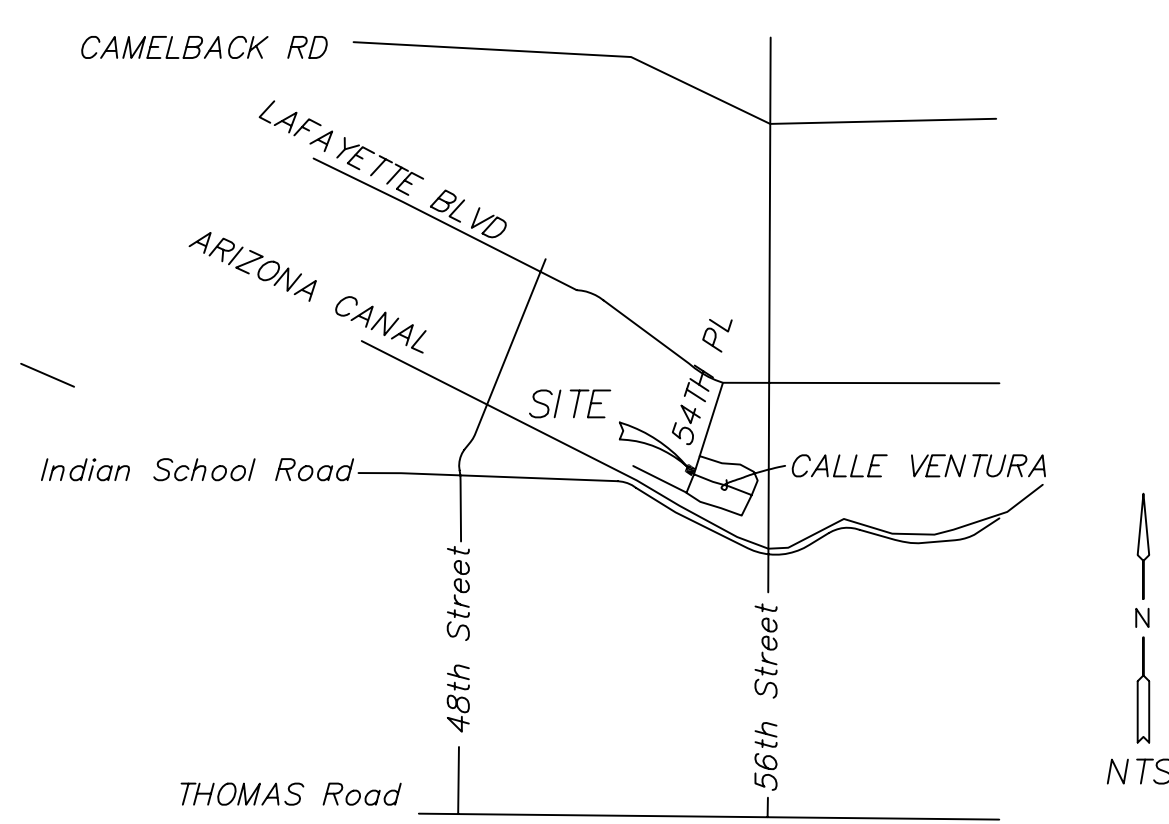
