FEE $	10.00
TCP $	1589.00
SIF $	460.00

PLANNING CLEARANCE

(Single Family Residential and Accessory Structures)

Community Development Department

BLDG PERMIT NO.

Building Address 2058 SIDEWINDER CT.

Parcel No. 2697-354-15008

Subdivision Independance Ranch

Filing 12 Block 2 Lot 8

No. of Existing Bldgs 0 No. Proposed 1

Sq. Ft. of Existing Bldgs _____ Sq. Ft. Proposed 3664

Sq. Ft. of Lot / Parcel 1 +/- 13849

Sq. Ft. Coverage of Lot by Structures & Impervious Surface (Total Existing & Proposed) 30%

Height of Proposed Structure _____

OWNER INFORMATION:

Name FISHER / HOCKER

Address 2078 RAINDANCE CT.

City / State / Zip G.J. CO 81503

APPLICANT INFORMATION:

Name Brian FISHER CONST. LLC

Address 2078 Raindance CT.

City / State / Zip G.J. CO 81503

Telephone 970-778-2658

DESCRIPTION OF WORK & INTENDED USE:

- [x] New Single Family Home (*check type below)
- [ ] Interior Remodel [ ] Addition
- [ ] Other (please specify): _____

*TYPE OF HOME PROPOSED:

- [x] Site Built [ ] Manufactured Home (UBC)
- [ ] Manufactured Home (HUD)
- [ ] Other (please specify): _____

NOTES: _____

REQUIRED: One plot plan, on 8 1/2" x 11" paper, showing all existing & proposed structure location(s), parking, setbacks to all property lines, ingress/egress to the property, driveway location & width & all easements & rights-of-way which abut the parcel.

THIS SECTION TO BE COMPLETED BY COMMUNITY DEVELOPMENT DEPARTMENT STAFF

ZONE PD

SETBACKS: Front 25 from property line (PL)

Side 10 from PL Rear 20 from PL

Maximum Height of Structure(s) _____

Voting District A

Driveway Location Approval EH (Engineer's Initials)

Maximum coverage of lot by structures 35%

Permanent Foundation Required: YES X NO _____

Parking Requirement _____

Special Conditions Slope Analysis required ok EH

Modifications to this Planning Clearance must be approved, in writing, by the Community Development Department. The structure authorized by this application cannot be occupied until a final inspection has been completed and a Certificate of Occupancy has been issued, if applicable, by the Building Department (Section 305, Uniform Building Code).

I hereby acknowledge that I have read this application and the information is correct; I agree to comply with any and all codes, ordinances, laws, regulations or restrictions which apply to the project. I understand that failure to comply shall result in legal action, which may include but not necessarily be limited to non-use of the building(s).

Applicant Signature _____ Date 2-14-07

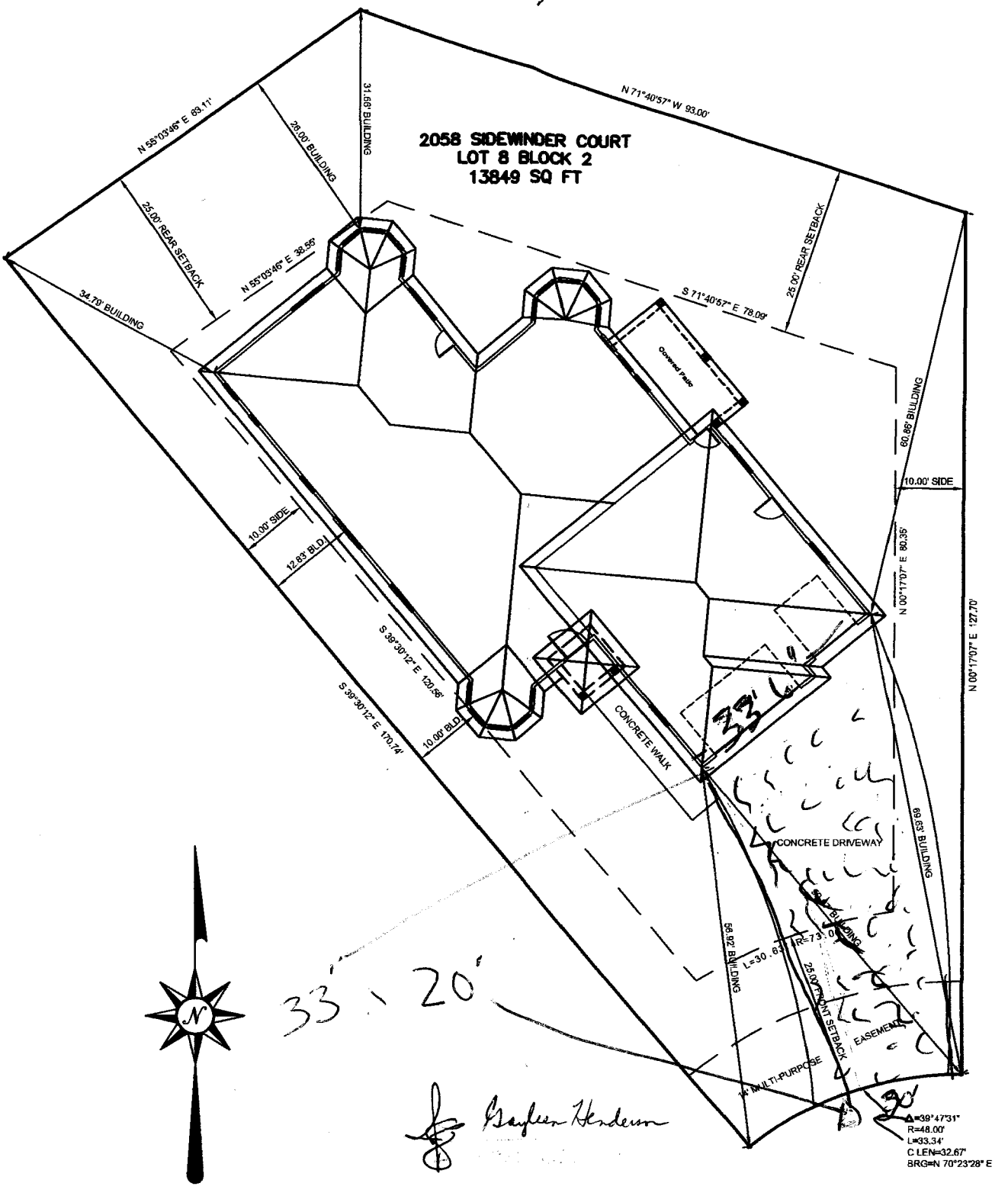
Department Approval Bayleen Henderson Date _____

