

SUBMITTAL CHECKLIST

MINOR SUBDIVISION

Location: 756 Valley Ct.

Project Name: Replat of lot 13, Valley West Sub #12

ITEMS		DISTRIBUTION																																		
DESCRIPTION	SSID REFERENCE	● City Community Development	● City Dev. Eng.	● City Utility Eng.	● City Property Agent	○ City Parks/Recreation	● City Fire Department	● City Attorney	● City G.J.P.C. (8 sets)	○ City Downtown Dev. Auth.	● City Police	● County Planning	○ County Building Department	● County Surveyor	○ Walker Field	○ School Dist. #51	● Irrigation District <u>G.V.</u>	● Drainage District <u>G.D.</u>	● Water District <u>Ute</u>	○ Sewer District	● U.S. West	● Public Service	● GVRP	● CDOT	○ Corps of Engineers	○ Colorado Geologic Survey	○ U.S. Postal Service	● Persigo WWTF	● TCI Cable	TOTAL REQ'D.						
● Application Fee <u>460 + \$15/duo</u>	VII-1	1																																		
● Submittal Checklist*	VII-3	1																																		
● Review Agency Cover Sheet*	VII-3	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
● Application Form*	VII-1	1	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
● Reduction of Assessor's Map*	VII-1	1	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
● Evidence of Title	VII-2	1			1			1																												
○ Appraisal of Raw Land	VII-1	1			1	1																														
● Names and Addresses*	VII-2	1																																		
● Legal Description*	VII-2	1			1																															
○ Deeds	VII-1	1			1			1																												
○ Easements	VII-2	1	1	1	1			1													1	1	1													
○ Avigation Easement	VII-1	1			1			1						1																						
○ ROW	VII-3	1	1	1	1			1													1	1	1													
○ Covenants, Conditions & Restrictions	VII-1	1	1					1																												
○ Common Space Agreements	VII-1	1	1					1																												
● County Treasurer's Tax Cert.	VII-1	1																																		
○ Improvements Agreement/Guarantee*	VII-2	1	1	1				1																												
○ CDOT, 404, or Floodplain Permit	VII-3,4	1	1																																	
● General Project Report	X-7	1	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
● Location Map	IX-21	1																																		
● Composite Plan	IX-10	1	2	1	1																															
● 11"x17" Reduction Composite Plan	IX-10	1			1	1	1	8	1	1	1	1					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
● Final Plat	IX-15	1	2	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
● 11"x17" Reduction of Final Plat	IX-15	1						8	1	1	1				1	1	1	1	1	1	1	1	1					1								
○ Cover Sheet	IX-11	1	2																																	
● Grading & Stormwater Mgmt Plan	IX-17	1	2															1								1	1									
○ Storm Drainage Plan and Profile	IX-30	1	2															1			1	1	1													
○ Water and Sewer Plan and Profile	IX-34	1	2	1															1	1	1	1	1										1	1		
○ Roadway Plan and Profile	IX-28	1	2																1																	
○ Road Cross-sections	IX-27	1	2																																	
○ Detail Sheet	IX-12	1	2																																	
○ Landscape Plan	IX-20	2	1	1																																
● Geotechnical Report	X-8	1	1										1																							
○ Phase I & II Environmental Report	X-10,11	1	1																																	
● Final Drainage Report	X-5,6	1	2																1																	
○ Stormwater Management Plan	X-14	1	2																1								1									
○ Sewer System Design Report	X-13	1	2	1																	1															
○ Water System Design Report	X-16	1	2	1																	1															
○ Traffic Impact Study	X-15	1	2																														1			
○ Site Plan	IX-29	1	2	1	1		1	8																												

NOTES: * An asterisk in the item description column indicates that a form is supplied by the City.



DEVELOPMENT APPLICATION

Community Development Department
250 North 5th Street, Grand Junction, CO 81501
(303) 244-1430

Receipt _____

Date _____

Rec'd By _____

File No. MS-95-215

We, the undersigned, being the owners of property situated in Mesa County, State of Colorado, as described herein do hereby petition this:

PETITION	PHASE	SIZE	LOCATION	ZONE	LAND USE
<input checked="" type="checkbox"/> Subdivision Plat/Plan	<input checked="" type="checkbox"/> Minor <input type="checkbox"/> Major <input type="checkbox"/> Resub	9.3 ACRES	756 VALLEY COURT	I-1	
<input type="checkbox"/> Rezone				From: To:	
<input type="checkbox"/> Planned Development	<input type="checkbox"/> ODP <input type="checkbox"/> Prelim <input type="checkbox"/> Final				
<input type="checkbox"/> Conditional Use					
<input type="checkbox"/> Zone of Annex					
<input type="checkbox"/> Variance					
<input type="checkbox"/> Special Use					
<input type="checkbox"/> Vacation					<input type="checkbox"/> Right-of Way <input type="checkbox"/> Easement
<input type="checkbox"/> Revocable Permit					

PROPERTY OWNER

DEVELOPER

REPRESENTATIVE

<u>IBX, INC.</u>	<u>SAME</u>	<u>HARRY MAVRAKIS</u>
Name	Name	Name
<u>640 SO. 12TH STREET</u>	<u>518 28 ROAD, SUITE A100</u>	
Address	Address	Address
<u>GRAND JUNCTION, COLORADO 81501</u>	<u>GRAND JUNCTION, COLORADO 81501</u>	
City/State/Zip	City/State/Zip	City/State/Zip
<u>(970) 241-0604</u>	<u>(970) 242-3667</u>	
Business Phone No.	Business Phone No.	Business Phone No.

NOTE: Legal property owner is owner of record on date of submittal.

We hereby acknowledge that we have familiarized ourselves with the rules and regulations with respect to the preparation of this submittal, that the foregoing information is true and complete to the best of our knowledge, and that we assume the responsibility to monitor the status of the application and the review comments. We recognize that we or our representative(s) must be present at all required hearings. In the event that the petitioner is not represented, the item will be dropped from the agenda, and an additional fee charged to cover rescheduling expenses before it can again be placed on the agenda.

<u>HARRY MAVRAKIS</u>	<u>NOVEMBER 30, 1995</u>
Signature of Person Completing Application	Date

<u>IBX, INC., BY PAT TUCKER, PRESIDENT</u>	<u>NOVEMBER 30, 1995</u>
Signature of Property Owner(s)- attach additional sheets if necessary	Date

GENERAL PROJECT REPORT

THIS MINOR SUBDIVISION REQUEST IS TO REPLAT LOT 13, VALLEY WEST, FILING NO. TWO WHICH CONTAINS 9.30 ACRES INTO FOUR (4) SEPARATE PARCELS OF LAND RANGING IN SIZE FROM 1.47 ACRES TO 3.23 ACRES.

ALL UTILITIES, ELECTRIC, GAS, WATER AND SEWER ARE CURRENTLY INSTALLED WITHIN THE SUBDIVISION AND ARE AVAILABLE TO THE SUBJECT PROPERTY.

MS-95-215

84 LUMBER CO.
200 ROUTE 519
EIGHTY FOUR, PA. 15330

COLORADO KENDALL, LTD.
P.O. BOX 24188
SAN JOSE, CALIFORNIA
95154-4188

R W PROPERTIES
2627 WEST 6TH AVENUE
DENVER, COLORADO 80204-4105

GEORGE E. WILSON, TRUSTEE
2627 WEST 6TH AVENUE
DENVER, COLORADO 80204-4105

BASIN WESTERN INC.
P.O. BOX 877
ROOSEVELT, UTAH 84066-0877

DAVID AND MYRNA DODD
767 VALLEY COURT
GRAND JUNCTION, COLORADO
81505-9714

W. T. HALL, TRUSTEE
748 22 ROAD
GRAND JUNCTION, COLORADO
81505-9728

ROBERT AND SYLVIA BEEMAN
P.O. BOX 788
MOAB, UTAH 84532-0788

O. L. LEE
162 SOUTH SAN JOSE DRIVE
GLENORA, CALIFORNIA
91741-3730

IBX, Inc.
640 S 12th Street
Grand Junction, CO 81501

Harry Mavrakis
518 28 Road, Suite A100
Grand Junction, CO 81501

City of Grand Junction
Community Development Dept.
250 N 5th Street
Grand Junction, CO 81501

REVIEW COMMENTS

Page 1 of 2

FILE #MS-95-215

TITLE HEADING: IBX Minor Subdivision

LOCATION: 756 Valley Court

PETITIONER: IBX, Inc.

PETITIONER'S ADDRESS/TELEPHONE: 640 S 12th Street
Grand Junction, CO 81501
241-0604

PETITIONER'S REPRESENTATIVE: Harry Mavrakis

STAFF REPRESENTATIVE: Kristen Ashbeck

NOTE: THE PETITIONER IS REQUIRED TO SUBMIT FOUR (4) COPIES OF WRITTEN RESPONSE AND REVISED DRAWINGS ADDRESSING ALL REVIEW COMMENTS ON OR BEFORE 5:00 P.M., DECEMBER 27, 1995.

GRAND VALLEY RURAL POWER 12/6/95
Perry Rupp 242-0040

None at this time.

PUBLIC SERVICE COMPANY 12/6/95
Tom Boughton 244-2675

ELECTRIC - This is Grand Valley Rural Power service territory.
GAS - No objections.

GRAND JUNCTION FIRE DEPARTMENT 12/12/95
Hank Masterson 244-1414

The Fire Department has no problems with this proposal.

GRAND JUNCTION DRAINAGE DISTRICT 12/15/95
John L. Ballagh 242-4343

The dedication statement is not clear concerning easements. The City is not always the service provider yet some of the easements are dedicated to the City. On the other hand, the utility and drainage easement is to the property owners/homeowners association. What rights do all of the upstream properties draining into Persigo Wash have? The wash is there! In fact, the District has an easement dating from May 24, 1918, recorded in Book 230 at Page 11 that should be acknowledged on the plat.

What language on the plat assures the future owner of Lot 13A that drainage from that land can flow across Lot 13B? Where does/will the drainage from Lot 13A hit a natural watercourse? Along what route?

UTE WATER 12/15/95
Gary R. Mathews 242-7491

No comment. Policies and fees in effect at the time of application will apply.

CITY PROPERTY AGENT 12/17/95
Steve Pace 244-1452

1. The utility and drainage easement needs to be described in the dedication.
2. The ingress-egress and utility easement needs to be described in the dedication (who uses this easement?).

COMMUNITY DEVELOPMENT DEPARTMENT 12/18/95
Kristen Ashbeck 244-1437

Access spacing shall be determined at such time new parcels are developed. Colorado Department of Transportation approval will be required for any access to Lots 13-C and 13-D off Highway 6 & 50.

CITY POLICE DEPARTMENT 12/18/95
Dave Stassen 244-3587

This replat cause the Police Department no concerns. I would recommend that as these lots develop, the developer contact the Police Department for a security consultation.

CITY UTILITY ENGINEER 12/18/95
Trent Prall 244-1590

WATER - Ute Water
SEWER - City of Grand Junction - No comment.

CITY DEVELOPMENT ENGINEER 12/19/95
Jody Kliska 244-1591

1. On-site detention is a requirement for development of the proposed lots. Unless this applicant intends to pay for the improvements alluded to in the conclusion of the drainage report to allow for undetained flows, the detention requirement will be imposed and should be noted in the file for future development considerations.
2. If the intent of the 20' multi-purpose easement is to also allow for drainage conveyance, the dedication language needs to be modified to include drainage.
3. Since a utility and drainage easement is shown, the dedication needs to include utility.
4. The statement regarding streets and rights-of-way is not necessary and needs to be stricken from the dedication.

TO DATE, COMMENTS NOT RECEIVED FROM:

City Attorney
Mesa County Planning
Mesa County Surveyor
Grand Valley Irrigation
U.S. West
TCI Cablevision
Colorado Department of Transportation

December 22, 1995

RESPONSE TO COMMENTS

IBX MINOR SUBDIVISION

Location: 756 Valley Court

Petitioner: IBX, Inc.
640 S. 12th Street
Grand Junction, CO 81501

Response to Comments Prepared By: ROLLAND Engineering
405 Ridges Blvd., Suite A
Grand Junction, CO 81503
(970)243-8300

The following Response to Comments will be in sequence of the REVIEW COMMENTS provided by the City of Grand Junction File #MS-95-215:

GRAND VALLEY RURAL POWER

Grand Valley Rural Power has no comments, no response necessary.

PUBLIC SERVICE COMPANY

Public Service Gas service had no objections to the Subdivision. Public Service commented that electric power to this area to be provided by Grand Valley Rural Power. As stated above, Grand Valley Rural Power had no comments regarding electrical power service.

