



**This packet contains the following forms/documents:**

1. Water Sewer Agreement Packet Cover Page – TRT 00809
2. Water Main, Plan Checklist – TRT 00108
3. Water and Sewer Repayment Agreement – TRT 00803
4. Water and Sewer Repayment Agreement Guidelines – TRT 00803G
5. Water Wastewater Main Extension Application – TRT 00806
6. Professional Engineer's Cost Estimate Water and Sewer Main – TRT 00808
7. Water Design Report Guidelines – TRT 00805
8. Application to Construct Water Distribution and Sewage Collection Systems – TRT 00206
9. Approval to Construct, Water/Sewer Packet – TRT 00201
  - Water / Sewage Approval to Construct 00977
  - Water / Sewage Interim Approval of Construction 00978
  - Water / Sewage Approval of Construction 00979
10. Environmental Responsibility and Certification, Plan Submittal Form – TRT 00412
11. Public Utility Easement Adjustment, Approval Request – TRT 00273
12. Construction Staking Requirements – TRT 00919



**COP Project (KIVA) No.:** \_\_\_\_\_ **Project Name:** \_\_\_\_\_

**Reviewed By:** \_\_\_\_\_ **Phone:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Professional Engineer:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

The purpose of this checklist is to offer comments on plan design for construction of water main pipe (12" lines and smaller), fittings, and fire hydrants and to set the minimum submittal requirements for water main plans. Source of water development code and design policy is the Water Services Department Design Standards Manual for Water and Wastewater Systems.

This checklist serves to minimize redline comments on the check prints and to maintain consistency among plan reviewers on plans for public water main construction (12" lines and smaller) in the public right-of-way or public water easement. For water mains greater than 12 inches please call the City of Phoenix Water Department at 602-495-5601 for submittal information. Plan approval and issuing permits depends on compliance with the comments made on the check prints and this checklist. The professional engineer of record shall satisfy themselves of the completeness and accuracy of the design.

A completed checklist must be attached to the water plans when submitted for first review. The following Certification Statement must be signed by the professional engineer of record certifying that all applicable requirements on this checklist have been met.

Plan review correction cycles and/or approvals are valid for 12 months. Additional review fees (see Fee Schedule – Phoenix City Code, Chapter 9, Appendix A.2) shall be charged for extensions/reinstatements to update expired plan reviews.

**CERTIFICATION**

**I CERTIFY THAT THE REFERENCED PLANS COMPLY WITH ALL APPLICABLE CITY ORDINANCES AND STANDARDS, INCLUDING FEDERAL, STATE AND COUNTY REQUIREMENTS AND REGULATIONS. IN ADDITION, I CERTIFY THAT THIS CHECKLIST HAS BEEN COMPLETED ENSURING ALL ITEMS LISTED ARE PROPERLY ADDRESSED. I UNDERSTAND THAT IF I FAIL TO ADDRESS ALL APPLICABLE ITEMS IN THIS CHECKLIST, THE PLANS MAY BE IMMEDIATELY RETURNED TO ME WITHOUT ANY FORMAL REVIEW BEING PERFORMED.**

PROFESSIONAL ENGINEER'S NAME: \_\_\_\_\_

PROFESSIONAL ENGINEER'S SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Please complete and return this checklist and the check prints with your next submittal. Discussion of redline comments on plans or this checklist should be directed to the plan reviewer listed above.

Professional engineer of record (**ENG**) must fill out all boxes in the first column as either  (Addressed) or  (Not Applicable).

Civil plan reviewer (**RVW**) shall check the second column as  (Required) when requirements have not been properly addressed.

### REQUIRED SUBMITTALS

#### ENG RVW

- Plan sheets shall be 24" X 36"; submit four (4) sets of Water main plans, one (1) copy of the approved preliminary Site plan for major projects **OR** one (1) copy of the first review Site plan mark-up for minor projects, Utility Conflict Notices form the appropriate utility companies **OR** a printed disclaimer on the cover sheet (if work is on a local or residential street), a signed agreement form indicating standard or repayment agreement, a completed Application for Main Extension form, a sealed cost estimate, a signed and sealed Water Design Report by the professional engineer of record, a completed Notice of Intent form, a completed Approval to Construct form, a completed Environmental Responsibility form, and a completed and signed Water Main Checklist.

**Note:** If submitting through the Electronic Plan Review system, multiple copies of submittal documents are not required.

### GENERAL REQUIREMENTS

#### ENG RVW

- Symbols shall be per M.A.G. Specifications and Details supplemented by Water Services Department Details.
- Orientation of each plan sheet shall be shown by a north arrow and scale of drawing (North arrow is to be up or to the right).
- A cover sheet is required on plans of two (2) sheets or more.
- Each sheet shall be identified by sheet number, project name, and match lines.
- All sheets shall have the Civil Engineer's Arizona registration seal with original signature and date prior to any plan submittal.
- All plan sheets shall be sufficiently clear to allow legible prints to be reproduced from microfilm. The size of lettering and symbols shall be 1/8 inch minimum. Shading or zip tape is not permitted. All proposed water mains, fittings, and services shall be shown with thick solid lines on the plan's sheets. Refer to Water Services Department Design Standards Manual (P-68) for information required on record drawings ("As-Builts").
- This project is subject to a waterline repayment as redlined on the plans. Any questions shall be directed to the Civil Services Permit Counter, 602-262-6551 (voice) or 602-534-5500 (TTY). These fees shall be paid prior to the issuance of construction permits.
- D.I.P. required in major (mile) and collector (half-mile) streets, and all easements (MINIMUM PRESSURE CLASS 350 PIPE).
- All line valves and fittings must be restrained per the City of Phoenix Supplement to M.A.G. Specifications, section 750.3.
- All Ductile Iron Pipe water mains will be polyethylene wrapped per C.O.P. Supplement to M.A.G. Specifications Section 750.2 and M.A.G. Specifications Section 610.6.2 and 610.6.3.
- Joint restraint limits per M.A.G. Standard Detail 303-1 and 303-2 must be shown on all water main construction plans which require a profile in addition to plan view.
- When the proposed water main comes in conflict with another utility and a vertical re-alignment is necessary, the re-alignment must be approved on the proposed Water Main Plan **or** the Professional engineer must submit a separate Water – Vertical Re-alignment Plan (Detail DCE-D01) per the Water – Vertical Re-alignment Checklist. The Water – Vertical Re-alignment Detail can be located at the following website: [phoenix.gov/waterservices/design/engdetails/index.html](http://phoenix.gov/waterservices/design/engdetails/index.html).

**COVER SHEET REQUIREMENTS**

**ENG RVW**

- Appropriate processing numbers including: KIVA #, CPWT#, and city Quarter Section # in lower right corner.
- Provide a project title block with name and address of project.
- Provide a project description.
- Provide the Owner and Developer's name, address, and telephone number. Owner must be listed on the Arizona Corporation Commission website if they are a corporation.
- Provide Professional engineer's name, address, and telephone number.
- Provide a vicinity map with a north arrow oriented up or to the right.
- Provide an index of plan sheets if more than one plan sheet is included.
- Provide Signature Approval Block. (In lower right-hand corner)

**APPROVED FOR:  
THE CITY OF PHOENIX**

\_\_\_\_\_  
**HEALTH DELEGATE  
PLANNING & DEVELOPMENT DEPARTMENT**

\_\_\_\_\_  
**DATE**

- Provide an As-Built Certification Statement as follows:

**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**

\_\_\_\_\_  
**DATE**

**REGISTRATION NUMBER** \_\_\_\_\_

- Key map is required on plans with more than two (2) sheets. A key map is a small-scale map of the project site that provides a system overview and is used to index the plan sheets. The key map shall clearly show the following:
  - All streets with names, alleys, easements, tracts, and parcels shall be identified or shown "un-subdivided."
  - Water mains with types and sizes, fire hydrants, valves and production facilities (tanks, boosters, etc.) proposed and existing.
  - Index of plan sheets indicated by single line with arrows showing beginning and end of each sheet.
  - Identify all pressure zones.
- Provide a Blue Stake notification decal.

ENG RVW

- For arterial or collector streets provide utility conflict transmittal letter, along with all responses from each utility company. The following disclaimer can only be used for local or residential streets. Do not use for major or collector streets:

I hereby certify that all utility companies with facilities in the area of this project have been contacted and the data provided is shown on this plan. I agree to indemnify, defend, save and hold harmless the City of Phoenix, its officers, officials, agents, employees and volunteers from any and all claims, demands, actions, liabilities, damages, losses, or expenses incurred for any utility conflicts that may arise.

\_\_\_\_\_  
Professional engineer's Signature and seal

\_\_\_\_\_  
Date

- Elevation datum and benchmarks (city datum required). Please dial 602-495-2050, Voice, [www.phoenix.gov/streetssite/Documents/Benchmarks.pdf](http://www.phoenix.gov/streetssite/Documents/Benchmarks.pdf) or 602-534-5500 TTY, to obtain city datum for the existing benchmark closest to the project site. Equations cannot be used. Note on Plans NGVD 29 (National Geodetic Vertical Datum 1929).
- Provide a material list for Right-Of-Way or easement work only and a separate list for on-site pipe length. Please provide two (2) separate lists.

