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ARTICLE 14-7 IMPROVEMENT REQUIREMENTS

Section 14-7-1 Purpose

The purpose of this chapter of the Subdivision Ordinance is to further describe "Stage 5 – Final Plat and Improvement Plan Approval" of the subdivision process as referenced in Article 14-4 of this Ordinance. This chapter describes the specific responsibilities of the developer in the design, construction, and financing of the required public improvements and describes the procedures for the improvement plan review and approval, and the construction and acceptance of the required public improvements.

Section 14-7-2 General

- **A.** Responsibility The developer shall be responsible for paying all improvement plan/report review fees at the time of plan/report submittal. The developer shall be responsible for paying all costs for the installation of the improvements as a stipulation of zoning and/or preliminary plat which shall include at a minimum, but is not limited to, the following improvements:
 - 1. Sanitary Sewer System
 - 2. Water Supply System
 - 3. Grading, Drainage, and Drainage Structures
 - 4. Streets (public and private) and Access Ways
 - 5. Alleys (where applicable and approved)
 - 6. Utilities (electric, telephone, cable television, gas, Fiber Optic/Communications Network, if applicable)
 - 7. Traffic Signals, Street Lights (where applicable and approved)
 - 8. Monuments and Signage
 - 9. Landscaping and Streetscape
 - 10. Sidewalks, Multi-use Pathways and Trails
- В. Streets and Public Easements - All streets and public easements within the boundary lines of the subdivision shall be improved to the minimum cross-sections, grades, and standards outlined in this Ordinance. If there are extenuating circumstances the City may approve modifications. Where there are existing City streets adjacent to the subdivision, subdivision streets shall be improved to the intercepting paving line of such existing streets, or to a matching line determined by the City Engineer; transition paving, including turn lanes, shall be installed as required by the City Engineer. When a subdivision includes a portion of an arterial street or a collector street, the remainder of which outside of the subdivision is not paved, an asphalt two (2) lane street at least twenty-eight (28) feet wide shall be constructed in the interim as approved by the City Engineer. Financial assurances, in the amount necessary for completion of the ultimate improvements of the arterial street or a collector street, shall be filed with and retained by the City. In the case where there is an unimproved street or roadway easement between the subdivision and the improved City street system, an interim paved two (2) lane street at least twenty-eight (28) feet wide shall be constructed to a standard approved by the City Engineer to connect the subdivision to the improved street system. Any interim

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roadway shall have sufficient culverts and drainage facilities to allow a 10-year frequency storm to pass under the road section and a 100-year frequency storm to pass over the road section at a depth not to exceed six (6") inches of water. Deadend streets extending 200 feet or more and dead-end interim roads shall be graded and have an asphalt surface with a temporary unobstructed minimum forty-five (45) feet to back of curb and fifty (50) foot to the right-of-way as a radius turning circle.

- C. Utilities The developer shall be responsible to make the necessary arrangements with each of the serving utility companies (i.e. water, sewer, electric, gas, telecommunications etc.) involved for the installation of the underground facilities, including payment of all deposits, fees and miscellaneous expenses. Letters from each of the serving utility companies indicating that said arrangements have been made shall be submitted to the Planning & Economic Development Development Services Department at the time the improvement plans and final plat are submitted. Utility improvement plans for the "dry utilities" (i.e. electric, gas, and telecommunications) shall be submitted directly to the respective utility companies. All other improvement plans, including water and sewer, shall be submitted to the City of Maricopa as part of the improvement plan submittal. The City will log in the submitted plans and forward them to the appropriate departments and utility companies for review.
- **D.** Monuments Permanent survey monuments shall be installed along the easement and right-of-way lines, including drainage easements, and in accordance with current City standards at all corners, angle points, and points of curve and in the center at all street intersections. After all improvements have been installed, an Arizona Registered Land Surveyor shall check the locations of the monuments and certify their accuracy.
 - 1. Iron pins shall be set at all lot corners, angle points and points of curve for each lot within the subdivision within one year of final plat approval and before the issuance of the first building permit. Permanent brass cap(s) in concrete monuments shall be set for all subdivision points that are located in the public rights of way. These are to be placed in accordance with the applicable MAG standard.

