

# Table of Contents

File 1980-0048  
Date 7/3/01

Project Name: Darwin Subdivision – Final Plan

|   |   |  |
|---|---|--|
| P | S | <p><b>A few items are denoted with an asterisk (*), which means they are to be scanned for permanent record on the ISYS retrieval system. In some instances, not all entries designated to be scanned are present in the file. There are also documents specific to certain files, not found on the standard list. For this reason, a checklist has been included.</b></p> <p><b>Remaining items, (not selected for scanning), will be marked present on the checklist. This index can serve as a quick guide for the contents of each file.</b></p> <p><b>Files denoted with (**) are to be located using the ISYS Query System. Planning Clearance will need to be typed in full, as well as other entries such as Ordinances, Resolutions, Board of Appeals, and etc.</b></p> |
| r | c |  |
| e | a |  |
| n | n |  |
| e | e |  |
| d | d |  |
| X | X | <b>*Summary Sheet – Table of Contents</b>  |
|   |   | Application form   |
|   |   | Receipts for fees paid for anything  |
|   |   | <b>*Submittal checklist</b>  |
|   |   | <b>*General project report</b>   |
|   |   | Reduced copy of final plans or drawings  |
|   |   | Reduction of assessor's map  |
|   |   | Evidence of title, deeds   |
| X | X | <b>*Mailing list</b>   |
|   |   | Public notice cards  |
|   |   | Record of certified mail   |
| X |   | Legal description  |
|   |   | Appraisal of raw land  |
|   |   | Reduction of any maps – final copy   |
|   |   | <b>*Final reports for drainage and soils (geotechnical reports)</b>  |
|   |   | Other bound or nonbound reports  |
|   |   | Traffic studies  |
|   |   | Individual review comments from agencies   |
|   |   | <b>*Consolidated review comments list</b>  |
|   |   | <b>*Petitioner's response to comments</b>  |
|   |   | <b>*Staff Reports</b>  |
|   |   | <b>*Planning Commission staff report and exhibits</b>  |
|   |   | <b>*City Council staff report and exhibits</b>   |
|   |   | <b>*Summary sheet of final conditions</b>  |
|   |   | <b>*Letters and correspondence dated after the date of final approval (pertaining to change in conditions or expiration date)</b>  |

## DOCUMENTS SPECIFIC TO THIS DEVELOPMENT FILE:

|   |   |  |   |   |  |
|---|---|--|---|---|--|
| X | X | Action Sheet   | X |   | Deed   |
| X | X | Review Sheet Summary   | X |   | Grading, Drainage and Utilities Composite  |
| X | X | Power of Attorney - **   | X | X | Subdivision Map - ** - see Historical Maps   |
| X |   | Certification of plat  | X |   | Letter to Mesa County Planning to Tell Tappan, Health Physicist, ARIX - Gamma radiation survey – no tailings indicated |
| X | X | Letter from Stephen Rice to Dick Weber re: Geotechnical study – 8/26/80  | X |   | Development Summary Form   |
| X |   | Fire Flow Survey   |   |   |  |
| X | X | Planning Commission Minutes - ** - 8/26/80                               |   |   |  |
| X |   | Letter from Alex Candelaria to Dick Weber re: Public Hearing for 9/17/80 |   |   |  |
| X |   | Final Plat Application   |   |   |  |
| X |   | Chicago Insurance Commitment for Title Insurance                         |   |   |  |
| X |   | Minor Subdivision Application  |   |   |  |

REVIEW SHEET SUMMARY

FILE# 48-80

ITEM DARWIN SUB MINOR-FINAL

DATE SENT TO REVIEW DEPT 7-02-80

DATE DUE 7-14-80

PETITIONER Dick Weber

LOCATION West of 28½ Rd., approx 462' South of North Ave

| <u>DATE REC.</u> | <u>AGENCY</u>  | <u>COMMENTS</u>   |
|------------------|----------------|---|
| 7-02-80          | TECH REVIEW    | None  |
| 7-9-80           | CITY UTILITIES | How is sanitary sewage to be served?  |
| -10-80           | G.J. DRAINAGE  | Need R-O-W for drain at southwest corner of lot 2.  |
| 7-10-80          | CITY FIRE      | Hydrant spacing will be every 300' along 28½ rd. on minimum 8" looped line. Additional onsite hydrants may be required. Fire flow survey will be required prior to issuance of building permits. Recommend installation of water lines and fire hydrants prior to beginning construction.<br><br>Contact Jim Patterson, City of Grand Junction as to upgrading the 6" line in 28½ rd. and looping it down to Grand.   |
| 7-14-80          | CITY ENGR.     | The power of attorney form submitted incorrectly lists "28½" Road instead of "28½" and the POA should be executed prior to recording the plat. The power of attorney should include a reference to their share of piping the existing major drain ditch which exists in 28½ Road. The right-of-way dedication shown for 28½ Road is appropriate to accomodate extension of the street improvements from the north. An easement probably should be granted for where the Fruitvale Lateral and Waste Ditch Company ditch apparently crosses the southwest corner of the site. This ditch is the <u>only</u> storm drainage outlet for this neighborhood. Where is this property in relation to Gunnison Ave? We should not close off the future extension of Gunnison Ave. |
| 7-16-80          | PUBLIC SERVICE | Electric: 15' easement north side of Lots 1 & 2; 15' easement south side Lot 2.<br>Gas: No Objection. Existing main in 28½ Rd.  |
| 7-16-80          | TRANS. ENG.    | No comment.   |
| 7-16-80          | PARKS & REC.   | None  |

STAFF RECOMMENDATION

Recommend approval subject to:

Need correct description on P.O.A. before recording plat.

What is going to occur on Lot 2?

Plat should show drainage on the So. west corner of lot 2 & indicate easement or R.O.W. on drainage ditch.

Collector R.O.W. (for Gunnison) or South of Lot 2.

7-29-80        GJPC -    FLAGER/SIMONETTI PASSED 4-0 A MOTION TO RECOMMEND APPROVAL TO THE CITY COUNCIL OF # 48-80 DARWIN MINOR SUBDIVISION, SUBJECT TO STAFF COMMENTS, RIGHT-OF-WAY FOR GUNNISON AVENUE, AND THE STIPULATION THAT LOT ONE OR LOT TWO WILL NOT BE BUILT UPON UNTIL THE SEWER SITUATION IS RESOLVED.



