Right to Enforce. The Horn Rapids Homeowners Association, Board, Declarant, irrigation source entity, or any two (2) Owners acting in concert, shall have the right to enforce, by any appropriate proceeding at law or in equity, all covenants, conditions, restrictions, reservations, liens, and charges now or hereafter imposed by the provisions of this Declaration. Failure or forbearance by any person or entity so entitled to enforce the provisions of this Declaration to pursue enforcement shall in no event be deemed a waiver of the right to do so thereafter.

Section 6.2. These covenants may be enforced as set forth in the in accordance with the Declaration of Covenants, Conditions, Restrictions and Easements for Horn Rapids: A Master Planned Community, and the rules and regulations promulgated pursuant thereto.

Section 6.3. Remedies Cumulative. Remedies provided by this Declaration are in addition to, cumulative with, and are not in lieu of, other remedies provided by law. There shall be, and there is hereby created and declared to be, a conclusive presumption that any violation or breach or attempted violation or breach of the covenants, conditions, and restrictions herein cannot be adequately remedied by an action at law or exclusively by recovery of damages.

Section 6.4. Covenants Running with the Land. The covenants, conditions, restrictions, liens, easements, enjoyment rights, and other provisions contained herein are intended to and shall run with the land and shall be binding upon all persons purchasing, leasing, subleasing or otherwise occupying any portion of Eagle Ridge, their heirs, executors, administrators, successors, grantees, and assigns. All instruments granting or conveying any interest in any Lot and all leases or subleases shall refer to this Declaration and shall recite that it is subject to the terms hereof as if fully set forth therein. However, all terms and provisions of this Declaration are binding upon all successors in interest despite an absence of reference thereto in the instrument of conveyance, lease, or sublease.

ARTICLE 7

AMENDMENT AND REVOCATION

Section 7.1. Amendment by Declarant. Declarant may, during the Development Period, amend this Declaration on its sole signature. This Declaration may also be amended by an instrument executed by the Horn Rapids Homeowners Association for and on behalf of the Owners, provided, however, that such amendments shall have received the prior approval of a the Owners (except Declarant) having seventy-one (71) percent of the Lots identified in Section 4.2; and provided, further, that no such amendment shall be valid during the Development Period

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without the prior written consent of the Declarant.

Section 7.2. Effective Date. Amendments shall take effect only upon recording with the Office of the Benton County Auditor or any successor recording office.

ARTICLE 8

GENERAL PROVISIONS

Section 8.1. Non-Waiver. No waiver of any breach of this Declaration shall constitute a waiver of any other breach, whether the same or any other covenant, condition or restriction.

Section 8.2. Attorney's fees. In the event of a suit or action to enforce any provision of this Declaration, the unsuccessful party in such suit or action shall pay to the prevailing party all costs and expenses, including title reports, and all attorney's fees that the prevailing party has incurred in connection with the suite or action, in such amounts as the court may deem to be reasonable therein, and also including all costs, expenses, and attorney's fees incurred in connection with any appeal from the decision of a trial court or any appellate court.

Section 8.3. No Abandonment of Obligation. No Owner, through his nonuse of any Common Area, or by abandonment of his Lot or Living Unit, may avoid or diminish the burdens or obligations imposed by this Declaration.

Section 8.4. Interpretation. The captions of the various articles, sections and paragraphs of this Declaration are for convenience of use and reference only and do not define, limit, augment, or describe the scope, content or intent of this Declaration or any parts of this Declaration. The neuter gender includes the feminine and masculine, the masculine includes the feminine and neuter, and the feminine includes the masculine and neuter, and each includes a legal entity when the context so requires. The single number includes the plural whenever the context so requires.

Section 8.5. Severability. Invalidation of any one of these covenants, conditions, restrictions, easements, or provisions by judgment or court order shall in no way affect any other of the same, all of which shall remain in full force and effect.

Section 8.6. Notices. All notices, demands, or other communications ("Notices") permitted or required to be given by this Declaration shall be in writing and, if mailed postage prepaid by certified or registered mail, return receipt requested (if a Notice to Declarant, the Horn Rapids Homeowners Association, or to fewer than all Owners), or if mailed first-class postage prepaid (if a Notice to all Owners), shall be deemed given three days after the date of mailing thereof, or on the date of actual receipt, if sooner; otherwise, Notices shall be deemed given on

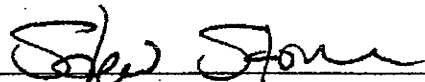
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the date of actual receipt. Notices to Owners and the Horn Rapids Homeowners Association shall be addressed to the last known address of the addressee. Notice to any Owner may be given at any Lot or Living Unit owned by such Owner; provided, however, that an Owner may from time to time by Notice to the Horn Rapids Homeowners Association designate such other place or places or individuals for the receipt of future Notices. If there is more than one Owner of a Lot, Notice to any one such Owner shall be sufficient. Notice to the Declarant shall be sent to the Horn Rapids Homeowners Association.

Section 8.7. Applicable Law. This Declaration shall be construed in all respects under the laws of the State of Washington.

IN WITNESS WHEREOF, THE UNDERSIGNED DECLARANT HAS EXECUTED THIS DECLARATION THE DAY AND YEAR FIRST ABOVE WRITTEN.

NORTH STONE RICHLAND, LLC

By: 
Stew Stone, Member

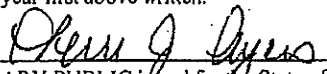
By: 
Ronald R. Bochsler, Managing Member of
Santiam Development Company, LLC as a member
of North Stone Richland, LLC

STATE OF OREGON)
)
COUNTY OF MARION)



On this 9TH day of NOVEMBER, 2010, before me, the undersigned Notary Public in and for the State of OREGON duly commissioned and sworn, personally appeared STEW STONE, to me known to a Member of NORTH STONE RICHLAND, LLC, the limited liability company that executed the foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of said limited liability company, for the uses and purposes therein mentioned and on oath stated that he is authorized to execute the said instrument on behalf of said limited liability company.

Witness my hand and official seal hereto affixed the day and year first above written.

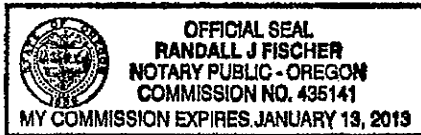

NOTARY PUBLIC in and for the State of
OREGON, residing at 1220 20TH ST. SE. SALEM, OR.
My Commission Expires: DECEMBER 15, 2011 97302.

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STATE OF OREGON)
)
COUNTY OF CLATSOP) §

On this 11th day of NOVEMBER, 2010, before me, the undersigned Notary Public in and for the State of OREGON duly commissioned and sworn, personally appeared RONALD R. BOCHSLER, to me known to Managing Member of Santiam Development Company, LLC, the limited liability company that executed the foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of said limited liability company, for the uses and purposes therein mentioned and on oath stated that he is authorized to execute the said instrument on behalf of said limited liability company.

Witness my hand and official seal hereto affixed the day and year first above written.



Randall J Fischer
NOTARY PUBLIC in and for the State of
OREGON, residing at SILVADEN, OREGON
My Commission Expires: JAN 13, 2013

GV10116 Restrictive Covenants-final 101026 jrc.doc

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Exhibit "A"

Eagle Ridge Perimeter Legal Description

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October 22, 2010

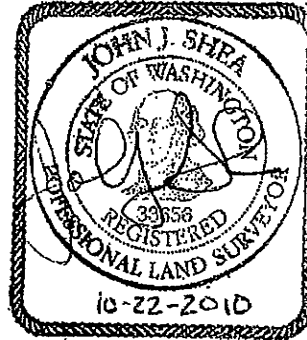


EXHIBIT A
EAGLE RIDGE PERIMETER DESCRIPTION

That portion of the West-half of the Southwest quarter of Section 28 and that portion of the Southeast quarter of the Southeast quarter of Section 29, Township 10 North, Range 28 East, Willamette Meridian, Benton County, Washington described as follows:

BEGINNING at the Southwest corner of said Section 28;

Thence North $89^{\circ}22'24''$ East along the South line of the Southwest quarter of said Section 28 for a distance of 140.65 feet;

Thence leaving the South line of the Southwest quarter of said Section 28, North $33^{\circ}38'25''$ West, 119.03 feet;

Thence North $11^{\circ}10'09''$ East, 140.05 feet;

Thence North $75^{\circ}18'25''$ East, 121.07 feet;

Thence North $89^{\circ}57'39''$ East, 77.89 feet;

Thence North $00^{\circ}36'42''$ West, 1102.46 feet to the Southerly right-of-way line of River Valley Drive, said point being 42.00 feet Southerly of the center line of said River Valley Drive when measured radially;

Thence along the Southerly right-of-way line of said River Valley Drive, Northwesterly, along the arc of a 942.00-foot radius, non-tangent curve to the right, (the radius of which bears North $02^{\circ}24'12''$ East) through a central angle of $05^{\circ}06'49''$ for an arc distance of 84.07 feet to the Northeast corner of Lot 1, "Desert Summit" according to the Plat thereof, recorded in Volume 15 of Plats, page 344, Records of Benton County, Washington;

Thence leaving the Southerly right of way line of said River Valley Drive, South 15°15'54" West, 108.89 feet to the Southeast corner of said Lot 1, (15-344);

Thence continuing along the Plat boundary of said "Desert Summit" (15-344) the following courses:

Thence North 74°44'06" West, 110.00 feet to the Easterly right-of-way line of Riverbend Drive, said point being 27.00 feet Easterly of the center line of said Riverbend Drive when measured at right angles;

Thence leaving the Easterly right-of-way line of said Riverbend Drive, North 87°53'25" West, 55.46 feet to the Westerly right-of-way line of said Riverbend Drive, said point being 27.00 feet Westerly of the center line of said Riverbend Drive when measured at right angles;

Thence leaving the Westerly right-of-way line of said Riverbend Drive, South 88°48'06" West, 189.30 feet;

Thence South 02°53'59" East, 66.59 feet;

Thence South 88°51'13" West, 236.05 feet;

Thence leaving the Plat boundary of said "Desert Summit", South 18°42'36" East, 186.58 feet;

Thence South 04°42'36" East, 238.79 feet;

Thence South 11°13'16" West, 242.31 feet;

Thence South 19°45'17" West, 274.75 feet;

Thence South 34°50'32" West, 394.39 feet to the South line of the Southeast quarter of said Section 29;

Thence North 89°33'11" East, 696.66 feet to the **POINT OF BEGINNING**.