**NOTES FOR WATER PLANS:**  
(**ALL** notes to appear on cover sheet)

- Planning & Development Department's Civil/Site Inspection Staff shall be notified 48 hours before any construction begins telephone 602-262-7811.
- All water valve boxes shall be per City of Phoenix Supplement to M.A.G. Specifications and Details P1391, type A only.
- All construction in City of Phoenix Right-of-Way, or easement, is to conform to M.A.G. Specifications and Details and City of Phoenix Supplement to M.A.G. Specifications and Details, unless modified on the plans.
- All Ductile Iron Pipe water main valves, fittings, and bends shall be restrained. Restrained joint requirements and approved restraining system are shown in City of Phoenix Supplement to M.A.G. Specifications, section 750.3. The length of the restraints must be per M.A.G. Standard Detail 303-1 and 303-2. Thrust blocks are not allowed to be used in lieu of approved restrained joint systems. Thrust blocks can be used in addition to the approved restrained joint systems where a specific City of Phoenix Supplement to M.A.G. Standard Detail calls out for thrust blocking, such as current details, P1343, P1351, and P1360 or when otherwise approved by the Water Services Department.
- The following M.A.G. Details are specifically **NOT** approved:
- 302-1 Joint Restraint with Tie Rods
  - 302-2 Joint Restraint with Tie Rods – Anchor Blocks
  - 321 Standard Water Meter Vault
  - 345-1 3", 4", and 6" Water Meter
  - 345-2 4" and 6" Water Meter with On-site Fire Hydrants
  - 370 Vertical Realignment of Water Mains
  - 381 Anchor Blocks for Vertical Bends
  - 390 Curb Stop with Flushing Pipe
  - 391-1 Valve Box Installation
- Compaction shall comply with M.A.G. Section 601 & City of Phoenix Supplements.
- New water lines are to be built in accordance with the City of Phoenix "Standard Utility Locations".

ENG RVW

- This set of plans has been initially reviewed by the City of Phoenix. Such review is part of the process that developer(s)/contractor(s) must go through in order to obtain a Construction Permit. The results of such initial review shall not dictate the City of Phoenix's final determination as to the acceptability of the plans, nor shall it prevent the City of Phoenix from requiring errors and omissions, as found on plans, be addressed by developer(s) /contractor(s), where such errors and omissions cause the plans to be in violation of or inadequate under applicable federal/state/county/local codes, ordinances, regulations, or other laws. This reviewed and stamped set of plans must be kept at the construction site at all times.
- Pipe deflection shall be per manufacturers' recommendations.
- All work must comply with requirements of the current City of Phoenix "Traffic Barricade Manual".
- The contractor is to notify the public that will be affected by any shutdowns a minimum of 48 hours in advance.
- A six (6) foot minimum horizontal separation from any underground utility shall be provided for sewer mains, sewer services, water mains, and water services. The minimum horizontal separation is measured from outside of sewer main, sewer service, water main, or water service to outside of underground utility.
- A one (1) foot minimum vertical separation from any dry underground utility crossing shall be provided for sewer mains, sewer services, water mains, and water services. The minimum vertical separation is measured from outside of sewer main, sewer service, water main, or water service to outside of dry underground utility.
- A two (2) foot minimum vertical separation shall be provided between any sewer main and storm drain crossing a water main. The minimum vertical separation is measured from outside of water main to outside of sewer main or storm drain main. See M.A.G. Standard Detail 404 for additional information and/or provisions for clearance.
- Exceptions or deviations from the above minimum clearances must be approved and shown on the approved water and sewer plans. When utility conflicts are found during construction, all changes and revisions must be preceded by an approved plan revision.
- Any and all more stringent requirements required by Federal, State, County, or Local codes or ordinances take precedence.
- Water services shall be installed perpendicular to the water main. Water services at the end of cul-de-sacs may vary as necessary but will be approved on a case by case basis.
- All services shall run in a straight line from the water main to the meter box.
- Neither water service meter box nor any portion of a water service shall be installed under an existing or proposed driveway or sidewalk ramp.
- Concrete or asphalt damaged during the course of construction shall be removed and replaced in kind prior to final inspection.
- Record drawing submittals must comply per the Water Services Department Engineering Policy P-68. A copy of the policy can be obtained in the department's website:  
<http://phoenix.gov/waterservices/design/engpolicies/index.html>
- In accordance with AAC R-18-4-213, 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.

**ENG RVW**

- Place the following note on each sheet of the plans:**  
Per Phoenix City Code, Chapter 2, Section 2-28, these plans are for official use only and may not be furnished for inspection or copying, except as specifically stated in the City Code, or as required by law.
- Asphalt restoration is required for any street cut. Refer to Street Pavement Cut Policy (TRT 00164 and Ordinance G-6308).
- Plan approval is valid for 12 months. 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.

**OPTIONAL NOTES FOR WATER PLANS:**

- For Lot Nos. \_\_\_\_\_, the contractor is responsible for installing the water service. When the service is ready for the wet tap, the contractor is to contact the Planning & Development Department Civil/Site Inspector to coordinate with the City of Phoenix Water Distribution staff to install the wet tap. The contractor is responsible to pay the City of Phoenix for the wet taps on a time and materials basis.
- This plan is approved subject to completion of lines labeled "EXISTING" which have been proposed as part of another development. The developer of this project may be required to construct those lines per city requirements prior to receiving service for this project.

**PLAN SHEETS REQUIREMENTS:**

**The plan sheets shall show the following to proper scale:**

- Provide a title block on all sheets.
- All sheets shall be numbered with match lines (if required) and street names.
- Orientation of each water line shall be shown by a north arrow (up or to the right) and a scale of the drawing.
- All existing and proposed utilities shall be shown with size, material, and location in right-of-way in plan and profile.
- Proposed finished grades at centerline of water shall be shown in profile with a solid line. Existing grades of ground surface at centerline of water shall be shown with a dashed line.
- Provide 3'-0" minimum horizontal clearance between water services.
- Provide 6'-0" minimum horizontal clearance between water and sewer lines, water and sewer services, and between sewer mains and all other utility lines, outside of pipe to outside of pipe.
- Use City of Phoenix "Standard Utility Locations".

**ENG RVW**

- Show encasements of water and sewer lines per M.A.G. Standard Detail 404 in plan and profile. Double protection is required when sewer crosses over water.
- Show all utilities in plan and profile. Where city utilities cross other utilities, show complete dimensional data measured from street monument lines.
- Show all streets, alleys and easements. Streets shall be identified by name. Streets, alleys and easements shall be dimensioned at least once and at all breaks. Monument line of streets shall be shown. Show both sides of the streets.

- Locate all existing and proposed utilities, structures, paving, and other topographic features affected by construction.
- Existing and proposed sewer main size and location must be shown. Sewer main shall be shown in a "lighter weight" line to identify it as being information only and not part of this construction plan. Label as existing or proposed.
- Joint restraint limits per M.A.G. Standard Detail 303-1 and 303-2 must be shown on all water main construction plans which require a profile in addition to plan view.
- Indicate the locations of the beginning(s) and the end(s) of the construction, and all valves, fire hydrants, pipe fittings, and service connections. Their locations must be shown by stationing and dimensioning from appropriate monument lines, or in their absence, appropriate easement references. No dimensioning from points of curvature or tangency is acceptable. The drawings must clearly indicate the specific points of reference.

**NOTE:** In all cases where the pipe is constructed within or parallel, in close proximity, with the right-of-way, all stationing and dimensioning must be from the nearest appropriate monument line and monument line intersection.

- The water services stationing shown must specify the location of the taps at the main and their intended use called out, i.e., domestic or irrigation. Their locations must be measured perpendicular or radial relative to the appropriate right-of-way monument line or easement centerline. Service tap locations must be indicated by using the following method throughout the plan set. All stationing rounded to nearest foot. No negative stationing allowed.

**NOTE:** Stationing in the same general direction along a straight or curvilinear pipe run starting with the nearest appropriate monument line intersection, or in their absence, appropriate easement line references shall be designated as 0 + 00. The relative stationing of all monument line intersections along such pipe runs must also be shown. When monument line intersection occurs along such pipe runs, the plans preparer begins the stationing again with station 0 + 00 at the intersection and repeats this process to the end of the pipe run. Do not locate 0 + 00 at the closed end of a cul-de-sac or similar type street.

- Water main taps are to be called out as follows:  
Install a/an \_\_\_\_\_" X \_\_\_\_\_" tapping sleeve and valve, box and cover. Abbreviation is acceptable: TS & V, B & C. Specify type of valve box to be used. An example: 12" X 8" TS & V, B & C per M.A.G. Detail 340 and City of Phoenix Supplement Detail P1391. When the tap size is the same as the size of main to be tapped conform to MAG Specifications Subsection 630.4.2(A) (1).

- Installation of pipe to be called out as follows:  
"Installation of \_\_\_\_\_" D.I.P. Class \_\_\_\_\_. Polyethylene wrap, per C.O.P. Supplement to M.A.G. Specifications Section 750.2 and M.A.G. Specifications Section 610.6.2 and 610.6.3."

