

SPECIAL PROVISIONS
BID ITEM DESCRIPTIONS
BUCKEYE TOM JONES FORD ROAD IMPROVEMENTS

Miscellaneous Construction Activities

Item 1-Mobilization/Demobilization: The Contractor shall furnish all materials, personnel, and equipment necessary to mobilize/demobilize to/from the construction site to perform construction related activities related to the plans and specifications. Included in this are the Contractor related expenses to manage and conduct construction, including construction water and dust control, fencing, secure storage, and related activities associated with the proposed improvements.

Mobilization/Demobilization will be measured as a single complete item of work and paid as a lump sum price.

Item 2 -Traffic Control: The Contractor shall furnish all materials, personnel, and equipment necessary to provide traffic control during construction activities in accordance with the applicable City of Buckeye and ADOT Traffic Control standards. The Contractor shall prepare a Traffic Control Plan for the proposed construction related activities and submit it to the City of Buckeye and ADOT for approval prior to implementation of the plan.

Traffic Control will be measured as a single complete item of work and paid as a lump sum price.

Item 3 – Construction Surveying: The Contractor shall furnish all materials, personnel, and equipment necessary to perform surveying, staking, laying out control lines, verification of the accuracy of all existing control points which are delineated in the plans, conduct as-built surveys, prepare as-built set of drawings for submission to the City of Buckeye and to the Engineer of Record. This work shall be done under the direction of a Registered Land Surveyor licensed to practice in the State of Arizona.

All existing survey monuments that lie within the construction area that may be disturbed shall be referenced to a specific point on at least four (4) stable objects by distance measurement. Reference objects shall be located no greater than three-hundred (300) feet from the survey monument being referenced.

The Contractor shall set construction stakes and marks to establish lines and grades for road work, curbs, gutters, sidewalks, utilities and necessary appurtenances, and other work as indicated in the plans and shall be responsible for their conformance with the plans and applicable specifications. This item will also include completing and furnishing all certificates necessary to obtain acceptance of the project by all jurisdictions and/or agencies.

Surveying will be measured as a single complete item of work and paid as a lump sum price.

Item 4 - Inspections and Testing: The Contractor shall furnish all materials, personnel, and equipment necessary to perform all sampling, materials testing, and reporting of test results in accordance with the applicable Maricopa Association of Governments Uniform Standard Specifications for Public Works Construction as applicable per the following Materials Testing & Sampling Guide or as directed by the City of Buckeye Engineering Department.

MATERIALS TESTING & SAMPLING GUIDE

MAG Specification Section	Material	Type of Test (s) Required	Sampling Point	Minimum Sampling Frequency
205, 206, 301, 601,	Soil Backfill Or Trench Backfill	Proctor Density	In-Place	One per soil type
		Compaction	In-Place	One per 500ft per lift
	Subgrade	Proctor Density	Roadway	One per soil type
		Compaction	Roadway	One per 500ft, per lift
		Gradation, PI	In-Place Roadway	One per soil type
Manholes and Laterals	Compaction	In-Place	One per structure, pipe & lateral trench at various lifts	
205, 601	Roadway Excavation, Embankments	Proctor Density	In-Place	One per soil type
		Compaction	In-Place	One per 1,000 CY
		Gradation, PI	In-Place Or Source	One per soil type
211	Fill Construction	Compaction	In-Place	One per 500ft, per 8" Lift (MAG 211.3)
701,702	Aggregate Base* (ABC)	Proctor Density	Roadway and Pipe Bedding	At start of production, then as material Changes
		Compaction	Roadway and Pipe Bedding	One per 500ft, per lift, per lane pass
		Gradation, PI	Roadway and Pipe Bedding	One per project, or one per 1,000 tons or fraction thereof
321, 322	Hot In-Place Asphaltic Concrete	Mix Design Properties		Test Not Required
		Density/Nuclear	Roadway	One per 500ft, per lift, per lane pass
		Density/Core	Roadway	5 to 7 cores per mix/ Project ** (additional cores to be taken if source or mix changes)

MAG Specification Section	Material	Type of Test (s) Required	Sampling Point	Minimum Sampling Frequency
321, 322, 710	Hot In-Place Asphaltic Concrete	Oil Content and Gradation **	If no City Inspector At Plant, Sample In-Place	One per day or One per 500 tons Or fraction Thereof
505, 701, 702, 725	Concrete Flat Work, Cast-in-Place Concrete, or Structural Concrete	Compressive Strength	At Discharge	One set of four cylinders per 50 CY Or one per shift
		Slump, Time & Temperature ***	At Discharge	One per set of Cylinders
701, 702 725, 728	Lean Mix Concrete (Slurry)	Compressive Strength	At Discharge	One set of four cylinders per shift

Remarks:

1. All Compaction failures will be re-tested using a Sandcone. Any resulting failure will be re-worked before any re-tests are performed.
2. The Nuclear Gauge shall be calibrated against the Sandcone at least every ten tests or per the City Engineer. Rock correction shall be used for any +#4 material to obtain Max Proctor Density.
3. The City Inspector on an as needed basis may require additional tests.
4. Manhole shafts & Concrete Pipe need to have acceptance stamp on them and VCP need D-Load test results from Certified Lab.