Containing: 20.14 acres, more or less.

ALSO TOGETHER WITH AND SUBJECT TO easements, reservations, covenants and restrictions apparent or of record.

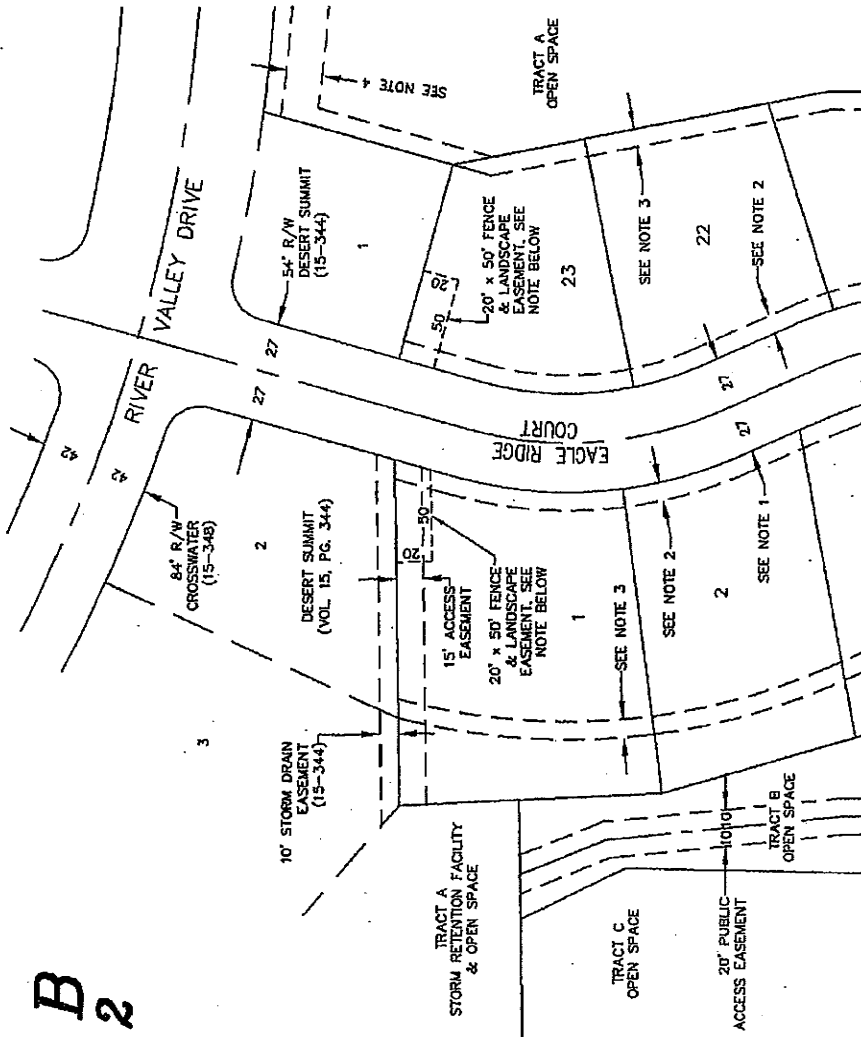
EXHIBIT B

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NOT TO SCALE

EAGLE RIDGE
IN A PORTION OF THE W 1/2 OF THE
SW 1/4 OF SECTION 28
AND A PORTION OF THE SE 1/4 OF
THE SE 1/4 OF SECTION 29,
T10N, R28E, W4M, CITY OF RICHLAND
BENTON COUNTY, WASHINGTON

- EASEMENT & RIGHT-OF-WAY NOTES**
- 1) 54.00-FOOT R/W
 - 2) 10.00-FOOT PUBLIC UTILITY EASEMENT
 - 3) 10.00-FOOT IRRIGATION EASEMENT
 - 4) 30.00-FOOT IRRIGATION EASEMENT



FENCE & LANDSCAPE EASEMENT NOTE:
AN EASEMENT IS HEREBY CONVEYED TO THE HORN RAPIDS MASTER HOMEOWNERS ASSOCIATION FOR THE CONSTRUCTION AND MAINTENANCE OF A FENCED ENTRY AND LANDSCAPING TO BE PLACED ON LOTS 1 AND 23 AS SHOWN HEREON. THIS EASEMENT SHALL BE FOR THE PURPOSE OF CONSTRUCTING, MAINTAINING, REPAIRING, REPLACING, AND OTHERWISE MANAGING THE FENCED ENTRY AND LANDSCAPING NOW OR HEREFTER SITUATED ON THE EASEMENT. HORN RAPIDS MASTER HOMEOWNERS ASSOCIATION SHALL BE ENTITLED TO REASONABLE ACCESS ON AND ACROSS THE EASEMENT FOR DOING THE PROPER ACTS OF MAINTAINING, REPAIRING, REPLACING, AND OTHERWISE MANAGING THE FENCED ENTRY AND LANDSCAPING NOW OR HEREFTER SITUATED ON THE EASEMENT. THE HORN RAPIDS MASTER HOMEOWNERS ASSOCIATION SHALL BE RESPONSIBLE FOR PRUNING AND REPLACING THE SHRUBS AND PLANTS ON THE EASEMENT. THE OWNERS OF LOTS 1 AND 23 SHALL BE RESPONSIBLE FOR MOWING, WEEDING, AND THE GENERAL CARE AND MAINTENANCE OF THE LANDSCAPING ON THE EASEMENT. NO STRUCTURES, LANDSCAPING ELEMENT, FENCE, OR OTHER IMPROVEMENT MAY BE PLACED, CONSTRUCTED, LOCATED, GROWN, CULTIVATED OR ALLOWED TO REMAIN IN THE EASEMENT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE HORN RAPIDS MASTER HOMEOWNERS ASSOCIATION. THE OWNERS OF LOTS 1 AND 23 HEREBY ACKNOWLEDGE AND CONSENT TO ALLOW THE HORN RAPIDS MASTER HOMEOWNERS ASSOCIATION TO CONNECT TO THE WATER SUPPLY AND IRRIGATION SYSTEM FOR LOTS 1 AND 23 FOR THE PURPOSES OF IRRIGATING THE LANDSCAPING PLACED ON THE EASEMENT. THE HOMEOWNERS ASSOCIATION SHALL BE RESPONSIBLE FOR MAINTAINING THE IRRIGATION SYSTEM ON THE EASEMENT, BUT SHALL NOT BE OBLIGATED TO COMPENSATE THE OWNERS OF LOTS 1 AND 23 FOR WATER USAGE.

Exhibit "B"

DECLARATION OF
COVENANTS . .

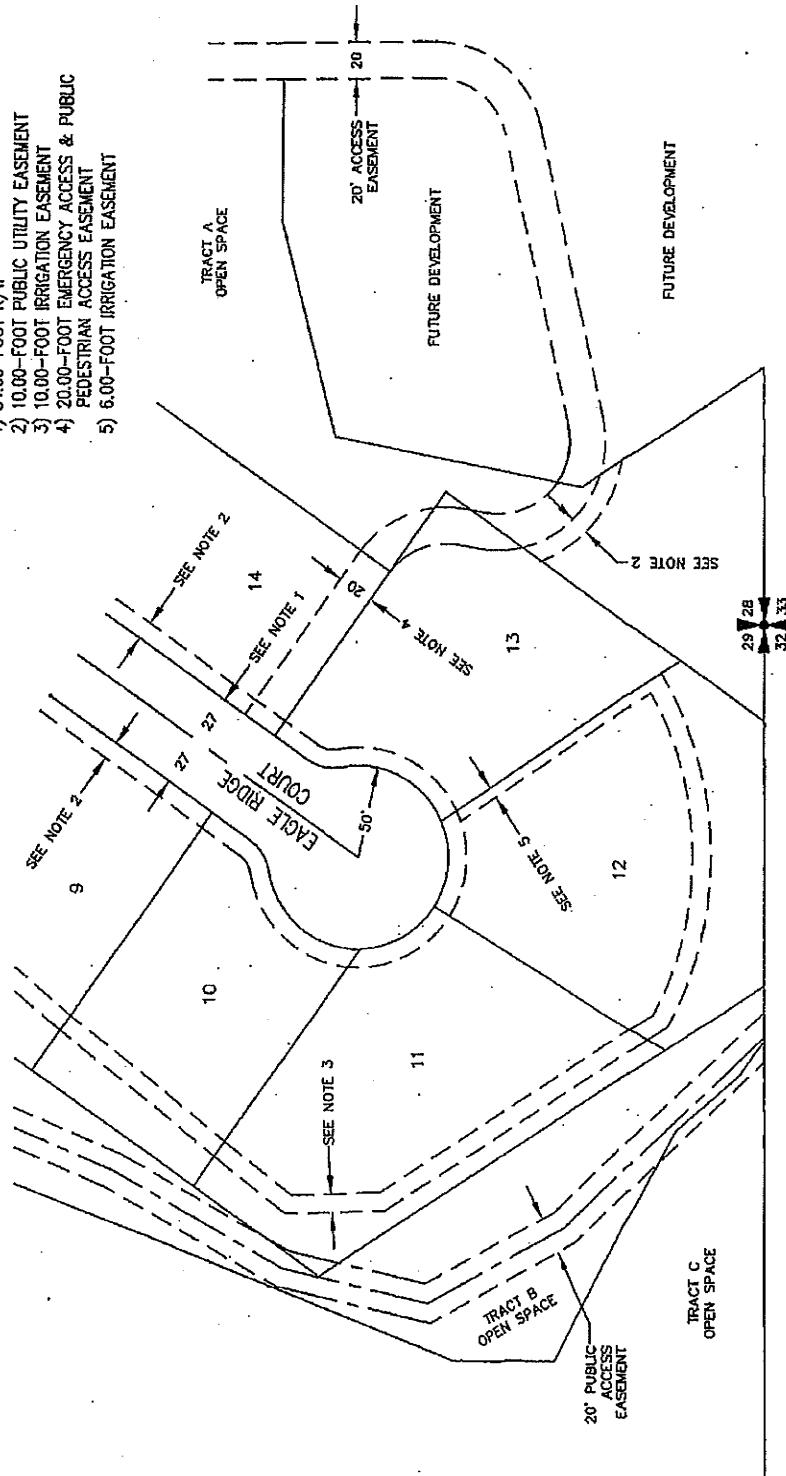
EXHIBIT B

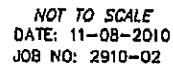
PAGE 2 OF 2

NOT TO SCALE

EAGLE RIDGE
IN A PORTION OF THE W 1/2 OF THE
SW 1/4 OF SECTION 28
AND A PORTION OF THE SE 1/4 OF
THE SE 1/4 OF SECTION 29,
T10N, R28E, WM, CITY OF RICHLAND
BENTON COUNTY, WASHINGTON