Section 14-7-3 Submittal Requirements

A. General

- 1. It shall be the responsibility of the developer to have an Arizona Registered Professional Engineer, in the correct discipline, prepare a complete set of engineering plans and reports for construction of all required improvements and an Arizona Registered Landscape Architect and/or Registered Professional prepare a complete set of landscape, recreation and open space plans. All plans and reports submitted to the City shall be dated, signed and stamped/sealed by the professional who prepared them. Such plans shall be based on the approved preliminary plat and be prepared in conjunction with the final plat and in accordance, with all applicable City, County, or State standards.
- 2. All improvement plans submitted to the City of Maricopa for approval must

be submitted to the city for approval. on 24"x 36" sheets of blue or black line paper prints. The scales chosen for plans shall be such that existing features, proposed construction and any other information to be provided will be depicted in a clear and concise manner. Water system, sewer system and street paving improvements should be drawn at a horizontal scale of one (1) inch equals forty (40) feet and a vertical scale of one (1) inch equals four (4) feet, unless the City Engineer, in conjunction with the water and/or sewer provider, approves the use of another scale. Plans for other purposes may require the use of a larger or smaller scale.

- 3. Water and sewer improvement plans may be submitted shown on the same set of plans. The water and sewer improvement plans must also be shown on the paving plans. A signature block for Arizona Department of Environmental Quality (A.D.E.Q.) approval shall be provided on the front page of the water and sewer improvement plans as well as on the Storm Water Pollution Prevention Plans (S.W.P.P.P.). It shall be the developers responsibility to obtain approval signatures from A.D.E.Q.
- 4. Separate grading and drainage plans shall be submitted.

B. Improvement Plan Submittal Requirements

- Initial Submittal with Final Plat The following plans and reports, along with the required fees, shall be submitted to the Planning & Economic Development Services Department (see City of Maricopa Fee Schedule and Submittal Requirement Checklist for specific fees and number of sets or copies):
 - a. Improvement plan review fees (paid to City & utility companies)
 - b. Final Plat review fee (paid to City)
 - c. Final Plat
 - d. Water and Sewer Improvement Plans
 - e. Paving, Grading, and Drainage Improvement Plans
 - f. Landscape, Recreation and Open Space Improvement Plans
 - g. Dry utility Improvement Plans (submitted directly to utility companies serving the development)
 - h. Final Drainage Report
 - i. Final Geotechnical/Soils Report (only if revised from original)
 - j. Final Traffic Report (only if revised from original)
 - k. Boundary Closure
 - l. Subdivision Deed Restrictions or Covenants, Conditions and Restrictions (CC&R's), if any
- The final plat shall be in recordable form showing all information including dedication statement, signature blocks, and other notations as necessary.
 The Pinal County Recorder signature block shall be included on every page of the Final Plat.
- 3. Subsequent submittals of improvement plans and reports will require that the redline comments be submitted in addition to the same number of sets as in the initial submittal requirements.

- 4. An approval signature block shall be included on the front page of all improvement plans.
- 5. <u>Final Submittal</u> The following information, documents and material shall be submitted to the Planning & Economic Development Services Department (see City of Maricopa Submittal Requirement Checklist for specific number of sets or copies):
 - a. Engineers Cost Estimate
 - b. Improvement Plan mylar cover sheet
 - c. Final Plat (paper prints)
 - d. 11" X 17" photo mechanical transfer (PMT) of the final plat
 - e. 11" X 17" PMT of the final landscape, recreation and open space plan
 - f. A.L.T.A. Title Report (current to the date of final plat recordation)
 - g. Assurance of construction (refer to Sec.14-7-5 for specifics)
 - h. Utility companies approval and clearance letter
 - i. Electronic copy, in .DWG format, of the final plat and plat closure
- 6. <u>City Recordation Submittal</u> The following fees, documents and plans shall be submitted to the Planning & Economic Development Services