GRAND JUNCTION FIRE DEPARTMENT

Grand Junction Fire Department has no problems with the proposed IBX Minor Subdivision. No comments necessary on our part.

GRAND JUNCTION DRAINAGE DISTRICT

The drainage concerns within the internal Lots will be addressed and resolved as the Lots are developed. The actual development of each Lot requires a grading and drainage plan be submitted to the Community Development Department of the City of Grand Junction. Multi-purpose easements will provide for potential drainage conveyance. The easement recorded in Book 230 at Page 11 will be acknowledged on the Plat. The easement along Persigo Wash was acknowledged by the original Valley West Subdivision.

UTE WATER

Ute Water District has no comment. Policies and fees in effect at time of application are noted.

CITY PROPERTY AGENT

- 1) Language identifying and clarifying the utility and drainage easements will added to the dedication. The inclusion of drainage purposes into multi-purpose easements is also noted.
- 2) The ingress-egress and utility easements are pre-existing. Their establishment by recorded instrument will be noted on the Plat.

COMMUNITY DEVELOPMENT DEPARTMENT

Access spacing will be determined at such time the new parcels are developed. We note that Colorado Department of Transportation approval will be required for any access to Lots 13-C and 13-D off of Highway 6&50.

CITY POLICE DEPARTMENT

The Police Department has no particular concerns with this development. Individual developers must submit a plan to COMMUNITY DEVELOPMENT and at that time they may contact the Police Department for a security consultation.

CITY UTILITY ENGINEER

City Utility Engineer has no concerns or comments at this time. No response necessary.

CITY DEVELOPMENT ENGINEER

- 1) At such time as the individual Lots are developed, a grading and drainage plan will be submitted. This plan will hold open any options to improve existing drainage conveyances that may eliminate the need for on-site detention. This option will be at the cost and responsibility of the individual developer. Multi-purpose easements shall include the right to install drainage conveyances should they be required.
- 2) The intent of the 20 foot wide multi-purpose easement is to allow for drainage conveyance and the dedication language has been modified.
- 3) The language to include utility has been added to the dedication.
- 4) Language referring to street right-of-way has been stricken from the dedication.

STAFF REVIEW

FILE: MS 95-215

DATE: January 3, 1995

REQUEST: Minor Subdivision - Replat of an Existing Parcel within the Valley West Subdivision
LOCATION: 756 Valley Court
APPLICANT: IBX, Inc.

STAFF: Kristen Ashbeck

EXISTING LAND USE: One Undeveloped Parcel

PROPOSED LAND USE: Four Parcels for Light Industrial Development

SURROUNDING LAND USE:

NORTH: Light Industrial/Heavy Commercial - Business Unknown
SOUTH: Hwy 6 & 50, I-70 and Railroad Rights-of-Way
EAST: Light Industrial/Heavy Commercial - 84 Lumber
WEST: Light Industrial, Heavy Commercial & Undeveloped
Ryall Electric Supply & Dodd Diesel

EXISTING ZONING: Light Industrial (I-1)

SURROUNDING ZONING: All I-1

RELATIONSHIP TO COMPREHENSIVE PLAN

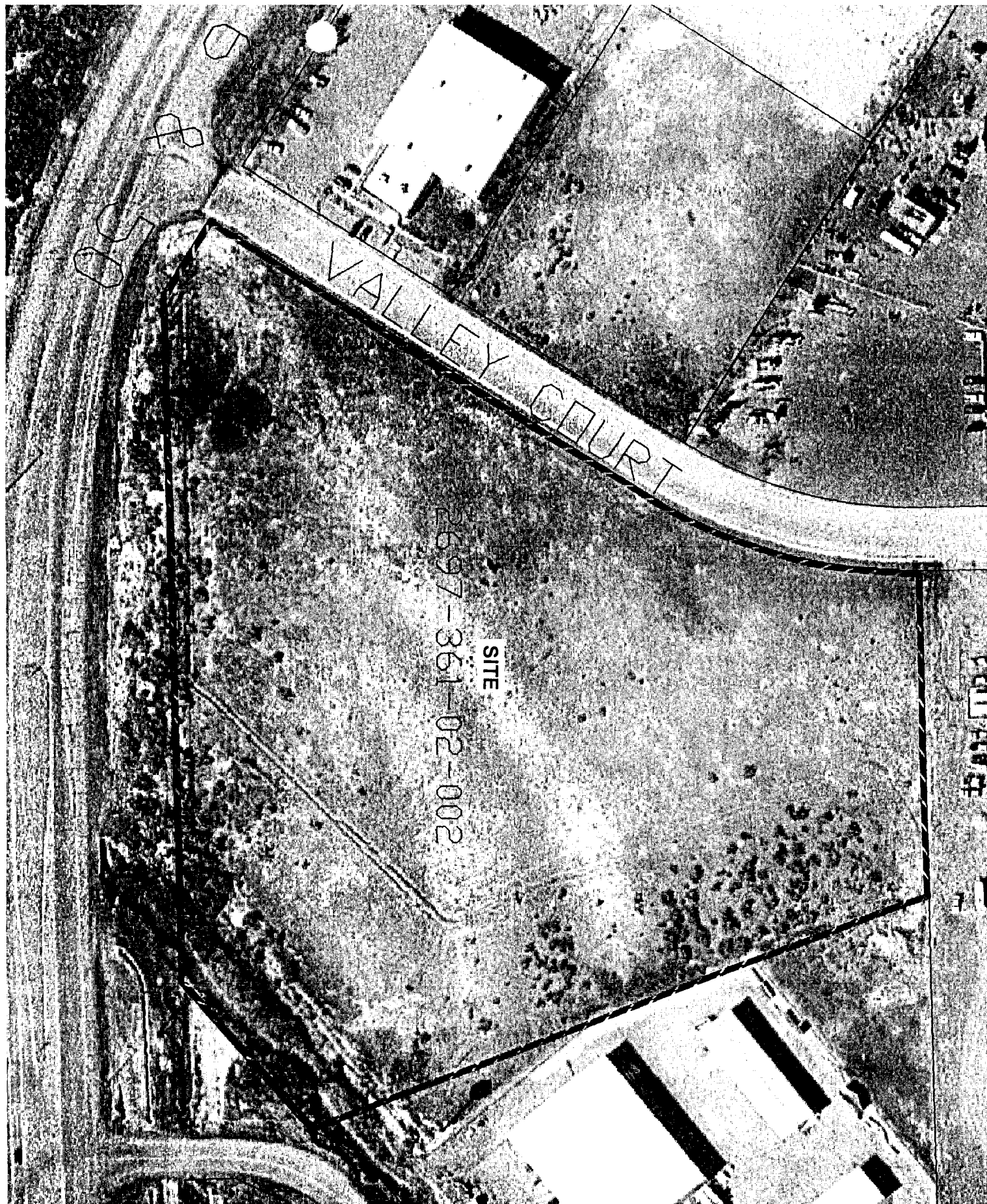
No comprehensive plan exists for this area of the city.

STAFF ANALYSIS

The applicant is proposing to resubdivide Lot 13 of the Valley West Subdivision Filing 2 into four parcels. Lot 13 is approximately 9.3 acres, and the four new parcels would range in size from 1.5 to 3.2 acres. This resubdivision is acceptable as there is no minimum parcel size within the I-1 zone, nor were there restrictions on the Valley West Subdivision that would prohibit further subdivision. Design details such as on-site drainage and ingress/egress drives will be addressed during the site plan review phase as development occurs on each of the new parcels. There are no outstanding issues--all review agency comments have been addressed.

STAFF RECOMMENDATION: Approval of the IBX Minor Subdivision

SUGGESTED PLANNING COMMISSION MOTION: Mr. Chairman, on item MS 95-215, I move that we approve the IBX Minor Subdivision.



DRAINAGE REVIEW IBX SUBDIVISION

Prepared For:
IBX, Inc.

Presented To:
City of Grand Junction
Public Works Department
250 N. 5th Street
Grand Junction, CO 81501

Prepared By:
ROLLAND Engineering
405 Ridges Blvd., Suite A
Grand Junction, CO 81503

November 30, 1995

A. PROJECT DESCRIPTION

This project is the subdivision of existing Lot 13, Valley West Subdivision, Filing No. Two. Valley West Subdivision Filing No. Two was developed in 19___. No development or improvements are proposed on any of the lots at this time. The existing Lot 13 is approximately 9.3 acres. The four proposed lots range in size from 1.47 acres to 3.23 acres.

B. SITE DESCRIPTION

This 9.3 acres site is part of the 110 acre Valley West Subdivision that was developed in the late 1970's and early 1980's. The site slopes very gently (0.3% to 0.5%) to the south and west to the intersection of Valley Court and Highway 6&50. This area was once agricultural ground and has not been utilized since the development of Valley West Subdivision. The property is primarily barren ground with some native plants and weeds.

C. DRAINAGE BASIN DESCRIPTION

The site drains into Pritchard Wash (GJDD COPECO Drain) about one-half mile above its confluence with the Colorado River. The site lies in an Approximate 140 acre sub-basin defined by Pritchard Wash on the west, the Independent Ranchman Ditch on the north, Persigo Wash on the east, and Highway 6&50 on the south. With the exception of a very small area (probably less than five acres) along Persigo Wash, the entire 110 acre Valley West Subdivision lies within this sub-basin.

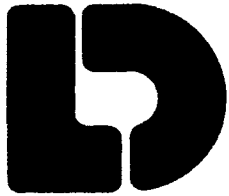
Stormwater currently sheet flows; is conveyed in the valley gutter along the east side of Valley Court; and is also conveyed in the old shallow ditch to the south and west through the site to the intersection of Valley Court and Highway 6&50. Stormwater crosses Valley Court in a surface concrete cross pan. Conveyance of stormwater runoff is then via the borrow ditch along the northerly side of Highway 6&50 to the Oest Drain at 21 ½ Road. This drain flows in a northwesterly direction along the highway to the COPECO Drain (Pritchard Wash) which flows almost due south to the Colorado River. Both the Oest and COPECO Drains are open ditches and are facilities of the Grand Junction Drainage District.

A review of the files for Valley West Subdivision indicates that a Master Stormwater Management Plan does not exist for the Subdivision. It appears that a majority of the Subdivision is drained by surface flows that are conveyed by Valley Court and roadside borrow ditches along Highway 6&50 and 21 ½ Road to the Oest Drain.

D. CONCLUSION

As these new lots are developed they will be required to complete a grading and drainage

plan to account for the impact on the drainage basin. Because of its close proximity to the Colorado River, on-site detention may not be the solution. Improvements to the conveyance along Highway 6&50 (both the Oest Drain and the borrow ditch) may be necessary as this property and other unimproved property within this basin are developed. The Oest Drain itself is probably adequate but it has several driveway crossings that will require evaluation. The borrow ditch from Valley Court to 21 ½ Road is not well defined and could use some improvements.



Lincoln DeVore

1000 West Fillmore St.
Colorado Springs, Colorado 80907
(303) 632-3593
Home Office

April 4, 1978

CBW Builders
2721 North 12th Street
Grand Junction, CO 81501

Re: SUBSURFACE SOILS INVESTIGATION

VALLEY WEST SUBDIVISION

GRAND JUNCTION, COLORADO

Gentlemen:

Transmitted herewith is the report giving the results of a subsurface soils investigation for a proposed commercial subdivision to be known as Valley West Subdivision in Grand Junction, Colorado.

Respectfully submitted,

LINCOLN-DEVORE TESTING LAB.

Robert L. Bass

Robert L. Bass, Civil Engineer

George D. Morris
Reviewed by George D. Morris, S. E.

RLB/sbf

LDTL Job No. 20632, J-69

cc: 2 - Paragon Engrs.

2700 Highway 50 West
Pueblo, Colo 81003
(303) 546-1150

P.O. Box 1427
Glenwood Springs, Colo 81601
(303) 945-6020

109 Rosemont Plaza
Montrose, Colo 81401
(303) 248-7838

P.O. Box 607
Gunnison, Colo 81230
(303) 641-2276

P.O. Box 1643
Rock Springs, Wyo 82901
(307) 382-2649



Lincoln DeVore

1000 West Fillmore St.
Colorado Springs, Colorado 80907
(303) 632-3593
Home Office

August 30, 1978

CBW Builders
2721 North 12th Street
Grand Junction, CO 81501

Re: Hveem-Cormany Testing
Valley West Subdivision
LDL Report No. 10632, J-69

Gentlemen:

Personnel of this Laboratory have completed Hveem-Cormany testing on samples of material from the above referenced subdivision. The results are as follows:

- 1) Subgrade - R = 9 by expansion (Note: expansion is critical)
Av. expansion pressure @ 300 psi = 33
Av. displacement @ 300 psi = 4.02
- 2) Base - R = 74
Av. expansion pressure @ 300 psi = 0
Av. displacement @ 300 psi = 4.11

These results were obtained shortly after our original report was completed. They were inadvertently filed away before a letter giving you this information was written. Please accept our apologies for any inconvenience this may have caused you.