- * If Asphalt Millings are used for bedding, they shall meet the requirements of virgin aggregate base course. Asphalt Millings are not accepted as ABC for pavement cross section.
- ** Asphalt deficient in oil content, at the direction of the City Inspector/Lab, will be cored 50' on both sides of the failed section. The results of these 2 cores will be averaged with the original test result. Also the cores for gauge calibration.
- *** Concrete Specification for time shall be 90 minutes and temperature is 90 degrees

Sampling, materials testing, and reporting of test results will be measured as a single complete item of work and be incorporated into the Contractor's Schedule of Values.

Removals/Relocations

Item 5 – Sawcut and Remove Existing Pavement: The Contractor shall furnish all materials, personnel, tools and equipment necessary to remove existing asphalt pavement designated on the improvement plans and in accordance with the applicable specifications. This item shall include sawcuts, milling, removal, disposal and haul off of

pavement fill material, and backfill and compaction of the fill material to the level of proposed pavement subgrade or finished grade in areas outside the limits of the proposed pavement.

Payment for this item will be based on a square yard basis of pavement removed.

Item 6 – Sawcut and Remove Existing Curb and Gutter: The Contractor shall furnish all materials, personnel, tools and equipment necessary to remove existing single curb, curb and gutter, embankment curb and temporary curb designated on the improvement plans and in accordance with the applicable specifications. This item shall include sawcuts, removal and disposal of curb materials, fill material and backfill and compaction of fill material to the level of proposed pavement subgrade or finished grade in areas outside the limits of proposed pavement.

Payment for this item will be based on a linear foot basis of curb removed.

Item 7 – Sawcut Existing Pavement/concrete and Replace with T-Top per MAG 200: The Contractor shall furnish all materials, personnel, tools and equipment necessary to remove and replace any existing pavement/concrete designated on the improvement plans with T-Top per MAG 200 and in accordance with the applicable specifications. This item shall include demolition, excavation, disposal, fill material, backfill and compaction and replacement with T-Top per MAG 200 to the level of proposed pavement/concrete or finished grade in areas outside the limits of the proposed pavement.

Payment for this item will be based on a square yard basis of pavement/concrete removed and replaced.

Item 8 – Salvage and relocate existing Cacti: The Contractor shall furnish all materials, personnel, tools and equipment necessary to salvage and relocate existing cacti as indicated on the plans in accordance with the applicable specifications. This item shall include excavation, transportation, watering reestablishment, and backfill around the relocated cacti.

Payment for this item will be based on a unit basis of each Cacti salvaged and relocated.

Earthwork/Paving

Item 9 – Site Prep., Clearing, Grubbing: The Contractor shall furnish all materials, personnel, tools and equipment necessary for site prep., clearing, and grubbing as designated on the improvement plans and in accordance with the applicable specifications.

Payment for these items will be based on an acre basis of site prep., clearing, and grubbing complete in place.

Item 10 – Total Cut, Place, and Compact Material: The Contractor shall furnish all materials, personnel, tools and equipment necessary for cut, place, and compact material designated on the improvement plans and in accordance with the applicable specifications.

Payment for these items will be based on a cubic yard basis of total cut, place, and compact material complete in place.

Item 11 – Cut and Off-Site Disposal of spoils: The Contractor shall furnish all materials, personnel, tools and equipment necessary for cut and off-site disposal of soils from the roadway improvements in accordance with the City of Buckeye applicable requirements and specifications.

Payment for this item will be based on a cubic yard basis of cut and off-site disposal.

Item 12 – Final Grading of Roadway: The Contractor shall furnish all materials, personnel, tools and equipment necessary for the final grading of roadway designated on the improvement plans and in accordance with the applicable specifications.

Payment for this item will be based on a square yard basis of the final grading of roadway complete in place.

Item 13 – Heavy Duty AC Pavement – 6” AC on 12” ABC: The Contractor shall furnish all materials, personnel, tools and equipment necessary to install asphaltic concrete pavement over aggregate base course (“ABC”) at the locations specified in the plans and in accordance with the Heavy Duty Asphalt Pavement Detail shown on the improvement plans and applicable specifications. This item will include furnishing, placement, and compaction of aggregate base course material and asphaltic concrete courses. Subgrade preparation per MAG Specification 301 is also included in this item.

Payment for this item will be based on a square yard basis of asphaltic concrete over ABC installed complete and ready for vehicular traffic.