 Department after the City Engineer has approved the improvements plans and the City Council has approved the Final Plat (see City of Maricopa Fee Schedule and Submittal Requirement Checklist for specific fees and number of sets or copies):
 - a. Recording fees (for Final Plat and CC&R's)
 - b. Original, signed, Covenants, Conditions & Restrictions
 - c. Mylar, (not ammonia process) for County Records
 - d. Mylar, not less than 3 mil, for City Records
 - e. Approved Improvement Plans (paper prints)

C. Landscape, Recreation and Open Space Plan Submittal Requirements

- 1. Preliminary Landscape, Recreation and Open Space Plan A preliminary landscape, recreation and open space plan, prepared by an Arizona Registered Landscape Architect and/or Registered Professional, shall be submitted as part of the "Stage 2 Preliminary Plat Application", as referenced in Article 14-4 of this Ordinance, and shall at a minimum contain the following:
 - a. Identify the location of proposed park(s) and open space areas, the proposed amenities and different types of uses (i.e. passive, active, landscaping etc).
 - b. Identify the location of all existing and proposed species and inorganic ground covers, sidewalks, paths, curbing, fencing, walls, benches, ramadas, fountains, and waterways. For fencing and walls, provide a preliminary graphic representation as to what is intended relative to the fencing and wall themes.
 - c. Show right-of-way landscaping. Right-of-way landscaping is

required. The entire area of the right-of-way, between the street lot line property line and back of curb (B.O.C.) and/or pavement except for approved driveways, sidewalks and pathways, shall be

- d. Include a plant palette, in list form, on the landscape plans that call out all proposed plant species and inorganic ground covers.
- e. Identify existing and proposed lots, streets, fences, walls, wells, or other features as may be applicable.
- f. Identify the line of sight requirements of the City, County and State.
- g. Identify the name of the developer, project engineer, and landscape architect on the plan.
- 2. <u>Final Landscape</u>, Recreation and Open Space Plan A final landscape, recreation and open space plan shall be prepared by an Arizona Registered Landscape Architect and/or Registered Professional and shall be submitted as part of the final plat and improvement plan submittal and shall at a minimum contain the following:
 - a. Final irrigation plan

landscaped.

- b. Identify the specific park and open space areas and include a list of all amenities (type and quantity). Provide cut-sheets or the manufactures information for all play equipment, furniture, lighting and signage and for each type of use (i.e. passive, active, landscaping etc).
- c. Identify the location of all retained and proposed species and inorganic ground covers, sidewalks, paths, curbing, fencing, walls, benches, ramadas, fountains, and waterways. For fencing and walls, provide a final graphic representation as to what is intended relative to the fencing and wall themes.
- d. Show right-of-way landscaping. Right-of-way landscaping is required. The entire area of the right-of-way, between street lot line property line and back of curb (B.O.C.) and/or pavement except for approved driveways, sidewalk and pathways, shall be landscaped.
- e. Include the approved preliminary landscape plan plant palette, in list form, on the landscape plans that call out all proposed plant species and inorganic ground covers.
- f. Identify the specific sizes of all proposed plant and inorganic ground covers. This information shall be included within the plant palette list on the landscape plan.
- g. Identify the exact quantities for each species of tree, shrub and

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ground cover per each size and species. This information shall be included within the plant palette list on the landscape plan.

- h. Identify the material type, width and depth of the surfacing of all proposed paths, trails and walks.
- i. Identify the type and location of proposed subdivision perimeter walls/fencing and entry monumentation. Indicate exact material types for all fencing and walls and entry monumentation proposed. A separate 24" X 36" wall/fence sheet may be required to be submitted as part of the improvement plan submittal.
- j. Identify existing lots, streets, fences, walls, wells, or other features as may be applicable.
- k. Identify the line of sight requirements of the City, County and State.
- l. Identify the name of the developer, project engineer, and landscape architect on the plan.