Respectfully submitted,

LINCOLN-DEVORE

George D. Morris, P. E.

/s/sam

cc: 2 - Paragon Engrs.
LD - Grand Jct.

2700 Highway 50 West
Pueblo, Colo 81003
(303) 546-1150

P.O. Box 1427
Glenwood Springs, Colo 81601
(303) 945-6020

109 Rosemont Plaza
Montrose, Colo 81401
(303) 249-7838

P.O. Box 1882
Grand Junction, Colo 81501
(303) 242-8968

P.O. Box 1643
Rock Springs, Wyo 82901
(307) 382-2649

ABSTRACT:

The contents of this report are a subsurface soils investigation and foundation recommendations for a proposed commercial subdivision to be located in Grand Junction, Colorado. The laboratory has not, at this time, seen a set of construction drawings for any of the buildings to be constructed in the proposed subdivision. It is our understanding, however, that the structures will be steel industrial buildings and foundation loads will generally be high in magnitude.

It is our recommendation that deep foundation systems be used to carry the weight of the proposed structures. This deep foundation system typically would consist of either driven piles or drilled piers and should extend through the soft, upper clay materials and into the firm bearing strata below.

A possible alternative to the deep foundation system would be a rigid, reinforced structural mat or raft type of foundation system. If this raft foundation system is placed at such a depth that the stress on the soil created by the building is equal to the effective stress existing in the soil mass at that depth, the foundation system becomes a fully compensating raft. With this system, no net change in stress is felt by the soil mass and the potential for settlement or differential movement is considerably reduced.

Specific recommendations pertaining to each type of foundation system and to the site as a whole

are contained in the body of this report. All recommendations are subject to the limitations set forth herein.

GENERAL:

The purpose of this investigation was to determine the general suitability of the site for construction of a series of commercial and industrial structures. Characteristics of the individual soils found in the test borings were examined for use in designing foundations for these structures.

The Laboratory has not, at this time, seen a set of construction drawings for any of the proposed structures and, therefore, the magnitude and nature of building loads are not known. It is our understanding, however, that vertical column loading may be in excess of 50 kips per column with horizontal loads greater than 15 kips. It is also our understanding that some rather large overhead cranes may be used in conjunction with these industrial structures.

The construction site itself is located west and north of the city of Grand Junction, Colorado. The site is located in a portion of the Northeast Quarter of Section 36, Township 1 North, Range 2 West of the Ute Principal Meridian. The site consists of approximately 110 acres of total area which will be subdivided into 16 building lots.

The topography in the vicinity of the site can be described as flat, being located on the floodplain of the Colorado River. The exact direction of surface runoff will be controlled by streets and buildings in the vicinity and, therefore, will be variable from point to point. In general, however, surface runoff can be expected to flow to the south, eventually entering the Colorado River. Surface drainage is fair; subsurface drainage is poor.

The soils beneath the site are generally alluvial in nature, having been deposited on the site by the action of the Colorado River in the past. Generally, the subsurface profile consists of a high moisture, low density, lean clay material which was found from the ground surface to a depth of approximately 15 to 20 feet, beneath which is a relatively thin layer of fine grained, silty sand material, underlain by the gravel, cobbles and boulders of the Colorado River terrace. All of this upper alluvial material is believed to have been deposited on dense, formational Mancos shale, which should serve as bedrock beneath the site.

The Mancos shale characteristically is a thin-bedded, drab, light to dark gray shale with thinly interbedded, fine grained sandstone and limestone. Some layers of the shale have a high bentonite content and, therefore, are highly expansive. Most of the shale has only a moderate expansion potential, however. No formational shale was encountered in any of the test borings to the depths drilled. It is

anticipated that the shale will be fairly deep beneath this site and should not affect the performance of foundations.

BORINGS, LABORATORY TESTS & RESULTS

Eight test borings were drilled across this site as shown on the attached Test Boring Location Diagram. These test borings were placed in such a manner as to obtain a reasonably good profile of the subsurface soils. While some variation was noted from point to point, the subsurface profile encountered was sufficiently uniform that no further test borings were deemed necessary. All borings were advanced by the use of a power-driven, continuous auger drill. Samples were taken with the standard split spoon sampler, with thin-walled Shelby tubes, and by bulk methods.

The subsurface profile encountered in these test borings can broadly be described as a three-layer system. The upper layer of this system comprising the upper 10 to 20 feet of the subsurface profile was a low density, high moisture, lean clay material. The second layer of this system, which was encountered immediately below the lean clay material, is a fine grained, silty sand layer which was generally of low density and saturated. Immediately below the silty sand layer was encountered a coarse grained, gravel and cobble material which is typical of the Colorado River terrace.

The soil samples obtained during our subsurface exploration program have been broadly divided into

three soil types. Soil Type No. 1 is a lean clay which is representative of the upper layer of the subsurface profile. Soil Type No. 2 is a fine grained, silty sand which is representative of the second layer of the profile. Soil Type No. 3 is a well graded, silty gravel which is representative of the upper portion of the lower terrace material layer. More precise engineering characteristics of these three soil types may be found on the attached summary sheets. The following discussion will be general in nature.

Soil Type No. 1 classified as a lean clay (CL) of fine grain size. Generally, this material is slightly plastic, of low permeability, and was encountered in a low density, high moisture condition. Due to the condition in which this material was encountered, it should have no significant tendency to expand upon the addition of moisture. However, it has a marked tendency to long term consolidation under load. The consolidation potential of this material is significant enough to rule out the possibility of typical shallow foundation systems with the foundation loads anticipated on this site. This material contains sulfates in detrimental quantities.

Soil Type No. 2 classified as a silty sand (SS) of fine grain size. With only a slight difference in grain size characteristics, this material would have classified as a silt. Generally, this soil type is non-plastic, moderately permeable, and was encountered in a low density condition. This material has no tendency to expand upon the addition of moisture

and no tendency to true long term consolidation under load. It will experience rapid settlement, however, under typical foundation loads. It should be noted that if a deep foundation system is used, this material will not be subjected directly to building loads and it is not believed that settlement of this material will create any significant problems. It should also be noted that if a drilled pier system is used, this material can be expected to cave severely and, for this reason, casing will probably be required during the installation of drilled piers on this site.

Soil Type No. 3 classified as a well graded, silty gravel (GW/GM) of coarse grain size. This material is typical of the upper portion of the Colorado River terrace which can be expected to become somewhat coarser with increasing depth. Generally, this material is non-plastic, of high permeability, and was encountered in density conditions ranging from low to moderately high. This material appears to increase in density with increasing depth. This soil type has no tendency to expand upon the addition of moisture and no tendency to true long term consolidation under load. It is felt that this material will be the primary bearing strata for deep foundation systems which are placed on this site.

Free water was encountered in all test borings drilled on this site at depths ranging from 4.5 feet to 9 feet below the ground surface, at the time drilled. It should be noted that this water table can be expected to

fluctuate somewhat with seasonal moisture variations. The presence of the water table so near the ground surface will create difficulties for deeper excavations, and will create a hydrostatic uplift force against basements which are placed on this site. For these reasons, we would recommend that basements not be used in conjunction with any structure to be placed on this site. The presence of the water table will also necessitate the use of casing and dewatering equipment during the installation of drilled piers on this subdivision.

CONCLUSIONS & RECOMMENDATIONS:

At the present time, the laboratory has not seen a set of construction drawings for any of proposed structures to be placed on this site. However, it is our understanding that the structures are to be rather large industrial steel buildings and that foundation loads are liable to be quite high. Any special loads or unusual design conditions should be reported to the laboratory so that changes in these recommendations may be made if necessary. However, based upon the project characteristics previously outlined and the subsurface profile encountered during our field exploration program, the following recommendations are made.

It is our recommendation that deep foundation systems be used to carry the weight of the proposed structures. Typical deep foundation systems would consist of either driven piles or drilled piers. Either type of foundation

system will have numerous advantages and disadvantages associated with it.

The use of piles would eliminate any problems of casing and dewatering which would be associated with drilled piers on this site. However, the capacity of a pile is much more difficult to establish during the design phase of a project than the capacity of a drilled pier. Therefore, the decision as to which type of deep foundation system is most suitable is purely an economic one and should be investigated by the owner or his representative.

Should a decision be made to use driven piles, numerous pile types are available which would be suitable for the type of structures proposed for this subdivision. Pile types which are common in the Grand Junction area include wood piles, steel H piles, and concrete filled steel pipe piles. Each pile type has a number of advantages and disadvantages which will be covered in turn.

The major advantage of timber piles is that they are low in cost for a situation where short pile lengths - typically 20 to 40 feet - can be used. Disadvantages include a relatively low load capacity per pile and susceptibility to damage during driving, particularly when driven through hard stratum obstacles or to refusal on rock. The major advantages of steel H piles include ease of splicing, high tolerance to hard driving, and a comparatively high load capacity. Disadvantages include high cost when compared to timber piles, the

possibility of being bent or deflected by obstacles, and a potentially long delivery period. Additionally, steel piles may be somewhat susceptible to corrosion when used in very high sulfate environments. The major advantages of concrete filled pipe piles include ease of splicing, and the availability of driving equipment. Disadvantages include a long period of delivery and a low corrosion resistance similar to steel H piles.

Specific recommendations pertaining to pile type and pile capacity cannot easily be made in a report of this nature. Since a decision of this type depends upon the expected loads, the driving equipment available, and other considerations, it will be left to the structural engineer. By way of example, however, a 12-inch diameter pile section which is driven to a resistance of 50 blows per foot should have a capacity on the order of 30 to 50 kips. It should be noted that this estimate of pile capacity is based upon static considerations of bearing capacity and friction. Estimates of this type often will not precisely represent the true capacity obtained in the field. For this reason, when driving operations commence, pile capacities should be verified either by means of a pile load test or by using one of the pile driving equations.

It is our understanding that horizontal loads in excess of 15 kips may be anticipated for some structures on this site. If these horizontal loads are to be counteracted by the pile system and if they exceed 1000 pounds per pile, the use of batter piles will be required. Hammer

and cushioning should be matched to the chosen pile type to assure attainment of the design load capacity when driving. Minimum spacing of piles should be twice the average pile diameter or 1.75 times the diagonal dimension of the pile cross section, but no less than 24 inches. Tops of piles should extend a minimum of 4 inches into the pile cap. No pile should be shorter than 15 feet in length. Vertical piles should not vary more than 2% from the plumb position. Eccentricity of reaction on the pile group with respect to the total load resultant should not exceed a dimension that would produce overloads of more than 10% in any one pile.

It may prove desirable to use a drilled pier foundation system instead of driven piles on this site. It should be noted, however, that some difficulty should be anticipated in the installation of a drilled pier foundation system due to the presence of soft caving soils and high groundwater conditions beneath this site. This will complicate the installation of drilled piers by requiring the use of casing and dewatering equipment. The allowable loads for drilled piers on this site may be determined as the sum of the end bearing capacity plus the side bearing capacity. Specific values for end bearing and side friction capacity cannot be given here due to the variation of soil conditions across the subdivision. It is recommended that further subsurface investigation be undertaken on any particular site before establishing these bearing values. However, typical values will be given here for purposes

of example. With at least 5 feet of penetration into the coarser grained materials of Soil Type No. 3, the end bearing capacity may be something on the order of 10,000 psf. The allowable side friction for Soil Type No. 3 may be somewhere on the order of 1000 psf. Soil Types No. 1 and 2 should not be relied upon for any side bearing capacity due to the extremely low density condition in which these materials were encountered.

The bottoms of all piers should be thoroughly cleaned prior to the placing of concrete. The amount of reinforcing required in each pier will be dependent upon the magnitude and nature of loads involved. However, as a general rule, reinforcing should be equal to approximately 1.5% of the total cross section area of the pier with an absolute minimum requirement of two #5 # rebars per pier. To ensure that all voids in the side walls of the piers are filled, concrete should be placed with a slump of 5 to 6 inches. Piers having an extremely small diameter - on the order of 12 inches or less - may use concrete with a slump in excess of 6 inches. All water should be removed from the pier prior to the placement of concrete. If this is not possible, concrete should be tremied below standing water. A free fall of concrete in excess of 5 feet should not be permitted unless the pier diameter is large enough to ensure that the concrete will not contact the side walls during the fall. Any casing used during drilling should be pulled as concrete is being placed to allow the complete filling of all voids in the side walls with concrete.