REVIEW SHEET SUMMARY

FILE# 48-80

ITEM DARWIN SUB-FINAL PLAT

DATE SENT TO REVIEW DEPT. 8-06-80

DATE DUE 8-18-80

PETITIONER \_\_\_\_\_

LOCATION 462' S. of North Ave., East of 28 1/2

| <u>DATE REC.</u> | <u>AGENCY</u> | <u>COMMENTS</u>  |
|------------------|---------------|--|
| 8-12-80          | MT. BELL      | No objections  |
| 8-14-80          | CITY UTL      | Water (8") and sewer mains should be installed in 28 1/2 Road prior to street improvements being made.   |
| 8-14-80          | G.J. DRAINAGE | O.K.   |
| 8-18-80          | TRANS. ENG.   | No comment.  |
| 8-18-80          | UTE WATER     | This development would be served by the City of Grand Junction.  |
| 8-18-80          | G.J. FIRE     | Water supply and line size inadequate. An 8 inch or larger water line must be extended from existing 6 inch inch at 28 1/2 and North are down 28 1/2 Road to 6 & 24 frontage road. Hydrants, additional hydrants, may be required on site.   |
| 8-18-80          | CITY ENG.     | As shown in their calculations, this development will generate significantly more storm runoff. The existing drain ditch will need to be improved to urban standards as this area develops. The right-of-way at the corner of 28 1/2 Road and Gunnison Avenue should have a 20 ft. radius. Right-of-way widths shown are appropriate. Power of attorney for full street improvements for both 28 1/2 Road and Gunnison Avenue should be granted prior to recording the plat. How will access be provided initially (until the public streets are constructed)? If needed for access, they can construct 22 ft. of mat, |

STAFF RECOMMENDATIONS

Recommend approval as per comments.

CITY ENG.  
CON'T

curb, gutter and sidewalk on their side as per our standards for phased development. Public sewer and water should be provided by the petitioner to serve any buildings on Lots 1 or 2. Detailed plans for those sewers and waterlines should be submitted for my approval prior to construction and prior to issuance of any building permits.

8-26-80 PUBLIC SERVICE Gas: No objections. Existing main in 28 1/2 Rd. Electric: No objections. Note: An overhead electric and phone line exist along the south property line.

8-27-80 PARKS & REC. None

8-26-80/GJPC/RIDER/FLAGER PASSED 6-0 A MOTION TO RECOMMEND APPROVAL TO THE CITY COUNCIL OF THE FINAL PLAT, DARWIN SUBDIVISION, PROVIDED THAT THE WATER AND SEWER MAINS BE INSTALLED PRIOR TO STREET IMPROVEMENTS, AND THAT THE STREET IMPROVEMENTS BE IN PLACE PRIOR TO ISSUANCE OF BUILDING PERMITS.

Acres 9.7  
Units 2 LOTS  
Density \_\_\_\_\_

CITY ACTION SHEET

File # 48-80

Zone C-2

Activity DARWIN SUB.  
Phase FINAL  
Date Submitted 7/31/80  
Date Mailed Out 8/6/80  
Date Posted 8/15/80  
Legal Ad Date \_\_\_\_\_  
Date Neighbors Notified--  
Planning Commission 8-19-80

Date Neighbors Notified--  
City Council \_\_\_\_\_  
Date CIC Legal Ad \_\_\_\_\_  
Hearing Date--  
Planning Commission 8/26/80  
Hearing Date--  
City Council \_\_\_\_\_  
10 Review Period-Return By 8/18/80

Review Agencies

Send

\_\_\_\_ COUNTY ROAD DEPARTMENT  
 MOUNTAIN BELL  
 PUBLIC SERVICE COMPANY  
 FIRE  
 IRRIGATION G. U.  
 DRAINAGE B. J.  
 SEWER FRUITVALE  
 WATER (UTE, CLIFTON)  
\_\_\_\_ FLOODPLAIN  
 CITY ENGINEER

\_\_\_\_ CITY UTILITIES  
 CITY POLICE  
 TRANSPORTATION ENGINEER  
 PARKS AND RECREATION  
 ENERGY OFFICE  
 TECH REVIEW  
\_\_\_\_ WATER AND POWER RESOURCES

Common Location 462' So. OF NORTH AVE. EAST OF 28~~th~~ 1/4

| <u>Board</u>        | <u>Date</u> | <u>Comments</u>  |
|---------------------|-------------|--|
| <del>G.J.P.C.</del> |             |  |
| G.J.P.C.            | 7/26/80     | <del>approved</del> recommended approval of preliminary plat   |
| CIC                 | 8/20/80     | approved preliminary plat  |
| G.J.P.C.            | 8/26/80     | Approved - Final plat subject to that the water & sewer mains be installed prior to st. imp. & that the st. sys. be in place prior to issuance of B.P. |
| CIC                 | 9/17/80     | Approved - Subject to P.C.   |

Staff Comments

Need Title Commitment 8/6/80  
" Soil Evaluation 8/6/80  
" POA 28~~th~~

Original Documents

\_\_\_\_ Improvement Agreement  
\_\_\_\_ Improvement Guarantee  
\_\_\_\_ Covenants  
\_\_\_\_ Development Schedule

~~2943~~

2943 -182 - 00 -063 ✓

-012 —

-016 —

02 -019

-049 —

Bruce Troy

316 County Club Park

City -03

J.W. Collins

P.O. Box 11320

St. Louis, MO 63105

J. Squirrel

P.O. Box 115

~~Thomas~~ Amarian CO 81220

Darwin M. Wilcox

2700 G Rd.

City - 81501

~~B~~ Dick Weber

425 North Ave

City - 81501

**GTL** **GEO TESTING**  
Geotechnical Engineering and Materials Testing  
**LABORATORIES, INC.**

26 August 1980

Dick Weber  
425 North Avenue  
Grand Junction, Colorado 81501

Attention: Mr. Weber

Re: Darwin Subdivision

Gentlemen:

We have completed our geotechnical studies of the proposed Darwin Subdivision. Data from our field and laboratory studies, along with our analyses and recommended design criteria have been summarized and are presented in the attached report. If you have any questions, please call.

Yours truly,

GEO TESTING LABORATORIES, INC.

*Stephen G. Rice*

Stephen G. Rice  
Secretary/Treasurer

SGR/mfs



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Site Conditions.....1  
Sub Soils.....1  
Foundations.....2  
Floor Slabs.....2  
Wetting of Foundation Soils.....3  
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## INTRODUCTION

We made this study to assist in determining the best types and depths of foundations for the structure and design criteria for them. Data from our field and laboratory work are summarized on Figures #1 through 5, attached.

## PROPOSED CONSTRUCTION

We understand the proposed buildings will be single story slab on grade type construction similar to those in the surrounding area of North Avenue and the I-70 Bypass.