- Existing valves to be shut down during construction shall be shown with city valve numbers as shown on the City of Phoenix Quarter Section map. One existing valve shall be shown and labeled, with the city valve number, on each side of a new tap in case an emergency shutdown is required.

- All existing valves shown on the plan shall be labeled with city valve numbers as shown on the City of Phoenix Quarter Section map.

**ENG RVW**

- A profile is required for 12" lines in major streets and for all size of lines in special situations where conflicts arise with other utilities. In profile, vertical scale shall be 1" = 2' or 1" = 4'. Horizontal scale shall not be smaller than 1" = 40'. For major streets and cases of unusual topography or complex situations where more detail is necessary, then the scale shall be 1" = 20'.
- On combo water/sewer plans, as well as water plans where only a plan view is required, a construction note callout must be shown at all tees, bends, dead ends, line valves, and fittings that reads:  
"Joints must be restrained per M.A.G. Standard Details 303-1 and 303-2 and City of Phoenix Supplement to M.A.G. Specifications, section 750.3."

- All piping to end with (size of pipe)" x 2" tapped cap with ball valve rated 300 psi or greater.
  - Provide existing and proposed paving. Shading is not allowed. Cross-hatching is acceptable.
  - When replacing curb, gutter, and sidewalk, show, and label, existing and proposed concrete. Construct sidewalk ramps to accommodate access per ADA requirements. One half (1/2) sack slurry backfill is highly recommended.
  - Pavement replacement thickness and type are to be per M.A.G. and City of Phoenix Supplement Section 336 and City of Phoenix Detail P1200 - Type B. Curb and gutter replacement shall be a minimum of one (1) full section, per M.A.G. Standard Detail 220. Sidewalk replacement shall be a minimum of one (1) full panel per City of Phoenix Detail P1230. At the discretion of the City of Phoenix Planning & Development Civil/Site Inspector, tunneling under existing curb and gutter, in City of Phoenix R.O.W., will be allowed. Tunneling under existing sidewalk will not be allowed in the City of Phoenix R.O.W.
  - Water mains shall be six feet (6') minimum from property line unless there is an adjacent P.U.E. on site.
  - Provide minimum water main easement per Table 3.1 in the Water and Sewer Design Standards Manual.
  - Valves shall be located at point of curvature of the curb return at intersections and at property lines in mid-block.
  - Location of fire hydrants and valves at intersections shall be referenced from the nearest monument line.
  - All fittings shall be identified and stationed.
  - Fire hydrant placements to be per the City of Phoenix Water Services Department Design Standards Manual for Water and Wastewater Systems, section 4.8.
  - Fire hydrants shall be located in accordance with City of Phoenix Supplement to M.A.G. Detail P1362.
  - Mid-block fire hydrants shall be located on the lot line between two lots and a minimum of four feet (4') away from driveway wings.
  - Meter service connections shall be shown to each lot or parcel. Services may be stationed from street intersection monuments, except on curved streets and in cul-de-sacs where the tap will be angled, therefore, the tap must be stationed on the main and dimensioned to the applicable property line. Intended use of the service shall be noted, i.e., domestic, irrigation, etc.
  - Meter box locations must be out of traveled roadway/walk/driveway. They may be located in planter areas, parking lot islands, etc., and should be set sufficiently above finished grade to minimize flooding. Meter locations shall be easily accessible from a street or traveled way and must be located in right-of-way or easements.
- ENG RVW**
- When the Water Services quarter section data indicates leaded joint pipe, the Professional engineer shall add a special note on the plan regarding leaded joint pipe, "Hand Dig If Necessary" and, "Use Caution When Excavating".
  - Discussion of redline comments on plans or in this checklist should be directed to the plan reviewer.

**WATER DESIGN REPORT:**

- Peak flow plus fire flow water demand.
- Must maintain a pressure between 50 and 100 PSI during peak day conditions and a velocity of less than or equal to 5 FPS.
- Must maintain a pressure above 25 PSI during a fire flow event and a velocity not to exceed 10 FPS.
- The professional engineer shall provide flow calculations and any necessary computer models for the items listed above in order to provide documentation for the basis of design. The professional engineer shall provide a clear, understandable schematic of the system showing the junction nodes, pipes, etc. for any computer modeling. The professional engineer shall also provide input data which shows the pipe diameter, pipe lengths, system demands, pipe flows AND output data that show pressures, velocities, head loss, and flow rates.

**PLANS FOR REVISION**

- All original plan approvals, signatures, and seals are to remain on the revised plans.
- All plans revised after the original approval shall be resubmitted for review and approval. The nature of the revisions must be called out on the cover sheet and on the sheet(s) which have been revised. The revision number itself shall consist of a numeral within a triangle next to each revision. Δ Changes on each plan sheet shall be highlighted with "clouding".
- All revised sheets, including the cover sheet are to be re-sealed, signed and dated.
- New approval signature block is required to be added to the cover sheet for approval of the revisions.

**APPROVED FOR:  
THE CITY OF PHOENIX**

\_\_\_\_\_  
**HEALTH DELEGATE  
PLANNING & DEVELOPMENT DEPARTMENT**

\_\_\_\_\_  
**DATE**

**EXTENSIONS**

All plans submitted for extension require a new signature block and are to be re-signed by the submitting designer. Plan extensions are to be highlighted with "clouding" as specified in the plan revision process above. The plan sealant shall note that this change is a plan extension. A new approval signature block is required to be added to the coversheet for approval of the extension. All plan extensions must have prior approval by completing the Plan Review Extension Application. The Plan Review Extension Application can be found at the following site: <http://www.phoenix.gov/development/siteandcivil/civil/>. Provide a copy of the approved application with the plan submittal.

Plan approvals for extension are valid for a period of 12 months from the date of plan approval.



**ATTACHMENT A**

Date: \_\_\_\_\_

Developer: \_\_\_\_\_

Professional Engineer: \_\_\_\_\_

Project Name: \_\_\_\_\_

KIVA #: \_\_\_\_\_

Subject: Repayment Agreements (Sections 28-23 and 37-35 through 37-38 Phoenix City Code).

This project has been designed with an approach on water or wastewater main and may be eligible for a repayment agreement. An approach main is defined as a main extended beyond the limits of the project or a main constructed along the total frontage or boundary of the development.

In order to be eligible for a repayment agreement, an established procedure must be followed. This procedure is explained in Water Services Department Policy P-77. To allow for orderly and timely processing, the developer is encouraged to become familiar with and use this procedure.

Please indicate your agreement preference below:

\_\_\_\_\_ Repayment Agreement

\_\_\_\_\_ Standard Agreement

DEVELOPER'S SIGNATURE: \_\_\_\_\_



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### **Purpose**

To provide the City of Phoenix Water Services Department (WSD) and Development Services Department (DSD) procedures for water and sewer repayment agreements.

### **Background**

The water main repayment policy of the City for developer constructed water main extensions is described in Sections 37-35, 37-36, 37-37, and 37-38 of the Phoenix City Code. The sewer main repayment policy of the City for developer constructed sewer main extensions is described in Section 28-23 of the Phoenix City Code.

### **Procedures**

1. Repayment Agreements for water and sewer mains 12-inches in diameter and below will be initially processed by the Development Services Department (DSD), Water Services Counter, 200 W. Washington St., 2nd Floor, Phoenix, AZ, 85003, phone 602-262-6551.

Repayment Agreements for water and sewer mains larger than 12-inches in diameter, for wastewater lift stations, and for all mains located outside Phoenix City limits will be initially processed by the Water Services Department (WSD), Technical Support Counter, 200 W. Washington St., 8th Floor, Phoenix, AZ, 85003, phone 602-495-5601.

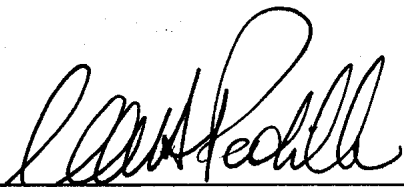
2. If a developer will be constructing an approach main, the City's DSD or WSD plan reviewer, during initial plan review, will provide a copy to the developer's engineer of this procedure and a form (Attachment A) for the developer to fill out indicating preference for a repayment agreement or a standard agreement.
3. Repayment agreements must be requested in writing from the developer. The developer will fill out a form indicating preference for either a standard agreement or repayment agreement for the approach main, sign the form, and submit to their plan reviewer prior to plan approval.
4. WSD will make the final determination of whether the approach main is eligible for a repayment agreement. The costs of water and/or sewer mains within the boundary of the development are not eligible for repayment.
5. The developer's engineer shall submit the following documents for the approach main that is subject to repayment agreement. Repayment agreements will not be processed prior to the submission of all of these documents.
  - a. Engineering plans and specifications
  - b. An exhibit for the agreement showing the proposed repayment area or frontage. Exhibit C-1 shall be used for water repayment agreements and shall show the water repayment area on a front footage basis. Exhibit C-2 shall be used for sewer repayment agreements and shall show the sewer repayment area using local drainage conditions on an acreage basis. Instructions on preparing the exhibits and sample exhibits are included in Attachment B.

