BUSINESS COMMENTS AND RESPONSES
To Whom it may concern,

For the Roosevelt Irrigation District (RID), please find attached comments to the Final Environmental Impact Statement for the ADOT South Mountain Freeway (Loop 202) project.

Due to the size of the attachment, we have also provided the RID Comment package on a temporary Stantec FTP site for your downloading requirements. Provided below are access instructions:

Please use the automatic login link below to access your site. You have also been provided a manual link, username and password in case your computer disables the automatic login link.

**Automatic Login**

FTP site link: ftp://s1209153135:9208539@ftptmp.stantec.com

By clicking on the link above (or pasting the link into Windows Explorer) you will be automatically logged into your FTP site.

**Manual Login**

FTP link: ftp://ftptmp.stantec.com

Login name: s1209153135

Password: 9208539

Disk Quota: 2GB

Expiry Date: 12/9/2014

Do not hesitate to contact either Donovan Neese or me if you have any immediate questions or would like to schedule a coordination meeting to discuss the comments.

Regards,

Melody

Melody Zyburt
Project Manager
Stantec
8211 South 48th Street Phoenix AZ 85044-5355
Phone: 602-438-2200 ext 4773
Fax: 602-431-9562
melody.zyburt@stantec.com

Celebrating 60 years of community, creativity, and client relationships.
The Roosevelt Irrigation District facilities were included in the Final Environmental Impact Statement. Active groundwater wells, such as the Roosevelt Irrigation District’s wells number 107 and 108, are depicted in Figure 4-33 on page 4-104 in the Final Environmental Impact Statement. Irrigation canals, such as the Roosevelt Irrigation District’s Main Canal and Salt Canal, are depicted in Figure 4-34 on page 4-107 of the Final Environmental Impact Statement. These facilities, as well as others within the Study Area, were considered in the impacts analysis for the alternatives studied in detail. Mitigation measures and details related to how wells and canals will be addressed during later phases of the project are described beginning on page 4-106.

The attached technical memorandum and prior rights documentation was forwarded to the Arizona Department of Transportation Utilities and Railroad Engineering group for use in future coordination with the Roosevelt Irrigation District during final design.

The letter and supporting documentation from the Roosevelt Irrigation District will be incorporated into the project record as part of this Appendix A. No further consideration of the specific facilities will be made in the Record of Decision because they were addressed in the Final Environmental Impact Statement, and future coordination with the Roosevelt Irrigation District will occur during final design.
Accordingly, RID has only two comments at this time:

1. We are requesting that the RID facilities in direct conflict with the studied alignments and the preferred WSB alignment be incorporated into the official ADOI records.
2. And that RID’s requirement for relocation of their facilities be included within the FHWA’s RID.

Please contact us if you have any questions or would like to schedule a coordination meeting to further discuss the comments and conflicting facilities.

Sincerely,

ROOSEVELT IRRIGATION DISTRICT

[Signature]

Bozeman L. Neese
Superintendent

Attachments: RID Prior Rights Letter & attachments

cc: David Burles (Stantec), Melody Zyburt (Stantec), Dinweh Douhi (ADOT), Mohamed Noun (ADOT)
Prior rights documentation reviewed.
Unofficial Document

192504113 DEED 220, 228

A56 - Appendix A

Code
Comment Document

Code
Issue
Response
Annex A • A57
Code Comment Document

Code Issue Response
PUMPING PLANT 4 R 9 - 12 W

and appurtenances, with well-site described as follows:

All, excepting the part occupied by the County Road, of the
North 30 feet of the East 100 feet of the Southeast Quarter of Section 24, Township 2 North,
Range 1 East.

PUMPING PLANT 4 R 9 - 10 W

and appurtenances, with well-site described as follows:

All, excepting the part occupied by the County Road, of the
North 20 feet of the East 100 feet of the Northeast Quarter of Section 24, Township 2 North,
Range 1 East.

PUMPING PLANT 5 R 9 - 11 W

and appurtenances, with well-site described as follows:

All, excepting the part occupied by the County Road, of the
North 20 feet of the East 200 feet of the Northwest Quarter of Section 6, Township 2 South,
Range 1 East.

PUMPING PLANT 5 R 9 - 11 W

and appurtenances, with well-site described as follows:

A tract of land located in Section 6, Township 2 South,
Range 1 East, 1,300 feet of the Southeast quarter of said Section 6, Thence North 300 feet to the
southeast corner of said Section 6, Thence North 300 feet to the southeast corner of said Section 6,
Thence East 300 feet to the southeast corner of said Section 6, Thence East 300 feet to the
southeast corner of said Section 6, Thence South 1,300 feet to the point of beginning, containing
10 acres more or less.

PUMPING PLANT 6 R 9 - 11 W

and appurtenances, with well-site described as follows:

All, excepting the part occupied by the County Road, of the
North 90 feet of the East 100 feet of the Northeast Quarter of Section 7, Township 2 North,
Range 1 East.

PUMPING PLANT 6 R 9 - 10 W

and appurtenances, with well-site described as follows:

All, excepting the part occupied by the County Road, of the
North 90 feet of the East 100 feet of the Southeast Quarter of Section 24, Township 2 North,
Range 1 East.

PUMPING PLANT 7 R 9 - 11 W

and appurtenances, with well-site described as follows:

The South 50 feet of the North 100 feet of the East 20 feet of the Northeast Quarter of Section 17,
Township 2 North, Range 1 East.

PUMPING PLANT 7 R 9 - 10 W

and appurtenances, with well-site described as follows:

The South 50 feet of the North 100 feet of the East 20 feet of the Southeast Quarter of Section 17,
Township 2 North, Range 1 East.
Appendix A • Code Comment Document

Code Issue Response

<table>
<thead>
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<th>Code</th>
<th>Comment Document</th>
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</table>

All, excepting that part occupied by the County Road, of the North 50 feet of the East 50 feet of the Northwest Quarter of the
Northwest Quarter of Section 15, Township 2 North, Range 1 East.

And appurtenances, with all-site described as follows:
All, excepting that part occupied by the County Road, of the North 50 feet of the East 50 feet of the Northwest Quarter of Section 15, Township 2 North, Range 1 East.

And appurtenances, with all-site described as follows:
Beginning at the Northwest corner of said tract, which corner is a point 50 feet due West of the Northwest corner of Section 15, Township 2 North, Range 1 East. Thence due North 50 feet to the Northwest corner of said tract; thence due East 100 feet to the Northeast corner of said tract; thence due South 50 feet to the Southeast corner of said tract; thence due West 50 feet to the Southwest corner of said tract, to the point of beginning, containing 200 acres, more or less.

And appurtenances, with all-site described as follows:
All, excepting the part occupied by the County Road, of the North 50 feet of the East 50 feet of the Northwest Quarter of the Northwest Quarter of Section 15, Township 2 North, Range 1 East.

And appurtenances, with all-site described as follows:
All, excepting the part occupied by the County Road, of the North 50 feet of the East 50 feet of the Northwest Quarter of the Northwest Quarter of Section 15, Township 2 North, Range 1 East.

And appurtenances, with all-site described as follows:
Using as a base the line between the Northwest corner of Section 15, Township 2 North, Range 1 East, and the Northwest corner of Section 15, Township 2 North, Range 1 East, and the line of said tract, which is 50 feet North 49° 40' East, from a point on a meridian of the 160th Fortieth due West of the Northwest corner of Section 15, Township 2 North, Range 1 East, and the line of said tract, thence South 49° 40' West 50 feet to the Southeast corner of the Northwest corner of said tract; thence South 49° 40' West 50 feet to the Southeast corner of said tract; thence South 49° 40' West 50 feet to the Southeast corner of said tract; thence South 49° 40' West 50 feet to the Northwest corner of said tract; thence North 49° 40' East 50 feet to the Northwest corner of said tract; thence North 49° 40' East 50 feet to the Northwest corner of said tract; thence North 49° 40' East 50 feet to the Northwest corner of said tract; thence North 49° 40' East 50 feet to the Northwest corner of said tract; thence North 49° 40' East 50 feet to the Northwest corner of said tract, to the point of beginning, containing 200 acres, more or less.
The North 50 feet of the South 140 feet of all, excepting the part occupied by the County Road, of the West 50 feet of the Northwest Quarter of the Northeast Quarter of Section 10, Township 1 North, Range 8 East.