D. Report Submittal Requirements

- 1. <u>Preliminary Drainage Report</u> A preliminary drainage report shall be submitted as part of the "Stage 2 Preliminary Plat Application", as referenced in Article 14-4 of this Ordinance, and shall at a minimum contain the following information:
 - a. Delineation of the boundaries of on-site and off-site drainage areas. Information about adjacent property, such as significant differences in elevation, walls, drainage structures, buildings with their floor elevations etc. shall be provided.
 - b. Identify the drainage pattern for all existing and proposed streets and building sites. Label the different critical points and where inlets/outlets are to be located.
 - c. Justify the runoff factor (C-factor) used in the computations.
 - d. Describe offsite flows from adjacent properties onto the property to be developed. Drainage area, calculated peak flows, velocity and other pertinent runoff data must be presented. If the flow is in a defined channel, the channel must be improved. Special consideration for joint use of open channels as a recreational amenity is to be given on each individual project. The runoff from areas outside the development may be realigned through the new development.
 - e. Indicate the retention/detention volume required, and provided. Indicate the method for draining basins in thirty-six (36) hours, and who is responsible for maintenance.

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- f. Show location of all drainage easements.
- 2. <u>Final Drainage Report</u> A final drainage report (see City of Maricopa Submittal Requirement Checklist for number of copies) shall be submitted as a part of the improvement plan submittal for all developments. The report shall be a complete report and not an addendum to the preliminary drainage report. The format shall be as previously described and include the following additional information (see "Pinal County Final Drainage Manual"):
 - a. Place inlets and/or scuppers wherever the flow exceeds the street capacity. The inlets and/or scuppers are to be analyzed separately and catch basin computations shall be submitted.
 - b. Size the storm drains and culverts and submit design computations.
 - c. Final retention/detention basins calculations including 36-hour percolation, or evaporation rates.
 - d. Channel flow calculations considering the impacts of landscaping and other joint use impacts on the cross-section and Mannings coefficients.
 - e. Adjusted calculations for pre- and post- development conditions.
- 3. <u>Geotechnical Report</u> A geotechnical/soils report shall be submitted as part of the "Stage 2 Preliminary Plat Application", as referenced in Article 14-4 of this Ordinance, and shall at a minimum contain the following information:
 - a. Identifies any special geotechnical hazards, and develops recommendations regarding the hazards, grading, foundations and pavement.
 - b. The geotechnical hazards portion shall consider at a minimum expansive soils, soil creep, landsliding, and groundwater.
 - c. The grading and foundations portion of the report shall include data regarding the distribution and engineering characteristics of the various soil materials; data about groundwater levels; percolation test; an opinion regarding the geotechnical feasibility of the development as planned; recommendations about any needed mitigation measures for geotechnical hazards, grading criteria and foundation design criteria and any other pertinent information.
 - d. The pavement design portion shall include data regarding the distribution of various subgrade materials and for each, design test such as R-value. The design procedure and all assumptions used to determine the pavement section shall be presented. The selected design procedure per the traffic and geotechnical report shall not result in a lesser pavement section than the minimum allowed in Chapter 6 of this Ordinance.