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This publication can be made available in alternate formats (Braille, large print or digital media) upon request. Contact Planning and Development Department at (602) 262-7811 voice or (602) 534-5500 TTY.

- c. Water and/or Wastewater design report in accordance with the WSD Design Standards Manual Section 5.2.2. The wastewater design report will provide the justification and the criteria for the benefited drainage area.
  - d. A bid form (Attachment C) showing the repayment items and quantities.
6. As per Section 28-23 of the Phoenix City Code, if a developer will also be receiving impact fee credits for the approach main (typically for sewer mains greater than 18-inches in diameter that are part of the City's Impact Fee Infrastructure Finance Plan), then the credits for impact fees will be allocated based on the proportional allocation of costs as specified in the repayment agreement. The developer may reduce the repayment amount in order to receive a larger allocation of the impact fee credits. The developer must request this in writing to WSD and provide the repayment reduction amount prior to the preparation of the agreement.
7. After City approval of 5a-d above, the developer shall submit a minimum of three (3) sealed bids for the construction of the approach main to DSD Water Services Counter (mains 12-inches in diameter and less) or WSD (mains greater than 12-inches in diameter, lift stations, or all mains outside City limits). Unit pricing shall be shown on all bids. These bids will be opened by the City on a predetermined date agreeable to the developer and the City. The developer or a representative must be present for the bid opening. The developer shall contact the City at least one week prior to schedule the desired bid opening date. The City reserves the right to reject any or all bids. The developer shall choose one of the contractors whose bid is opened to perform the work.
8. Per City Code Section 37-37 and Section 28-23, engineering costs for the repayment approach main can be added to the total project cost. Engineering costs shall not exceed 10 percent of the low bid cost. The developer shall submit documentation of engineering costs to the City on the Engineer's letterhead with signed and dated seal.
9. The City department that is initially processing the repayment agreement will prepare the bid tabulation and calculate the total project cost, the developer's share of the cost, the repayment amount, and the connection charge for future connections.
10. After the low bid has been established and the connection charge determined, the City will prepare a water and/or wastewater repayment agreement. The developer shall sign and notarize the agreements and return all four copies to the City department that is initially processing the repayment agreement.
11. The developer shall provide a copy of the signed contract with the contractor that will be constructing the approach main to the City department that is initially processing the repayment agreement. The contract shall show the contract amount for the repayment approach main. The date the repayment period begins is the date the developer signs the repayment agreement.
12. DSD Water Services Counter will issue permits for the approach main upon receipt of the signed repayment agreements, construction contract, payment or posting of appropriate bonds, a Grading and Drainage permit, resolution of holds, and contractor license and insurance information. The developer will be required to pay an administrative fee for each repayment agreement at the time of permit issuance. Permits for projects eligible for repayment will not be issued prior to bid openings and acceptance of agreement.

13. The City department that is initially processing the repayment agreement will return one copy of the executed agreement to the developer.
14. Upon construction completion and acceptance, the approach main or facility will become property of the City. The City will have exclusive control of connections to the proposed approach main.
15. DSD Water Services Counter will collect a connection charge from anyone who subsequently connects into and obtain service from the approach main and is located in the benefited area shown on Exhibit C-1 or C-2.
  - a. A direct connection to a water approach main will be charged on a cost per front footage basis. This connection charge is determined by the cost per front foot as written in the agreement.
  - b. A connection to a sewer approach main or lift station will be charged on a cost per acre basis. This connection charge is determined by the costs per acre as written in the agreement and the total acreage of the new development
16. The City will repay the connection charge to the original developer. For sewer repayment agreements, the City will deduct a portion of each connection charge as an administrative fee. The total amount of repayments shall not exceed the total cost eligible for repayment per the agreement. The entire repayment contract will terminate in ten (10) years, or 20 years for Class 2 wastewater projects<sup>1</sup>, or when the total repayment amount is repaid, whichever is sooner.



\_\_\_\_\_  
Carlos Padilla, P.E.  
Assistant Director for Water Services Department

1. Class 2 wastewater projects are regional projects involving construction costs in excess of \$3 million, that are located in targeted growth areas, and that involve large regional facilities such as lines of 18" in diameter or greater, or lift stations with 5 MGD or greater capacities. This new class of repayment agreement will have a 20 year time span, instead of the usual 10 year time span.

**ATTACHMENT A**

Date: \_\_\_\_\_

Developer: \_\_\_\_\_

Engineer: \_\_\_\_\_

Project Name: \_\_\_\_\_

KIVA #: \_\_\_\_\_

Subject: Repayment Agreements (Sections 28-23 and 37-35 through 37-38 Phoenix City Code).

This project has been designed with an approach on water or wastewater main and may be eligible for a repayment agreement. An approach main is defined as a main extended beyond the limits of the project or a main constructed along the total frontage or boundary of the development.

In order to be eligible for a repayment agreement, an established procedure must be followed. This procedure is explained in Water Services Department Policy P-77. To allow for orderly and timely processing, the developer is encouraged to become familiar with and use this procedure.

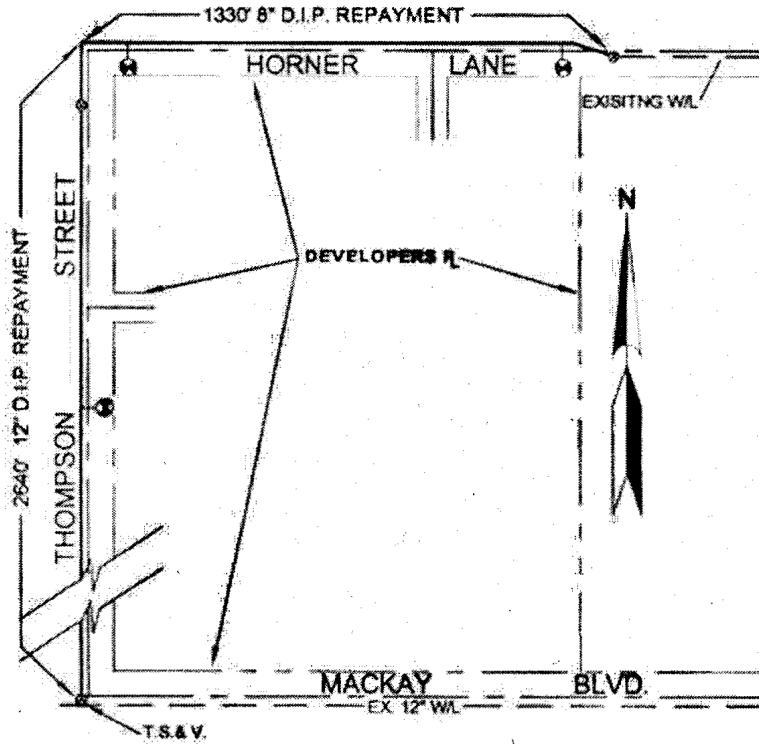
Please indicate your agreement preference below:

\_\_\_\_\_ Repayment Agreement

\_\_\_\_\_ Standard Agreement

DEVELOPER'S SIGNATURE: \_\_\_\_\_

**SAMPLE WATER REPAYMENT EXHIBIT**  
 INFORMATION TO BE PROVIDED BY ENGINEERING FIRM ON EXHIBIT C-1



REPAYMENT QUANTITIES*	
ITEM	UNIT
12" D.I.P.	2540 L.F.
8" D.I.P.	1330 L.F.
12" VALVES	1 EA.
8" VALVES	2 EA.
F.H.	3 EA.
12 T.S.&V.	1 EA.
PVMT. REPL.	8 S.Y.

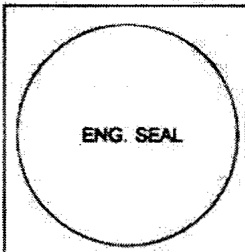
\* ONLY THOSE QUANTITIES PERTAINING TO REPAYMENT PORTION OF PROJECT.

NO. L.F. PIPE BOUNDING DEVELOPERS PROPERTY	
SIZE & MATERIAL	NO. L.F.
12" D.I.P.	380 L.F.
8" D.I.P.	430 L.F.