POPLAR PLANT 196 - A

and appurtenances, with well-site described as follows:

Commencing at a point 50 feet East and 50 feet North of the Southeast corner of the Northwest Quarter of Section 10, Township 1 North, Range 8 East, Siles and Salt River Road and Meridian, thence Easterly parallel to the North line of said Northwest Quarter a distance of 50 feet to a point 50 feet East and 50 feet North of the said Southeast corner of said Northwest Quarter, thence Northwesterly a distance of 50 feet to a point, said point being 50 feet West and 50 feet North of said Northwest corner. Thence Northwesterly a distance of 50 feet to a point, said point being 50 feet West and 50 feet North of said Northwest corner. Thence Northwesterly a distance of 50 feet to a point, said point being 50 feet West and 50 feet North of said Northwest corner. Thence Northwesterly a distance of 50 feet to a point, said point being 50 feet West and 50 feet North of said Northwest corner.

The ditch herein referred to are more particularly described as follows, all being within Maricopa County, Arizona, lying North and East of the Siles and Salt River Road and Meridian, namely:

APPROXIMATELY FIFTEEN AND TWO-FIFTHS INCHES OF PUMP LATERALS, VIZ:

1/2 mile of existing Pump Lateral, extending from SW corner Section 6, Township 1 North, Range 8 East, South along East line of County Road to point approximately 1/2 mile North of said Section 6.

1/2 mile of existing Pump Lateral, extending from SW corner Section 6, Township 1 North, Range 8 East, South along East line of County Road to point approximately 1/2 mile North of said Section 6.

1/4 mile of existing Pump Lateral, extending from SW corner Section 6, Township 1 North, Range 8 East, South along East line of County Road to point approximately 1/4 mile North of said Section 6.

1/4 mile of existing Pump Lateral, extending from SW corner Section 6, Township 1 North, Range 8 East, South along East line of County Road to point approximately 1/4 mile North of said Section 6.
2 miles of existing Pump Lateral, extending from NW corner Section 13, Township 1 North, Range 6 East, South along East line of County Road to SW corner of Section 14 of said Township.

2.5 miles of existing Pump Lateral, extending from NW corner Section 9, Township 1 North, Range 6 East, East along South line of County Road to SW corner of said Section 18, thence South along South line of County Road to SW corner of said Section 20 of said Township.

1 mile of existing Pump Lateral, extending from Pumping Plant 1122.40 miles southwest of said Section 19, thence South approximately 1/2 mile to center of said Section and thence East to NW corner of said Section 19.

It is understood by the grantees that the title to certain of the aforesaid Pump Laterals is vested in the United States of America, and that in accordance with the approval of the supplemental agreement between the grantor and the grantees herein, approved by E. G. Finney, First Assistant Secretary of the Interior, on February 14th, 1927, this instrument conveys to the district only the right to the possession of and use by the district of said ditches as contemplated by the agreements now existing between the grantor and the grantees herein, as duly approved by the Secretary of the Interior, and does not transfer the title to said ditches.

It is further understood by the grantees herein that certain other of the aforesaid Pump Laterals were constructed on public highways of Maricopa County, Arizona, under license agreement, by the Board of Supervisors of said County and that this instrument conveys only the interest of the grantor in and by virtue of said license agreements and by virtue of the agreement, by said entity.

This deed and transfer is made under and in pursuance of the agreement entered into on the 6th day of August, 1927, and between the Gulf & Western Amada Pumps and Irrigation Company, and The Salt River Valley Water Users' Association, assigned to the grantee herein by said Gulf & Western Amada Pumps and Irrigation Company, as amended by the supplemental agreement which became effective on February 14th, 1927, and shall vest in the grantee each and every right and privilege intended to be conferred.
Upon the said Carrick & Manchester Area Irrigation Company, and its successors and assigns under said agreement and said supplemental agreement, and is made subject to the provisions of said agreements and to the reservation made by the Secretary of the Interior in his approval of said supplemental agreement above mentioned.

In witness whereof, said Salt River Valley Water Users’ Association has caused this instrument to be assented this 27th day of December, 1927.

SALT RIVER VALLEY WATER USERS’ ASSOCIATION

By: PRESIDENT

STATE OF ARIZONA
COUNTY OF MARICOPA

Before me, in and for said County of Maricopa, State of Arizona, personally appeared

[Signature]

known to me to be the person whose names are subscribed to the foregoing instrument as President and Secretary of the Salt River Valley Water Users’ Association, the corporation described in the foregoing instrument, and as such President and Secretary acknowledged to me that they assented the same.

I, the undersigned, do solemnly swear or affirm, that I executed the corporation and muni-fi- ion above spoken, at my own act and deed, and by each of them voluntarily executed.

Given under my hand and seal of office, this 27th day of December, 1927.

[Signature]

By commision expires: July 27, 1928.
**Code Comment Document**

**Code Issue Response**

---

**EMUL SUCH WIS BY THESE PRECEDING**

That the SALT RIVER VALLEY WATER USERS’ ASSOCIATION, a corporation organized and existing under the laws of the State of Arizona, for and in consideration of the conveyance to it of certain ditches with appurtenances, the sum of Fifteen Thousand Dollars ($15,000), and other valuable considerations, to it to be paid by ROHNSVILLE IRRIGATION DISTRICT, a municipal corporation existing under and by virtue of the laws of the said State of Arizona, has granted, sold, conveyed and transferred, and does hereby grant, sell, convey and transfer, free of all liens and encumbrances, unto said ROHNSVILLE IRRIGATION DISTRICT, the right to the possession and use by said district as contemplated by the agreements now existing between the grantor and the grantee herein and as duly approved by the Secretary of the Interior of the United States, those certain ditches, reservoirs, aqueducts, conduits, and rights-of-way hereinafter described, excepting from the property so conveyed and transferred, however, all headgates, ditches, connections and appurtenances appertaining thereto which may or may be used, without the use of means for raising the water level, for the service of water to Salt River Project lands or for disposing of waste of drainage water from said lands or from ditches or said project, such headgates, ditches, connections and appurtenances so excepted to be left by the said district in place and in condition for use in the event of it becoming necessary or desirable at any time to utilize them the said ditches, reservoirs, aqueducts and rights-of-way conveyed and transferred hereby being described as follows:

1. All that part of that certain irrigation ditch so hereinafter known as the "SALT RIVER VALLEY CANAL," situated between the points
   Northeast corner of Section Eleven (11), of Township One North (T.1N.), Range One East (R.1E.), of the site and Salt River Base and Meridian and a point approximately one quarter mile south of the northeast corner of Section Ten (10) of Township One North (T.1N.), Range One East (R.1E.), and on the said Salt and Meridian; together with all right-of-way, easements, headgates, connections and appurtenances in any way thereto appertaining.

2. Also, that certain ditch now operated and used by said Salt River Valley Water Users’ Association, together with the right-of-way appurtenant thereto and which said ditch is constructed and located, said right-of-way being described as follows:

   A right of way and easement to construct, operate and maintain a ditch to be not more than four feet wide on the bottom and to carry not more than
28 feet in depth of water, through, over and across the East Half of Section 8, Township 2 North, Range 1 East, Gila and Salt River Base and Meridian, Maricopa County, Arizona; the center line of said ditch and right-of-way being described (using as a base the North Half of the East Line of said Section 8, with an assumed bearing of North, as follows, to-wit:

Beginning at a point on the West line of the County Road, 28 feet West of a point on the East line of said Section 8, almost 300.0 feet North of the East Quarter corner thereof; thence South 66 degrees 10 minutes West, 280.0 feet; thence South 65 degrees 10 minutes West, 280.0 feet; thence South 64 degrees 10 minutes West, 280.0 feet; thence South 63 degrees 10 minutes West, 280.0 feet; thence South 62 degrees 10 minutes West, 280.0 feet; thence South 61 degrees 10 minutes West, 280.0 feet; thence South 60 degrees 10 minutes West, 280.0 feet; thence South 59 degrees 10 minutes West, 280.0 feet; thence South 58 degrees 10 minutes West, 280.0 feet; thence South 57 degrees 10 minutes West, 280.0 feet; thence South 56 degrees 10 minutes West, 280.0 feet; thence South 55 degrees 10 minutes West, 280.0 feet; thence South 54 degrees 10 minutes West, 280.0 feet; thence South 53 degrees 10 minutes West, 280.0 feet; thence South 52 degrees 10 minutes West, 280.0 feet; thence South 51 degrees 10 minutes West, 280.0 feet; thence South 50 degrees 10 minutes West, 280.0 feet, to a point in the Grand Canal, the point of beginning of the line described in the deed dated June 8, 1970, by R. B. Johnson, et al., as grantees, to the United States of America, as grantor, said deed being recorded in the office of the County Recorder of Maricopa County, Arizona, in Book 100 of deeds at Pages 204-206.

