RIVERBEND- I UNIT A (02057GW)
FEMA MT-1 LOMR-F

City of Phoenix
STREET TRANSPORTATION DEPARTMENT

April 6, 2004

Michael Baker Corporation
3601 Eisenhower Avenue, #600
Alexandria, Va. 22304-6425

RE: LETTER OF MAP REVISION BASED ON FILL (LOMR-F) RIVER BEND I, UNIT A LOCATED AT 51st AVENUE AND BROADWAY ROAD. PHOENIX, ARIZONA FIRM PANEL NUMBER 04013C2120F, JULY 19, 2001.

Gentlemen:

This is a request for a Letter of Map Revision Based on Fill (LOMR-F) for the above project. Following items are included with this application.

ITEMS:

1- Check for $800.
2- Summary (Tab 1).
3- Vicinity Map (Tab 2).
4- Firm Maps (Tab 3).
5- Property Information Form (Tab 4).
6- Elevation Form (Tab 5).
7- Community Acknowledgement Form (Tab 6).
8- Assessor's Map (Tab 7).
9- Aerial Photograph (Tab 8).
10- Title Report (Tab 9).
11- Alta Survey (Tab 10).
12- Final Plat (Tab 11).
13- As-Built Grading & Drainage Plan (Tab 12).
14- Pad Certifications (Tab 13).

If you have any technical questions concerning this project please contact Mr. Tom Palmer, P.E., M2 Group, Inc., 4852 East Baseline Road, Suite 107, Mesa, Arizona 85206, phone number 480-324-3700, fax number 480-324-3600. If you have any other questions, please contact this office at 602-262-4960.

Sincerely,

Hasan Mushtaq, Ph.D., P. E., CFM
Floodplain Manager

HM/KL/aff/river bend I lomr.doc

Attachment

C: Mr. Cosson, NFIP Coordinator, ADWR
Mr. Murphy, P.E., CFM, FCDMC
Mr. Palmer, P.E., M2Group

Property of
Flood Control District of MC Library
Please Return to
2801 W. Durango
Phoenix, AZ 85009

FEMA MT-1
LOMR-F REQUEST
for
RIVERBEND I, UNIT A

Northwest corner of 51st Ave. & Broadway Rd.
Phoenix, Arizona

Owner / Developer:

K. Hovnanian, Great Western Home LLC
3850 E. Baseline Rd.
Suite 107
Mesa, AZ 85206

Applicant:

M2 GROUP, INC.
4852 E. Baseline Rd.
Suite 107
Mesa, Arizona 85206

City of Phoenix Tracking Numbers:
Kiva # 03-308
SDEV # 0300129

FEMA MT-1
LOMR-F REQUEST FOR
RIVERBEND I

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SUMMARY

VICINITY MAP

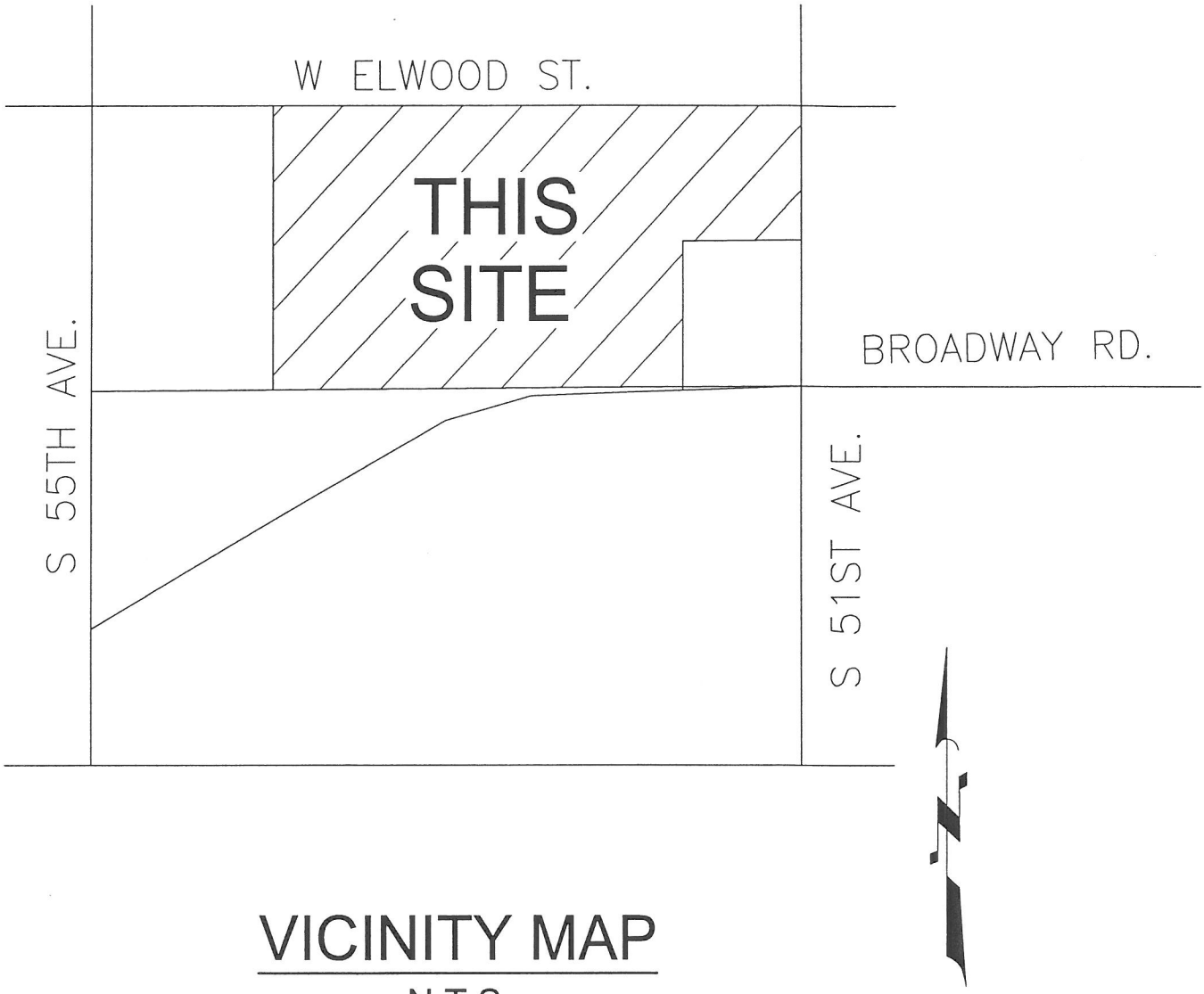
SUMMARY

Riverbend I, Unit A is a proposed 305 lot, single family R-2 subdivision located at the northwest corner of Broadway Rd. and 51st Ave. in Phoenix, AZ. This site is comprised of a portion of the southeast quarter of Section 20, Township 1 North, Range 2 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona. See attached Vicinity Map (Exhibit "A") for a general location of the site. The site is located just north of the Salt River. The site is bordered by Elwood Road on the north, by Broadway Road and undeveloped agricultural fields on the south, by undeveloped agricultural fields on the west, and by 51st Avenue on the east. The existing terrain of the site falls from northeast to southwest with a very gentle slope.

The southeastern portion of this site is located within Flood Zone "AE" as shown on FIRM Map #04013C2120 F, dated July 19, 2001. This is due to the elevation of the flood waters of the Salt River during the 100 year flood which reaches to a level that is within the boundary of the site.

Eight (8) of the proposed lots in this subdivision are located within the delineated Flood Zone "AE". With the grading of this site, the pad elevations of those (and all) lots were raised out of the flood limits. In conjunction with raising the pads, portions of the site also within Zone "AE" were lowered to provide on-site retention areas. The volume of fill that was placed in raising the pad elevations out of the flood limits is approximately 1100 cubic yards, while the volume of cut in the basin areas was approximately 1500 cubic yards.

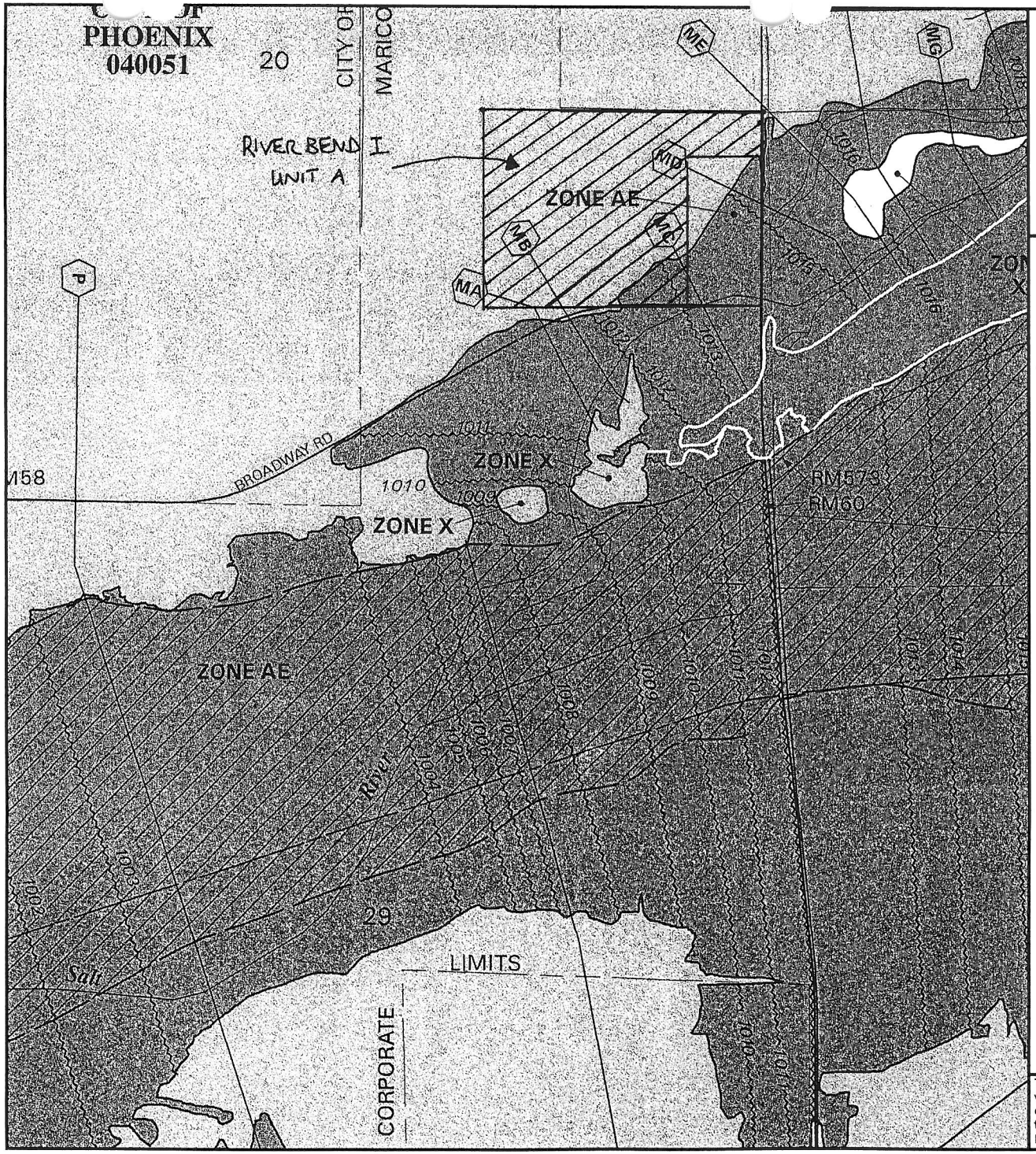
The eight lots in question are graded in such a way as to be elevated above the base flood elevation as shown on the Elevation Form and the Grading and Drainage Plan. The placement of the fill to elevate the pads was placed at 95% compaction. The pads for these lots are built per the approved Grading and Drainage Plan and then certified by a Registered Professional Engineer. This Letter of Map Revision for Fill requests that the lots mentioned above within this subdivision be removed from the Special Flood Hazard Area (SFHA) designation.



VICINITY MAP

N.T.S.

FIRM MAPS



APPROXIMATE SCALE IN FEET

1000 0 1000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

MARICOPA COUNTY, ARIZONA AND INCORPORATED AREAS

PANEL 2120 OF 4350

(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MARICOPA COUNTY, UNINCORPORATED AREAS	040037	2120	F
PHOENIX, CITY OF	040051	2120	F

MAP NUMBER
04013C2120 F

MAP REVISED:
JULY 19, 2001

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

PROPERTY INFORMATION FORM

FEDERAL EMERGENCY MANAGEMENT AGENCY

PROPERTY INFORMATION FORM

O.M.B. NO. 3067-0147
Expires September 30, 2005

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 1.63 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, SW, Washington DC 20472, Paperwork Reduction Project (3067-0147). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. **Please do not send your completed survey to the above address.**

This form may be completed by the property owner, property owner's agent, licensed land surveyor, or registered professional engineer to support a request for a Letter of Map Amendment (LOMA), Conditional Letter of Map Amendment (CLOMA), Letter of Map Revision Based on Fill (LOMR-F), or Conditional Letter of Map Revision Based on Fill (CLOMR-F) for existing or proposed, single or multiple lots/structures. Please check the item below that describes your request:

☐ LOMA	A letter from FEMA stating that an existing structure or parcel of land that has not been elevated by fill (natural grade) would not be inundated by the base flood.
☐ CLOMA	A letter from FEMA stating that a proposed structure that is not to be elevated by fill (natural grade) would not be inundated by the base flood if built as proposed.
☒ LOMR-F	A letter from FEMA stating that an **existing** structure or parcel of land that has been **elevated by fill** would not be inundated by the base flood.
☐ CLOMR-F	A letter from FEMA stating that a parcel of land or **proposed** structure that will be **elevated by fill** would not be inundated by the base flood if fill is placed on the parcel as proposed or the structure is built as proposed.

Fill is defined as material from any source placed to raise the ground to or above the Base Flood Elevation (BFE). The common construction practice of removing unsuitable existing material (topsoil) and backfilling with select structural material is not considered the placement of fill if the practice does not alter the existing (natural grade) elevation, which is at or above the BFE. **Fill that is placed before the date of the first National Flood Insurance Program (NFIP) map showing the area in a Special Flood Hazard Area (SFHA) is considered natural grade.**

Has fill been placed on your property? ☒ Yes ☐ No If yes, when was fill placed? 10 / 03 month/year

Will fill be placed on your property? ☐ Yes ☐ No If yes, when will fill be placed? / month/year

1. Street Address of the Property (if request is for multiple structures, please attach additional sheet):
   NORTHWEST CORNER OF 51ST AVE. AND BROADWAY ROAD
2. Legal description of Property (Lot, Block, Subdivision) (if a street address cannot be provided):
   "RIVER BEND 1, UNIT A, PHASES 1-4" PROPOSED SUBDIVISION; ASSESSOR'S PARCEL NUMBERS: 104-59-003A & 104-59-002
3. Are you requesting that the SFHA designation be removed from (check one):
   - ☐ the entire legally recorded property?
   - ☐ a portion of land within the bounds of the property (a certified metes and bounds description and map of the area to be removed, certified by a licensed land surveyor or registered professional engineer, are required)?
   - ☒ structures on the property? What are the dates of construction? 10/03
4. Is this request for a (check one):
   - ☐ single structure
   - ☐ single lot
   - ☐ multiple structures (How many structures are involved in your request? List the number:)
   - ☒ multiple lots (How many lots are involved in your request? List the number: 8 LOTS)

In addition to this form (MT-1 Form 1), ALL requests must include the following:

- Copy of the Plat Map for the property (with recordation data and stamp of the Recorder's Office)
  OR
- Copy of the property Deed (with recordation data and stamp of the Recorder's Office), accompanied by a tax assessor's map or other certified map showing the surveyed location of the property relative to local streets and watercourses
- Copy of the effective FIRM panel and/or Flood Boundary and Floodway Map (FBFM) (if applicable) on which the property location has been accurately plotted (property inadvertently located in the NFIP regulatory floodway will require Section B of MT-1 Form 3)
- Form 2 – Elevation Form. If an Elevation Certificate has already been completed for this property, it may be submitted in addition to Form 2.

Please include a map scale and North arrow on all maps submitted.

For LOMR-Fs and CLOMR-Fs, the following must be submitted in addition to the items listed above:

- Form 3 – Community Acknowledgment Form

Processing Fee (see instructions for appropriate mailing address; or, visit **http://www.fema.gov/fhm/frm_fees.shtm** for the most current fee schedule)

Revised fee schedules are published periodically, but no more than once annually, as noted in the Federal Register. Please note: single/multiple lot(s)/structure(s) LOMAs are fee exempt. The current review and processing fees are listed below:

Check the fee that applies to your request:

- ☐ $325 (single lot/structure LOMR-F following a CLOMR-F)
- ☐ $425 (single lot/structure LOMR-F)
- ☐ $500 (single lot/structure CLOMA or CLOMR-F)
- ☐ $700 (multiple lot/structure LOMR-F following a CLOMR-F, or multiple lot/structure CLOMA)
- ☒ $800 (multiple lot/structure LOMR-F or CLOMR-F)

Please submit the Payment Information Form for remittance of applicable fees. Please make your check or money order payable to: National Flood Insurance Program.

All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Applicant's Name: TOM PALMER
Please Print or Type

Company: M2 GROUP, INC.

Mailing Address: 4852 E. BASELINE RD. STE. #107
MESA, AZ 85206

Daytime Telephone No.: (480) 324-3700

E-Mail Address: (optional)
TPALMER@M2GROUPINC.COM

Fax No.: (480) 324-3600

Date 1/28/04

Signature of Applicant (required)

If you have any questions concerning FEMA policy, or the NFIP in general, please contact the FEMA Map Assistance Center toll free at 1-877-FEMA MAP (1-877-336-2627), or visit the Flood Hazard Mapping website at **www.fema.gov/fhm/**.

ELEVATION FORM

FEDERAL EMERGENCY MANAGEMENT AGENCY

ELEVATION FORM

O.M.B. NO. 3067-0147
Expires September 30, 2005

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 1 hour per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, SW, Washington DC 20472, Paperwork Reduction Project (3067-0147). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. **Please do not send your completed survey to the above address.**

This form must be completed for requests and must be completed and signed by a registered professional engineer or licensed land surveyor. **A FEMA National Flood Insurance Program (NFIP) Elevation Certificate may be submitted in addition to this form for single structure requests.**

For requests to remove a structure on natural grade OR on engineered fill from the Special Flood Hazard Area (SFHA), submit the lowest adjacent grade (the lowest ground touching the structure), including an attached deck or garage. For requests to remove an entire parcel of land from the SFHA, provide the lowest lot elevation; or, if the request involves an area described by metes and bounds, provide the lowest elevation within the metes and bounds description.

1. NFIP Community Number: 040051 Property Name or Address: RIVERBEND 1, UNIT A, PHASES 1-3 NWC OF 51ST AVE & BROADWAY RD.
2. Are the elevations listed below based on ☒ existing or ☐ proposed conditions? (Check one)
3. What is the elevation datum? 1008.32 If any of the elevations listed below were computed using a datum different than the datum used for the effective Flood Insurance Rate Map (FIRM) (e.g., NGVD 29 or NAVD 88), what was the conversion factor?
   City of Phoenix Datum (NGUD '29)
   Local Elevation +/- ft. = FIRM Datum
4. For the existing or proposed structures listed below, what are the types of construction? (check all that apply)
   ☐ crawl space ☒ slab on grade ☐ basement/enclosure ☐ other (explain)
5. Has FEMA identified this area as subject to land subsidence or uplift? (see instructions) ☐ Yes ☒ No
   If yes, what is the date of the current releveling? / (month/year)

Lot Number	Block Number	Lowest Lot Elevation	Lowest Adjacent Grade To Structure	Base Flood Elevation	For FEMA Use Only
23	–		1014.4	1012.8	
24	–		1014.5	1012.8	
25	–		1014.7	1012.9	

This certification is to be signed and sealed by a licensed land surveyor, registered professional engineer, or architect authorized by law to certify elevation information. All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Certifier's Name: THOMAS R. PALMER	License No.: 38796	Expiration Date: 3/31/06
Company Name: MZ GROUP, INC.	Telephone No.: (480) 324-3700	Fax No.: (480) 324-3600
Signature:	Date: 1/28/04	

Registered Professional Engineer (Civil) CERTIFICATE NO. 38796 THOMAS R. PALMER Date Signed 1/28/04 Seal (optional) ARIZONA U.S.A.

Continued from Page 1.

Lot Number	Block Number	Lowest Lot Elevation	Lowest Adjacent Grade To Structure	Base Flood Elevation	For FEMA Use Only
26	–		1014.8	1013.0	
27	–		1015.0	1013.1	
28	–		1014.9	1013.2	
29	–		1014.7	1013.1	
30	–		1014.7	1012.9	

This certification is to be signed and sealed by a licensed land surveyor, registered professional engineer, or architect authorized by law to certify elevation information. All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Certifier's Name: THOMAS R. PALMER	License No.: 38796	Expiration Date: 3/31/06
Company Name: M2 GROUP, INC.	Telephone No.: (480) 324-3700	Fax No.: (480) 324-3600
Signature:	Date: 1/28/04	

Registered Professional Engineer (Civil)
CERTIFICATE NO.
38796
THOMAS R.
PALMER
Date Signed 1/28/04
ARIZONA U.S.A.
Seal (optional)

COMMUNITY ACKNOWLEDGEMENT FORM

FEDERAL EMERGENCY MANAGEMENT AGENCY

COMMUNITY ACKNOWLEDGMENT FORM

O.M.B. NO. 3067-0147
Expires September 30, 2005

PAPERWORK BURDEN DISCLOSURE NOTICE

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This form must be completed for requests involving the existing or proposed placement of fill (complete Section A) OR to provide acknowledgment of this request to remove a property from the SFHA which was previously located within the regulatory floodway (complete Section B).

This form must be completed and signed by the official responsible for floodplain management in the community. The community number and the subject property address must appear in the spaces provided below.

Community Number: 040051 Property Name or Address: RIVERBEND I, UNIT A - NWC OF 51ST AVE & BROADWAY RD.

A. REQUESTS INVOLVING THE PLACEMENT OF FILL

As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this Letter of Map Revision Based on Fill (LOMR-F) or Conditional LOMR-F request. Based upon the community's review, we find the completed or proposed project meets or is designed to meet all of the community floodplain management requirements, including the requirement that no fill be placed in the regulatory floodway, and that all necessary Federal, State, and local permits have been, or in the case of a Conditional LOMR-F, will be obtained. In addition, we have determined that the land and any existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding as defined in 44CFR 65.2(c), and that we have available upon request by FEMA, all analyses and documentation used to make this determination. For LOMR-F requests, we understand that this request is being forwarded to FEMA for a possible map revision.

Community Comments:

Community Official's Name and Title: (*Please Print or Type*)		Telephone No.:
Hasan Mushtaq, Ph.D., P.E., CFM		602-262-4960
Community Name: City of Phoenix	Community Official's Signature: (required) Hmushtaq	Date: 4/6/04

B. PROPERTY LOCATED WITHIN THE REGULATORY FLOODWAY

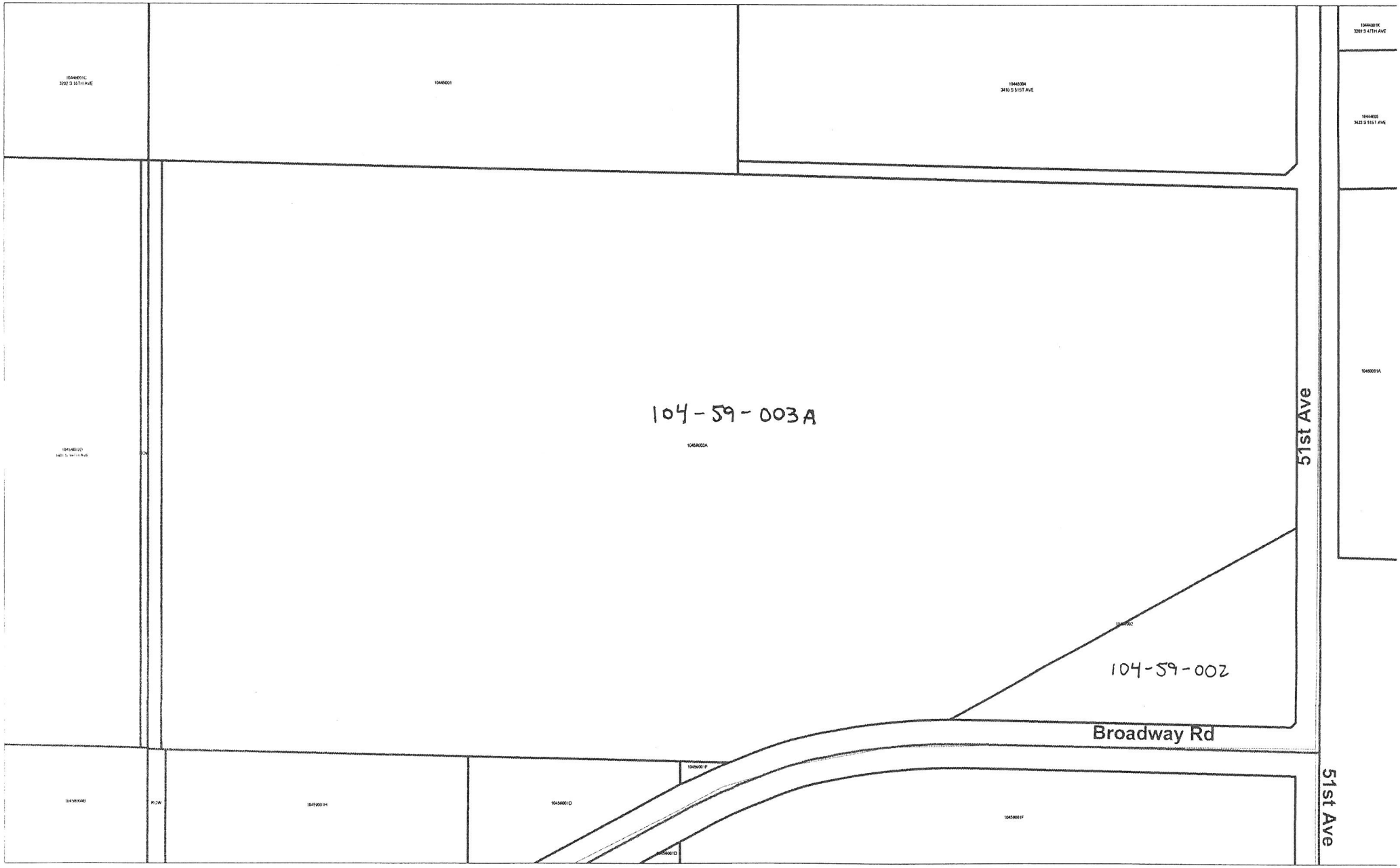
As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this request for a LOMA. We understand that this request is being forwarded to FEMA to determine if this property has been inadvertently included in the regulatory floodway. We acknowledge that no fill on this property has been or will be placed within the designated regulatory floodway. We find that the completed or proposed project meets or is designed to meet all of the community floodplain management requirements.