**WATER REPAYMENT EXHIBIT C-1**  
 KEY MAP - NOT FOR BIDS OR CONSTRUCTION

APPROVED:  
 THE CITY OF PHOENIX

COUNTY HEALTH DELEGATE \_\_\_\_\_ DATE \_\_\_\_\_



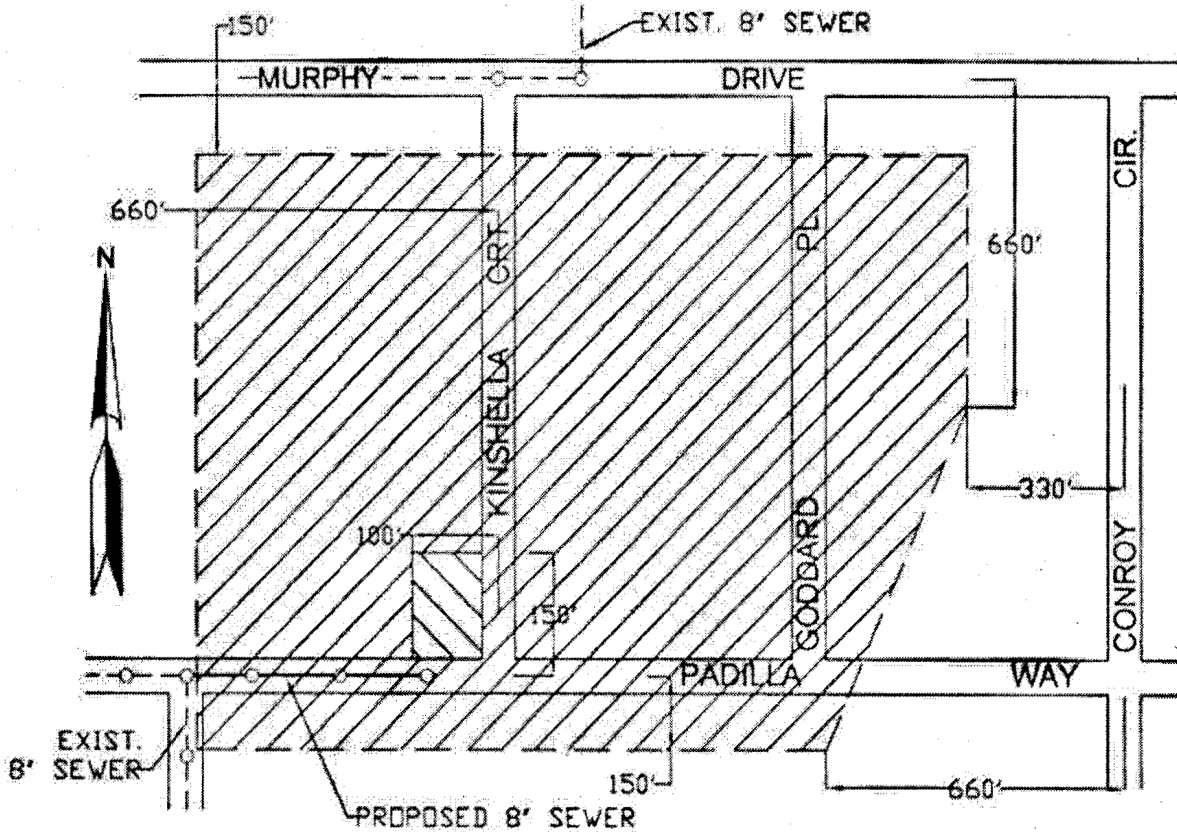
PREPARED BY:	
ENGINEERING FIRM	
PROJECT NAME:	
DRAWN BY:	DATE:
CHECKED BY:	SCALE:
KVA NO.:	Q.S.:

ATTACHMENT B  
INSTRUCTIONS FOR SEWER REPAYMENT AGREEMENT EXHIBIT C-2

1. The developer's consulting engineer shall prepare Exhibit C-2 to the repayment agreement and submit to the City for review and approval.
2. The following information shall be shown and labeled on the drawing in Exhibit C-2:
  - a. Sewer pipe, lift station, and appurtenances which are eligible for repayment. Show with dark or thick line. Do not show mains located inside the developer's area.
  - b. Existing sewer mains to which the approach main will connect. Show with lighter dashed line. Also include City manhole number, if connecting to existing manhole.
  - c. Developer's gross area. This should be shaded using cross hatching.
  - d. Benefited area. This should be shaded using cross hatching in the opposite direction as the cross hatching for the developer's area. This area should correspond to the area shown in the engineer's design report.
  - e. Streets in which repayment pipe is located, streets which bound the developer's area and benefiting area, and all major streets.
  - f. Dimensions of each side of the developer's area and the benefiting area.
  - g. Offset distances from the center lines of nearest rights-of-way to the boundaries of the developer's area and benefiting area.
3. The following quantities shall be provided on Exhibit C-2, which reflects only those items eligible for repayment:
  - a. Benefiting area in gross acres.
  - b. Developer's area in gross acres.
  - c. Total area in gross acres.
  - d. Lineal feet of pipe and number of manholes. Include pipe size and material.
  - e. Pavement replaced (S.Y.) and type per M.A.G. and City standards.
4. Engineer shall add the engineering firm name, the project name, the developer's name, the project (KIVA) number, the drawing scale, and the quarter section number. Engineer shall seal, date, and sign the exhibit.
5. City's plan reviewer will review exhibit and attain signature from a County Health Delegate for approval. The City will not approve the exhibit until the approach main plans are approved.

# SAMPLE WASTEWATER REPAYMENT EXHIBIT

INFORMATION TO BE PROVIDED BY ENGINEERING FIRM ON EXHIBIT C-2



REPAYMENT QUANTITIES*	
ITEM	UNIT
8" V.C.P.	820 L.F.
4" M.R.	3 EA.
PVMT. REPL.	55 S.Y.

\* ONLY THOSE QUANTITIES PERTAINING TO REPAYMENT PORTION OF PROJECT.

DEVELOPER'S AREA = 5 ACRES (GROSS ACREAGE)

BENEFITING DRAINAGE AREA = 180 ACRES (ACREAGE)

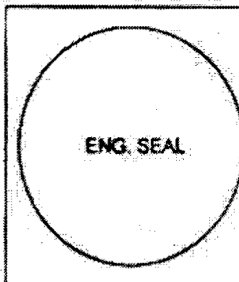
TOTAL = 185 ACRES

## WASTEWATER REPAYMENT EXHIBIT C-2

KEY MAP - NOT FOR BIDS OR CONSTRUCTION

APPROVED:  
THE CITY OF PHOENIX

COUNTY HEALTH DELEGATE \_\_\_\_\_ DATE \_\_\_\_\_



PREPARED BY:	
<b>ENGINEERING FIRM</b>	
PROJECT NAME:	
DRAWN BY:	DATE:
CHECKED BY:	SCALE:
KVA NO.:	Q.S.:

ATTACHMENT C

REPAYMENT BID LIST FOR: \_\_\_\_\_

The items listed below are the only items eligible for repayment purposes.

QUANTITY	UNIT	ITEM	UNIT PRICE	TOTAL

TOTAL \_\_\_\_\_

By signing this bid, I hereby state the above noted charges will be applied if our firm is awarded this job

FIRM SUBMITTING BID: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

\_\_\_\_\_  
 Signature of Authorized Agent

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Print Name



**APPLICATION FOR WATER AND/OR WASTEWATER MAIN EXTENSION**

Date: \_\_\_\_\_

Project Name: \_\_\_\_\_

Location: \_\_\_\_\_

Name of Developer: \_\_\_\_\_  
(Individual/Corporation as it will appear on Service Agreement and on approved construction plans)

Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_

Address of Developer: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Phone: \_\_\_\_\_

Engineering Firm: \_\_\_\_\_

Design Engineer: \_\_\_\_\_ Phone: \_\_\_\_\_

**REQUEST FOR SERVICE (Check one below)**

**WATER**

- One per Unit / Lot
- One per Building
- One Master Meter
- Fireline
- Other (Explain) \_\_\_\_\_

**SEWER**

- One per Unit / Lot
- One per Building
- Common Connection(s) For Project
- Other (Explain): \_\_\_\_\_
- Other (Explain): \_\_\_\_\_

**TYPE OF AGREEMENT (Signature Form Attached)**

- Standard
- Repayment
- Tie-In Fee Required:  Yes  No

-----**FOR STAFF USE ONLY**-----

Project Engineer: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

For more information or for a copy of this publication in an alternate format, contact Planning & Development at 602-262-7811 voice or TTY use 7-1-1.



Project Name: \_\_\_\_\_ Phase \_\_\_\_\_ Date \_\_\_\_\_

KIVA Number: \_\_\_\_\_ C PR \_\_\_\_\_ SDEV \_\_\_\_\_

**WATER RELATED COSTS:**

ACP:

\_\_\_\_\_ 12" @ \$90.00/LF \_\_\_\_\_ 8" @ \$61.00/LF \_\_\_\_\_ 4" @ 38.00/LF  
\_\_\_\_\_ 10" @ \$71.00/LF \_\_\_\_\_ 6" @ \$47.00/LF \_\_\_\_\_

TS&V:

_____ 12X12 @ \$6952.00	_____ 10X10 @ \$4635.00	_____ 8X6 @ \$3862.00	_____
_____ 12X10 @ \$6180.00	_____ 10X8 @ \$4429.00	_____ 8X4 @ \$3553.00	_____
_____ 12X8 @ \$5407.00	_____ 10X6 @ \$4171.00	_____ 6X6 @ \$3399.00	_____
_____ 12X6 @ \$4949.00	_____ 10X4 @ \$3862.00	_____ 6X4 @ \$3399.00	_____
_____ 12X4 @ \$4635.00	_____ 8X8 @ \$4326.00	_____ 4X4 @ \$3090.00	_____

DUCTILE IRON PIPE:

\_\_\_\_\_ 12" @ \$90.00/LF \_\_\_\_\_ 8" @ \$61.00/LF \_\_\_\_\_ 4" @ \$38.00/LF  
\_\_\_\_\_ 10" @ \$71.00/LF \_\_\_\_\_ 6" @ \$47.00/LF \_\_\_\_\_