For the purpose of our analyses, we assumed maximum column loads on the order of 30 Kips and wall loads of 1 Kip/ft.

If final designs vary from these assumptions, we should be advised to permit re-evaluation of our recommendations and conclusions.

## SITE CONDITIONS

The proposed subdivision is located south of North Avenue and is bordered on the West by 28 $\frac{1}{2}$  Road. The site contains approximately 10 acres. A concrete lined irrigation ditch runs along the East property line as well as a ditch on the North property line which is not lined. The site is relatively flat and vacant with grass and weeds. Drainage is slight and to the South towards the Mesa County ditch. No bedrock outcroppings were noted on the property.

## SUB SOILS

Our test holes showed stiff silts and clays to a depth of approximately 5 to 7 feet and with increasing depth the clays and silts became soft to very soft. Sands and gravels were encountered at a depth of approximately 28.0 feet. The upper

clays showed moderate consolidation upon loading and moderate swelling upon wetting.

Groundwater was encountered in all holes at approximately 10.0 feet or where caving had occurred after drilling. Because of the increasing moisture at 5.0 to 7.0 feet we suggest that no garden level or basements be constructed at this site.

#### FOUNDATIONS

We have considered several types of foundations for the proposed building, including spread footings and driven piling. Founding the buildings with spread footings on the natural silty clays involves a "normal" risk of foundation movement. Founding the buildings with driven piling would reduce the risk of foundation movement. We believe considering safety, economy, and the ever present risk of movement involved in any type of foundation, spread footings on the natural silty clays would be the most practical. The foundation criteria included herein is for spread footings only. However, should you decide upon a lower risk alternative, such as driven piling, we would be happy to discuss the criteria for them with you.

Spread footings placed below frost depth of about 3.0 feet should be designed for a maximum soil bearing pressure of 2000 PSF and a minimum soil bearing pressure of 1000 PSF.

#### FLOOR SLABS

We believe the most practical type of floor used in conjunction with spread footing foundations would be a floating slab-on-grade construction, we suggest the following:

1. Place a minimum of 4" of gravel beneath the slab compacted to a minimum of 70% relative density (ASTM D-2049) or 95% of Proctor density (ASTM D-698) whichever applies to the chosen material.

2. Provide moderate slab reinforcement and carry the reinforcement through the interior slab joints, but not to the foundation walls or load bearing walls.
3. Omit under slab plumbing. Where such plumbing is unavoidable, pressure test is during construction to minimize the possibility of leaks that result in foundation wetting. Utility trenches should be compacted to a minimum of 95% maximum dry density as determined by ASTM D-698.

#### WETTING OF FOUNDATION SOILS

Wetting of foundation soils always causes some degree of volume change in the soils and should be prevented during and after construction. Methods of doing this included compaction of "impervious" backfill around the structure, provision of an adequate grade for rapid runoff of surface water away from the structure, and discharge of roof downspouts and other water collection systems well beyond the limits of the backfill.

#### GENERAL INFORMATION

Our exploratory test holes were spaced as closely as feasible in order to obtain a comprehensive picture of the sub soil conditions; however, erratic soil conditions may occur between test borings. If such conditions are found in exposed excavations, it is advisable that we be notified to observe the conditions in the foundation excavation.

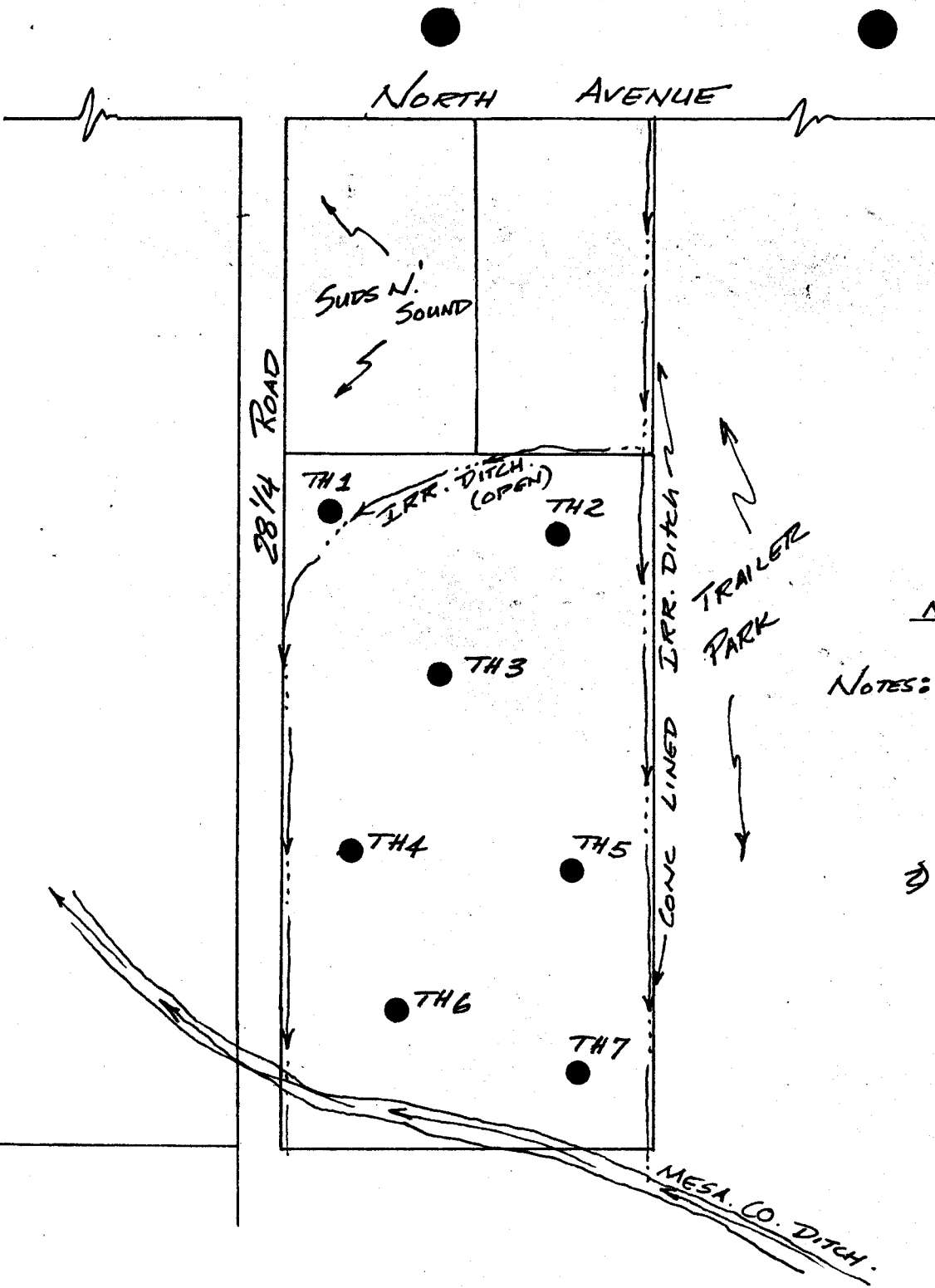
GEO TESTING LABORATORIES, INC.