Item 14 – Heavy Duty Concrete Pavement and Driveway Entrances – 9” PCCP on 4” ABC on Compacted Subgrade: The Contractor shall furnish all materials, personnel, tools and equipment necessary to install heavy duty concrete materials with fiber mesh at the locations specified in the plans and in accordance with the Heavy Duty Concrete Pavement Detail (including 4” AB as specified) shown on the improvement plans (including driveway entrances) and applicable specifications. This item will include furnishing, placement, finishing, testing, curing, scoring, saw cutting of concrete pavement, and aggregate base course. Subgrade preparation per MAG Specification 301 and geotechnical recommendations is also included in this item.

Payment for this item will be based on a square yard basis of heavy duty concrete pavement installed complete and ready for vehicular traffic.

Item 15 – Thickened Edge: The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct thickened pavement edge per MAG standard detail 201 Type ‘A’ and the applicable specifications as indicated on the plans. This item will include excavation, asphalt, backfill, compaction, and all other work necessary to construct the thickened edge as specified.

Payment for this item will be based on a linear footage of thickened edge complete in place.

Item 16 – 6” Vertical Curb and Gutter: The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct vertical curb and gutter per MAG Det 220, Type A as shown on the improvement plans and included in the applicable specifications. This item will include form work, expansion joints, construction joints, testing, finishing, curing, backfill and sawcuts, and all other work necessary to construct the vertical curb and gutter complete in place as specified.

Payment for these items will be based on a linear foot basis of concrete curb and gutter complete in place.

Item 17 – 6” Single Curb: The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct 6” single curb Per MAG Det 222, Type A as shown on the improvement plans and included in the applicable specifications. This item will include form work, expansion joints, construction joints, testing, finishing, curing, backfill, sawcuts, and all other work necessary to construct the 6” single curb complete in place as specified.

Payment for these items will be based on a linear foot basis of concrete 6” single curb complete in place.

Item 18 – Concrete Sidewalk: The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct concrete sidewalk Per MAG Det 230 as shown on the improvement plans and included in the applicable specifications. This item will include form work, expansion joints, construction joints, testing, finishing, curing, backfill, saw cuts, and all other work necessary to construct the sidewalk complete in place as specified.

Payment for these items will be based on a square foot basis of concrete sidewalk complete in place.

Item 19 – Sidewalk Ramp per MAG 235-2: The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct sidewalk ramps with truncated domes per MAG standard detail 235-2 and the applicable specifications. This item will include form work, truncated domes, expansion joints, construction joints, testing, finishing, curing, backfill, saw cuts, and all other work necessary to construct the sidewalk ramps complete in place as specified.

Payment for this item will be based on a unit basis of each sidewalk ramp with truncated domes complete in place.

Item 20 – Sidewalk Ramp per MAG 235-1 : The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct sidewalk ramps with truncated domes per MAG standard detail 235-2 and the applicable specifications, as indicated on the plans. This item will include form work, truncated domes, expansion joints, construction joints, testing, finishing, curing, backfill, saw cuts, and all other work necessary to construct the sidewalk ramps complete in place as specified.

Payment for this item will be based on a unit basis of each sidewalk ramp with truncated domes complete in place.

Item 21 – Adjust Valve Box/Sewer Cleanouts to Grade: The Contractor shall furnish all materials, personnel, tools and equipment necessary to adjust water valves/sewer cleanouts to grade per MAG standard detail 391-1 and the applicable specifications as indicated on the plans. This item will include form work, concrete, finishing, curing, backfill, saw cuts, and all other work necessary to construct the complete the adjustment in place as specified.

Payment for this item will be based on a unit basis of each valve adjustment complete in place.

Item 22 – Adjust Manhole to Grade: The Contractor shall furnish all materials, personnel, tools and equipment necessary to adjust manhole to grade per MAG standard detail 422 and the applicable specifications as indicated on the plans. This item will include form work, concrete, finishing, curing, backfill, saw cuts, and all other work necessary to construct the complete the adjustment in place as specified.

Payment for this item will be based on a unit basis of each manhole adjustment complete in place.

Item 23 – Barricades: The Contractor shall furnish all materials, personnel, tools and equipment necessary to install barricades Type 'B' barricade per MAG standard detail 130 as designated on the improvement plans and in accordance with the applicable specifications.

Payment for this item will be based on a linear foot of barricade complete in place.

Item 24 – Survey Markers: The Contractor shall furnish all materials, personnel, tools and equipment necessary to install survey markers as designated on the improvement plans, per MAG standard detail 120, and in accordance with the applicable specifications.

Payment for this item will be based on a unit basis of installing survey markers complete in place.

Item 25 – Signing and Marking: The Contractor shall furnish all materials, personnel, tools and equipment necessary to install signing and marking as designated on the improvement plans and in accordance with the applicable specifications.

Misc. signing and striping will be measured as a single complete item of work and be paid as a lump sum price.

Erosion and Sediment Control

Item 26 – Erosion Control System: The Contractor shall furnish all materials, personnel, tools and equipment necessary to install an erosion control system as designated on the improvement plans and in accordance with the applicable specifications.