LINE VALVE:

\_\_\_\_\_ 12" @ \$2703.00/EA \_\_\_\_\_ 8" @ \$1522.00/EA \_\_\_\_\_ 4" @ \$922.00/EA  
\_\_\_\_\_ 10" @ \$2027/EA \_\_\_\_\_ 6" @ \$1177.00/EA \_\_\_\_\_

SERVICES:

\_\_\_\_\_ 6" @ \$5912.00/EA \_\_\_\_\_ 2" @ \$993.00/EA \_\_\_\_\_ 3/4" @ \$512.00/EA  
\_\_\_\_\_ 4" @ \$4419.00/EA \_\_\_\_\_ 1.5" @ \$676.00/EA \_\_\_\_\_  
\_\_\_\_\_ 3" @ \$2558.00/EA \_\_\_\_\_ 1" @ \$592.00/EA \_\_\_\_\_

FIRE HYDRANT

\_\_\_\_\_ @ \$5912.00/EA \_\_\_\_\_

FIRELINES

\_\_\_\_\_ 8" @ \$61.00/LF \_\_\_\_\_ 6" @ \$47.00/LF \_\_\_\_\_

MISC \_\_\_\_\_ @ \_\_\_\_\_

(DESCRIPTION) (Qty) (unit cost)

NOTE: UNDER 500' OR ROCKY GROUND – DOUBLE PRICE  
UNDER 1000' – ADD \$4.00LF.

Pavement Replacement Perpendicular to CL \$50/SY Parallel to CL \$40/SY \_\_\_\_\_

**TOTAL** \_\_\_\_\_

**SEWER RELATED COSTS:**

VCP

\_\_\_\_\_ 18" @ \$148.00/LF \_\_\_\_\_ 12" @ \$93.00/LF \_\_\_\_\_ 8" @ \$62.00/LF  
\_\_\_\_\_ 15" @ \$123.00/LF \_\_\_\_\_ 10" @ \$77.00/LF \_\_\_\_\_ 6" @ \$47.00/LF

MANHOLE \_\_\_\_\_ @ \$5119.00/EA \_\_\_\_\_

LINED MANHOLE \_\_\_\_\_ @ \$15000.00/EA \_\_\_\_\_

SEWER CLEANOUT \_\_\_\_\_ @ \$1689.00/EA \_\_\_\_\_

SEWER TAP \_\_\_\_\_ @ \$1689.00/EA \_\_\_\_\_

MISC \_\_\_\_\_ @ \_\_\_\_\_

(DESCRIPTION) (Qty) (unit cost)

NOTE: UNDER 500' OR ROCKY GROUND – DOUBLE PRICE  
UNDER 1000' – ADD \$4.00LF.

Pavement Replacement Perpendicular to CL \$50/SY Parallel to CL \$40/SY \_\_\_\_\_

**TOTAL** \_\_\_\_\_

**Professional Engineer's Seal (required)**



In accordance with Arizona Administrative Code Title 18, Chapter 4-505, all proposed additions or extensions to a public water system require a water design report. The report should describe the proposed construction and basis of design, provide design data and other pertinent information that defines the work to be done, and establish the adequacy of the design to meet the system demand.

In accordance with this state requirement, the city of Phoenix now requires a water design report be submitted for all proposed water distribution systems within the city. The design report shall include a description of the project, the basis of the design, calculations for project design, any modeling, and other information needed to gain a clear understanding of the project. The design report shall be signed and sealed by an Arizona registered engineer. The following is a general guideline for information to include in the report:

- Water main design on peak flow plus fire flow. Peak day flow shall be 2.0 times the average day flow and the peak hour shall be 1.7 times the peak day flow.
- Water main designed to 1) maintain between 50 and 100 psi during peak hour conditions at a flow velocity of less than or equal to five (5) fps, and 2) maintain a pressure greater than or equal to 25 psi at a point of maximum fire draft, at a flow velocity of less than or equal to 10 fps. The pipe diameter shall be sized based on the largest diameter calculated from the two conditions above.
- Reminder – these design parameters supersedes the minimum requirements in the Design Standards Manual for Water and Wastewater Systems Section 3.4.3, “Pipe-sizing” in which it states the prescribed minimum requirement of 12-inch in major streets, 8-inch mains in collector streets, and 6-inch mains in local streets in case of conflict regarding design minimums.
- The professional engineer should provide flow calculations and any necessary computer models for the two scenarios described above to provide documentation for the basis of design. The professional engineer should provide a clear, understandable schematic of the system showing the junction nodes, pipes, etc., for any computer modeling. The professional engineer should also provide input data which shows the pipe diameter, pipe lengths, system demands, pipe flows AND output data which shows pressures, velocities, head loss and flow rates.

For additional information refer to the *Design Standards Water/Wastewater Systems Manual*, pages 16 – 19, for discussion about water demand and an example of how to determine the design flows.



**Application for Approval to Construct Drinking Water Distribution and Sewage Collection Systems Constructed by Private Developers**

For Drinking Water Distribution and Sewage Collection Systems Constructed by Private Developers

Complete and submit this form to obtain authorization to construct a drinking water system under Arizona Administrative Code (AAC) R18-5-505, or to construct a waste water collection system under General Aquifer Protection Permit (APP) 4.01, AAC R18-9-E301. Instructions are on Page 3.

APPLICATIONS WILL NOT BE ACCEPTED UNLESS FULLY COMPLETED.

Any changes in the approved construction-ready plans that require additional plan review after issuance of the Approval to Construct and/or Notice of Intent to Discharge under APP General Permit 4.01 will require a re-issuance of the Approval to Construct and/or Notice of Intent to Discharge under APP General Permit 4.01.

<p><b>Project Name:</b> _____</p> <p><b>COP Project (KIVA) No.</b> _____</p> <p><b>SDEV or CCPH No.</b> _____</p>	<p><b>Project Location:</b></p> <p>Nearest intersection: _____</p> <p>City Quarter Section Number(s) _____</p>
<p><b>Project Applicant:</b></p> <p>Name _____</p> <p>Firm: _____</p> <p>Address _____</p> <p>_____</p> <p>Phone _____ Email _____</p>	<p><b>Professional Engineer Information:</b></p> <p>Name _____</p> <p>Firm _____</p> <p>Address _____</p> <p>_____</p> <p>Phone _____ Email _____</p>
<p><input type="checkbox"/> <b>City of Phoenix Water System.</b> Proposed drinking water distribution system will be owned and operated by the City of Phoenix.</p> <p><input type="checkbox"/> <b>City of Phoenix Sewage System.</b> Proposed sewage collection system will be owned and operated by the City of Phoenix.</p>	
<p><b>Project description including title of plat and legal description with section, township and range, and latitude and longitude (center):</b></p> <p>_____</p> <p>_____</p> <p>_____</p>	

For more information or for a copy of this publication in an alternate format, contact Planning & Development at 602-262-7811 voice or TTY use 7-1-1.

**City of Phoenix Development Services Department**

<p><b>Quantities:</b></p> <p>Water Main    L.F. _____ Size _____ in                            L.F. _____ Size _____ in                            L.F. _____ Size _____ in                            L.F. _____ Size _____ in</p> <p>Taps            Quantity _____</p>	<p>Sewer Main    L.F. _____ Size _____ in                            L.F. _____ Size _____ in                            L.F. _____ Size _____ in</p> <p>Force mains    L.F. _____ Size _____ in</p> <p>Taps            Quantity _____</p>
---	--

<p><b>Schedule:</b></p> <p>Estimated Start Date: _____</p>	<p>Estimated Completion Date: _____</p>
--	---

**The following information submittal requirements for Approval to Construct and/or Notice of Intent to Discharge under APP General Permit 4.01 are attached:**

- Professional Engineer’s Design Reports.** Design reports (one for drinking water and one for sewage) shall provide water demands and wastewater flows including the basis for the calculations; describe the proposed construction and basis of design; provide design data and hydraulic calculations; and establish the adequacy of the design of the water and/or sewer system to meet system water demands and sewer flows. Planning and Development Department (PDD) will confirm with Water Services Department that there is capacity in the existing treatment plants and collection system to receive the flows from the proposed sewage collection system and/or the existing water system will meet the domestic and fire demands of the proposed potable water system. Design reports shall be signed and sealed by an Arizona registered professional engineer.
- Complete Construction-Ready Design Plans.** Plans shall be signed and sealed by an Arizona registered professional engineer.
- Other.** \_\_\_\_\_

**Certification of Compliance**

I certify that this Application for Approval to Construct and/or Notice of Intent to Discharge Under APP General Permit 4.01 and all attachments were prepared under my direction or authorization and all information is, to the best of my knowledge, true, accurate, and complete.

I certify that the sewage collection system described in this form will be designed and constructed in accordance with the approved plans and specifications; the terms and conditions of General Aquifer Protection Permit 4.01 (AAC R18-9-E301); the applicable requirements of Arizona Revised Statutes, Title 49, Chapter 2; Arizona Administrative Code, Title 18, Chapter 9 regarding Aquifer Protection Permits. I am aware that there are significant penalties for submitting false information including permit revocation as well as the possibility of fine and imprisonment for knowing violations.

