

**GENERAL NOTES**

1. A CONSTRUCTION PERMIT IS REQUIRED AND SHALL BE OBTAINED BY THE CONTRACTOR.
2. ALL WORK TO CONFORM TO THE UNIFORM STANDARD SPECIFICATIONS AND DETAILS PUBLISHED BY THE MARICOPA ASSOCIATION OF GOVERNMENTS AS AMENDED BY THE CITY OF MESA.
3. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEERING DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF ANY CONSTRUCTION FOR INSPECTION. (834-2273)
4. STAKING IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. THE DEVELOPER AND CONTRACTOR SHALL COORDINATE THE LOCATIONS OF DRIVEWAYS TO AVOID CONFLICTS WITH UTILITY SERVICES.
6. THE DEVELOPER AND CONTRACTOR SHALL COORDINATE RELOCATION OF POWER POLES AND OTHER UTILITIES.
7. CONTRACTOR SHALL ADJUST ALL VALVES, MANHOLES, CLEAN OUTS, ETC. BOTH NEW AND OLD TO FINISH GRADE PER M.A.G. STANDARD DETAIL 270.
8. CONTRACTOR SHALL COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AND BARRICADING AS PER THE CITY OF MESA TRAFFIC BARRICADE MANUAL.
9. CALL THE BLUE STAKE CENTER (263-1100) TWO WORKING DAYS BEFORE DIGGING FOR LOCATION OF ALL UNDERGROUND UTILITIES.
10. ENGINEER CERTIFIES THAT HE HAS CONTACTED ALL INTERESTED UTILITY COMPANIES AND HAS TRANSFERRED ALL EXISTING AND/OR PROPOSED UTILITY LINES AND RELATED INFORMATION ONTO THESE PLANS.
11. THE ENGINEER CERTIFIES THAT HE HAS CORRECTLY PLOTTED THE EXISTING AND PROPOSED RIGHT-OF-WAY AND EASEMENT LINES.
12. EARTHWORK AND BACKFILL SHALL BE CONSTRUCTED IN ACCORD WITH THE LATEST M.A.G. SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION.
13. THE CONTRACTOR SHALL BE REQUIRED TO INSTALL A NIGHT TIE-IN FOR ANY NEW WATER LINE THAT WILL AFFECT EXISTING SERVICE SUFFICIENT TO WARRANT SAME IN THE OPINION OF THE CITY INSPECTOR.
14. ALL IMPROVEMENTS WITHIN THE RETENTION BASIN AND/OR ROADWAY PARKWAYS SHALL BE IN ACCORDANCE WITH THE LATEST CITY OF MESA "PROCEDURES FOR DEVELOPERS AND ENGINEERS."
15. ALL SEWER SERVICES TO BE 4" UNLESS OTHERWISE INDICATED AND INSTALLED PER M.A.G. STANDARD DETAIL 440 IN LOCATIONS SHOWN ON THE PLANS.
16. ALL WATER SERVICES TO BE 3/4" UNLESS OTHERWISE INDICATED AND INSTALLED PER CITY OF MESA STANDARD DETAIL M-49 IN LOCATIONS SHOWN ON THE PLANS.
17. BACKFILL MATERIAL ADJACENT TO THE CITY OF MESA GAS PIPE SHALL BE FREE FROM MATERIAL INJURIOUS TO THE PIPE OR COATING. WHEN INJURIOUS MATERIALS ARE ENCOUNTERED, PAD THE PIPE WITH AT LEAST 4 INCHES OF FINE MATERIAL (3/8 INCH AND SMALLER SCREENINGS). SCREENINGS LARGER THAN 3/8 INCHES ARE CONSIDERED INJURIOUS MATERIAL TO THE PIPE AND COATING.
18. WHEN GAS MAINS AND SERVICES ARE EXPOSED, CONTACT THE CITY OF MESA AT 834-2754 FOR INSPECTION OF THE EXPOSED PIPE AND COATING PRIOR TO BACKFILLING OF THE TRENCH.
19. ALL CONSTRUCTION NOTES ENCLOSED IN DASHED BOXES SHALL BE COMPLETED BY CITY OF MESA UTILITY CONSTRUCTION CREWS.
20. THE CONTRACTOR SHALL COMPLY WITH ALL THE REQUIREMENTS AS INDICATED ON THE CITY OF MESA DETAIL M-58 FOR TRENCHING FOR THE WATER LINE WHERE A GAS MAIN IS TO BE INSTALLED IN THE SAME TRENCH.
21. SEE ARCHITECTS SITE PLAN FOR DETAILED DIMENSIONS.
22. THE CONTRACTOR SHALL OBTAIN AN EXCAVATION AND DIRT MOVING PERMIT, REQUIRED BY MARICOPA COUNTY HEALTH DEPARTMENT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH ITS REQUIREMENTS.
23. THE CONTRACTOR SHALL BE REQUIRED TO INSTALL A TEMPORARY PLUG OR VALVE ON A SECTION OF NEW WATER LINE. TO TEST LINES BEFORE CONNECTING TO EXISTING WATER SYSTEM WHERE THERE IS NO VALVE ON THE END OF THE EXISTING LINE.

**GRADING AND DRAINAGE NOTES TO CONTRACTOR**

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL STRUCTURES, UNDERGROUND PIPELINES, ELECTRIC AND TELEPHONE CONDUITS, EITHER SHOWN OR NOT SHOWN ON THE PLANS PRIOR TO ANY CONSTRUCTION, AND TO OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID ANY DAMAGE TO THESE FACILITIES. THE ENGINEER AND/OR DEVELOPER WILL NOT GUARANTEE ANY ELEVATIONS OR LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS.

IT SHALL BE THE RESPONSIBILITY OF THE BIDDER TO VERIFY ALL QUANTITIES, INCLUDING EXCAVATION, BORROW, EMBANKMENT, SHRINK OR SWELL, GROUND COMPACTION, HAUL, AND ANY OTHER ITEMS AFFECTING HIS BID TO COMPLETE THE GRADING TO THE ELEVATIONS SHOWN ON THE PLANS AND TO BASE HIS BID SOLELY UPON HIS OWN VERIFIED QUANTITIES, IRRESPECTIVE OF THE INFORMATION FURNISHED AS NOTED IN NOTE ABOVE. (IT SHALL BE THE BIDDERS RESPONSIBILITY TO NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION OF ANY MAJOR DISCREPANCIES BETWEEN HIS ESTIMATED EARTHWORK QUANTITIES AND THOSE SHOWN ON THE PLANS.)

IF STRIPPINGS OR SOME TOPSOIL IS DEEMED UNSUITABLE BY THE SOILS ENGINEER FOR USE AS COMPACTED FILL, THE UNSUITABLE MATERIAL SHALL BE STOCKPILED PRIOR TO ROUGH GRADING AND USED TO FINISH SUITABLE AREAS AT COMPLETION OF ROUGH GRADING.

ALL STAKING CONTROLS SHALL BE LEFT UNDISTURBED. THE CONTRACTOR SHALL CALL ENGINEER TO REFERENCE AND RESET ANY CONTROL POINTS THAT HAVE TO BE DISTURBED.

ANY AND ALL EARTHWORK QUANTITIES SHOWN WERE BASED ON THE ASSUMPTION THAT THE ENTIRE SITE WILL BE GRADED IN ONE OPERATION. PHASING OF THE GRADING OPERATION OR OVERFILLING IN AREAS OF SHORT HAUL, WHICH MAY NECESSITATE SUBSEQUENT BORROW IN OTHER AREAS, WILL NOT BE ACCEPTABLE AND THE COST OF SAID BORROW SHALL BE BORNE BY THE CONTRACTOR.

ALL FILL SHALL BE PLACED, COMPACTED, AND FILL SITES PREPARED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE SOIL INVESTIGATION REPORT. CONTROL OF MOISTURE AND TYPE OF COMPACTION EQUIPMENT USED IS OPTIONAL WITH THE CONTRACTOR.

DUST SHALL BE CONTROLLED BY WATERING PER AIR POLLUTION CONTROL DISTRICT OF MARICOPA COUNTY. CONTRACTOR SHALL OBTAIN NECESSARY PERMITS.

ALL WORK AND MATERIALS WHICH DO NOT CONFORM TO THESE PLANS ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL ORDER STAKING AT LEAST TWO WORKING DAYS (48 HOURS) PRIOR TO BEGINNING OF STAKING.

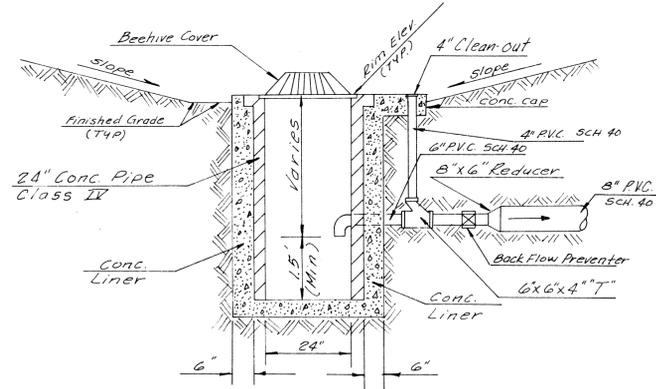
ALL CONSTRUCTION WATER AND POWER SHALL BE OBTAINED AND HANDLED BY THE CONTRACTOR AT HIS OWN EXPENSE. THE CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENTS TO PROCURE AND TRANSPORT WATER TO THE CONSTRUCTION SITE. ALL TEMPORARY FACILITIES SHALL BE REMOVED PRIOR TO FINAL ACCEPTANCE BY THE DEVELOPERS.

ANY QUESTIONS RAISED RELATIVE TO THE ACCURACY OF IMPROVEMENT INSTALLATION SHALL NOT BE RAISED SUBSEQUENT TO COMPLETION OF THE WORK UNLESS ALL SURVEY STAKES ARE MAINTAINED INTACT. SHOULD SUCH STAKES NOT BE PRESENT AND VERIFIED AS TO THEIR ORIGIN, NO CLAIM FOR ADDITIONAL COMPENSATION FOR CORRECTION SHALL BE PRESENTED TO ANY PARTY AND SUCH WORK SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE.

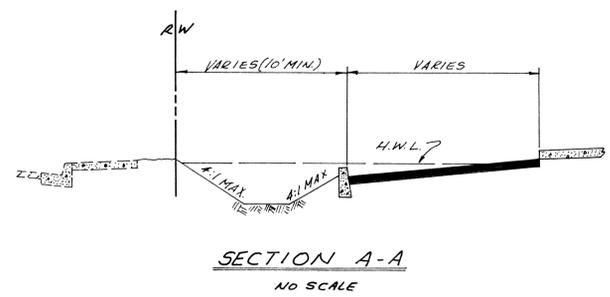
GRADES REFLECTED IN THE RETENTION BASINS ARE FINISHED GRADES. IF ANY CONTRACTOR PLANS TO PLACE SPOIL DIRT FROM FOOTINGS, UTILITY TRENCHES, ETC., IN THE BASINS, THEN THE BASINS SHOULD BE APPROPRIATELY UNDERCUT DURING THE ROUGH GRADE OPERATION TO RESULT IN THE DESIGN FINISHED GRADES.

**CONSTRUCTION NOTES**

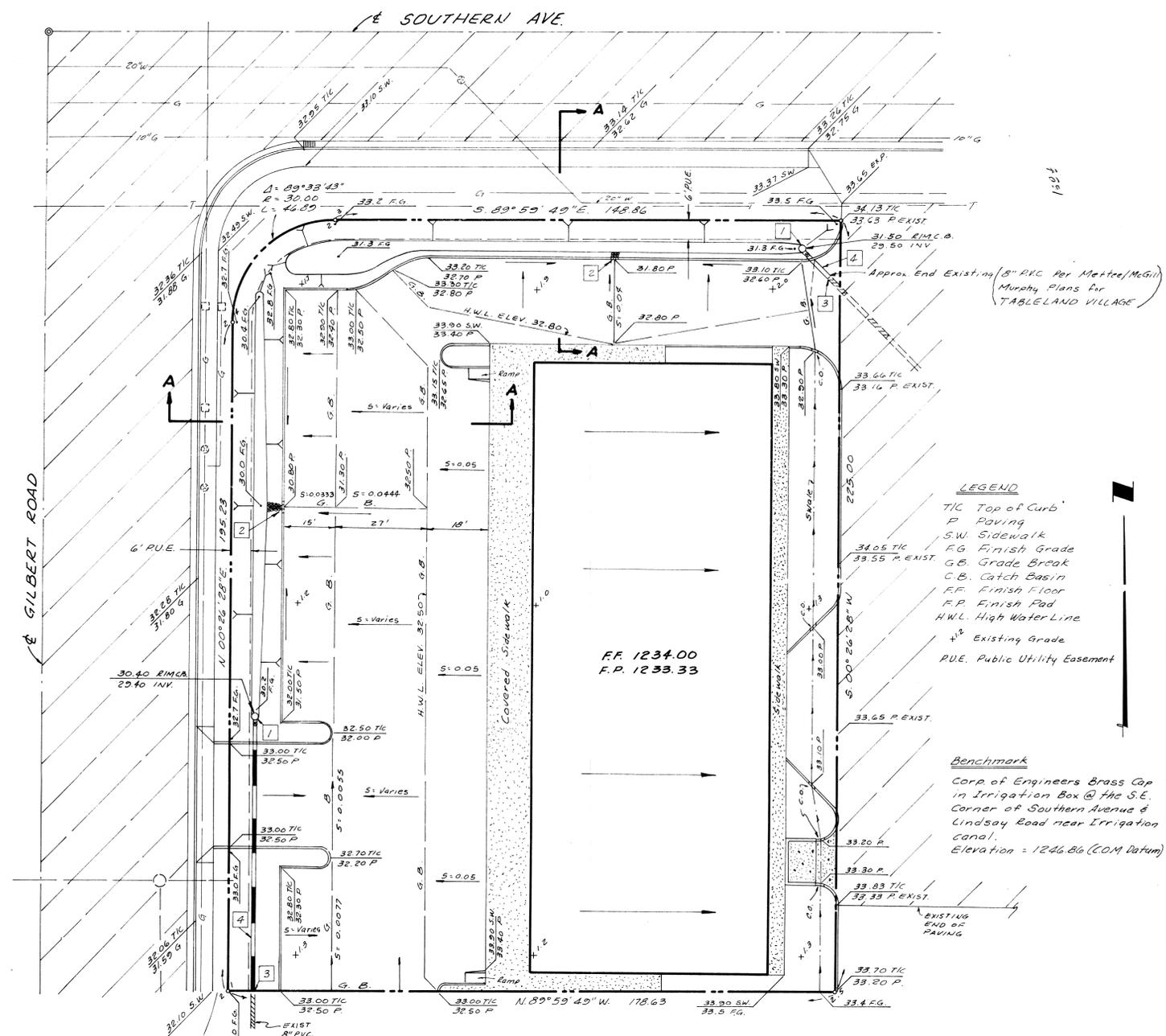
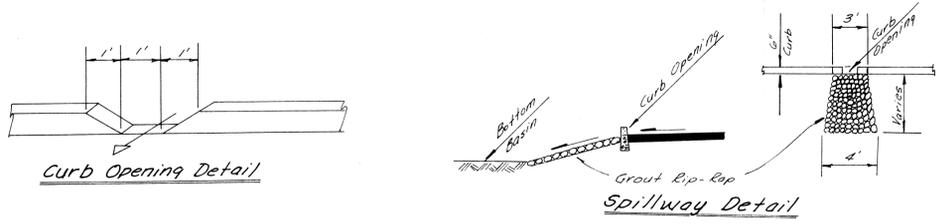
1. CONSTRUCT CATCH BASIN PER DETAIL THIS SHEET.
2. CONSTRUCT CURB OPENINGS & RIP-RAP SPILLWAY PER DETAIL THIS SHEET.
3. CONNECT NEW 8" PVC (SCH. 40) STORM DRAIN PIPE TO EXISTING PIPE. NOTE: CONTRACTOR TO VERIFY FLOW LINE PRIOR TO EXCAVATING THE REST OF THE TRENCH.
4. INSTALL 8" PVC (SCH. 40) STORM DRAIN PIPE. NOTE: POUR CONCRETE CAP OVER STORM DRAIN PIPE WHERE COVER IS LESS THAN 3'-0" UNDER PAVED AREAS.



**CATCH BASIN DETAIL**  
NO SCALE



**SECTION A-A**  
NO SCALE



**LEGEND**  
 T/C Top of Curb  
 P Paving  
 S.W. Sidewalk  
 F.G. Finish Grade  
 G.B. Grade Break  
 C.B. Catch Basin  
 F.P. Finish Floor  
 F.P. Finish Pad  
 H.W.L. High Water Line  
 Existing Grade  
 P.U.E. Public Utility Easement

**Benchmark**  
 Corp of Engineers Brass Cap in Irrigation Box @ the S.E. Corner of Southern Avenue & Lindsay Road near Irrigation Canal.  
 Elevation = 1246.86 (COM Datum)

**RETENTION CALCULATIONS**

TOTAL AREA = 40,001 SF  
 BUILDING & PAVEMENT = 31,327 SF  
 SIDEWALK = 1,145 SF  
 DESERT LANDSCAPING = 2,285 SF  
 GRASS LANDSCAPING = 5,244 SF  
 CW =  $1145(.95) + 31327(.85) + 2285(.70) + 5244(.15) = 0.75$   
 40001  
 RETENTION REQUIRED =  $(0.75)(40001)(.25) = 7500$  C.F.  
 RETENTION PROVIDED = 7695 C.F.

NOTES:  
 1. UTILITIES SHOWN HEREON WERE TAKEN IN PART FROM CITY OF MESA, AS BUILT & OTHER RECORDS AND THERE IS NO GUARANTEE BY US THAT THEY ARE IN THE LOCATIONS INDICATED IN THESE RECORDS.

DN 59183

REVISIONS		
NO.	DATE	DESCRIPTION

**GRADING & DRAINAGE PLAN**  
 OF  
 LOT 1 OF TABLELAND VILLAGE

**TMA** CONSULTING ENGINEERS & LAND SURVEYORS  
 P.O. BOX 8513  
 MESA, ARIZONA 85204  
 (602) 833-2007

DATE: 10-14-15  
 SCALE: HORIZ: 1" = 20'  
 VERT:            

DESIGNER: CMVCK: EAT  
 JOB NO. B5018  
 SHEET: 1 OF 1