The erosion control system will be measured as a single complete item of work and be paid as a lump sum price.

Drainage

Item 27 – 24” Class V Concrete Storm Drain Pipe and Fittings: The Contractor shall furnish all materials, personnel, tools and equipment necessary to handle, deliver and install 24” storm drain pipe in accordance with the applicable details on plans and with the manufacturer’s recommendations for installation and, insofar as such recommendations and provisions are not in variance with the standard specifications and details. This item will include removal of obstructions, excavation, bedding, backfilling, compacting, testing, joint material, pipe collars, plugs, connections to manholes and/or catch basins, and field closures.

Payment for these items will be based on a linear foot basis of furnishing and installing the 24” storm drain pipe and fittings, specials, adapters, etc. complete in place.

Item 28 – 18” Class V Concrete Storm Drain Pipe and Fittings: The Contractor shall furnish all materials, personnel, tools and equipment necessary to handle, deliver and install 18” storm drain pipe in accordance with the applicable details on plans and with the manufacturer’s recommendations for installation and, insofar as such recommendations and provisions are not in variance with the standard specifications and details. This item will include removal of obstructions, excavation, bedding, backfilling, compacting, testing, joint material, pipe collars, plugs, connections to manholes and/or catch basins, and field closures.

Payment for these items will be based on a linear foot basis of furnishing and installing the 18” storm drain pipe and fittings, specials, adapters, etc. complete in place.

Item 29 – Single Headwall Per MAG Det 501-3 Modified, Type U, with Handrails per City of Buckeye Det B-110 and Access Barrier per City of Buckeye Det B-508:

The Contractor shall furnish all materials, personnel, tools and equipment necessary to form and install single concrete headwalls per the plan modified MAG Standard Detail 501-3 at the locations specified on the improvement plans and in accordance with the applicable standard details and specifications. This item will include grading and excavation for placement of headwalls; subgrade preparation per applicable details and specifications; installation of concrete and reinforcing material; installation and removal of concrete formwork; backfill and compaction of backfill material; finished grading; and all other work necessary to construct the headwall complete in place as specified.

The Contractor shall furnish all materials, personnel, tools and equipment necessary to install handrails per City of Buckeye Detail B-110 at the locations specified on the improvement plans and in accordance with the applicable standard details and specifications. This item will include railing posts, fittings, anchorages, installation of handrails into the headwalls, and paint (color per City Inspector).

The Contractor shall furnish all materials, personnel, tools and equipment necessary to install access barrier per City of Buckeye Detail B-508 at the locations specified on the improvement plans and in accordance with the applicable standard details and specifications

Payment for this item will be based on a unit basis of each headwall complete in place.

Item 30 – Double Headwall Per MAG Det 501-3 Modified, Type U, with Handrails per City of Buckeye Det B-110 and Access Barrier per City of Buckeye Det B-508:

The Contractor shall furnish all materials, personnel, tools and equipment necessary to form and install double concrete headwalls per the plan modified MAG Standard Detail 501-3 at the locations specified on the improvement plans and in accordance with the applicable standard details and specifications. This item will include grading and excavation for placement of headwalls; subgrade preparation per applicable details and specifications; installation of concrete and reinforcing material; installation and removal of concrete formwork; backfill and compaction of backfill material; finished grading; and all other work necessary to construct the headwall complete in place as specified.

The Contractor shall furnish all materials, personnel, tools and equipment necessary to install handrails per City of Buckeye Detail B-110 at the locations specified on the improvement plans and in accordance with the applicable standard details and specifications. This item will include railing posts, fittings, anchorages, installation of handrails into the headwalls, and paint (color per City Inspector).

The Contractor shall furnish all materials, personnel, tools and equipment necessary to install access barrier per City of Buckeye Detail B-508 at the locations specified on the improvement plans and in accordance with the applicable standard details and specifications

Payment for this item will be based on a unit basis of each headwall complete in place.

Item 31 – Catch Basin Per City of Buckeye Det B-510A and B-510B: 6’ wing: The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct the catch basin at the location identified in the improvement plans and in accordance with the applicable specifications. Wing length of 6’ is identified in the improvement plans. This item will include the excavation, backfill, compaction, installation and/or construction of the catch basin, adjustment to grade, preparation of subgrade, concrete, reinforcing steel, items embedded in the concrete such as grates and frames, metal inserts, etc. and all other work necessary to construct the catch basin complete in place as specified.

Payment for these items will be based on a unit basis of catch basin complete in place.

Item 32 – Catch Basin Per City of Buckeye Det B-510A and B-510B: 10’ wing: The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct the catch basin at the location identified in the improvement plans and in accordance with the applicable specifications. Wing length of 10’ is identified in the improvement plans. This item will include the excavation, backfill, compaction, installation and/or construction of the catch basin, adjustment to grade, preparation of subgrade, concrete, reinforcing steel, items embedded in the concrete such as grates and frames, metal inserts, etc. and all other work necessary to construct the catch basin complete in place as specified.