- EASEMENT & RIGHT-OF-WAY NOTES**
- 1) 54.00-FOOT R/W
 - 2) 10.00-FOOT PUBLIC UTILITY EASEMENT
 - 3) 10.00-FOOT IRRIGATION EASEMENT
 - 4) 20.00-FOOT EMERGENCY ACCESS & PUBLIC PEDESTRIAN ACCESS EASEMENT
 - 5) 6.00-FOOT IRRIGATION EASEMENT





"VIEW PRESERVATION BOUNDARY"

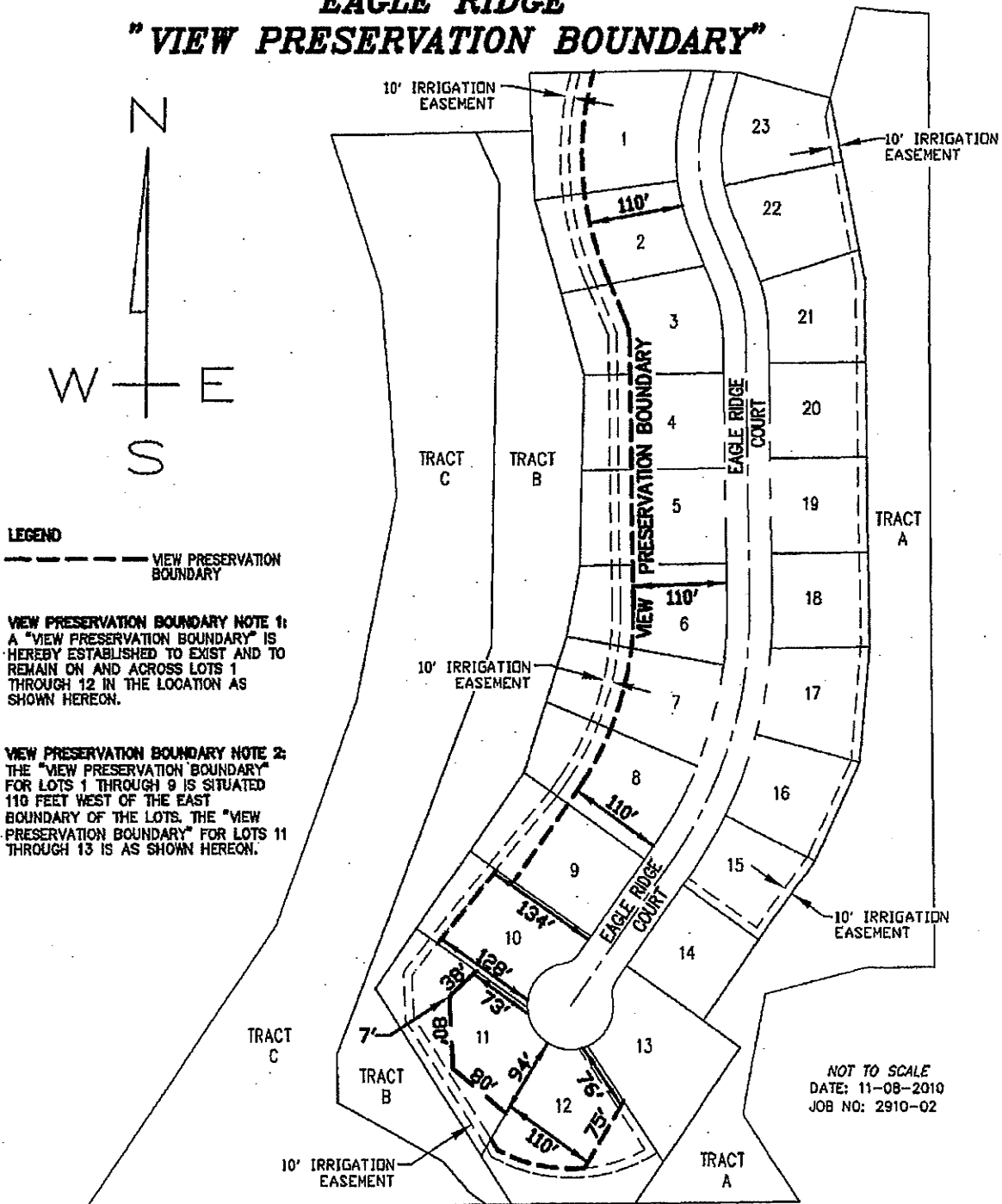


Exhibit "E"

Shannon & Wilson Report

DECLARATION OF
COVENANTS



July 14, 2006

Northstone Richland, LLC
P.O. Box 516
Stayton, Oregon 97383

Attn: Mr. Bill Lullay

**RE: GEOTECHNICAL ENGINEERING STUDY; THE RIDGE RESIDENTIAL
DEVELOPMENT; RICHLAND, WASHINGTON**

Shannon & Wilson, Inc. is pleased to present this geotechnical engineering report for the proposed The Ridge residential development in Richland, Washington. We conducted the study in general accordance with our proposal dated June 23, 2006.

This report provides earthwork, foundation, retaining walls, design infiltration rates for stormwater disposal, and International Building Code seismic design recommendations.

We appreciate the opportunity to work with you on this project. Should you have comments or questions regarding this report, or if we can be of additional service to you on another phase of this work, please contact us.

Sincerely,

SHANNON & WILSON, INC.

A handwritten signature in dark ink, appearing to read 'Dee J. Burrie'.

Dee J. Burrie, P.E.
Branch Manager

LLA:LJR:DJB/ljr

07-14-2006/22-1-02390-001 The Ridge Residential Development Ctr/cvm

303 WELLSIAN WAY • P.O. BOX 967
RICHLAND, WASHINGTON 99352
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TDD: 1-800-833-6388
www.shannonwilson.com

22-1-02390-001

SHANNON & WILSON, INC.

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SHANNON & WILSON, INC.

**GEOTECHNICAL ENGINEERING STUDY
THE RIDGE RESIDENTIAL DEVELOPMENT
RICHLAND, WASHINGTON**

1.0 INTRODUCTION

Shannon and Wilson, Inc. is pleased to present the results of our geotechnical engineering study for the proposed The Ridge residential development in Richland, Washington. Our scope of work included excavating three test pits (TP-12 through TP-14) and preparing this report. This report provides earthwork, foundation, retaining walls, design infiltration rates for stormwater disposal, and IBC seismic design recommendations.

2.0 SITE DESCRIPTION AND PROJECT BACKGROUND

The proposed development is part of the Horn Rapids Residential Development, located just south of State Highway 240 and west of Kingsgate Way in Richland Washington (Figure 1). The Ridge is one of four proposed developments located immediately south of the existing development and golf course. The tract topography varies from relatively flat, to undulating dunes. An abandoned canal crosses the north end of the proposed The Ridge development and will be removed during the grading operations. The site vegetation consists of grass, weeds, and some sagebrush.

The proposed The Ridge development is located south of the existing Horn Rapids development. The Landing development borders The Ridge on the East. The Yakima River flood plain borders the proposed development on the west. The Ridge community will have approximately 23 single-family, residential homes.

3.0 FIELD EXPLORATIONS

The field program included 19 test pits across the four developments excavated on June 29, 2006. The proposed The Ridge development included test pits TP-12 through TP-14. Mahaffey Enterprises, Inc., under subcontract with Shannon & Wilson, Inc., excavated the test pits using a CAT 420D backhoe. They excavated the test pits 4 to 5 feet below existing grades. Our engineer observed the excavations, obtained representative soil samples, and prepared test pit logs.

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We evaluated the relative soil density using a dynamic mini-cone penetrometer. The mini-cone uses a slide hammer to drive a conical tip into the soil. The number of hammer blows required to drive the cone 1¼-inch increments is roughly equivalent to a Standard Penetration Test (SPT) blow count. The blows-per-increment provides an indication of the relative soil density. We recorded the blow counts on the test pit logs. The Site and Exploration Plan (Figure 2) shows the approximate test pit locations. Appendix A presents test pit logs.

The subsurface conditions are known only at the test pit locations on the date explored and should be considered approximate. Actual subsurface conditions may vary between test pit locations.

We conducted one field infiltration test at the site. We also collected soil samples to be tested in the laboratory. Section 5.10 presents the infiltration rate recommendations.

4.0 LABORATORY TESTING

Laboratory testing consisted of grain size analyses on selected samples. We used the grain size analyses to classify the soil and estimate infiltration rates. The test results are presented in Appendix B.

5.0 SUBSURFACE CONDITIONS

The Geologic Map of Richland (WA DGER, OFR 94-8) maps the site as stabilized sand dune deposits (Qds). The map describes the dune sands as fine-grained sand and silt. Local geology indicates that outburst flood sands and silts underlie the dune sands.

The test pits indicate that loose to medium dense fine-grained sand with some silt overlays medium dense fine to medium-grained sand with some gravel. The sand soils did not stand vertical and caved into the excavations.

The test pits did not encounter groundwater. Based on well logs in the area, we anticipate that groundwater occurs approximately 25 feet below the site.