I certify that the potable water distribution system described in this form will be designed and constructed in accordance with the approved plans and specifications; the terms and conditions of the Drinking Water Systems (AAC R18-5-505) and requirements of Arizona Revised Statutes Title 49, Chapter 2, and Arizona Administrative Code Title 18, Chapter 5. I am aware that there are significant penalties for submitting false information including permit revocation as well as the possibility of fine and imprisonment for knowing violations.

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Applicant

**APPLICATION FOR APPROVAL TO CONSTRUCT AND/OR NOTICE OF INTENT TO DISCHARGE UNDER APP GENERAL PERMIT 4.01**

**Instructions for Completing Form**

**Project Name:** The Project Name should match the name as specified on the related plans and the recorded subdivision plat.

**COP Project No.:** Provide the "KIVA" number that was provided by Development Services Department.

**Project Location:** Indicate the nearest major intersections

**Project Applicant:** The person named on the form must be the **owner of the project or a person with fiduciary responsibility with an established legal entity** (e.g. corporation, LLC, partnership). Only the owner or a person with fiduciary responsibility for the entity can be issued a permit or can be inclusively viewed as responsible for compliance.

**Professional Engineer Information:** Name of Engineer must be an Arizona Registered Professional Engineer (in active status) with an Arizona Registered Engineering Firm.

**City of Phoenix Water System.** Check this box if proposed drinking water distribution system will be dedicated to the City of Phoenix to own and operate.

**City of Phoenix Sewer System.** Check this box if proposed sewage collection system will be dedicated to the City of Phoenix to own and operate.

**Project Description:** Clearly state the scope of the project indicating if it is on-site or off-site infrastructure and how the project relates to the subdivision plat. This field will be used to match the permits issued with the approved plat when an Approval of Sanitary Facilities for Subdivision is requested from the Arizona Department of Environmental Quality for the Arizona Department of Real Estate, Subdivision Public Report.

**Quantities:** Estimate the lengths of water and sewer main to be constructed

**Schedule:** Entries for estimated start date and estimated completion date are restricted by State code. For water systems: begin construction within one year of this document and complete construction within three years after the date construction begins, or this document shall be void unless a time extension is requested and approved in writing. For sewer systems: complete construction within two years after the date construction begins, or this document shall be void and a new Notice of Intent to Discharge must be submitted for review and approval.

**Required Attachments:** Instructions are provided in that section of form.

**Certification of Compliance:** This certification must be signed by the project owner. The person named on the form must be the **owner of the project or a person with fiduciary responsibility with an established legal entity** (e.g. corporation, LLC, partnership). This person's name will be on the approval certificate (or issued the permit).



**Approval to Construct and/or Construction Authorization**

For Drinking Water Distribution and Sewage Collection Systems Constructed by Private Developers

<b>Project Name:</b> _____ _____ <b>COP Project No.</b> _____ <b>SDEV or CCPH No.</b> _____ <b>CPSE/CPWT No.</b> _____ <b>P&amp;D Permit No.</b> _____ <b>P&amp;D Permit No.</b> _____ <b>P&amp;D Permit No.</b> _____ <b>P&amp;D Permit No.</b> _____	<b>Project Owner:</b> Name _____ Firm _____ Address _____ _____ <b>Professional Engineer:</b> Name _____ Firm _____ Address _____
---	---

- City of Phoenix Water System.** Proposed drinking water distribution system will be owned and operated by the City of Phoenix.
- City of Phoenix Sewer System.** Proposed sewage collection system will be owned and operated by the City of Phoenix.

**Project Description including title of plat, legal description with section, township and range, and latitude and longitude:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Checklist for Approval to Construct and/or Construction Authorization**

Application for Approval to Construct and/or Notice of Intent to Discharge submitted and complete.

Professional Engineer's Design Report Submitted.

P&D has confirmed with WSD that there is capacity in existing treatment plants and collection system to receive flows from the proposed sewage collection system \_\_\_\_\_

WSD Representative                      Date

Approved design plans and specifications, signed and sealed by an Arizona registered professional engineer.

Other \_\_\_\_\_

This Approval to Construct and/or Construction Authorization is in accordance with Arizona Administrative Code (AAC), Title 18, Chapter 5 (Reviews and Certifications); Title 18, Chapter 9, Article 3 (Aquifer Protection Permits). The applicant is authorized to construct the above-described facilities in accordance with the approved plans and specifications, the requirements of the 4.01 General Permit and the applicable requirements AAC, Title 18, Chapter 5; Title 18, Chapter 9, Article 3. For water systems: begin construction within one year of this document and complete construction within three years after the date construction begins, or this document shall be void unless a time extension is requested and approved in writing. For sewer systems: complete construction within two years after the date construction begins, or this document shall be void and a new Notice of Intent to Discharge must be submitted for review and approval.

City of Phoenix Health Delegate Signature \_\_\_\_\_  
 Date letter created \_\_\_\_\_ Date signed \_\_\_\_\_

Sewer main plans and/or water main plans approved by Water Service Department as shown by asterisks (\*\*)



**Interim Approval of Construction and/or Interim Discharge Authorization**  
For Drinking Water Distribution and Sewage Collection Systems Constructed by Private Developers

<p><b>Project Name:</b> _____</p> <p><b>COP Project No.</b> _____</p> <p><b>SDEV or CCPH No.</b> _____</p> <p><b>CPSE/CPWT No.</b> _____</p> <p><b>P&amp;D Permit No.</b> _____</p> <p><b>P&amp;D Permit No.</b> _____</p> <p><b>P&amp;D Permit No.</b> _____</p> <p><b>P&amp;D Permit No.</b> _____</p>	<p><b>Project Owner:</b></p> <p>Name _____</p> <p>Firm _____</p> <p>Address _____</p> <p><b>Professional Engineer:</b></p> <p>Name _____</p> <p>Firm _____</p> <p>Address _____</p>
<p><input type="checkbox"/> <b>City of Phoenix Water System.</b> Proposed drinking water distribution system will be owned and operated by the City of Phoenix.</p> <p><input type="checkbox"/> <b>City of Phoenix Sewer System.</b> Proposed sewage collection system will be owned and operated by the City of Phoenix.</p>	
<p><b>Project Description including title of plat, legal description with section, township and range, and latitude and longitude:</b> _____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	
<p><b>Checklist for Interim Approval of Construction and/or Discharge Authorization</b></p> <p><input type="checkbox"/> Professional Engineer's Certificate of Completion submitted</p> <p><input type="checkbox"/> As-Built Plans Submitted, Approved, and Mapped</p> <p><input type="checkbox"/> All testing satisfactorily completed, and reports submitted</p> <p><input type="checkbox"/> Other _____</p>	
<p>This Interim Approval of Construction and/or Discharge Authorization is issued in accordance with City of Phoenix Technical Review Team document number 00557 (State Delegate, Interim acceptance of public water &amp; sewer mains).</p>	
<p>City of Phoenix Health Delegate Signature _____ Date _____</p>	
<p>Sewer main plans and/or water main plans approved by Water Services Department as shown by asterisks (**)</p>	



**Approval of Construction and/or Discharge Authorization**

For Drinking Water Distribution and Sewage Collection Systems Constructed by Private Developers

<p><b>Project Name:</b> _____</p> <p><b>COP Project No.</b> _____</p> <p><b>SDEV or CCPH No.</b> _____</p> <p><b>CPSE/CPWT No.</b> _____</p> <p><b>P&amp;D Permit No.</b> _____</p> <p><b>P&amp;D Permit No.</b> _____</p> <p><b>P&amp;D Permit No.</b> _____</p> <p><b>P&amp;D Permit No.</b> _____</p>	<p><b>Project Owner:</b> Name _____</p> <p>Firm _____</p> <p>Address _____</p> <p>_____</p> <p><b>Professional Engineer:</b> Name _____</p> <p>Firm _____</p> <p>Address _____</p>
<p><input type="checkbox"/> <b>City of Phoenix Water System.</b> Proposed drinking water distribution system will be owned and operated by the City of Phoenix.</p> <p><input type="checkbox"/> <b>City of Phoenix Sewer System.</b> Proposed sewage collection system will be owned and operated by the City of Phoenix.</p>	
<p><b>Project Description including title of plat, legal description with section, township and range, and latitude and longitude:</b> _____</p> <p>_____</p> <p>_____</p> <p>_____</p>	
<p><b>Checklist for Approval of Construction and/or Discharge Authorization</b></p> <p><input type="checkbox"/> Professional Engineer's Certificate of Completion submitted</p> <p><input type="checkbox"/> As-Built Plans Submitted, Approved, and Mapped</p> <p><input type="checkbox"/> Final adjustments completed and accepted</p> <p><input type="checkbox"/> All testing satisfactorily completed, and reports submitted</p> <p><input type="checkbox"/> Other _____</p>	
<p>This Approval of Construction and/or Discharge Authorization is issued in accordance with Arizona Administrative Code, Title 18, Chapter 5 (Reviews and Certifications); Title 18, Chapter 9, Article 3 (Aquifer Protection Permits).</p>	
<p>City of Phoenix Health Delegate Signature _____</p> <p>Date signed _____</p>	
<p>Sewer main plans and/or water main plans approved by Water Service Department as shown by asterisks (**)</p>	