B. Also, such rights as the said Salt River Valley Water Users’ Association still has in and to that certain ditch hereinafter in this paragraph described, with the right-of-way and appurtenant thereto appurtenant, said ditch now being obliterated, but formerly constructed and located within the East Half of Section Seventeen (17), 1st of Township Two North (T. 2 N.), Range One East (R. 1 E.), Gila and Salt River Base and Meridian, the center line of said ditch, as it existed on October 17, 1971, being described, (using as a base the West Half of the South line of said Section Eight (8), with an assumed bearing of North, as follows, to-wit:

- 2 -
Beginning at a point 667.61 feet North 00 degrees 00 minutes 29.71 seconds East of the South or South Center Line of said Section 5, thence 41.80 feet North 1 degree 15 minutes 41.03 seconds East from the South Quarter of said Section 5, thence 63.16 feet North 00 degrees 00 minutes 29.71 seconds East; thence North 00 degrees 00 minutes 29.71 seconds East; thence North 89 degrees 39 minutes 08 seconds West; thence North 00 degrees 00 minutes 29.71 seconds East and thence North 00 degrees 00 minutes 29.71 seconds East to the point of beginning, containing 15.75 acres more or less, be it known that a portion of said tract was surveyed to and conveyed to the United States of America in the deed more fully described by J. F. Addington et al., surveyors, said deed being recorded in the Office of the County Recorder of Maricopa County, Arizona, on Book 165 of Deeds for said county, which deed has never been actually taken possession of or used by or on behalf of the United States.

4. Also, that certain ditch located in the Southeast Quarter of Section Three (3), Township Ten North (10N), Range One East (1E), line of Salt River Base and Meridian, being the point along said line at the vicinity of the most southerly line of said Quarter-section, beginning at a point north of said Quarter-section nearest to the Southwest end of the ditch heretofore conveyed to the said Roosevelt Irrigation District by the said Salt River Valley Water Users Association by deed on December 27, 1927, and described as said deed under the heading "APPROXIMATELY FIFTEEN AND THREE-MONTHS [15½] MILES OF WRP LATERAL," in Paragraph 2 under said heading and extending Southerly along the east side of said County Road, approximately one quarter mile to the intersection of the north boundary of said Quarter-section, thence at the Southeast Corner of said Section 4, and thence East, extending the north end of said County Road to the east end of the ditch, described as said ditch to the south of the line of Salt River Base and Meridian by the Salt River Valley Water Users Association to said Roosevelt Irrigation District by deed on December 27, 1927, and described in said deed under the heading "APPROXIMATELY FIFTEEN AND THREE-MONTHS [15½] MILES OF WRP LATERAL," in Paragraph 2 under said heading.

5. Also, that certain pump ditch located in the West Part of Section One (1), Township Ten North (10N), Range One East (1E), line of Salt River Base and Meridian, beginning at Point six thousand six hundred seventeen and 51/100 feet East of the Salt River Valley Water Users Association to the said Roosevelt Irrigation District by deed on December 27, 1927, and extending Southerly along the east side of the County Road, along said line in the vicinity of the West boundary of said Section 5, to the Southeast end of the ditch conveyed to the said Salt River Valley Water Users Association to the said Roosevelt Irrigation District by deed on December 27, 1927, and described in said deed under the heading "APPROXIMATELY FIFTEEN AND THREE-MONTHS [15½] MILES OF WRP LATERAL," in Paragraph 2 under said heading.

Provided, however, that in any case where utilization by the said District of any of the ditches, rights-of-way or facilities described above under items 4, 5, or 6, interferes with any facilities for the irrigation of Salt River Project lands, substitute means satisfactory to the said SALT RIVER VALLEY WATER USERS’ ASSOCIATION, shall be provided by the said District for taking care of such irrigation so interfered with, and

Provided further, that all of the ditches, rights-of-way and facilities hereby conveyed shall be as used and the level of the water surface therein so regulated.
that the association shall be able to discharge waste or drainage water from
Salt River Project lands or ditch therein in the same manner hitherto
prevalent, whenever said Association shall find it necessary or advisable so to do.

The grantor shall be allowed to May 15, 1926, from the date hereof
within which to provide substitute facilities for those hereby transferred and
to complete the transfer of possession of said facilities to said grantee.

It is understood by the grantee that the title to the ditches, appurtenances,
water rights and the water conveyed is vested in the United States of
America, and that the rights to the possession and use thereof is vested in the
grantor by virtue of certain contracts with the United States and that this deed
and transfer does not convey the legal title, but only rights to possession and
use as are vested in the said grantor.

This deed and transfer is made for the purpose, among other things, of
providing for greater economy and efficiency in the carrying out of the provisions
of the agreements between the grantor and the grantees herein and to the end that
the said grantor and grantees shall each profit to a greater extent by the operation
of said agreements and it is specifically understood that the said agreements are
not modified or affected in any way by this deed and transfer.

If NOTICE HEREBY, said Salt River Valley Water Users’ Association has caused
this instrument to be executed this 30th day of January, 1926.

SALT RIVER VALLEY WATER USERS’ ASSOCIATION

By: P. A. Bix, President

ACCORDED:

P. A. Bix, Secretary.
STATE OF ARIZONA,  
COUNTY OF MARICOPA,  

Before me, 

Leonard P. Feldman, a Notary Public  
in and for said County of Maricopa, State of Arizona, personally appeared  

[signature]  

I, the person whose name is subscribed to the foregoing instrument as President and Secretary of the Bell River Valley Water Users' Association, the corporation described in the foregoing instrument, and each such President and Secretary acknowledged to me that they executed the same for said corporation, for the purpose and consideration therein expressed, 
as its true and lawful, and by each of them voluntarily executed.  

Given under my hand and seal of Office, this 19__ day of  

February  

[signature]  

Leonard P. Feldman  
Notary Public.  

My commission expires [date].
Stantec

Technical Memorandum

To: Donovan Neese
Roosevelt Irrigation District
103 W. Baseline Road
Buckeye, AZ 85396

From: Melody Zyburt
Stantec Consulting Services Inc.
8211 S. 48th Street
Phoenix, AZ 85044

File: ADOT South Mountain Corridor
181300255

Date: November 19, 2014


Stantec has reviewed the ADOT South Mountain Corridor’s Final Environmental Impact Study (FEIS) documents on behalf of the Roosevelt Irrigation District, in order to meet the FHWA’s November 25, 2014 comment submittal deadline. The FEIS consisted of updates/addendums to the Draft Environmental Impact Study (DEIS) Report developed in November 2012. Included with the FEIS are various individual supplemental reports addressing specific concerns such as:

- Cultural resources
- Historical property evaluations
- Identification of utilities within the study extents
- Determination of ADOT’s preferred alignment

Several alternative alignments were developed in the pre-planning study phase of the project which directly affects the RID facilities.

Coordination between RID, Stantec, ADOT and their consulting engineers HDR and AZTEC Engineering commenced in 2008. With the project proceeding through the due diligence phase, Stantec provided RID’s prior rights documentation directly to ADOT and HDR in September 2010. Although this information was provided to ADOT, not all RID facilities that would be directly impacted by the proposed conceptual alignments were documented by ADOT’s consultants during the discovery and planning phases of the project and were not fully incorporated into the current FEIS documents.

To memorialize the status of the RID facilities within the current project study area, Stantec is providing this technical memorandum to summarize those RID facilities that will be directly impacted by the preferred ADOT W59 alignment, and briefly document facilities directly impacted by the other non-preferred alignments. These facilities have been identified in the following Figures 1, 2, and 3 and accompanying Tables 1 thru 6.

ADOT 202 STUDY ALIGNMENTS

The Roosevelt Irrigation District facilities were included in the Final Environmental Impact Statement. Active groundwater wells, such as the Roosevelt Irrigation District’s wells number 107 and 108, are depicted in Figure 4-33 on page 4-104 in the Final Environmental Impact Statement. Irrigation canals, such as the Roosevelt Irrigation District’s Main Canal and Salt Canal, are depicted in Figure 4-34 on page 4-107 of the Final Environmental Impact Statement. These facilities, as well as others within the Study Area, were considered in the impacts analysis for the alternatives studied in detail. Mitigation measures and details related to how wells and canals will be addressed during later phases of the project are described beginning on page 4-106.