As an alternative to a deep foundation system, a rigid reinforced mat or raft type of foundation system could be used on the site. This would consist of a thick, uniform, flat, reinforced concrete slab occupying the entire area beneath the structure and possibly extending a short distance beyond the limits of the structure. This concrete mat must be heavily reinforced making it stiff enough to essentially behave as a unit. The required depth of embedment of this mat may be calculated by equating the effective stress of soil displaced by the foundation to part or all of the stress created by the structure. If only part of the weight of the structure is compensated for, the result will be a net stress increase on the soil. Under no circumstances should this stress increase exceed 1000 psf. If the entire weight of the structure is compensated for by displaced soil, there should be no net increase in stress on the soil and settlement or differential movement of the mat foundation will be held to an absolute minimum. If the raft type of foundation is used, it should be located at a minimum depth of 2 feet below the ground surface, or as dictated by local building codes, for frost protection.

Another alternative to the deep foundation system would be to use typical shallow foundation systems. This could be accomplished using two general methods. The first would consist of an overexcavation which would be backfilled with a properly controlled, compacted fill. The second would be to construct a controlled, compacted fill on top of the ground

surface and place foundations on this fill. Problems would be encountered using the first alternative due to the fact that the depth of the overexcavation is limited by the location of the free water table. Excavation below this water table level should be rather difficult. The second structural fill alternative would have the effect of placing a surcharge load on the soils and would cause consolidation of the soft, moist clay materials of Soil Type No. 1. For this reason, it may be necessary to have a considerable time lapse between fill construction and building construction to allow this material to consolidate. Specific requirements as to the required thickness of fill and the allowable bearing capacities of the compacted fill will be dependent upon the configurations of the structures and the type of material used for fill. Therefore, these recommendations cannot be made at this time.

It is recommended that any structural fill constructed on this site be compacted to at least 95% of the standard Proctor dry density, ASTM D-698. It is possible to use the native soil materials on this site, but it should be recognized that some type of drying technique such as discing of the soil will be necessary in order to bring the moisture content down to the Proctor optimum moisture content. Also, the native clays of Soil Type No. 1, if compacted properly, will exhibit some expansion potential. If an imported fill material is used, it is recommended that this material be coarse grained and non-free draining. Any fill placed on this site should be

Placed at the Proctor optimum moisture content, plus or minus 2%. Material should be placed in lifts not to exceed 6 inches compacted thickness with any particles in excess of 6 inches in diameter being removed. Fill should be compacted to the required density by mechanical means. No water flooding techniques of any type should be used in the placement of fill on this site.

Adequate drainage must be provided in the foundation area at all times to prevent the ponding of water above the foundation materials. The ground surface around the structure should be graded so that surface water will be carried quickly away from the structure. Minimum gradient will depend upon surface landscaping. Bare or paved areas should have a minimum gradient of 2% for a distance of 10 feet from the structure. Landscaped areas should have a minimum gradient of 5% within this area. Roof drains must be carried across all backfilled areas and discharged well away from the structure.

Floor slabs should be constructed so as to act independently of all bearing walls and columns. A capillary break or gravel bed of 4 to 6 inches in thickness should be used beneath the floor slab. This gravel material should not contain a large amount of fines and must be provided with a free drainage outlet to the surface so as not to act as a water trap beneath the structure. A vapor barrier is recommended above the capillary break and beneath the floor slab.

Backfill around the structure and in utility trenches leading to the structure should be compacted

to at least 90% of the maximum Proctor dry density. The native soils may be used for this purpose providing they are brought to the proper moisture content. Material should be placed in lifts not to exceed 6 inches compacted thickness and at a moisture content approximately equal to the Proctor optimum moisture content, plus or minus 2%. Backfill must be compacted to the required density by mechanical means. No water flooding techniques of any type should be used in the placement of backfill on this site.

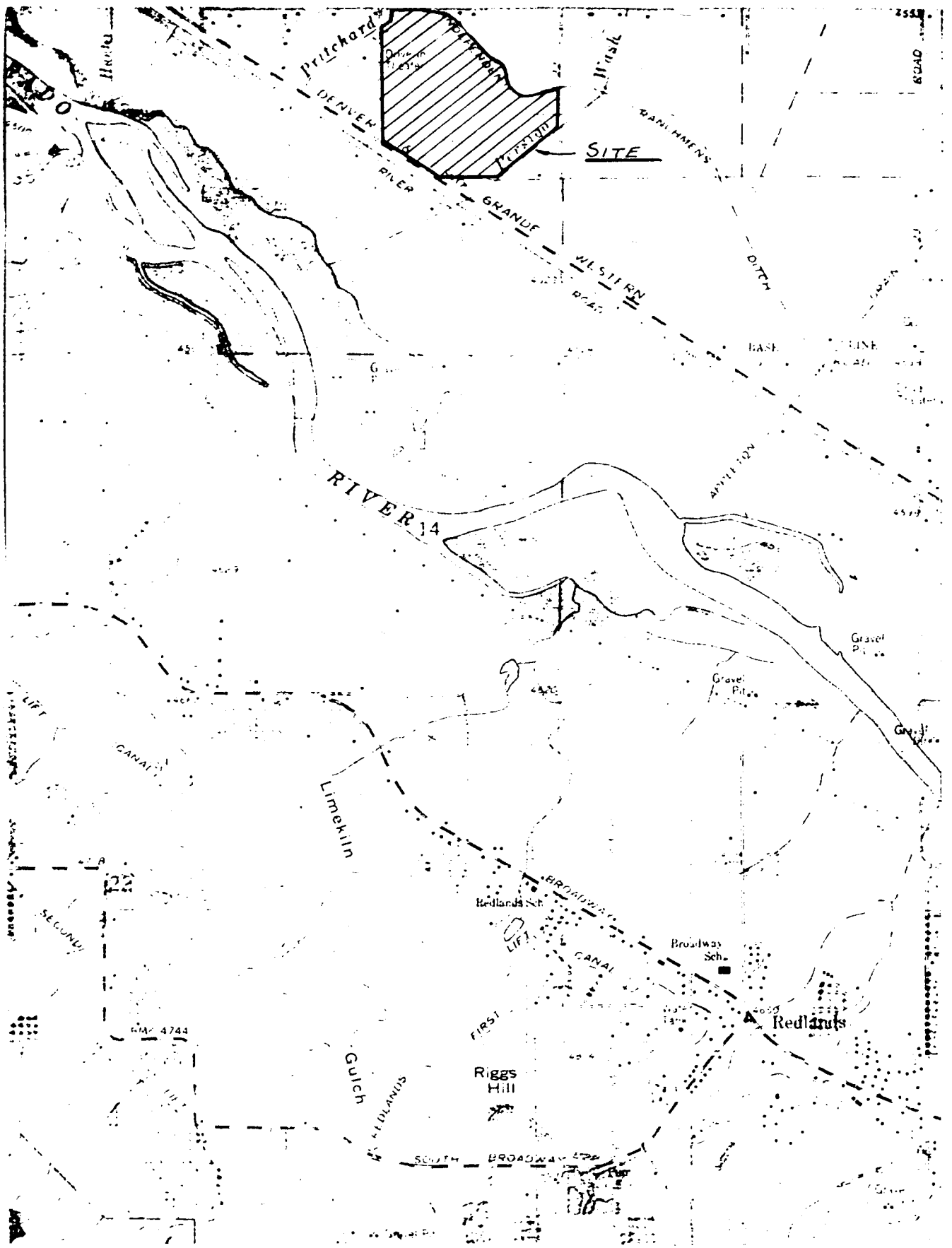
All grade beams used in conjunction with foundation systems on this site should be designed to span a distance of at least 15 feet, or the distance from pier to pier, whichever is greater. Grade beams should be reinforced at both top and bottom with the reinforcing approximately balanced between the top and bottom of the beam. Where grade beams will retain soil in excess of 4 feet in height, vertical reinforcing may be necessary and should be designed. To design this reinforcing, the equivalent fluid pressure of the soil, in the active state, may be taken as 50 pcf.

The soils beneath the site were noted to contain sulfates in detrimental quantities. For this reason, a sulfate-resistant cement such as Type II Cement is recommended for use in all concrete which will be in contact with the soils. Under no circumstances should calcium chloride ever be added to a Type II Cement. In the event that Type II Cement is difficult to obtain, a Type I Cement may be used provided the concrete is separated from the soils by water-resistant membranes.

At your request, Aves-Carmany tests are being performed on the surficial soils on this site and on a proposed base course material to determine the characteristics of these soils for pavement design. At present, this analysis has not been completed. The information obtained from these tests will be supplied as soon as it becomes available.

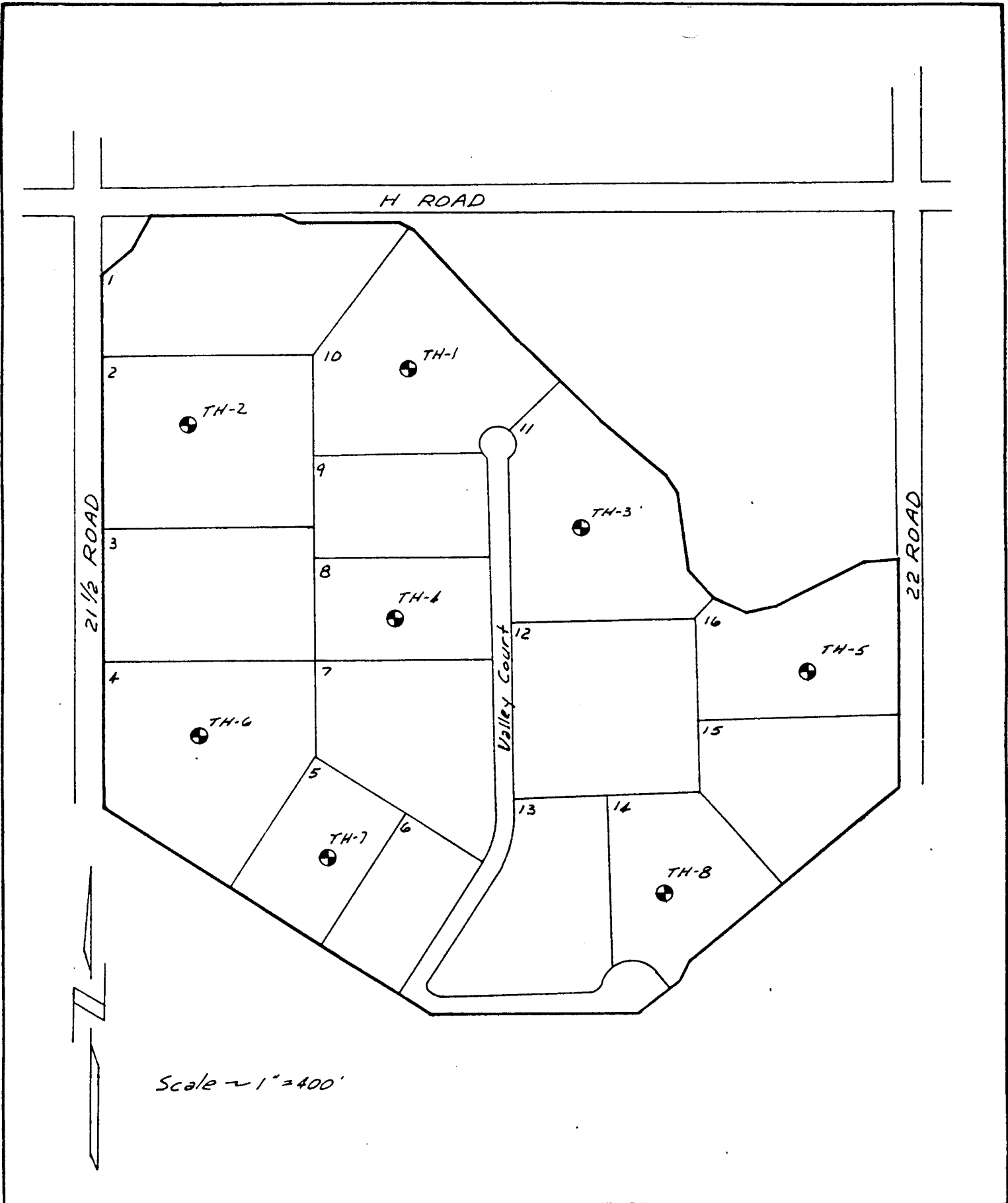
It should be noted that this investigation and report are preliminary in nature. Due to the nature of the structures to be constructed in this development, it is recommended that additional subsurface investigation be conducted for each structure to be built on this site. The information provided in this report is intended for site evaluation and preliminary design and should not be used as a basis of final design for structures to be built in this subdivision.

It is believed that all pertinent points concerning the subsurface soils on this site have been covered in this report. If questions arise or if further information is required, please feel free to contact the laboratory.