Additional water and/or sewer tap fee(s) are required:	YES	NO	W/O No. 20066
Utility Accounting		Date	3/26/07

VALID FOR SIX MONTHS FROM DATE OF ISSUANCE (Section 2.2.C.1 Grand Junction Zoning & Development Code)

(White: Planning) (Yellow: Customer) (Pink: Building Department) (Goldenrod: Utility Accounting)

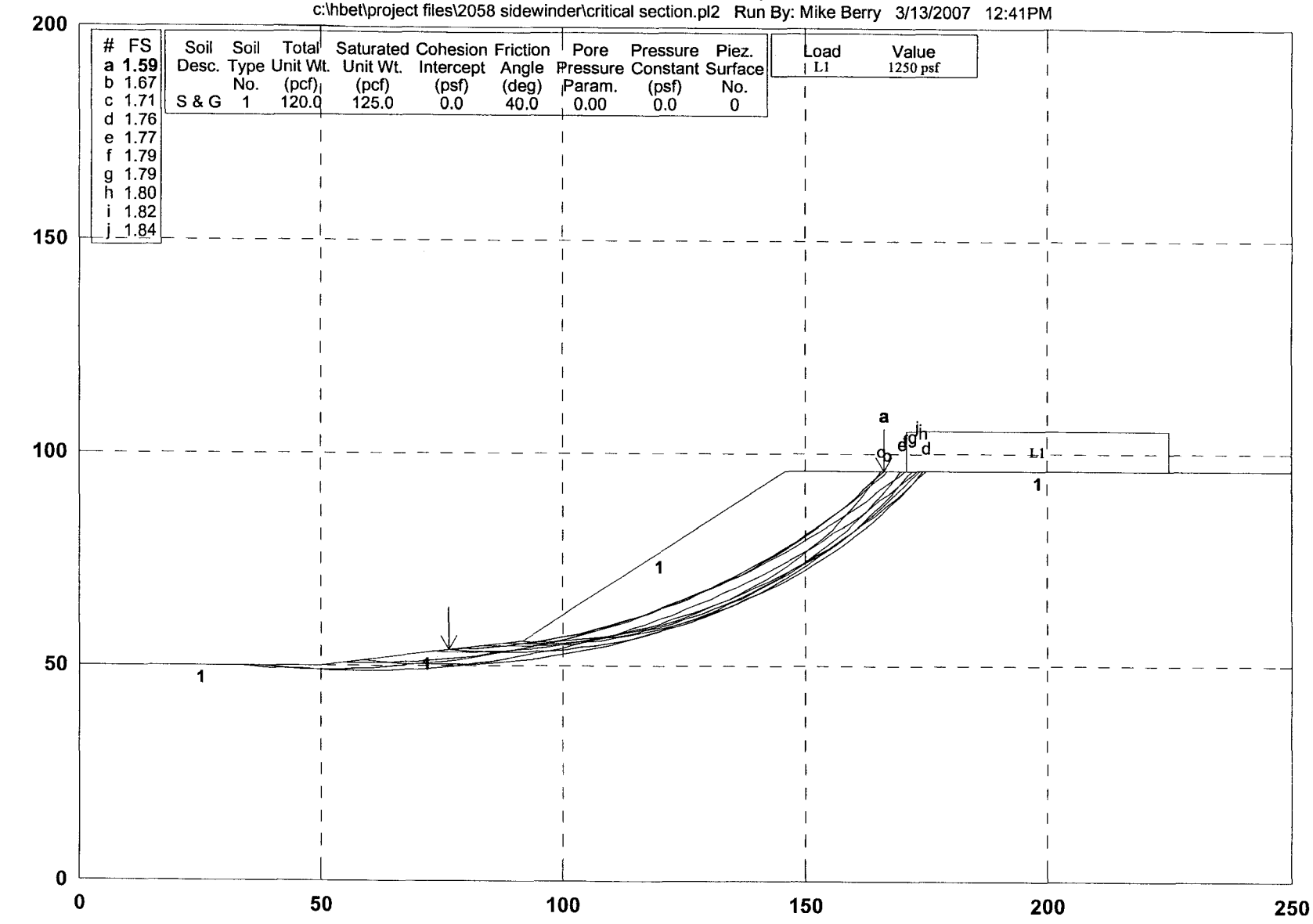
Fisher can



SIDEWINDER COURT

2058 Sidewinder Critical Section

c:\hbet\project files\2058 sidewinder\critical section.pl2 Run By: Mike Berry 3/13/2007 12:41PM



GSTABL7 v.2 FSmin=1.59

Safety Factors Are Calculated By The Modified Bishop Method

GSTABL7

From: Laura Lamberty
To: Kopfman, Justin
Date: 3/14/2007 1:32 PM
Subject: Planning Clearance for 2058 Sidewinder Court/ Slope Stability Analysis

CC: HuddlestonBerry@bresnan.net

Justin,

I have a concern regarding the slope stability analysis in reference to the submitted site plan. The site plan seems to indicate an attached covered patio that extends into the rear 25' setback along the eastern property line on the southern side. Separate from any planning concerns that may exist regarding the encroachment into the rear setback. an attached or integral part of the home roof structure appears to be partially supported by columns located in the area of concern for slope stability. Either this covered patio needs to be removed where it encroaches into the rear setback, or the geotechnical engineer should specifically approve the site layout as proposed with the foundation plan.

If the applicant or his engineer have any concerns, please contact me at 256-4155.