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- 4. <u>Traffic Impact Analysis</u> All traffic analysis shall be completed by a Registered Arizona Professional Engineer with adequate experience in traffic/transportation engineering. A traffic report shall be submitted as part of the "Stage 2 Preliminary Plat Application", as referenced in Article 14-4 of this Ordinance, and shall at a minimum contain the following information:
 - a. Identification of the scope of the TIA
 - 1. Introduction
 - 2. Study area (existing, proposed)
 - 3. Traffic impact analysis background and requirements
 - b. Identification of existing geometric conditions and traffic control devices that may be impacted by development
 - c. Estimates and distribution of site-generated traffic
 - 1. Trip generation
 - 2. Trip distribution and trip assignment
 - 3. Projected on-site turning movement counts
 - 4. System traffic (Existing and projected)
 - Capacity analysis (existing conditions, build out without project conditions, build out with project conditions, and horizon year)
 - d. Forecast of future non-site related traffic
 - e. Capacity analyses and projected operational levels of service for boundary roadways and intersections
 - f. Analysis and justification of site improvements that will require deviation from established City of Maricopa design and development guidelines. Where site improvements deviate from these guidelines, supporting documentation shall be provided that detail why these variances are justified. Furthermore, it must be demonstrated that not only will these variances and/or deviations not have an adverse impact on the adjacent transportation facilities, but that they will actually augment the operation of the existing infrastructure.
 - g. Identification of any roadways and/or intersections within the study area that are expected to operate at LOS D, E or F under existing and/or projected traffic conditions.
 - h. Conclusions and recommendations: All geometric and operational improvements necessary to provide an acceptable LOS for facilities within the project site and/or along the boundary streets of the project site should be identified. Both on-site and off-site improvements should be evaluated. Priority should be given to beneficial off-system improvements as a means of minimizing the impact on the existing transportation system. Improvements that are to be considered for the purpose of mitigating less that

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- acceptable LOSs shall include as a minimum pavement widening, installation of turn lanes, installation of median islands, access
- i. control, installation of curbs and/or sidewalks, installation of traffic signalization, traffic signing, and/or pavement marking modifications.
- j. Other special requirements, as determined by the City Engineer.
- k. A traffic report shall be prepared whenever a development is expected to generate one hundred (100) or more new inbound or outbound trips during the peak hours, or over 750 trips in an average day. Due to safe access concerns, the City may require a traffic report be provided for projects that do not meet the thresholds stated above.
- 5. <u>Final Traffic Report</u> The traffic report submitted and approved with the preliminary plat will be considered to be final unless significant changes are made to the previously approved plat. If significant changes occur (lot quantity, lot size, land use, street network, functional classification, etc.) an amended traffic report shall be submitted and approved for the resubdivision.
- 6. <u>Water Analysis Report</u> A water analysis report shall be submitted along with the improvement plan submittal. This report shall include the following information:
 - a. Additional water improvements needed for new source, storage, transmission and distribution
 - b. Location and size of the closest existing water line. Static residual pressure and location taken
 - c. The location of all existing fire hydrants within 1,000 feet of the proposed subdivision and the number and location of all proposed fire hydrants
 - d. Line size and flow calculations for each use classification
- 7. All of these reports shall be reviewed and approved by the City Engineer or consultant experts designated by the City Engineer.

Section 14-7-4 Improvement Plan Review Process

- A. The project Engineer shall submit "dry utilities" improvement plans (i.e. gas, electric and telecommunications) directly to the utility companies serving the development. All fees for review of the plan(s), reports, and other submittals shall be paid by the developer (see City of Maricopa Fee Schedule for specific fees). Design and/or review fees, for all utilities, shall be paid to the respective utility companies (per utility company fees and policies).
- **B.** The City staff will review the submittal for accuracy, completeness, compliance with

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- stipulations made by the Commission or City Council, requirements of the Technical Advisory Committee, and conformance with all City Codes.
- C. Redline comments, including ED3/APS preliminary design plan, will be returned to the Developer's Engineer and Landscape Architect of record for corrections, additions, revisions and in the case of the ED3/APS plan for conflict checks.
- **D.** Subsequent submittals of the improvement plans and reports shall also include the latest redline set of plans/comments. It shall be the developer's responsibility to resubmit the ED3/APS preliminary design plan after it has been checked by the developer's Engineer for potential conflicts.
- **E.** Within ninety (90) days from the date of City Council approval, and prior to the recording of the Final Plat and Covenants, Conditions and Restrictions (CC&R's), the following items must be submitted:
 - 1. A project approval letter, signed by the City Engineer, stating that all of the subdivision improvement plans and reports have been approved by the City
 - 2. A project approval letter, signed by the Administrator, stating that any and all required agreements between the City and developer have been executed
 - 3. A letter of agreement from the serving utilities stating the availability of utilities and the approval of improvement plans for the subdivision
 - 4. The required "Financial Assurance for Construction"
- **F.** If the engineering plans have not been approved within ninety (90) days, solely due to reasons on the part of the developer, the Council may require that the final plat be resubmitted.