*Stephen G. Rice*

Stephen G. Rice  
Secretary/Treasurer

approved by:

Andrew A. Porter, P.E.  
President

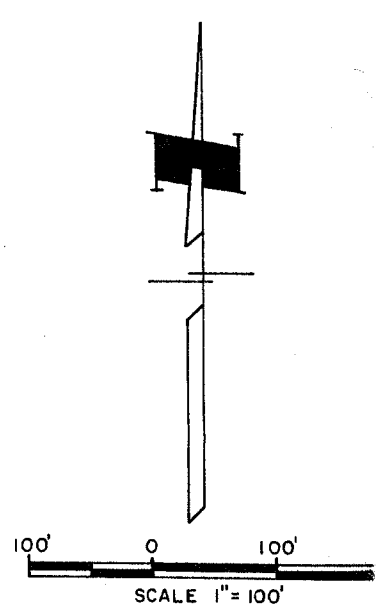
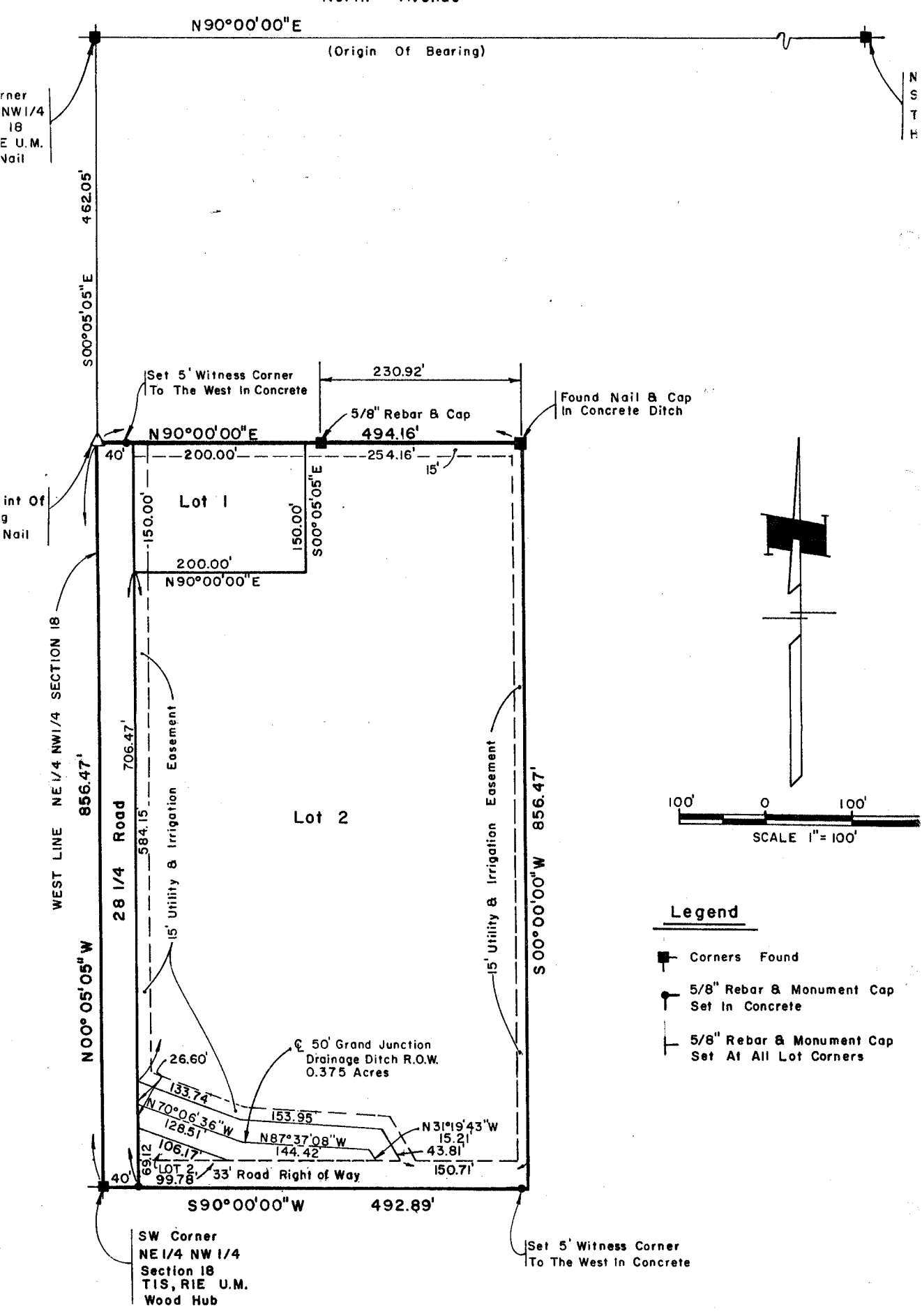


NOTES: 1) THESE TEST HOLES WERE DRILLED ON AUG. 5, 1980, USING 4" CONTINUOUS FLIGHT AUGER POWERED BY A CHE 55 DRILL RIG.

2) THE LOCATION OF THESE TEST HOLES IS APPROXIMATE.

**GT GEO TESTING**  
 Geotechnical Engineering and Materials Testing  
**LABORATORIES, INC.**  
 DARWIN SUBD. - Job 999-25  
 LOCATION OF TEST HOLES