Laura C. Lamberty, PE
Development Engineer
City of Grand Junction
250 N 5th Street
Grand Junction, CO 81501
(970) 256-4155
(970) 256-4031 Fax

Huddleston-Berry
Engineering & Testing, LLC

640 White Avenue, Unit B
Grand Junction, CO 81501
Phone: 970-255-8005
Fax: 970-255-6818
HuddlestonBerry@bresnan.net

March 13, 2007
Project#092-07

Fisher Construction
2078 Raindance Court
Grand Junction, Colorado 81503

Attention: Brian Fisher

Subject: Geotechnical Investigation
2058 Sidewinder Court
Grand Junction, Colorado

Reference: *Slope Stability Study and Final Subsurface Exploration, Independence Ranch Subdivision, Filings 12 & 13, Grand Junction, CO* by Grand Junction Lincoln DeVore Inc. for Laughing Waters LLP, October 6, 2004

Dear Mr. Fisher,

This letter presents the results of a geotechnical investigation conducted for 2058 Sidewinder Court in Grand Junction, Colorado. The site location is shown on Figure 1. The proposed construction is anticipated to consist of a single-family residence. The scope of our investigation included evaluating the subsurface conditions at the site to aid in developing foundation recommendations for the proposed construction. In addition, due to the proximity of the site to steep slopes, our investigation included slope stability evaluation.

Site Conditions

At the time of the investigation, the site was generally open and the building pad had been pushed out. The vicinity of the building pad was nearly level; however, approximately 1.5H:1V to 3H:1V slopes ran along the northern property boundary. The slopes were approximately forty feet high. Vegetation in the vicinity of the building pad was limited to scattered weeds; however, vegetation along the slopes consisted of abundant brush and a few large trees. The site was bordered by an existing residence to the west, Sidewinder Court to the south, a vacant lot to the east, and open land to the north.

Subsurface Investigation

The subsurface investigation included two test pits as shown on Figure 2 – Site Plan. Test Pits TP-1 and TP-2 were excavated to depths of 9.0 and 9.5 feet below the existing ground surface, respectively. Test pits logs are included in Appendix A.

As shown on the test pit logs, the subsurface conditions at the site were fairly consistent. The test pits generally encountered 1.5 to 2.5 feet of clayey sand with gravel and cobbles fill above brown, dry, loose to medium dense silty sand to depths of between 7.5 and 8.0 feet. Below the sand, brown, dry, dense sandy gravel with cobbles extended to the bottoms of the excavations. Groundwater was not encountered in the test pits at the time of the investigation.

Laboratory Testing

Laboratory testing was conducted on soil samples collected in the test pits. The testing included grain-size analysis, Atterberg limits determination, natural moisture and density determination, soluble sulfates content, swell/consolidation testing, and optimum moisture/density (Proctor) determination. The laboratory testing results are included in Appendix B.

The laboratory testing results indicate that the silty sand soils at the site are non-plastic. In addition, the soils were shown to be slightly collapsible with up to approximately 0.4% collapse measured in the laboratory. The soluble sulfates content of the soils was determined to be 62 parts-per-million.

Foundation Recommendations

Based upon information provided to Huddleston-Berry Engineering and Testing, LLC (HBET) a spread footing foundation is proposed. A spread footing foundation is appropriate; however, as discussed previously, the native silty sand soils are slightly collapsible. Therefore, in order to limit the potential for excessive differential settlements, it is recommended that the foundations be constructed above a minimum of 24-inches of structural fill.

The existing fill materials are not suitable for reuse as structural fill. However, the native silty sand soils are suitable for reuse as structural fill. Imported structural fill should consist of a granular, non-expansive, non-free draining material such as pit-run or CDOT Class 6 base course. However, if pit-run is used as structural fill, a minimum of 6-inches of base course or other suitable fill material should be placed above the pit-run to prevent large point stresses on the bottoms of the foundations due to large particles in the pit-run.

Prior to placement of structural fill, it is recommended that the bottom of the foundation excavation be scarified to a depth of 6 to 8 inches, moisture conditioned, and compacted to a minimum of 95% of the standard Proctor maximum dry density, within ± 2% of the optimum moisture content as determined in accordance with ASTM D698. Structural fill should extend laterally beyond the edges of the foundation a distance equal to the thickness of structural fill. Structural fill should be moisture conditioned, placed in maximum 8-inch loose lifts, and compacted to a minimum of 95% of the standard Proctor maximum dry density for fine grained soils and modified Proctor maximum dry density for coarse grained soils, within ± 2% of the optimum moisture content as determined in accordance with ASTM D698 and D1557C, respectively.

For the foundation building pad prepared as recommended, a maximum allowable bearing capacity of 1,250 psf may be used. In addition, a modulus of subgrade reaction of 200 pci may be used. The bottoms of exterior foundations should extend a minimum of 24-inches below grade for frost protection.

As discussed previously, the soluble sulfates content of the native soils was determined to be 62 ppm. This concentration represents a negligible degree of potential sulfate attack on concrete exposed to the native soils. Therefore, sulfate resistant cement may not be required for construction at this site.

Stemwalls and any retaining walls at the site should be designed to resist lateral earth pressures. For backfill consisting of the native soils, or imported granular, non-free draining, non-expansive material, we recommend that the walls be designed for an equivalent fluid unit weight of 50 pcf in areas where no surcharge loads are present. Lateral earth pressures should be increased as necessary to reflect any surcharge loading behind the walls.

Floor Slab and Exterior Flatwork Recommendations

The native soils are suitable for support of floor slabs and exterior flatwork. However, it is recommended that floor slabs and exterior flatwork be constructed above subgrade soils that have been scarified to a depth of 9 to 12 inches, moisture conditioned, and compacted to a minimum of 95% of the standard Proctor maximum dry density, within ±2% of optimum moisture content as determined in accordance with ASTM D698.