Community Comments:

Community Official's Name and Title: (*Please Print or Type*)		Telephone No.:
Community Name:	Community Official's Signature (required):	Date:

ASSESSOR'S MAP

104-59-003A, 002



AERIAL PHOTO

104-59 003A, 002

N

PROPERTY DEED

No. 201-1427502

First American Title Insurance Company

SCHEDULE A
Second Amended

ESCROW/CLOSING INQUIRIES should be directed to your Escrow Officer: Carol Peterson at (602) 685-7560

Effective Date: January 22, 2003 at 7:30 a.m.

1. Policy or (Policies) to be issued:

   ALTA 1992 Extended Owner's for $3,726,000.00

   Proposed Insured:
   Great Western Communities, Inc., an Arizona corporation, d/b/a Great Western Homes

2. The estate or interest in the land described or referred to in this commitment and covered herein is fee simple and title thereto is at the effective date hereof vested in:

   The Newport Group IV, L.L.C., an Arizona Limited Liability Company

3. Title to the estate or interest in the land upon issuance of the policy shall be vested in:

   Great Western Communities, Inc., an Arizona Corporation, d/b/a Great Western Homes

4. The land referred to in this Commitment is located in Maricopa County, AZ and is described as:

   SEE EXHIBIT "A" ATTACHED HEREIN

Title officer: Charlie Davies:mea/bkw @602-685-7745

Pages 1 through 4 of this document consist of the Title Insurance Commitment contract and our Privacy Policy.

No. 201-1427502

EXHIBIT "A"

The North half of the Southeast quarter of Section 20, Township 1 North, Range 2 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

EXCEPT that portion for ditch in Quit Claim Deed to the United States of America recorded in Book 198 of Deeds, Page 328.

No. 201-1427502

First American Title Insurance Company

SCHEDULE B
Second Amended

PART TWO:

1. Second installment of 2002 taxes, a lien, payable on or before March 1, 2003, and delinquent May 1, 2003 .

2. The liabilities and obligations imposed upon said land by reason of: (a) inclusion thereof within the boundaries of the Salt River Project Agricultural Improvement and Power District; (b) membership of the owner thereof in the Salt River Valley Water Users' Association, an Arizona corporation and (c) the terms of any Water Right Application made under the reclamation laws of the United States for the purpose of obtaining water rights for said land. (All assessments due and payable are paid.)

3. Reservations or Exceptions in Patents, or in Acts authorizing the issuance thereof.

4. Water rights, claims or title to water, whether or not shown by the public records.

5. A Resolution by the Board of Supervisors of Maricopa County, Arizona, recorded June 13, 1961 as Docket 3733, Page 538, and recorded as Book 14, Page 9 of Road Maps, purporting to establish a county roadway.

6. A Resolution by the Board of Supervisors of Maricopa County, Arizona, recorded September 8, 1970 as Docket 8302, Page 607 and recorded as Book 19, Page 67, of Road Maps, purporting to establish a county roadway.

7. A Resolution by the Board of Supervisors of Maricopa County, Arizona, recorded September 8, 1980 as Docket 14669, Page 423 and recorded as Book 26, Page 45 of Road Maps, purporting to establish a county roadway.

8. A Resolution by the Board of Supervisors of Maricopa County, Arizona, recorded January 6, 2000 as 00-11975 of Official Records, purporting to establish a county roadway.

9. An easement for roadway and incidental purposes, recorded as Book 125 of Deeds, Page 94 of Official Records.

10. A Right-of-Way for ditch and maintenance thereof and rights incident thereto, recorded as Book 183 of Deeds, Page 349.

11. An easement for electric transmission line and incidental purposes, recorded as Book 38 of Miscellaneous, Page 532 of Official Records.

No. 201-1427502

12. An easement for ingress and egress to maintenance ditch and incidental purposes, recorded as Docket 278, Page 583 of Official Records.

13. An easement for roadway and incidental purposes, recorded as Docket 3242, Page 541 of Official Records.

14. An easement for electric transmission line and incidental purposes, recorded as Docket 9956, Page 361 of Official Records.

15. An easement for road or highway and incidental purposes, recorded as 88-481960 of Official Records.

16. An easement for irrigation purposes and incidental purposes, recorded as 96-0443708 of Official Records.

17. A plat recorded in Book 1, Page 60 and as Book 2, Page 14 of Road Maps, purporting to show a county roadway.

18. A plat recorded in Book 32, Page 39 of Road Maps, purporting to show a county roadway.

19. The terms, conditions and provisions contained in the document entitled "Road Declared (Road File No. 5024-R)" recorded May 2, 2000 as 00-0331874 of Official Records .

20. Any rights, interest or claims which may exist or arise by reason of the following facts shown on a survey plat entitled A.L.T.A/A.C.S.M. Land Title Survey of 51st Avenue and Broadway Road, Job No. 03500, dated January 23, 2003, prepared by GeoDimensions:

a) right of way for ditch running North and South located in the center portion of said premises and the associated dirt road.

b) Right of way for concrete ditch beginning at a point in the Northeast corner of said premises and running in a Southwesterly direction to its terminus.

c) Right of way for roads along the South, West and North property lines of said premises.

d) Right of way for overhead electricline and appurtenances thereto along the South line of said premises.

No. 201-1427502

Continued

21. The rights of parties in possession by reason of any unrecorded lease or leases or month to month tenancies affecting any portion of the within described property.

NOTE: This matter will be more fully set forth or deleted upon compliance with the applicable requirement(s) set forth herein.

22. Taxes for the full year of 2003.
(The first half is due October 1, 2003 and is delinquent November 1, 2003. The second half is due March 1, 2004 and is delinquent May 1, 2004 .)

End of Schedule B

No. 201-1427502

First American Title Insurance Company
Second Amended

REQUIREMENTS:

1. Compliance with A.R.S. 11-480 relative to all documents to be recorded in connection herewith. See note at end of this section for details.

2. First half of 2002 taxes are paid in full.

   NOTE: Taxes are assessed in the total amount of $1,938.42 for the year 2002 under Assessor's Parcel No. 104-59-003A2.

3. All of 2002 taxes are paid in full.

   NOTE: Taxes are assessed in the total amount of $120.80 for the year 2002 under Assessor's Parcel No. 104-59-00206.

   NOTE: Taxes are assessed in the total amount of $26.88 for the year 2002 under Assessor's Parcel No. 104-59-003B1.

4. Payment in full of all assessments, late charges, transfer fees, and any other amounts due SALT RIVER PROJECT.

5. Record full release and reconveyance of a Deed of Trust securing an original indebtedness in the amount of $1,100,000.00, recorded March 10, 2000 as 00-0181814 of Official Records .

   Dated: March 9, 2000
   Trustor: The Newport Group IV, L.L.C., an Arizona Limited Liability Company
   Trustee: First American Title Insurance Company
   Beneficiary: Linda Bowman, wife of Robert V. Bowman, as her sole and separate property

6. Furnish Plat of Survey of the subject property by a Registered Land Surveyor in accordance with the "Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys" as currently established. Said Plat of Survey shall include the recommended certification and, at the minimum, also have shown thereon Items 1, 6, 8, 10, 11(b), 14, 15 and 16 from Table A thereof.

   NOTE: If a Zoning Endorsement is requested, Items 7(a), 7(b) and 7(c) of Table A will also be required. If "parking" is to be added to the endorsement, the number and type of parking spaces must be shown on the survey. Property use information must also be provided to First American Title Insurance Company.

No. 201-1427502

NOTE: Please revise survey to except from Legal Description (and depict on survey) that portion contained in Book 198 of Deeds, Page 328.

It is also noted that the reference to Ordinance G-4210 at 99-1018837 of Official Records is an incorrect recording number. Title is unable to locate another recording reference.

7. Completion of inspection now in progress by an employee of First American Title Insurance Company. If said inspection discloses the necessity for additional exceptions and/or requirements, you will be notified.

8. Furnish copies of any existing leases affecting the within described property and insertion of said leases in Schedule B of the Policy of Title Insurance.

9. Furnish a copy of the Articles of Organization, stamped "filed" by the Arizona Corporation Commission; a fully executed copy of the Operating Agreement, and any amendments thereto; and a list of the current members of The Newport Group IV, L.L.C., a limited liability company.

10. Record Warranty Deed from The Newport Group IV, L.L.C., an Arizona Limited Liability Company to Buyer(s).

NOTE: If this will be other than a Cash Transaction, notify the title department prior to close and additional requirements will be made.

NOTE: In connection with Arizona Revised Statutes 11-480, as of January 1, 1991, the County Recorder may not accept documents for recording that do not comply with the following:

a. Print must be ten-point type or larger.
b. A margin of two inches at the top of the first page for recording and return address information and margins of one-half inch along other borders of every page.
c. Each instrument shall be no larger than 8-1/2 inches in width and 14 inches in length.

11. Return to title department for final recheck before recording.

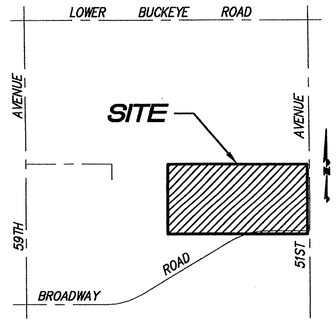
DISCLOSURE NOTE: In the event any Affidavit required pursuant to A.R.S. §11-806.03 has been, or will be, recorded pertaining to the land, such Affidavit is not reflected in this Commitment nor will it be shown in any policy to be issued in connection with this Commitment.

End of Requirements

ALTA SURVEY

A.L.T.A. / A.C.S.M. LAND TITLE SURVEY

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 1 NORTH, RANGE 2 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA



VICINITY MAP
N.T.S.

SCHEDULE B EXCEPTIONS

1. SECOND INSTALLMENT OF 2002 TAXES, A LIEN, PAYABLE ON OR BEFORE MARCH 1, 2003 AND IS DELINQUENT MAY 1, 2003.
2. THE LIABILITIES AND OBLIGATIONS IMPOSED UPON SAID LAND BY REASON OF: (A) INCLUSION THEREOF WITHIN THE BOUNDARIES OF THE SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT; (B) MEMBERSHIP OF THE OWNER THEREOF IN THE SALT RIVER VALLEY WATER USERS' ASSOCIATION, AN ARIZONA CORPORATION AND (C) THE TERMS OF ANY WATER RIGHT APPLICATION MADE UNDER THE RECLAMATION LAWS OF THE UNITED STATES FOR THE PURPOSE OF OBTAINING WATER RIGHTS FOR SAID LAND. (ALL ASSESSMENTS DUE AND PAYABLE ARE PAID.)
3. RESERVATIONS OR EXCEPTIONS IN PATENTS, OR IN ACTS AUTHORIZING THE ISSUANCE THEREOF.
4. WATER RIGHTS, CLAIMS OR TITLE TO WATER, WHETHER OR NOT SHOWN BY THE PUBLIC RECORDS.

(5.) A RESOLUTION BY THE BOARD OF SUPERVISORS OF MARICOPA COUNTY, ARIZONA, RECORDED JUNE 13, 1961 AS DOCKET 3733, PAGE 538, AND RECORDED AS BOOK 14, PAGE 9 OF ROAD MAPS, PURPORTING TO ESTABLISH A COUNTY ROADWAY.

(6.) A RESOLUTION BY THE BOARD OF SUPERVISORS OF MARICOPA COUNTY, ARIZONA, RECORDED SEPTEMBER 8, 1970 AS DOCKET 8302, PAGE 607, AND RECORDED AS BOOK 19, PAGE 67 OF ROAD MAPS, PURPORTING TO ESTABLISH A COUNTY ROADWAY.

(7.) A RESOLUTION BY THE BOARD OF SUPERVISORS OF MARICOPA COUNTY, ARIZONA, RECORDED SEPTEMBER 8, 1980 AS DOCKET 14669, PAGE 423, AND RECORDED AS BOOK 26, PAGE 45 OF ROAD MAPS, PURPORTING TO ESTABLISH A COUNTY ROADWAY.

(8.) A RESOLUTION BY THE BOARD OF SUPERVISORS OF MARICOPA COUNTY, ARIZONA, RECORDED JANUARY 6, 2000 AS 00-11975 OF OFFICIAL RECORDS, PURPORTING TO ESTABLISH A COUNTY ROADWAY.

(9.) AN EASEMENT FOR ROADWAY AND INCIDENTAL PURPOSES, RECORDED AS BOOK 125 OF DEEDS, PAGE 94 OF OFFICIAL RECORDS.

(10.) AN EASEMENT FOR DITCH AND MAINTENANCE AND INCIDENTAL PURPOSES, RECORDED AS BOOK 183 OF DEEDS, PAGE 349 AND AS BOOK 198 OF DEEDS, PAGE 328 OF OFFICIAL RECORDS.

(11.) A EASEMENT FOR ELECTRIC TRANSMISSION LINE AND INCIDENTAL PURPOSES, RECORDED AS BOOK 38 OF MISCELLANEOUS, PAGE 532 OF OFFICIAL RECORDS.

(12.) AN EASEMENT FOR INGRESS AND EGRESS TO MAINTENANCE DITCH AND INCIDENTAL PURPOSES, RECORDED AS DOCKET 278, PAGE 583 OF OFFICIAL RECORDS.

(13.) AN EASEMENT FOR ROADWAY AND INCIDENTAL PURPOSES, RECORDED AS DOCKET 3242, PAGE 541 OF OFFICIAL RECORDS.

(14.) AN EASEMENT FOR ELECTRIC TRANSMISSION LINE AND INCIDENTAL PURPOSES, RECORDED AS DOCKET 9956, PAGE 361 OF OFFICIAL RECORDS.

(15.) AN EASEMENT FOR ROAD OR HIGHWAY AND INCIDENTAL PURPOSES, RECORDED AS 88-481960 OF OFFICIAL RECORDS.

(16.) AN EASEMENT FOR IRRIGATION PURPOSES AND INCIDENTAL PURPOSES, RECORDED AS 96-0443708 OF OFFICIAL RECORDS.

(17.) A PLAT RECORDED IN BOOK 1, PAGE 60 AND AS BOOK 2, PAGE 14, OF ROAD MAPS, PURPORTING TO SHOW A COUNTY ROADWAY.

(18.) A PLAT RECORDED IN BOOK 32, PAGE 39 OF ROAD MAPS, PURPORTING TO SHOW A COUNTY ROADWAY.

(19.) THE TERMS, CONDITIONS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "ROAD DECLARED (ROAD FILE No. 5024-R)" RECORDED MAY 2, 2000 AS 00-0331874 OF OFFICIAL RECORDS.

20. THE RIGHTS OF PARTIES IN POSSESSION BY REASON OF ANY UNRECORDED LEASE OR LEASES OR MONTH TO MONTH TENANCIES AFFECTING ANY PORTION OF THE WITHIN DESCRIBED PROPERTY.

NOTE: THIS MATTER WILL BE MORE FULLY SET FORTH OR DELETED UPON COMPLIANCE WITH THE APPLICABLE REQUIREMENT(S) SET FORTH HEREIN.

LEGAL DESCRIPTION

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 1 NORTH, RANGE 2 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

ZONING

SITE CURRENTLY CONTAINS THREE SEPARATE ZONINGS:

R-43, PARCEL 104-59-003B, WHICH IS THE EXACT ALIGNMENT FOR THE FUTURE 56TH AVENUE. (RURAL ZONING DISTRICT - ONE ACRE PER DWELLING)

R-2, PARCEL 104-59-003A AND 104-59-002, ARE WITHIN CITY OF PHOENIX (MULTIPLE RESIDENCE DISTRICT)

C-2, (INTERMEDIATE COMMERCIAL DISTRICT)

R43 SETBACKS: FRONT - 40'; REAR - 40'; SIDE - 30'; BUILDING HEIGHT: 30'
R2 SETBACKS: FRONT - 25'; REAR - 25'; SIDE - 10' AND 3'; BUILDING HEIGHT: 30'
C-2 SETBACKS: FRONT - 20'; REAR - 25'; SIDE - 25'; BUILDING HEIGHT: 56'

BASIS OF BEARING

ASSUMED N 88°48'46" W, ALONG THE EAST-WEST MID-SECTION LINE OF SECTION 20, TOWNSHIP 1 NORTH, RANGE 2 EAST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

FLOOD PLAIN NOTE

THE SUBJECT PROPERTY IS LOCATED WITHIN FLOOD ZONES 'AE' AND 'X' - PLEASE SEE MAP ON PAGE 2 FOR LIMITS OF ZONES. ZONE 'AE' IS DEFINED AS A SPECIAL FLOOD HAZARD AREA INUNDATED BY 100-YEAR FLOODS WITH BASE FLOOD ELEVATIONS UNDETERMINED. ZONE 'X' IS DEFINED AS AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD PLAIN. DESIGNATION IS PROVIDED BY F.I.R.M., FLOOD INSURANCE RATE MAP, PANEL #04013C2120F, DATED JULY 19, 2001.

GENERAL NOTES:

1.) THIS SURVEY WAS PREPARED IN ACCORDANCE WITH FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT NO. 201-800-1427502, DATED OCTOBER 25, 2002 @ 7:30 am.

2.) THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD MEASUREMENTS OF THE SURFACE INDICATIONS OF UNDERGROUND UTILITIES AND BEST AVAILABLE EXISTING UTILITY MAPS OF PUBLIC RECORD. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED HEREON. THE SURVEYOR HAS NOT PHYSICALLY LOCATED, BY DIRECT MEASUREMENT, THE ACTUAL UNDERGROUND UTILITY LINES.

3.) FOR THE PURPOSES OF THIS SURVEY, GROSS AREA IS DEFINED AS THE AREA OF THE PROPERTY AS DESCRIBED IN THE LEGAL DESCRIPTION. NET AREA IS DEFINED AS THE GROSS AREA MINUS ANY RIGHTS-OF-WAY AND EASEMENTS FOR ROADWAY PURPOSES.

LEGEND

	MISCELLANEOUS TREE		TELEPHONE MANHOLE	B.C.H.H.	BRASS CAP IN HANDHOLE
	PALM TREE		POWER POLE	C.O.P.	CITY OF PHOENIX
	CHAIN LINK FENCE		LIGHT POLE	(C)	CALCULATED BEARING & DISTANCE
	BARB WIRE FENCE		EXISTING ASPHALT PAVEMENT	G.&S.R.B.&M.	GILA & SALT RIVER BASE & MERIDIAN
	WOOD RAIL FENCE		STORM DRAIN LINE	M.C.R.	MARICOPA COUNTY RECORDS
	SIGN	10"VCP S	10" VCP SEWER LINE	P.O.C.	POINT OF COMMENCEMENT
	BILLBOARD	8"VCP S	8" VCP SEWER LINE	(R)	RECORD DISTANCE PER LEGAL DESCRIPTION
	EXISTING FIRE HYDRANT	15"VCP S	15" VCP SEWER LINE	T.P.O.B.	TRUE POINT OF BEGINNING
	WATER METER	T	TELEPHONE LINE	(5)	PLOTTABLE SCHEDULE 'B' EXCEPTION
	SANITARY SEWER MANHOLE	OHE	OVERHEAD ELECTRIC LINE		
	GUY LINE	12"ACP W	12" ACP WATER LINE		
	EXISTING WATER VALVE	16"DIP W	16" DIP WATER LINE		

AREA

GROSS = 3,458,478 SQ. FT. OR 79.40 ACRES (MORE OR LESS)
NET = 3,264,403 SQ. FT. OR 74.94 ACRES (MORE OR LESS)

GROSS AREA IS DEFINED AS THE AREA OF THE PROPERTY AS DESCRIBED IN THE LEGAL DESCRIPTION.

NET AREA IS THE GROSS AREA MINUS DEDICATED RIGHTS-OF-WAY AND ROAD EASEMENTS.

ANNEXATION NOTE:

THE PROPERTY HAS BEEN ANNEXED BY THE CITY OF PHOENIX EXCEPT FOR THE WEST 30' AND EAST 55' PER ORDINACE NO. G-4210 AND DOC. 99-1018337

FUTURE RIGHT-OF-WAY IMPROVEMENTS NOTE:

PER DON HERP, DEPUTY DIRECTOR OF STREET TRANSPORTATION DEPARTMENT, CITY OF PHOENIX (602-262-4872) 51ST AVENUE WILL BE IMPROVED IN FISCAL YEAR 2005-2006. SOMETIME IN OR AFTER JULY 2004 THE CITY OF PHOENIX WILL START THE PROCESS TO ACQUIRE THE NECESSARY RIGHT-OF-WAY AND PREPARING CONSTRUCTION PLANS. CURRENTLY THE RIGHT-OF-WAY IN FRONT OF THIS SITE IS 55 FEET FROM THE CENTERLINE. AT THIS TIME ONLY ADDITIONAL RIGHT-OF-WAY THAT WILL BE A BUS STOP AT NORTH OF BROADWAY ROAD (SEE C.O.P. STANDARD DETAIL P 1256-1 & 2 FOR BUS STOP DETAILS).

CERTIFICATION

TO: THE NEWPORT GROUP, L.L.C.
FIRST AMERICAN TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE (I) IN ACCORDANCE WITH "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA, ACSM AND NSPS IN 1997, AND INCLUDES ITEMS 1-4 INCLUSIVE, 6, 8, 10, 11, 13, 14, 15 (MODIFIED TO EXCLUDE PROPOSED CHANGES) AND 16 OF TABLE A THEREOF, AND (II) PURSUANT TO THE ACCURACY STANDARDS (AS ADOPTED BY ALTA AND ACSM AND IN EFFECT ON THE DATE OF THIS CERTIFICATION) OF AN URBAN CLASS SURVEY.

Gene C. Harrison II January 23-2003
GENE C. HARRISON, II, R.L.S., #22762 DATE

REGISTERED LAND SURVEYOR CERTIFICATE NO. 22762 GENE C. HARRISON II ARIZONA U.S.A.

GeoDimensions
3030 E Camelback Road Suite 260 Phoenix, Arizona 85016 Phone (602) 952-8788 Fax 952-9905
• Planning • Civil Engineering • Land Surveying • Water Resources • Construction Services

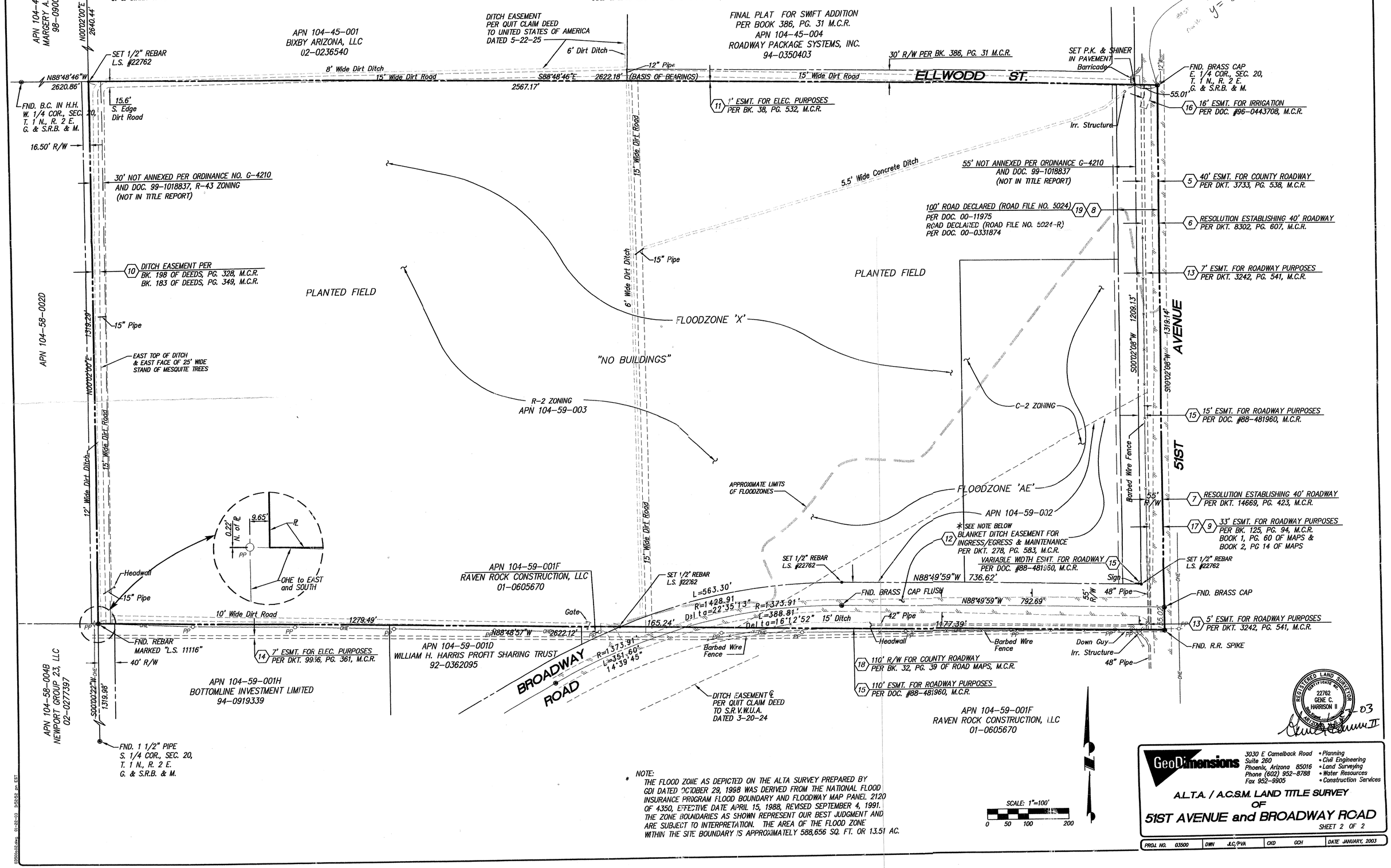
A.L.T.A. / A.C.S.M. LAND TITLE SURVEY OF 51ST AVENUE and BROADWAY ROAD

SHEET 1 OF 2

PROJ. NO. 03500	DWN JLC/PK	CKD GCH	DATE JANUARY, 2003

A.L.T.A. / A.C.S.M. LAND TITLE SURVEY

THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 1 NORTH, RANGE 2 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA



* NOTE:
THE FLOOD ZONE AS DEPICTED ON THE ALTA SURVEY PREPARED BY GDI DATED OCTOBER 29, 1998 WAS DERIVED FROM THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD BOUNDARY AND FLOODWAY MAP PANEL 2120 OF 4350, EFFECTIVE DATE APRIL 15, 1988, REVISED SEPTEMBER 4, 1991. THE ZONE BOUNDARIES AS SHOWN REPRESENT OUR BEST JUDGMENT AND ARE SUBJECT TO INTERPRETATION. THE AREA OF THE FLOOD ZONE WITHIN THE SITE BOUNDARY IS APPROXIMATELY 588,656 SQ. FT. OR 13.51 AC.