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6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 General

Loose to medium-dense sand with silt soils mantle the site. Based on the grading plan, we anticipate that the proposed site grading will require maximum 12-foot cuts and less than 6-foot fills. Grading plans also indicate slopes from 2.5H:1V to 5H:1V. Roadways and parking areas may be supported on the native sand or compacted structural fill. In our opinion, the proposed structures may be supported on conventional foundations bearing on the native sand or compacted structural fill.

The following sections present earthwork, foundations, retaining walls, design infiltration rates for stormwater disposal, and International Building Code (IBC) seismic design recommendations.

6.2 Test Pit Backfill

The test pits for this study were loosely backfilled with the excavated material. Test pits located beneath pavement or building areas should be over-excavated and backfilled with compacted structural fill that meets the compaction criteria in Section 5.3.

6.3 Earthwork

Surface vegetation, and existing structures must be stripped from building, pavement, and other areas to receive structural fill. Topsoil may be stockpiled and used in future landscape areas, if desired, but should not be used for structural fill. The native sand may be used for structural fill or backfill. We recommend removing cobbles larger than 3 inches from the fill material.

Once the surface is stripped, the top 12 inches of the exposed subgrade beneath structural fill, pavement, and building areas must be compacted. The subgrade should be compacted to a minimum in-place dry density of 92 percent of the maximum laboratory dry density as determined by the American Society for Testing and Materials (ASTM) Designation: D 1557, *Laboratory Compaction Characteristics of Soil Using Modified Effort*. If the subgrade material is too granular to permit density testing, we recommend a minimum three passes of a moderately sized, walk-behind or self-propelled, vibratory compactor to densify any material that may have been loosened during the stripping. A qualified geotechnical engineer should observe the compaction to determine if the intent of this section has been achieved.

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Structural fill placed on slopes steeper than 5H:1V should be benched into the slope in accordance with IBC Appendix J.

Utility trenching should be accomplished in accordance with Washington State Department of Transportation (WSDOT)/American Public Works Association (APWA) Standard Specifications. Based on our explorations, we anticipate that conventional excavation equipment can accomplish the proposed excavations. Utility trenches should be backfilled using structural fill compacted as specified below. Sufficient backfill should be placed over the utility before compacting with heavy compactors to prevent damage.

Structural fill and all backfill should be placed in maximum 8-inch thick loose lifts, and compacted to a minimum in-place dry density of 95 percent of the ASTM D 1557 maximum laboratory dry density. The structural fill or backfill may consist of the on-site sand and gravel. If imported material is required, we recommend using a well-graded, 2-inch-minus, pit run sand and gravel with less than 5 percent fines or crushed rock.

6.4 Excavations/Slopes

In our opinion, OSHA Soil Type C best describes the soil conditions at the site. Type C soils may have maximum temporary slopes of 1.5 Horizontal to 1 Vertical (1.5H: 1V). The sand soils typically will not stand vertical when excavated.

Permanent cut and fill slopes should be constructed with inclinations no steeper than 2H: 1V, and must be protected from both wind and water erosion. Erosion protection may consist of a vegetative cover or a minimum 3-inch layer of coarse concrete aggregate conforming to the requirements of WSDOT Specification 9-03.1(4) c, "Concrete Aggregate AASHTO Grading No. 57."

6.5 General Foundation Considerations

Our scope of work did not include providing lot specific foundation investigations. The following information provides general foundation design considerations based on the soil conditions encountered in the test pits.

In our opinion, typical single-family residences can be supported on conventional foundations bearing on the native sand soils, or compacted structural fill. Existing fill and organics soils must be removed from the building area. We recommend compacting the footing subgrades to a minimum

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92 percent of ASTM D 1557. Structural fill placed beneath footings must extend out at 1/2H:1V inclinations.

We recommend a minimum 16-inch wide continuous and 24-inch wide spread footings. The minimum footing depth is 24 inches below adjacent grades for frost protection and bearing capacity considerations. Footings constructed in accordance with the above recommendations may be designed for an allowable 2,000 pounds per square foot (psf) bearing pressure. The allowable bearing pressures presented above may be increased by 1/3 for short-term, transient loading conditions.

Retaining walls allowed to deflect may be designed for an active, equivalent fluid pressure of 35 psf per foot of depth. Retaining walls restrained from movement (basement walls) may be designed using an at-rest, equivalent fluid pressure of 55 psf per foot of depth.

The earth pressures presented above assume that no surcharge loads exist, that the backfill is level, that the retaining walls are backfilled with granular material, and will not develop hydrostatic pressures. In our opinion, a footing drain is not required because we anticipate that any water will quickly infiltrate down into the underlying sand. However, the retaining walls must be backfilled with free-draining material. Figure 3 presents a typical retaining wall detail.

Lateral loads acting on the footings may be resisted by passive earth pressures acting against the sides of the footings/grade beams and friction forces on the bottom of the footings. For lateral displacement design, the ultimate passive resistance of compacted, level backfill may be assumed equal to a 350-pcf equivalent fluid pressure. We recommend using a 0.35 friction coefficient to calculate sliding resistance between the footing bottom and the native soil or imported granular fill.

6.6 Seismic

6.6.1 IBC Seismic Design Criteria

Based on the site geology and the soil conditions encountered in the explorations, we recommend the following International Building Code (IBC) seismic design criteria.

Site Class (Table 1615.1.1)	D (Stiff soil profile)
S _s (Section 1615.1)	0.52
S ₁ (Section 1615.1)	0.16
F _a (Table 1615.1.2(1))	1.38
F _v (Table 1615.1.2(1))	2.16

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6.6.2 Liquefaction

Liquefaction can occur in loose, saturated, fine-grained soils when subject to seismic accelerations. Dry sand soils mantle the site and the underlying soils in the area are typically dense. Therefore, in our opinion, the site is not susceptible to liquefaction.

6.7 Floor Slabs

Concrete slabs-on-grade may be constructed directly on the native sand and gravel soils, or compacted structural fill. Prior to placing any slabs, we recommend compacting the top 12 inches of the exposed subgrade to a minimum in-place dry density of 95 percent of the maximum laboratory dry density determined by ASTM D 1557. A 4-inch thick leveling course of 5/8-inch base course may be placed on the compacted subgrade to provide a working surface for the slabs, if desired.

6.8 Infiltration

Our engineer attempted to perform on-site infiltration testing at the site. However, the loose fine-grained sand caved into the test pit excavations. The caving prevented collecting useful field infiltration data.

Our engineer collected soil samples for laboratory testing. Laboratory gradation samples are used to determine the grain-size distribution of the on-site soils. The United States Department of Agriculture (USDA) conducted infiltration tests on over 5,000 soil samples and developed maximum infiltration rates for different soil classifications. Based on the soil classification at the site, we recommend using a 5-inch per hour design infiltration rate.

6.9 Irrigation/Drainage

We recommend against placing heavy water demand plants next to the foundations. We recommend a low volume irrigation system for planting areas adjacent to foundations. All surface runoff should be directed away from footing areas by grading. Roof drains should be directed to a storm drain or a point at least 10 feet away from footings.

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6.10 Construction Considerations

Variations in soil conditions are possible at the site and may be encountered during construction. The geotechnical engineer should be retained to provide construction observation services during the earthwork, excavation, and foundation phases of the project. Construction observation allows the geotechnical engineer to observe the actual soil conditions exposed in the excavations and determine if the proposed design is compatible with the design recommendations, and if the conditions encountered at the site are consistent with those observed during the geotechnical study. Construction observation is conducted to reduce the potential for problems arising during and after construction. However, in all cases, the contractor is responsible for the quality and completeness of their work and for adhering to the plans, specifications, and recommendations on which their work is based.

We recommend retaining Shannon & Wilson, Inc to review the construction plans for the proposed structures, and to provide construction observations services during site grading and foundation installation. We anticipate that our services would include verifying subgrade soils, and fill compaction. We can provide construction observation services on a time and expense basis.

7.0 LIMITATIONS

The analyses, conclusions, and recommendations contained in this report are based upon site conditions, as they presently exist. We further assume that the site explorations are representative of the subsurface conditions throughout the site; i.e., site conditions are not significantly different from those disclosed by the field explorations and observations.

If subsurface conditions different from those encountered in the field explorations are observed or appear to be present beneath the excavations during construction, we should be advised at once so that we can review these conditions and reconsider our recommendations, where necessary.

If there is a substantial lapse of time between the submission of this report and the start of construction at the site, if conditions have changed because of natural forces or construction at the site, or if the design or loading configurations change, we recommend that we review this report to determine the applicability of the conclusions and recommendations concerning the time lapse or changed conditions contained in this report.

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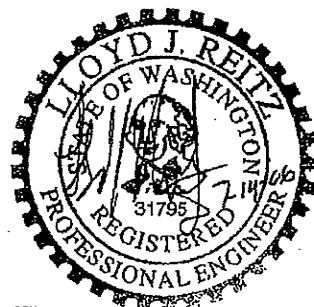
The scope of services did not include any environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous or toxic materials in the soil, surface water, groundwater, or air, on or below the site, or for the evaluation or disposal of contaminated soils or groundwater, should any be encountered.

This report was prepared for the use of Northstone Richland, LLC and their design team, in the design and construction of the proposed residential development in Richland, Washington. This report was made for a specific location on the site. Shannon & Wilson should analyze variations from the structure types or locations discussed to assess the potential geotechnical impacts of those variations on the foundation recommendations included in this report.

As an integral part of this report, we have prepared the attached "Important Information About Your Geotechnical Engineering Report," (Appendix C) to help you more clearly understand its use and limitations.