Drainage Recommendations

Grading around the structure should be designed to carry precipitation and runoff away from the structure. It is recommended that the finished ground surface drop at least twelve inches within the first ten feet away from the structure. Downspouts should empty beyond the backfill zone. It is also recommended that landscaping within three feet of the structures include primarily desert plants with low water requirements. In addition, it is recommended that irrigation within ten feet of foundations be minimized or controlled with automatic shut off valves.

In general, most slope failures are caused by excess moisture. Therefore, due to the presence of steep slopes along the north side of the property, it is recommended that automatic irrigation systems not be installed on the north side of the structure. In addition, it is recommended that drainage around the structure be designed to limit the potential for infiltration of excess moisture into the subsurface on this property.

Slope Stability

The referenced report by Grand Junction Lincoln DeVore (GJLD) indicates that the project site lies in an area of 'special slope stability concern'. Based upon their slope stability analyses, GJLD established a twenty-five feet setback from the slopes along the northern property boundary. As mentioned previously, the slopes were observed to be approximately forty feet high.

In order to evaluate the stability of the slopes, analysis was conducted using the GSTABL7 computer software program. Based upon the results of the analysis, the proposed construction will not impact the stability of the slopes. Given that the proposed building envelope lies outside of the twenty-five feet setback, and assuming drainage around the structure is maintained in accordance with the recommendations above, HBET believes that the proposed construction will have no adverse impact upon the stability of the existing slopes. The results of the slope stability analysis are included in Appendix C.

Huddleston-Berry
Engineering & Testing, LLC

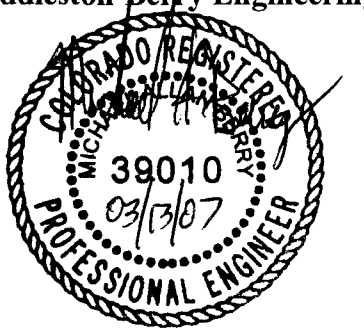
General Notes

The recommendations included above are based upon the results of the subsurface investigation and on our local experience. These conclusions and recommendations are valid only for the proposed construction.

As discussed previously, the subsurface conditions at the site were observed to be fairly consistent. Although HBET believes that the subsurface investigation was sufficient to adequately characterize the range of subsurface conditions at the site, the precise nature and extent of any subsurface variability may not become evident until construction. Therefore, it is recommended that a representative of HBET observe the foundation excavation prior to structural fill placement to verify that the subsurface conditions are consistent with those described herein. In addition, it is recommended that a representative of HBET test compaction of structural fill materials.

We are pleased to be of service to your project. Please contact us if you have any questions or comments regarding the contents of this report.