This memorandum was forwarded to the Arizona Department of Transportation Utilities and Railroad Engineering group for use in future coordination with the Roosevelt Irrigation District during final design.
Technical Memorandum

Figure 1 - ADOT Study Area & RID Impacted Facilities
Table I – ADOT Study Area & RID Impacted Facilities

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<tr>
<th>LOCATION ID</th>
<th>LOCATION</th>
<th>RID FACILITY IN DIRECT CONFLICT</th>
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<tbody>
<tr>
<td>1</td>
<td>Approx 1/2 mile south of Buckeye Road</td>
<td>Main Canal and O&amp;M Roads</td>
</tr>
<tr>
<td>2</td>
<td>185th Van Buren Street and 99th Avenue</td>
<td>Well #107 (7/1/2 E - SW)</td>
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<tr>
<td>3</td>
<td>Approx 1/2 mile west of the intersection of Van Buren Street and 99th Avenue</td>
<td>Well #108 (7 1/2 E - SW)</td>
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<td>4</td>
<td>Southside Van Buren Street - Interstate 17 to 63rd Avenue</td>
<td>Salt Canal</td>
</tr>
<tr>
<td>5</td>
<td>Northside I-10 from 83rd Avenue to 91st Avenue</td>
<td>Pump Lateral 4E</td>
</tr>
<tr>
<td>6</td>
<td>UPRR 1/2 mile west of 67th Ave</td>
<td>Main Canal and O&amp;M Roads</td>
</tr>
<tr>
<td>7</td>
<td>Intersection of McDowell Road and Loop 101 to Approx 1/2 mile north of McDowell Road</td>
<td>Main Canal and O&amp;M Roads</td>
</tr>
<tr>
<td>8</td>
<td>APN 102-33-006 - Approx 1/4 mile north of the intersection of McDowell Road and 99th Avenue</td>
<td>RID Property</td>
</tr>
<tr>
<td>9</td>
<td>APN 102-33-007 - Approx 1/4 mile north of the intersection of McDowell Road and 99th Avenue</td>
<td>RID Property</td>
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<tr>
<td>10</td>
<td>Approx 1/4 mile east of the intersection of McDowell Road and 19th Avenue</td>
<td>Well #76 (2E - 6N)</td>
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<tr>
<td>11</td>
<td>APN 102-33-008 - Approx 1/4 mile north of the intersection of McDowell Road and 99th Avenue</td>
<td>RID Property</td>
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The full study area of the ADOT South Mountain Corridor is shown in Figure 1. This exhibit shows six different ADOT alternatives that were studied during the planning phase of the project.

The E1 alignment commences at I-10 and Pecos Road and ends on the west side of South Mountain approximately 1/2 mile south of Elliot Road. This alignment does not intersect with the RID collection system, so no review has been completed on this alignment.

Alignments W59, W71, W101 Western, W101 Central, and W101 Eastern would cross through the RID collection area. Each of these alignments would have an impact to some magnitude upon existing RID facilities. Impacted facilities would include the RID Main Canal, associated collection area wells, the Salt Canal and one pump lateral.

One additional alignment discussed in the FEIS is the W55 alignment. Although not identified in the overall study area mappings, this alternative alignment is detailed in Figures 2 and 3 in the memorandum and would have similar impacts to existing RID irrigation facilities as ADOT’s preferred W59 alignment.
### Stantec

November 19, 2014
Donovan Neese
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Reference: RID Irrigation Facilities - ADOT South Mountain Corridor
Final Environmental Impact Study Report Response and Prior Rights Letter

Figure 2 - ADOT W59 Alignment & RID Impacted Facilities

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<th>Response</th>
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Design with communities in mind

[Link](http://www.stantec.com)
ADOT PREFERRED W59 ALIGNMENT

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</thead>
<tbody>
<tr>
<td>1</td>
<td>Approx 1/2 mile south of Buckeye Road</td>
<td>Main Canal and O&amp;M Roads</td>
</tr>
<tr>
<td>2</td>
<td>SEC Van Buren Street and 59th Avenue</td>
<td>Well #107 (7E - 5N)</td>
</tr>
<tr>
<td>3</td>
<td>Approx 1/2 mile west of the intersection of Van Buren Street and 59th Avenue</td>
<td>Well #108 (7 1/2 E - 5N)</td>
</tr>
<tr>
<td>4</td>
<td>Southside Van Buren Street - Interstate 17 to 83rd Avenue</td>
<td>Salt Canal</td>
</tr>
</tbody>
</table>

This alignment is ADOT’s preferred alternative. The FES recommends a full bridged crossing of the RID Main Canal approximately 1/2 mile south of Buckeye Road at 59th Avenue. This would restrict currently available RID access from 59th Avenue and require new access routes to be developed for RID maintenance personnel. Wells #107/108 and the Salt Canal have not been identified as conflicts within the FES.

ADOT NON-PREFERRED ALIGNMENTS

The RID facilities that would be impacted by the planned ADOT alignments are W71, W101 Western, W101 Central, and W101 Eastern. Since ADOT has identified these alignments as non-preferred, they have been briefly summarized in the following Tables 3 through 6.

Please refer to Figure 1 for irrigation facility locations.

Table 3 – ADOT W71 Alignment

<table>
<thead>
<tr>
<th>LOCATION ID</th>
<th>LOCATION ID</th>
<th>LOCATION ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Southside Van Buren Street - Interstate 17 to 83rd Avenue</td>
<td>Salt Canal</td>
</tr>
<tr>
<td>5</td>
<td>Northside 1-10 from 83rd Avenue to 91st Avenue</td>
<td>Pump Lateral 4E</td>
</tr>
<tr>
<td>6</td>
<td>UP RR 1/2 mile west of 67th Ave</td>
<td>Main Canal and O&amp;M Roads</td>
</tr>
</tbody>
</table>

The Roosevelt Irrigation District facilities were included in the Final Environmental Impact Statement. Active groundwater wells, such as the Roosevelt Irrigation District’s wells number 107 and 108, are depicted in Figure 4-33 on page 4-104 in the Final Environmental Impact Statement. Irrigation canals, such as the Roosevelt Irrigation District’s Main Canal and Salt Canal, are depicted in Figure 4-34 on page 4-107 of the Final Environmental Impact Statement. These facilities, as well as others within the Study Area, were considered in the impacts analysis for the alternatives studied in detail. Mitigation measures and details related to how wells and canals will be addressed during later phases of the project are described beginning on page 4-106. During final design, efforts will be made to avoid or relocate utilities to eliminate conflicts with the freeway.
Table 4 – ADOT W101 Alignment – Alternative Western Alignment

<table>
<thead>
<tr>
<th>LOCATION ID</th>
<th>LOCATION</th>
<th>RID FACILITY IN DIRECT CONFLICT</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Intersection of McDowell Road and Loop 101 to Approx 1/2 mile north of McDowell Road</td>
<td>Main Canal and O&amp;M Roads</td>
</tr>
<tr>
<td>8</td>
<td>APN 102-33-006 - Approx 1/4 mile north of the intersection of McDowell Road and 99th Avenue</td>
<td>RD Property</td>
</tr>
<tr>
<td>9</td>
<td>APN 102-33-007 - Approx 1/4 mile north of the intersection of McDowell Road and 99th Avenue</td>
<td>RD Property</td>
</tr>
<tr>
<td>10</td>
<td>Approx 1/8 mile east of the intersection of McDowell Road and 99th Avenue</td>
<td>Well #76 (2E - 4H)</td>
</tr>
<tr>
<td>11</td>
<td>APN 102-33-009 - Approx 1/4 mile north of the intersection of McDowell Road and 99th Avenue</td>
<td>RD Property</td>
</tr>
</tbody>
</table>

Table 5 – ADOT W101 Alignment – Alternative Central Alignment

<table>
<thead>
<tr>
<th>LOCATION ID</th>
<th>LOCATION</th>
<th>RID FACILITY IN DIRECT CONFLICT</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Intersection of McDowell Road and Loop 101 to Approx 1/2 mile north of McDowell Road</td>
<td>Main Canal and O&amp;M Roads</td>
</tr>
<tr>
<td>10</td>
<td>Approx 1/8 mile east of the intersection of McDowell Road and 99th Avenue</td>
<td>Well #76 (2E - 4H)</td>
</tr>
</tbody>
</table>

Table 6 – ADOT W101 Alignment – Alternative Eastern Alignment

<table>
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<tr>
<th>LOCATION ID</th>
<th>LOCATION</th>
<th>RID FACILITY IN DIRECT CONFLICT</th>
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</thead>
<tbody>
<tr>
<td>7</td>
<td>Intersection of McDowell Road and Loop 101 to Approx 1/2 mile north of McDowell Road</td>
<td>Main Canal and O&amp;M Roads</td>
</tr>
<tr>
<td>10</td>
<td>Approx 1/8 mile east of the intersection of McDowell Road and 99th Avenue</td>
<td>Well #76 (2E - 4H)</td>
</tr>
</tbody>
</table>
Figure 3 – RID Prior Rights Locations
RID PRIOR RIGHTS

As discussed earlier, RID prior rights documents were provided to ADOT in 2010. This documentation included:

- Salt Canal - SRVWUA to RID (Book 218 of Deeds, Pages 61-63)
- Well #107 and #108 - SRVWUA to RID (MCR #1926002400)
- RID Main Canal in Section 18, Township 1N, Range 2E – Carlton to RID (MCR #1926002106)

Two documents were not available at either RID or Maricopa.gov and were not provided to ADOT in 2010. The RID properties are owned in fee and are listed below:

- Well #107 – MCR Parcel# 104-04-002
- RID Main Canal Section 17, Township 1N, Range 2E – MCR Parcel# 104-26-001

Please refer to Figure 3 for locations of these associated documents related to ADOT’s W59 alignment alternative.