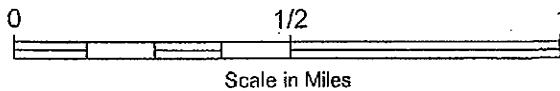
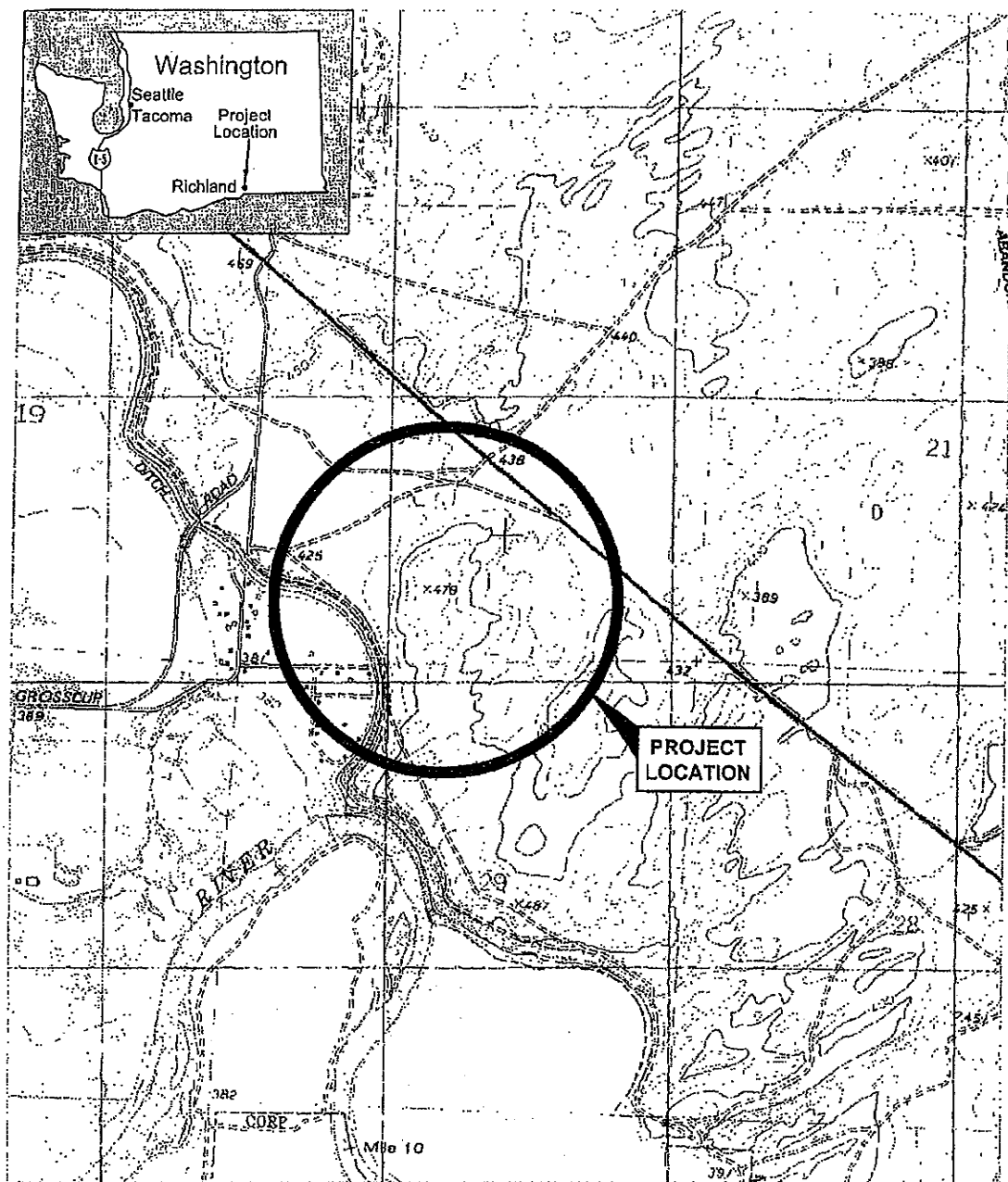
SHANNON & WILSON, INC.


Ladd L. Anderson, E.I.T.
Engineer I



EXPIRES: 7-21-07
Lloyd J. Reitz, P.E.
Senior Principal Engineer

LLA:LJR:DJB/lla



NOTE

Map adapted from 1:24,000 USGS topographic map of Richland, WA quadrangle, dated 1992.

The Ridge Residential Development
Richland, Washington

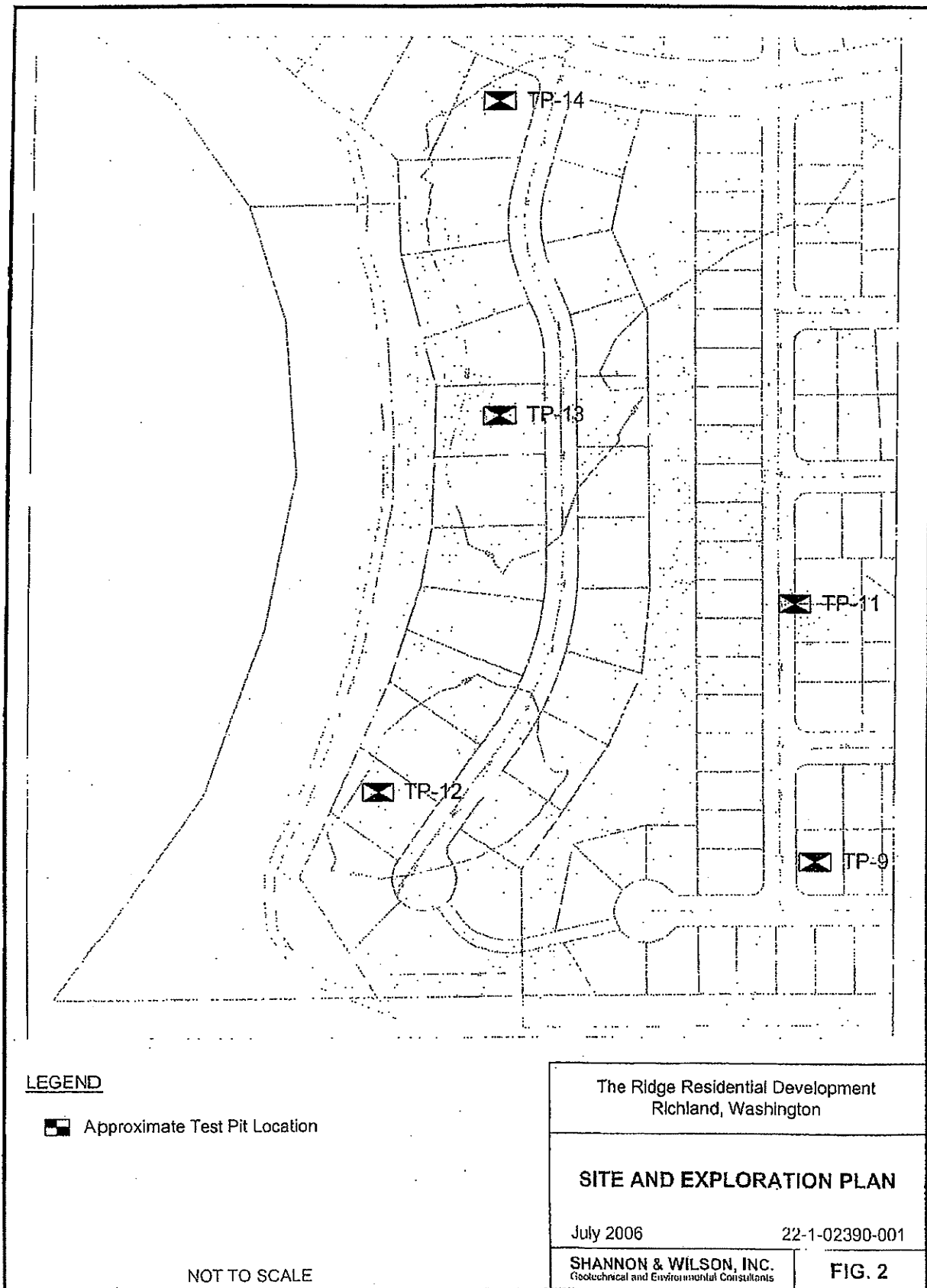
VICINITY MAP

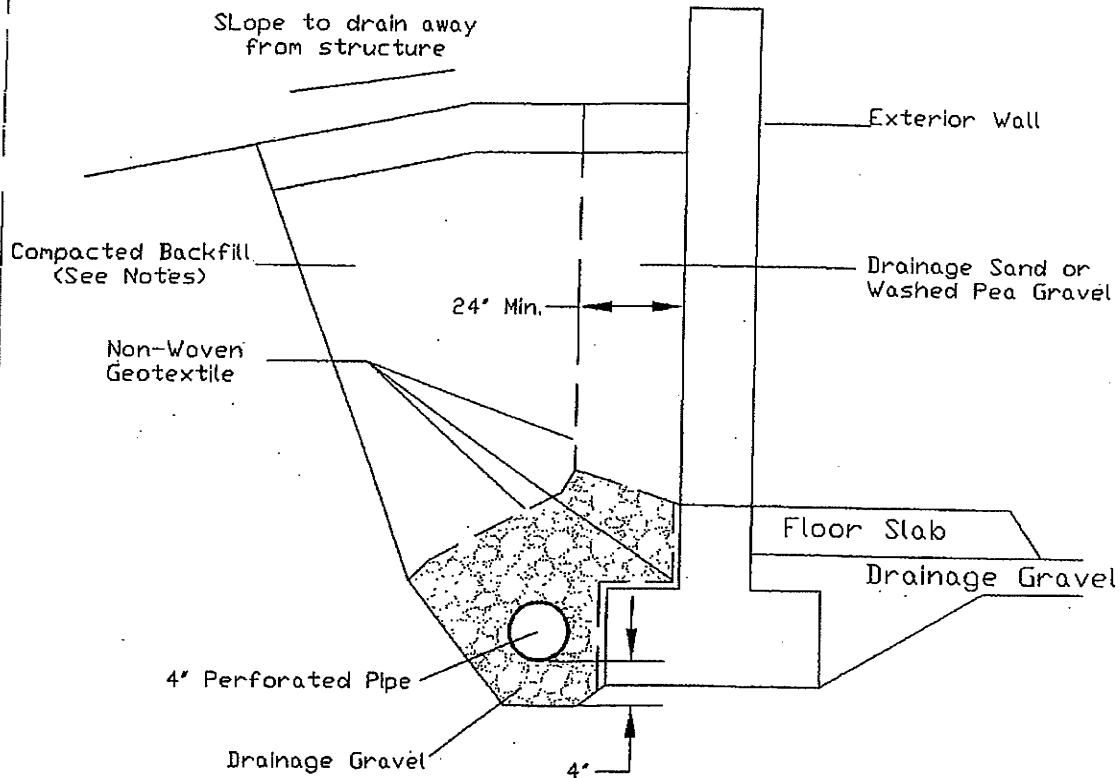
July 2006

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FIG. 1





Materials

Drainage gravel with the following specifications:

<u>Sieve Size</u>	<u>% Passing by Weight</u>
1-1/2"	100
3/4"	90 to 100
1/4"	75 to 100
No. 8	65 to 92
No. 30	20 to 65
No. 50	5 to 20
No. 100	0 to 2
(by weight (Non-plastic) sieving)	

NOTES

Backfill within 3 ft. of wall should be compacted with hand-operated equipment. Heavy equipment should not be used in this 3 ft. zone

All Backfill should be placed in loose lifts not exceeding 8 in. and compacted to a dry density of at least 95 percent of ASTM D 1557

NOT TO SCALE

The Ridge Residential Development
Richland, Washington

Retaining Wall Drainage Detail

July 2006

22-1-02390-001

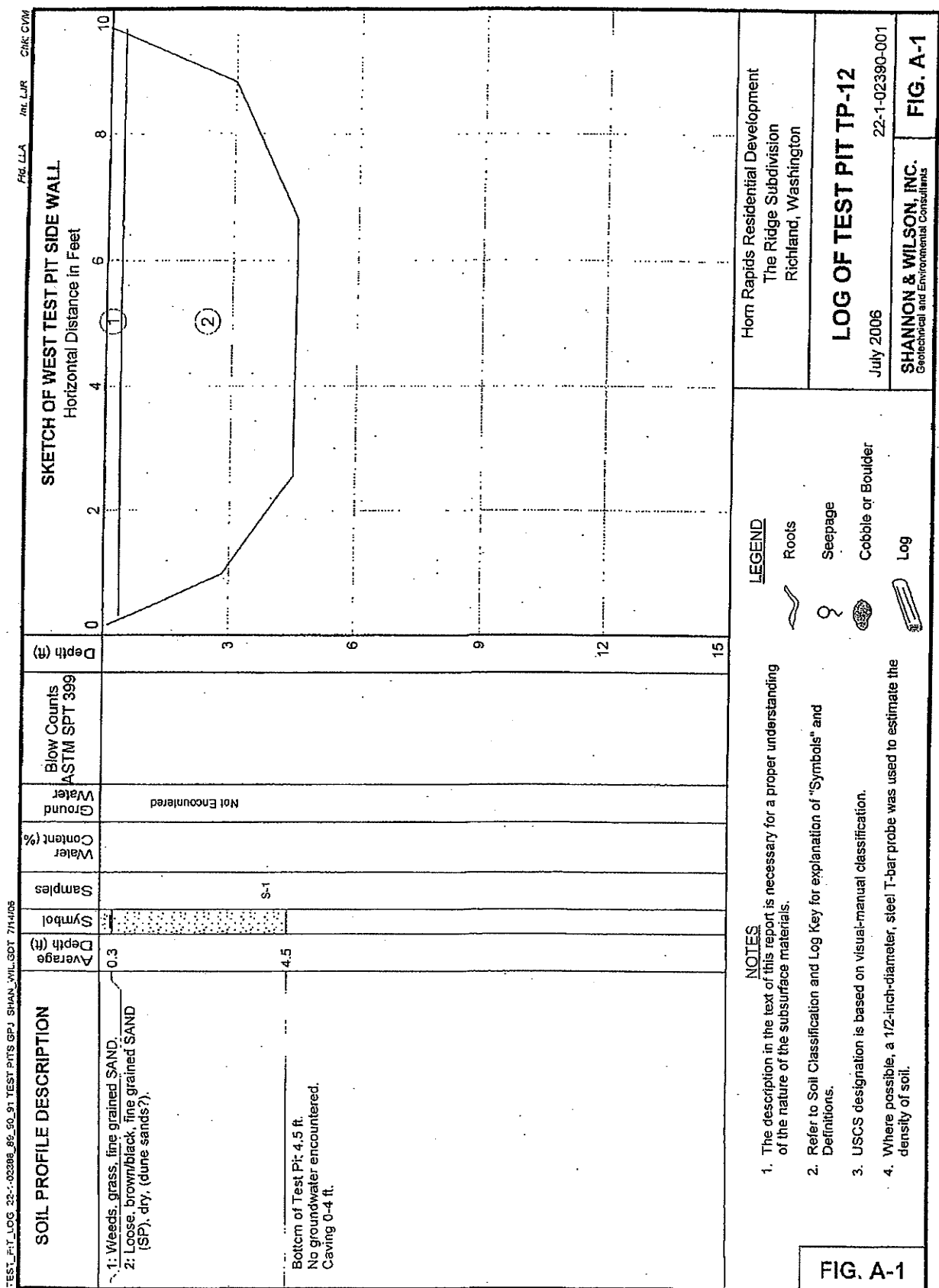
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FIG.3

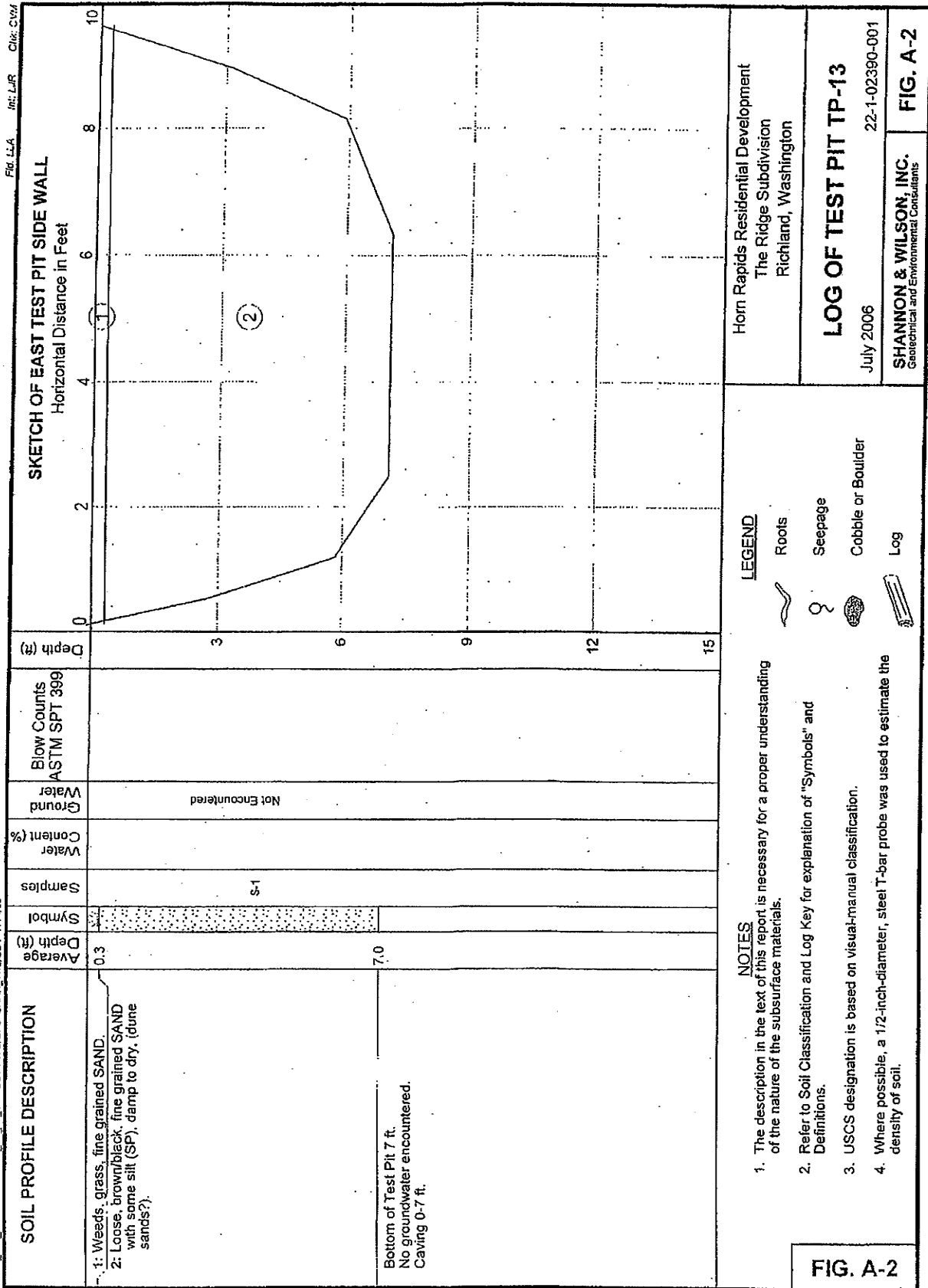
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APPENDIX A
EXPLORATORY TEST PIT LOGS