Respectfully Submitted:
Huddleston-Berry Engineering and Testing, LLC



Michael A. Berry, P.E.
Vice President of Engineering

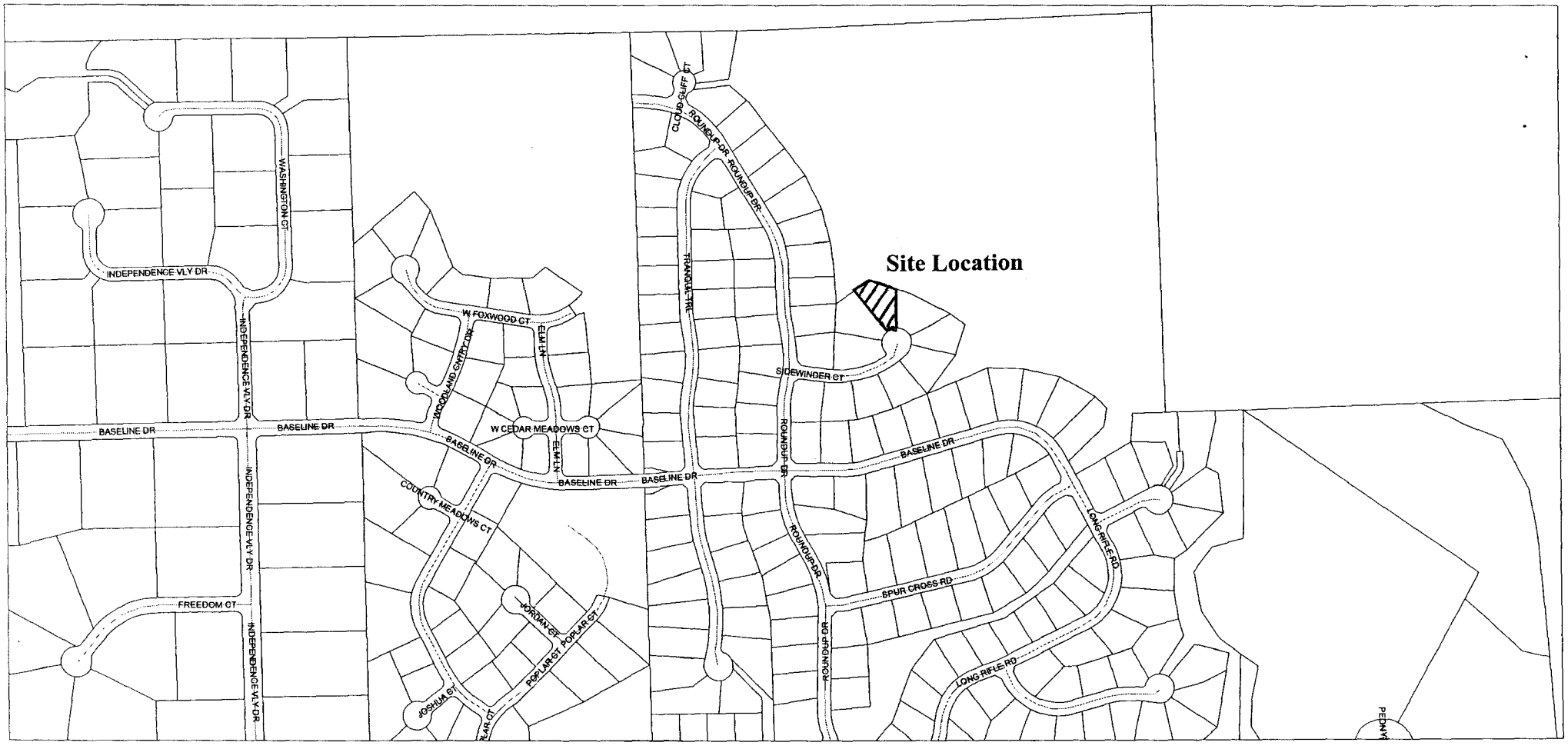
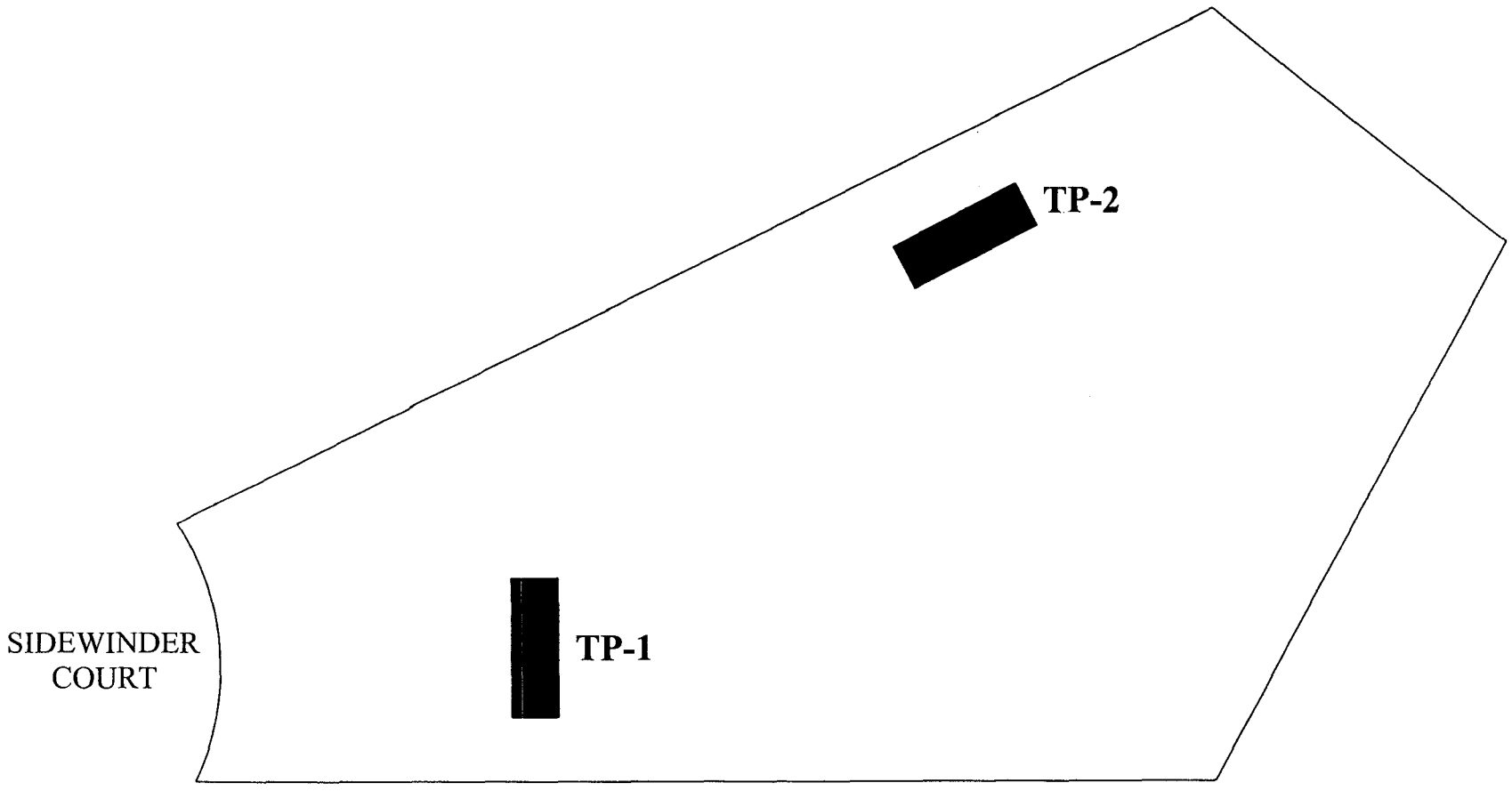


FIGURE 1
Site Location Map



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NOTE: DRAWING NOT TO SCALE

Project No.: 092-07 Date: 03/13/07 By: MAB	2058 SIDEWINDER COURT FIGURE 2 - SITE PLAN	**Huddleston-Berry** Engineering & Testing, LLC 640 White Avenue, Unit B Grand Junction, CO 81501

APPENDIX A
Typed Test Pit Logs

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

TEST PIT NUMBER TP-1

CLIENT Fisher Construction
PROJECT NAME 2058 Sidewinder
PROJECT NUMBER 092-07
PROJECT LOCATION Fruita, CO
DATE STARTED 2/22/07 **COMPLETED** 2/22/07
GROUND ELEVATION ___ **TEST PIT SIZE** ___
EXCAVATION CONTRACTOR Client
GROUND WATER LEVELS:
EXCAVATION METHOD Backhoe
AT TIME OF EXCAVATION dry
LOGGED BY JAH **CHECKED BY** MAB
AT END OF EXCAVATION dry
NOTES ___
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Clayey SAND with Gravel and Cobbles (FILL), brown, dry to moist										
2.5		Silty SAND (SM), brown, dry, loose to medium dense	MC 1				97	5				
		GB1: Lab Classified	GB 1					3	NP	NP	NP	20
5.0												
7.5		Sandy GRAVEL with Cobbles (gw), brown, dry, dense										
		Bottom of test pit at 9.0 feet.										

