# ENGINEERING INSPECTOR'S CHECKLIST FOR RESIDENTIAL FINAL INSPECTIONS

July 1, 2019

## **Preliminary**

\*\* Prior to any Certificate of Occupancy of any dwelling, a final inspection must be performed and all improvements completed to the satisfaction of the City Engineer. All improvements shall be barricaded until a final inspection is conducted and site is approved for public access.

- 1. Inspector to verify all work on the project has been completed and ready for a final inspection.
- 2. All required project documentation, with exception of as-built drawings, shall be turned in and approved by the inspector prior to scheduling a final inspection.
- 3. Inspector verifies all permits obtained and applicable fees paid. (Check with Permit Technicians)
- 4. Inspector verifies any in-lieu payments have been received and development agreements fulfilled (check with Inspection Supervisor).
- 5. Inspector verifies any equipment operation manuals received.
- 6. Inspector verifies all adjacent private and City property has not been damaged from construction.
- 7. Inspector's field maintained red-lined plans shall be available for all final inspections.
- 8. All sidewalks and streets shall be thoroughly cleaned of all dirt or Final is subject to be canceled at time of inspection.
- 9. Labor shall be provided from contractor/developer to remove storm drain manhole covers, sanitary sewer manhole covers and to expose water valves and operate water valves and hydrants.
- 10. All graded areas stabilized or a NOI issued by ADEQ of new operator received.
- 11. For any infrastructure maintained by the City, a 2-week notice shall be given of final inspections to the associated City Departments.
- 12. ADOT Bridge Form received for box culverts.
- 13. Finals shall be scheduled as follows:

Water and Sewer Concrete, Paving, and Drainage Landscape

#### Grading

- 14. All retention basins, graded to finish grades.
- 15. All property pins in and visible.
- 16. Retention basins side slope shall not exceed 4:1 on private property or 6:1 adjacent to public right-of-way, unless otherwise approved.
- 17. Pad elevations certification received.
- 18. Pad certification for compaction received.
- 19. Letter certifying completion of site grading received.
- 20. Grades that tie into adjacent properties per plans.
- 21. Certification received on Drywell installations if applicable.
- 22. Documentation received on well abandonment if applicable.
- 23. Parkway grading completed. 1" reveal in landscaped areas (final grade), 3" reveal in non-landscaped areas, slopes adjacent to sidewalks and curbs to EDS&PM Standards.

#### Water/Sewer

- 24. Request LPSCO approval letter for water and sewer to be turned in prior to Final Inspection.
- 25. All water and sewer stakes installed and in place.
- 26. All water meter boxes installed to grade. Detail G-3312.( 2" above s/w, 1" reveal above granite and 24" behind walk)
- 27. Chains installed on hydrant caps.
- 28. Hydrants free of obstructions.
- 29. All water valves turned on.
- 30. All manholes and main lines cleaned. Inverts troweled smooth. MAG Detail 421.
- 31. Copy of sewer main video (camera) turned over to Goodyear or LPSCO.
- 32. All water main blow-offs adjusted to grade. Risers plumb, bonnet visible. Frame flush with pavement and free of noise. MAG Detail 390 Type A.
- 33. Lamp sewer line adding water 1 hour prior.
- 34. Manhole lids stamped with City logo and free of noise.
- 35. Approval of Construct issued by Maricopa County received.
- 36. BT tests and usage form submitted to water department.
- 37. Blue hydrant markers placed on pavement.
- 38. Fire hydrants face street, plumb, and adjusted to grade.
- 39. Food grade lubricant applied on all hydrant cap threads.
- 40. Electronic marker balls verified to be installed for water mains and sewer service stubs.
- 41. Debris shields installed on water valve risers.
- 42. All water appurtenances installed and adjusted to grade. (blow-offs, air-release assemblies, and water quality sampling stations)

# **Dry Utilities**

- 43. All trenches tested for 95% compaction.
- 44. Equipment boxes set to grade and not obstructing sight triangles.
- 45. All conduits terminated in boxes.(No exposed conduit stub-ups)