Section 14-7-5 Assurances by Developer

- **A.** Agreement by Developer
 - 1. The subdivision improvements in an approved development may be constructed in practical increments in accordance with a Council approved Phasing Plan subject to provisions for satisfactory drainage, traffic, circulation, utilities, landscaping and other elements of the total development plan.
 - 2. The improvements shall be constructed in accordance with plans approved by the City Engineer, State agencies and utility companies and shall be completed within an agreed specific time period.
 - 3. The developer shall give adequate Financial Assurance for Construction for each phase in accordance with this Ordinance and to the satisfaction of the City Engineer and City Attorney.

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- 4. Once a construction permit has been issued for improvements under the Financial Assurance of Construction, work shall proceed without interruption until the City Engineer accepts the improvements.
- 5. Any work shown on approved plans that has been abandoned for a period of (180) days, or not completed by the developer in accordance with an agreed upon time period, may be completed by the City which may recover the construction costs from the developer.
- 6. When in the opinion of the City and the developer it is in the best interest of both parties to delay installation of development required improvements to coincide with adjacent work the City Council may elect to accept payment of the estimated cost of said improvements in-lieu of construction by the developer. The timing of this payment will be specified in a Council approved Phasing Plan.

B. Financial Assurances of Construction

- 1. The City Council shall require that the applicant provide cash, a performance bond from a corporate surety licensed to do business as a surety in Arizona, an irrevocable letter of credit, or funds in escrow at the time of application for final subdivision approval in the amount sufficient to secure to the City the satisfactory construction, installation, and dedication of the required improvements. The amount of the financial guarantee shall be no less than 120 percent and no more than 150 percent of the cost of the installation and materials necessary to complete the subdivision, depending on conditions.
- 2. Such financial guarantee shall comply with all statutory requirements and shall be satisfactory to the City Attorney as to form, sufficiency, and manner of execution, as set forth in this Ordinance. The periods within which required improvements must be completed shall be incorporated in the financial guarantee and shall not, in any event, exceed two (2) years from the date of final approval. The City shall require that ten (10%) percent of the gross total cost of public improvements be retained by the City for the duration of the warranty period which begins from the "Date of Acceptance" of said improvements by the City Council.
- 3. Whenever it is deemed appropriate or necessary by the City Engineer and the City Council to defer, for an additional two (2) year period, the construction of any required public improvements, because of incompatible grades, future planning, inadequate or lack of connecting facilities, or for other suitable reasons, the developer shall provide renewed assurances based on updated costs as determined by the City Engineer to secure completion of the required public improvements.

Section 14-7-6 Construction and Inspection

A. All improvements whether public or private shall be constructed to the latest <u>Uniform Standard Specifications for Public Works Construction</u> as written and promulgated by the Maricopa Association of Governments (MAG), the latest

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- standards and specifications adopted by the City, or standard specifications of the utility provider; whichever is greater.
- B. All improvements shall be constructed with the inspection and approval of the City Engineer. All construction shall require a City construction permit and a County dust control permit. Construction shall not begin until a permit has been issued by the City for the construction and a dust control permit has been issued for the site by the Pinal County Health Department.
- C. A preconstruction meeting must be scheduled, by the developer, to include all dry utilities before any trenching or conduit installation is permitted/accepted.
- **D.** Public utilities must be installed either in public dedicated rights-of-way or public utility easements (PUE's) or easements dedicated specifically by the landowner for such usage and maintenance.
- **E.** All utility companies, public and private, must inspect all trenches, pipes, lines and conduit installation prior to backfill.
- F. Shading material shall be per the individual utility company standards and all backfill shall be compacted to ninety-five (95%) percent or better if required by the geotechnical/soils report.
- **G.** All underground utilities to be installed in streets and private access ways, shall be constructed prior to the surfacing of such street or private access way.
- **H.** The developer shall provide for an Arizona Registered Engineer to be present on the site to assess compliance with the plans and specifications for each element of construction.
- I. The City Engineer shall be notified in writing forty-eight (48) hours prior to any construction on the project site.
- J. The City Engineer shall be notified upon completion of all underground utilities within the street right-of-ways and prior to any street preparation work. Interim asbuilt plans of the utilities and all passing tests results shall be submitted for review. Upon review and approval of the supplied information, the developer may proceed with the installation of street improvements.
- **K.** The developer's engineer shall request the City Engineer to perform inspections of the subgrade base prior to placement of the overlaying materials. In addition the City Engineer will perform periodic inspections throughout the course of the construction. These inspections or approvals do not signify that the City has accepted any of the improvements for maintenance.
- L. The developer's engineer shall submit monthly progress reports to the City Engineer throughout the construction as requested by the City Engineer. The monthly progress reports shall include the results of all tests taken during the month.
- **M.** Testing during the construction phase of the project shall be performed as required by the City Engineer and the involved utility companies' policies.