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

TEST PIT NUMBER TP-2

CLIENT Fisher Construction **PROJECT NAME** 2058 Sidewinder

PROJECT NUMBER 092-07 **PROJECT LOCATION** Fruita, CO

DATE STARTED 2/22/07 **COMPLETED** 2/22/07 **GROUND ELEVATION** _____ **TEST PIT SIZE** _____

EXCAVATION CONTRACTOR Client **GROUND WATER LEVELS:**

EXCAVATION METHOD Backhoe **AT TIME OF EXCAVATION** dry

LOGGED BY JAH **CHECKED BY** MAB **AT END OF EXCAVATION** dry

NOTES _____ **AFTER EXCAVATION** ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Silty SAND with Gravel, Cobbles and Clay (FILL), brown, dry to moist										
		Silty SAND (sm), brown, dry, medium dense	MC 1				105	5				
2.5												
5.0												
7.5		Sandy GRAVEL with Cobbles (gw), brown, dry, dense										
		Bottom of test pit at 9.5 feet.										

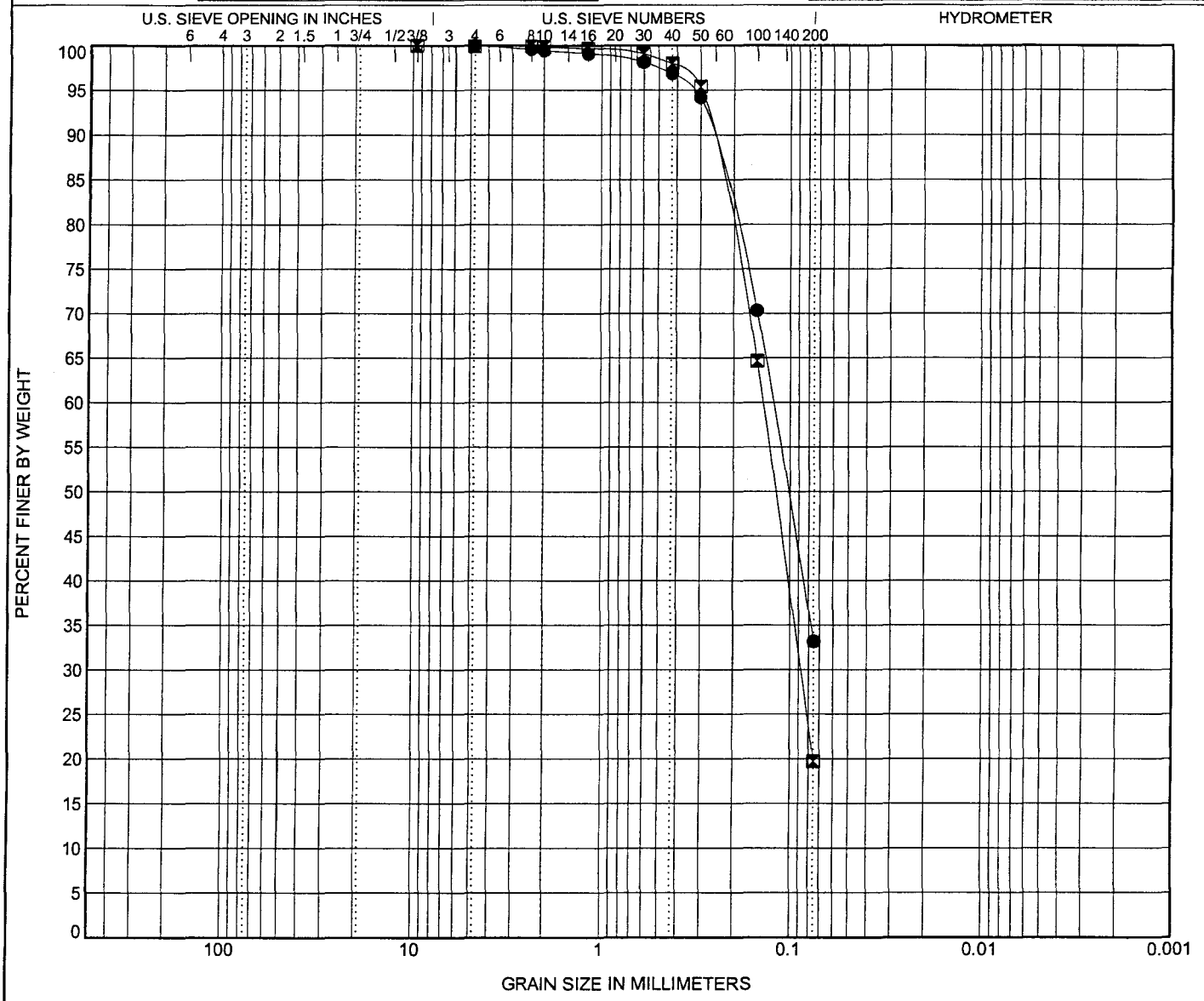
APPENDIX B
Laboratory Testing Results

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

GRAIN SIZE DISTRIBUTION

CLIENT Fisher Construction **PROJECT NAME** 2058 Sidewinder

PROJECT NUMBER 092-07 **PROJECT LOCATION** Fruita, CO



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Classification	LL	PL	PI	Cc	Cu
●	On-site native2/07	SILTY SAND(SM)	NP	NP	NP		
⊠	TP-1, GB1 2/07	SILTY SAND(SM)	NP	NP	NP		

	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	On-site native2/07	4.75	0.124			0.0	66.8	33.2	
⊠	TP-1, GB1 2/07	9.5	0.14	0.088		0.1	80.2	19.7	