GeoDimensions
3030 E Camelback Road
Suite 260
Phoenix, Arizona 85016
Phone (602) 952-8788
Fax 952-9905
• Planning
• Civil Engineering
• Land Surveying
• Water Resources
• Construction Services

A.L.T.A. / A.C.S.M. LAND TITLE SURVEY
OF
51ST AVENUE and BROADWAY ROAD

SHEET 2 OF 2

PROJ. NO.	DWN	CKD	DATE
03500	J.C./PVA	GCH	JANUARY, 2003

FINAL PLAT

FINAL PLAT

OF

RIVER BEND I, UNIT A

A PLANNED RESIDENTIAL DEVELOPMENT
SUBJECT TO SINGLE-FAMILY DESIGN REVIEW

LOCATED IN A PORTION OF THE NORTH HALF OF THE SE 1/4 OF SECTION 20, T1N, R2E OF THE GSRB&M PHOENIX, MARICOPA COUNTY, ARIZONA

DEDICATION

STATE OF ARIZONA } SS
COUNTY OF MARICOPA }

KNOW ALL MEN BY THESE PRESENTS:
THAT K. HOVNANIAN GREAT WESTERN BUILDING COMPANY, L.L.C., AN ARIZONA LIMITED LIABILITY COMPANY, AS OWNER, HAS SUBDIVIDED UNDER THE NAME OF "RIVER BEND I, UNIT A", A PLANNED RESIDENTIAL DEVELOPMENT, A PORTION OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 1 NORTH, RANGE 2 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, AS SHOWN PLATTED HEREON; AND HEREBY PUBLISHES THIS PLAT AS AND FOR THE PLAT OF "RIVER BEND I, UNIT A", A PLANNED RESIDENTIAL DEVELOPMENT, AND HEREBY DECLARES THAT SAID PLAT SETS FORTH THE LOCATION AND GIVES THE DIMENSIONS OF EACH LOT, TRACT, PUBLIC EASEMENT, PRIVATE ACCESSWAY AND STREET CONSTITUTING SAME AND THAT EACH LOT, TRACT, PRIVATE ACCESSWAY AND STREET SHALL BE KNOWN BY THE NUMBER. LETTER OR NAME GIVEN EACH, RESPECTIVELY, ON SAID PLAT. K. HOVANANIAN GREAT WESTERN BUILDING COMPANY, L.L.C., AN ARIZONA LIMITED LIABILITY COMPANY, AS OWNER, DEDICATES TO THE PUBLIC THE STREETS (ELWOOD, 51ST AVE, BROADWAY ROAD) AND EASEMENTS AS SHOWN ON SAID PLAT AND INCLUDED IN THE ABOVE PREMISES.

TRACTS "A" THROUGH "GG", "RR" AND "SS" ARE HEREBY DECLARED AS COMMON AREAS FOR LANDSCAPE AND OPEN SPACE PURPOSES FOR THE USE OF THE LOT OWNERS AS MORE FULLY SET FORTH IN THE COVENANTS, CONDITIONS AND RESTRICTIONS FOR "RIVER BEND I, UNIT A" TO BE HEREAFTER RECORDED, AND WILL BE OWNED AND MAINTAINED BY THE "RIVER BEND I, UNIT A" HOMEOWNERS ASSOCIATION. DWELLING UNITS SHALL NOT BE CONSTRUCTED ON SAID TRACTS.

A DRAINAGE EASEMENT IS HEREBY DEDICATED OVER TRACTS "A THROUGH C", "L", "N", "W", "EE", "FF", "RR", & "SS".

TRACTS "HH" THROUGH "QQ" ARE HEREBY DECLARED AS COMMON AREAS FOR THE USE OF THE LOT OWNERS AS MORE FULLY SET FORTH IN THE COVENANTS, CONDITIONS AND RESTRICTIONS FOR "RIVER BEND I, UNIT A" TO BE HEREAFTER RECORDED, AND WILL BE OWNED AND MAINTAINED BY THE "RIVER BEND I, UNIT A" HOMEOWNER'S ASSOCIATION. DWELLING UNITS SHALL NOT BE CONSTRUCTED ON SAID TRACTS. EASEMENTS FOR DRAINAGE AND REFUSE COLLECTION ARE HEREBY DEDICATED TO THE PUBLIC OVER ALL OF TRACTS "HH" THROUGH "QQ". A PUBLIC UTILITY EASEMENT IS HEREBY DEDICATED OVER ALL OF TRACTS "LL" THROUGH "QQ".

TRACT "TT" IS HEREBY DECLARED AS A PRIVATE ACCESSWAY. AN EASEMENT IS HEREBY DEDICATED TO THE PUBLIC FOR REFUSE COLLECTION, DRAINAGE EASEMENT, PUBLIC WATER AND SEWER EASEMENT, EMERGENCY AND SERVICE TYPE VEHICLES OVER ALL OF TRACT "TT".

IN WITNESS WHEREOF:
K. HOVNANIAN GREAT WESTERN BUILDING COMPANY, L.L.C., AN ARIZONA LIMITED LIABILITY COMPANY, AS OWNER HAS HEREUNDER CAUSED ITS NAME TO BE SIGNED AND THE SAME ATTESTED BY THE UNDERSIGNED OFFICER THEREUNTO DULY AUTHORIZED THIS 15TH DAY OF JANUARY, 2004.

K. HOVNANIAN GREAT WESTERN BUILDING COMPANY, L.L.C., AN ARIZONA LIMITED LIABILITY COMPANY

BY _____, ITS PRESIDENT

ACKNOWLEDGMENT

STATE OF ARIZONA } SS
COUNTY OF MARICOPA }

BEFORE ME THIS THE 15th DAY OF January, 2004, Scott W. Smith PERSONALLY, APPEARED BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, AND ACKNOWLEDGED HIMSELF TO BE President OF K. HOVNANIAN GREAT WESTERN BUILDING COMPANY, L.L.C., AN ARIZONA LIMITED LIABILITY COMPANY, THE LEGAL OWNER OF THE PROPERTY PLATTED HEREON, AND ACKNOWLEDGES THAT HE, AS PRESIDENT, EXECUTED THIS INSTRUMENT FOR THE PURPOSES HEREIN CONTAINED IN WITNESS WHEREOF, I HEREUNTO SET MY HAND AND OFFICIAL SEAL.

BY: Kathy A. Reif MY COMMISSION EXPIRES: 12-13-07
NOTARY PUBLIC

OFFICIAL SEAL
KATHY A. REIF
NOTARY PUBLIC - State of Arizona
MARICOPA COUNTY
My Comm. Expires Dec. 13, 2007

APPROVALS

APPROVED BY THE CITY COUNCIL OF THE CITY OF PHOENIX, ARIZONA, THIS THE _____ DAY OF _____, 2004.

ATTEST: _____
CITY CLERK

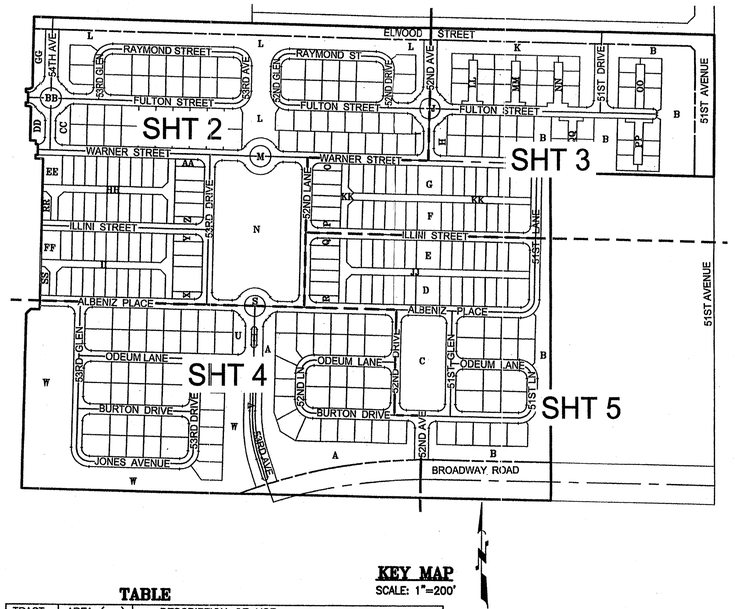
APPROVED BY: _____ DATE: _____
FOR: DEVELOPMENT SERVICES DEPARTMENT

BASIS OF BEARING

THE BASIS OF BEARING FOR THIS PROJECT IS ALONG THE EAST–WEST MID–SECTION OF SECTION 20, TOWNSHIP 1 NORTH, RANGE 2 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN. SAID LINE OF S88°48'46"E (ASSUMED BEARING) (A.L.T.A.).

LEGEND

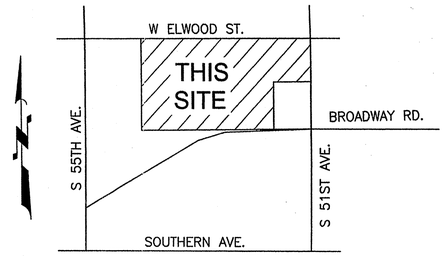
— — — —	MONUMENT LINE
———	SUBDIVISION BOUNDARY
———	INTERIOR PROPERTY LINE
PUE	PUBLIC UTILITY EASEMENT
PAE	PEDESTRIAN ACCESS EASEMENT
SWE	SIDEWALK EASEMENT
MUTE	MULTI USE TRAIL EASEMENT
SVT1	33'X33' SIGHT VISIBILITY TRIANGLE
SVT2	10'X20' SIGHT VISIBILITY TRIANGLE
VNAE	VEHICULAR NON ACCESS EASEMENT
R/W	RIGHT–OF–WAY
◆	SECTION QUARTER CORNER, AS NOTED
⊡	CENTERLINE MONUMENT (BRASS CAP FLUSH; M.A.G. DTL. 120, TYPE B)
◬	CORNER OF SUBDIVISION (AS NOTED)



KEY MAP
SCALE: 1"=200'

TABLE

TRACT	AREA (ac.)	DESCRIPTION OF USE
A	1.01	RETENTION / LANDSCAPE / PUE
B	2.54	RETENTION / LANDSCAPE / PUE
C	0.78	RETENTION/LANDSCAPE/AMENITIES/PUE
D	0.13	LANDSCAPE / PUE
E	0.13	LANDSCAPE / PUE
F	0.13	LANDSCAPE / PUE
G	0.13	LANDSCAPE / PUE
H	0.08	LANDSCAPE / PUE
I	0.06	LANDSCAPE / PUE
J	0.06	LANDSCAPE / PUE
K	0.64	LANDSCAPE / PUE
L	1.63	RETENTION/LANDSCAPE/AMENITIES/PUE
M	0.06	LANDSCAPE / PUE
N	2.08	RETENTION / LANDSCAPE / PUE
O	0.04	LANDSCAPE / PUE
P	0.04	LANDSCAPE / PUE
Q	0.04	LANDSCAPE / PUE
R	0.04	LANDSCAPE / PUE
S	0.06	LANDSCAPE / PUE
T	0.02	LANDSCAPE / PUE
U	0.08	LANDSCAPE / PUE
V	0.10	LANDSCAPE / PUE
W	2.73	RETENTION/LANDSCAPE/AMENITIES/PUE
X	0.04	LANDSCAPE / PUE
Y	0.04	LANDSCAPE / PUE
Z	0.04	LANDSCAPE / PUE
AA	0.04	LANDSCAPE / PUE
BB	0.06	LANDSCAPE / PUE
CC	0.09	LANDSCAPE / PUE
DD	0.09	LANDSCAPE / PUE
EE	0.11	RETENTION / LANDSCAPE / PUE
FF	0.10	RETENTION / LANDSCAPE / PUE
GG	0.13	LANDSCAPE / PUE
HH	0.29	DRAINAGE/EMERGENCY/COLLECTION
II	0.29	DRAINAGE/EMERGENCY/COLLECTION
JJ	0.33	DRAINAGE/EMERGENCY/COLLECTION
KK	0.33	DRAINAGE/EMERGENCY/COLLECTION
LL	0.08	DRAINAGE/EMERGENCY/COLLECTION/PUE
MM	0.08	DRAINAGE/EMERGENCY/COLLECTION/PUE
NN	0.08	DRAINAGE/EMERGENCY/COLLECTION/PUE
OO	0.07	DRAINAGE/EMERGENCY/COLLECTION/PUE
PP	0.08	DRAINAGE/EMERGENCY/COLLECTION/PUE
QQ	0.08	DRAINAGE/EMERGENCY/COLLECTION/PUE
RR	0.04	RETENTION / LANDSCAPE / PUE
SS	0.04	RETENTION / LANDSCAPE / PUE
TT	9.14	DRAINAGE COLLECTION/EMERGENCY/PUE/WATER/SEWER
REQ.	2.44	(5% OF GROSS)
TOTAL	24.13	(49.5% OF GROSS)



VICINITY MAP
N.T.S.

OWNER/DEVELOPER

K. HOVNANIAN GREAT WESTERN BUILDING COMPANY, L.L.C.
3850 E. BASELINE RD.
MESA, AZ. 85206
PH: (480) 396–9696
FAX: (480) 396–9200
CONTACT: LARRY GAMSO

ENGINEER

M2 GROUP, INC.
4852 E. BASELINE RD.
SUITE 107
MESA, AZ 85206
PH: (480) 539–7497
FAX: (480) 545–4208
CONTACT: TOM PALMER

SITE DATA

EXISTING ZONING: R–2
DEVELOPMENT OPTION: PRD
GROSS AREA: 48.70 ACRES
NET AREA: 37.92 ACRES
DENSITY: 6.76 DU/AC (GROSS)

NOTES

1. DEVELOPMENT AND USE OF THIS SITE WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.

2. THIS PROJECT IS LOCATED IN THE CITY OF PHOENIX WATER SERVICE AREA AND HAS BEEN DESIGNATED AS HAVING AN ASSURED WATER SUPPLY.

3. ALL NEW OR RELOCATED UTILITIES WILL BE PLACED UNDERGROUND.

4. STRUCTURES AND LANDSCAPING WITHIN A TRIANGLE MEASURING 33' x 33' ALONG THE PROPERTY LINES WILL BE MAINTAINED AT A MAXIMUM HEIGHT OF 3'.

5. EACH LOT CONSTITUTES A BUILDING ENVELOPE AND ACCESSORY USES SUCH AS POOLS, PRIVACY WALLS AND ACCESSORY STRUCTURES ARE PERMITTED EXCEPT AS OTHERWISE REGULATED BY OTHER CITY CODES AND ORDINANCES.

6. AN ASSOCIATION, INCLUDING ALL PROPERTY OWNERS IN THE DEVELOPMENT, WILL BE FORMED AND HAVE RESPONSIBILITY FOR MAINTAINING ALL COMMON AREAS TO BE NOTED AS "TRACTS" OR EASEMENTS, LANDSCAPE AREAS, AND DRAINAGE FACILITIES IN ACCORDANCE WITH APPROVED PLANS.

7. NO STRUCTURE OF ANY KIND SHALL BE CONSTRUCTED ON, OVER OR PLACED WITHIN THE PUBLIC UTILITY EASEMENTS EXCEPT PAVING, WOOD, WIRE OR REMOVABLE SECTION TYPE FENCING. NO VEGETATION SHALL BE PLANTED WITHIN THE EASEMENT EXCEPT GRASS AND/OR GROUND COVER APPROVED BY THE DEVELOPMENT SERVICES DEPARTMENT LANDSCAPE ARCHITECT. IT SHALL BE FURTHER UNDERSTOOD THAT THE CITY OF PHOENIX NOT BE REQUIRED TO REPLACE ANY OBSTRUCTIONS, PAVING OR VEGETATION THAT BECOMES DAMAGED OR MUST BE REMOVED DURING THE COURSE OF MAINTENANCE, CONSTRUCTION, RECONSTRUCTION, OR REPAIR.

8. THIS PROJECT HAS ADDITIONAL CONDITIONS OF APPROVAL (DESCRIBED IN A SUBDIVISION DIVERSITY DEVELOPMENT AGREEMENT ON FILE WITH THE CITY OF PHOENIX DEVELOPMENT SERVICES DEPARTMENT) WHICH MUST BE SATISFIED PRIOR TO INDIVIDUAL BUILDING PERMIT RELEASE.

9. NO STRUCTURE OF ANY KIND BE CONSTRUCTED OR ANY VEGETATION BE PLANTED NOR BE ALLOWED TO GROW WITHIN THE DRAINAGE EASEMENT OR WHICH WOULD IMPEDE THE FLOW OF WATER OVER, UNDER, OR THROUGH THE EASEMENT OR TRACT. THE CITY OF PHOENIX MAY, IF IT SO DESIRES, CONSTRUCT AND/OR MAINTAIN DRAINAGE FACILITIES ON OR UNDER THE LAND IN THE EASEMENTS OR TRACTS.

10. ADDITIONAL INDIVIDUAL LOT REQUIREMENTS (I.E., SETBACKS, EASEMENTS, ZONING BOUNDARIES) ARE LOCATED ON THE APPROVED FINAL SITE PLAN.

11. ALL EASEMENTS ARE SUBORDINATE TO THE DRAINAGE EASEMENTS.

12. EACH LOT IN THIS SUBDIVISION IS PERMITTED ONE DWELLING UNIT.

CERTIFICATION

I, ROBERT S. UNGER, HEREBY CERTIFY, THAT I AM A REGISTERED LAND SURVEYOR IN THE STATE OF ARIZONA. THAT THIS MAP CONSISTING OF SIX (6) SHEETS, CORRECTLY REPRESENTS A SURVEY MADE UNDER MY DIRECTION DURING THE MONTH OF MAY, 2003, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN, THAT THE MONUMENTS SHOWN ACTUALLY EXIST OR WILL BE SET AS SHOWN, THAT THEIR POSITIONS ARE CORRECT AND ACCURATE AS SHOWN AND THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

_____
ROBERT S. UNGER, R.L.S. #35306

REGISTERED LAND SURVEYOR
CERTIFICATE NO. 35306
ROBERT S. UNGER
Date Signed 1-15-04
ARIZONA, U.S.A.

M2 Group, Inc.
4852 E. Baseline Rd.
Suite 107
Mesa, Arizona 85206
tel: (480) 539-7497
fax: (480) 539-2810
m2 group
Civil Engineering

FINAL PLAT

PROJECT: RIVERBEND I, UNIT A
PHOENIX, ARIZONA

JOB NO. 02057GW

2057FP01.DWG

SHEET NO. 1

1 OF 6

CSPR #0301839 QS 5-16 KIVA #03-308 SDEV #0300129 PLAT #030109

M2 Group, Inc.
4852 E. Baseline Rd.
Suite 107
Mesa, Arizona 85206
tel: (480) 539-7497
fax: (480) 539-2810
m2 group
Civil Engineering

FINAL PLAT

PROJECT: RIVERBEND I, UNIT A
PHOENIX, ARIZONA

REGISTERED LAND SURVEYOR
CERTIFICATE NO. 35306
ROBERT S. UNGER
Date Signed 02-05-16
ARIZONA, U.S.A.

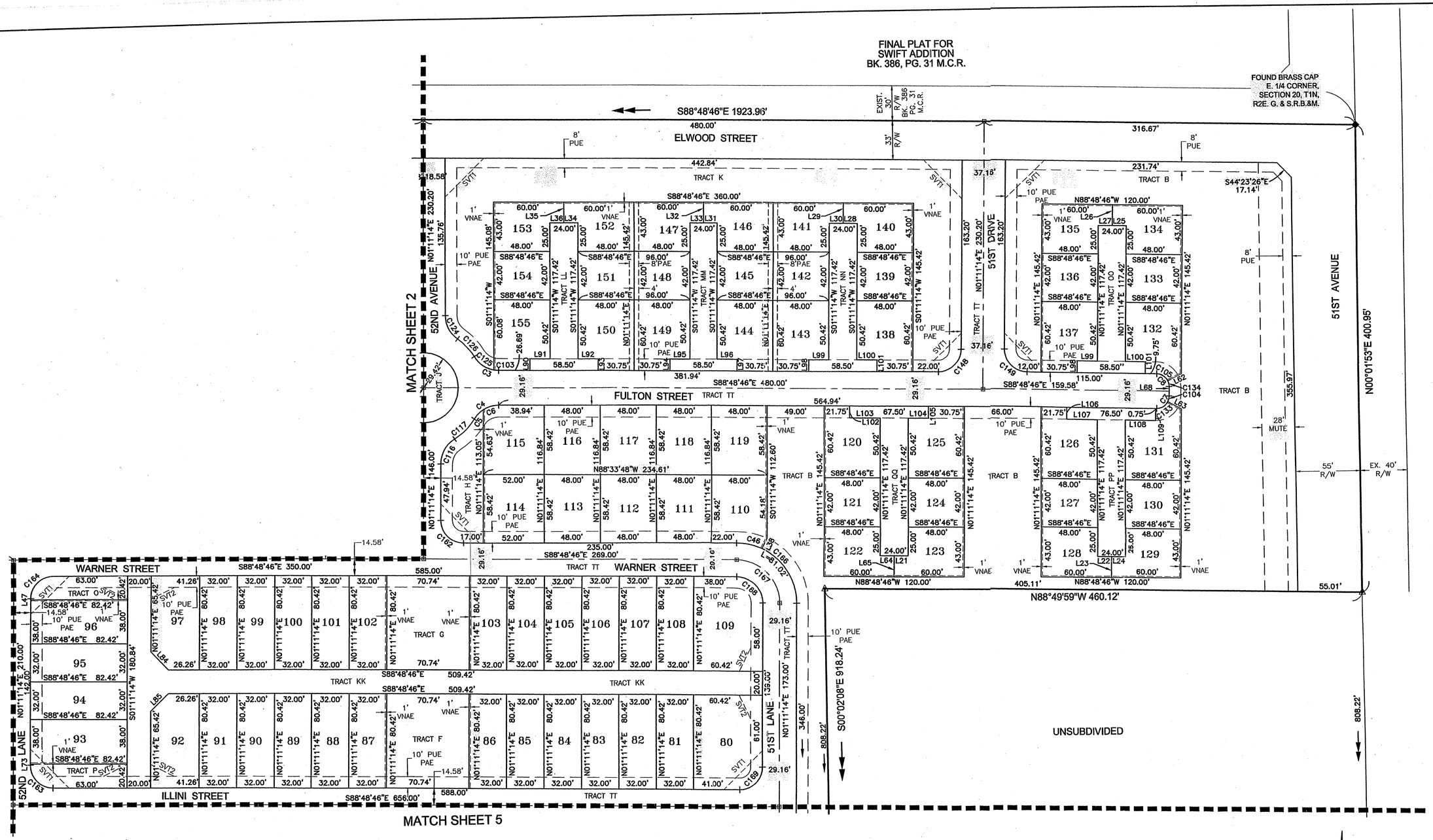
JOB NO. 02057GW

2057FP02.DWG

SHEET NO. 2

2 OF 6

CSPR #0301839 QS 5-16 KIVA #03-308 SDEV #0300129 PLAT #030109



M2 Group, Inc.
4952 E. Baseline Rd.
Suite 107
Mesa, Arizona 85206
tel: (480) 539-7497
fax: (480) 539-2810

m2 group
Civil Engineering

FINAL PLAT

PROJECT:
RIVERBEND I, UNIT A
PHOENIX, ARIZONA

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
35306
ROBERT S.
UNGER
Date Signed 5-16-16
ARIZONA, U.S.A.

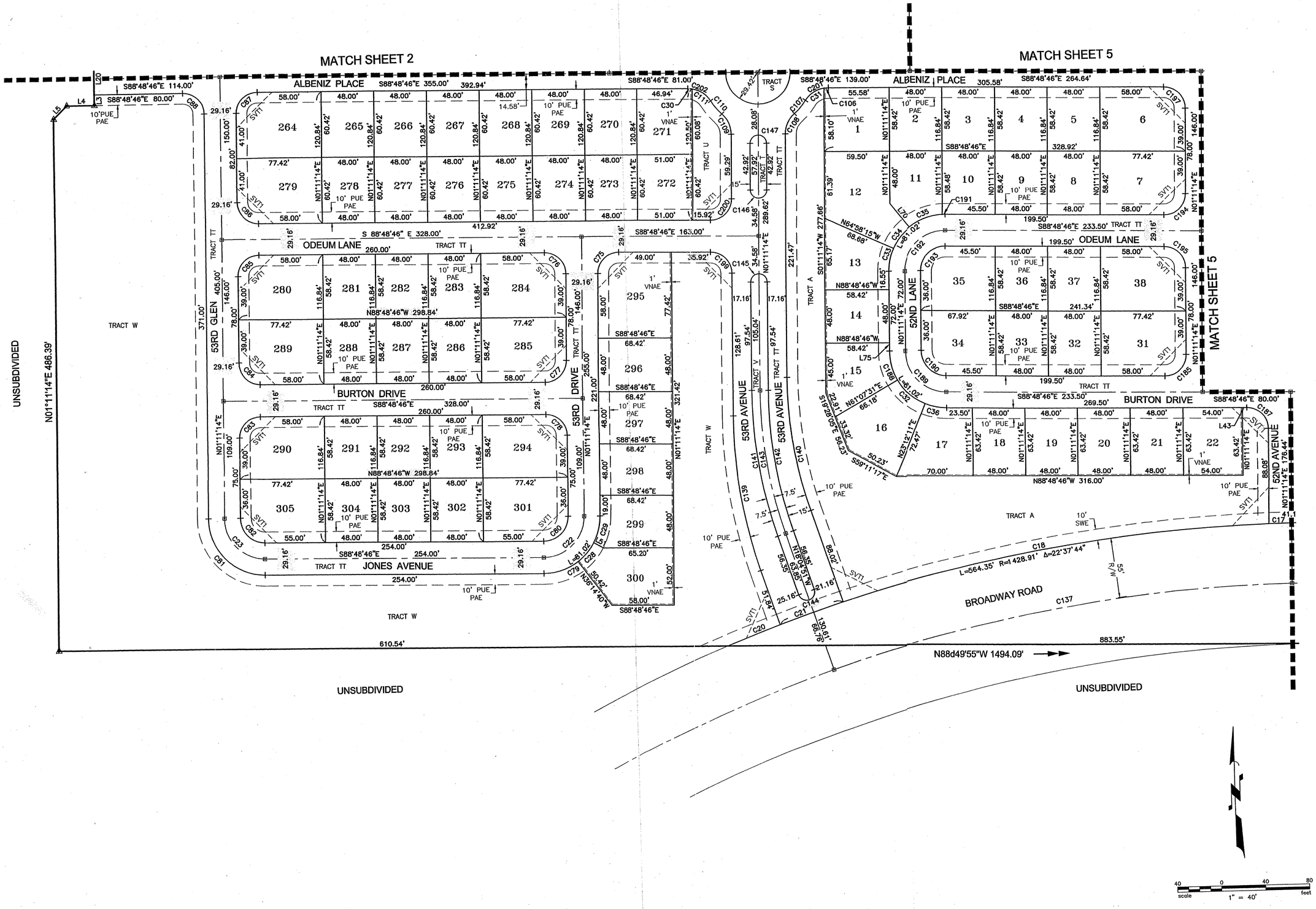
JOB NO.
02057GW

2057FP03.DWG

SHEET NO.
3

3 OF 6

CSPR #0301839 QS 5-16 KIVA #03-308 SDEV #0300129 PLAT #030109



M2 Group, Inc.
4852 E. Baseline Rd.
Suite 107
Mesa, Arizona 85206
tel: (480) 539-7497
fax: (480) 539-2810
m2 group
Civil Engineering

FINAL PLAT

PROJECT: RIVERBEND I, UNIT A
PHOENIX, ARIZONA

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
35306
ROBERT S.
UNGER
Date Signed 06-06-06
ARIZONA, U.S.A.