Payment for these items will be based on a unit basis of catch basin complete in place.

Item 33 – Catch Basin Per City of Buckeye Det B-510A and B-510B: 17’ wing: The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct the catch basin at the location identified in the improvement plans and in accordance with the applicable specifications. Wing length of 17’ is identified in the improvement plans. This item will include the excavation, backfill, compaction, installation and/or construction of the catch basin, adjustment to grade, preparation of subgrade, concrete, reinforcing steel, items embedded in the concrete such as grates and frames, metal inserts, etc. and all other work necessary to construct the catch basin complete in place as specified.

Payment for these items will be based on a unit basis of catch basin complete in place.

Item 34 – Catch Basin Per City of Buckeye Det B-510A and B-510B: 17’ and 3’ wing: The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct the catch basin at the location identified in the improvement plans and in accordance with the applicable specifications. Wing lengths of 17’ and 3’ are identified in the improvement plans. This item will include the excavation, backfill, compaction, installation and/or construction of the catch basin, adjustment to grade,

preparation of subgrade, concrete, reinforcing steel, items embedded in the concrete such as grates and frames, metal inserts, etc. and all other work necessary to construct the catch basin complete in place as specified.

Payment for these items will be based on a unit basis of catch basin complete in place.

Item 35 – Rip-Rap (D50=6” Depth=12”): The Contractor shall furnish all materials, personnel, tools and equipment necessary to install rip rap at the locations shown on the improvement plans and in accordance with the applicable details of the improvement plans and specifications. This item will include excavation, ground surface preparation, bedding material, rip rap stone, grout and backfilling per applicable MAG specifications.

Payment for this item will be based on a square foot basis of total rip-rap installed complete. No separate measurement will be made for bedding material, or grout.

Item 36 – Rip-Rap (D50=6” Depth=20”): The Contractor shall furnish all materials, personnel, tools and equipment necessary to install rip rap at the locations shown on the improvement plans and in accordance with the applicable details of the improvement plans and specifications. This item will include excavation, ground surface preparation, bedding material, rip rap stone, grout and backfilling per applicable MAG specifications.

Payment for this item will be based on a square foot basis of total rip-rap installed complete. No separate measurement will be made for bedding material or grout.

Item 36A – Rip-Rap (D50=12” Depth=20”): The Contractor shall furnish all materials, personnel, tools and equipment necessary to install rip rap at the locations shown on the improvement plans and in accordance with the applicable details of the improvement plans and specifications. This item will include excavation, ground surface preparation, bedding material, rip rap stone, grout and backfilling per applicable MAG specifications.

Payment for this item will be based on a square foot basis of total rip-rap installed complete. No separate measurement will be made for bedding material or grout.

Item 37 – Gravel Disposal Trench Drain: The Contractor shall furnish all materials, personnel, tools and equipment necessary to install gravel disposal trench drain as shown on the improvement plans and in accordance with the applicable details of the improvement plans and specifications. This item will include excavation, ground surface preparation, erosion control geosynthetic fabric, bedding material, stone, and backfilling per applicable MAG specifications.

Payment for this item will be based on a unit basis of gravel disposal trench drains installed. No separate measurement will be made for erosion control geosynthetic fabric, bedding material, or rock.

Utilities

Sewer

Item 38 – 10” VCP Extra Strength: The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct 10” VCP Extra strength sewer pipe to the proposed elevations shown on the improvement plans and included in the applicable specifications. This item will include pipe plugs, lining, excavation, removal of obstructions, backfilling, compaction sheeting and bracing, testing, separation/protection (including encasements) of utilities per MAG Detail 404, and all incidental work not specifically covered in other pay items.

Payment for these items will be based on a linear foot basis of furnishing and installing the 10” VCP extra strength sewer pipe and fittings complete in place.

Item 39 – 8” VCP Extra Strength: The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct 8” VCP Extra strength sewer pipe to the proposed elevations shown on the improvement plans and included in the applicable specifications. This item will include pipe plugs, lining, excavation, removal of obstructions, backfilling, compaction sheeting and bracing, testing, separation/protection (including encasements) of utilities per MAG Detail 404, and all incidental work not specifically covered in other pay items.

Payment for these items will be based on a linear foot basis of furnishing and installing the 8” VCP extra strength sewer pipe and fittings complete in place.

Item 40 – Temporary Sewer Cleanout: The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct sewer cleanouts as specified on the improvement plans and in accordance with City of Buckeye detail 41270 and the applicable specifications. This item shall include all fittings, connections, excavation and backfill, plugs, approved meter box marked sewer, and all incidental work not specifically covered in other pay items.

Payment for this item will be based on a unit basis of each sanitary sewer manhole complete in place.