Fig. 1



**Legend**

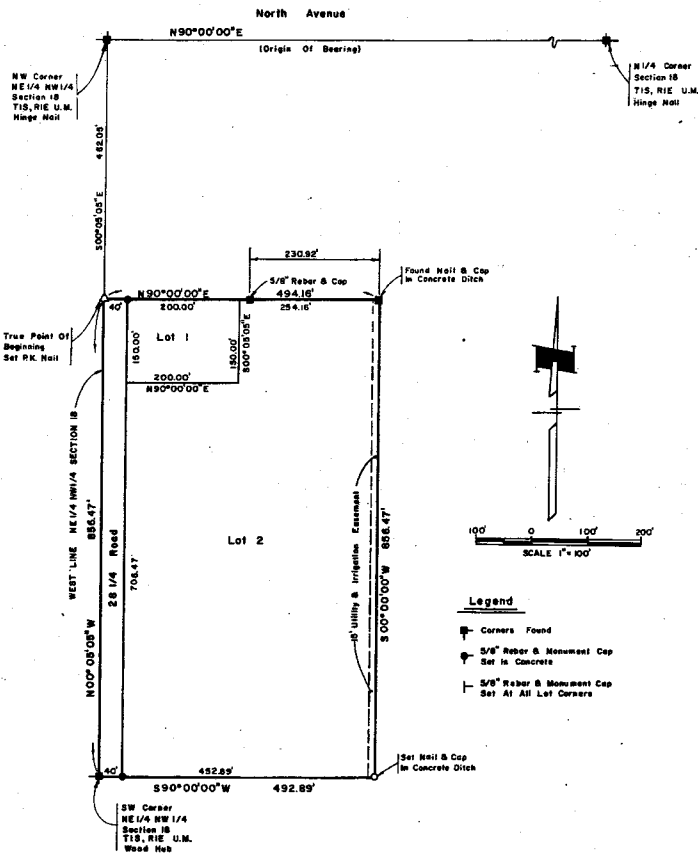
- Corners Found
- 5/8" Rebar & Monument Cap Set In Concrete
- ⊥ 5/8" Rebar & Monument Cap Set At All Lot Corners

**AREA QUANTITIES**

|                             |                              |
|-----------------------------|------------------------------|
| Total Acres In Lot          | 8.643 Ac. or 89.08 %         |
| Total Acres In Ditch R.O.W. | 0.304 Ac. or 3.13 %          |
| Total Acres In Streets      | 0.756 Ac. or 7.79 %          |
| <b>Total Acres</b>          | <b>9.703 Ac. or 100.00 %</b> |

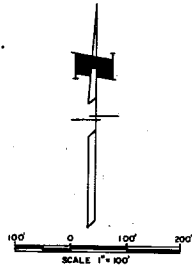
#48-80  
*Officecopy*  
 DARWIN  
 SUBDIVISION

# DARWIN SUBDIVISION



**AREA QUANTITIES**

|                        |                      |
|------------------------|----------------------|
| Total Acres in Lots    | 0.917 Ac or 91.90 %  |
| Total Acres in Streets | 0.786 Ac or 81.0 %   |
| Total Acres            | 9.703 Ac or 100.00 % |



- Legend**
- Corners Found
  - 5/8" Rebar & Monument Cap Set in Concrete
  - 5/8" Rebar & Monument Cap Set At All Lot Corners

**DECLARATION**

I, James T. Petty, do hereby certify that the undersigned, Darwin Wilson and Florence Wilson are the owners of that real property situated in the City of Grand Junction, County of Mesa, State of Colorado, embracing a part of the NE 1/4 NW 1/4 of Section 18, T18, R1E, U.M. 10, as shown on the accompanying plat thereof, said real property being more particularly described as follows:

Commencing at the SW corner of the NE 1/4 NW 1/4 of said Section 18; thence S 00° 00' 00" E along the west line of the NE 1/4 NW 1/4 of said Section 18 a distance of 180.00 feet to the TRUE POINT OF BEGINNING; thence S 00° 00' 00" E along the west line of the NE 1/4 NW 1/4 of said Section 18 a distance of 200.00 feet to the SE corner of the NE 1/4 NW 1/4 of said Section 18; thence S 00° 00' 00" E along the west line of the NE 1/4 NW 1/4 of said Section 18 a distance of 200.00 feet to the TRUE POINT OF BEGINNING, containing 4.70 acres.

That said owners have caused said real property to be laid out and surveyed as Darwin Subdivision, a subdivision of a part of the City of Grand Junction, Mesa County, State of Colorado.

That said owners do hereby dedicate and set apart all of the easements as shown on the accompanying plat to the use of the public forever, and dedicate to the public the utility easement portions of said real property which are labeled as utility easements on the accompanying plat as easements for the installation and maintenance of such utilities as telephone, electric lines, cable television, storm and sanitary sewer lines, gas lines, irrigation and drainage, with rights of ingress and egress to and from the above described utility easements.

IN WITNESS WHEREOF, said owners have caused their names to be hereunto subscribed this \_\_\_\_\_ day of \_\_\_\_\_ A.D., 1980.

Darwin M. Wilson \_\_\_\_\_ Florence Wilson \_\_\_\_\_  
 STATE OF COLORADO }  
 COUNTY OF MESA } ss  
 The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_ A.D., 1980 by Darwin M. Wilson and Florence Wilson.  
 My commission expires: \_\_\_\_\_ Witness by hand and official seal. \_\_\_\_\_  
 Notary Public

**CITY APPROVAL**

This plat of Darwin Subdivision, a subdivision of the City of Grand Junction, County of Mesa and State of Colorado was approved and accepted on this \_\_\_\_\_ day of \_\_\_\_\_ A.D., 1980.

City Manager \_\_\_\_\_ President of Council \_\_\_\_\_ Director of Development \_\_\_\_\_  
 Chairman, Grand Junction Planning Commission \_\_\_\_\_ Grand Junction City Engineer \_\_\_\_\_

**CLERK AND RECORDS CERTIFICATE**

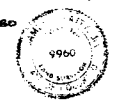
STATE OF COLORADO }  
 COUNTY OF MESA } ss  
 I hereby certify that this instrument was filed in my office at \_\_\_\_\_ o'clock \_\_\_\_\_ M. this \_\_\_\_\_ day of \_\_\_\_\_ A.D., 1980 and is duly recorded in Plat book \_\_\_\_\_ Page \_\_\_\_\_.

Clerk and Recorder \_\_\_\_\_ Deputy \_\_\_\_\_ Fees: \$ \_\_\_\_\_

**NOTARY CERTIFICATE**

I, James T. Petty Jr., do hereby certify that the accompanying plat of Darwin Subdivision, a subdivision of the City of Grand Junction, County of Mesa, State of Colorado, has been prepared under my direction and accurately represents a field survey of same.