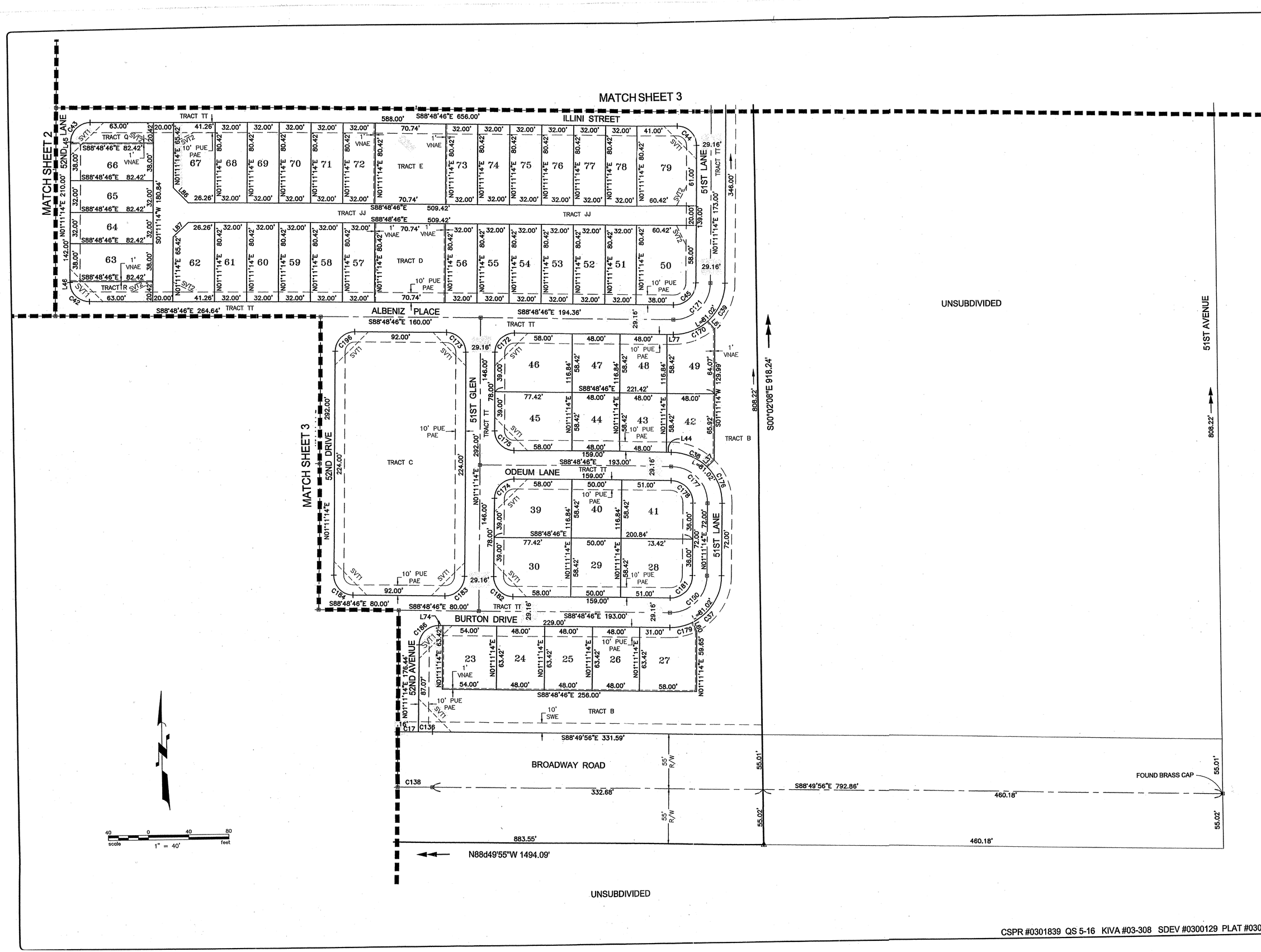
JOB NO.
02057GW

2057FP04.DWG

SHEET NO.
4

4 OF 6

CSPR #0301839 QS 5-16 KIVA #03-308 SDEV #0300129 PLAT #030109



M2 Group, Inc.
4852 E. Baseline Rd.
Suite 107
Mesa, Arizona 85206
tel: (480) 539-7497
fax: (480) 539-2810
m2 group
Civil Engineering

FINAL PLAT

PROJECT:
RIVERBEND I, UNIT A
PHOENIX, ARIZONA

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
35306
ROBERT S.
UNGER
Date Signed 8-27-08
ARIZONA, U.S.A.

JOB NO.
02057GW

2057FP05.DWG

SHEET NO.
5

5 OF 6

CSPR #0301839 QS 5-16 KIVA #03-308 SDEV #0300129 PLAT #030109

CSPR #0301839 QS 5-16 KIVA #03-308 SDEV #0300129 PLAT #030109

CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C1	25.00'	24.42'	58°40'04"
C2	25.00'	24.42'	58°40'04"
C3	25.00'	24.42'	58°40'04"
C4	25.00'	24.42'	58°40'04"
C5	11.22'	24.42'	26°19'48"
C6	13.78'	24.42'	32°20'16"
C7	16.62'	10.58'	90°00'00"
C8	16.62'	10.58'	90°00'00"
C9	25.00'	24.42'	58°40'04"
C10	25.00'	24.42'	58°40'04"
C11	25.00'	24.42'	58°40'04"
C12	25.00'	24.42'	58°40'04"
C13	UNASSIGNED		
C14	UNASSIGNED		
C15	UNASSIGNED		
C16	14.29'	14.42'	73°21'39"
C17	41.17'	1428.91'	1°39'03"
C18	396.03'	1428.91'	15°52'47"
C19	8.73'	14.42'	34°40'59"
C20	51.75'	1428.91'	2°04'30"
C21	61.32'	1428.91'	2°27'32"
C22	58.12'	37.00'	90°00'00"
C23	58.12'	37.00'	90°00'00"
C24	58.12'	37.00'	90°00'00"
C25	58.12'	37.00'	90°00'00"
C26	58.12'	37.00'	90°00'00"
C27	32.38'	51.58'	35°58'21"
C28	22.22'	51.58'	24°40'50"
C29	25.11'	51.58'	27°53'16"
C30	4.08'	24.42'	9°34'34"
C31	21.07'	24.42'	49°25'49"
C32	34.14'	51.58'	37°55'20"
C33	21.46'	51.58'	23°50'31"
C34	24.30'	51.58'	26°59'41"
C35	32.76'	51.58'	36°23'07"
C36	19.82'	51.58'	22°00'57"
C37	57.61'	51.58'	63°59'41"
C38	39.87'	51.58'	44°17'21"
C39	43.04'	51.58'	47°48'19"
C40	UNASSIGNED		
C41	UNASSIGNED		
C42	30.50'	19.42'	90°00'00"
C43	30.50'	19.42'	90°00'00"
C44	30.50'	19.42'	90°00'00"
C45	35.22'	22.42'	90°00'00"
C46	22.48'	51.58'	24°58'28"
C47	14.19'	24.42'	33°17'12"
C48	13.90'	24.42'	32°37'20"
C49	59.49'	51.58'	66°04'49"
C50	15.72'	24.42'	36°53'02"
C51	UNASSIGNED		
C52	UNASSIGNED		
C53	UNASSIGNED		
C54	UNASSIGNED		
C55	UNASSIGNED		
C56	30.50'	19.42'	90°00'00"
C57	30.50'	19.42'	90°00'00"
C58	UNASSIGNED		
C59	20.91'	50.58'	23°41'05"
C60	23.45'	24.42'	55°01'01"
C61	23.45'	24.42'	55°01'01"
C62	UNASSIGNED		
C63	24.13'	50.58'	27°20'08"
C64	25.00'	24.42'	58°40'04"
C65	25.00'	24.42'	58°40'04"
C66	24.13'	50.58'	27°20'08"
C67	9.28'	24.42'	21°47'02"
C68	20.91'	50.58'	23°41'05"
C69	25.00'	24.42'	58°40'04"
C70	30.50'	19.42'	90°00'00"
C71	30.50'	19.42'	90°00'00"
C72	30.50'	19.42'	90°00'00"
C73	30.50'	19.42'	90°00'00"
C74	30.50'	19.42'	90°00'00"
C75	30.50'	19.42'	90°00'00"
C76	30.50'	19.42'	90°00'00"
C77	30.50'	19.42'	90°00'00"
C78	30.50'	19.42'	90°00'00"
C79	33.70'	51.58'	37°25'54"
C80	35.22'	22.42'	90°00'00"
C81	81.02'	51.58'	90°00'00"
C82	35.22'	22.42'	90°00'00"
C83	30.50'	19.42'	90°00'00"
C84	30.50'	19.42'	90°00'00"
C85	30.50'	19.42'	90°00'00"
C86	30.50'	19.42'	90°00'00"
C87	30.50'	19.42'	90°00'00"
C88	30.50'	19.42'	90°00'00"
C89	30.50'	19.42'	90°00'00"
C90	81.02'	51.58'	90°00'00"
C91	35.22'	22.42'	90°00'00"
C92	21.53'	51.58'	23°55'11"
C93	35.22'	22.42'	90°00'00"
C94	48.64'	51.58'	54°01'39"
C95	35.22'	22.42'	90°00'00"
C96	30.50'	19.42'	90°00'00"
C97	30.50'	19.42'	90°00'00"
C98	UNASSIGNED		
C99	UNASSIGNED		
C100	13.78'	24.42'	32°20'16"

CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C101	27.44'	51.58'	30°29'09"
C102	48.64'	51.58'	54°01'39"
C103	4.08'	24.42'	9°34'34"
C104	4.94'	10.58'	26°44'22"
C105	11.68'	10.58'	63°15'38"
C106	3.94'	24.42'	9°14'15"
C107	15.71'	50.58'	17°47'37"
C108	20.94'	24.42'	49°07'33"
C109	20.94'	24.42'	49°07'33"
C110	15.71'	50.58'	17°47'37"
C111	20.92'	24.42'	49°05'30"
C112	25.00'	24.42'	58°40'04"
C113	103.58'	50.58'	117°20'08"
C114	25.00'	24.42'	58°40'04"
C115	UNASSIGNED		
C116	25.00'	24.42'	58°40'04"
C117	24.13'	50.58'	27°20'08"
C118	25.00'	24.42'	58°40'04"
C119	11.22'	24.42'	26°19'48"
C120	24.13'	50.58'	27°20'08"
C121	25.00'	24.42'	58°40'04"
C122	23.45'	24.42'	55°01'01"
C123	20.91'	50.58'	23°41'05"
C124	23.45'	24.42'	55°01'01"
C125	20.92'	24.42'	49°05'30"
C126	20.91'	50.58'	23°41'05"
C127	10.82'	24.42'	25°22'51"
C128	103.58'	50.58'	117°20'08"
C129	11.10'	24.42'	26°02'44"
C130	25.00'	24.42'	58°40'04"
C131	25.00'	24.42'	58°40'04"
C132	103.58'	50.58'	117°20'08"
C133	11.68'	10.58'	63°15'38"
C134	4.94'	10.58'	26°44'22"
C135	UNASSIGNED		
C136	14.07'	1428.91'	0°33'51"
C137	426.79'	1373.91'	17°47'53"
C138	34.67'	1373.91'	1°26'45"
C139	145.30'	432.08'	19°16'05"
C140	124.88'	371.34'	19°16'05"
C141	137.04'	407.50'	19°16'05"
C142	131.99'	392.50'	19°16'05"
C143	134.52'	400.00'	19°16'05"
C144	23.56'	7.50'	180°00'00"
C145	23.56'	7.50'	180°00'00"
C146	23.56'	7.50'	180°00'00"
C147	23.56'	7.50'	180°00'00"
C148	30.50'	19.42'	90°00'00"
C149	30.50'	19.42'	90°00'00"
C150	53.58'	51.58'	59°30'51"
C151	58.12'	37.00'	90°00'00"
C152	35.22'	22.42'	90°00'00"
C153	81.02'	51.58'	90°00'00"
C154	58.12'	37.00'	90°00'00"
C155	35.22'	22.42'	90°00'00"
C156	32.38'	51.58'	35°58'21"
C157	58.12'	37.00'	90°00'00"
C158	35.22'	22.42'	90°00'00"
C159	30.50'	19.42'	90°00'00"
C160	30.50'	19.42'	90°00'00"
C161	30.50'	19.42'	90°00'00"
C162	30.50'	19.42'	90°00'00"
C163	30.50'	19.42'	90°00'00"
C164	30.50'	19.42'	90°00'00"
C165	30.50'	19.42'	90°00'00"
C166	58.54'	51.58'	65°01'32"
C167	58.12'	37.00'	90°00'00"
C168	35.22'	22.42'	90°00'00"
C169	30.50'	19.42'	90°00'00"
C170	37.99'	51.58'	42°11'41"
C171	58.12'	37.00'	90°00'00"
C172	30.50'	19.42'	90°00'00"
C173	30.50'	19.42'	90°00'00"
C174	30.50'	19.42'	90°00'00"
C175	30.50'	19.42'	90°00'00"
C176	41.15'	51.58'	45°42'39"
C177	58.12'	37.00'	90°00'00"
C178	35.22'	22.42'	90°00'00"
C179	23.41'	51.58'	26°00'19"
C180	58.12'	37.00'	90°00'00"
C181	35.22'	22.42'	90°00'00"
C182	30.50'	19.42'	90°00'00"
C183	30.50'	19.42'	90°00'00"
C184	30.50'	19.42'	90°00'00"
C185	30.50'	19.42'	90°00'00"
C186	30.50'	19.42'	90°00'00"
C187	30.50'	19.42'	90°00'00"
C188	27.06'	51.58'	30°03'43"
C189	58.12'	37.00'	90°00'00"
C190	35.22'	22.42'	90°00'00"
C191	2.50'	51.58'	2°46'41"
C192	58.12'	37.00'	90°00'00"
C193	35.22'	22.42'	90°00'00"
C194	30.50'	19.42'	90°00'00"
C195	30.50'	19.42'	90°00'00"
C196	30.50'	19.42'	90°00'00"
C197	30.50'	19.42'	90°00'00"
C198	30.50'	19.42'	90°00'00"
C199	30.50'	19.42'	90°00'00"
C200	30.50'	19.42'	90°00'00"
C201	25.00'	24.42'	58°40'04"
C202	25.00'	24.42'	58°40'04"

LINE TABLE		
LINE	LENGTH	BEARING
L1	UNASSIGNED	
L2	10.42'	N01°11'14"E
L3	10.00'	N01°11'14"E
L4	25.00'	S88°48'46"E
L5	17.27'	N45°12'07"E
L6	6.00'	S88°48'46"E
L7	10.00'	N01°11'14"E
L8	UNASSIGNED	
L9	29.16'	N01°11'14"E
L10	UNASSIGNED	
L11	10.00'	N01°11'14"E
L12	6.00'	N88°48'46"W
L13	15.86'	N88°48'46"W
L14	10.00'	N01°11'14"E
L15	6.00'	N88°48'46"W
L16	29.16'	N01°11'14"E
L17	6.00'	S88°48'46"E
L18	10.00'	N01°11'14"E
L19	21.26'	N88°48'46"W
L20	29.16'	N01°11'14"E
L21	12.00'	S88°48'46"E
L22	12.00'	N88°48'46"W
L23	18.00'	S01°11'14"W
L24	12.00'	N88°48'46"W
L25	12.00'	S88°48'46"E
L26	18.00'	N01°11'14"E
L27	12.00'	S88°48'46"E
L28	12.00'	S88°48'46"E
L29	18.00'	N01°11'14"E
L30	12.00'	S88°48'46"E
L31	12.00'	S88°48'46"E
L32	18.00'	N01°11'14"E
L33	12.00'	S88°48'46"E
L34	12.00'	S88°48'46"E
L35	18.00'	N01°11'14"E
L36	12.00'	S88°48'46"E
L37	10.00'	S45°28'35"W
L38	10.00'	S26°09'42"W
L39	11.00'	S88°48'46"E
L40	6.00'	S88°48'46"E
L41	1.00'	N01°11'14"E
L42	1.00'	N01°11'14"E
L43	4.00'	S88°48'46"E
L44	5.00'	S88°48'46"E
L45	1.00'	N01°11'14"E
L46	1.00'	N01°11'14"E
L47	1.00'	N01°11'14"E
L48	6.00'	S88°48'46"E
L49	6.00'	S88°48'46"E
L50	11.00'	N01°11'14"E
L51	10.42'	N60°55'30"W
L52	1.00'	N01°11'14"E
L53	1.00'	N01°11'14"E
L54	21.00'	S88°48'46"E
L55	8.00'	N01°11'14"E
L56	14.14'	S43°48'46"E
L57	25.03'	S52°50'25"E
L58	16.25'	N22°43'57"W
L59	11.00'	N01°11'14"E
L60	10.00'	N24°49'05"W
L61	10.42'	N41°00'27"W
L62	12.93'	S64°26'52"W
L63	12.93'	N62°04'24"W
L64	12.00'	S88°48'46"E
L65	18.00'	S01°11'14"W
L66	14.14'	N46°11'14"E
L67	25.03'	S55°12'53"W
L68	8.00'	N01°11'14"E
L69	20.37'	N31°40'23"E
L70	28.38'	S37°58'34"E
L71	8.00'	N01°11'14"E
L72	15.50'	S88°48'46"E
L73	1.00'	N01°11'14"E
L74	4.00'	S88°48'46"E
L75	7.45'	N01°11'14"E
L76	11.00'	S88°48'46"E
L77	6.36'	S88°48'46"E
L78	21.21'	N46°11'14"E
L79	21.21'	N46°11'14"E
L80	21.21'	N46°11'14"E
L81	21.21'	S43°48'46"E
L82	21.21'	N46°11'14"E
L83	21.21'	S43°48'46"E
L84	21.21'	S43°48'46"E
L85	21.21'	N46°11'14"E
L86	21.21'	S43°48'46"E
L87	21.21'	S46°11'14"W
L88	21.21'	S43°48'46"E
L89	21.21'	S43°48'46"E
L90	10.00'	S01°11'14"W
L91	17.25'	S88°48'46"E
L92	17.25'	N88°48'46"W
L93	10.00'	S01°11'14"W
L94	10.00'	S01°11'14"W
L95	17.25'	S88°48'46"E
L96	17.25'	N88°48'46"W
L97	10.00'	S01°11'14"W
L98	10.00'	S01°11'14"W
L99	17.25'	S88°48'46"E
L100	17.25'	N88°48'46"W

LINE TABLE		
LINE	LENGTH	BEARING
L101	10.00'	S01°11'14"W
L102	10.00'	S01°11'14"W
L103	26.25'	N88°48'46"W
L104	17.25'	S88°48'46"E
L105	10.00'	S01°11'14"W
L106	10.00'	S01°11'14"W
L107	26.25'	N88°48'46"W
L108	26.25'	S88°48'46"E
L109	10.00'	S01°11'14"W

M2 Group, Inc.
4852 E. Baseline Rd.
Suite 107
Mesa, Arizona 85206
tel: (480) 539-7497
fax: (480) 539-2810
m2 group Civil Engineering

FINAL PLAT

PROJECT: RIVERBEND I, UNIT A
PHOENIX, ARIZONA

REGISTERED LAND SURVEYOR CERTIFICATE NO. 35306 ROBERT S. UNGER Date Signed ARIZONA, U.S.A.

JOB NO. 02057GW

2057FP06.DWG

SHEET NO. 6

CSPR #0301839 QS 5-16 KIVA #03-308 SDEV #0300129 PLAT #030109

CSPR #0301839 QS 5-16 KIVA #03-308 SDEV #0300129 PLAT #030109

GRADING & DRAINAGE PLAN

GRADING PLAN
OF
RIVER BEND I

A PORTION OF THE NORTH HALF OF THE SE 1/4 OF SECTION 20,
T1N, R2E OF THE GSRB&M PHOENIX, MARICOPA COUNTY, ARIZONA

GENERAL NOTES

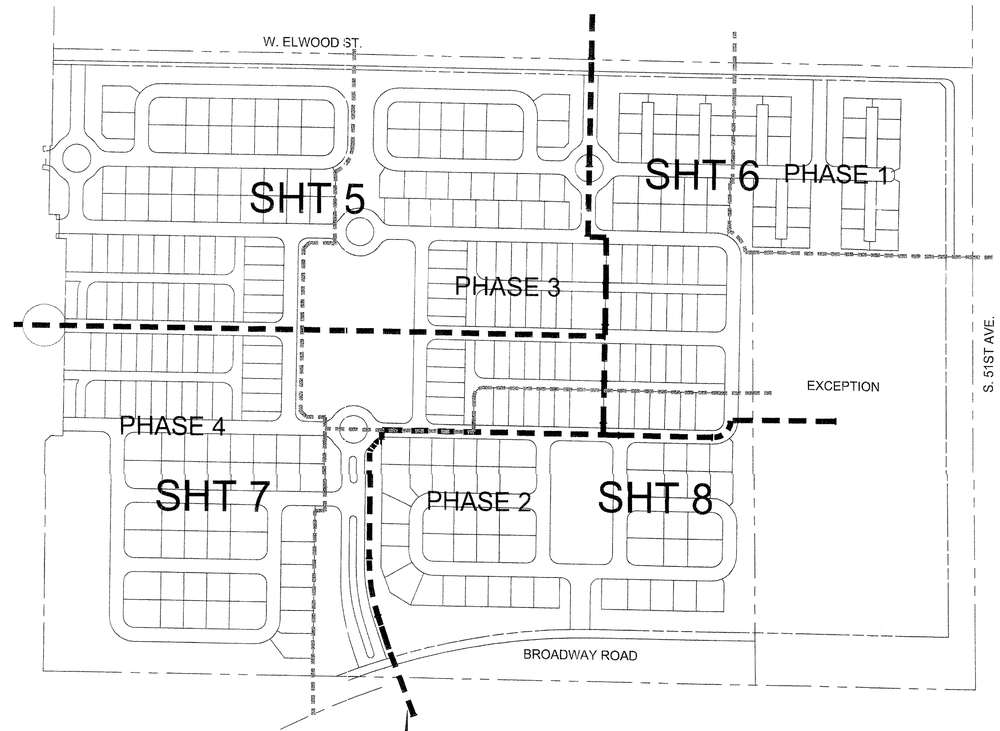
1. A GRADING PERMIT IS REQUIRED UNDER CHAPTER 32A OF THE PHOENIX CITY CODE.
2. HAUL PERMITS, WHEN REQUIRED, MUST BE OBTAINED PRIOR TO CONCURRENTLY WITH THE GRADING AND DRAINAGE PERMIT.
3. EXCAVATING CONTRACTOR MUST GIVE LOCATION FOR WASTING EXCESS EXCAVATION AND A LETTER FROM OWNER GIVING PERMISSION FOR DUMPING PRIOR TO STARTING ON-SITE CONSTRUCTION. IF EXCESS EXCAVATION EXCEEDS 100 CUBIC YARDS, THE DISPOSAL SITE WILL ALSO REQUIRE A GRADING AND DRAINAGE PERMIT.
4. DEVELOPMENT SERVICES DEPARTMENT'S FIELD INSPECTION GROUP SHALL BE NOTIFIED 48 HOURS BEFORE ANY ON-SITE AND/OR OFF-SITE CONSTRUCTION BEGINS, TELEPHONE (602) 262-7811.
5. STAKING PAD ELEVATIONS IS THE RESPONSIBILITY OF THE OWNER AND HIS ENGINEER. THE OWNER'S ENGINEER SHALL SUBMIT THREE SEALED COPIES OF THIS GRADING AND DRAINAGE PLAN DESIGNATED AS "RECORD DRAWING" (BEARING AN ORIGINAL SIGNATURE) PRIOR TO THE REQUEST FOR FINAL INSPECTION.
6. MINIMUM FINISH FLOOR ELEVATIONS SHOWN ARE SAFE FROM THE 100 YEAR FLOOD OR PER MINIMUM SPECIFIED IN THE CITY OF PHOENIX STORM DRAIN DESIGN MANUAL, WHICHEVER IS GREATER.
7. A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
8. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
9. GRADING AND DRAINAGE PLAN APPROVAL INCLUDES THE CONSTRUCTION OF ALL SURFACE IMPROVEMENTS SHOWN ON THE APPROVED PLAN, INCLUDING, BUT NOT LIMITED TO, RETENTION AREAS, SEDIMENTATION BASINS, AND/OR OTHER DRAINAGE FACILITIES, DRAINAGE PATTERNS, WALL, CURBS, ASPHALT PAVEMENT, AND BUILDING FLOOR ELEVATIONS.
10. CONTRACTOR SHALL PROVIDE LEVEL BOTTOM IN ALL RETENTION BASINS AT ELEVATIONS SHOWN ON THE PLANS. SLOPE PROTECTION SHALL BE APPLIED TO PREVENT EROSION.
11. GRADES IN RETENTION BASINS ARE DESIGN FINISHED GRADES. SHOULD THE CONTRACTOR OR ANY SUBCONTRACTOR PLAN TO PLACE SPOIL DIRT FROM FOOTINGS, UTILITY TRENCHES, LANDSCAPING, SWIMMING POOLS, ETC. IN THE BASINS, THE BASINS SHOULD BE SUFFICIENTLY OVER-EXCAVATED DURING THE ROUGH GRADING OPERATIONS TO ALLOW FOR THE PLACEMENT OF THE FILL OR LANDSCAPING MATERIALS.
12. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND CONFIRMING DEPTHS OF ALL THE EXISTING UTILITY LINES WITHIN PROPOSED RETENTION BASIN AREA. IF THE BASIN CANNOT BE CONSTRUCTED PER PLAN BECAUSE OF CONFLICTS, THE CONTRACTOR SHOULD DISCUSS MODIFICATION OF BASIN CONFIGURATION WITH THE CITY INSPECTOR TO DETERMINE IF A PLAN REVISION OR A FIELD CHANGE IS REQUIRED.
13. ALL DRAINAGE PROTECTIVE DEVICES SUCH AS SWALES, INTERCEPTOR DITCHES, PIPES, PROTECTIVE BERMS, BARRIER WALL, CONCRETE CHANNELS, OR OTHER MEASURES DESIGNED TO PROTECT ADJACENT BUILDINGS OR PROPERTY FROM STORM RUNOFF MUST BE COMPLETED PRIOR TO BUILDING CONSTRUCTION.
14. RETENTION BASIN SIDE SLOPES SHALL BE A MAXIMUM OF 4:1 UNLESS APPROVAL IS RECEIVED FROM THE PLAN REVIEWER FOR A STEEPER SLOPE.
15. ALL KNOWN EXISTING UNDERGROUND UTILITIES WITHIN PROPOSED RETENTION AREAS HAVE BEEN DESIGNED TO MAINTAIN A MINIMUM SPECIFIED BY OTHER UTILITY OWNERS.
16. REQUIRED RETAINING WALLS SHOWN ON THE GRADING AND DRAINAGE PLANS ARE TO BE REVIEWED, PERMITTED, AND INSPECTED BY THE BUILDING SAFETY BRANCH OF THE DEVELOPMENT SERVICES DEPARTMENT.
17. CERTIFICATE OF OCCUPANCY (C. OF O.) AND/OR FINAL ELECTRICAL CLEARANCE FOR ANY BUILDING IS DENIED UNTIL ALL GRADING AND DRAINAGE IMPROVEMENTS ARE COMPLETED.
18. EXISTING OR NEWLY DAMAGED AND/OR DISPLACED CONCRETE CURB, GUTTER, SIDEWALK, OR DRIVEWAY SLAB THAT IS WITHIN THE RIGHT-OF-WAY SHALL BE REPAIRED OR REPLACED, AS NOTED BY CITY INSPECTORS, BEFORE FINAL ACCEPTANCE OF THE WORK.
19. THE ENGINEERING DESIGN ON THESE PLANS ARE ONLY APPROVED BY THE CITY IN SCOPE AND NOT IN DETAIL. CONSTRUCTION QUANTITIES ON THE PLANS ARE NOT VERIFIED BY THE CITY. APPROVAL OF THE PLANS ARE FOR PERMIT PURPOSES ONLY AND SHALL NOT PREVENT THE CITY FROM REQUIRING CORRECTION OF ERRORS IN THE PLANS WHERE SUCH ERRORS ARE SUBSEQUENTLY FOUND TO BE IN VIOLATION OF ANY LAW, ORDINANCE, HEALTH, SAFETY, OR OTHER DESIGN ISSUES.
20. THE CITY OF PHOENIX POLICE DEPARTMENT ENFORCES LAWS REGULATING THE OPERATION OF COMMERCIAL VEHICLES. THIS INCLUDES ENFORCEMENT OF FEDERAL, STATE, COUNTY AND LOCAL LAWS AND ORDINANCES. QUESTIONS REGARDING COMMERCIAL VEHICLE ENFORCEMENT MAY BE DIRECTED TO THE COMMERCIAL VEHICLE ENFORCEMENT SUPERVISOR AT (602) 495-7813 (SOUTH RESOURCE BUREAU) OR (602) 495-6784 (NORTH RESOURCE BUREAU).
21. ALL GRADING AND EARTHWORK SHALL BE PERFORMED IN COMPLIANCE WITH THE SOILS INVESTIGATION REPORT PREPARED BY "CONSTRUCTION INSPECTION & TESTING CO." ON DECEMBER 10, 2002.
22. PAD CERTIFICATIONS WILL BE REQUIRED ON ALL LOTS WITHIN THE SUBDIVISION AND SHALL BE SUBMITTED TO THE CIVIL/SITE INSPECTOR PRIOR TO ANY CONCRETE CONSTRUCTION IN THE RIGHT-OF-WAY. PAD CERTIFICATIONS CAN BE SUBMITTED TO THE CIVIL/SITE INSPECTOR BY EITHER SUBMITTING ONE APPROVED BLACK-LINE AS-BUILT GRADING AND DRAINAGE PLAN OR IN LETTER FORMAT, SHOWING THE DESIGN AND AS-BUILT PAD ELVATIONS AS SHOWN ON THE APPROVED GRADING AND DRAINAGE PLAN. IT IS REQUIRED THAT THE AS-BUILT PLAN AND LETTER BE SEALED BY A CIVIL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA.