Item 41 – 60” Sanitary Sewer Manhole per MAG Det 420 : The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct 60” sanitary sewer manholes as specified on the improvement plans and in accordance with the applicable specifications. This item shall include concrete foundation, foundation walls, formed invert, ladder rungs, steps, connections to existing sewer mains, manhole frames, covers, excavation and backfill, pavement cut replacement in excess of the widths shown in the improvement plans and all incidental work not specifically covered in other pay items.

Payment for this item will be based on a unit basis of each sanitary sewer manhole complete in place.

Item 42 – 48” Sanitary Sewer Manhole per MAG Det 420: The Contractor shall furnish all materials, personnel, tools and equipment necessary to construct 48” sanitary sewer manholes as specified on the improvement plans and in accordance with the applicable specifications. This item shall include concrete foundation, foundation walls, formed invert, ladder rungs, steps, connections to existing sewer mains, manhole frames, covers, excavation and backfill, pavement cut replacement in excess of the widths shown in the improvement plans and all incidental work not specifically covered in other pay items.

Payment for this item will be based on a unit basis of each sanitary sewer manhole complete in place.

Item 43 – Concrete encasement per MAG std det 404: The Contractor shall furnish all materials, personnel, tools and equipment necessary to encase sanitary sewer line per MAG standard detail 404 for extra protection as specified on the improvement plans and in accordance with the applicable specifications. This item shall include excavation, concrete, rebar, backfill, compaction and all incidental work not specifically covered in other pay items.

Payment for this item will be based on a unit basis of each concrete encasement complete in place.

Item 44 – Connect to existing 10” Sewer Main: The Contractor shall furnish all materials, personnel, tools and equipment necessary to connect to the existing main as identified on the plans. This item shall include fittings, tracer wire, excavation, removal of obstructions, shoring and bracing, backfilling, compaction, maintenance of traffic, testing, and all work not specifically covered in other pay items.

Payment for this item will be based on a unit basis for each connection complete in place.

Water

Item 45 – 16” DIP Waterline, Pressure Class 350 w/ Fittings and Polywrap: The Contractor shall furnish all materials, personnel, tools and equipment necessary to handle, deliver and install 16” DIP waterline in accordance with the manufacturer’s recommendations and/or applicable provisions of AWWA standards for installation, insofar as such recommendations and provisions are not in variance with the standard specifications and details. This item will include fittings, tracer wire, polywrap, pipe plugs, excavation, removal of obstructions, shoring and bracing, backfilling, compaction, maintenance of traffic, testing, disinfecting, connections to existing lines or works, separation/protection (including encasements) of utilities per MAG Detail 404, and all work not specifically covered in other pay items.

Payment for these items will be based on a linear foot basis of 16" DIP waterline pipe and fittings, specials, adapters, etc. complete in place.

Item 46 – 12" DIP Waterline, Pressure Class 350 w/ Fittings and Ploywrap: The Contractor shall furnish all materials, personnel, tools and equipment necessary to handle, deliver and install 12" DIP waterline in accordance with the manufacturer's recommendations and/or applicable provisions of AWWA standards for installation, insofar as such recommendations and provisions are not in variance with the standard specifications and details. This item will include fittings, tracer wire, ploywrap, pipe plugs, excavation, removal of obstructions, shoring and bracing, backfilling, compaction, maintenance of traffic, testing, disinfecting, connections to existing lines or works, separation/protection (including encasements) of utilities per MAG Detail 404, and all work not specifically covered in other pay items.

Payment for these items will be based on a linear foot basis of 12" DIP waterline pipe and fittings, specials, adapters, etc. complete in place.

Item 47 – 8" DIP Waterline, Pressure Class 350 w/ Fittings and Polywrap: The Contractor shall furnish all materials, personnel, tools and equipment necessary to handle, deliver and install 8" DIP waterline in accordance with the manufacturer's recommendations and/or applicable provisions of AWWA standards for installation, insofar as such recommendations and provisions are not in variance with the standard specifications and details. This item will include fittings, tracer wire, polywrap, pipe plugs, excavation, removal of obstructions, shoring and bracing, backfilling, compaction, maintenance of traffic, testing, disinfecting, connections to existing lines or works, separation/protection (including encasements) of utilities per MAG Detail 404, and all work not specifically covered in other pay items.

Payment for these items will be based on a linear foot basis of 8" DIP waterline pipe and fittings, specials, adapters, etc. complete in place.

Item 48 – 6" DIP Waterline, Pressure Class 350 w/ Fittings and Polywrap: The Contractor shall furnish all materials, personnel, tools and equipment necessary to handle, deliver and install 6" DIP waterline in accordance with the manufacturer's recommendations and/or applicable provisions of AWWA standards for installation, insofar as such recommendations and provisions are not in variance with the standard specifications and details. This item will include fittings, tracer wire, polywrap, pipe plugs, excavation, removal of obstructions, shoring and bracing, backfilling, compaction, maintenance of traffic, testing, disinfecting, connections to existing lines or works, separation/protection (including encasements) of utilities per MAG Detail 404, and all work not specifically covered in other pay items.