*General Site Location Diagram
Valley West Subdivision ~ Grand Junction*

THE LINCOLN-DEVORE TESTING LABORATORY
 COLORADO: Colorado Springs, Pueblo, Glenwood Springs, Montrose, Gunnison. WYOMING: Rock Springs



*Test Boring Location Diagram
Valley West Subdivision - Grand Junction*

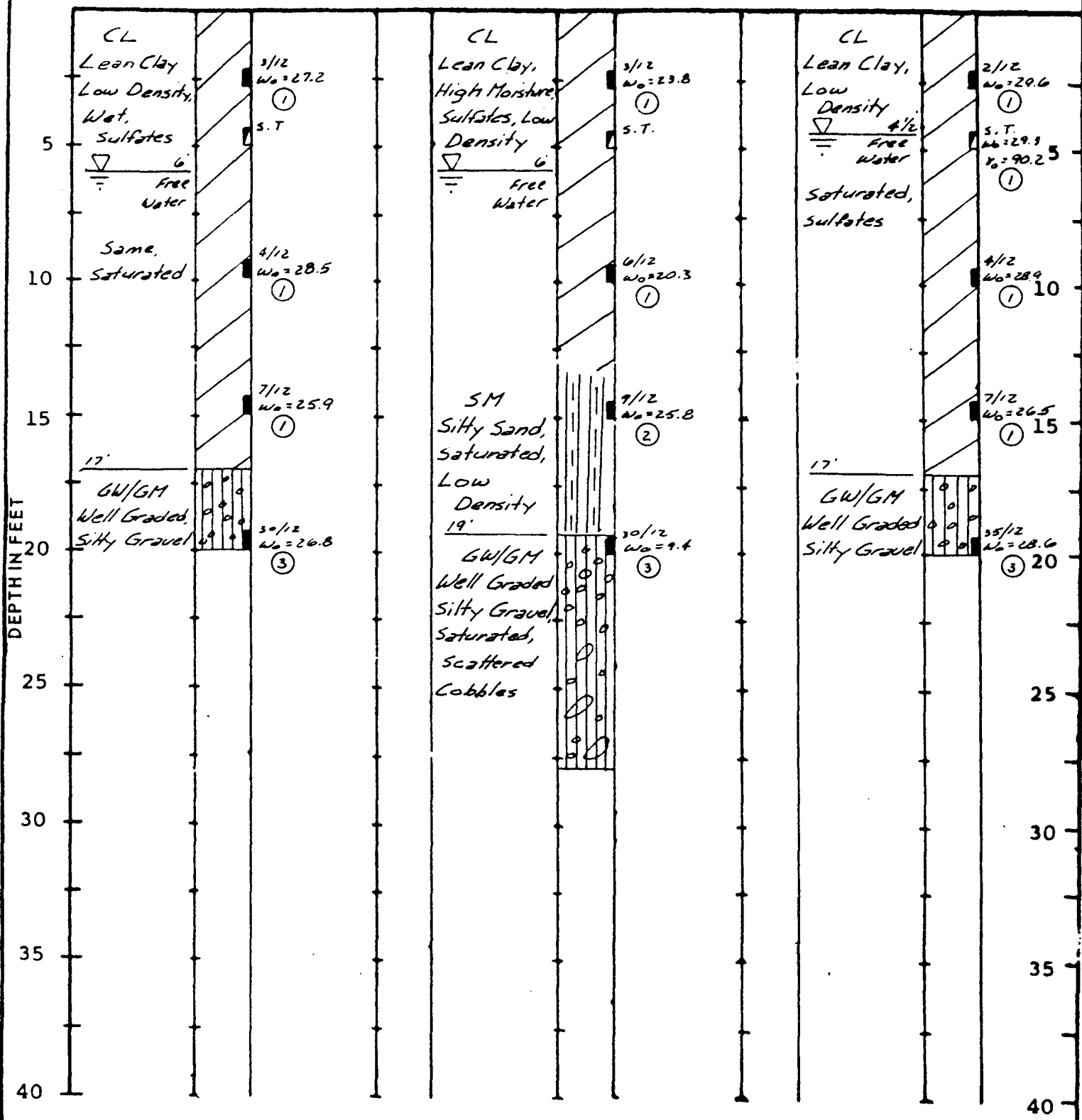
THE LINCOLN-DEVORE TESTING LABORATORY
 COLORADO: Colorado Springs, Pueblo, Glenwood
 WYOMING: Rock Springs
 Springs, Montrose, Gunnison.

Test Hole No
Top Elevation

TH-1

TH-2

TH-3



DRILLING LOGS

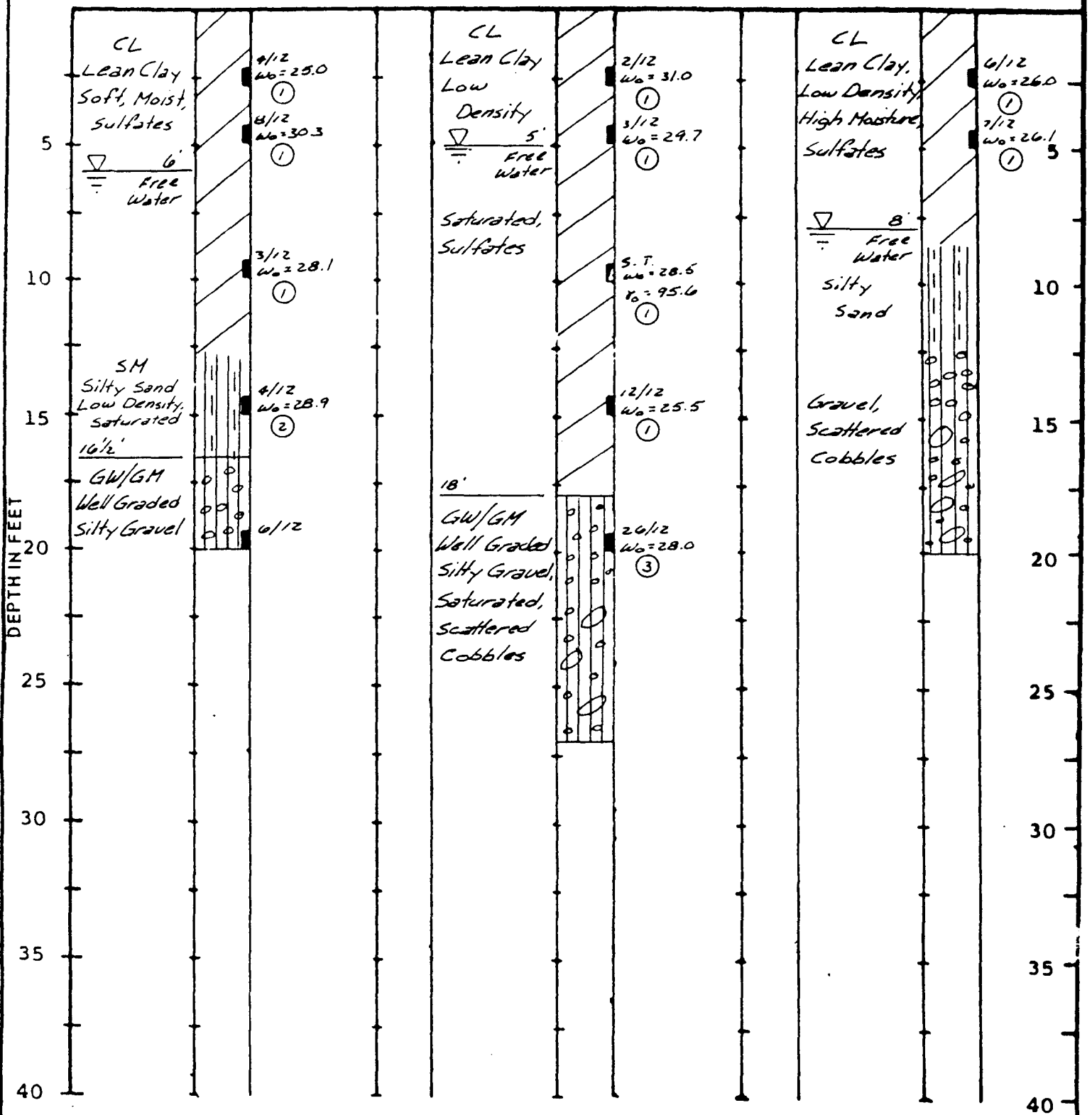
LINCOLN-DEVORE TESTING LABORATORY
COLORADO SPRINGS-PUEBLO, COLORADO

Test Hole No
Top Elevation

TH-4

TH-5

TH-6

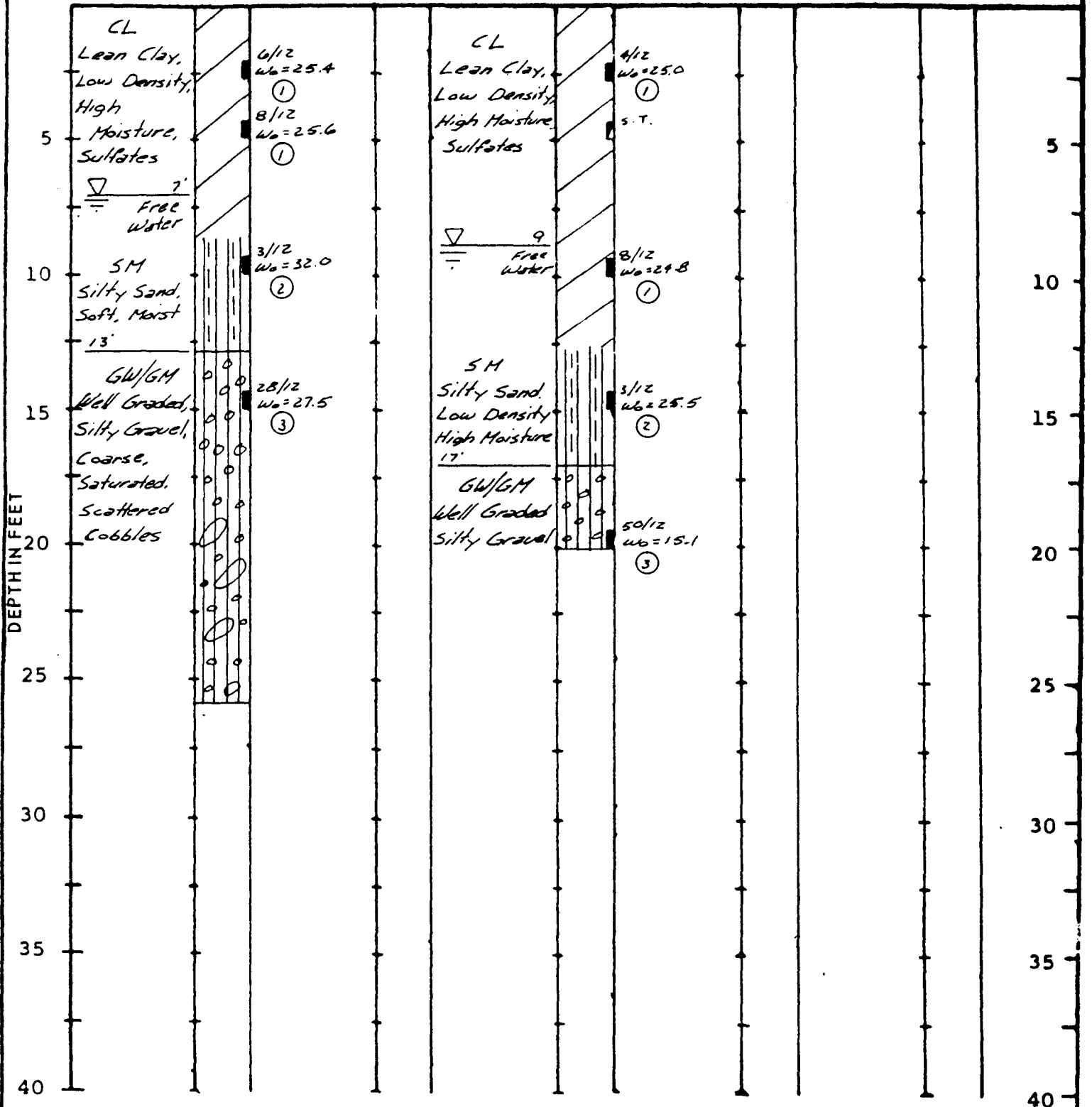


DRILLING LOGS

LINCOLN-DeVORE TESTING LABORATORY
COLORADO SPRINGS-PUEBLO, COLORADO

Test Hole No. TH-7
Top Elevation

TH-8



DRILLING LOGS

LINCOLN-DeVORE TESTING LABORATORY
COLORADO SPRINGS-PUEBLO, COLORADO

SUMMARY SHEET

Soil Sample Lean Clay (CL)
 Location Valley West Subdivision
 Boring No. 1 Depth 2 1/2'
 Sample No. 1

Test No. 20632
 Date 3-23-78
 Test by SMS

Natural Water Content (w) 27.2 %
 Specific Gravity (Gs) 2.64

In Place Density (ρ_o) _____ pcf

SIEVE ANALYSIS:

Sieve No.	% Passing
1 1/2"	_____
1"	_____
3/4"	_____
1/2"	_____
4	<u>99.9</u>
10	<u>99.7</u>
20	<u>99.3</u>
40	<u>99.0</u>
100	<u>98.2</u>
200	<u>90.8</u>

HYDROMETER ANALYSIS:

Grain size (mm)	%
<u>0.02</u>	<u>85.1</u>
<u>0.005</u>	<u>51.4</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Plastic Limit P.L. 22.7 %
 Liquid Limit L.L. 37.5 %
 Plasticity Index P.I. 14.8 %
 Shrinkage Limit 17.1 %
 Flow Index _____
 Shrinkage Ratio _____ %
 Volumetric Change _____ %
 Lineal Shrinkage _____ %

MOISTURE DENSITY: ASTM METHOD

Optimum Moisture Content w_o _____ %
 Maximum Dry Density ρ_d _____ pcf
 California Bearing Ratio (a) _____ %
 Swell 1 Days 7.0 %
 Swell against 1222 psf w_o gain 13.3 %

BEARING:

Housel Penetrometer (av) _____ psf
 Unconfined Compression (qu) 2250 psf
 Plate Bearing: _____ psf
 Inches Settlement _____
 Consolidation % unde _____ psf

PERMEABILITY:

K (at 20°C) _____
 Void Ratio _____

Sulfates 2000* ppm.