Section 14-7-7 Subdivision Improvement Acceptance

- **A.** <u>General</u> Upon completion of all subdivision improvements and installation of monumentation the City Engineer will perform a final inspection and review the final reports and "as-built" drawings for approval.
- B. Final Inspection At completion of the project a final inspection shall be requested with the City Engineer. At the time of request for the final inspection mylars and an electronic copy of the "as-built" drawings shall be submitted along with a final engineers' report and warranty statement to the City Engineer (see City of Maricopa Closeout Package requirements). The "as-built" drawings shall be certified and contain the following statement:

"I certify that the construction of the public improvements and the "as-built" plan preparation were performed by me or under my direct control and supervision. The construction details as shown on the "as-builts" are accurate and complete to the best of my knowledge and belief."

Arizona Registered Engineer

Date & Registration Number

- **C.** <u>Final Report</u> A final report shall be submitted upon completion of the project. The final report shall be compiled by the developers' engineer and shall include the following:
 - 1. A brief statement of the testing on the project and a statement as to whether the observations and tests indicate that the various materials in place comply with the plans and specifications
 - 2. A summary of all field density test and compaction tests on trench backfill, on street subgrade and base material and on any fill material
 - 3. Asphalt and pavement mix design and all results of Marshall, gradation, asphalt content and compaction tests
 - 4. All concrete mix designs and all test results on air content, slump, unit weight, compressive strength at seven (7) and twenty-eight (28) days
 - 5. All line pressure, bacteria and manhole test information
 - 6. Any other tests or information that may be required as a part of the specifications or that may add to the integrity of the report
- **D.** <u>Procedure</u> The following procedure will be followed for final acceptance of the improvements:
 - 1. The City Engineer shall make a final inspection of all public improvements in the project. The developer will be notified of any items that are not in conformance with the City specifications, and shall bring the items into

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conformance.

- 2. The "as-built" plans and final report will be reviewed by the City Engineer. Any additional information needed will be noted and the plans will be returned to the developer for revision and resubmittal as mylars.
- 3. When the public improvements have passed the final inspection, the "asbuilt" plans and final report have been stamped and approved and the warranty statement provided, the City Engineer shall make a written recommendation to the City Council to accept the public improvements for maintenance.
- 4. All utilities shall have ADEQ approval of construction signature blocks &/or letters.
- E. Warranty Period on Public Improvements The warranty period begins on the day that the City Council accepts the public improvements. At a minimum a warranty period of one (1) year for all utilities, roadway pavement and structure, landscaping and other public improvements shall apply to all subdivision improvements; however the warranty period may extend beyond that time period as determined by the City Engineer. During the warranty period the developer is responsible for repair work to any of the public improvements. The City Engineer will periodically inspect the public improvements and will notify the developer of the necessary repair work. The developer is responsible for having the repair work completed prior to the end of the warranty period. Upon completion of the warranty period and acceptable repair of any necessary warranty items the remainder of the financial assurances retained by the City will be released.