ENGINEER'S NOTE:

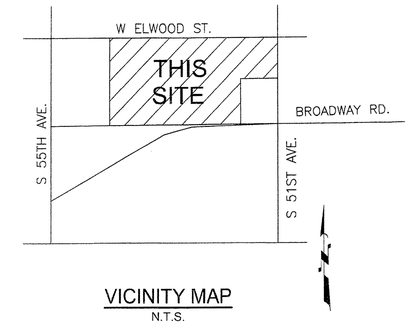
THE CONTRACTOR SHALL GIVE FORTY-EIGHT (48) HOURS NOTICE WHEN HE SHALL REQUIRE THE SERVICE OF THE ENGINEER OR ANY OTHER PERSON PROPERLY AUTHORIZED FOR SUCH PURPOSE FOR LAYING OUT ANY PORTION OF THE WORK. HE SHALL ALSO DIG ALL STAKE HOLES NECESSARY TO GIVE LINE AND LEVELS AND SHALL PROVIDE ASSISTANCE CALLED FOR BY THE ENGINEER OR HIS ASSISTANTS UPON ANY PART OF THE WORK WHENEVER SO REQUESTED, AND SHALL PRESERVE ALL STAKES SET FOR THE LINES, LEVELS OR MEASUREMENTS OF THE WORK IN THEIR PROPER PLACES UNTIL AUTHORIZED TO REMOVE THEM BY THE ENGINEERS. ANY EXPENSE INCURRED IN REPLACING ANY STAKES WHICH THE CONTRACTOR HIS SUBORDINATES MAY HAVE FAILED TO PRESERVE SHALL BE CHARGED TO THE CONTRACTOR.

LEGEND

58.46	PROPOSED TOP OF CURB ELEV.
0.58%	DIRECTION & GRADE OF SLOPE
FP=59.0 FF=59.67	FINISHED FLOOR & PAD ELEV.
959	EXISTING CONTOUR ELEV.
72	PROPOSED CONTOUR ELEV.
	GRADE BREAK
	GRADE CHANGE
	PROPOSED STORM DRAIN PIPE
	PROPOSED CATCH BASIN
TC=59.00 G=58.50	PROPOSED TC & GUTTER ELEV.
TC=59.00 G=58.50	EXISTING TC & GUTTER ELEV.
	PROPOSED VERTICAL CURB & GUTTER
TW=/BW=	TOP / BOTTOM OF WALL GRADE
M.U.T.E.	MULTI-USE TRAIL EASEMENT
	RETAINING WALL
	PHASE LINE



KEY MAP
SCALE: 1"=200'



VICINITY MAP
N.T.S.

OWNER/ DEVELOPER
GREAT WESTERN HOMES
3895 E. BASELINE RD.
MESA, AZ. 85206
PH: 480-396-9696
FAX: 480-396-9200
CONTACT: LARRY GAMSO

ENGINEER
M2 GROUP, INC.
4852 E. BASELINE RD.
SUITE 107
MESA, AZ 85206
PH: (480) 539-7497
FAX: (480) 545-4208
CONTACT: TOM PALMER

SITE DATA
EXISTING ZONING: R-2
DEVELOPMENT OPTION: PRD
TOTAL LOTS: 305
GROSS AREA: 48.70 ACRES
DENSITY: 6.26 DU/AC (GROSS)

BENCHMARK
M.C.H.D. BRASS CAP IN
HAND HOLE INTERSECTION OF
59TH AVE AND BROADWAY ROAD.
ELEVATION = 1008.32(C.O.P. DATUM)

PHASING QUANTITY TABLE

	CUT (C.Y.)	FILL (C.Y.)	NET (C.Y.)
ENTIRE SITE	68,300	45,400	22,900 (CUT)
ROUGH GRADE (80%)	54,640	36,320	18,320 (CUT)
FINAL GRADING - PH1	3,415	2,270	1,445 (CUT)
FINAL GRADING - PH2	3,415	2,270	1,445 (CUT)
FINAL GRADING - PH3	3,415	2,270	1,445 (CUT)
FINAL GRADING - PH4	3,415	2,270	1,445 (CUT)
FINAL GRADE (20%)	13,660	9,080	4,580 (CUT)

ABOVE NUMBERS DO NOT ACCOUNT FOR SHRINK/SWELL OR LOSSES DUE TO OVER-EXCAVATION. ALL GRADING AND CONSTRUCTION ON THIS SITE SHALL BE PERFORMED IN ACCORDANCE WITH THE SOILS REPORT (SEE NOTE #21, ABOVE), AND ANY EXCESS MATERIAL SHALL BE USED ON-SITE. NUMBERS SHOWN ARE FOR ESTIMATING PURPOSES ONLY. CONTRACTORS SHALL PERFORM THEIR OWN, INDEPENDENT EARTHWORK ANALYSIS ON WHICH BIDS SHOULD BE BASED.

ESTIMATED QUANTITIES

	TOTAL
2.3' HIGH RETAINING WALL	562 LF
3.3' HIGH RETAINING WALL	190 LF

ABOVE ENGINEERS QUANTITES ARE FOR ESTIMATING PURPOSES ONLY, NOT FOR BIDDING PURPOSES. CONTRACTOR SHALL BASE THEIR BID ON THEIR OWN QUANTITY TAKEOFFS. ENGINEER MAKES NO GUARANTEE OF ACCURACY.

PHASING NOTE
THIS PROJECT WILL BE CONSTRUCTED IN 4 SEPARATE PHASES AS SHOWN ON THIS SHEET. THE SITE WILL BE MASS-GRADED AT THE ROUGH GRADING STAGE. FINAL GRADING FOR EACH PHASE WILL BE PER SEPARATE PERMIT. THE APPROXIMATE QUANTITIES FOR THE PHASING ARE SHOWN IN THE PHASING QUANTITY TABLE.

FLOOD ZONE NOTE
A PORTION OF THIS SITE LIES WITHIN ZONE "AE" OF THE FEDERAL INSURANCE RATE MAP, MAP NO. 04013C2120F JULY, 19, 2001.
ZONE "AE" IS DEFINED AS:
SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YR FLOOD. BASE FLOOD ELEVATIONS DETERMINED.
THIS SPECIAL FLOOD HAZARD AREA AS IT APPLIES TO THIS SITE, WILL BE REMOVED THROUGH LETTER OF MAP REVISION.

SHEET INDEX

1.....COVER SHEET/GENERAL NOTES
2-4.....GRADING DETAILS
5-8.....GRADING PLANS

AS-BUILT CERTIFICATION
I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JERRY SWANEY — 10-20-03
REGISTERED LAND SURVEYOR/ENGINEER — DATE

20381
REGISTRATION NUMBER

REGISTERED LAND SURVEYOR CERTIFICATE NO. 20381 JERRY SWANEY Date Signed 10-20-03 ARIZONA U.S.A.

REVISIONS:

M2 Group, Inc.
4852 E. Baseline Rd.
Suite 107
Mesa, Arizona 85206
tel: (480) 539-7497
fax: (480) 539-2810
m2 group Civil Engineering

GRADING PLANS
PROJECT: RIVERBEND I
PHOENIX, ARIZONA

CALL TWO WORKING DAYS BEFORE YOU DIG 263-1100 1-800-STAKE-IT (OUTSIDE MARICOPA COUNTY)

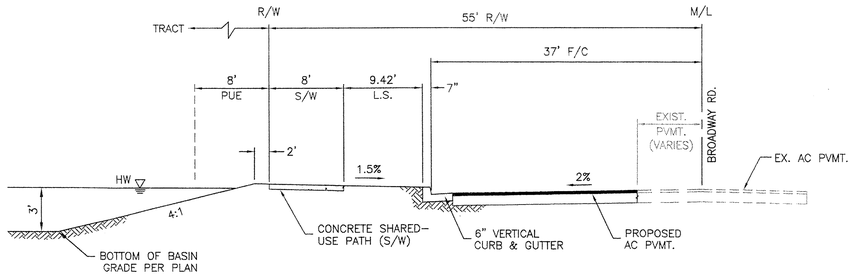
Registered Professional Engineer (Civil) CERTIFICATE NO. 38796 THOMAS R. PALMER Date Signed 10-20-03 ARIZONA, U.S.A.

JOB NO. 02057GW
2057GC01.DWG
SHEET NO. 1
1 OF 8

02057GW-RIVERBEND

QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839

QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839



SECTION "A - A"
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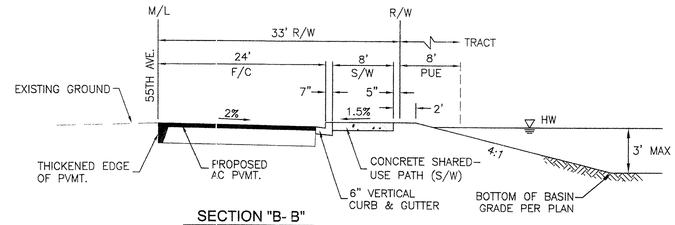

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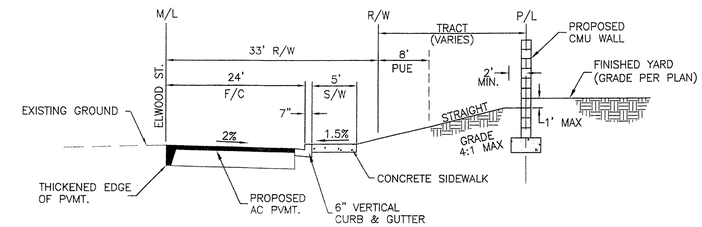

SECTION "C - C"
(FOR TRACT AREA ALONG ELWOOD WITHOUT DRAINAGE SWALE)
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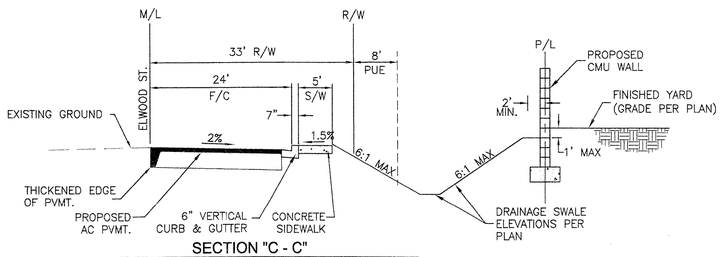

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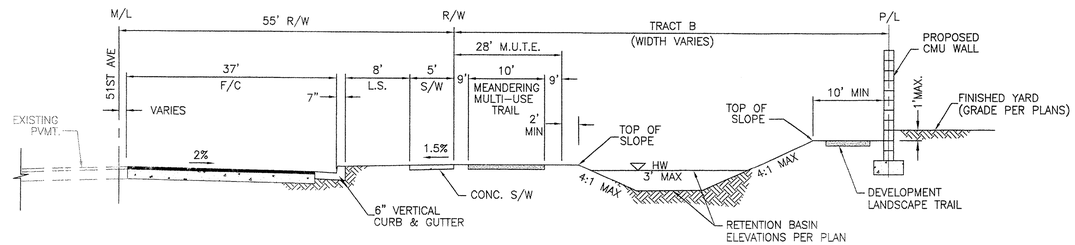

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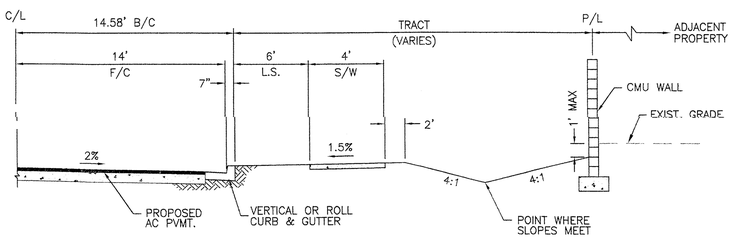

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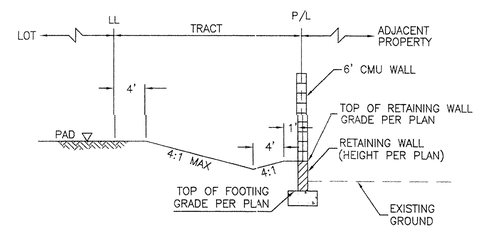

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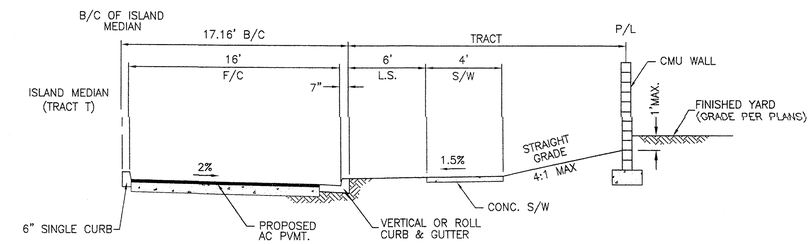

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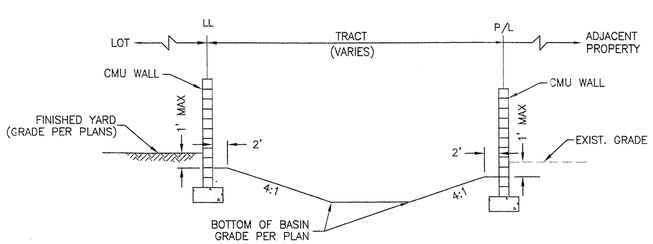

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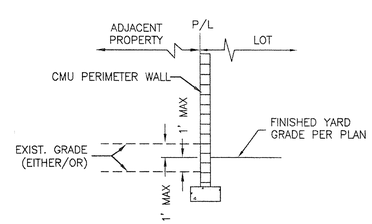

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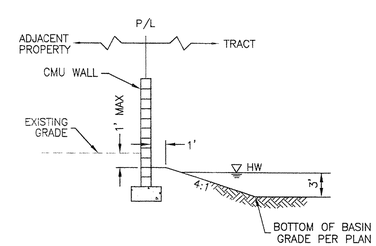

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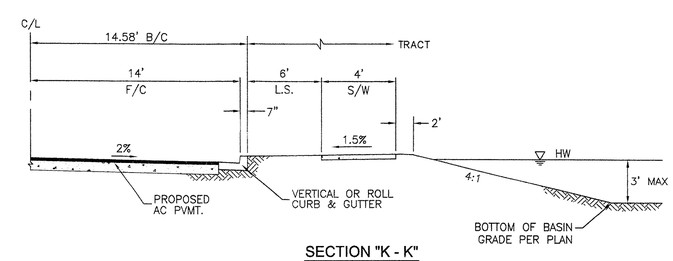

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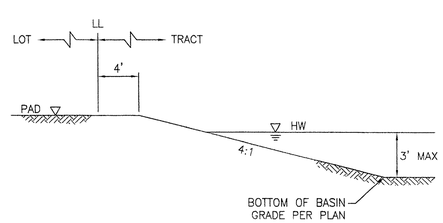

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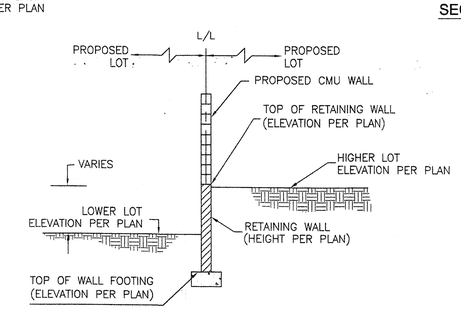

SECTION "M-M"
N.T.S.

02057GW-RIVERBEND

QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839

REVISIONS:

M2 Group, Inc.
4852 E. Baseline Rd.
Suite 107
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Civil Engineering

GRADING DETAILS

PROJECT:
RIVERBEND I
PHOENIX, ARIZONA

CALL TWO WORKING DAYS BEFORE YOU DIG 263-1100 1-800-STAKE-IT (OUTSIDE MARICOPA COUNTY)

Registered Professional Engineer (Civil) CERTIFICATE NO. 38796 THOMAS R. PALMER Date Signed 10/10/03 ARIZONA, U.S.A.

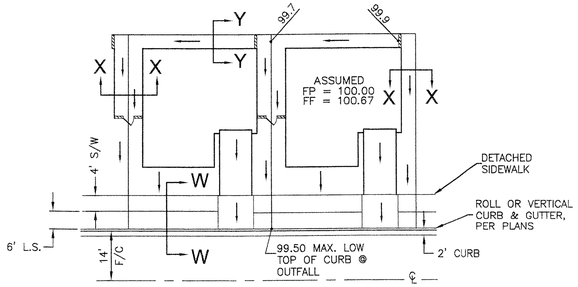
JOB NO.
02057GW

2057GD01.DWG

SHEET NO.
2

2 OF 8

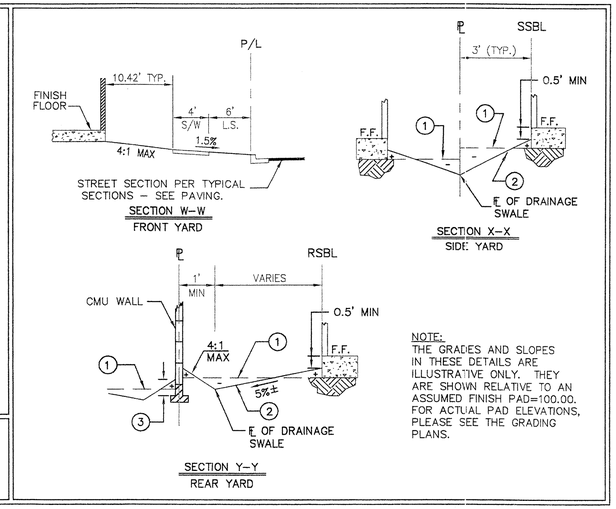
QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839



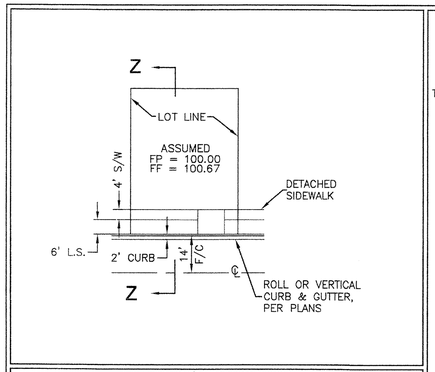
1. PAD GRADE PER INITIAL GRADING DETAIL.
2. FINAL GRADING OF SIDE YARD. FLOWLINE OF SWALE PER GRADES IN THIS DETAIL. TYPICAL CUTS AND FILLS AS SHOWN THIS DETAIL. MAX SLOPE = 4:1.
3. 4" MINIMUM TO TOP OF FOOTING, OR AS SPECIFIED ON WALL DESIGN BY OTHERS.

TYPICAL INTERIOR LOT FINAL GRADING DETAILS

NTS

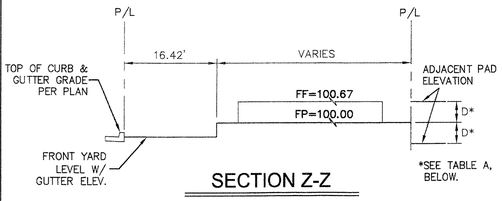


NOTE:
THE GRADES AND SLOPES IN THESE DETAILS ARE ILLUSTRATIVE ONLY. THEY ARE SHOWN RELATIVE TO AN ASSUMED FINISH PAD=100.00. FOR ACTUAL PAD ELEVATIONS, PLEASE SEE THE GRADING PLANS.



TYPICAL INTERIOR LOT INITIAL GRADING DETAILS

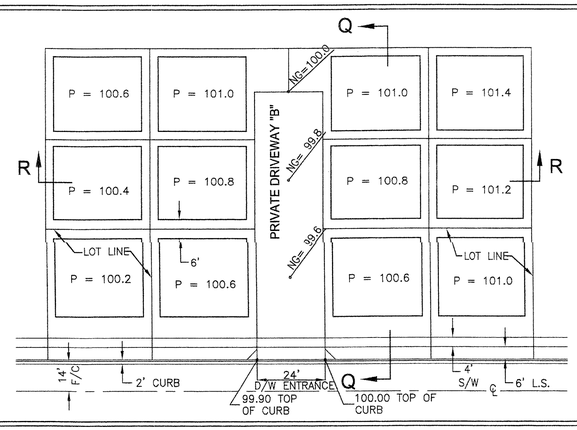
NTS



NOTE:
THE FINAL GRADING OF TYPICAL LOTS MUST CONFORM TO THE FINISH GRADING DETAIL. FRONT YARDS SHALL BE UNDERCUT AS SHOWN ON THE INITIAL GRADING DETAIL TO PROVIDE AREA FOR WASTING MATERIAL FROM FOOTINGS, STEMWALLS AND DRIVEWAYS.

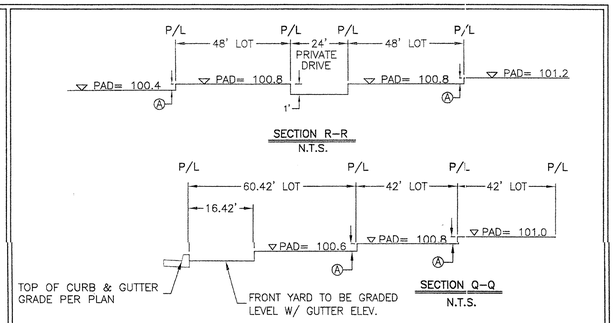
TABLE A

GRADING INSTRUCTIONS FOR REAR AND SIDE YARDS	
GRADE DIFF. (D)	GRADING INSTRUCTIONS
0' TO 0.5'	RAKE STRAIGHT ACROSS PROPERTY LINE
> 0.5'	STEP AT PROPERTY LINE



TYPICAL CLUSTER LOTS INITIAL GRADING DETAILS

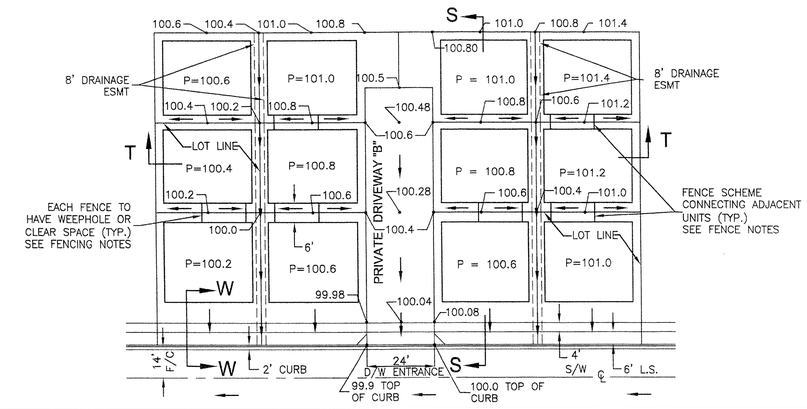
NTS



NOTE:
THE FINAL GRADING OF TYPICAL LOTS MUST CONFORM TO THE FINISH GRADING DETAIL. FRONT YARDS SHALL BE UNDERCUT AS SHOWN ON THE INITIAL GRADING DETAIL TO PROVIDE AREA FOR WASTING MATERIAL FROM FOOTINGS, STEMWALLS AND DRIVEWAYS.

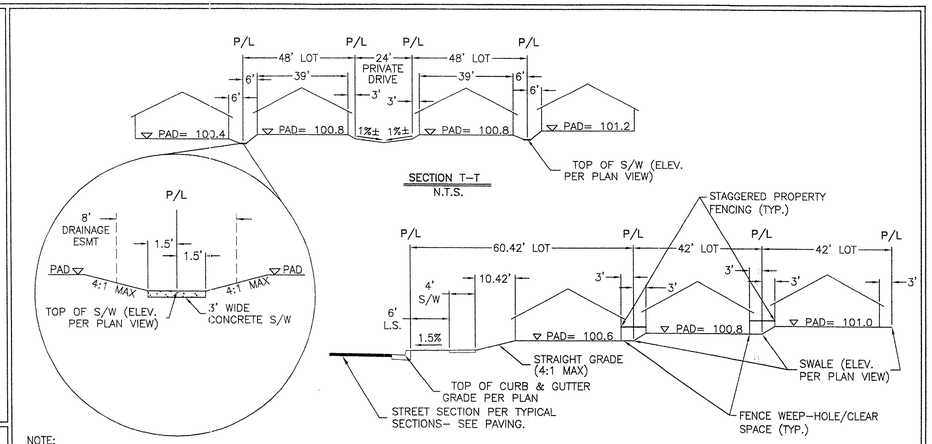
TABLE A

GRADING INSTRUCTIONS FOR REAR AND SIDE YARDS	
GRADE DIFF. (D)	GRADING INSTRUCTIONS
0' TO 0.5'	RAKE STRAIGHT ACROSS PROPERTY LINE
> 0.5'	STEP AT PROPERTY LINE



TYPICAL CLUSTER LOTS FINAL GRADING DETAILS

NTS



NOTE:
ALL GRADES SHOWN HEREON ARE IN RELATIONSHIP TO AN ASSUMED TOP OF CURB ELEVATION OF 100.00 AT THE HIGH DRIVEWAY SIDE. ACTUAL ELEVATIONS SHALL BE BASED ON GRADES PER PLAN.