22-1-02390-001

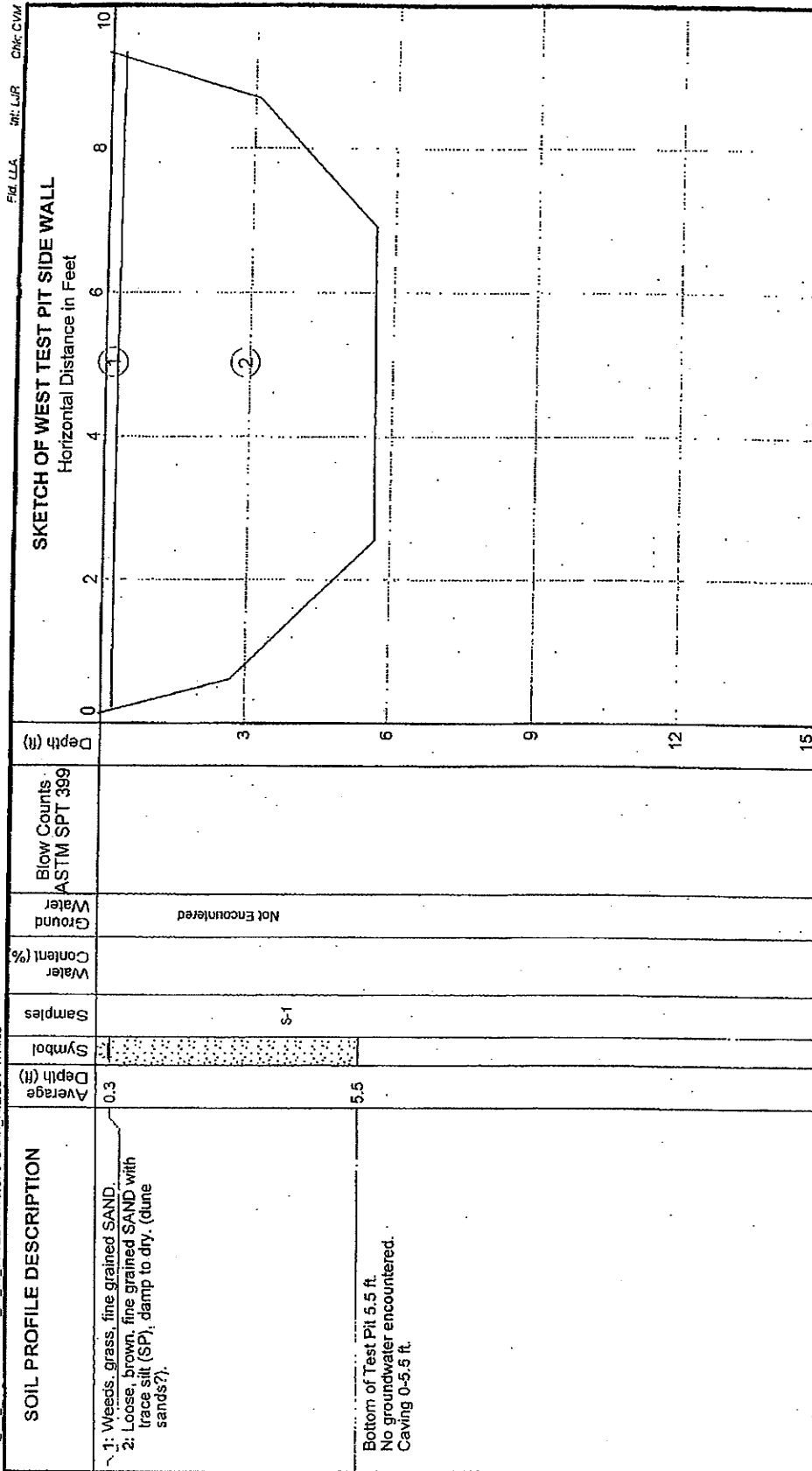


TEST_PIT_LOG 22-1-02390_96_51 TEST PIT TP-13 SHANNON & WILSON 7/14/06



TEST_PIT_CO 22-1-02328_89_90_91 TEST PITTS.GPJ SHAN WRL GDT 7/14/06

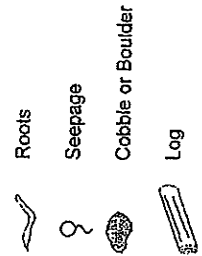
Fig LLA Int: LJR Csk: CVM



NOTES

1. The description in the text of this report is necessary for a proper understanding of the nature of the subsurface materials.
2. Refer to Soil Classification and Log Key for explanation of "Symbols" and Definitions.
3. USCS designation is based on visual-manual classification.
4. Where possible, a 1/2-inch-diameter, steel T-bar probe was used to estimate the density of soil.

LEGEND



Horn Rapids Residential Development
The Ridge Subdivision
Richland, Washington

LOG OF TEST PIT TP-14

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FIG. A-3

FIG. A-3

Key Rev.2 5-1-2000

Shannon & Wilson, Inc. (S&W), uses a soil classification system modified from the Unified Soil Classification System (USCS). Elements of the USCS and other definitions are provided on this and the following page. Soil descriptions are based on visual-manual procedures (ASTM D 2488-93) unless otherwise noted.

S&W CLASSIFICATION OF SOIL CONSTITUENTS

- MAJOR constituents compose more than 50 percent, by weight, of the soil. Major constituents are capitalized (SAND).
- Minor constituents compose 12 to 50 percent of the soil and precede the major constituents (silty SAND). Minor constituents preceded by "slightly" compose 5 to 12 percent of the soil (slightly silty SAND).
- Trace constituents compose 0 to 5 percent of the soil (slightly silty SAND, trace of gravel).

MOISTURE CONTENT DEFINITIONS

Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, from below water table

ABBREVIATIONS

ATD	At Time of Drilling
Elev.	Elevation
ft	feet
HSA	Hollow Stem Auger
ID	Inside Diameter
in	inches
lbs	pounds
Mon.	Monument cover
N	Blows for last two 6-inch increments
NA	Not Applicable or Not Available
OD	Outside Diameter
OVA	Organic Vapor Analyzer
PID	Photoionization Detector
ppm	parts per million
PVC	Polyvinyl Chloride
SS	Split Spoon sampler
SPT	Standard Penetration Test
USC	Unified Soil Classification
WLI	Water Level Indicator

GRAIN SIZE DEFINITIONS

DESCRIPTION	SIEVE SIZE
FINES	< #200 (0.8 mm)
SAND*	
• Fine	#200 - #40 (0.4 mm)
• Medium	#40 - #10 (2 mm)
• Coarse	#10 - #4 (5 mm)
GRAVEL*	
• Fine	#4 - $\frac{3}{4}$ inch
• Coarse	$\frac{3}{4}$ - 3 inches
COBBLES	3 - 12 inches
BOULDERS	> 12 inches

* Unless otherwise noted, sand and gravel, when present, range from fine to coarse in grain size.

RELATIVE DENSITY / CONSISTENCY

COARSE-GRAINED SOILS		FINE-GRAINED (COHESIVE) SOILS	
N, SPT, BLOWS/FT.	RELATIVE DENSITY	N, SPT, BLOWS/FT.	RELATIVE CONSISTENCY
0 - 4	Very loose	<2	Very soft
4 - 10	Loose	2 - 4	Soft
10 - 30	Medium dense	4 - 8	Medium stiff
30 - 50	Dense	8 - 15	Stiff
Over 50	Very dense	15 - 30	Very stiff
		Over 30	Hard

WELL AND OTHER SYMBOLS

	Cement/Concrete		Asphalt or PVC Cap
	Bentonite Grout		Cobbles
	Bentonite Seal		Fill
	Slough		Ash
	Silica Sand		Bedrock
	2" I.D. PVC Screen (0.020-inch Slot)		Gravel

Horn Rapids Residential Development
The Ridge Subdivision
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SOIL CLASSIFICATION AND LOG KEY

July 2006

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FIG. A-4
Sheet 1 of 2

Key Rev.2 5-1-2000

UNIFIED SOIL CLASSIFICATION SYSTEM (From ASTM D 2487-98 & 2.1.8.7-93)				
MAJOR DIVISIONS			GROUP/GRAPHIC SYMBOL ②	TYPICAL DESCRIPTION
Coarse-Grained Soils (more than 50% retained on No. 200 sieve) [use Dual Symbols for 5 - 12% Fines (i.e. GP-GM)] ①	Gravels (more than 50% of coarse fraction retained on No. 4 sieve)	Clean Gravels (less than 5% fines)	GW	Well-Graded Gravels, Gravel-Sand Mixtures, Little or No Fines
			GP	Poorly Graded Gravels, Gravel-Sand Mixtures, Little or No Fines
		Gravels with Fines (more than 12% fines)	GM	Silly Gravels, Gravel-Sand-Silt Mixtures
			GC	Clayey Gravels, Gravel-Sand-Clay Mixtures
	Sands (50% or more of coarse fraction passes the No. 4 sieve)	Clean sands (less than 5% fines)	SW	Well-Graded Sands, Gravelly Sands, Little or No Fines
			SP	Poorly Graded Sand, Gravelly Sands, Little or No Fines
		Sands with Fines (more than 12% fines)	SM	Silly Sands, Sand-Silt Mixtures
			SC	Clayey Sands, Sand-Silt Mixtures
Fine-Grained Soils (50% or more passes the No. 200 sieve)	Sills and Clays (liquid limit less than 50)	Inorganic	ML	Inorganic Silts of Low to Medium Plasticity, Rock Flour, or Clayey Silts With Slight Plasticity
			CL	Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean Clays
		Organic	OL	Organic Silts and Organic Silty Clays of Low Plasticity
	Sills and Clays (liquid limit 50 or more)	Inorganic	CH	Inorganic Clays of Medium to High Plasticity, Sandy Fat Clay, Gravelly Fat Clay
			MH	Inorganic Silts, Micaceous or Diatomaceous Fine Sands or Silty Soils, Elastic Silt
		Organic	OH	Organic Clays of Medium to High Plasticity, Organic Silts
Highly Organic Soils	Primarily organic matter, dark in color, and organic odor		PT	Peat, Humus, Swamp Soils with High Organic Content (See D 4427-92)

NOTES

- Dual Symbols (symbols separated by a hyphen, i.e., SP-SM, slightly silty fine SAND) are used for soils with between 5% and 12% fines or when the liquid limit and plasticity index values plot in the CL-ML area of the plasticity chart.
- Borderline symbols (symbols separated by a slash, i.e., CL/ML, silty CLAY/clayey SILT; GW/SW, sandy GRAVEL/gravelly SAND) indicate that the soil may fall into one of two possible basic groups.