As the remaining alignment alternatives were not presented to Stantec during the 2010 coordination efforts, only prior rights associated with the impacts of the 59th Avenue improvements were coordinated. Available prior rights documents have been provided as attachments to this memorandum.

Since the alignment selection was not completed during the projects discovery phase and prior to the issuance of the FEIS, RID/Stantec were unable to provide the RID Development Guidelines and RID Draft Well Replacement Guidelines for ADOT/FHWA records and future coordination. These documents have also been provided as attachments to this memorandum.

RECOMMENDATIONS

ADOT will be collecting final comments on the FEIS through November 25, 2014 and will be providing these comments to FHWA for incorporation into their Record of Decision (ROD) document which is planned to be released in early 2015 and will identify the selected alternative alignment and proposed federal action. To incorporate RID facilities requiring relocations on the preferred W59 alignment alternative, RID will need to provide comments and an official Prior Rights letter to the South Mountain Freeway Project Team for incorporation into the FHWA ROD.

Stantec recommends at this time for RID to provide the South Mountain Freeway Project Team RID comments to the current FEIS report and an RID Prior Rights Letter identifying RID’s rights within the preferred alignment. This memorandum should be included as an attachment to RID’s required submittals which identify the RID impacted locations, document available prior rights.

Design with community in mind
November 19, 2014
Donovan Reese
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Reference: RID Irrigation Facilities - ADOT South Mountain Corridor
Final Environmental Impact Study Report Response and Prior Rights Letter

documentation, the RID Development Guidelines and the RID Draft Well Replacement Guidelines for development/replacement of RID facilities and project improvements.

If you have any questions do not hesitate to contact either Dave Buras or me at (602) 438-2200.

STANTEC CONSULTING SERVICES INC.

Melody Zyburt
Engineer
Phone: (602) 707-4773
Fax: (602) 431-9562
melody.zyburt@stantec.com

Attachment: Prior Rights Documents, RID Development Guidelines, RID Draft Well Replacement Guidelines
c. David Buras
ROOSEVELT IRRIGATION DISTRICT

103 West Baseline Road • Buckeye, AZ 85326 • Phone (623) 388-2049 • Fax (623) 388-4360

Board of Directors
W. Bruce Hayden, President
Dwight B. Lester
K. C. Gingg

Superintendent
Donovan L. Neese

October 2011

Reference: Irrigation and Drainage System Relocation Guidelines For Land Development and/or Street Improvements

1. Introduction

The following Roosevelt Irrigation District (District) policies and standards are provided as guidelines for Developers and Planners involved in projects impacting existing District irrigation and drainage facilities.

These guidelines are presented as generalized criteria only; the District reserves the right to modify policies, specifications and/or design requirements for each project on a case-by-case basis.

Independent, professional planners, engineers, attorneys, or other consultants whose professional expertise is appropriate for a particular project will assist the District. All costs and fees associated with the review of development plans and/or the modification of District facilities are the responsibility of the Developer. These costs are typically incurred for, but not limited to, pre-design engineering planning and analysis, engineering survey and design, legal work, construction, construction inspection and project administration.

An independent engineer selected by the District will design all modifications to the District’s irrigation and drainage facilities. All District facilities modified to accommodate a development project will be designed and constructed to current applicable District standards.

Generally, a licensed contractor selected by the Developer will complete the construction of relocated District facilities. However, the District reserves the right to selectively determine that some or all of the relocated facilities will be constructed by the District. A construction observer selected by the District will monitor the construction of all District facilities.

Prior to the commencement of work by the District beyond the initial planning and coordination stage of a development project, the Developer must sign a Participation Agreement Letter with the District and provide advance funds covering the estimated cost of the work.
Appendix A

Code Comment Document

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Irrigation and Drainage System Relocation Guidelines
For Land Development and/or Street Improvements

The following general topics are discussed in these guidelines:

- District Funding Requirements
- General Procedure for the Relocation of District Facilities
- District Easements
- Placement of Relocated District Facilities
- Utilities
- District Landscaping Restrictions
- Acceptance of Surplus Drainage
- District Irrigation Wells
- Gates for Irrigation Delivery Structures
- Frames and Covers for Irrigation Manholes
- Maintenance of District Irrigation Service

2. District Funding Requirements

All costs, directly or indirectly, associated with the relocation of District irrigation and/or drainage facilities are the sole responsibility of the Developer. The District will not share in the costs of funding a relocation project.

Typical costs incurred by the District that must be funded by the Developer in association with a relocation project include, but are not limited to: engineering planning and design, construction coordination and observation, re-constructed survey, project management, engineering and legal costs for modification of easements, coordination and plan review with utility companies, utility location services, governmental and/or municipal plan review fees, and project administration and overhead costs.

In general, the Developer’s Contractor will complete the physical construction of the District facilities for a relocation project. The District does not typically incur costs for the labor and materials directly associated with the construction of their relocated facilities.

The District requires the Developer to provide funds for the expected estimated costs that will be incurred by the District for a specific relocation project prior to the commencement of any substantial work by the District. In this regard the District will typically provide the Developer with separate funding requirement notifications for the pre-design, design and post design (construction) phases of the project.

The District will place these funds in a special account to be applied against costs incurred by the District in association with the relocation project. Once these funds are depleted, the District has no obligation to incur further costs or to proceed further with the design, modification or relocation of its facilities until the Developer provides subsequent funds in the amount(s) requested by the District.
### Appendix A: Code Comment Document

#### Code Issue Response

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Irrigation and Drainage System Relocation Guidelines  
For Land Development and/or Street Improvements

Any funds remaining in the project account at the end of the design phase of the relocation project will be credited towards the subsequent post-design phase of the project. Funds remaining in the project account after the final acceptance by the District of the adequacy of the relocated facilities will be refunded to the payor.

3. General Procedure for the Relocation of District Facilities

3.1 General

The procedure for the relocation of District facilities is a multi-step process divided into three distinct phases: pre-design, design, and post-design. The District will provide a separate notification of the funding requirement for each phase of the project to the Developer at an appropriate time.

3.2 Pre-Design Phase

The pre-design phase of a District relocation project includes the initial meetings with the Developer, and typically the Developer’s Engineer, to discuss the details of the development project, District procedures and requirements, and the District’s preparation of a scope-of-work and budget for the subsequent design phase.

The Developer should arrange to meet with the District and the District’s Engineer as early as possible during the planning phase of the development project in order to obtain information concerning the District’s rights, responsibilities, and requirements prior to the preparation of a preliminary plat and/or final plans. At this meeting the Developer should provide a plan or plat depicting the location of streets, lands dedicated for public use, open space, retention areas, lot layouts, utility locations, etc. It is the District’s policy to cooperate with the Developer’s requests for information about the easements held by the District, the conditions upon which the District easements might be used, released or modified, and other planning matters of mutual interest.

The District and the District’s Engineer will review the Developer’s preliminary plans to determine the impact the development will have on the integrity and operational flexibility of the District’s facilities. If it is determined that relocation of District facilities is required for the development project and that relocating the District’s facilities is in the District’s best interest, the District and the District’s Engineer will work with the Developer to determine the general scope and breadth of the relocations, identify potential alignment alternatives and note potential complications in the design process. The approval of a new alignment, and/or the location of any new District facility, is solely the responsibility of the District.