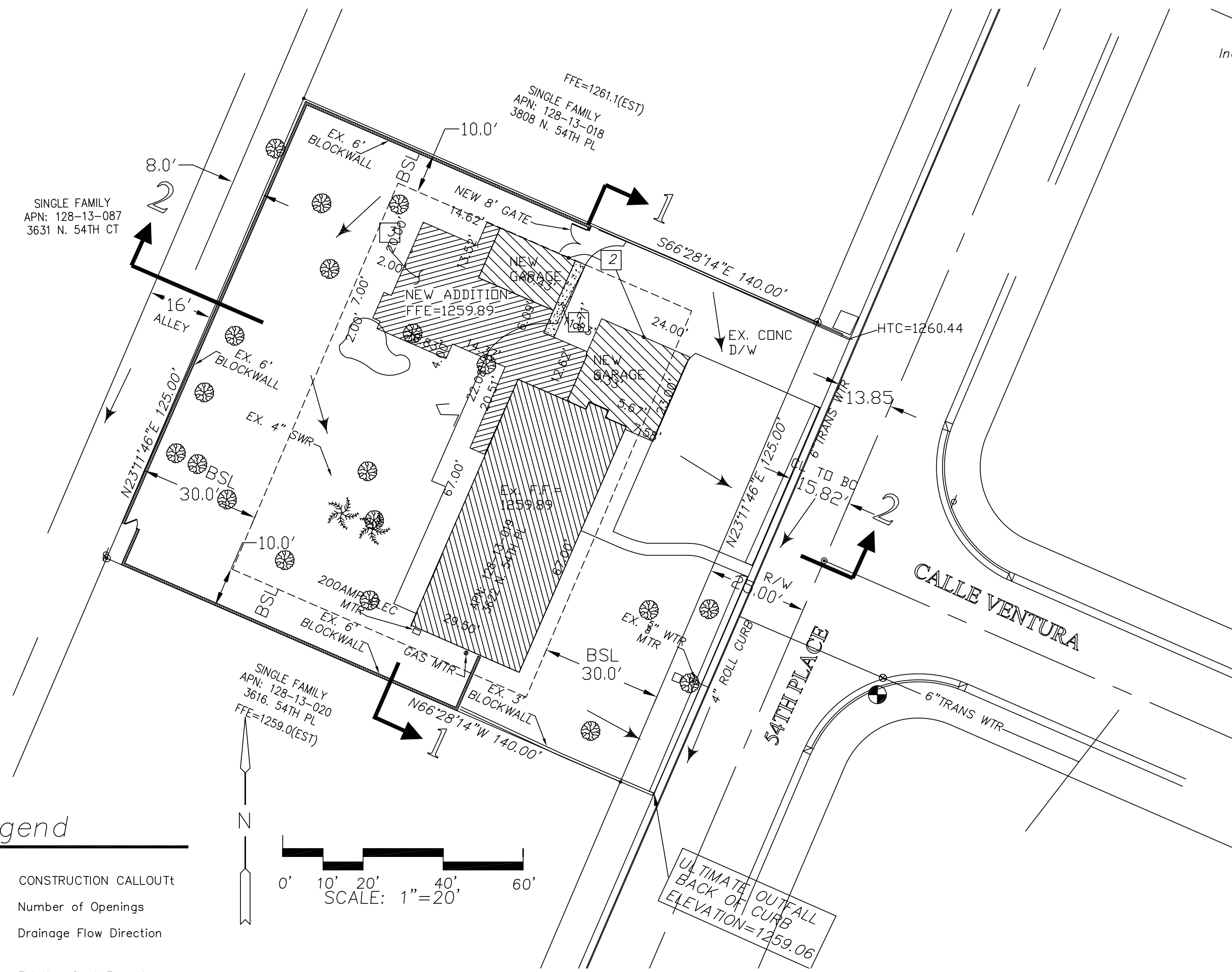


CITY OF PHOENIX GRADING AND DRAINAGE NOTES

1. A GRADING PERMIT IS REQUIRED UNDER CHAPTER 32A OF THE PHOENIX CITY CODE.
2. WHEN HULL PERMITS ARE REQUIRED, THEY MUST BE OBTAINED PRIOR TO OR 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 FIELD INSPECTION GROUP SHALL BE NOTIFIED 48 HOURS BEFORE ANY ON-SITE AND/OR OFF-SITE CONSTRUCTION BEGINS, TELEPHONE (602) 262-7811.
5. STAKING FINISH FLOOR 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. A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
7. 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.
8. 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, WALLS, CURBS, ASPHALT PAVEMENT, AND BUILDING FLOOR ELEVATION.
9. GRADES SHOWN 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 OPERATION TO ALLOW FOR THE PLACEMENT OF THE FILL OR LANDSCAPING MATERIALS.
10. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND CONFIRMING DEPTHS OF ALL THE EXISTING UTILITY LINES WITHIN PROPOSED RETENTION BASIN AREAS. 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.
11. ALL DRAINAGE PROTECTIVE DEVICES SUCH AS SWALES, INTERCEPTOR DITCHES, PIPES, PROTECTIVE BERMS, BARRIER WALLS, CONCRETE CHANNELS, OR OTHER MEASURES DESIGNED TO PROTECT ADJACENT BUILDINGS OR PROPERTY FROM STORM RUNOFF MUST BE COMPLETED PRIOR TO BUILDING CONSTRUCTION.
12. SIDE SLOPES OF RETENTION BASIN SHALL BE NO STEEPER THAN 5:1 FOR IRRIGATED GRASS AREAS AND 3:1 FOR LANDSCAPED AREAS. SLOPE STABILIZATION MEASURES ARE REQUIRED FOR ALL SLOPES GREATER THAN 5:1 AND SHALL BE CONSTRUCTED AS DETAILED ON THE APPROVED LANDSCAPE PLANS.
13. ALL RETAINING WALLS WILL BE REVIEWED, PERMITTED, AND INSPECTED BY THE BUILDING SAFETY BRANCH OF THE DEVELOPMENT SERVICES DEPARTMENT UNDER SEPARATE SUBMITTAL BY THE APPLICANT.
14. ALL RAMPS MUST MEET ADA ACCESSIBILITY GUIDELINES (ADAAG) STANDARDS; 2% MAX CROSS SLOPES AND 1:24 MAX LONGITUDINAL SLOPES. TRUNCATED DUMES AS DETECTABLE WARNING ARE REQUIRED ON ALL ON-SITE RAMPS PER ADAAG SECTION 4.7.7. TRUNCATED DUMES AS DETECTABLE WARNING ARE REQUIRED ON ALL ON-SITE WALKS THAT CROSS OR ADJOIN A VEHICULAR WAY PER ADAAG SECTION 4.29.5.
15. CERTIFICATE OF OCCUPANCY (C OF D) AND/OR FINAL ELECTRICAL CLEARANCE FOR ANY BUILDING IS DENIED UNTIL ALL GRADING AND DRAINAGE IMPROVEMENTS ARE COMPLETED.
16. 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.
17. THE ENGINEERING DESIGN ON THESE PLANS IS ONLY APPROVED BY THE CITY IN SCOPE AND NOT IN DETAIL. CONSTRUCTION QUANTITIES ON THESE PLANS ARE NOT VERIFIED BY THE CITY. APPROVAL OF THESE 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.
18. 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 (TRAFFIC BUREAU NORTH) OR (602) 495-6784 (TRAFFIC BUREAU SOUTH).
19. PLAN APPROVAL IS VALID FOR 180 DAYS. PRIOR TO PLAN APPROVAL EXPIRATION, ALL ASSOCIATED PERMITS SHALL BE PURCHASED OR THE PLANS SHALL BE RESUBMITTED FOR EXTENSION OF PLAN APPROVAL. THE EXPIRATION, EXTENSION, AND REINSTATEMENT OF CIVIL ENGINEERING PLANS AND PERMITS SHALL FOLLOW THE SAME GUIDELINES AS THOSE INDICATED IN THE PHOENIX BUILDING CONSTRUCTION CODE ADMINISTRATIVE PROVISIONS SECTION 105.3 FOR BUILDING PERMITS.

GRADING & DRAINAGE PLAN FOR SINGLE FAMILY RESIDENCE



Vicinity Map  
NE 1/4 SEC 29, T2N, R4E

OWNER/DEVELOPER

ARCHITECT

LEGAL DESCRIPTION

MARICOPA COUNTY, ARIZONA. PLAT DATED: 10/1955

APN XXX-XX-XXX

ZONING R1-14

AREAS LOT 17,500 S.F. = 0.40 ACRES

NEW RESIDENCE 3,177 S.F.  
NON LIVABLE 1,201 S.F.

TOTAL 4,378 S.F.

COVERAGE 4378/17500 = 25.0%  
ALLOWED 25%

BENCHMARK

NGVD-29 (CITY OF PHOENIX DATUM)  
BRASS CAP IN HANDHOLE IN THE INTERSECTION OF 56TH STREET AND INDIAN SCHOOL RD.

ELEV. = 1254.539

TBM = FFE = 1259.89

NOTES

1. OFFSITE FLOWS DO NOT AFFECT THIS SITE.
2. THE MINIMUM FINISH FLOOR ELEVATION SHOWN IS SAFE FROM A 100-YEAR FLOOD OF THE MINIMUM SPECIFIED IN THE CITY OF PHOENIX STORM WATER POLICIES AND STANDARDS MANUAL.

Legend

- 1 CONSTRUCTION CALLOUT
- 1 Number of Openings
- Drainage Flow Direction
- +1144.3 Existing Spot Elevation
- Existing Contour (2 foot interval) taken from FODMC Aerial topographic survey
- New Block Wall
- Existing Block Wall
- FFE Finish Floor Elevation
- Nothing Found/Nothing Set
- Proposed Contour (1 foot interval)
- Temporary Bench Mark (TBM)
- ▶ Slope Direction 5% Minimum
- HTC HIGH TOP OF CURB
- FOUND REBAR
- CALCULATED CORNER

CONSTRUCTION NOTES

- 1 NEW 4" CONCRETE DRIVEWAY PER ARCHITECT PLAN
- 2 NEW GARAGE PER ARCHITECT PLAN
- 3 NEW BUILDING ADDITION PER ARCHITECT PLAN

EARTHWORK

CUT = 50 CY  
FILL = 0 CY  
CONTRACTOR TO VERIFY ALL QUANTITIES PRIOR TO BIDDING.

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.

REGISTERED ENGINEER/ LAND SURVEYOR DATE

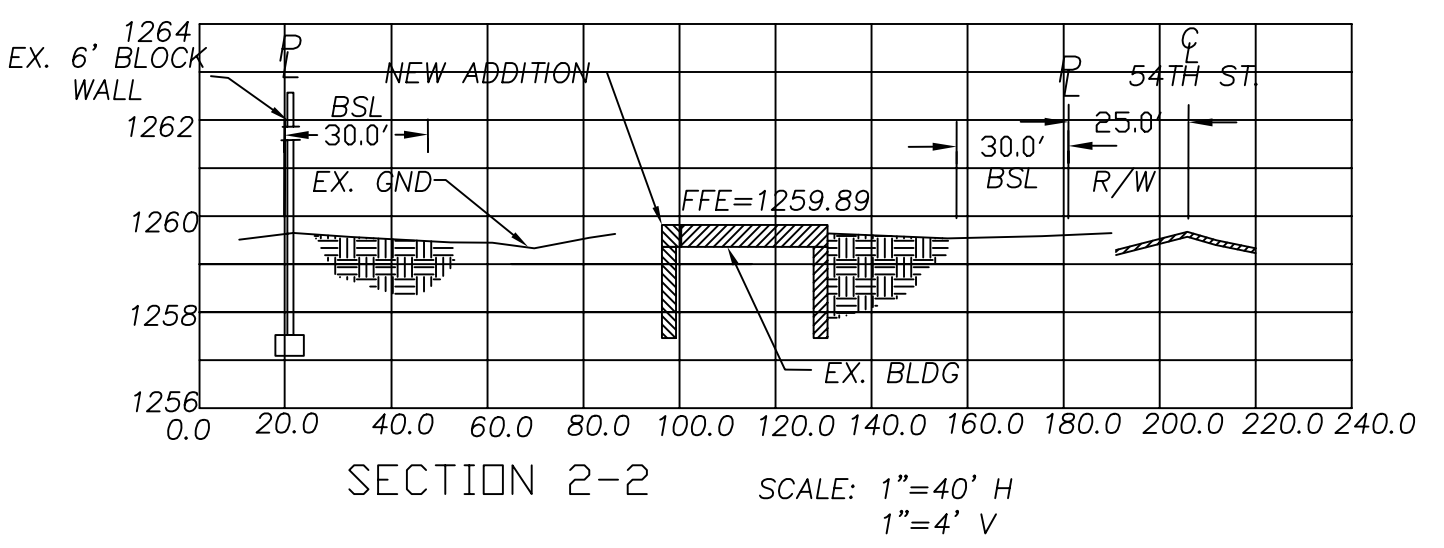
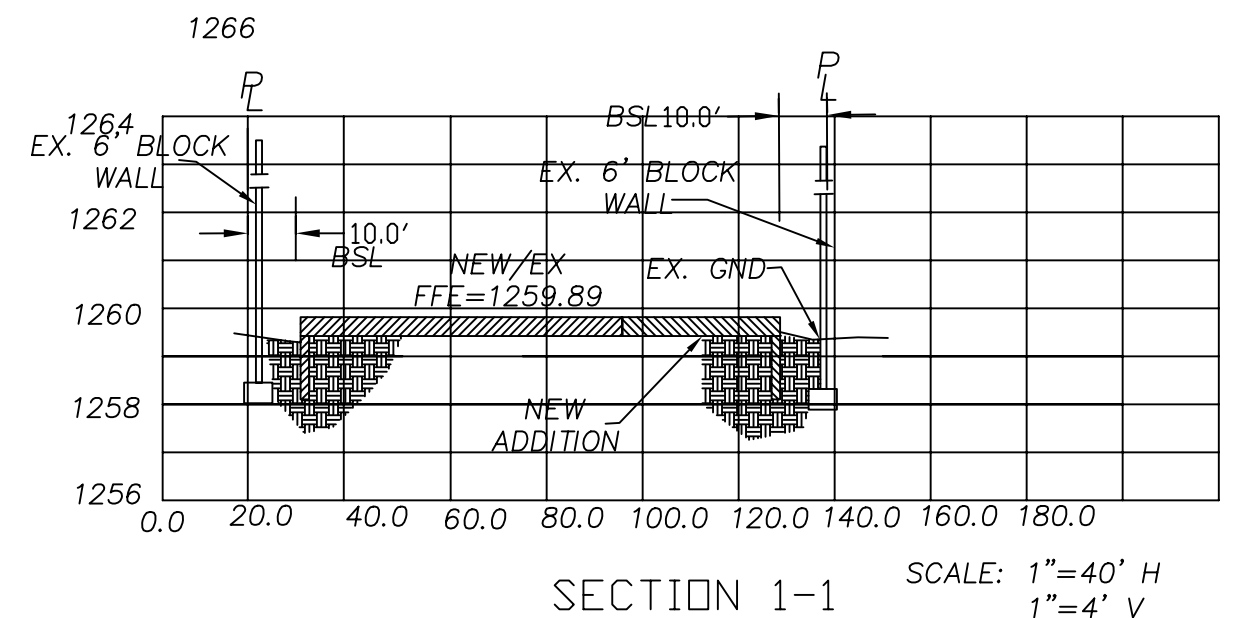
REGISTRATION NUMBER

FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

COMMUNITY NUMBER	PANAL NUMBER	PANAL DATE	SUFFIX	ZONE	BASE FLOOD ELEVATION
040051	2155	SEPT, 30 2005	F	X	N/A

Two working days before you dig,  
CALL FOR THE BLUE STAKES  
602-263-1100  
1-800-STAKE-IT  
(OUTSIDE MARICOPA COUNTY)

KIVA#  
CRPR#  
QS#  
SPAD #



REV.	DATE	DESCRIPTION
1		

ADDRESS: PHOENIX, AZ 85018

GRADING AND DRAINAGE PLAN

4615 E. Sunrise Dr.  
Phoenix, AZ 85044  
P: 602-400-0810  
F: 480-753-6362  
E: delrioeng@yahoo.com

**Del Rio Engineering Inc.**

Professional Engineer  
MICHAEL J. ROBERTS  
35920  
ARIZONA U.S.A.  
Expires 3/31/15

PROJECT # 12024
DRAWN BY: MJR
CHK'D BY: MJR
DATE: 7/17/12
SCALE: AS SHOWN
DRAWING NO. 1 of 1

KIVA#  
CRPR#