SOIL ANALYSIS

LINCOLN-DeVORE TESTING LABORATORY
 COLORADO SPRINGS, COLORADO

Soil Sample silty Sand (SM)

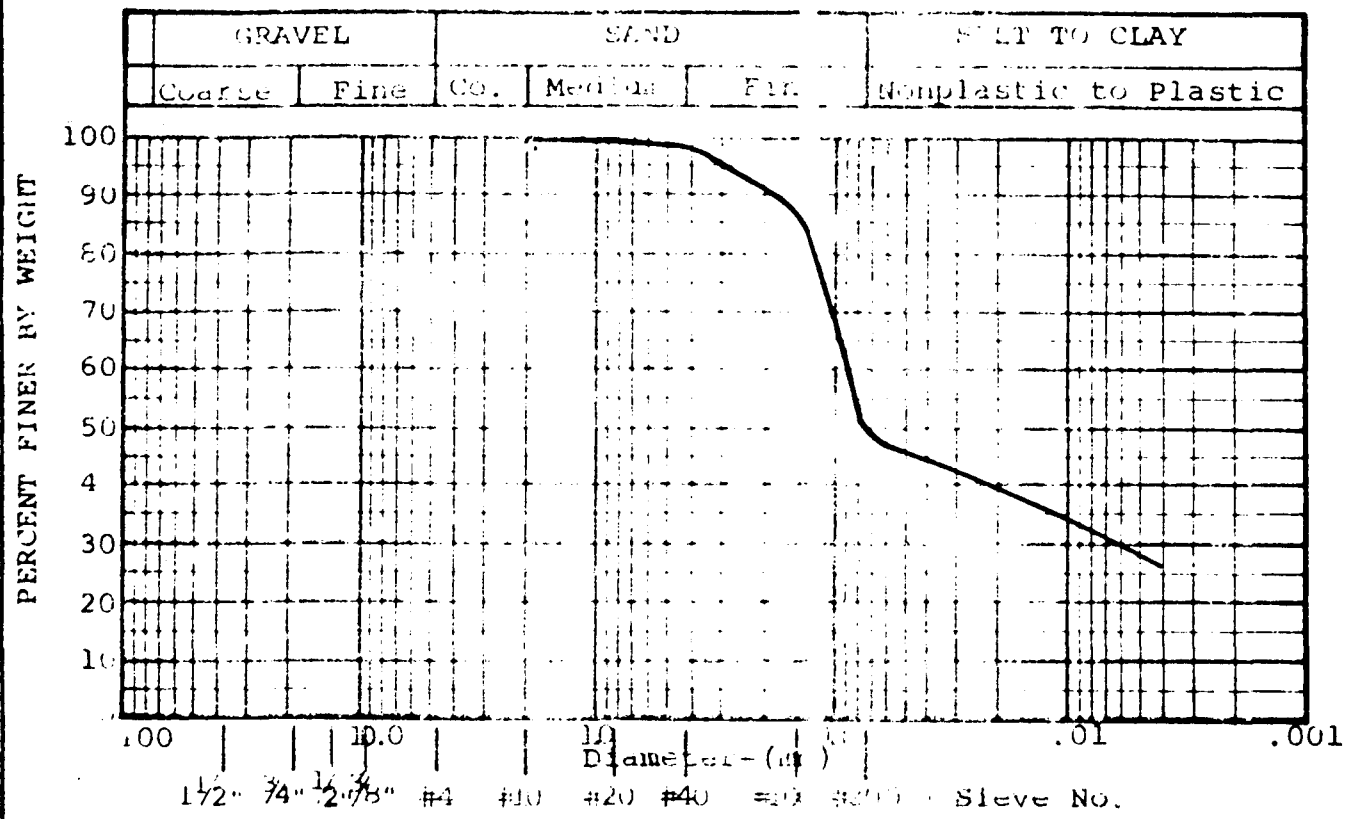
Test No. 20632

Project Valley West Subdivision

Date 3-23-78

Sample Location TH-7 10' Depth

Test by SMS



Sample No. 2

Specific Gravity 2.74

Moisture Content 32.0

Effective Size _____

Cu _____

Cc _____

Fineness Modulus _____

L.L. 21.9 % P.I. 1.8 %

BEARING _____ psi

Sieve	% Passing
1 1/2"	_____
1"	_____
3/4"	_____
1/2"	_____
3/8"	_____
4	_____
10	<u>100</u>
20	<u>99.7</u>
40	<u>99.5</u>
100	<u>86.7</u>
200	<u>48.4</u>
0200	<u>39.8</u>
.005	<u>27.8</u>
Sulfates	_____ ppm

GRAIN SIZE ANALYSIS

LINCOLN DEVORE TESTING LABORATORY
 COLORADO SPRINGS, COLORADO

Soil Sample Well-Graded Silty Gravel (GW/GM)

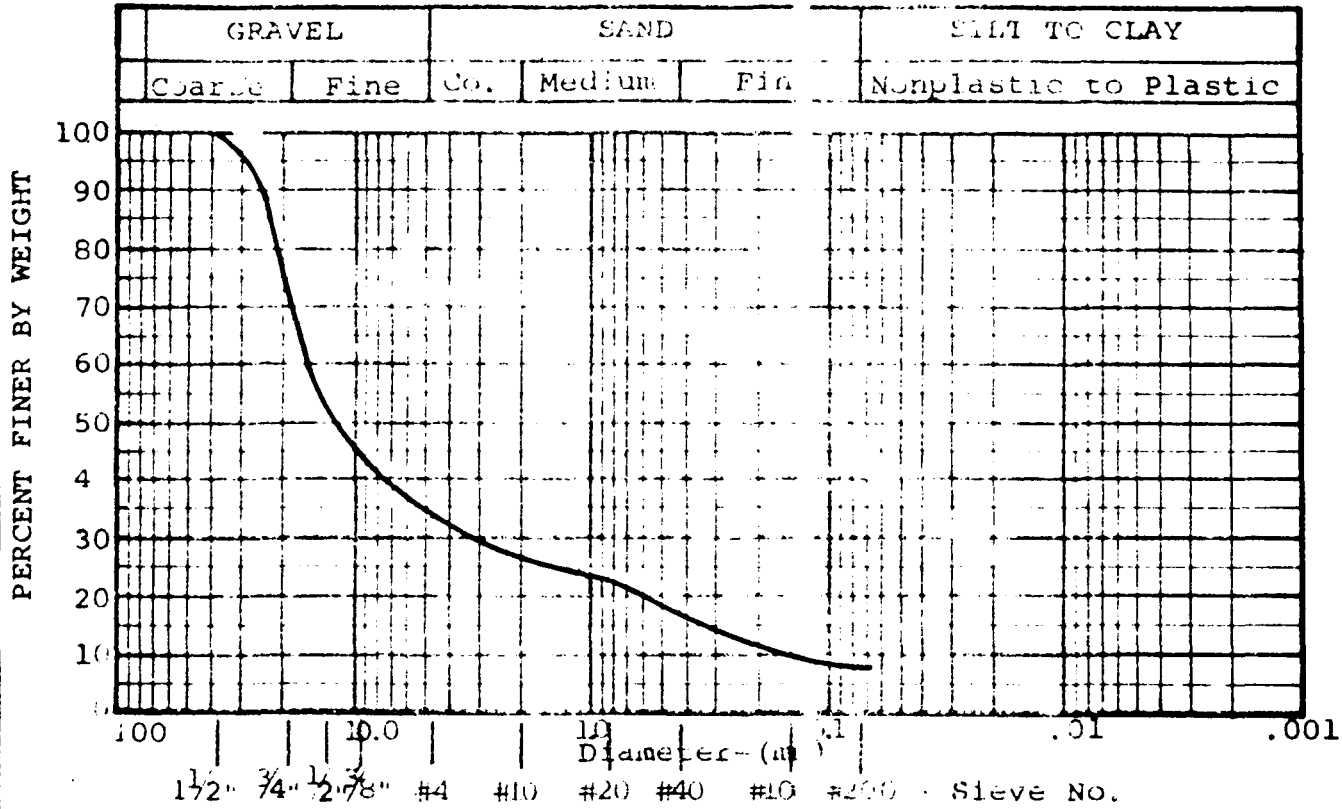
Test No. 20632

Project Valley West Subdivision

Date 3-23-78

Sample Location TH-1 20' Depth

Test by RL



Sample No. 3

Specific Gravity _____

Moisture Content 26.8

Effective Size .14

Cu 75

Cc 3

Fineness Modulus _____

L.L. 4 P.I. NP 4

BEARING _____ per

Sieve Size	% Passing
1 1/2"	100
1"	93.3
3/4"	70.6
1/2"	53.6
3/8"	45.2
4	33.9
10	26.7
20	23.2
40	17.6
100	10.1
200	7.7
0200	