At the Developer’s request, the District will prepare and submit a scope package for the design phase of the project. This package will include a detailed scope of work, an engineering budget, and a Participation Agreement Letter (PAL). To initiate the preparation of this package the Developer must provide a non-refundable fee of $10,000 to the District. The District will provide a written notification of the fee requirement to the Developer when requested.

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<tr>
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<th>Response</th>
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</table>
### Code Comment Document

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**Irrigation and Drainage System Relocation Guidelines**

For Land Development and/or Street Improvements

The estimated scope of work and budget for the design phase will be based on the alternatives and features discussed with the Developer and the Developer’s Engineer and will typically include a schematic layout of the proposed RID facilities. The PAL is the standardized contractual agreement between the District and the Developer. Any changes proposed by the Developer to this document must be reviewed by the District’s Attorney and may require approval of the District’s Board of Directors.

The Developer should carefully review the scoping package for the design phase to ensure that it will meet the requirements of the development project. The scoping package is valid for 90-days from the date of its transmittal letter.

#### 3.3 Design Phase

The design phase of the relocation project includes the engineering design of the District’s facilities, the preparation of construction plans, and the procurement of any municipal and/or governmental approvals required for the plans. Any required modifications to the District easements within the development boundary are typically initiated in this phase of the project as well.

To initiate the design phase the Developer must return a signed PAL to the District along with the required funding as detailed in the scoping package. Once the PAL and funds have been received, the District will issue a notice to proceed with the project to the District’s Engineer.

Ideally, the paving and grading design for the development should be approximately 60% complete prior to the commencement of the District’s relocation design. This will provide the best opportunity for the Developer’s Engineer and the District’s Engineer to effectively coordinate and accommodate elements of the interdependent design projects.

The Developer’s Engineer will need to provide all pertinent CADD files and preliminary plans for the development project. The District’s Engineer will typically utilize the same horizontal coordinate system and vertical datum established for the development project by the Developer’s Engineer to facilitate both the coordination of the design process and the construction of the District facilities. To avoid a duplication of effort, the District’s Engineer, to the extent practicable, will utilize the provided CADD files for the preparation of the District’s construction plans.

The Developer is solely responsible for the accuracy of the plans and/or CADD files supplied by the Developer’s Engineer. The District and/or the District’s Engineer will not be responsible for any costs resulting from errors and/or omissions in the plans and/or CADD files provided by the Developer.
Irrigation and Drainage System Relocation Guidelines
For Land Development and/or Street Improvements

The District’s Engineer will schedule and perform any surveying required to complete the hydraulic design of each relocated facility. To the extent possible, any survey information provided by the Developer’s Engineer will be utilized for this purpose.

The District’s Engineer will evaluate and identify the need for locating existing underground utilities that may be in conflict with the relocated facilities. If utility locating is required, the District’s Engineer will provide a detailed request to the Developer identifying these locations for the Developer to obtain. If requested, the District’s Engineer will obtain a cost estimate from a licensed Contractor for these services and provide this information to the Developer for funding.

The completed preliminary plans will be submitted to both the Developer and any appropriate municipal agencies for review and comment. The Developer is solely responsible for any review fees levied by municipal agencies and any notification for payment of these fees received by the District’s Engineer will be forwarded to the Developer for payment directly to the appropriate agency.

When the review comments have been addressed and any necessary approvals granted by the municipal agencies involved have been secured, the approved plans will be released by the District to the Developer. The release of the approved plans effectively ends the design phase of the relocation project.

Prior to the release of the approved plans, any outstanding costs incurred by the District during the design phase of the project that exceed the funds provided by the Developer must be paid in full. Any excess funds remaining in the project account at the end of the design phase are generally applied toward the estimated costs of the post design phase of the project.

The District’s approved plans are valid for one year from their date of release. If the construction of the project has not commenced within that period the District reserves the right to reevaluate the plans for conformance to current applicable District standards and specifications and any other changes that may affect the design and/or proposed location of District facilities. The determination of the suitability for construction of expired plans, and any modifications needed to bring the plans into conformance with the current standards, is solely at the discretion of the District.

3.4 Post-Design Phase

The post design phase of the relocation project covers the construction, testing, and final acceptance of the relocated District facilities.

Prior to the commencement of any construction of District facilities the Developer must fund the estimated costs and expenses that will be incurred by the District during the phase of the relocation project. The Developer or the Developer’s Contractor must also obtain a Licensee to Construct from the District before beginning any work.
Appendix A

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Irrigation and Drainage System Relocation Guidelines
For Land Development and/or Street Improvements

When a general schedule for the construction of the District facilities has been
determined, the Developer should request the District to provide a scoping
package for the post design phase of the relocation project. The scoping package
will include an estimated scope of work and budget for items including construction
observation, as-constructed survey, post-design engineering support and the
completion of record drawings and mapping updates for the District’s records.

The package will typically also include a License to Construct for the project. The
license must be signed by the Developer or the Developer’s Contractor and
returned to the District’s office, along with the $300 license fee, for approval
signature by the District. A copy of the signed license must be available at the
construction site at all times. A signed License to Construct will not issued by the
District until the post-design funding has been provided.

4. District Easements

With the exception of the Main Canal and Irrigation wells, the majority of the District’s
existing facilities throughout their service area are typically covered by a “blanket” type
easement that may encompass multiple individually owned properties within one or more
sections of land. The relocation of District facilities within an area covered by a blanket
easement is generally acceptable to the District without any modification of the existing
easement.

In some cases, the District will allow the termination of blanket easements that may
encompass multiple individually owned properties within one or more sections of land.
However, there may also be instances in which the District determines that, for legal and
other reasons, it may be in the District’s best interest to simply release a portion of an
existing blanket easement. The District will make the ultimate determination regarding
whether to terminate the blanket easement and redefine a new easement or merely
release a portion of the existing blanket easement. The District has prepared
standardized forms to accommodate these circumstances and they will be provided to
the Developer upon request.

Each of the forms requires a separate legal description, and accompanying exhibit of the
property in question. The legal description and exhibit must be prepared and sealed by
a registered Arizona land surveyor and describe the property using distances and
directions from established legal monuments. The termination of a blanket easement for
development project should include all of the property within the development
boundary. If the District determines it is in its best interest to release a portion of the
blanket easement, the Developer may be required to provide a legal description of that
portion of the blanket easement that will continue to exist.

The District’s Engineer will determine appropriate dimensions and limits for the creation
of these legal descriptions. These dimensions will be provided to the Developer for the
preparation of the respective legal descriptions.
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Irrigation and Drainage System Relocation Guidelines
For Land Development and/or Street Improvements

The Developer will submit the completed easement documents for the termination and/or elimination, including the needed legal descriptions, to both the District’s Engineer and Attorney for review and approval. Once the documents have been approved, the District’s Attorney will have them recorded.

Under no circumstances will the District agree to the termination of any existing blanket easement without the coincidental establishment of a defined easement covering the facilities that are active at that time. To accommodate the termination of a blanket easement prior to the completed construction, testing and acceptance of the relocated District facilities, a defined easement for the existing operational facilities within the project boundaries must be established. Once the District accepts the relocated facilities as adequate, a defined easement can then be recorded, and the easement for the facilities that are being abandoned can be terminated.

An easement for a District pipeline may contain, or be used for among other things, driveways, limited parking, sidewalks, lawns or alleys. While the easement is typically centered along the pipeline, it may be offset to accommodate specific features of a particular project. District easements for open ditch facilities are generally exclusive; the intrusion of any other public or private facilities within these easements is solely at the District’s discretion.

A District easement for a pipeline and appurtenant structures may be located either wholly or partially within a City, Town or County right-of-way based on the consenting approval of the jurisdictional municipal agency. District easements for an open ditch and an adjacent operations and maintenance road are typically located wholly outside of municipal rights-of-way and public utility easements.

For Development projects expected to include a modification or revision of the existing easement, a minimum $10,000 deposit for expected District legal costs will be included in the funding requirement for the project. The Developer will be responsible for any additional legal costs above this amount incurred by the District in regards to the modification of an existing easement.

5. Placement of Relocated District Facilities

5.1 Open Ditch Facilities

The District has no requirement that existing open ditch facilities be piped (lined) as part of a relocation project. However, the governing municipality generally requires the piping of the District’s facilities within the boundary of the development project as part of the development agreement.

In general, most of the District’s existing lateral canals follow an approximate alignment along section or mid-section lines. Rarely do the existing facilities exactly parallel these boundary lines, and in many instances the alignment may meander from one side of the boundary line to the other.
The District's existing open ditch facilities include not only the prism of the ditch, but also the adjacent operations and maintenance (O&M) road(s). Even when the prism of the existing ditch is located wholly outside of the development area boundary, the District’s Engineer must assess the impact of the development project on the District’s ability to access, maintain and operate their facility and potential impacts to neighboring properties.