Payment for these items will be based on a linear foot basis of 6" DIP waterline pipe and fittings, specials, adapters, etc. complete in place.

Item 49 – 2” Copper Type K Water Service w/ Fittings: The Contractor shall furnish all materials, personnel, tools and equipment necessary to handle, deliver and install 2” Copper Type ‘K’ waterline in accordance with the manufacturer’s recommendations and/or applicable provisions of AWWA standards for installation, insofar as such recommendations and provisions are not in variance with the standard specifications and details. This item will include fittings, tracer wire, pipe plugs, excavation, removal of obstructions, shoring and bracing, backfilling, compaction, maintenance of traffic, testing, disinfecting, connections to existing lines or works, separation/protection (including encasements) of utilities per MAG Detail 404, and all work not specifically covered in other pay items.

Payment for these items will be based on a linear foot basis of 2” Copper Type ‘K’ waterline pipe and fittings, specials, adapters, etc. complete in place.

Item 50 – Fire Hydrant Per MAG Det 360 and 362: The Contractor shall furnish all materials, personnel, tools, and equipment necessary to install fire hydrants at the locations specified on the improvement plans and in accordance with the applicable specifications. This item shall include fittings, tracer wire, markers per City of Buckeye detail 31440, excavation, removal of obstructions, shoring and bracing, backfilling, compaction, maintenance of traffic, testing, disinfecting, connections to existing lines or works and all work not specifically covered in other pay items.

Payment for this item will be based on a unit basis of each fire hydrant installed complete in place and in operating condition.

Item 51 – 16” Gate Valve, Valve Box and Cover Per MAG 391-1 Type C: The Contractor shall furnish all materials, personnel, tools and equipment necessary to furnish and install 16” gate valves, valve boxes and covers as specified on the improvement plans and in accordance with the applicable specifications.

Payment for this item will be based on a unit basis of each 16” gate valve, including valve box and cover, complete in place.

Item 52 – 12” Gate Valve, Valve Box and Cover Per MAG 391-1 Type C: The Contractor shall furnish all materials, personnel, tools and equipment necessary to furnish and install 12” gate valves, valve boxes and covers as specified on the improvement plans and in accordance with the applicable specifications.

Payment for this item will be based on a unit basis of each 12” gate valve, including valve box and cover, complete in place.

Item 53 – 8” Gate Valve, Valve Box and Cover Per MAG 391-1 Type C: The Contractor shall furnish all materials, personnel, tools and equipment necessary to furnish and install 8” gate valves, valve boxes and covers as specified on the improvement plans and in accordance with the applicable specifications.

Payment for this item will be based on a unit basis of each 8" gate valve, including valve box and cover, complete in place.

Item 54 – 6" Gate Valve, Valve Box and Cover Per MAG 391-1 Type C: The Contractor shall furnish all materials, personnel, tools and equipment necessary to furnish and install 6" gate valves, valve boxes and covers as specified on the improvement plans and in accordance with the applicable specifications.

Payment for this item will be based on a unit basis of each 6" gate valve, including valve box and cover, complete in place.

Item 55 – 2" Water Meter Box and Service: The Contractor shall furnish all materials, personnel, tools and equipment necessary to furnish and install 2" water meter box and service as specified on the improvement plans and in accordance with the applicable specifications.

Payment for this item will be based on a unit basis of each 2" water meter box and service, including box and cover, complete in place.

Item 56 – 1.5" Water Meter Box and Service: The Contractor shall furnish all materials, personnel, tools and equipment necessary to furnish and install 1.5" water meter box and service as specified on the improvement plans and in accordance with the applicable specifications.

Payment for this item will be based on a unit basis of each 1.5" water meter box and service, including box and cover, complete in place.

Item 57 –Stub and Plug 16" Water Main: The Contractor shall furnish all materials, personnel, tools and equipment necessary to install 16" x 2" IP Corp stop per COB detail 31368 at the locations specified on the improvement plans and in accordance with the applicable specifications. This item shall include fittings, excavation, removal of obstructions, shoring and bracing, backfilling, compaction, maintenance of traffic, testing, disinfecting, connections to existing lines or works and all work not specifically covered in other pay items.

Payment for this item will be based on a unit basis of each stub and plug complete in place.

Item 58 –Stub and Plug 8" Water Main: The Contractor shall furnish all materials, personnel, tools and equipment necessary to install 8" x 2" IP Corp stop per COB detail 31368 at the locations specified on the improvement plans and in accordance with the applicable specifications. This item shall include fittings, excavation, removal of obstructions, shoring and bracing, backfilling, compaction, maintenance of traffic, testing, disinfecting, connections to existing lines or works and all work not specifically covered in other pay items.

Payment for this item will be based on a unit basis of each stub and plug complete in place.