Sulfates Negative ppm

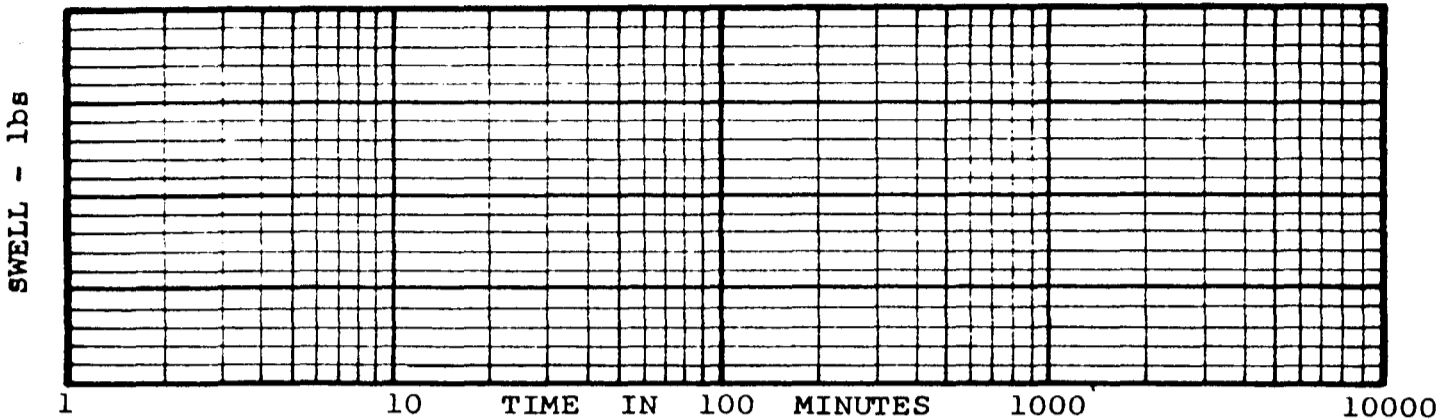
GRAIN SIZE ANALYSIS

LINCOLN-DEVORE TESTING LABORATORY
 COLORADO SPRINGS, COLORADO

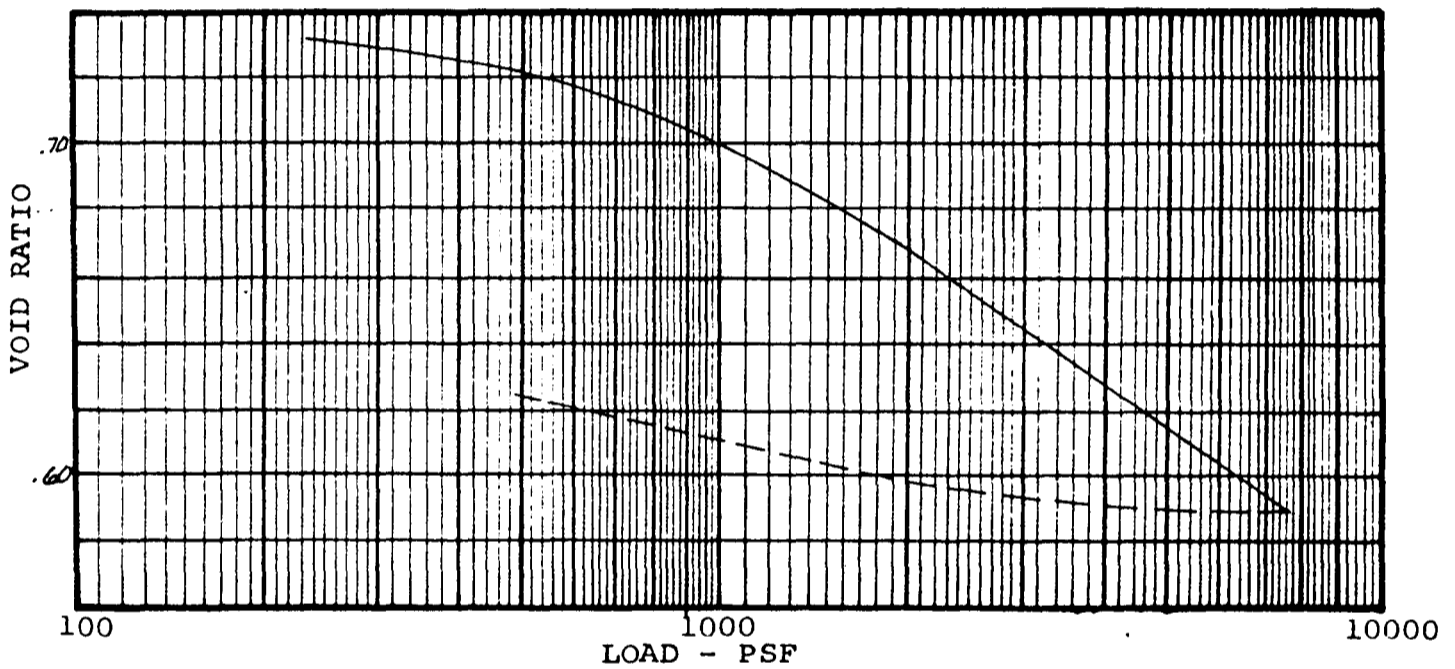
SOIL SAMPLE CL
 Project Valley West Subdivision
 Sample Location TH-8. 5' Depth

Test No. 20632
 Date 3/23/78
 Test by RL

SWELL



CONSOLIDATION



Sample Conditions	Initial	Maximum Load	Expanded
Dry Density	94.6	103.7	101.5
% Moisture	27.6	—	25.0
% Saturation	98.3	—	100
Void Ratio	.74	.59	.62

Specific Gravity 2.64
 Maximum Load used 7635 lb.
 Apparatus _____

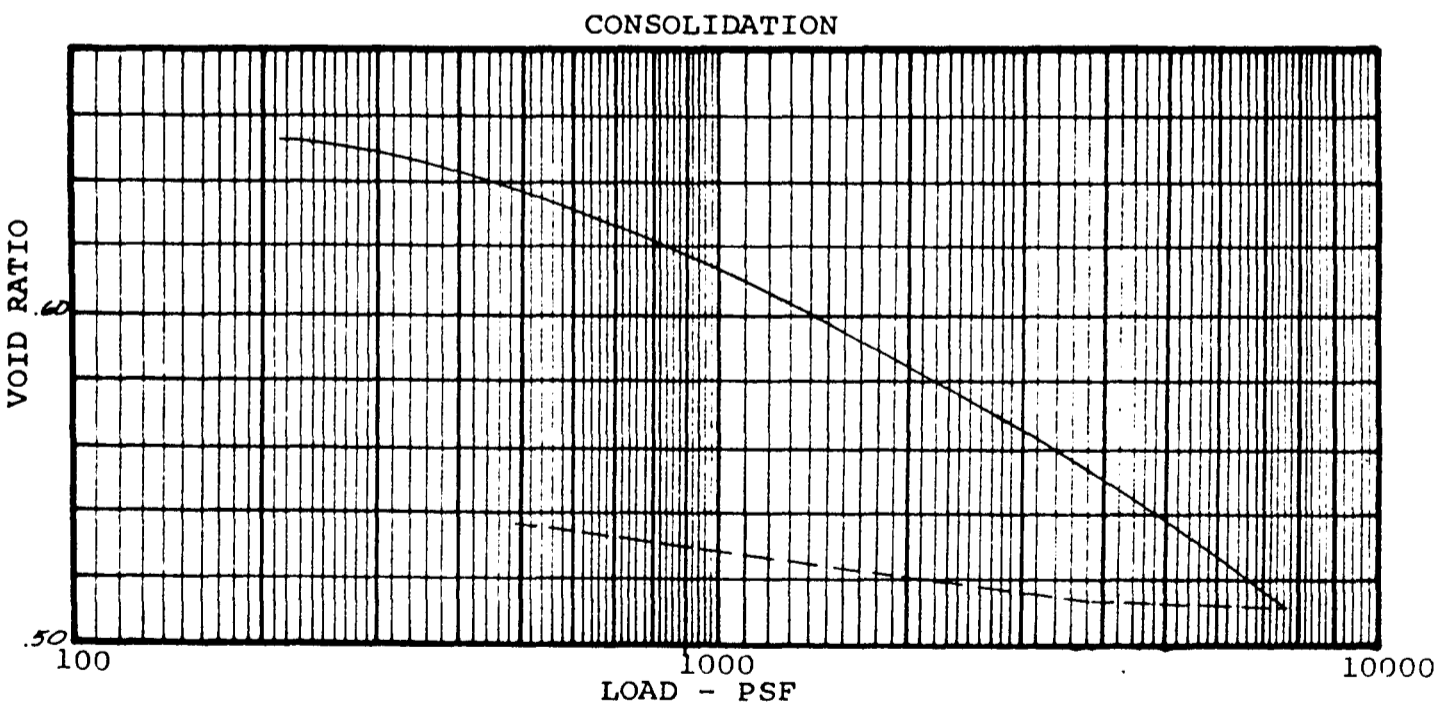
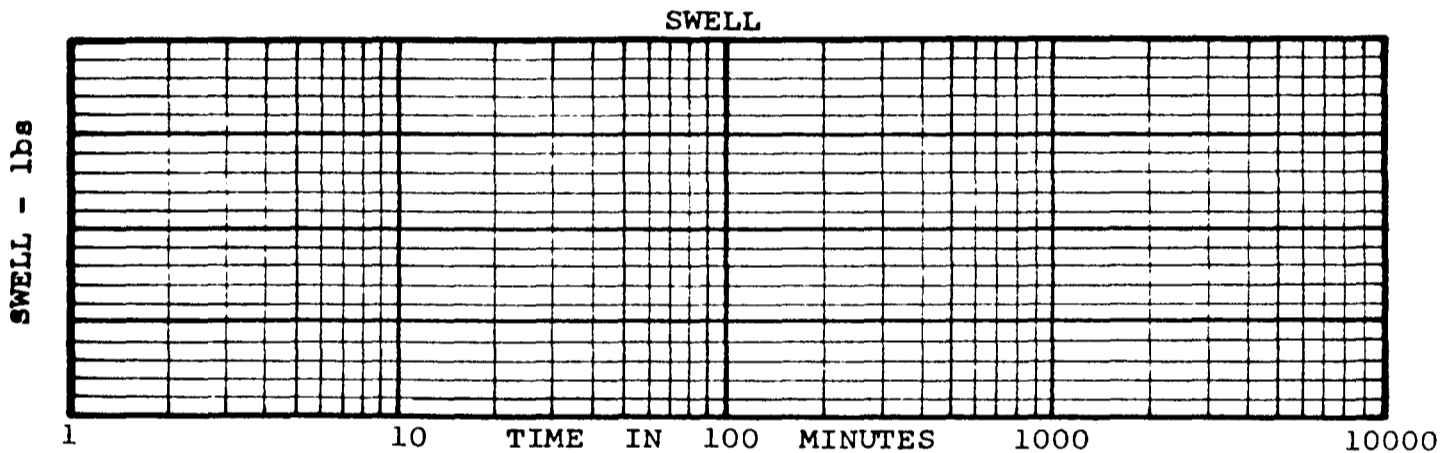
Ring Number _____
 Volume 2.5" Ring .00284 cu. ft.

LOAD - CONSOLIDATION

LINCOLN-DEVORE TESTING LABORATORY
 COLORADO SPRINGS, COLORADO

SOIL SAMPLE Lean Clay (CL)
 Project Valley West Subdivision
 Sample Location TH-1 4' Depth

Test No. 20632
 Date 3-20-78
 Test by EMM



Sample Conditions	Initial	Maximum Load	Expanded
Dry Density	98.4	109.0	107.2
% Moisture	25.3	—	21.8
% Saturation	99.7	—	100
Void Ratio	.67	.512	.537

Specific Gravity 2.64
 Maximum Load used 7635 lb./ft² Ring Number _____
 Apparatus _____ Volume 2.5" Ring .00284 cu. ft

LOAD - CONSOLIDATION

LINCOLN-DEVORE TESTING LABORATORY
 COLORADO SPRINGS, COLORADO

IBX SUBDIVISION

(A REPLAT OF LOT 13, VALLEY WEST SUBDIVISION, FILING NO. TWO)

DEDICATION

KNOW ALL MEN BY THESE PRESENTS:

IBX, Inc. is the owner of a parcel of land being that tract of land described at Book 1873, Page 403-404, Mesa County Records, and being more particularly described, as a result of survey, by the following:

Lot 13, Valley West Subdivision, Filing No. Two, in Section 36, Township One North, Range Ten West of the 10th Meridian, Grand Junction, Co., the portion of which is more particularly described as follows:

Commencing at a Mesa County Survey Marker for the East 1/4 Corner of said Section 36, from whence a Mesa County Survey Marker for the N.E. Corner of the 3614/321/4 of said Section 36 bears S 89°58'20" E, according to Valley West Subdivision Filing No. Two, 1289.06 Feet, thence S 89°58'20" E, 305.00 Feet, thence S 72°39'06" E, 447.34 Feet to a 5/8" iron corner (L.S. 9960) on the south line of said Valley West Subdivision, Filing No. Two, and the point of beginning, thence S 61°20'10" E, 324.24 Feet to the northerly right-of-way line of U.S. Highway 6 & 50, 86.47 Feet to the northerly right-of-way line of Valley Court, thence on said northerly right-of-way line S 33°21'00" E, 490.00 Feet to the beginning of a 461.25 Feet radius curve to the left, thence on the arc of said curve (the chord of which bears S 61°20'10" E, 324.24 Feet) through a central angle of 22°19'20" for a distance of 258.28 Feet to the northeast corner of said Lot 13, thence leaving said easterly right-of-way line S 72°39'06" E, 318.86 Feet to the northeast corner of said Lot 13, thence S 72°39'06" E, 318.86 Feet to the east line of said Lot 13, 807.36 Feet to the northerly right-of-way line of U.S. 1-70 Access Road, thence S 89°59'30" W, 653.78 Feet to the northerly right-of-way line of said Lot 13, thence S 89°59'30" W, 653.78 Feet to the beginning.

That said owners have caused the said real property to be laid out and surveyed as I B X SUBDIVISION, a Subdivision of a part of the County of Mesa.

That said owner does hereby dedicate and set apart real property as shown and labeled on the accompanying plat as follows:

All streets and Right-of-Way to the City of Grand Junction for the use of the public forever;

All Multi-Purpose Easements to the City of Grand Junction for the use of the public utilities as perpetual easements for the installation, operation, maintenance and repair of utilities and appurtenances thereto including, but not limited to electric lines, cable TV lines, natural gas pipelines, sewer lines, water lines, telephone lines, and also for the installation and maintenance of traffic control facilities, street lighting, and grade structures;

All Easements to the owners (Property/Managers Association) of lots and tracts hereby platted as perpetual easements for the conveyance of runoff water which originates within the area hereby platted or from upstream areas, through natural or man-made facilities above or below ground.