FENCE NOTE:
(FOR FENCING CONNECTED TO ADJACENT UNITS):
- BLOCK FENCING OR FENCING WITH BLOCK AT FINISHED GRADE SHALL PROVIDE ONE DECORATIVE WEEP–HOLE BLOCK AT FINISHED GRADE ON LOW SIDE OF YARD.
- OTHER FENCING TYPES SHALL PROVIDE A CLEAR OPENING AT FINISHED GRADE ON LOW SIDE OF YARD.
- IT SHALL BE THE RESPONSIBILITY OF THE USER OF THE YARD TO MAINTAIN FENCE OPENINGS FOR DRAINAGE PURPOSES.

02057GW-RIVERBEND

REVISIONS:

M2 Group, Inc.
4852 E. Baseline Rd.
Suite 107
Mesa, Arizona 85206
tel: (480) 539-7497
fax: (480) 539-2810
m2 group
Civil Engineering

GRADING DETAILS

PROJECT:
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PHOENIX, ARIZONA

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(OUTSIDE MARICOPA COUNTY)

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
CERTIFICATE NO. 38796
THOMAS R. PALMER
Date Signed 10/6/03
ARIZONA, U.S.A.

JOB NO.
02057GW

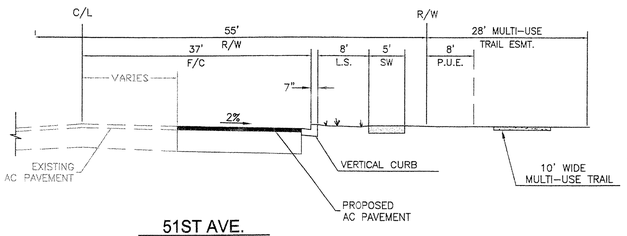
2057GD02.DWG

SHEET NO.
3
3 OF 8

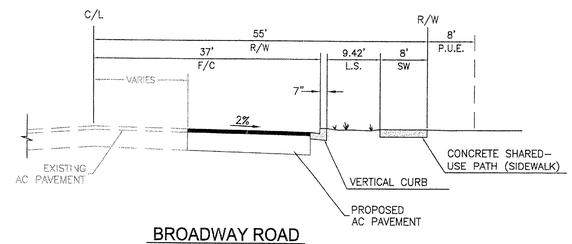
QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839

QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839

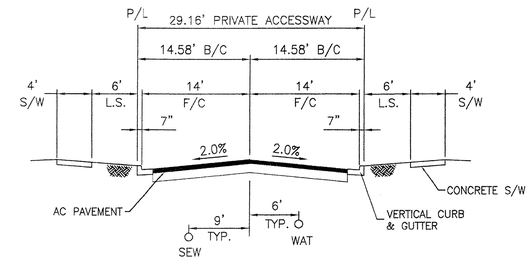
02057GW-RIVERBEND



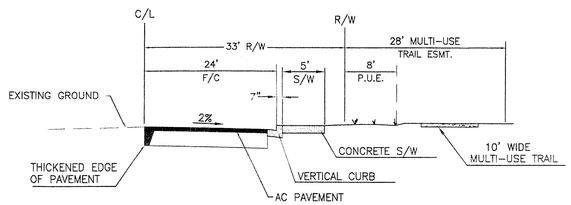
51ST AVE.
(LOOKING SOUTH N.T.S.)



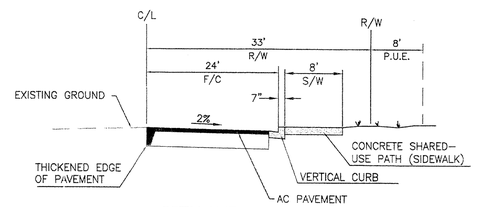
BROADWAY ROAD
(LOOKING WEST N.T.S.)



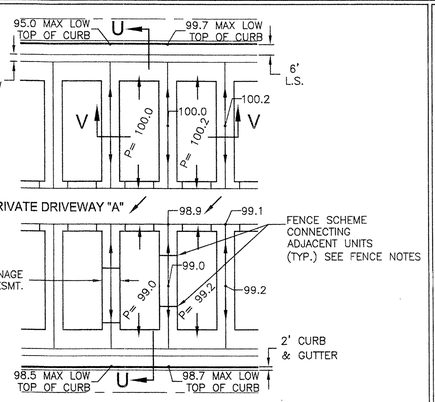
TYPICAL LOCAL STREET
(LOOKING NORTH OR WEST, N.T.S.)



ELWOOD AVE.
(LOOKING EAST N.T.S.)

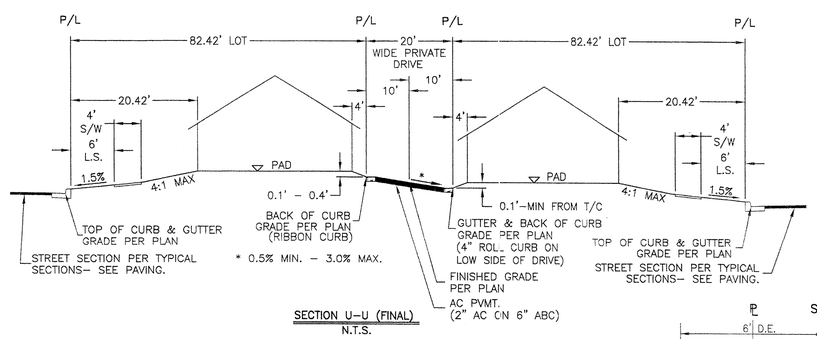


55TH AVE.
(LOOKING NORTH N.T.S.)

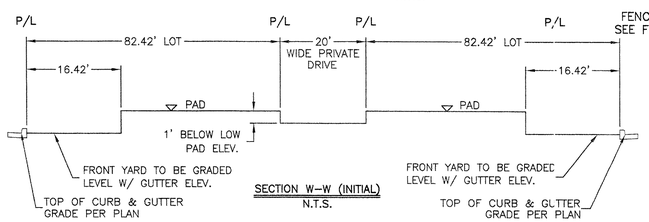


TYPICAL REAR-LOADED LOTS
GRADING DETAILS

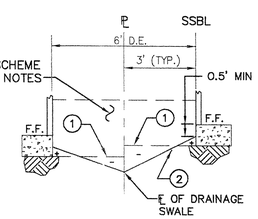
NTS



SECTION U-U (FINAL)
N.T.S.



SECTION W-W (INITIAL)
N.T.S.



SECTION V-V
SIDE YARD
N.T.S.

NOTE:
THE FINAL GRADING OF TYPICAL LOTS MUST CONFORM TO THE FINISH GRADING DETAIL. FRONT YARDS SHALL BE UNDERCUT AS SHOWN ON THE INITIAL GRADING DETAIL TO PROVIDE AREA FOR WASTING MATERIAL FROM UTILITIES AND DRIVEWAYS.

(1) PAD GRADE PER INITIAL GRADING DETAIL.

(2) FINAL GRADING OF SIDE YARD. FLOWLINE OF SWALE PER GRADES IN THIS DETAIL. TYPICAL CUTS AND FILLS AS SHOWN THIS DETAIL. MAX SLOPE = 4:1.

FENCE NOTE:
(FOR FENCING CONNECTED TO ADJACENT UNITS):

- BLOCK FENCING OR FENCING WITH BLOCK AT FINISHED GRADE SHALL PROVIDE ONE DECORATIVE WEEP-HOLE BLOCK AT FINISHED GRADE ON LOW SIDE OF YARD.
- OTHER FENCING TYPES SHALL PROVIDE A CLEAR OPENING AT FINISHED GRADE ON LOW SIDE OF YARD.
- IT SHALL BE THE RESPONSIBILITY OF THE USER OF THE YARD TO MAINTAIN FENCE OPENINGS FOR DRAINAGE PURPOSES.

REVISIONS:

M2 Group, Inc.
4855 E. Baseline Rd.
Suite 107
Mesa, Arizona 85206
tel: (480) 539-7497
fax: (480) 539-2810
m2 group
Civil Engineering

GRADING DETAILS

PROJECT:
RIVERBEND I
PHOENIX, ARIZONA

CALL TWO WORKING DAYS BEFORE YOU DIG
263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

REGISTERED Professional Engineer (Civil)
CERTIFICATE NO. 38798
THOMAS R. PALMER
Date Signed 10/14/03
ARIZONA, U.S.A.

JOB NO.
02057GW

2057GD03.DWG

SHEET NO.
4
4 OF 8

QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839

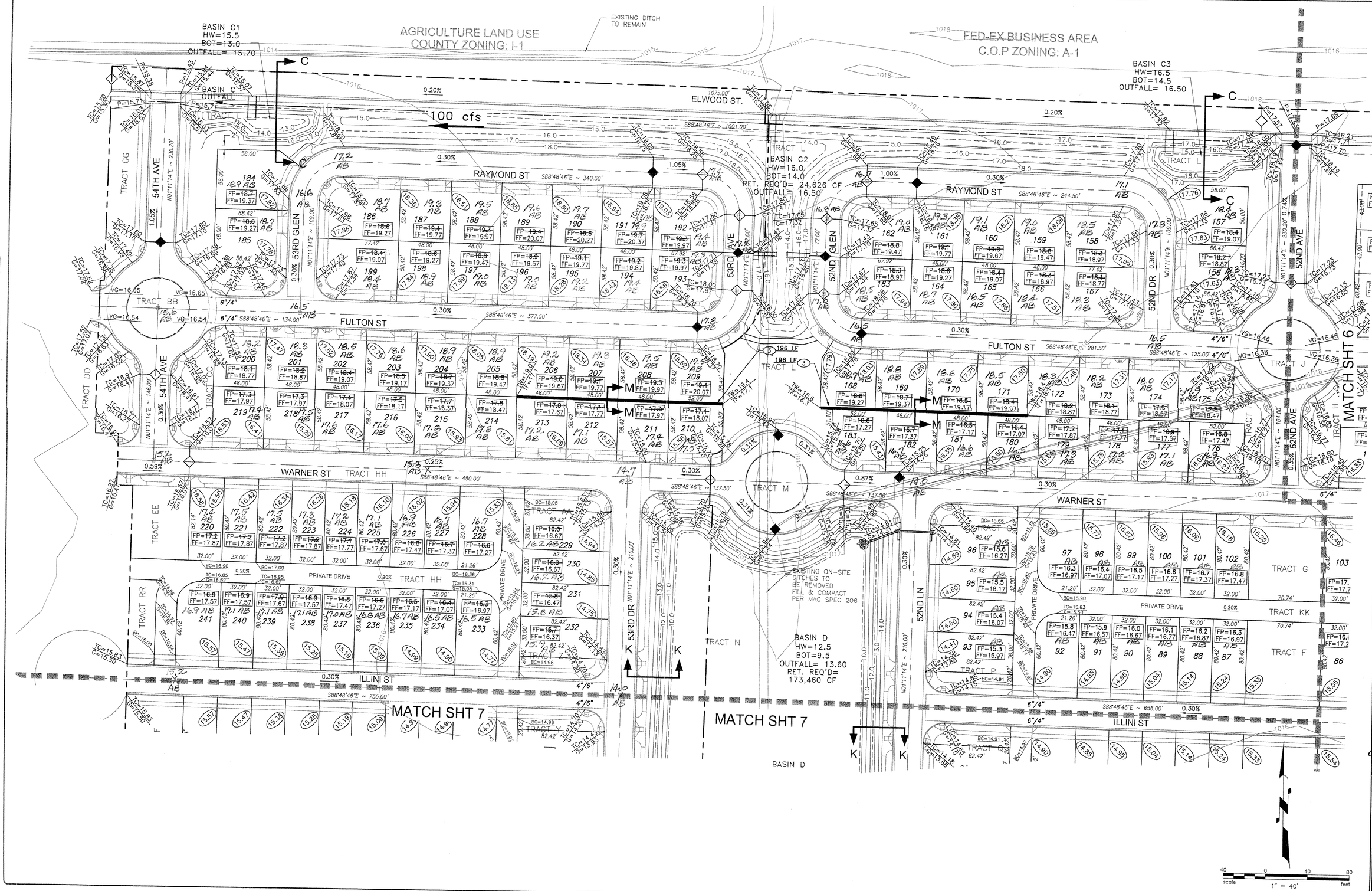
QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839

02057GW-RIVERBEND

CONSTRUCTION NOTES

-- GRADING NOTES --

(3) CONSTRUCT 2' HIGH RETAINING WALL 392 LF



REVISIONS:

M2 Group, Inc.
4852 E. Baseline Rd.
Suite 107
Mesa, Arizona 85206
tel: (480) 539-7497
fax: (480) 539-2810

m2 group
Civil Engineering

GRADING PLANS

PROJECT:
RIVERBEND I
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CALL TWO WORKING DAYS BEFORE YOU DIG
263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

Registered Professional Engineer (Civil)
CERTIFICATE NO. 38796
THOMAS R. PALMER
Date Signed 10/6/16
ARIZONA, U.S.A.

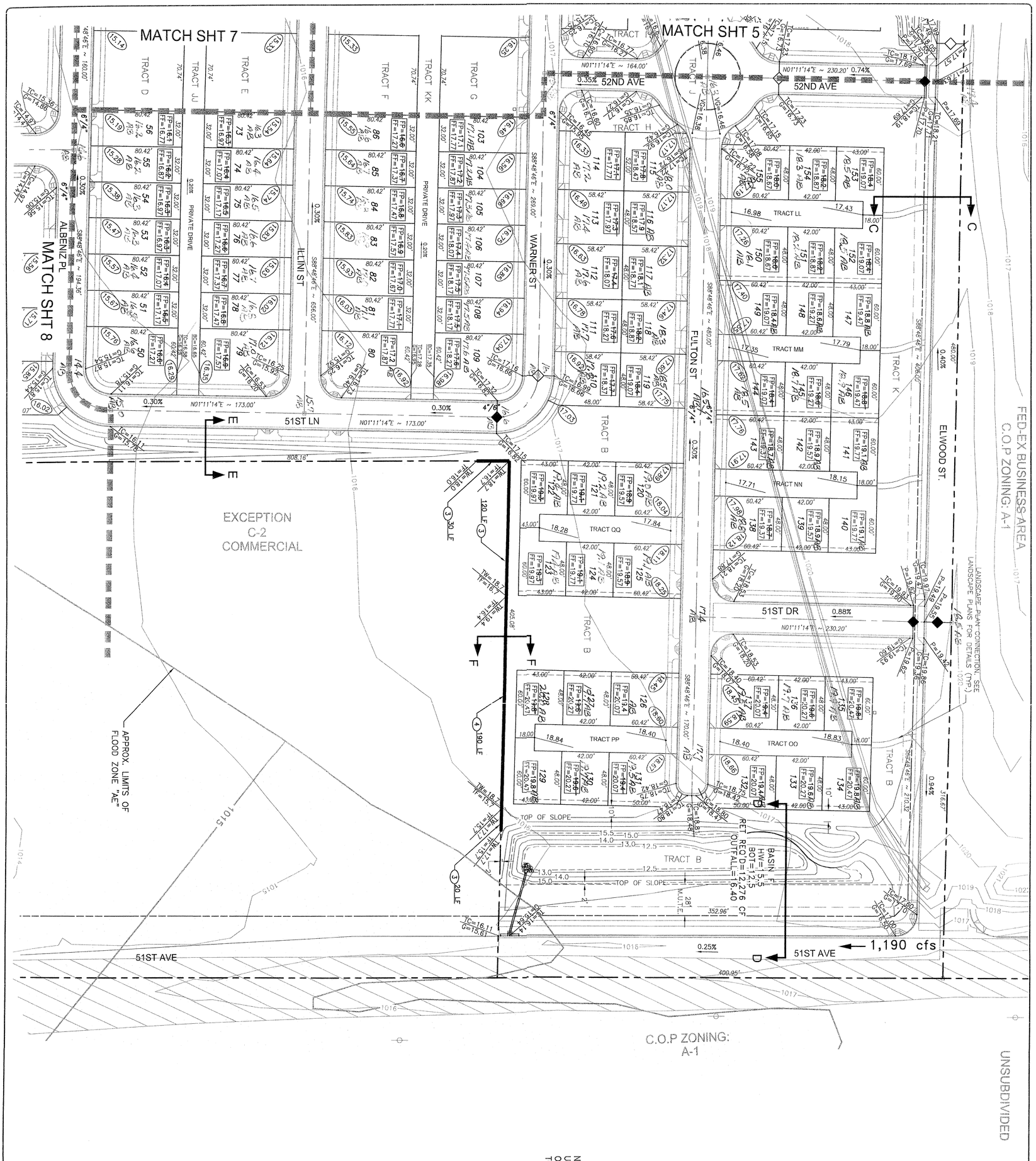
JOB NO.
02057GW

2057GP03.DWG

SHEET NO.
5
5 OF 8

QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839

QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839



NOTE: PRIVATE DRIVE ELEVATIONS SHOWN IN THE CLUSTER UNITS ARE FOR PURPOSES OF ROUGH GRADE. FINAL GRADING OF PRIVATE DRIVES SHALL BE CONSTRUCTED IN ACCORDANCE TO THE CLUSTER LOTS FINAL GRADING DETAIL SHEET 3.

CONSTRUCTION NOTES

-- GRADING NOTES --

3	CONSTRUCT 2' HIGH RETAINING WALL	170 LF
4	CONSTRUCT 3' HIGH RETAINING WALL	190 LF

SCALE: 1" = 40'

QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839

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GRADING PLANS

PROJECT: RIVERBEND I
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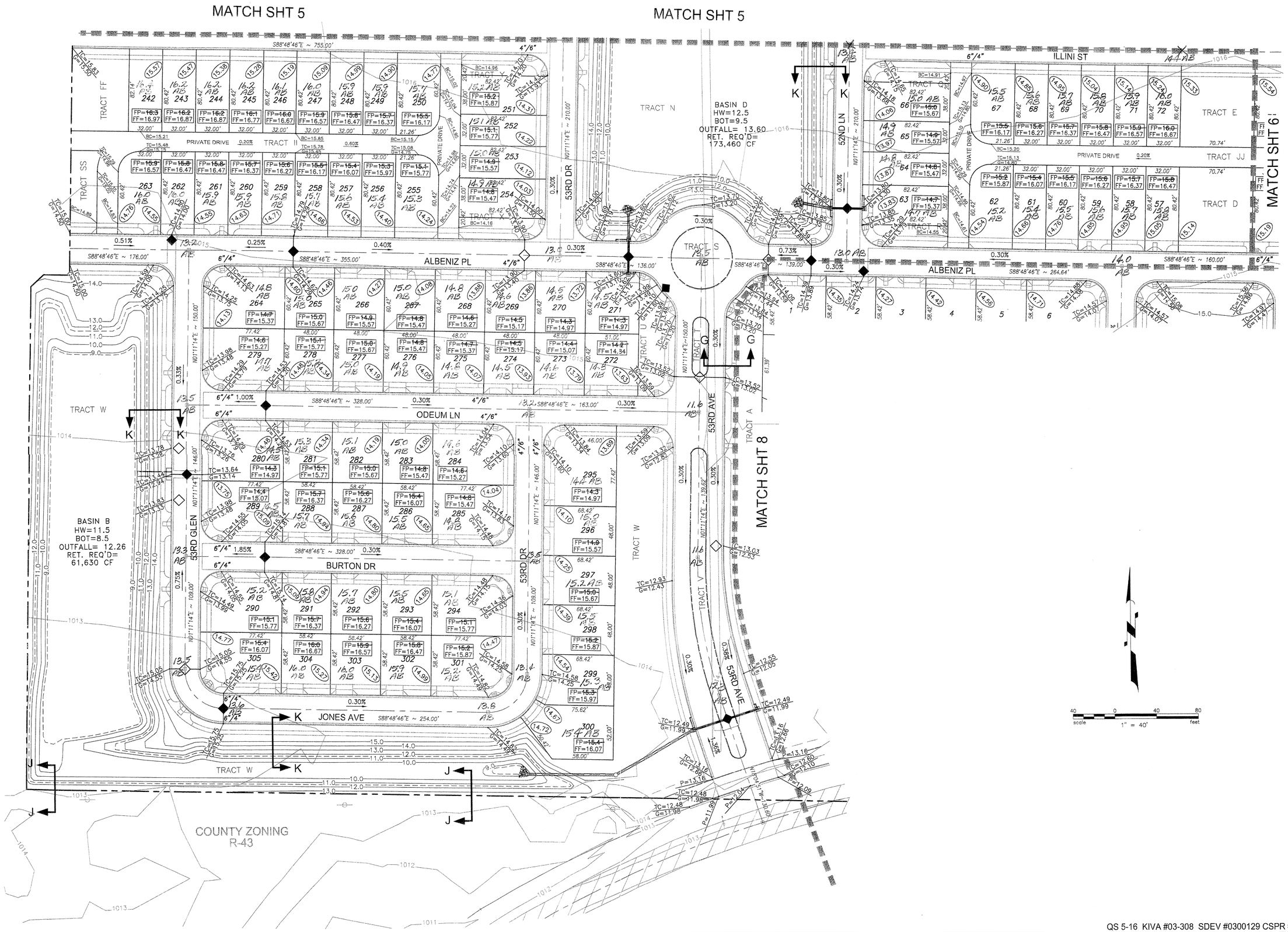
M2 Group, Inc.
Civil Engineering
4852 E. Baseline Rd.
Suite 107
Mesa, Arizona 85206
tel: (480) 539-7497
fax: (480) 539-2810

REVISIONS:

6 OF 8	SHEET NO. 6	JOB NO. 0205/GW	205TGP04.DWG

QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839

02057/GW-RIVERBEND



scale 1" = 40' (40 0 40 80 feet)

QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839

REVISIONS:

M2 Group, Inc.
4852 E. Baseline Rd.
Suite 107
Mesa, Arizona 85206
tel: (480) 539-7497
fax: (480) 539-2810
m2 group
Civil Engineering

GRADING PLANS

PROJECT: RIVERBEND I
PHOENIX, ARIZONA

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1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

Registered Professional Engineer (Civil)
CERTIFICATE NO. 38796
THOMAS R. PALMER
Date Signed 10/14/03
ARIZONA, U.S.A.

JOB NO. 02057GW

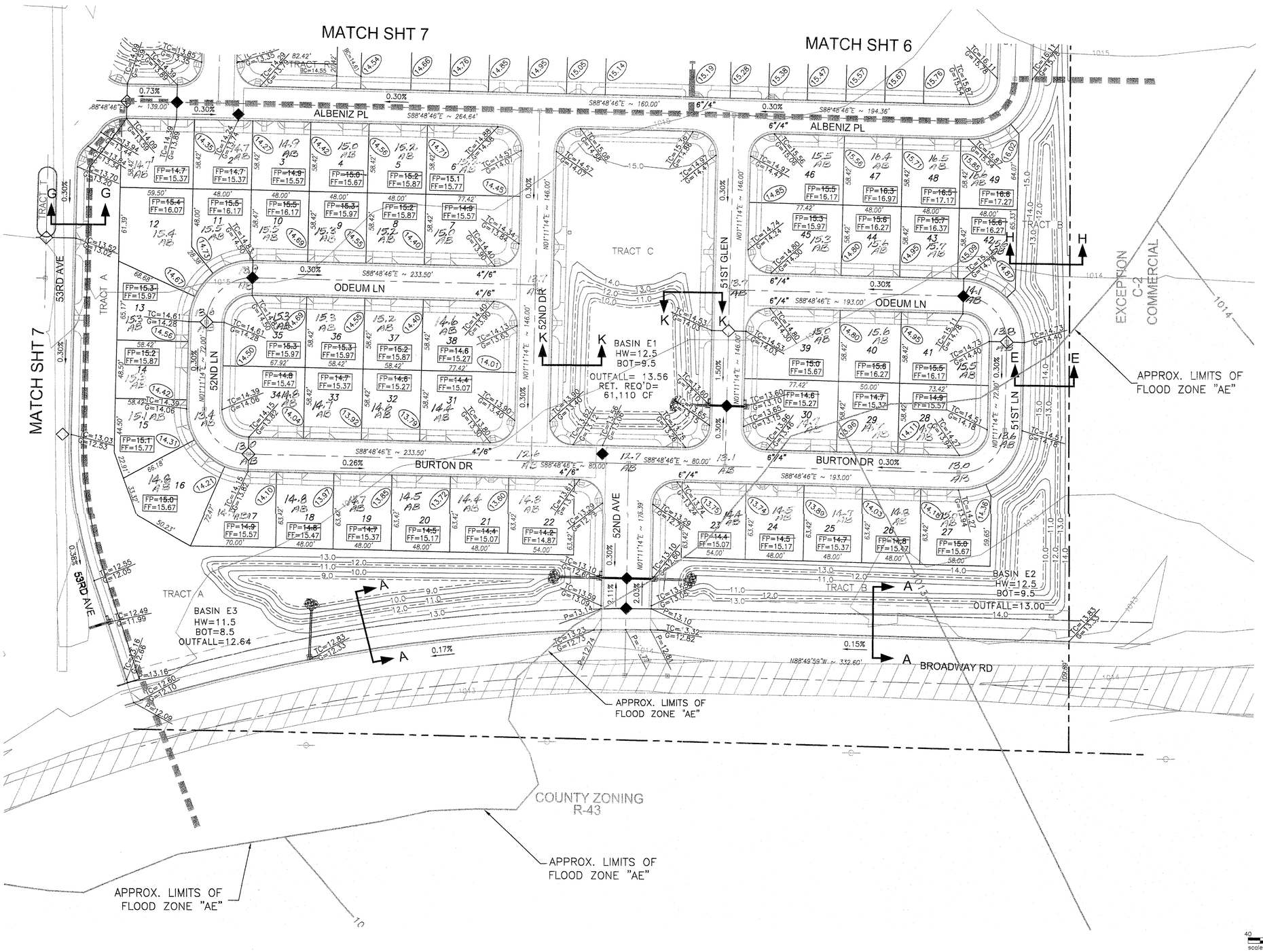
2057GP06.DWG

SHEET NO. 7

7 OF 8

QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839

02057GW-RIVERBEND



REVISIONS:

M2 Group, Inc.
4852 E. Baseline Rd.
Suite 107
Mesa, Arizona 85206
tel: (480) 539-7497
fax: (480) 539-2810
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GRADING PLANS

PROJECT:

RIVERBEND I

PHOENIX, ARIZONA

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(OUTSIDE MARICOPA COUNTY)

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
CERTIFICATE NO.
38796
THOMAS R. PALMER
Date Signed 10/8/03
ARIZONA, U.S.A.