Item 59 – Connect to existing 16” Water Main: The Contractor shall furnish all materials, personnel, tools and equipment necessary to connect to the existing main as identified on the plans. This item shall include fittings, tracer wire, excavation, removal of obstructions, shoring and bracing, backfilling, compaction, maintenance of traffic, testing, disinfecting, water coordination shutdown and all work not specifically covered in other pay items.

Payment for this item will be based on a unit basis for each connection complete in place.

Streetlights

Item 60 – New Street Light: The Contractor shall furnish all materials, personnel, tools and equipment necessary to install the concrete foundations, street lights at the locations specified in the plans and in accordance with the applicable standard details and specifications. This item will include excavation, poles, foundation, testing, installation of conductor and bond wires, and backfill.

Payment for this item will be on a unit basis for each street lights complete in place.

Item 61 – Street Light Pull Box: The Contractor shall furnish all materials, personnel, tools and equipment necessary to install the pull boxes at the locations specified in the plans and in accordance with the applicable standard details and specifications. This item will include excavation, installation pull boxes, and backfill.

Payment for this item will be on a unit basis for installing pull boxes complete in place.

Item 62 –Street Lighting Conduit (1-2.5”): The Contractor shall furnish all materials, personnel, tools and equipment necessary to install the conduit between pull boxes, conduits and wires from the pull box to the light poles at the locations specified in the plans and in accordance with the applicable standard details and specifications. This item will include excavation and trenching, installation of PVC conduit between pull boxes, testing, installation of conductor and bond wires, and backfill.

Payment for these items will be based on a linear foot basis of street lighting conduit (1-2.5”) complete in place.

Alternate #1

Item 63 – ADOT pull box #7: The Contractor shall furnish all materials, personnel, tools and equipment necessary to install the ADOT pull box #7 with extension per ADOT std detail FM-2.06 at the locations specified in the plans and in accordance with the

applicable standard details and specifications. This item will include excavation, installation pull boxes, and backfill.

Payment for this item will be on a unit basis for each pull box complete in place.

Item 64 –ITS conduit (1-2” and 1-3”): The Contractor shall furnish all materials, personnel, tools and equipment necessary to install the ITS conduit (1-2” and 1-3”) between ADOT pull box #7 at the locations specified in the plans and in accordance with the applicable standard details and specifications. This item will include excavation and trenching, conduit, fittings, installation of PVC conduit between pull boxes, testing, and backfill.

Payment for these items will be based on a linear foot basis of ITS conduit (1-2.5” a 1-3”) complete in place.

Alternate #2

Item 65 –APS Feeder Conduit (2-5”): The Contractor shall furnish all materials, personnel, tools and equipment necessary to install the APS Feeder conduit (2-5”) between at the locations specified in the plans and in accordance with the applicable APS standard details and specifications. This item will include excavation and trenching, conduit, fittings, installation of PVC conduit between pull box/cabinet, mule tape, testing, shading, and backfill.

Payment for these items will be based on a linear foot basis of APS feeder conduit (2-5”) complete in place.

Item 66 –APS primary Conduit (1-2”): The Contractor shall furnish all materials, personnel, tools and equipment necessary to install the APS primary conduit (1-2”) between at the locations specified in the plans and in accordance with the applicable APS standard details and specifications. This item will include excavation and trenching, conduit, fittings, installation of PVC conduit between pull box/cabinet, mule tape, testing, shading, and backfill.

Payment for these items will be based on a linear foot basis of APS primary conduit (1-2”) complete in place.

Item 67 – APS Switching cabinet preparation: The Contractor shall furnish all materials, personnel, tools and equipment necessary to prepare the foundation for the APS switching cabinet at the location specified in the plans and in accordance with the applicable APS standard details and specifications. This item will include excavation, conduit sweeps to the cabinet, and backfill in preparation of APS setting the Switching cabinet.

Payment for this item will be on a unit basis for each switching cabinet preparation complete in place.

Item 68 – APS transformer preparation: The Contractor shall furnish all materials, personnel, tools and equipment necessary to prepare the foundation for the APS transformer at the location specified in the plans and in accordance with the applicable APS standard details and specifications. This item will include excavation, conduit sweeps to the cabinet, and backfill in preparation of APS setting the transformer.

Payment for this item will be on a unit basis for each transformer preparation complete in place.

Item 69 – APS pull box installation: The Contractor shall furnish all materials, personnel, tools and equipment necessary to install the APS provided pull box at the locations specified in the plans and in accordance with the applicable APS standard details and specifications. This item will include excavation, conduit sweeps to the pull box, installation of the pull box, and backfill.

Payment for this item will be on a unit basis for each pull box installation complete in place.

Alternate #3

Item 70 – Accelerated completion in _____ days after commencement of construction: The Contractor shall furnish all materials, personnel, tools and equipment necessary to install accelerate final completion and sign off of all Base and Alternates by their proposed accelerated duration in days from commencement of construction. The contractor shall indicate the total number of days from commencement of construction to the accelerated bid completion date on the bid form.

Accelerated completion will be measured as a single complete item of work and paid as a lump sum price.