*James T. Petty Jr.* 6/20/80  
 James T. Petty Jr.  
 Notary Public  
 Colorado Registration No. 9960



*\$48.80  
 file copy*

**DARWIN SUBDIVISION**

**PARAGON ENGINEERING, INC.**  
 211 West 2nd Street, Suite 200  
 Grand Junction, Colorado 81505  
 Phone: (303) 243-1111

TH-1

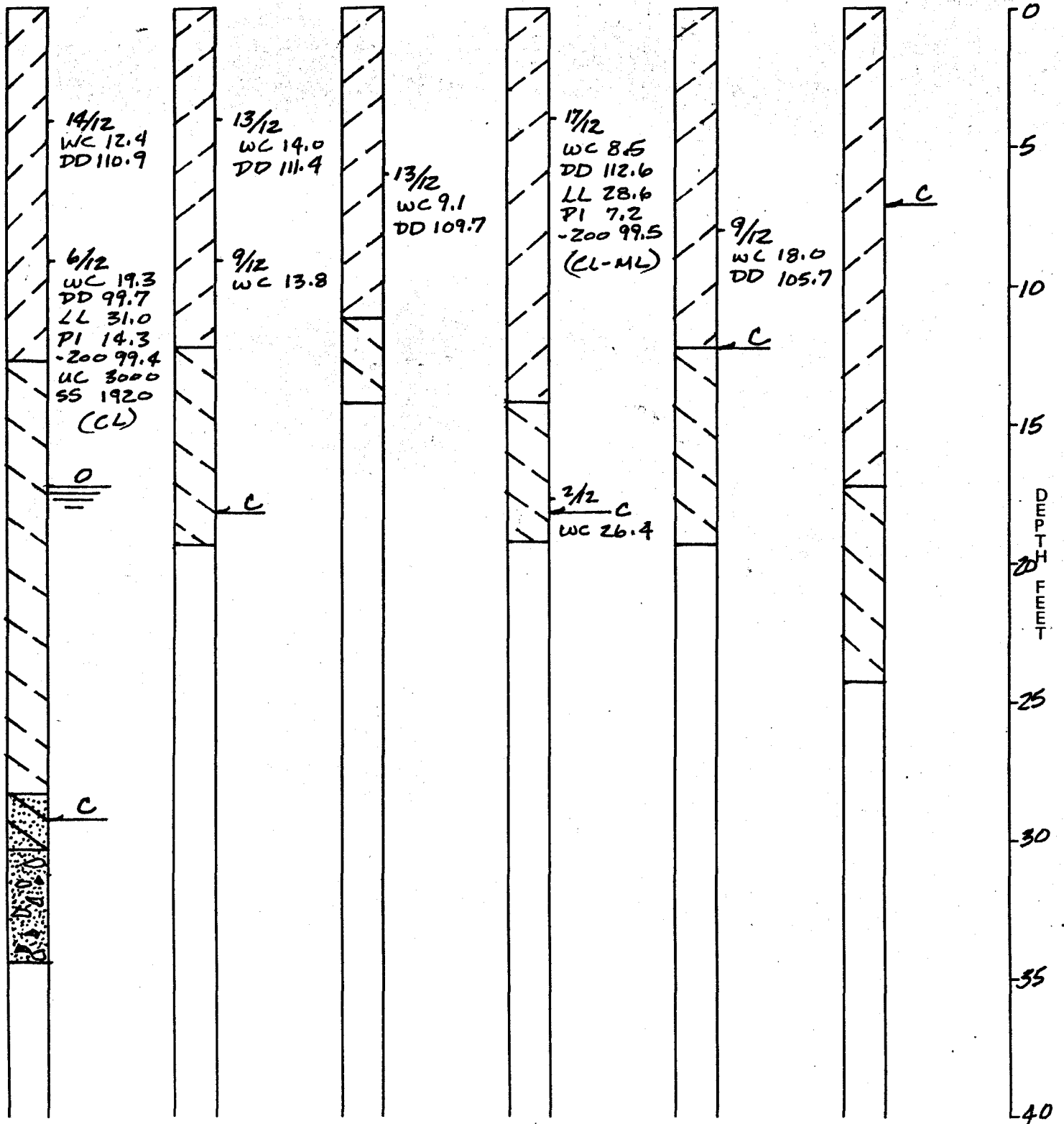
TH-2

TH-3

TH-4

TH-5

TH-6



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 Geotechnical Engineering and Materials Testing  
**LABORATORIES, INC.**  
 DARWIN SUBD. Job 999-25  
 SUMMARY LOGS OF TESTS AND TEST HOLES

Fig. 2



TH-

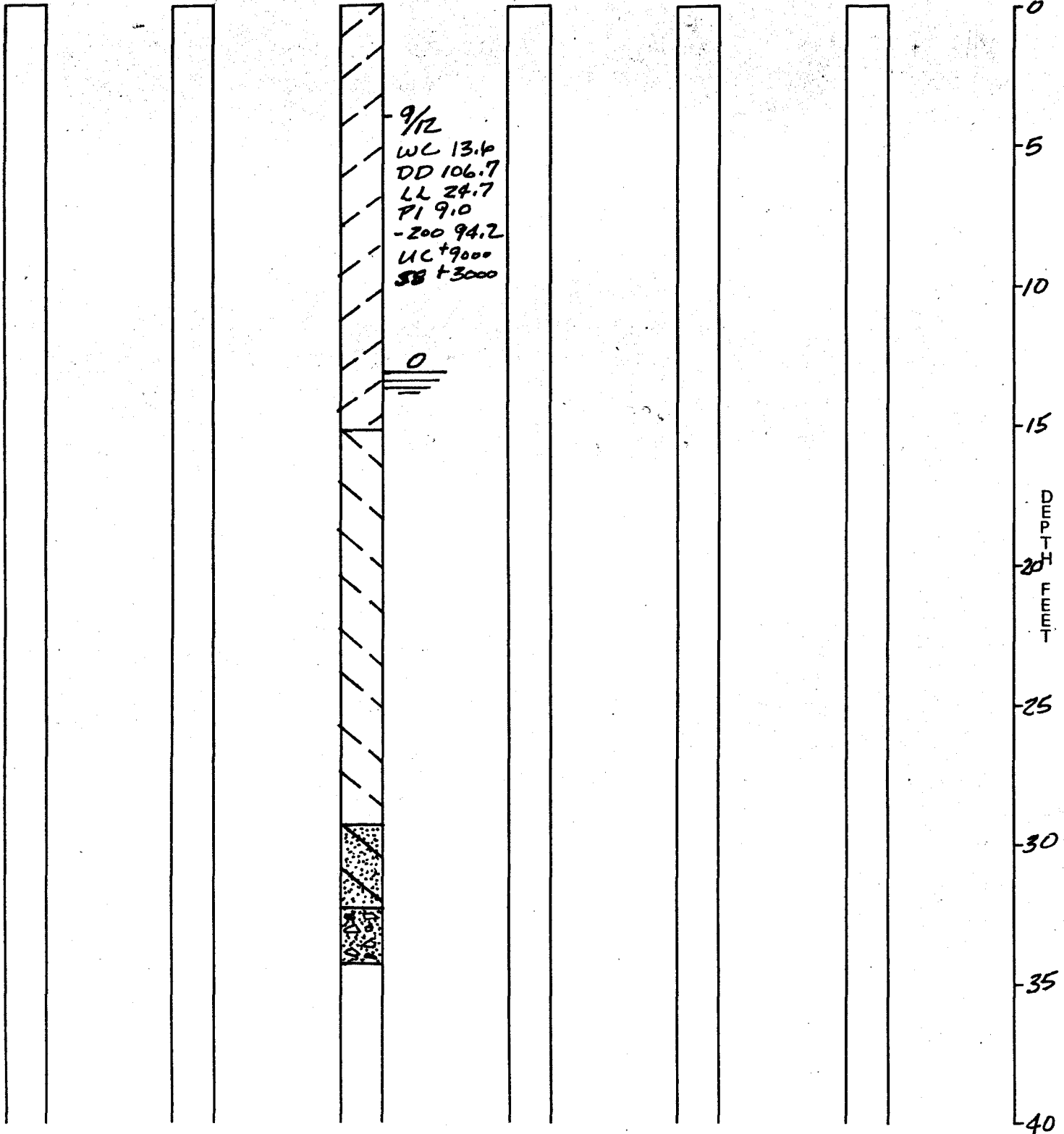
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