All easements include the right of ingress and egress on, along, over, under, and through and across by the beneficiaries, their successors, or assigns, together with the right to trim or remove interfering trees and brush, and in drainage and detention/detention easements, the right to dredge; provided, however, that the beneficiaries of said easements shall utilize the same in a reasonable and prudent manner. Furthermore, the owners of lots or tracts hereby platted shall not burden said easements by erecting or placing any improvements thereon which may prevent reasonable ingress and egress to and from the easement.

THERE ARE NO LIENHOLDERS OF RECORD.

IN WITNESS WHEREOF, said owners have caused their names to be hereto subscribed this _____ day of _____ A.D., 19____.

IBX, Inc. President Pat Tucker

STATE OF COLORADO)
COUNTY OF MESA) SS

The foregoing instrument was acknowledged before me this _____ day of _____ A.D., 19____, by IBX, INC.

My commission expires: _____

WITNESS MY HAND AND OFFICIAL SEAL.

Notary Public

CLERK AND RECORDER'S 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., 19____, and is duly recorded as Reception Number _____ in Plat Book _____, Page _____ through _____.

Inclusive: Easement No. _____
TIN, R2W U.M.
MCSM MET LEXIS.

Clerk and Recorder _____

Notary Public

CITY OF GRAND JUNCTION CERTIFICATE OF APPROVAL

Approved this _____ day of _____ A.D., 19____.

Mayor _____

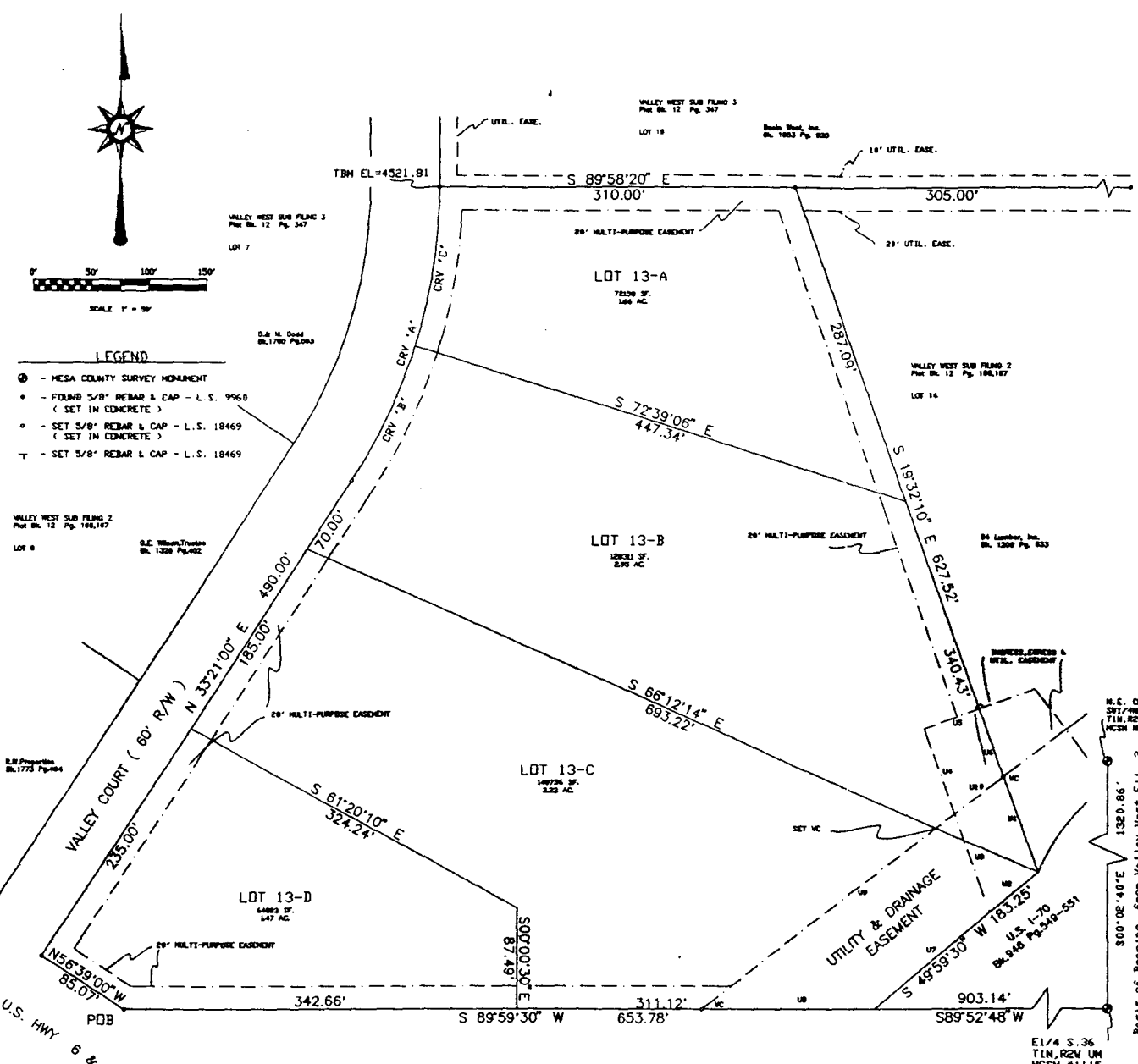
City Manager _____

SURVEYOR'S CERTIFICATE

I, Richard A. Mann, do hereby certify that the accompanying plat of I B X SUBDIVISION, a Subdivision of a part of the City of Grand Junction, County of Mesa, has been prepared under my direct supervision and accurately represents a field survey of the same. Also said plat complies with all applicable survey requirements of the Zoning and Development Code of the City of Grand Junction and all applicable state laws and regulations.

Richard A. Mann
Registered Professional Land Surveyor
P.L.S. No. 18469

Date _____



- LEGEND**
- ⊙ - MESA COUNTY SURVEY MONUMENT
 - - FOUND 5/8" REBAR & CAP - L.S. 9960 (SET IN CONCRETE)
 - - SET 5/8" REBAR & CAP - L.S. 18469 (SET IN CONCRETE)
 - ⊕ - SET 5/8" REBAR & CAP - L.S. 18469

CURVE TABLE

CURVE	RADIUS	LENGTH	CHORD	CHORD BEARING	DELTA ANGLE
CRV "A"	461.25'	258.28'	264.31'	N 15°41'28" E	33°19'28"
CRV "B"	461.25'	188.25'	188.41'	N 85°58'58" E	16°40'45"
CRV "C"	461.25'	129.45'	128.96'	N 08°41'18" E	17°19'15"

EASEMENT DIMENSIONS

LINE #	LENGTH	BEARING	LINE #	LENGTH	BEARING
U1	88.89'	S19°38'18"E	U7	61.91'	S19°38'18"E
U2	33.37'	S89°59'30"W	U8	129.88'	S89°59'30"W
U3	98.38'	N19°38'18"E	U9	151.09'	S89°59'30"W
U4	78.89'	N19°38'18"E	U5	277.37'	N82°31'31"E
U5	58.80'	N78°27'58"E	U10	32.56'	N82°31'31"E

- GENERAL NOTES:**
1. Title information from Mesa County real property records.
 2. Basis of bearing derived from the monument called for and the relationship created by Valley West Subdivision, Filing 2.
 3. Elevation datum derived from MDA S.N. R 427 Geoid (+519.67), according to the 1989 datum.
 4. 18' utility easement along part of the easterly side of Lot 13, as shown by Valley West Sub., is relinquished hereto and replaced by the 20' Multi-Purpose easement as shown.

C:\MAYCO\IBX-PLAT THU NOV 30 18:29:47 1995 ROLLAND ENGINEERING

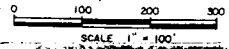
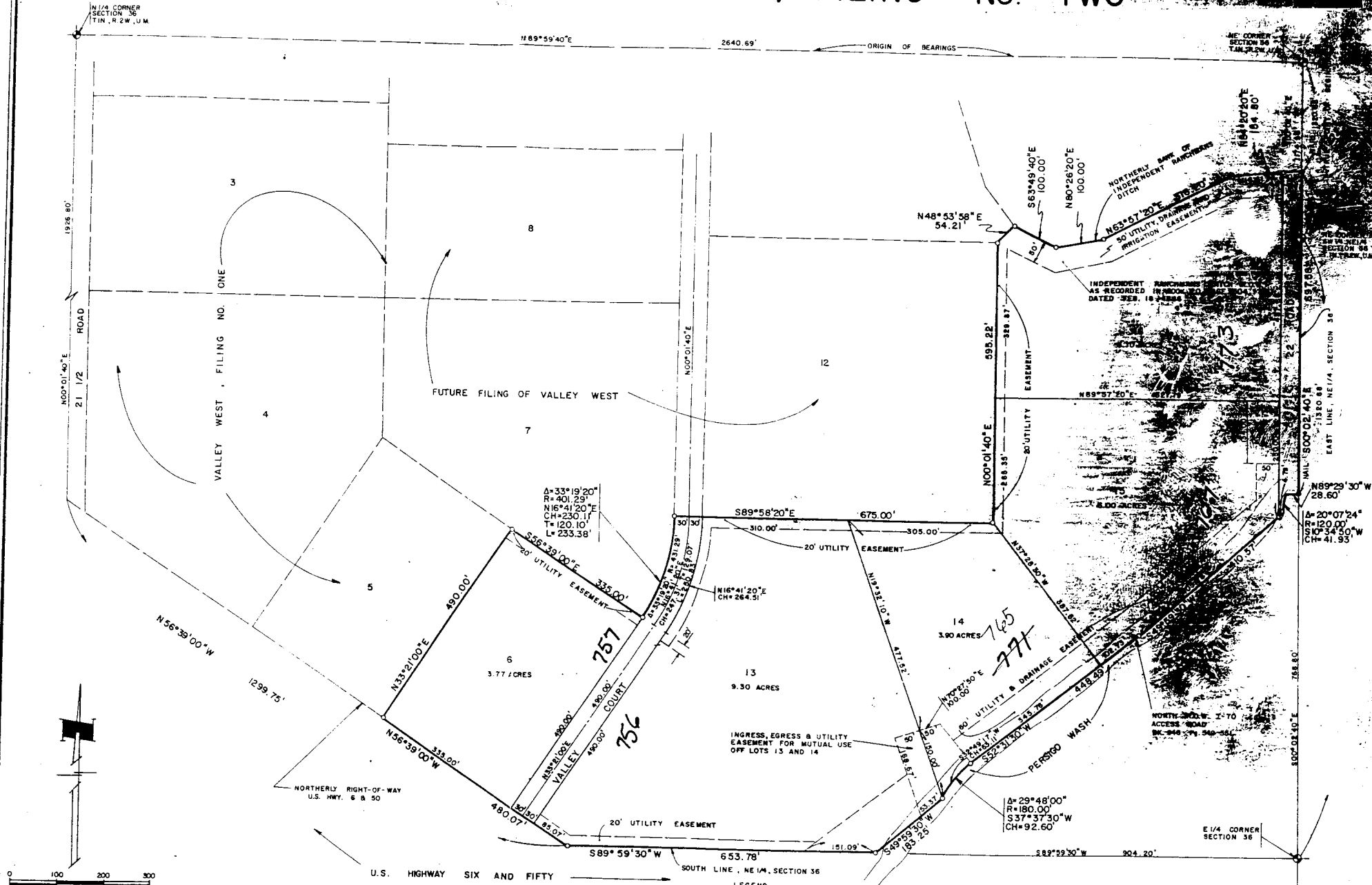
NOTICE: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event, may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown herein.

ROLLAND ENGINEERING
405 Ridges Blvd
Grand Jct., CO 81503
(970) 243-9300

FILED IN NE1/4 SEC 36	
IBX SUBDIVISION	
in NE1/4 SEC 36	
T1N, R2W U.M.	
GRAND JUNCTION, CO	
Designed BAR	Checked RML
Drawn LVA	Sheet 1

VALLEY WEST SUBDIVISION, FILING NO. TWO

C-16-79
Zone C



- LEGEND**
- Indicates Mead County Brass Cap
 - Indicates 5/8" Rebar And Monument Cap Set In Concrete
 - ▲ A 5/8" Rebar And Monument Cap At All Lot Corners

AREA QUANTITIES

Total Acres in Lots	28.67 Ac	or	94.50%
Total Acres in Streets	1.67 Ac	or	5.50%
Total Acres	30.34 Ac	or	100.00%

SE CORNER SECTION 36 T.1N., R.2W., U.M.

Sheet 2 of 2

VALLEY WEST SUBDIVISION
FILING NO. TWO