JOB NO.	02057GW
2057GP07.DWG	
SHEET NO.	8
	8 OF 8

QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839

QS 5-16 KIVA #03-308 SDEV #0300129 CSPR #0301839

AVERY

PAD CERTIFICATIONS FOR
RIVERBEND I

Lot No.	Proposed Grade		As-Built Grade
1	14.7		14.7
2	14.7		14.7
3	14.9		14.9
4	15.0		15.0
5	15.2		15.2
6	15.1		15.2
7	14.9		15.0
8	15.2		15.2
9	15.3		15.3
10	15.5		15.5
11	15.5		15.5
12	15.4		15.4
13	15.3		15.3
14	15.3		15.3
15	15.1		15.1
16	15.0		14.8
17	14.9		14.9
18	14.8		14.8
19	14.7		14.7
20	14.5		14.5
21	14.4		14.4
22	14.2		14.3
23	14.4		14.4
24	14.5		14.5
25	14.7		14.7
26	14.8		14.8
27	15.0		15.0
28	14.9		14.9
29	14.7		14.7
30	14.6		14.7
31	14.4		14.4
32	14.6		14.6
33	14.7		14.7
34	14.8		14.8
35	15.3		15.3
36	15.3		15.3
37	15.2		15.2
38	14.6		14.6
39	15.0		15.0

Registered Professional Engineer (Civil)
CERTIFICATE NO.
10520
DARRELL D.
TRUITT
Date Signed 1/23/04
ARIZONA U.S.A.

EPS #03-025
1.5.04

40	15.6		15.6
41	15.5		15.5
42	15.6		15.6
43	15.7		15.7
44	15.6		15.6
45	15.3		15.3
46	15.5		15.5
47	16.3		16.4
48	16.5		16.5
49	16.6		16.6
50	16.6		16.6
51	16.5		16.5
52	16.4		16.4
53	16.3		16.3
54	16.3		16.3
55	16.2		16.2
56	16.1		16.2
57	15.8		15.8
58	15.7		15.7
59	15.6		15.6
60	15.5		15.5
61	15.4		15.4
62	15.2		15.2
63	14.7		14.7
64	14.8		14.8
65	14.9		14.9
66	15.0		15.0
67	15.5		15.5
68	15.6		15.6
69	15.7		15.7
70	15.8		15.8
71	15.9		15.9
72	16.0		16.0
73	16.3		16.3
74	16.4		16.4
75	16.5		16.5
76	16.6		16.6
77	16.7		16.7
78	16.8		16.8
79	16.9		17.0
80	17.2		17.2
81	17.1		17.1
82	17.0		17.0
83	16.9		16.9

Registered Professional Engineer (Civil)
CERTIFICATE NO.
10520
DARRELL D.
TRUITT
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ARIZONA U.S.A.

84	16.8		16.8
85	16.7		16.7
86	16.6		16.6
87	16.3		16.3
88	16.2		16.2
89	16.1		16.1
90	16.0		16.0
91	15.9		15.9
92	15.8		15.8
93	15.3		15.3
94	15.4		15.4
95	15.5		15.5
96	15.6		15.6
97	16.3		16.3
98	16.4		16.4
99	16.5		16.5
100	16.6		16.6
101	16.7		16.7
102	16.8		16.8
103	17.1		17.1
104	17.2		17.2
105	17.3		17.3
106	17.4		17.4
107	17.5		17.5
108	17.5		17.5
109	17.6		17.6
110	17.7		17.8
111	17.6		17.7
112	17.4		17.6
113	17.3		17.4
114	17.1		17.2
115	17.8		18.0
116	17.9		17.9
117	18.1		18.1
118	18.2		18.3
119	18.4		18.5
120	18.9		19.0
121	19.1		19.2
122	19.3		19.4
123	19.3		19.4
124	19.1		19.1
125	18.9		19.1
126	19.4		19.4
127	19.6		19.7

Registered Professional Engineer (Civil)
CERTIFICATE NO.
10520
DARRELL D.
TRUITT
Date Signed 1/23/04
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128	19.8		20.0
129	19.8		19.8
130	19.6		19.7
131	19.4		19.5
132	19.4		19.4
133	19.6		19.6
134	19.8		19.8
135	19.8		19.9
136	19.6		19.7
137	19.4		19.5
138	18.7		18.8
139	18.9		18.9
140	19.1		19.1
141	19.1		19.1
142	18.9		18.9
143	18.7		18.7
144	18.4		18.5
145	18.6		18.7
146	18.8		18.9
147	18.8		18.8
148	18.6		18.6
149	18.4		18.4
150	18.0		18.1
151	18.2		18.2
152	18.4		18.5
153	18.4		18.5
154	18.2		18.3
155	18.0		18.1
156	18.2		18.3
157	18.4		18.4
158	18.3		18.5
159	18.8		19.0
160	19.0		19.1
161	19.1		19.3
162	18.8		19.0
163	18.3		18.5
164	18.6		18.7
165	18.4		18.5
166	18.3		18.4
167	18.1		18.3
168	18.6		18.7
169	18.7		18.8
170	18.5		18.6
171	18.4		18.5

Registered Professional Engineer (Civil)
CERTIFICATE NO.
10520
DARRELL D.
TRUITT
Date Signed 1/23/04
ARIZONA U.S.A.

172	18.2		18.3
173	18.1		18.2
174	17.9		18.0
175	17.8		17.9
176	16.8		16.9
177	16.9		17.1
178	17.1		17.2
179	17.2		17.3
180	16.4		16.5
181	16.5		16.6
182	16.7		16.7
183	16.6		16.6
184	18.7		18.9
185	18.6		18.7
186	18.6		18.7
187	19.1		19.3
188	19.3		19.5
189	19.4		19.6
190	19.6		19.7
191	19.7		19.9
192	19.3		19.4
193	19.3		19.3
194	19.2		19.4
195	19.1		19.2
196	18.9		19.0
197	18.8		19.0
198	18.6		18.9
199	18.4		18.4
200	18.1		18.2
201	18.2		18.3
202	18.4		18.5
203	18.5		18.6
204	18.7		18.9
205	18.8		18.9
206	19.0		19.2
207	19.1		19.3
208	19.3		19.5
209	19.4		19.5
210	17.4		17.5
211	17.3		17.4
212	17.1		17.1
213	17.0		17.2
214	17.8		17.8
215	17.7		17.8

Registered Professional Engineer (Civil)
CERTIFICATE NO.
10520
DARRELL D.
TROUT
Date Signed 1/23/04
ARIZONA U.S.A.

216	17.5		17.6
217	18.4		17.6
218	18.2		17.5
219	18.1		17.4
220	17.2		17.4
221	17.2		17.5
222	17.2		17.5
223	17.2		17.3
224	17.1		17.2
225	17.0		17.1
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228	16.6		16.7
229	16.0		16.2
230	16.0		16.2
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232	15.7		15.9
233	16.3		16.5
234	16.4		16.5
235	16.5		16.7
236	16.6		16.8
237	16.8		17.0
238	16.9		17.1
239	17.0		17.1
240	16.9		17.1
241	16.9		16.9
242	16.3		16.4
243	16.2		16.2
244	16.2		16.2
245	16.1		16.2
246	16.0		16.1
247	15.9		16.0
248	15.8		15.9
249	15.7		15.9
250	15.5		15.7
251	15.2		15.2
252	15.1		15.1
253	14.9		15.0
254	14.8		14.9
255	15.1		15.3
256	15.3		15.4
257	15.4		15.6
258	15.5		15.7
259	15.6		15.8

Registered Professional Engineer (Civil)
CERTIFICATE NO.
16520
DARRELL D.
TRUITT
Date Signed 1/5/04
ARIZONA U.S.A.

260	15.7		15.9
261	15.8		15.9
262	15.8		16.0
263	15.9		16.0
264	14.7		14.8
265	15.0		15.0
266	14.9		15.0
267	14.8		15.0
268	14.6		14.8
269	14.5		14.6
270	14.3		14.5
271	14.3		14.5
272	14.2		14.3
273	14.4		14.6
274	14.5		14.5
275	14.7		14.8
276	14.8		14.9
277	15.0		15.0
278	15.1		15.2
279	14.6		14.7
280	14.3		14.5
281	15.1		15.3
282	15.0		15.1
283	14.8		15.0
284	14.6		14.6
285	14.8		14.8
286	15.4		15.5
287	15.6		15.6
288	15.7		15.7
289	14.4		14.5
290	15.1		15.2
291	15.7		15.8
292	15.6		15.7
293	15.4		15.5
294	15.1		15.1
295	14.3		14.4
296	14.9		15.0
297	15.0		15.2
298	15.2		15.5
299	15.3		15.3
300	15.4		15.4
301	15.2		15.2
302	15.8		15.9
303	15.9		16.0

Registered Professional Engineer (Civil)
CERTIFICATE NO.
10520
DARRELL D.
TRUITT
Date Signed 1/23/04
ARIZONA U.S.A.

304	16.0		16.0
305	15.4		15.4

Registered Professional Engineer (Civil)
CERTIFICATE NO.
10520
DARRELL D.
TRUITT
Date Signed 1/23/09
ARIZONA U.S.A.

CONSTRUCTION INSPECTION & TESTING CO.

2137 WEST 7TH STREET
TEMPE, ARIZONA 85281-7227
(480) 446-9876 FAX (480) 446-7580

December 19, 2003

Great Western Homes
3850 E. Baseline Rd, Suite 107
Mesa, AZ 85206

RE: **Earthwork Observation, Building Pads**
Post-tension Foundation System

C.I.T. JOB #: 56081

Project: River Bend
Lots 1-144 & 156-305*
51st Avenue & Broadway Road
Phoenix, Arizona

In accordance with your request, we have completed the earthwork observation of the building pads within the subject project.

The surface site clearing, preparation of subgrade soils and placement and compaction of any required fill within the building pad area was accomplished in accordance with the specifications included in our soil investigation report for this project dated June 28, 2001. A maximum bearing value of 1250 psf at finish compacted pad grade was assigned for this foundation system.

Field density tests are enclosed. Since subsequent construction in the building areas may disturb the prepared sites, it is recommended that any disturbed soils be recompacted to specified density.

After construction of each building, and prior to owner occupancy, an inspection for positive drainage is recommended. The inspection should be under the supervision of a registered professional engineer in the civil or geotechnical field.

It is also recommended that the footing trenches be inspected prior to concrete placement.

Due to low swell potential soils, pad certification is indefinite, unless pads are disturbed (cut, fill, stockpiling, etc.)

* Lots 145-155 are certified on a separate letter.

Respectfully submitted,

CONSTRUCTION INSPECTION & TESTING CO.

John B. Ritter, P.E.

Enclosures

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CONSTRUCTION INSPECTION & TESTING CO.

2137 WEST 7TH STREET
TEMPE, ARIZONA 85281-7227
(480) 446-9876 FAX (480) 446-7580

December 19, 2003

Great Western Homes
3850 E. Baseline Rd, Suite 107
Mesa, AZ 85206

RE: **Earthwork Observation, Building Pads**
Post-tension Foundation System

C.I.T. JOB #: 56081

Project: River Bend
Lots 145-155*
51st Avenue & Broadway Road
Phoenix, Arizona

In accordance with your request, we have completed the earthwork observation of the building pads within the subject project.

The surface site clearing, preparation of subgrade soils and placement and compaction of any required fill within the building pad area was accomplished in accordance with the specifications included in our soil investigation report for this project dated June 28, 2001. A maximum bearing value of 1250 psf at finish compacted pad grade was assigned for this foundation system.

Field density tests are enclosed. Since subsequent construction in the building areas may disturb the prepared sites, it is recommended that any disturbed soils be recompacted to specified density.

Note: the surface soils exhibit expansive potential. In accordance with the specifications given in the soils investigation, the soil within the building area should be maintained in a damp condition until construction or again be moisture conditioned if extensive drying occurs.

After construction of each building, and prior to owner occupancy, an inspection for positive drainage is highly recommended. The inspection should be under the supervision of a registered professional engineer in the civil or geotechnical field.

It is also recommended that the footing trenches be inspected prior to concrete placement.

Due to high swell potential soils and expected drying, pads are certified until January 30, 2004.

* Lots 1-144 and 156-305 are certified on a separate letter.

Respectfully submitted,

CONSTRUCTION INSPECTION & TESTING CO.

John B. Ritter, P.E.
Enclosures

CONSTRUCTION INSPECTION & TESTING CO.
2137 WEST 7TH STREET
TEMPE, ARIZONA 85281-7227
(480) 446-9876 FAX (480) 446-7590

SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
08/27/2003		133	Native	Subgrade	15.3	107.6	95.0	Meier	
		136	Native	Subgrade	17.6	104.3	92.1	Meier	
		138	Native	subgrade	16.9	106.8	94.3	Meier	
		116	Native	Subgrade	15.8	106.0	93.0	Meier	
		119	Native	Subgrade	17.2	103.3	90.6	Meier	
		120	Native	Subgrade	16.9	104.0	91.2	Meier	
		122	Native	Subgrade	17.7	107.2	94.0	Meier	
		125	Native	Subgrade	17.3	105.8	92.8	Meier	
		128	Native	Subgrade	16.4	106.0	93.6	Meier	
		131	Native	Subgrade	16.9	103.0	90.9	Meier	
		144	Native	Subgrade	17.4	104.0	91.8	Meier	
08/28/2003		161	Native	Subgrade	20.1	96.4	90.0	Meier	
		158	Native	Subgrade	19.9	97.7	91.2	Meier	
		167	Native	Subgrade	20.0	99.6	93.0	Meier	
		164	Native	Subgrade	18.9	97.0	90.6	Meier	
		106	Native	Subgrade	16.7	104.5	91.7	Meier	
		109	Native	Subgrade	17.1	107.4	94.2	Meier	
		82	Native	Subgrade	15.8	106.3	93.8	Meier	
		85	Native	Subgrade	16.3	102.3	90.3	Meier	
		118	Native	1' Bel.f.g.	20.0	98.3	91.8	Meier	
		121	Native	1' Bel.f.g.	15.6	104.7	92.4	Meier	
		124	Native	1' Bel.f.g.	15.3	106.6	94.1	Meier	
		127	Native	1' Bel.f.g.	19.4	96.5	90.1	Meier	

CONSTRUCTION INSPECTION & TESTING CO.
2137 WEST 7TH STREET
TEMPE, ARIZONA 85281-7227
(480) 446-9876 FAX (480) 446-7580

SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
08/28/2003		130	Native	2' Bel.f.g.	21.0	97.7	91.2	Meier	
		132	Native	1' Bel.f.g.	19.8	99.6	93.0	Meier	
08/29/2003		156	Native	Subgrade	20.0	96.4	90.0	Meier	
		25	Native	Subgrade	16.9	103.8	91.6	Meier	
		28	Native	Subgrade	17.2	106.5	94.0	Meier	
		39	Native	Subgrade	15.7	104.6	92.3	Meier	
		42	Native	Subgrade	17.0	102.6	90.6	Meier	
		45	Native	Subgrade	17.3	103.8	91.6	Meier	
		48	Native	Subgrade	16.9	106.4	93.9	Meier	
09/03/2003		296	Native	Subgrade	16.3	111.1	98.1	Meier	
		299	Native	Subgrade	15.8	108.3	95.6	Meier	
		302	Native	Subgrade	12.0	110.7	97.7	Meier	1
		305	Native	Subgrade	16.2	108.5	95.8	Meier	
		293	Native	Subgrade	14.9	108.9	96.1	Meier	
		290	Native	Subgrade	15.8	110.6	97.6	Meier	
		287	Native	Subgrade	16.7	108.5	95.8	Meier	
		281	Native	Subgrade	16.5	110.9	97.9	Meier	
09/04/2003		23	Native	1' Bel.f.g.	14.9	109.0	96.2	Meier	
		26	Native	1' Bel.f.g.	15.1	111.1	98.1	Meier	
		29	Native	1' Bel.f.g.	16.2	103.0	90.9	Meier	1
		40	Native	1' Bel.f.g.	13.9	111.0	98.0	Meier	
		43	Native	1' Bel.f.g.	14.8	108.5	95.8	Meier	
		46	Native	1' Bel.f.g.	13.8	110.6	97.6	Meier	

CONSTRUCTION INSPECTION & TESTING CO.
2137 WEST 7TH STREET
TEMPE, ARIZONA 85281-7227
(480) 446-9876 FAX (480) 446-7580

SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/04/2003		49	Native	1' Bel.f.g.	14.1	109.0	96.2	Meier	
		300	Native	1' Bel.f.g.	15.0	108.1	95.4	Meier	
		303	Native	1' Bel.f.g.	14.0	108.8	96.0	Meier	
		294	Native	1' Bel.f.g.	15.3	108.0	95.3	Meier	
		291	Native	1' Bel.f.g.	13.8	110.0	97.1	Meier	
		288	Native	1' Bel.f.g.	14.0	109.7	96.8	Meier	
		241	Native	Subgrade	20.0	97.5	91.0	Meier	
		238	Native	Subgrade	21.2	96.4	90.0	Meier	
		220	Native	Subgrade	22.0	98.9	92.3	Meier	
		223	Native	Subgrade	19.9	98.1	91.6	Meier	
		226	Native	Subgrade	21.3	99.5	92.9	Meier	
09/05/2003		219	Native	Subgrade	20.0	99.7	93.1	Meier	
		216	Native	Subgrade	21.2	98.5	92.0	Meier	
		213	Native	Subgrade	20.3	97.0	90.6	Meier	
		210	Native	Subgrade	16.1	103.1	91.0	Meier	
		209	Native	Subgrade	17.2	102.0	90.0	Meier	
		206	Native	Subgrade	16.7	106.7	94.2	Meier	
		203	Native	Subgrade	19.9	99.7	93.1	Meier	
		200	Native	Subgrade	18.8	98.9	92.4	Meier	
		199	Native	Subgrade	20.0	101.2	94.5	Meier	
		196	Native	Subgrade	21.2	100.8	94.1	Meier	
		193	Native	Subgrade	19.4	97.4	90.9	Meier	
		192	Native	Subgrade	18.7	100.5	93.8	Meier	

CONSTRUCTION INSPECTION & TESTING CO.
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TEMPE, ARIZONA 85281-7227
(480) 446-9876 FAX (480) 446-7580

SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/05/2003		189	Native	Subgrade	21.2	97.7	91.2	Meier	
		186	Native	Subgrade	20.0	97.1	90.7	Meier	
09/08/2003		12	Native	Finish Grade	15.1	109.7	96.2	Meier	
		11	Native	Finish Grade	14.2	109.8	96.3	Meier	
		10	Native	Finish Grade	15.5	111.7	98.0	Meier	
		9	Native	Finish Grade	16.3	109.2	95.8	Meier	
		8	Native	Finish Grade	15.1	110.7	97.1	Meier	
		7	Native	Finish Grade	14.0	109.9	96.4	Meier	
		31	Native	Finish Grade	15.0	108.6	98.8	Meier	
		32	Native	Finish Grade	14.9	107.7	97.2	Meier	
		33	Native	Finish Grade	15.2	108.5	97.9	Meier	
		34	Native	Finish Grade	16.0	106.8	96.4	Meier	
		35	Native	Finish Grade	16.9	105.3	95.0	Meier	
		36	Native	Finish Grade	16.7	106.0	95.7	Meier	
		37	Native	Finish Grade	15.8	106.5	96.1	Meier	
		38	Native	Finish Grade	14.5	108.9	98.3	Meier	
		28	Native	Finish Grade	14.3	107.5	96.0	Meier	
		29	Native	Finish Grade	13.9	108.3	96.7	Meier	
		30	Native	Finish Grade	14.7	109.1	97.4	Meier	
		39	Native	Finish Grade	14.1	109.8	98.0	Meier	
		40	Native	Finish Grade	15.2	108.8	97.1	Meier	
		41	Native	Finish Grade	14.3	110.8	98.9	Meier	
		42	Native	Finish Grade	13.9	108.9	97.3	Meier	

CONSTRUCTION INSPECTION & TESTING CO.
2137 WEST 7TH STREET
TEMPE, ARIZONA 85281-7227
(480) 446-9676 FAX (480) 446-7580

SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/08/2003		43	Native	Finish Grade	15.0	107.5	96.0	Meier	
		44	Native	Finish Grade	14.7	107.3	95.8	Meier	
		45	Native	Finish Grade	15.2	109.0	97.3	Meier	
		46	Native	Finish Grade	14.4	107.7	96.2	Meier	
		47	Native	Finish Grade	15.1	110.7	98.8	Meier	
		48	Native	Finish Grade	14.9	110.3	98.5	Meier	
		49	Native	Finish Grade	15.3	107.3	95.8	Meier	
		27	Native	Finish Grade	17.6	105.4	95.1	Meier	
		26	Native	Finish Grade	15.2	106.7	96.3	Meier	
		25	Native	Finish Grade	16.1	106.1	95.8	Meier	
		24	Native	Finish Grade	15.9	107.9	97.4	Meier	
		23	Native	Finish Grade	16.0	106.7	96.3	Meier	
		22	Native	Finish Grade	16.7	111.9	98.2	Meier	
		21	Native	Finish Grade	15.6	112.7	98.9	Meier	
		20	Native	Finish Grade	14.5	109.2	95.8	Meier	
		19	Native	Finish Grade	15.1	110.7	97.1	Meier	
		18	Native	Finish Grade	15.7	109.8	96.3	Meier	
		17	Native	Finish Grade	14.0	108.5	95.2	Meier	
		16	Native	Finish Grade	14.8	109.4	96.0	Meier	
		15	Native	Finish Grade	15.2	110.2	96.7	Meier	
		14	Native	Finish Grade	15.6	109.2	95.8	Meier	
09/09/2003		6	Native	Finish Grade	14.4	108.1	95.4	Meier	
		5	Native	Finish Grade	13.9	109.0	96.2	Meier	

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CONSTRUCTION INSPECTION & TESTING CO.
2137 WEST 7TH STREET
TEMPE, ARIZONA 85281-7227
(480) 446-9876 FAX (480) 446-7580

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SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/09/2003		4	Native	Finish Grade	15.0	110.4	97.4	Meier	
		3	Native	Finish Grade	14.4	108.5	95.8	Meier	
		2	Native	Finish Grade	15.0	109.0	96.2	Meier	
		1	Native	Finish Grade	15.0	108.0	95.3	Meier	
		50	Native	Finish Grade	15.9	104.3	92.1	Meier	
		51	Native	Finish Grade	16.2	106.5	94.0	Meier	
		52	Native	Finish Grade	13.9	102.6	90.6	Meier	2
		53	Native	Finish Grade	16.1	104.1	91.9	Meier	
		54	Native	Finish Grade	15.3	107.6	95.0	Meier	
		55	Native	Finish Grade	15.8	104.5	92.3	Meier	
		56	Native	Finish Grade	16.1	106.3	93.8	Meier	
		57	Native	Finish Grade	15.1	104.4	91.6	Meier	
		58	Native	Finish Grade	14.9	104.9	92.0	Meier	
		59	Native	Finish Grade	16.0	108.3	95.0	Meier	
		60	Native	Finish Grade	16.6	107.3	94.1	Meier	
		61	Native	Finish Grade	17.0	105.2	92.3	Meier	
		62	Native	Finish Grade	15.8	106.8	93.7	Meier	
		67	Native	Finish Grade	15.1	102.6	90.0	Meier	
		68	Native	Finish Grade	15.9	104.0	91.2	Meier	
		69	Native	Finish Grade	16.7	105.3	92.4	Meier	
		70	Native	Finish Grade	17.2	106.0	93.0	Meier	
		71	Native	Finish Grade	17.1	108.0	94.7	Meier	
		72	Native	Finish Grade	16.3	104.0	91.2	Meier	

CONSTRUCTION INSPECTION & TESTING CO.
2137 WEST 7TH STREET
TEMPE, ARIZONA 85281-7227
(480) 446-9876 FAX (480) 446-7580

SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/09/2003		73	Native	Finish Grade	16.7	106.1	93.1	Meier	
		74	Native	Finish Grade	17.1	103.3	90.6	Meier	
		75	Native	Finish Grade	15.6	106.1	93.1	Meier	
		76	Native	Finish Grade	16.2	107.0	94.4	Meier	
		77	Native	Finish Grade	16.7	107.6	95.0	Meier	
		78	Native	Finish Grade	15.3	104.7	92.4	Meier	
		79	Native	Finish Grade	15.9	103.4	91.3	Meier	
		80	Native	Finish Grade	16.4	102.1	90.1	Meier	
		81	Native	Finish Grade	16.6	106.6	94.1	Meier	
		82	Native	Finish Grade	17.1	105.1	92.8	Meier	
		83	Native	Finish Grade	17.2	103.8	91.6	Meier	
		84	Native	Finish Grade	16.9	104.8	92.5	Meier	
		85	Native	Finish Grade	16.8	106.3	93.8	Meier	
		86	Native	Finish Grade	15.4	107.0	94.4	Meier	
		87	Native	Finish Grade	16.1	107.2	94.6	Meier	
		88	Native	Finish Grade	15.3	104.2	92.0	Meier	
		89	Native	Finish Grade	15.9	107.7	95.1	Meier	
		90	Native	Finish Grade	16.1	106.7	94.2	Meier	
		91	Native	Finish Grade	16.6	106.3	93.8	Meier	
		92	Native	Finish Grade	17.0	103.3	91.2	Meier	
		97	Native	Finish Grade	15.4	106.7	94.2	Meier	
		98	Native	Finish Grade	15.9	103.0	90.9	Meier	
		99	Native	Finish Grade	16.3	104.0	91.8	Meier	

CONSTRUCTION INSPECTION & TESTING CO.
2137 WEST 7TH STREET
TEMPE, ARIZONA 85281-7227
(480) 446-9876 FAX (480) 446-7580

SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/09/2003		100	Native	Finish Grade	16.1	104.7	92.4	Meier	
		101	Native	Finish Grade	17.0	106.3	93.8	Meier	
		102	Native	Finish Grade	17.1	103.8	91.6	Meier	
		103	Native	Finish Grade	16.3	106.7	94.2	Meier	
		104	Native	Finish Grade	16.5	105.7	93.3	Meier	
		105	Native	Finish Grade	15.8	102.4	90.4	Meier	
		106	Native	Finish Grade	16.1	104.0	91.8	Meier	
		107	Native	Finish Grade	15.3	103.3	91.2	Meier	
		108	Native	Finish Grade	14.1	107.0	94.4	Meier	
		109	Native	Finish Grade	13.6	107.4	94.8	Meier	2
09/10/2003		188	Native	2.5' Bel.f.g.	19.0	96.5	90.1	Meier	
		191	Native	2.5 Bel.f.g.	20.1	97.7	91.2	Meier	
		194	Native	2' Bel.f.g.	21.1	97.0	90.6	Meier	
		197	Native	2' Bel.f.g.	22.0	98.1	91.6	Meier	
		202	Native	2' Bel.f.g.	20.0	100.0	93.4	Meier	
		205	Native	2' Bel.f.g.	18.8	99.4	92.8	Meier	
		208	Native	2' Bel.f.g.	19.4	100.7	94.0	Meier	
		217	Native	1' Bel.f.g.	20.0	97.7	91.2	Meier	
		213	Native	1' Bel.f.g.	18.3	100.2	93.6	Meier	
09/11/2003		187	Native	1.5' Bel.f.g.	15.6	104.8	92.5	Meier	
		190	Native	1.5' Bel.f.g.	16.7	103.8	91.6	Meier	
		198	Native	1' Bel.f.g.	15.8	102.6	90.6	Meier	
		195	Native	1' Bel.f.g.	16.5	105.4	93.0	Meier	

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CONSTRUCTION INSPECTION & TESTING CO.