Project Name: \_\_\_\_\_ Project No.: \_\_\_\_\_

Project Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Quarter Section: \_\_\_\_\_ APN: \_\_\_\_\_ Acreage: \_\_\_\_\_

Project Description: \_\_\_\_\_

Property Owner Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ St.: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Architect/Professional Engineer of Record Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ St.: \_\_\_\_\_ Zip Code: \_\_\_\_\_

License # (if applicable): \_\_\_\_\_

General Contractor Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ St.: \_\_\_\_\_ Zip Code: \_\_\_\_\_

License #: \_\_\_\_\_

**Environmental Responsibility Acknowledgement and Certification**

As the property owner, or an agent authorized by the property owner, I acknowledge and understand that this project and the activities related to this project may be subject to county, state, tribal and Federal environmental, natural and cultural resource rules and laws including, but not limited to, those regarding:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>Air Quality / Dust Control</li> <li>Archaeological / Cultural /</li> <li>Historic Resources</li> <li>Asbestos / Lead Abatement Act</li> <li>Endangered Species</li> <li>Hazardous Substances</li> </ul> | <ul style="list-style-type: none"> <li>Clean Water Act (NPDES, Section 404, Water Quality</li> <li>Comprehensive Environmental Response Compensation and Liability</li> <li>Act (CERCLA, superfund)</li> <li>County Environmental health (Septic Systems, Wells, Water /</li> <li>Wastewater, Vector Control)</li> <li>Resource Conservation and Recovery Act (Hazardous Waste)</li> </ul> |
|--|--|

In addition, as the property owner, or as an agent authorized by the property owner, I hereby certify that all County, State, Tribal and Federal permits applicable to this project will be obtained, and all requirements or conditions of such permits and all environmental laws will be complied with to the best of my knowledge. **NOTE: This certification must be completed, notarized, and submitted to the city of Phoenix Planning and Development Department before plans or permits may be approved for any part of this project. Use or occupancy of any part of this project without final approval from the city of Phoenix is a violation of the Phoenix City Code.**

Owner /  Authorized Agent \_\_\_\_\_  
Name (printed)

Signature \_\_\_\_\_ Date \_\_\_\_\_

Acknowledged before me this \_\_\_\_ Day of \_\_\_\_\_, 20\_\_

My Commission Expires: \_\_\_\_\_ Notary Public: \_\_\_\_\_

This publication can be made available in alternate formats (Braille, large print or digital media) upon request. Contact Planning & Development at (602) 262-7811 voice or (602) 534-5500 TTY.



This form is used to request the modification to, elimination of, or encroachment within a public utility easement (PUE). After completing this application, attach an exhibit of the affected area. This form must accompany the Appeal Application – Subdivision Plat and Traffic form (TRT 00065) requesting the change or removal of the standard PUE.

Date: \_\_\_\_\_ KIVA #: \_\_\_\_\_ Plan Review #: \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Location: \_\_\_\_\_ City of Phoenix Quarter Section #: \_\_\_\_\_

Applicant: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Contact Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Email Address: \_\_\_\_\_

**Check all applicable boxes for this request:**

- Modification to PUE (Reduce standard width of PUE to be dedicated)  
Technical Appeal Required
- Elimination of PUE (Removal of PUE dedication requirement)  
Technical Appeal Required
- Encroachment within PUE (Structure placed within existing PUE)  
Technical Appeal Required
- Approval of construction location in proximity to PUE or alley where there are existing overhead electric lines on, across, or immediately adjacent to the property.

Description of Work:

For more information or for a copy of this publication in an alternate format, contact Planning & Development at 602-262-7811 voice or TTY use 7-1-1.

**Exhibit Included**

Provide an exhibit (11" x 17" maximum) that clearly indicates the limits of construction. Easements, right-of-way, paving, and all existing utilities should be fully dimensioned.

**Utility Approval**

Contact all pertinent utility companies. In addition, there may be private irrigation lines in the PUE. Provide written confirmation of approval from all appropriate utility representatives. The list below is provided for your reference. Information your civil plan reviewer of any new contact information.

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**Arizona Public Service**

Right of Way Services

Phone: 602-371-6966

Email: [landservices@apsc.com](mailto:landservices@apsc.com)

Approved  N/A

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**Salt River Project**

Michael Laguna

Phone: 602-236-3116

Fax: 602-236-8193

Website: <https://www.srpnet.com/about/land/secure/landdepartment/easementencroachment.aspx>

Approved  N/A

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**Cox Communications**

Traffic Management Center (TMC)

Phone: 623-328-3554

Fax: 623-322-7500

Email: [az.jointuse@cox.com](mailto:az.jointuse@cox.com)

Approved  N/A

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**Lumen Technologies (formerly CenturyLink)**

Right of Way Department

Email: [Nre.Easement@lumen.com](mailto:Nre.Easement@lumen.com)

Approved  N/A

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**El Paso Natural Gas Company**

Steve Weatherhead/ Nick Amoroso, Right of Way Management

Phone: 520-509-3265 / 520-509-3272

Email: [Steve.Weatherhead@kinermorgan.com](mailto:Steve.Weatherhead@kinermorgan.com) / [Nick.Amoroso@kindermorgan.com](mailto:Nick.Amoroso@kindermorgan.com) (Please call first)

Approved  N/A

**Southwest Gas Corporation**

Right of Way Department

Fax: 702-364-7678

Email: [caz-rowrequest@swgas.com](mailto:caz-rowrequest@swgas.com)

Approved  N/A

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**City of Phoenix Water Services Department**

Infrastructure Records Services

Phone: 602-495-5601

TTY: 7-1-1

Fax: 602-495-5461

Email: [irspubliccounter.wsd@phoenix.gov](mailto:irspubliccounter.wsd@phoenix.gov)

Approved  N/A

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**Private Irrigation**

Approved  N/A

Agency: \_\_\_\_\_

Contact: \_\_\_\_\_

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For assistance locating the private irrigation system in your area, utilize the resources below:

**Maricopa County Irrigation Water Delivery Information**

Searchable Database: <https://gis.maricopa.gov/cob/taxdistricts/>

District List\*: <https://www.maricopa.gov/DocumentCenter/View/50505/Special-Districts-and-Contacts>

*\* List is updated frequently. If link does not work, search for 'maricopa county irrigation water delivery information district list' in your web browser.*

**SRP Private Irrigation Maps**

Phone: 602-236-3333

Email: [waterdel@srpnet.com](mailto:waterdel@srpnet.com)

Website: [srpnet.com/irrigation](http://srpnet.com/irrigation)

Note: Water user approval must be included in the technical appeal submittal.



This document outlines the minimum requirements for construction staking within public rights-of-way or easements. They apply to commercial and residential projects with permits for grading and drainage (G&D), drainage facilities, sanitary sewer, storm drain, water, concrete, and/or paving. The Civil/Site Inspector will confirm that the construction staking is installed as required below. Deviations from this policy may be allowed by the Civil/Site Inspector if extraordinary field conditions exist.

### Sanitary Sewer/Storm Drain

1. Cut stakes shall be set for grade and line at 25-foot intervals and at each manhole. Grades shall be set to the invert of pipe. The contractor and consultant shall agree upon offset. Line stakes shall be provided for all services.
2. An offset grade stake shall be set for each manhole.

### Water

1. Cut stakes shall be set for grade and line at 50-foot intervals. Grades shall be set to the invert of pipe. Line stakes shall be provided for all services, fittings, and other critical points. The contractor and consultant shall agree upon offset.
2. Offset stakes shall be set for location and grade for fire hydrants.

### Curb and Gutter

1. Curb stakes shall be set to grade (i.e., bluetops) and tacked for line at 25-foot intervals. The contractor and consultant shall agree upon offset.
2. Cut and fill stakes will be allowed only in instances where offset grades preclude the setting of stakes to grade.
3. Control point stakes (i.e., grade breaks, angle points, transitions, end of aprons, returns, etc.) shall be set to grade, tacked to line, and provided with distinct flagging to differentiate from curb and gutter staking.
4. A reference hub shall be installed for each control point stake.

### Sidewalks

1. Staking of sidewalk is not required if it is installed adjacent to curb.
2. Stakes shall be set to line and grade on 25-foot intervals for detached sidewalk.
3. Stakes shall be installed for all control points.

### Paving

1. Centerline subgrade shall be staked to grade at 50-foot intervals. Streets wider than 40 feet from face of curb to face of curb shall also be staked to grade at 1/4 points at 50-foot intervals.
2. Centerline ABC shall be staked to grade at 50-foot intervals. Streets wider than 40 feet from face of curb to face of curb shall also be staked to grade at 1/4 points at 50-foot intervals.
3. After paving, locations for monuments shall be re-established, and after installation, monuments shall be punched.
4. Following paving, locations of all utilities that are to be adjusted shall be re-established.