Horn Rapids Residential Development
The Ridge Subdivision
Richland, Washington

SOIL CLASSIFICATION AND LOG KEY

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FIG. A-4
Sheet 2 of 2

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APPENDIX B
LABORATORY RESULTS

22-1-02390-001

L06801-T Horn Rapids 22-1-02388-001 - Lab Summary

LABORATORY SUMMARY

LABORATORY NUMBER SAMPLE NUMBER SAMPLE DATE SAMPLED BY SAMPLE TYPE DATE RECEIVED SAMPLE LOCATION	50866 1 N/A Client Bulk 6/29/2006 TP-2, S-2	50867 2 N/A Client Bulk 6/29/2006 TP-3, S-2	50868 3 N/A Client Bulk 6/29/2006 TP-6, S-2	50869 4 N/A Client Bulk 6/29/2006 TP-14, S-1	50870 5 N/A Client Bulk 6/29/2006 TP-14, S-2
	UNITS	UNITS	UNITS	UNITS	UNITS
Sample Moisture	%	2.30	2.83	2.43	3.43
	%	97	93	92	92
	%	100	99	96	81
	P	96	89	83	40
	A	81	25	9	1
	S	9	0.4	0.4	0.4
	S	1	0.4	0.4	0.4
	I	0.4	0.4	0.4	0.4
	N	0.4	0.4	0.4	0.4
	G	0.4	0.4	0.4	0.4

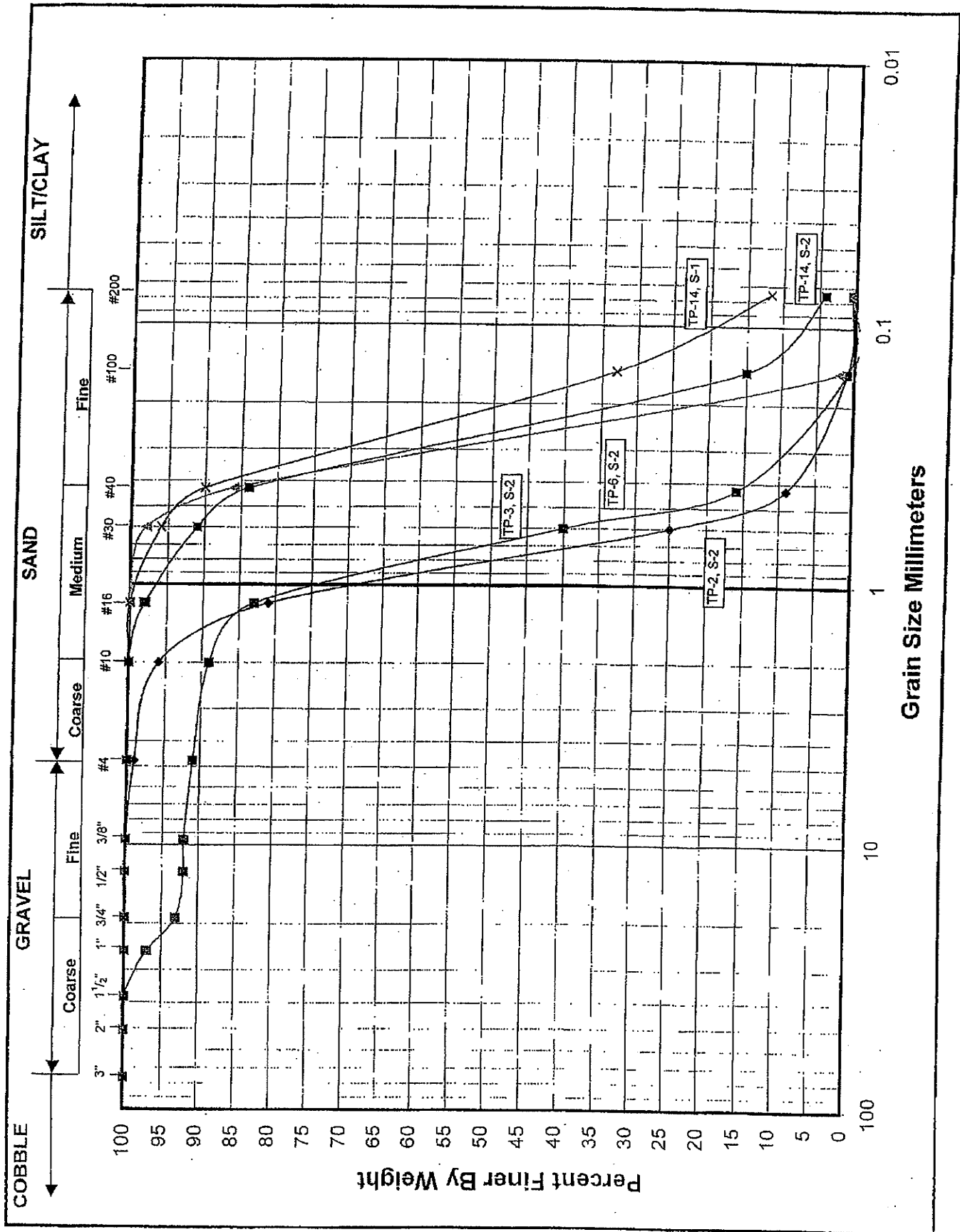
SIEVE ANALYSIS

S
I
B
V
E

S
I
Z
E

1"
3/4"
1/2"
3/8"
#4
#10
#16
#30
#40
#100
#200

Intermountain Materials Testing
A Division of Budinger & Associates, Inc.



SHANNON & WILSON, INC.

APPENDIX C

**IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL
ENGINEERING REPORT**

22-1-02390-001



SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

Attachment to and part of Report 22-I-02390-001

Date: July 14, 2006
To: Northstone Richland, LLC
The Ridge Residential Development

IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL/ENVIRONMENTAL REPORT

CONSULTING SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.

Consultants prepare reports to meet the specific needs of specific individuals. A report prepared for a civil engineer may not be adequate for a construction contractor or even another civil engineer. Unless indicated otherwise, your consultant prepared your report expressly for you and expressly for the purposes you indicated. No one other than you should apply this report for its intended purpose without first conferring with the consultant. No party should apply this report for any purpose other than that originally contemplated without first conferring with the consultant.

THE CONSULTANT'S REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

A geotechnical/environmental report is based on a subsurface exploration plan designed to consider a unique set of project-specific factors. Depending on the project, these may include: the general nature of the structure and property involved; its size and configuration; its historical use and practice; the location of the structure on the site and its orientation; other improvements such as access roads, parking lots, and underground utilities; and the additional risk created by scope-of-service limitations imposed by the client. To help avoid costly problems, ask the consultant to evaluate how any factors that change subsequent to the date of the report may affect the recommendations. Unless your consultant indicates otherwise, your report should not be used: (1) when the nature of the proposed project is changed (for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one, or chemicals are discovered on or near the site); (2) when the size, elevation, or configuration of the proposed project is altered; (3) when the location or orientation of the proposed project is modified; (4) when there is a change of ownership; or (5) for application to an adjacent site. Consultants cannot accept responsibility for problems that may occur if they are not consulted after factors which were considered in the development of the report have changed.

SUBSURFACE CONDITIONS CAN CHANGE.

Subsurface conditions may be affected as a result of natural processes or human activity. Because a geotechnical/environmental report is based on conditions that existed at the time of subsurface exploration, construction decisions should not be based on a report whose adequacy may have been affected by time. Ask the consultant to advise if additional tests are desirable before construction starts; for example, groundwater conditions commonly vary seasonally.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or groundwater fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical/environmental report. The consultant should be kept apprised of any such events, and should be consulted to determine if additional tests are necessary.

MOST RECOMMENDATIONS ARE PROFESSIONAL JUDGMENTS.

Site exploration and testing identifies actual surface and subsurface conditions only at those points where samples are taken. The data were extrapolated by your consultant, who then applied judgment to render an opinion about overall subsurface conditions. The actual interface between materials may be far more gradual or abrupt than your report indicates. Actual conditions in areas not sampled may differ from those predicted in your report. While nothing can be done to prevent such situations, you and your consultant can work together to help reduce their impacts. Retaining your consultant to observe subsurface construction operations can be particularly beneficial in this respect.

A REPORT'S CONCLUSIONS ARE PRELIMINARY.

The conclusions contained in your consultant's report are preliminary because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site. Actual subsurface conditions can be discerned only during earthwork; therefore, you should retain your consultant to observe actual conditions and to provide conclusions. Only the consultant who prepared the report is fully familiar with the background information needed to determine whether or not the report's recommendations based on those conclusions are valid and whether or not the contractor is abiding by applicable recommendations. The consultant who developed your report cannot assume responsibility or liability for the adequacy of the report's recommendations if another party is retained to observe construction.

THE CONSULTANT'S REPORT IS SUBJECT TO MISINTERPRETATION.

Costly problems can occur when other design professionals develop their plans based on misinterpretation of a geotechnical/environmental report. To help avoid these problems, the consultant should be retained to work with other project design professionals to explain relevant geotechnical, geological, hydrogeological, and environmental findings, and to review the adequacy of their plans and specifications relative to these issues.

BORING LOGS AND/OR MONITORING WELL DATA SHOULD NOT BE SEPARATED FROM THE REPORT.

Final boring logs developed by the consultant are based upon interpretation of field logs (assembled by site personnel), field test results, and laboratory and/or office evaluation of field samples and data. Only final boring logs and data are customarily included in geotechnical/environmental reports. These final logs should not, under any circumstances, be redrawn for inclusion in architectural or other design drawings, because drafters may commit errors or omissions in the transfer process.

To reduce the likelihood of boring log or monitoring well misinterpretation, contractors should be given ready access to the complete geotechnical engineering/environmental report prepared or authorized for their use. If access is provided only to the report prepared for you, you should advise contractors of the report's limitations, assuming that a contractor was not one of the specific persons for whom the report was prepared, and that developing construction cost estimates was not one of the specific purposes for which it was prepared. While a contractor may gain important knowledge from a report prepared for another party, the contractor should discuss the report with your consultant and perform the additional or alternative work believed necessary to obtain the data specifically appropriate for construction cost estimating purposes. Some clients hold the mistaken impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing the best available information to contractors helps prevent costly construction problems and the adversarial attitudes that aggravate them to a disproportionate scale.

READ RESPONSIBILITY CLAUSES CLOSELY.

Because geotechnical/environmental engineering is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in their contracts, reports and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

The preceding paragraphs are based on information provided by the
ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland