

523 S Pasadena, Mesa, Arizona

1. All work and materials shall conform to the current Uniform Standard Specifications and Details for Public Works Construction as furnished by the Maricopa Association of Governments and as amended by the City of Mesa. All work and materials not in conformance with these amended specifications and details are subject to removal and replacement at the contractor's expense.
2. Separate right-of-way permits are required for all public utilities, public street improvements, and right-of-way landscaping. For information regarding availability and cost of right-of-way permits, contact the Permit Services section of the Building Safety Division at (480) 644-48SD or at <http://www.mesaaz.gov/devsustain/ConstructionPermits.aspx>. The contractor shall obtain all permits required unless otherwise noted. Contractors must hold the appropriate class of license and shall have on file with the Permit Services section proof of insurance coverage. Permits become invalid and must be updated if work has not begun within ninety (90) days. Permits also become invalid if the contractor's insurance lapses or is voided.
3. Twenty four (24) hours prior to the commencement of any work, construction or installations associated with this permit, the Permittee shall notify City of Mesa Engineering Construction Services at (480) 644-2253 of intent to begin and request/schedule preliminary field review at the project site with the City of Mesa Engineering Construction Inspector. Failure to provide proper inspection notification as prescribed above, shall result in this permit becoming invalid and work being stopped.
4. Contractor's shall comply with the requirements to obtain the necessary Right-Of-Way Permits and shall comply with the Right-Of-Way Permit conditions as found on the back of the permit form.
5. The City of Mesa Parks & Recreation Division is not represented by Blue Stake. When the contractor excavates near or adjacent to a city park, the contractor shall contact the Parks & Recreation Administration section at (480) 644-2354 to request assistance in locating all their underground facilities.
6. The contractor shall obtain an Earth-Moving Permit from the Maricopa County Environmental Services Department and shall comply with its requirements for dust control.
7. The engineer hereby certifies as evidenced by a professional seal & signature, that all affected utility companies both public and private have been contacted and all existing and/or proposed utility lines and other related information have been transferred onto these plans. The engineer or architect also hereby certifies that all existing and/or proposed public right-of-way or easement have been correctly plotted/shown.
8. The engineer, or land surveyor of record shall certify upon completion of construction that all public improvements (water and sewer utilities, storm sewer, concrete, paving, street lights, etc.) have been installed at the locations and elevations shown on the approved plans. Any changes shall be reflected on "As-Built" drawings provided by the engineer to the Engineering Department - Construction Services section.
9. The registered engineer or land surveyor shall certify that the minimum horizontal and vertical separation between utilities within public right-of-way or easements has been maintained as required by law or policy.
10. The developer shall provide all construction staking for the project.
11. The developer or the engineer is responsible for arranging for the relocation or removal of all utilities or facilities that are in conflict with the proposed public improvements. The contractor is responsible for coordinating the relocation of all utilities, power poles, irrigation dry-ups, resets removals by others, etc.
12. The contractors shall locate all utilities prior to excavation and avoid damage to same. Call (602) 263-1100 for Blue Stake two working days prior to digging. Call Salt River Project for pole bracing, electric service or construction scheduling at (602) 273-8888.
13. When gas mains and/or services are exposed, contact the City of Mesa at (480) 644-2261 for inspection of the exposed pipe and coating prior to backfilling of the trench.
14. Contractors shall comply with the provisions for traffic control and barricading per the current City of Mesa Traffic Barricade Manual.
15. If a fire hydrant is needed to obtain construction water, the Contractor shall obtain a fire hydrant meter from Permit Services and pay all applicable fees and charges.
16. If during the construction of a public facility, the contractor fails to or is unable to comply with a request of the Engineering Construction Inspector, and it is necessary for City forces to do work that is normally the contractor's responsibility, the City shall be justified in billing the contractor. Each incident requiring work by City forces shall be covered by a separate billing at the current applicable rates.

1. The developer and the contractor are required to coordinate the placement or installation of driveways in order to avoid conflict with utility services.
2. All frames, covers, valve boxes, manholes, etc., shall be installed to finish grade or shall be adjusted to finish grade after placing of asphaltic surface course by the contractor per M.A.G. Standard Detail 270 and 422.
3. The contractor shall adjust all frames, covers, valve boxes, manholes, etc. that are located within the parkway area after final grading and installation of landscaping.
4. All landscaping improvements, including irrigation systems within the public right-of-way or retention basins that are to be maintained by the City of Mesa, shall be in accordance with the Landscaping and Irrigation Standards booklet.
5. The street paving permittee/contractor is hereby notified that in the event that acceptance of the public street paving is delayed; six months or more after the pavement was installed, the permittee/contractor shall apply a seal coat to the pavement. Type of material and rate of application will be directed by the City of Mesa Engineering Department – Field Supervising Engineer.
6. A standard residential driveway approach shall be constructed to a maximum width of 30 feet unless special approval has been obtained.

1. All public water main materials shall be per Section 610.3 of the M.A.G. Uniform Standard Specifications. All Ductile Iron Pipe (D.I.P.) water mains shall have polyethylene corrosion protection per Section 610.5 of the M.A.G. Uniform Standard Specifications.
2. All new waterlines that require service disruption in order to connect to the City system shall require a daytime tie-in. The contractor shall complete all work necessary to restore utility service and fully open the tie-in area to vehicular traffic within the time frame allowed by the City of Mesa Engineering Construction Inspector.
3. The contractor shall install a temporary plug or valve on a section of new water line to test lines before connecting to the existing public water system where there is no water valve on the existing line.
4. Water line tests shall be conducted so that existing water lines will not be included in the test of the new line.
5. The required backflow prevention assembly shall be a manufacturer and model designated in the current List of Approved Backflow Prevention Assemblies[®] as published by the Foundation For Cross-Connection Control and Hydraulic Research, University of Southern California.
6. The backflow prevention assembly shall be tested and approved by a certified technician designated in the current City of Mesa List of Approved Inspectors[®] prior to the request for final inspection.
7. In accordance with Arizona Administrative Code (A.A.C.) R18-4-119, all materials added after January 1, 1993, which may come into contact with drinking water, shall conform to National Sanitation Foundation Standards 60 and 61.
8. Per City Ordinance No. 2341, all water meters are to be purchased from the City of Mesa. Meters two inches or less will be delivered and installed by City forces. Meters larger than two inches will be delivered by the City and installed by the contractor and require scheduling and inspections with City forces (contact Building Safety Permit Services (480)-644-48SD for the specific procedure).

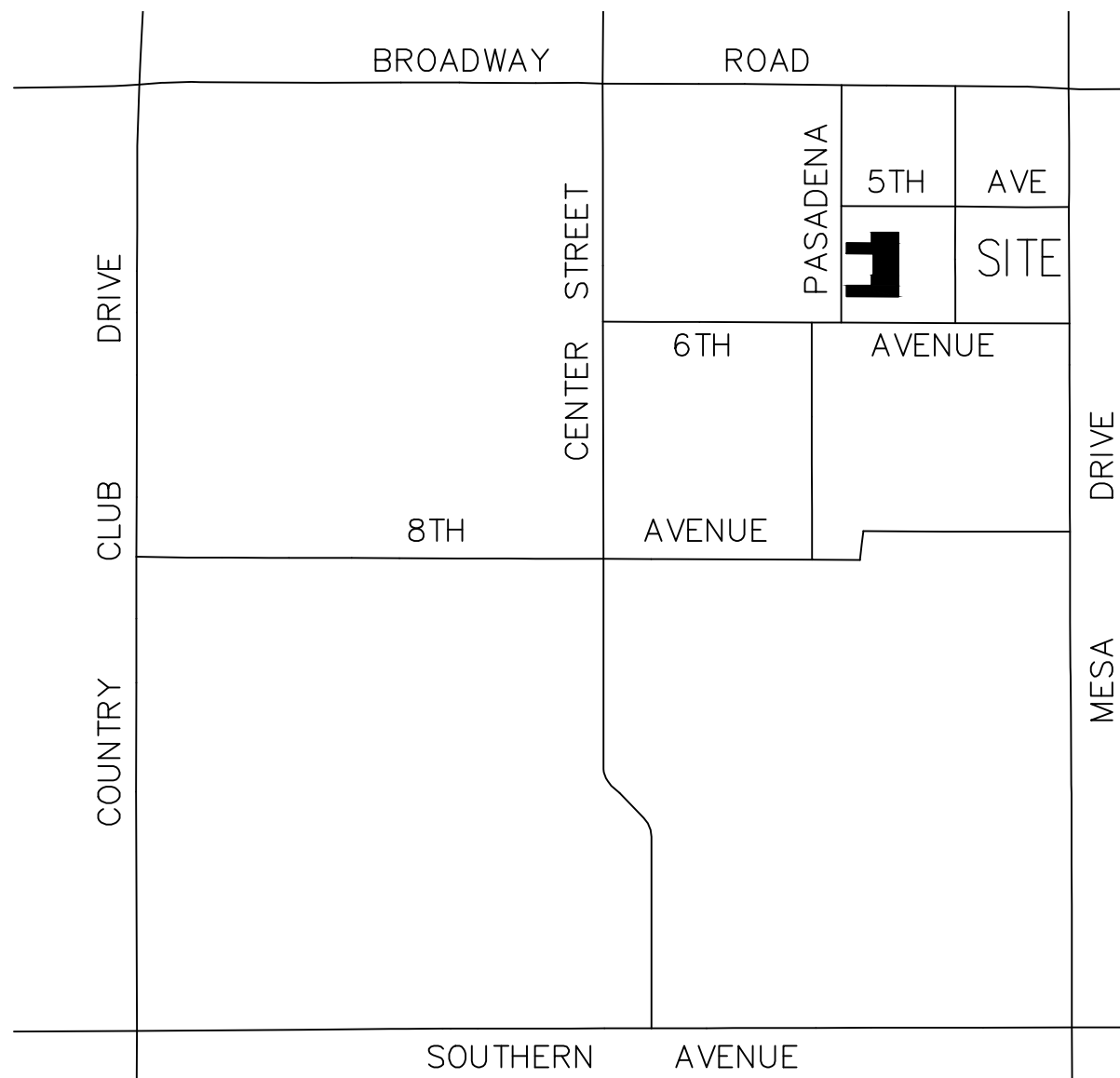
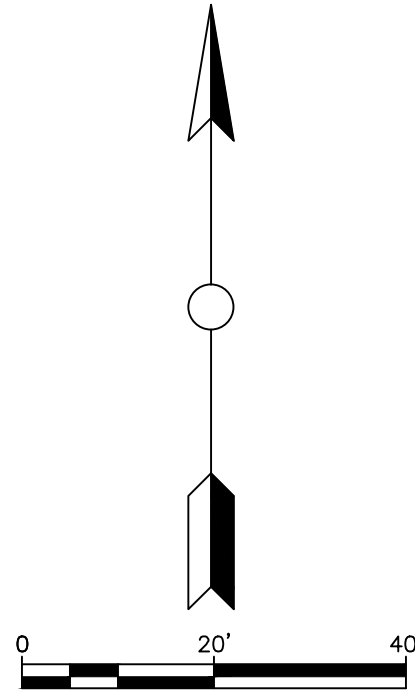
1. Contractors shall verify all invert elevations before proceeding with the balance of the utility trenching.
2. All manholes per M.A.G. Details must neck down to use the standard 30inch frame and cover. Steps shall not be installed within the manhole.

1. The engineer, or land surveyor shall certify that the required storm water retention has been provided. The certification shall also indicate the actual volume provided. Such certification shall be provided to Building Safety Division – Building Inspections when the retention area is to remain private property and to Engineering Construction Services when the retention area is to become City of Phoenix property.

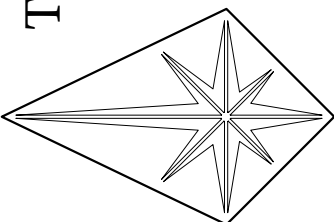
2. All drywells shown on this project shall be maintained by the owners and are to be replaced by the owners when they cease to drain water in a 36hour period. Regular maintenance of the drywell-silting chamber is required to achieve the best operation of the drywell. In accordance with Arizona Revised Statutes, drywells are required to be registered with the Arizona Department of Environmental Quality (A.D.E.Q.) It is the owner's responsibility to register all drywells. An Aquifer Protection Permit may be required by A.D.E.Q. for drywells deemed to be hazardous to groundwater.

1. Street light conduits should be installed prior to driveway installations. If streetlight conduit is installed after driveway installation, contractor shall bore conduit under the driveway per City of Mesa Detail M-18. Meandering the conduit behind the driveway entrance will not be permitted.
2. Materials and installation of this project shall comply with the current Mesa Standard Details, Amendments to the Uniform Standard Details, the City of Mesa Engineering Procedure Manual and Amendments to the City of Mesa Engineering Procedure Manual.
3. The contractor shall have at least an IMSA-certified level I (1) Street Light Technician or an IMSA level I (1) Traffic Signal Technician on site during all phases of any street light work. It is the responsibility of the contractor to provide verification of this certification. If a job site is inspected and no technician is present on site, any work associated with the street lights will be suspended.
4. All trees shall be planted a minimum of eighteen (18) feet from street light poles and lighting control cabinets. All shrubs shall be planted a minimum of seven (7) feet from street light poles and lighting control cabinets.
5. All conduit, conductors, wire, and quantities shall be measured by the linear foot horizontally between poles, pull boxes and control cabinets. No additional payment will be made for sweeps and vertical runs, as they shall be considered incidental to the project and included in the horizontal measurement of the quantities.
6. Conduits should be installed prior to driveway installations. If conduit is installed after driveway installation, the contractor shall bore under the driveway, per (M-18), for conduit installation. Meandering the conduit behind the entrance will not be allowed.
7. Note: the location of the traffic signal fiber optic conduit (TSFO) as shown is drawn at an offset and is for graphical representation only and shall be installed in a joint trench with the street light conduit per COM Detail (M-93.3 & 93.4).
8. Areas where 24" of cover is not possible see Chapter 9 of the City of Mesa Engineering & Design Standards; these areas shall be identified on plans. Supply full conflict data, including top of curb, size and material of pipe, invert etc.
9. To return salvaged street lighting materials the contractor shall contact the street light foreman for the area the work is occurring in West of Val Vista call 480-644-3178. East of Val Vista call 480-644-5077. Arrangements to deliver materials must be made a minimum of 48 hours in advance. The contractor is responsible for unloading and stacking all materials. A City of Mesa staff member must be present when materials are delivered to get credit for the salvage materials.
10. All existing concrete disturbed or damaged during the installation or removal of street lighting systems shall be replaced in kind. The work is to be coordinated with the City of Mesa Engineering Construction Inspector.
11. All existing landscape, hardscape or sprinkler systems disturbed or damaged during the installation or removal of street lighting systems shall be replaced in kind. The work is to be coordinated with the City of Mesa Engineering Construction Inspector.
12. The contractor is to use utmost caution while working around all overhead and underground utilities. Specifically electric, gas, water, sewer and fiber optic lines.

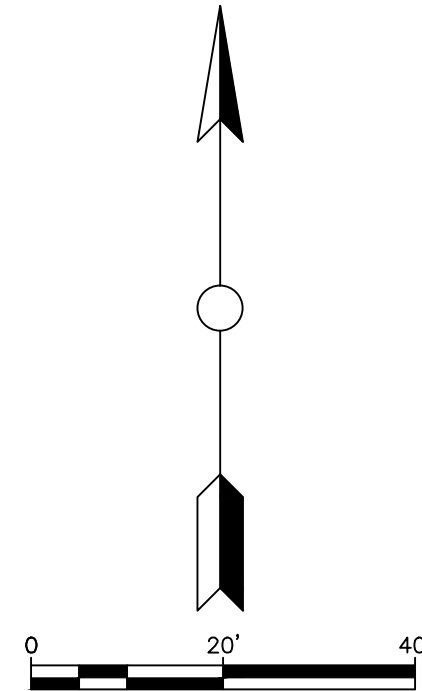
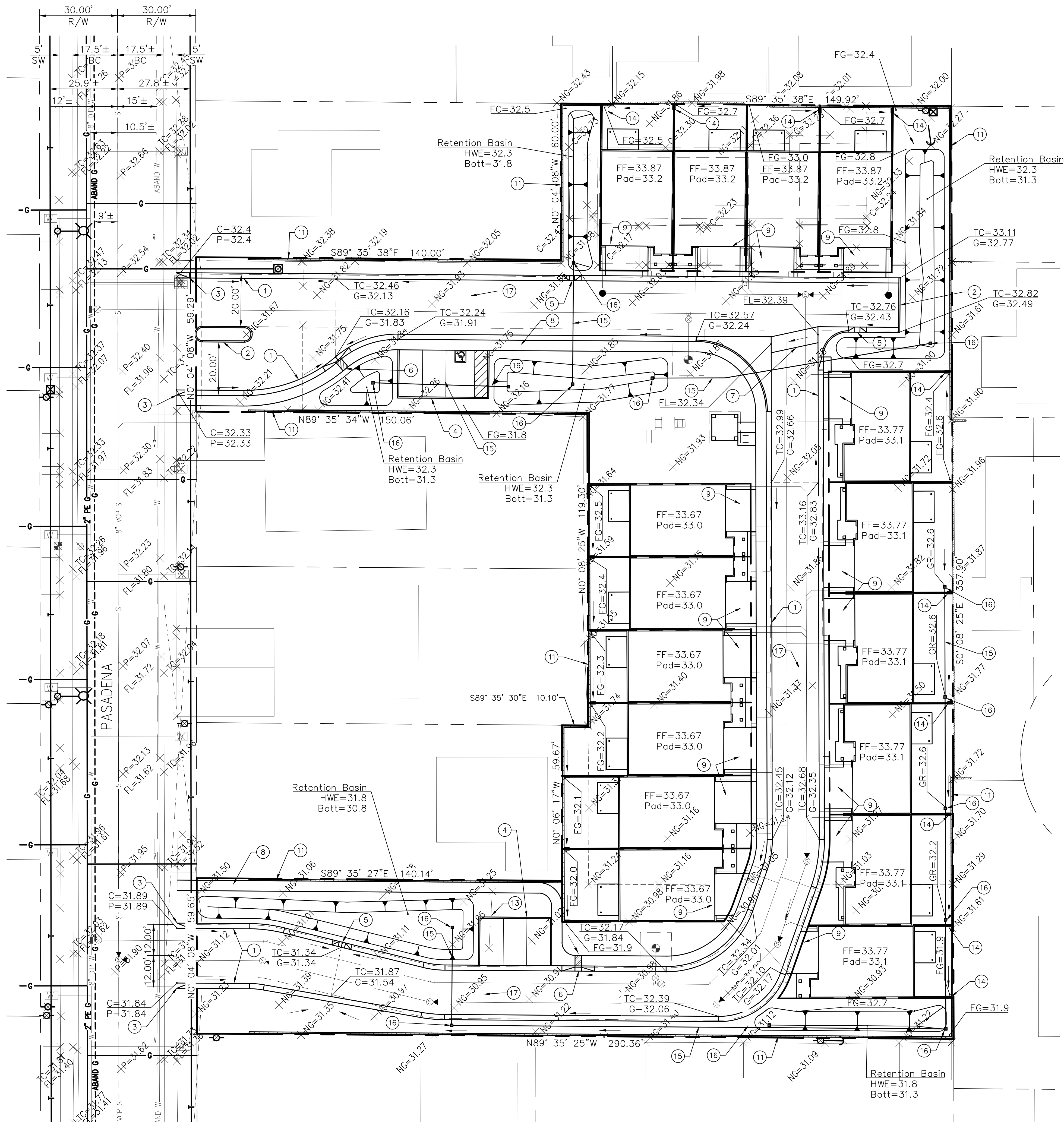
1. Any driveway modifications in the future will require Transportation Department approval.

VICINITY MAP
SEC 27, T1N, R5E

Brass Tag on Top of Curb
NEC Mesa Drive and Broadway Road
Elev = 1233.60 NAVD 88



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CONSTRUCTION NOTES

1. INSTALL CONCRETE ROLL CURB PER MAG STD DET 220-1, TYPE C.
2. INSTALL CONCRETE SINGLE CURB PER MAG STD DET 222, TYPE A.
3. INSTALL 5' ROLL CURB TO RIBBON CURB TRANSITION.
4. INSTALL 6" EXTRUDED CURB.
5. INSTALL 2" CURB OPENING.
6. INSTALL 2.5' SCUPPER PER MAG STD DET 203.
7. INSTALL VALLEY GUTTER AND APRONS PER MAG STD DET 240.
8. INSTALL SIDEWALK PER MAG STD DET 230.
9. INSTALL 4" CONCRETE DRIVEWAY.
10. NOT USED
11. INSTALL 6" MASONRY WALL
12. NOT USED
13. NOT USED
14. INSTALL DRAINAGE OPENING IN WALL.
15. INSTALL 12" STORM DRAIN PIPE.
16. INSTALL 12" DRAIN INLET.
17. INSTALL PERMEABLE PAVERS.

RETENTION

Required Volume

$$V=(C)(D)(A)$$

V=Volume, cubic feet
C=Runoff Coefficient
D=Depth of Rainfall, inches
A=Drainage Area, square feet

$$V=(0.8)(2.2/12)(69113)=10,137 \text{ cubic feet}$$

Retention Provided = 11,150 cubic feet

Retention provided in above ground basins and in gravel storage layers under permeable pavers.

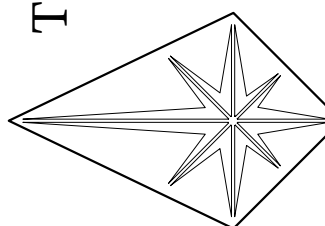
Disposal of Storm water by percolation.

LEGEND

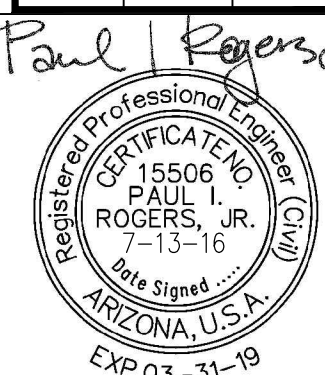
NG	Natural Grade
FG	Finished Grade
TC	Top of Curb
G	Gutter
P	Pavement
C	Concrete
FL	Flow Line
FF	Finished Floor
⊙	Sewer Manhole
⊗	Fire Hydrant
⊕	Water Valve
→	New Flow Arrow
→	Existing Flow Arrow
—	Top of Slope
—	Bottom of slope



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Pasadena Estates
523 S. Pasadena, Mesa Arizona
Preliminary Grading and Drainage Plan



PROJ. MGR.: PIR
PROJ. ASSOC.: CFZMSA/16001
SCALE: NA
DATE: 07-13-16

Sheet No:

2 OF 2