Should the Developer wish to accommodate an existing District ditch without relocation, the District may require that the property wall or other permanent features constructed for the development project be offset from the boundary line of the property to provide sufficient clearance for District facilities. The District’s Engineer will determine the width required to accommodate the existing facilities and provide this information to the Developer.

Typical cross-sections for lined and unlined District ditches and O&M roads are shown on Figure 1. In general, the width requirement for these facilities is approximately 40 feet, but contributing factors such as vertical grades and accessibility can extend this requirement to 50 feet or more.

The construction of an unlined ditch as a relocation of a District facility is not allowed. Any existing unlined District ditch that will be relocated as part of a development project must be constructed as a concrete lined ditch or pipeline.

5.2 Piped Facilities

Typical requirements for placement of a District pipeline are illustrated on Figures 2 and 3.

As shown on Figure 2, the preferred location for a District pipeline is behind the proposed curb and gutter and beneath the sidewalk. This location will generally maximize the area that can be landscaped within the right-of-way while protecting the pipeline. Alignments placing a District pipeline within the paved section of a roadway are not preferred and are generally only considered along small residential streets. If a pipe must be located under the street, a minimum horizontal clearance of two feet is required from the lip of the gutter to the outside wall of the pipe. District pipelines may not be located beneath drainage channels or retention basins.

Minimum clearances from the outside wall of a District pipe to any permanent above-grade structure such as a building or wall are illustrated in Figure 3. A four-foot minimum clearance is required around all sides of a District delivery structure.

6. Utilities

The District facilities have senior prior rights over most municipal and public service utility lines within their service area. All proposed and existing utility lines must cross beneath the District facilities and the relocation of District facilities will often require that existing utility lines be lowered to resolve conflicts.
Appendix A

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Irrigation and Drainage System Relocation Guidelines
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Requests by the Developer to lower a District pipeline to avoid the relocation of an existing utility line, or to accommodate the installation of a new utility line, will be reviewed by the District on a case-by-case basis. Unless the crossing utility holds a more senior priority right, the determination regarding the lowering of a District pipeline is solely at the discretion of the District.

Restrictions for utility pipelines, conduits and/or ducts that cross, or run parallel to, a District pipeline are illustrated on Figure 4. All underground utilities paralleling a District pipeline must maintain a minimum two-foot horizontal clearance between the outside of the District pipe and the open excavation for the utility. All utilities crossing a District pipeline must pass beneath the pipe with a minimum vertical clearance of one foot. Sanitary sewer conflicts will be evaluated on a case-by-case basis.

Single service residential utility lines of 1" or less, street light electrical lines and traffic signal lines may over-cross a District pipeline with a 6" minimum clearance. All proposed over-crossings of a District pipeline by a utility line larger than 1" would be reviewed on a case-by-case basis. Prior written approval from the District must be obtained before any over-crossing utility is installed.

The Developer is solely responsible for the coordination and relocation of all conflicting utilities.

The District’s Engineer will make all reasonable efforts to identify conflicting utilities on the District’s construction plans. To aid in this task, the District requires that all known utilities crossing the District’s proposed alignment be plotted to determine their actual location and elevation. However, the utilities identified on the plans may not represent all existing and/or proposed conflicting utilities within the project limits. Neither the District, nor the District’s Engineer, guarantees the location and/or the elevation of utilities, and neither will be responsible for their relocation.

7. District Landscaping Restrictions

Restrictions concerning landscape plantings adjacent to a District pipeline are shown on Figure 5. A minimum clearance of four feet between the outside wall of the pipeline and a tree trunk is required. Mature tree canopies must not overhang a District pipeline. The spacing between trees along the alignment must provide at least 15 feet of clearance both longitudinally and transversely. Plant groupings are limited to a maximum length of 18 feet as measured along the pipeline alignment. Spacing requirements between plant groupings are identical to those for tree spacing.

Landscape plantings within a District easement containing a lateral canal or ditch are not permitted. Canopies of mature trees planted adjacent to a District easement containing a lateral canal or drainage ditch may not encroach into the easement.

Landscaping plans for the development project must be submitted to the District for review and approval.
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Irrigation and Drainage System Relocation Guidelines  
For Land Development and/or Street Improvements  

8. Acceptance of Surface Drainage  
The District may accept agricultural return flows at historically established points of flow into their system. Under no circumstance will the District allow a proposed commercial, industrial or residential development to discharge storm water, surface water flows, or flood flows into District facilities.  

9. District Irrigation Wells  
District irrigation well sites are typically located upon deeded property owned by the District. The site boundaries can generally be adjusted to meet the needs of the development provided the total area of the site remains the same.  
There are a number of minimum requirements regarding the location of the well pad relative to the site enclosure and the accessibility to the site for District equipment. The Developer should discuss these requirements with the District’s Engineer on a case-by-case basis.  
The District requires that all of their well sites be fully enclosed, and all construction plans prepared by the District’s Engineer will specify 6’ chain link fence topped with 1’ of barbed wire per M&Q standards. However, the Developer may arrange for some other type of approved enclosure such as a decorative block wall. In this regard the Developer must provide detailed construction plans for the alternative enclosure to the District’s Engineer for review and approval. All designs for alternative enclosures must include:  
- A total minimum height of 7’ including a feature designed to prohibit entrance by scaling the enclosure. A 6’ high block wall topped with outwardly curved wrought iron bars is an example of an acceptable alternative.  
- A feature providing visibility into the site from the main point of access and/or adjacent roadways such as one or more panels of wrought iron bars set within a block wall.  

10. Gates for Irrigation Delivery Structures  
For operational and maintenance continuity throughout their system, the District specifies the installation of mild steel gates fabricated by Fresno Valves and Castings, Inc. (Fresno) at their delivery structures. The dimensions of the individual gates are unique to each delivery structure and must be designed and fabricated accordingly.  
The lead-time for procurement of these gates can be substantial (3 to 4 months) and the Developer should consider the impact this may have on construction scheduling and sequencing for the project.  

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**Irrigation and Drainage System Relocation Guidelines**  
For Land Development and/or Street Improvements

To expedite the delivery of the gates the District's Engineer can initiate the shop drawing review process and purchase of the gates provided the Developer pre-funds the purchase of the gates to the District.

In this regard, the District’s Engineer will provide the specific dimensions and specifications of the gates to Fresno for a cost quote. The Fresno quote will then be provided to the Developer for consideration. Once the District has received funds for the gates, the District’s Engineer will accept the Fresno quote on behalf of the District and initiate Fresno’s preparation of shop drawings. The completed gates will be shipped to the District’s Buckeye maintenance yard where the Developer’s Contractor can pick them up. Any additional costs incurred by the District during the manufacturing or shipping in excess of the original quoted cost will need to be reimbursed prior to the Contractor taking delivery of the gates.

Shop drawings for any gates purchased directly by the Developer or the Developer’s Contractor must be reviewed and approved by the District’s Engineer. The installation of unapproved gates is not acceptable, and are at the Developer’s sole risk. Any gates rejected by the District under this circumstance must be removed and replaced with approved gates at the discretion of the District.

#### 11. Frames and Covers for Irrigation Manholes

The District maintains an inventory of manhole frames and covers as specified in their construction plans. The Developer’s Contractor is encouraged to purchase these items directly from the District at their cost. The District Construction Observer and/or Engineer must approve the use of frames and covers not purchased directly from the District. Any frames or covers installed without District approval is at the Developer’s own risk and may require removal and replacement at the District’s discretion.

#### 12. Maintenance of District Irrigation Service

Existing District facilities must remain operational, and may not be disturbed or rendered inaccessible to the District until the construction of the relocated District facilities have been completed, tested and accepted as adequate by the District.

The scheduling for an irrigation outage to complete a tie-in between new and existing facilities must be coordinated with the District Watermaster and the District Construction Observer. The District schedules an annual, district-wide “drip-up” for approximately eleven consecutive days during the second and third weeks of November. The availability and duration of an unscheduled irrigation outage during any other time period will be determined solely at the discretion of the District.