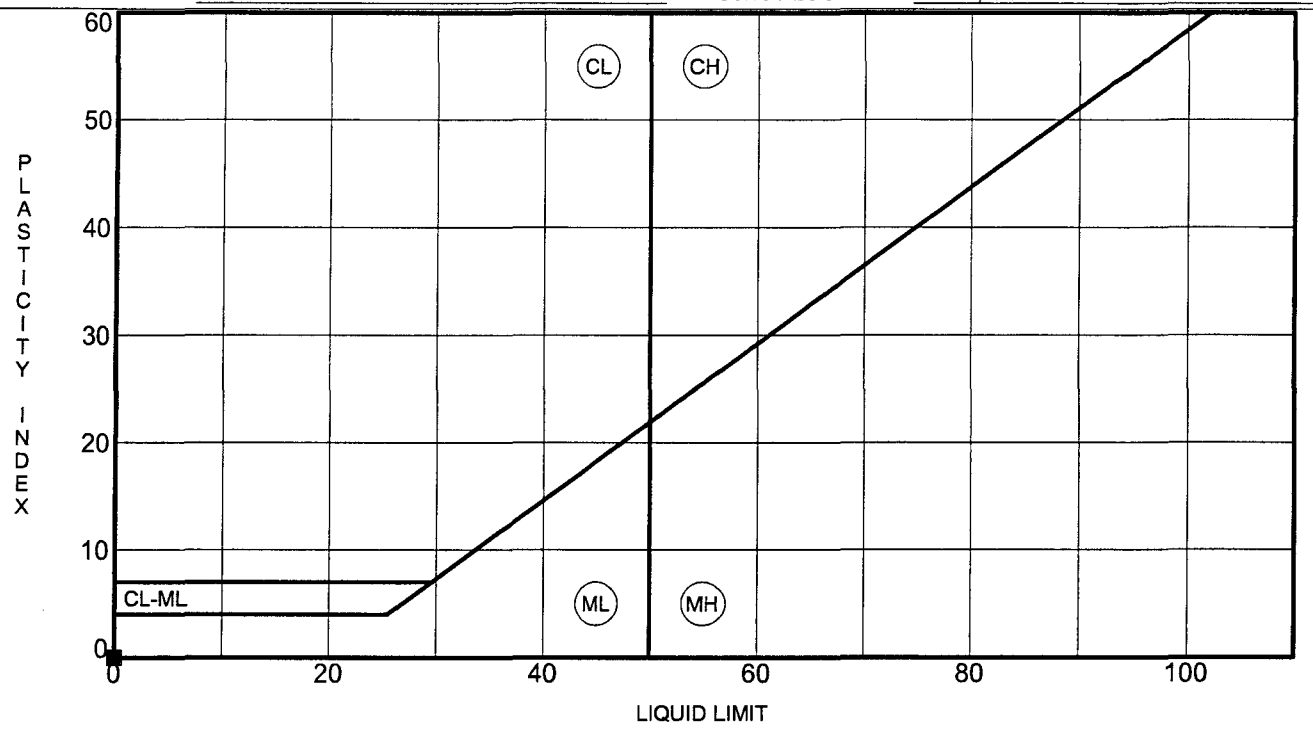
GRAIN SIZE 092-07.GPJ GINT US LAB.GDT 3/13/07

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

ATTERBERG LIMITS' RESULTS

CLIENT Fisher Construction **PROJECT NAME** 2058 Sidewinder

PROJECT NUMBER 092-07 **PROJECT LOCATION** Fruita, CO



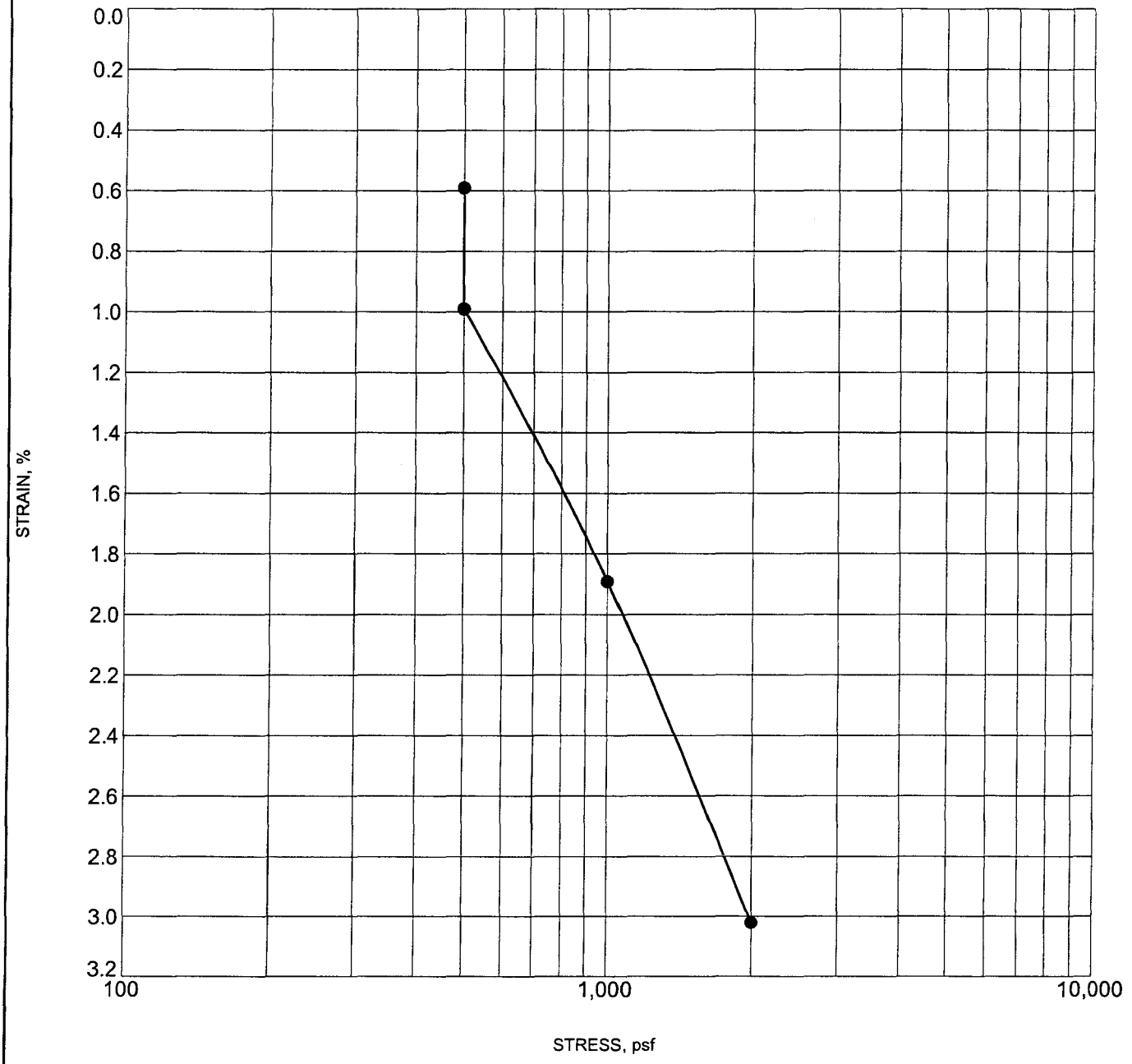
	Specimen Identification	LL	PL	PI	#200	Classification
●	**On-site native 2/22/2007**	**NP**	**NP**	**NP**	**33**	**SILTY SAND(SM)**
⊠	**TP-1, GB1 2/22/2007**	**NP**	**NP**	**NP**	**20**	**SILTY SAND(SM)**