2137 WEST 7TH STREET
TEMPE, ARIZONA 85281-7227
(480) 446-9876 FAX (480) 446-7580

SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes

Job: River Bend (JOB# 56081)

Location: 51st Avenue and Broadway

City: Phoenix Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/11/2003		201	Native	1' Bel.f.g.	17.2	102.0	90.0	Meier	
		204	Native	1' Bel.f.g.	16.3	104.3	92.1	Meier	
		207	Native	1' Bel.f.g.	16.8	106.3	93.8	Meier	
		160	Native	1' Bel.f.g.	15.9	107.0	94.4	Meier	
		163	Native	1' Bel.f.g.	15.4	107.6	95.0	Meier	
		221	Native	1' Bel.f.g.	16.3	106.2	93.7	Meier	
		224	Native	1' Bel.f.g.	16.7	106.3	93.8	Meier	
		240	Native	1' Bel.f.g.	17.1	103.3	91.2	Meier	
		237	Native	1' Bel.f.g.	16.4	104.8	92.5	Meier	
		13	Native	Finish Grade	13.8	110.0	96.5	Meier	
		110	Native	Finish Grade	15.0	103.7	91.0	Meier	
		111	Native	Finish Grade	15.9	104.6	92.3	Meier	
		112	Native	Finish Grade	15.3	104.8	92.5	Meier	
		113	Native	Finish Grade	16.2	103.8	91.6	Meier	
		114	Native	Finish Grade	15.9	107.0	94.4	Meier	
		115	Native	Finish Grade	14.9	104.2	91.4	Meier	
		116	Native	Finish Grade	15.1	106.9	93.8	Meier	
		117	Native	Finish Grade	15.6	105.0	92.1	Meier	
		118	Native	Finish Grade	16.0	107.4	94.2	Meier	
		119	Native	Finish Grade	16.3	103.2	90.6	Meier	
		63	Native	Finish Grade	15.8	104.4	91.6	Meier	
		64	Native	Finish Grade	14.9	103.2	90.5	Meier	
		65	Native	Finish Grade	15.3	107.4	94.2	Meier	

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CONSTRUCTION INSPECTION & TESTING CO.
2137 WEST 7TH STREET
TEMPE, ARIZONA 85281-7227
(480) 446-9876 FAX (480) 446-7580

SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/11/2003		66	Native	Finish Grade	15.7	104.1	91.3	Meier	
		152	Native	Finish Grade	20.0	96.4	90.0	Meier	
		153	Native	Finish Grade	19.2	97.7	91.2	Meier	
		154	Native	Finish Grade	18.5	100.7	94.0	Meier	
		155	Native	Finish Grade	20.1	100.5	93.8	Meier	
		93	Native	Finish Grade	15.9	107.1	94.5	Meier	
		94	Native	Finish Grade	16.1	107.6	95.0	Meier	
		95	Native	Finish Grade	16.7	103.8	91.6	Meier	
		96	Native	Finish Grade	15.8	105.1	92.8	Meier	
09/12/2003		138	Native	Finish Grade	16.6	106.1	93.6	Meier	
		139	Native	Finish Grade	15.9	107.0	94.4	Meier	
		140	Native	Finish Grade	17.2	106.6	94.1	Meier	
		141	Native	Finish Grade	16.1	106.3	93.8	Meier	
		142	Native	Finish Grade	15.5	102.8	90.7	Meier	
		143	Native	Finish Grade	15.9	103.3	91.2	Meier	
		144	Native	Finish Grade	16.2	105.1	92.8	Meier	
		145	Native	Finish Grade	20.0	100.9	94.2	Meier	
		146	Native	Finish Grade	18.9	100.2	93.6	Meier	
		147	Native	Finish Grade	19.1	96.8	90.4	Meier	
		148	Native	Finish Grade	18.3	97.6	91.1	Meier	
		149	Native	Finish Grade	19.9	100.8	94.1	Meier	
		150	Native	Finish Grade	20.0	96.4	90.0	Meier	
		151	Native	Finish Grade	20.1	101.6	94.9	Meier	

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SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/15/2003		300	Native	Finish Grade	10.1	108.4	94.1	Meier	2
		303	Native	Finish Grade	10.3	109.4	95.0	Meier	2
		292	Native	Finish Grade	11.1	106.7	92.6	Meier	2
		285	Native	Finish Grade	16.1	103.3	91.2	Meier	
		286	Native	Finish Grade	15.6	105.4	93.0	Meier	
		287	Native	Finish Grade	15.6	104.3	92.1	Meier	
		288	Native	Finish Grade	16.0	108.7	95.9	Meier	1
		289	Native	Finish Grade	15.9	107.6	95.0	Meier	
		280	Native	Finish Grade	16.2	105.1	92.8	Meier	
		281	Native	Finish Grade	16.3	103.6	91.4	Meier	
		282	Native	Finish Grade	15.8	106.0	93.6	Meier	
		283	Native	Finish Grade	15.9	106.5	94.0	Meier	
		284	Native	Finish Grade	16.0	103.3	91.2	Meier	
09/16/2003		182	Native	Finish Grade	18.5	96.4	90.0	Meier	
		183	Native	Finish Grade	19.0	97.7	91.2	Meier	
		132	Native	Finish Grade	15.6	106.7	93.6	Meier	
		133	Native	Finish Grade	14.9	105.3	92.4	Meier	
		134	Native	Finish Grade	15.3	104.7	91.8	Meier	
		135	Native	Finish Grade	16.0	105.5	92.5	Meier	
		136	Native	Finish Grade	16.6	107.2	94.0	Meier	
		137	Native	Finish Grade	17.1	107.3	94.1	Meier	
		120	Native	Finish Grade	16.8	106.7	93.6	Meier	
		121	Native	Finish Grade	15.5	107.2	94.0	Meier	

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SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/16/2003		122	Native	Finish Grade	16.0	103.7	91.0	Meier	
		123	Native	Finish Grade	16.1	105.8	92.8	Meier	
		124	Native	Finish Grade	15.4	106.5	93.4	Meier	
		125	Native	Finish Grade	15.8	107.2	94.0	Meier	
		168	Native	Finish Grade	18.1	97.2	90.8	Meier	
		169	Native	Finish Grade	19.2	97.7	91.2	Meier	
		170	Native	Finish Grade	19.6	99.6	93.0	Meier	
		171	Native	Finish Grade	20.0	99.0	92.4	Meier	
		172	Native	Finish Grade	18.7	100.8	94.1	Meier	
		173	Native	Finish Grade	19.4	101.4	94.7	Meier	
		174	Native	Finish Grade	19.1	97.8	91.3	Meier	
		175	Native	Finish Grade	18.6	99.2	92.6	Meier	
		176	Native	Finish Grade	18.9	99.6	93.0	Meier	
		177	Native	Finish Grade	20.0	97.8	91.3	Meier	
		178	Native	Finish Grade	20.1	99.4	92.8	Meier	
		179	Native	Finish Grade	21.1	100.7	94.0	Meier	
		180	Native	Finish Grade	20.3	98.5	92.0	Meier	
		181	Native	Finish Grade	19.4	97.7	91.2	Meier	
		264	Native	Finish Grade	15.6	103.5	90.8	Meier	
		162	Native	Finish Grade	15.1	104.5	91.2	Meier	
		161	Native	Finish Grade	14.9	107.5	93.8	Meier	
		160	Native	Finish Grade	16.3	108.4	94.6	Meier	
		159	Native	Finish Grade	16.7	103.9	90.7	Meier	

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SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/16/2003		158	Native	Finish Grade	17.0	104.5	91.2	Meier	
		167	Native	Finish Grade	16.1	107.2	93.5	Meier	
		166	Native	Finish Grade	15.8	108.2	94.4	Meier	
		165	Native	Finish Grade	14.7	106.1	92.6	Meier	
		164	Native	Finish Grade	15.1	105.2	91.8	Meier	
		163	Native	Finish Grade	14.8	103.3	90.1	Meier	
		157	Native	Finish Grade	14.6	104.2	90.9	Meier	
		156	Native	Finish Grade	15.0	104.5	91.2	Meier	
		277	Native	Finish Grade	16.0	102.6	90.0	Meier	
		279	Native	Finish Grade	15.2	104.3	91.5	Meier	
		278	Native	Finish Grade	14.9	107.6	94.4	Meier	
		276	Native	Finish Grade	16.1	107.8	94.6	Meier	
		275	Native	Finish Grade	16.6	103.6	90.9	Meier	
		274	Native	Finish Grade	17.6	104.0	91.2	Meier	
		273	Native	Finish Grade	16.1	106.9	93.8	Meier	
		272	Native	Finish Grade	15.4	106.0	93.0	Meier	
		271	Native	Finish Grade	15.3	105.5	92.5	Meier	
		270	Native	Finish Grade	15.6	104.4	91.6	Meier	
		269	Native	Finish Grade	16.1	102.6	90.0	Meier	
		268	Native	Finish Grade	16.9	104.2	91.4	Meier	
		267	Native	Finish Grade	17.2	105.8	92.8	Meier	
		266	Native	Finish Grade	15.8	104.3	91.5	Meier	
		265	Native	Finish Grade	15.4	107.5	94.3	Meier	

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SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes

Job: River Bend (JOB# 56081)

Location: 51st Avenue and Broadway

City: Phoenix

Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/16/2003		126	Native	Finish Grade	15.6	105.0	92.1	Meier	
		127	Native	Finish Grade	16.1	106.9	93.8	Meier	
		128	Native	Finish Grade	12.0	112.3	98.5	Meier	1,2
		129	Native	Finish Grade	15.5	107.2	94.0	Meier	
		130	Native	Finish Grade	14.9	106.1	93.1	Meier	
		131	Native	Finish Grade	15.0	105.6	92.6	Meier	
09/17/2003		263	Native	Finish Grade	13.6	103.6	90.9	Meier	2
		259	Native	Finish Grade	12.3	104.0	91.2	Meier	2
		243	Native	Finish Grade	13.1	107.5	94.3	Meier	2
		246	Native	Finish Grade	12.9	104.7	91.8	Meier	2
09/18/2003		299	Native	Finish Grade	15.1	106.1	92.1	Meier	
		298	Native	Finish Grade	16.0	109.4	95.0	Meier	
		297	Native	Finish Grade	14.5	107.8	93.6	Meier	
		296	Native	Finish Grade	15.2	104.9	91.1	Meier	
		295	Native	Finish Grade	14.3	104.7	90.9	Meier	
		290	Native	Finish Grade	15.1	105.3	92.4	Meier	
		291	Native	Finish Grade	14.4	108.0	94.7	Meier	
		293	Native	Finish Grade	15.6	105.1	91.2	Meier	
		294	Native	Finish Grade	15.9	106.2	92.2	Meier	
		301	Native	Finish Grade	16.3	108.6	94.3	Meier	
		302	Native	Finish Grade	16.1	109.4	95.0	Meier	
		304	Native	Finish Grade	15.6	105.8	91.8	Meier	
		305	Native	Finish Grade	16.1	104.8	91.0	Meier	

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SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/19/2003		255	Native	Finish Grade	15.5	106.6	93.5	Meier	
		256	Native	Finish Grade	16.2	108.3	95.0	Meier	
		257	Native	Finish Grade	16.7	105.0	92.1	Meier	
		258	Native	Finish Grade	14.9	104.4	91.6	Meier	
		260	Native	Finish Grade	15.6	106.9	93.8	Meier	
		261	Native	Finish Grade	14.8	104.9	92.0	Meier	
		262	Native	Finish Grade	15.9	103.7	91.0	Meier	
		251	Native	Finish Grade	11.2	104.9	92.0	Meier	2
		252	Native	Finish Grade	11.0	104.1	91.3	Meier	2
		253	Native	Finish Grade	10.1	107.6	94.4	Meier	2
		224	Native	Finish Grade	15.1	104.7	91.8	Meier	
		225	Native	Finish Grade	14.9	107.2	94.0	Meier	
		226	Native	Finish Grade	16.2	105.6	92.6	Meier	
		227	Native	Finish Grade	16.6	108.1	94.8	Meier	
		228	Native	Finish Grade	15.9	106.0	93.0	Meier	
		233	Native	Finish Grade	15.1	103.3	90.6	Meier	
		234	Native	Finish Grade	16.3	104.7	91.8	Meier	
		235	Native	Finish Grade	16.6	105.5	92.5	Meier	
		236	Native	Finish Grade	17.2	104.8	91.9	Meier	
		237	Native	Finish Grade	17.1	107.2	94.0	Meier	
		238	Native	Finish Grade	14.8	107.8	94.6	Meier	
		239	Native	Finish Grade	15.0	106.9	93.8	Meier	
		240	Native	Finish Grade	15.1	104.2	91.4	Meier	

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2137 WEST 7TH STREET
TEMPE, ARIZONA 85281-7227
(480) 446-9876 FAX (480) 446-7580

SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes

Job: River Bend (JOB# 56081)

Location: 51st Avenue and Broadway

City: Phoenix

Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/19/2003		241	Native	Finish Grade	15.9	104.9	92.0	Meier	
		254	Native	Finish Grade	11.6	103.9	91.1	Meier	2
		242	Native	Finish Grade	14.9	104.7	91.8	Meier	
		244	Native	Finish Grade	15.6	104.2	91.4	Meier	
		245	Native	Finish Grade	16.0	107.8	94.6	Meier	
		247	Native	Finish Grade	16.7	104.0	91.2	Meier	
		248	Native	Finish Grade	17.1	106.4	93.3	Meier	
		249	Native	Finish Grade	16.2	107.6	94.4	Meier	
		250	Native	Finish Grade	15.1	105.5	92.5	Meier	
		220	Native	Finish Grade	14.9	106.7	93.6	Meier	
		221	Native	Finish Grade	15.0	104.2	91.4	Meier	
		222	Native	Finish Grade	15.3	108.3	95.0	Meier	
		223	Native	Finish Grade	14.9	107.3	94.1	Meier	
09/22/2003		206	Native	Finish Grade	14.9	107.2	94.0	Meier	
		207	Native	Finish Grade	15.7	105.2	92.3	Meier	
		208	Native	Finish Grade	16.1	106.1	93.1	Meier	
		209	Native	Finish Grade	10.1	105.0	92.1	Meier	2
		210	Native	Finish Grade	15.3	106.9	93.8	Meier	
		211	Native	Finish Grade	15.6	107.2	94.0	Meier	
		212	Native	Finish Grade	16.6	106.1	93.1	Meier	
		213	Native	Finish Grade	9.9	103.3	90.6	Meier	2
		214	Native	Finish Grade	15.8	104.5	91.7	Meier	
		215	Native	Finish Grade	16.1	105.8	92.8	Meier	

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SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/22/2003		216	Native	Finish Grade	15.3	106.5	93.4	Meier	
		217	Native	Finish Grade	15.8	107.3	94.1	Meier	
		218	Native	Finish Grade	16.6	105.0	92.1	Meier	
		219	Native	Finish Grade	16.5	103.3	90.6	Meier	
		229	Native	Finish Grade	15.8	108.3	95.0	Meier	
		230	Native	Finish Grade	14.9	106.1	93.1	Meier	
		231	Native	Finish Grade	15.5	103.3	90.6	Meier	
		232	Native	Finish Grade	16.0	104.4	91.6	Meier	
		200	Native	Finish Grade	16.7	105.5	92.5	Meier	
		201	Native	Finish Grade	15.4	106.5	93.4	Meier	
		202	Native	Finish Grade	16.2	107.3	94.1	Meier	
		203	Native	Finish Grade	16.3	105.8	92.8	Meier	
		204	Native	Finish Grade	16.7	103.7	91.0	Meier	
		205	Native	Finish Grade	15.4	102.9	90.3	Meier	
09/23/2003		184	Native	Finish Grade	16.9	104.0	91.2	Meier	
		185	Native	Finish Grade	15.3	106.0	93.0	Meier	
		186	Native	Finish Grade	16.1	108.2	94.9	Meier	
		187	Native	Finish Space	11.2	111.3	97.6	Meier	1,2
		188	Native	Finish Grade	16.1	102.7	90.1	Meier	
		189	Native	Finish Grade	15.2	107.5	94.3	Meier	
		190	Native	Finish Grade	14.9	105.8	92.8	Meier	
		191	Native	Finish Grade	15.7	106.1	93.1	Meier	
		192	Native	Finish Grade	16.0	107.6	94.4	Meier	

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SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes
Job: River Bend (JOB# 56081)
Location: 51st Avenue and Broadway
City: Phoenix
Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/23/2003		193	Native	Finish Grade	16.3	103.3	90.6	Meier	
		194	Native	Finish Grade	16.7	104.5	91.7	Meier	
		195	Native	Finish Grade	16.0	105.3	92.4	Meier	
		196	Native	Finish Grade	15.2	107.3	94.1	Meier	
		197	Native	Finish Grade	15.5	106.9	93.8	Meier	
		198	Native	Finish Grade	16.0	103.9	91.1	Meier	
		199	Native	Finish Grade	15.8	105.0	92.1	Meier	
09/03/2003		302	Native	Subgrade	13.9	110.2	97.3	Meier	(Retest)
09/04/2003		29	Native	1' Bel.f.g.	16.0	107.6	95.0	Meier	(Retest)
09/09/2003		52	Native	Finish Grade	15.2	104.1	91.9	Meier	(Retest)
09/10/2003		108	Native	Finish Grade	15.5	106.7	94.2	Meier	(Retest)
		109	Native	Finish Grade	16.0	106.4	93.9	Meier	(Retest)
09/15/2003		288	Native	Finish Grade	16.1	104.8	92.5	Meier	(Retest)
09/17/2003		128	Native	Finish Grade	14.9	107.6	94.4	Meier	(Retest)
09/18/2003		300	Native	Finish Grade	14.8	108.3	94.0	Meier	(Retest)
		292	Native	Finish Grade	15.6	104.0	90.3	Meier	(Retest)
		303	Native	Finish Grade	14.7	103.7	90.0	Meier	(Retest)
09/19/2003		259	Native	Finish Grade	15.3	107.2	94.0	Meier	(Retest)
		263	Native	Finish Grade	16.6	105.5	92.5	Meier	(Retest)
		243	Native	Finish Grade	15.1	105.2	92.3	Meier	(Retest)
		246	Native	Finish Grade	16.6	104.9	92.0	Meier	(Retest)
09/22/2003		254	Native	Finish Grade	14.9	103.9	91.1	Meier	(Retest)
		253	Native	Finish Grade	15.6	105.6	92.6	Meier	(Retest)

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SUMMARY OF FIELD DENSITY RESULTS

Client: Great Western Homes

Job: River Bend (JOB# 56081)

Location: 51st Avenue and Broadway

City: Phoenix Contractor: J.S.A. Construction LLC.

Building Pad

Date	Location	Lot/Sta #	Material	Depth	% Moisture	Density (PCF)	% Compaction	Tested By	Notes
09/22/2003		252	Native	Finish Grade	16.1	106.9	93.8	Meier	(Retest)
		251	Native	Finish Grade	16.7	108.1	94.8	Meier	(Retest)
09/23/2003		209	Native	Finish Grade	15.4	107.5	94.3	Meier	(Retest)
		213	Native	Finish Grade	14.9	104.2	91.4	Meier	(Retest)
		187	Native	Finish Grade	16.2	105.8	92.8	Meier	(Retest)

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SUMMARY OF FIELD DENSITY RESULTS

Client	Great Western Homes
Job	River Bend (JOB# 56081)
Location	51st Avenue and Broadway
City	Phoenix
Contractor	J.S.A. Construction LLC.

1 Does not meet compaction specifications; see retest.

2 Does not meet moisture specifications; see retest.

The above tests based on a maximum dry density of:
113.3 pcf @ 15.2% optimum moisture content; 114.0 pcf @ 14.9% optimum moisture content;
107.0 pcf @ 18.1% optimum moisture content; 110.8 pcf @ 16.4% optimum moisture content;
112.0 pcf @ 15.8% optimum moisture content; 115.2 pcf @ 14.3%b optimum moisture content;
114.6 pcf @ 14.6% optimum moisture content.

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 8/28/2003 Project No. 56081 Lab Sample No. S03-5049

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 140 @ 0-1'

Material NATIVE Sampled By D. MEIER Sample Date: 8/26/2003

Results: [redacted]

	Maximum Dry Density		Optimum Moisture Content
(PCF)	107.1	WITH OUT ROCK	18.1 (%)
(PCF)		% ROCK	(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

REVIEWED BY:

CONSTRUCTION INSPECTION & TESTING CO.

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Tempe, Arizona 85281-7227
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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 8/29/2003 Project No. 56081 Lab Sample No. S03-5050

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 123 @ 2.5 TO 3' BFG

Material NATIVE Sampled By D. MEIER Sample Date: 8/27/2003

Results: SWELL TEST @ 95% AT 0.5 PSI SURCHARGE

	Maximum Dry Density		Optimum Moisture Content	
(PCF)	114.0	WITH OUT ROCK	14.9	(%)
(PCF)		% ROCK		(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

REVIEWED BY:

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 8/29/2003 Project No. 56081 Lab Sample No. S03-5051

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 168 @ 1.5 TO 2'

Material NATIVE Sampled By D. MEIER Sample Date: 8/27/2003

Results: SWELL TEST [illegible] 2.0 % AT 100 PSF SURCHARGE

	Maximum Dry Density		Optimum Moisture Content	
(PCF)	107.1	WITH OUT ROCK	18.1	(%)
(PCF)		% ROCK		(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 9/2/2003 Project No. 56081 Lab Sample No. S03-5107

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 84 @ 1-2' BFG

Material NATIVE Sampled By D. MEIER Sample Date: 8/28/2003

Results:

SWELL TEST

	Maximum Dry Density		Optimum Moisture Content	
(PCF)	113.3	WITH OUT ROCK	15.2	(%)
(PCF)		% ROCK		(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 9/8/2003 Project No. 56081 Lab Sample No. S03-5216

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 26 AT 0-1' BFG

Material NATIVE Sampled By D. MEIER Sample Date: 9/4/2003

Results: SWELL TEST [redacted]

	Maximum Dry Density		Optimum Moisture Content	
(PCF)	110.8	WITH OUT ROCK	16.4	(%)
(PCF)		% ROCK		(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 9/8/2003 Project No. 56081 Lab Sample No. S03-5217

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 241 AT 2-3' BFG

Material NATIVE Sampled By D. MEIER Sample Date: 9/8/2003

Results: SWELL TEST 1.2 PSI SURCHARGE

	Maximum Dry Density		Optimum Moisture Content	
(PCF)	108.4	WITH OUT ROCK	17.5	(%)
(PCF)		% ROCK		(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 9/9/2003 Project No. 56081 Lab Sample No. S03-5235

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 19 AT 0-1' BG

Material NATIVE Sampled By D. MEIER Sample Date: 9/8/2003

Results: SWELL TEST 0.5 % AT 100 PSF SURCHARGE

	Maximum Dry Density		Optimum Moisture Content	
(PCF)	114.0	WITH OUT ROCK	14.9	(%)
(PCF)		% ROCK		(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 9/9/2003 Project No. 56081 Lab Sample No. S03-5236

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 31 AT 0-1' BG

Material NATIVE Sampled By D. MEIER Sample Date: 9/8/2003

Results: SWELL TEST 0.9 % AT 100 PSF SURCHARGE

	Maximum Dry Density		Optimum Moisture Content	
(PCF)	110.8	WITH OUT ROCK	16.4	(%)
(PCF)		% ROCK		(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 9/9/2003 Project No. 56081 Lab Sample No. S03-5237

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 45 AT 0-1' BG

Material NATIVE Sampled By D. MEIER Sample Date: 9/8/2003

Results: SWELL TEST - 0.9 % AT 100 PSF SURCHARGE

	Maximum Dry Density		Optimum Moisture Content	
(PCF)	112.0	WITH OUT ROCK	15.8	(%)
(PCF)		% ROCK		(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 9/10/2003 Project No. 56081 Lab Sample No. S03-5255

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 80 AT 0-1' BG

Material NATIVE Sampled By D. MEIER Sample Date: 9/9/2003

Results: SWELL TEST [illegible] 2D [illegible] DEGREE OF SURCHARGE

	Maximum Dry Density		Optimum Moisture Content	
(PCF)	113.3	WITH OUT ROCK	15.2	(%)
(PCF)		% ROCK		(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 9/10/2003 Project No. 56081 Lab Sample No. S03-5256

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 6 AT 0-1' BG

Material NATIVE Sampled By D.MEIER Sample Date: 9/9/2003

Results: SWELL TEST 1.0 % AT 100 PSI SURCHARGE

	Maximum Dry Density		Optimum Moisture Content	
(PCF)	113.3	WITH OUT ROCK	15.2	(%)
(PCF)		% ROCK		(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 9/10/2003 Project No. 56081 Lab Sample No. S03-5257

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 97 AT 0-1' BG

Material NATIVE Sampled By D. MEIER Sample Date: 9/9/2003

Results: SWELL TEST [illegible] 1.1 [illegible] 0 PSF SURCHARGE

	Maximum Dry Density		Optimum Moisture Content	
(PCF)	114.0	WITH OUT ROCK	14.9	(%)
(PCF)		% ROCK		(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 9/10/2003 Project No. 56081 Lab Sample No. S03-5258

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 59 AT 0-1' BG

Material NATIVE Sampled By D. MEIER Sample Date: 9/9/2003

Results: SWELL TEST

	Maximum Dry Density		Optimum Moisture Content	
(PCF)	114.0	WITH OUT ROCK	14.9	(%)
(PCF)		% ROCK		(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 9/17/2003 Project No. 56081 Lab Sample No. S03-5390

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 279 AT 0-1'

Material NATIVE Sampled By D. MEIER Sample Date: 9/16/2003

Results: SWELL TEST* 2.6 % AT 100 PSF SURCHARGE

	Maximum Dry Density		Optimum Moisture Content	
(PCF)	114.0	WITH OUT ROCK	14.9	(%)
(PCF)		% ROCK		(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 9/17/2003 Project No. 56081 Lab Sample No. S03-5392

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 162 AT 0-1'

Material NATIVE Sampled By D. MEIER Sample Date: 9/16/2003

Results: SWELL TEST 2.0 % AT 100 PSF SURCHARGE

	Maximum Dry Density		Optimum Moisture Content	
(PCF)	114.6	WITH OUT ROCK	14.6	(%)
(PCF)		% ROCK		(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	Preparation	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

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ONE DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOIL

Date 9/17/2003 Project No. 56081 Lab Sample No. S03-5395

Project RIVER BEND

Location 51ST AVENUE AND BROADWAY

Sample Location LOT # 135 AT 0-1'

Material NATIVE Sampled By D. MEIER Sample Date: 9/16/2003

Results: SWELL TEST * 2.1 % AT 100 PSF SURCHARGE

	Maximum Dry Density		Optimum Moisture Content
(PCF)	114.0	WITH OUT ROCK	14.9 (%)
(PCF)		% ROCK	(%)

Test Procedure		Method		Compaction Rammer	
		X	A	Manual	X
	ASTM D-698		B	Mechanical	
	AASHTO T99		C	**Preparation**	
	AASHTO T180		MAG STD DETAIL190	Wet Prep	X
X	AASHTO T272		ASTM 4718	Dry Prep	

*Remolded Approximately 95% of the Maximum Dry Density and -2% of Optimum Moisture Content

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