The Developer should be aware that the construction of new facilities along the same alignment as the existing facilities will likely increase the irrigation outage time required for construction.
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Irrigation and Drainage System Relocation Guidelines
For Land Development and/or Street Improvements

Temporary irrigation by-pass facilities may be constructed to facilitate the demolition of
the existing District facilities prior to the completion of the proposed permanent facilities.
The District must grant prior approval for the use of a temporary irrigation by-pass. At
the discretion of the District, sealed engineering plans for the by-pass facilities may be
required. These plans must be submitted to the District for review and approval prior to
construction. The abandonment and demolition of the existing District facilities replaced
by the temporary by-pass may proceed only after the constructed temporary facilities
have been field verified and accepted as adequate by the District.

ROOSEVELT IRRIGATION DISTRICT

[Signature]

Donovan L. Noose
Superintendent

[Redacted]
Roosevelt Irrigation District
Irrigation and Drainage System Relocation
For Land Development and/or Street Improvements

Figure 1
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**Code Issue Response**

**ROOSEVELT IRRIGATION DISTRICT**

Irrigation and Drainage System Relocation
For Land Development and/or Street Improvements

Figure 3
Figure 4

ROOSEVELT IRRIGATION DISTRICT
Irrigation and Drainage System Relocation
For Land Development and/or Street Improvements
ROOSEVELT IRRIGATION DISTRICT
Irrigation and Drainage System Relocation
For Land Development and/or Street Improvements

Figure 5
Appendix A • Code Comment Document

ROOSEVELT IRRIGATION DISTRICT

DIRECTORS
W. BRUCE HEIDEN, PRESIDENT
K.C. GINGG

SUPERINTENDENT
DONOVAN L. NEESE

103 WEST BASELINE ROAD
BUCKEYE, ARIZONA 85326
TELEPHONE (623) 386-2046
FAX (623) 386-4360

Reference: Well Replacement Guidelines and Specifications

Roosevelt Irrigation District (RID) (District) understands the risks associated with well drilling and has attempted to develop these guidelines in a manner that balances the goals of quantity and quality of water produced by the replacement well. All parties requesting to provide RID with replacement wells shall bear the costs to construct the replacement wells per the standards consistent with those developed by the District. RID will require demonstrations to validate that the well specifications have been met. Under no circumstances will any rights to an existing site be relinquished until the replacement well is operational and can be demonstrated to meet all necessary specifications. RID assumes no liability for any design or construction activities related to conforming to these well development guidelines until the well system is operational and accepted in writing from the RID superintendent.

Classes of Replacement Wells

The District envisions two classes of replacement wells derived from the Replacement Well Guidelines and Specifications. They are:

a) Replacement Well at Same Location. These wells shall be located within 660 feet of the existing RID well scheduled to be replaced. The District may elect to have the replacement well constructed with a different screening interval than the original in order to improve the quality of water produced by the well.

b) Replacement Well in New Location. Existing RID wells may be located in an area where urbanization has reduced or eliminated demands. Some wells may be elected for replacement due to, but not limited to, locations with undesirable hydrogeologic conditions. In such circumstances, RID may elect to have a new well drilled in a location more favorable to the District’s operations.

Well Specification Standard / Approach

Each well within RID’s service area includes differing well construction and water quality characteristics. As a single well is identified for replacement the well specifications will be based on existing performance and the surrounding facilities at the sole discretion of RID. It will be the responsibility of the developer or entity to demonstrate, at a minimum, performance aspects equal to the existing well to be replaced. Performance-based guidelines are included in ANSI/AWWA A100-06 Standard for Water Wells and shall be met. All wells shall comply with AWWA A100-06 as clarified or modified below or unless otherwise approved by the District.

Demonstrations

Utilize ANSI/AWWA A100-06 Standard for Water Wells to address the following:

Prior to drilling, the following information shall be submitted to RID for review and approval:

1) A Hydrogeologic Study and Impact Study, completed, stamped, and sealed by a professionally registered Geologist in the State of Arizona of any site not within 660 feet of the well to be replaced. This study shall be prepared in accordance with ADWR well spacing rules and submitted...
to ADWR along with the Well Permit Application. Please note that based upon ADWR licensing time frames, a minimum of 100 days is required to review the application;

2) Identification of a well site and appropriately located replacement well within the site that will be deeded to RID along with title documentation. The well site shall have a secure access from an adjacent public street right-of-way and include a minimum 80-foot by 50-foot size (4,000 square feet). Proposed sites must accommodate all reasonably foreseeable drilling and maintenance activities within a locked perimeter enclosure as approved by the District;

3) Documentation of Non-Exempt Well Permit approval;

4) Identification and acquisition of permanent withdrawal authority for the RID well. This authority may include, but not be limited to the following: RID Service Area Right, Grandfathered Groundwater Rights owned by the District or leased for sufficient time to allow the well to be permitted as an RID Service Area Well, or a Recovery Well Permit with sufficient groundwater credits to allow the well to be permitted as an RID Service Area Well;

5) Documentation of discharge plan and AZPDES discharge permit approval, if required;

6) Documentation of Well Specifications, Bid Documents, Approved Bid, Legal Documents, Bonds, Construction Licenses, and Insurance Certificates indicating coverage type and limits;

7) Design Concept Report (DCR) including drawings documenting preliminary well design, including casing/screen size, material type, depths, proposed zone or depth specific sampling protocol, and recommendations that provide comparisons to the existing well to be replaced. The DCR shall include a demonstration of rationale for the design which would incorporate existing hydrogeologic data and a water quality sampling plan. DCR shall also include the minimum mechanical and electrical system details indicated further within these requirements. RID must review and approve the DCR prior to initiation of drilling activities;

8) DCR shall include details about the mechanical and electrical systems that are planned to be installed. The following minimum design features shall be included within the RID replacement well:

- Above ground discharge piping shall be welded steel meeting ASTM A36 with a minimum schedule 40 thickness
- Below ground discharge piping shall be fully restrained ductile iron pipe with a minimum pressure class 250 and include polyethylene encasement
- Discharge pipe shall be sized with a maximum velocity of 5 feet per second and be a minimum of 8 inches in diameter
- Discharge pipe shall include the following appurtenances: 0-60 psi liquid filled pressure gauge with isolation ball valve, 3-inch air release and vacuum valve with isolation ball valve, and propeller type flowmeter
- Well pump discharge head shall be provided with a minimum of two 2-inch diameter threaded openings to allow for water level sounding and water sampling
• Well discharge piping system shall be connected to the RID system in a manner similar to the existing well that is being replaced. This includes, but not limited to, irrigation structures, underground piping systems, above ground piping systems, grading, and etc.

• Well head concrete pad shall meet RID requirements

• Above ground discharge piping and well pump oiler shall include concrete pad and pipe supports meeting RID requirements

• Electrical system shall include a reduced voltage soft start for the well pump

• Well pump motor shall be premium efficient, include a 50 degree Celsius ambient temperature rating with a 1.15 service factor, internal temperature thermometer that shuts down the motor when overheating, and include a weather protected-type 1 (WP1) enclosure

• Well site enclosure shall include a 8-foot tall perimeter chain link fence with a three strand barb wire top, 20-foot swing gate opening with 6-inch diameter posts set into the ground at a 4-foot minimum depth, a 4-foot man gate, 3-inch layer of decomposed granite throughout the site, capable of retaining on-site a 100-year 2-hour storm event, and include a 20-foot tall pole mounted area light that automatically turns on at dusk and off at dawn

9) An RID License to Construct; During drilling, the following information shall be submitted to RID for review and approval:

10) Documentation of detailed geological and engineering log of drill cuttings during each 10 foot interval in the well, or when abrupt or distinct changes in lithology are observed;

11) Documentation of annul or depth specific water samples acquired during drilling of the well. RID will require depth specific or annul samples to be collected throughout the water bearing interval of the well. A minimum of one sample per 100 feet of water bearing zone shall be collected from the well or borehole and analyzed at a licensed laboratory;

12) Demonstration that appropriate screen slot size has been selected utilizing drill cuttings sieve analysis sample collected and analyzed in the least coarse 10-foot interval for every 100 feet of screened casing of the well;

13) Blank casing and screens for RID replacement wells shall be Type 304 stainless steel (SS) or high strength low alloy (HSLA), use of low carbon steel material will not be allowed. The final selection of SS or HSLA material shall be determined by RID based on water/soil chemistry and anticipated corrosion issues that may occur during its entire life expectancy. RID well casing and screens shall be designed based on a minimum 50 year life expectancy;

14) Demonstration of appropriate geophysical logging for well outside of the 660’ boundary of the existing well. If an open borehole can be available following drilling to total depth, then appropriate logs shall include temperature, fluid resistivity, natural gamma ray, 3-arm caliper, single-point resistance, focused resistivity, sonic, and spontaneous potential.