# **Drainage/Structures/headwalls**

- 46. All exposed steel on catch basins and scuppers to be painted as per MAG Section 530 and 790.
- 47. Handrails (galvanized) installed on all scuppers and headwalls. Color of final paint shall be per EDS&PM manual.
- 48. All scuppers, grade to drain.
- 49. All manholes and storm drain pipes cleaned of soils and debris. Inverts troweled smooth. MAG Detail 421.
- 50. Clean all scuppers and catch basins and rip-rap of debris.
- 51. Manhole lids stamped with City logo and have access handle/hole.
- 52. Trash racks installed on all headwalls with shear pins where call for on plans.
- 53. All exposed edges on catch basins and scuppers to be finished off smooth.

- 54. Slopes adjacent to headwalls do not exceed 4:1
- 55. Storm drain inlet marker placed on all catch basins, scuppers, and inlets per G-3510.

#### Concrete

- 56. Flow test gutters, mark all low spots ½" or greater and all cracked/damaged concrete for removal and replacement.
- 57. Concrete free of cracks, chips and scarring.
- 58. Patch all chipped concrete not exceeding 4 sq. inches where needed. Approved material required for patching.
- 59. All removed and replaced concrete to be sprayed with white cure.
- 60. Water and sewer stamps placed in concrete per MAG 440-4.
- 61. All concrete curb and gutter replacements, are to be formed against asphalt with wood form, to hold a straight line.(minimum 1' cutback of asphalt and patch back)
- 62. Trim all expansion joint material where needed.
- 63. Construct curb and sidewalk termination points where needed.
- 64. Tolerance on sidewalk surface is <1/8" in 5'.
- 65. Handicap ramps flush with asphalt pavement at crosswalk.
- 66. All sidewalks to have a light broom finish and ½" radius transverse joints.
- 67. Sidewalks and ramps meet ADA slope requirements.
- 68. Asphalt adjacent to ADA ramp landing is flush with gutter.

## **Paving**

- 69. All adjustments in asphalt completed. Manholes, clean outs, monument and water valves.
- 70. All survey monuments to be punched. And placed in frame and cover if required per MAG Details 120 and 120-2.
- 71. Check asphalt for smooth joints, open gradation and soft or cracking areas in asphalt.
- 72. Asphalt pavement with no curb shall be per plan profile elevations on outer edge.
- 73. Tolerance in pavement smoothness not to exceed ¼" in 12'.
- 74. Water test asphalt for run-off. Water applied 1 hour prior to final at a rate to provide a continuous flow from the street into the gutter.

# Streetlight

- 75. Streetlight numbers installed.
- 76. Pull boxes adjusted to grade.
- 77. Streetlight poles plumb and offset from sidewalk min. 1'from back of walk (attached) or 4' from back of curb (detached collector and arterial) or 3' (detached local)
- 78. 3-Day burn test complete or lights verified on during dark hours.
- 79. All materials and wiring components verified approved and complete.

## Signing and Stripping

- 80. All striping and signage completed as per plan.
- 81. All street sign post installed as per Goodyear's Detail with 7' to bottom of sign.
- 82. Sign posts not set in concrete.
- 83. Barricades installed where required.
- 84. Street name signs and block numbers correct. (Use recorded plat or request block number map)
- 85. Proper brackets used for sign type installation.
- 86. All existing signing and striping that conflict with improvements has been removed/modified.

## Landscaping

- 87. All landscaping completed per plans.
- 88. Pre-emergent Certificated received.
- 89. Backflow certificates/test information received.
- 90. HOA letter of acceptance received.
- 91. 1" reveal on all irrigation boxes.
- 92. Spaghetti tubes cut to drip line.
- 93. Trees staked per details
- 94. Visibility triangle free of obstructions.
- 95. Street signs not blocked by trees.
- 96. No trees with thorns adjacent to public access ways per COG Standards.
- 97. Slopes do not exceed 6:1 adjacent to sidewalks and in the right of way.
- 98. Slopes do not exceed 4:1 on private property.
- 99. Block walls and sidewalks free of damage.
- 100. Plants have adequate clearance to power poles, overhead power lines and transformers.