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



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


**GT GEO TESTING**  
 Geotechnical Engineering and Materials Testing  
**LABORATORIES, INC.**  
 DARWIN SUBD. Job 999-25  
 SUMMARY LOGS OF TESTS AND TEST HOLES

Fig. 2A

|  |   |
|--|---|
|     | CL, CL-CH, CH<br>CLAY, medium stiff to very stiff   |
|    | CL, CL-CH, CH<br>CLAY, soft to very soft  |
|    | SP, SW, SP-SW, SP-SC, SP-SM, SW-SC, SW-SM<br>SAND, medium to very dense, clean to slightly dirty                  |
|    | SP, SW, SP-SW, SP-SC, SP-SM, SW-SC, SW-SM<br>SAND, loose to medium dense, clean to slightly dirty                 |
|    | SC, SC-SM<br>SAND, clayey, <del>loose</del> <i>DENSE</i> to <del>medium</del> <i>VERY</i> dense                   |
|    | SC, SC-SM<br>SAND, clayey loose to medium dense   |
|    | ML, ML-CL<br>SILT, dense to very dense  |
|    | ML, ML-CL<br>SILT, loose to medium dense  |
|    | SM, SM-SC<br>SAND, silty, dense to very dense   |
|   | SM, SM-SC<br>SAND, silty, loose to medium dense   |
|  | GW-SW, GP-SP, GW, GP, SW-GW, SP-GP, GW-GC, GW-GM<br>GRAVEL and SAND, clean to slightly dirty, dense to very dense |
|  | GRAVEL and SAND, clean, loose to medium dense   |
|  | GC-CL, GC<br>GRAVEL and SAND, very clayey, dense to very dense  |
|  | GC-CL, GC<br>GRAVEL and SAND, very clayey, loose to medium dense  |
|  | GM-ML<br>GRAVEL and SAND, very silty, dense to very dense   |
|  | GM-ML<br>GRAVEL and SAND, very silty, loose to medium dense   |
|  | CL-CH, CH, CL<br>CLAY (highly weathered claystone) or SHALE   |
|  | SP, SM, SC, SW<br>SAND (highly weathered sandstone)   |
|  | CLAYSTONE or SHALE firm to medium hard  |
|  | SANDSTONE, firm to medium hard  |

|   |  |
|---|--|
|     | SANDSTONE, CLAYSTONE, SHALE, or SILTSTONE, hard to very hard   |
|    | CLAYSTONE, SHALE, or SILTSTONE, layered, firm to medium hard   |
|    | SILTSTONE, firm to medium hard   |
|    | CONCRETE or ASPHALT PAVING and BASECOURSE, etc.  |
|    | TOPSOIL  |
|    | FILL, man made, loose or unknown   |
|    | FILL, man made, dense, controlled  |
|    | GRANITE or similar hard competent rock   |
|    | Gradual change in materials. Exact strata change not located.  |
|   | Undisturbed sample taken by Shelby, Denison, Pitcher, etc.   |
|  | Indicates practical Rig Refusal. More than one such symbol indicated depth in adjacent hole attempted at same location |

 Free water level and number of days after drilling that measurement was taken.

9/12 Indicated that 9 blows of a 140 pound hammer falling 30 inches were required to drive a 2-inch diameter sample 12 inches.