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

CONSOLIDATION TEST

CLIENT Fisher Construction **PROJECT NAME** 2058 Sidewinder

PROJECT NUMBER 092-07 **PROJECT LOCATION** Fruita, CO



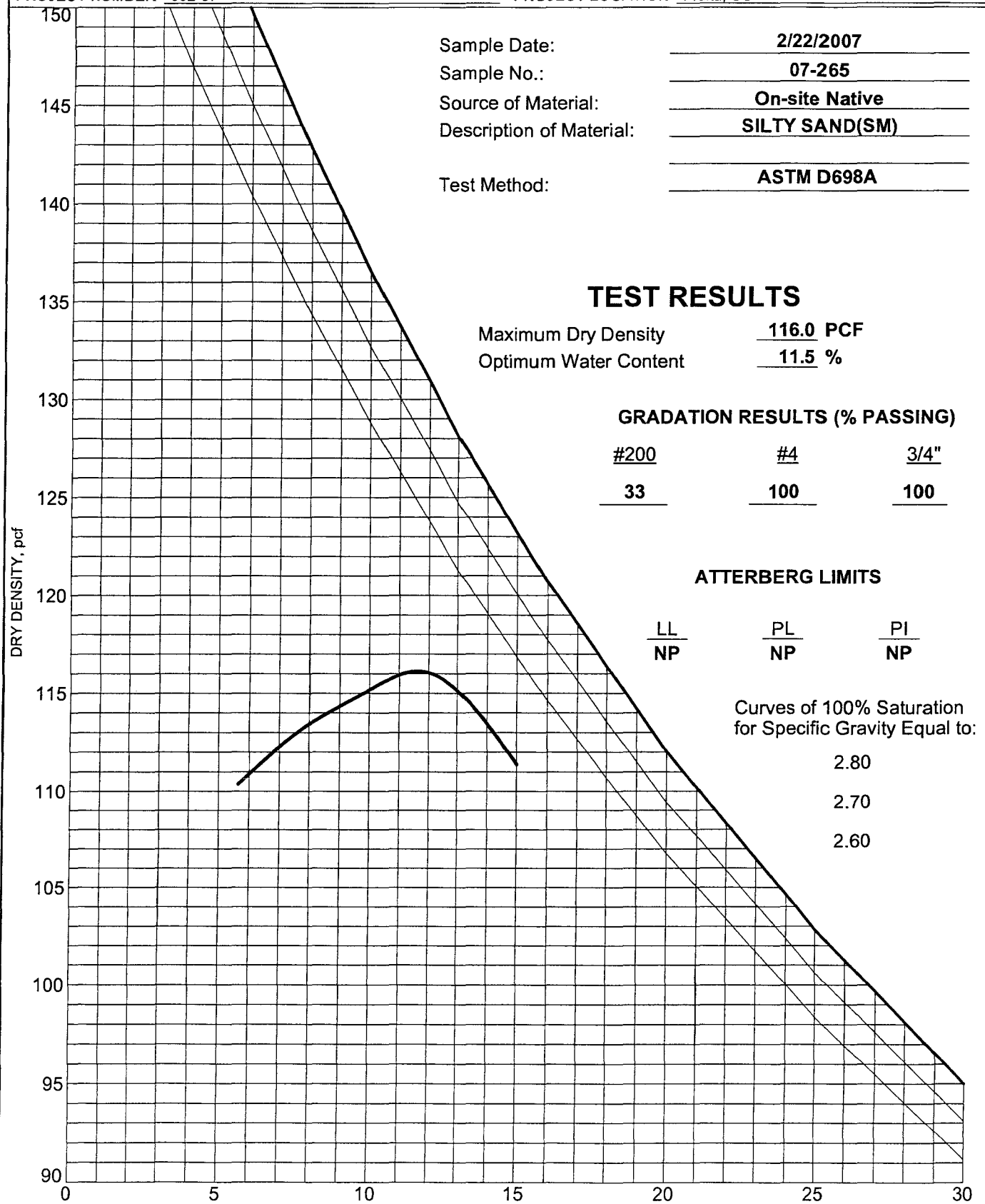
Specimen Identification		Classification	γ_d	MC%
● TP-1	3.0		97	5

Huddleston-Berry Engineering & Testing, LLC
640 White Avenue, Unit B
Grand Junction, CO 81501
970-255-8005
970-255-6818

MOISTURE-DENSITY RELATIONSHIP

CLIENT Fisher Construction **PROJECT NAME** 2058 Sidewinder

PROJECT NUMBER 092-07 **PROJECT LOCATION** Fruita, CO



Sample Date:	2/22/2007
Sample No.:	07-265
Source of Material:	On-site Native
Description of Material:	SILTY SAND(SM)
Test Method:	ASTM D698A

TEST RESULTS

Maximum Dry Density	116.0 PCF
Optimum Water Content	11.5 %

GRADATION RESULTS (% PASSING)

#200	#4	3/4"
33	100	100

ATTERBERG LIMITS

LL	PL	PI
NP	NP	NP

Curves of 100% Saturation for Specific Gravity Equal to:

2.80

2.70

2.60

COMPACTION 092-07.GPJ GINT US LAB.GDT 3/13/07