WC = Water content percent

DD = Dry density, PCF

UC = Unconfined compression strength, PSF

LL = Liquid limit, percent

PI = Plasticity index, percent

SS = Shear Stress, direct shear, torvane, etc. PSF

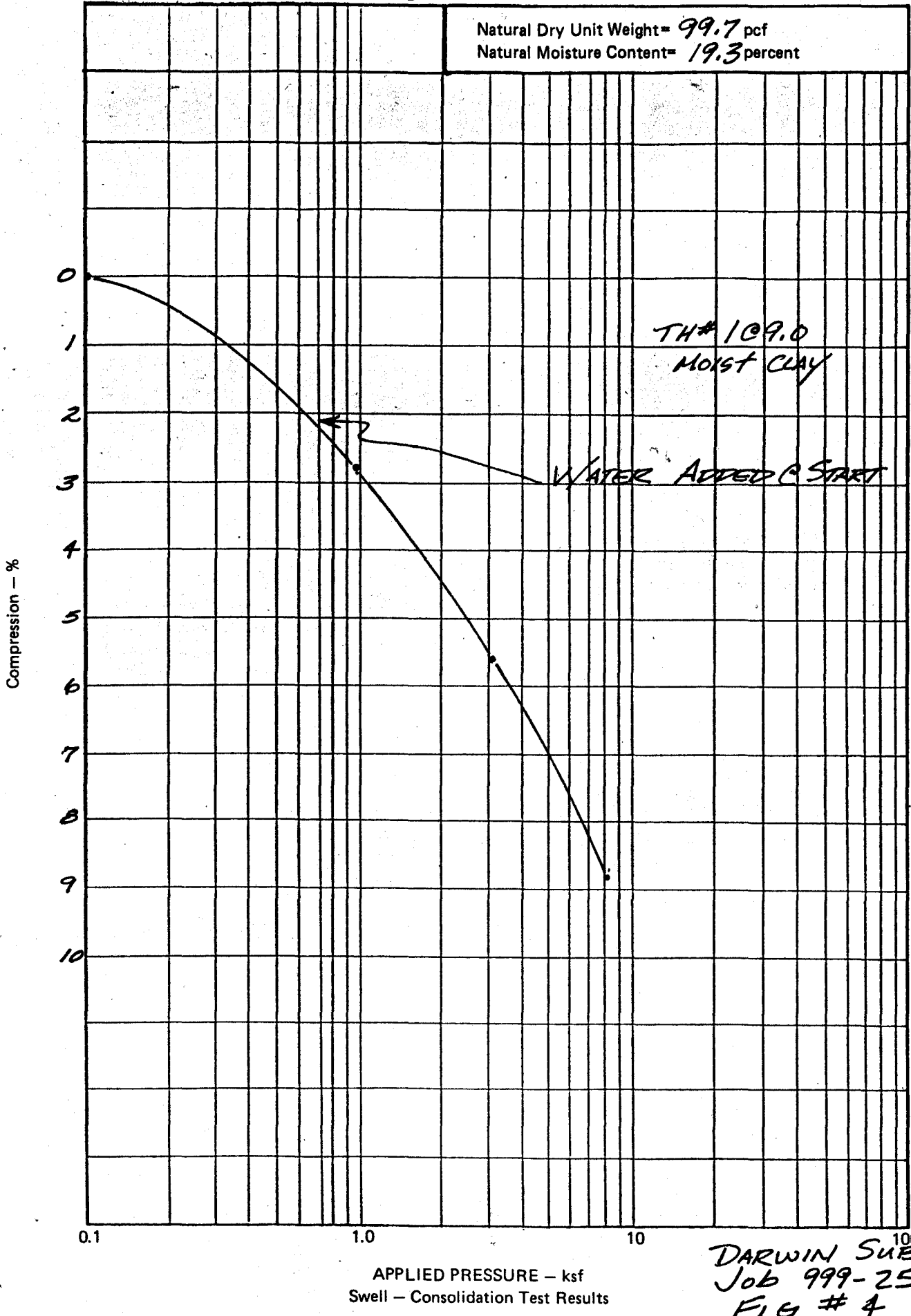
-200 = Percent passing number 200 sieve

**G** **TEO TESTING**  
Geotechnical Engineering and Materials Testing  
**LABORATORIES, INC.**

SUMMARY LOGS LEGEND

Fig. 3

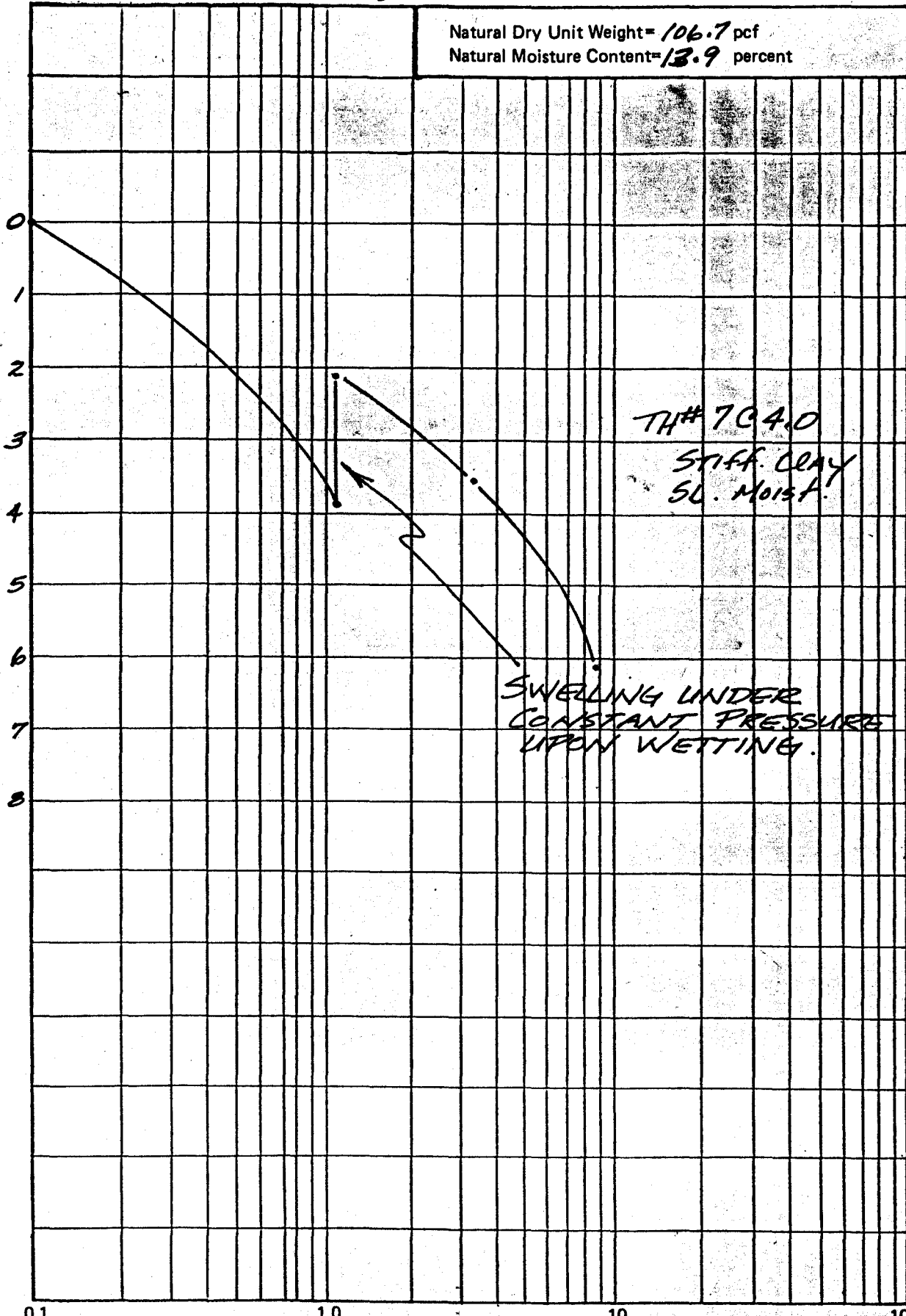
Natural Dry Unit Weight = 99.7 pcf  
 Natural Moisture Content = 19.3 percent



DARWIN SUBD.  
 Job 999-25  
 FIG # 4

Natural Dry Unit Weight = 106.7 pcf  
 Natural Moisture Content = 13.9 percent

Compression - %



APPLIED PRESSURE - ksf  
 Swell - Consolidation Test Results

DARWIN SUBDV.  
 JOB 999-25  
 FIG # 5