

DESIGN STANDARD DETAILS

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NOTE: CALL U.S.A.
AT LEAST 48 HOURS
PRIOR TO EXCAVATION
1-800-642-2444

REFER TO THE
STANDARD SPECIFICATIONS

DESIGN DETAIL INDEX
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APPROVED BY:


DIRECTOR OF ENGINEERING

RCE #66517

7-18-12
DATE

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REVISION
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7-18-12

Final Maps for Subdivisions :

Solano Irrigation District:

The Solano Irrigation District hereby consents to the preparation and recordation of this Final Map of this subdivision. This certificate does not, unless otherwise indicated in writing, constitute a stipulation or agreement as to an agreed boundary, as to the correctness of the survey data involved on this map, or permission to occupy or utilize any interest in real property possessed by the District. Separate written agreement must be entered into in regard to use of such interest in real property.

Cary Keaten, General Manager or
Paul Fuchslin, Director of Engineering, RCE #66517

Parcel Maps:

Solano Irrigation District:

The Solano Irrigation District hereby consents to the preparation and recordation of this Parcel Map. This certificate does not, unless otherwise indicated in writing, constitute a stipulation or agreement as to an agreed boundary, as to the correctness of the survey data involved on this map, or permission to occupy or utilize any interest in real property possessed by the District. Separate written agreement must be entered into in regard to use of such interest in real property.

Cary Keaten, General Manager or
Paul Fuchslin, Director of Engineering, RCE #66517

Improvement Plans (District facilities in Public Utility Easement or Rights-of-Way) :

Solano Irrigation District:

The certification of these Improvement Plans confirms the execution of appropriate agreements with the Solano Irrigation District for the protection, replacement and/or modification of District works. This certificate does not amend, modify or vary any term or condition of those agreements.

Cary Keaten, General Manager or
Paul Fuchslin, Director of Engineering, RCE #66517

Improvement Plans (District facilities in parks or landscaped areas) :

Solano Irrigation District:

The certification of these Improvement Plans confirms the execution of appropriate agreements with the Solano Irrigation District for the protection, replacement and/or modification of District works. This certificate does not amend, modify or vary any term or condition of those agreements. The District shall not be responsible or held accountable for any damage and/or removal of temporary or permanent structures, sidewalks, landscaping irrigation facilities, or any other improvement or obstruction erected, planted or otherwise installed that conflicts with the normal operations, maintenance, repair or replacement of District facilities and maintenance of the District's easements and right of way.

Cary Keaten, General Manager or
Paul Fuchslin, Director of Engineering, RCE #66517

Improvement Plans (Involving facilities of the Solano Project) :

Solano Irrigation District:

The certification of these Improvement Plans, confirms the execution of appropriate agreements for the protection, replacement and/or modification of District works and the property of the United States of America. This certification does not amend, modify or vary any term or condition of those agreements.

Cary Keaten, General Manager or
Paul Fuchslin, Director of Engineering, RCE #66517



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REFER TO THE
STANDARD SPECIFICATIONS

TYPICAL SIGNATURE BLOCK INFORMATION

APPROVED BY: _____
DIRECTOR OF ENGINEERING

RCE #66517

7-18-12
DATE

DETAIL
DS-1

REVISION
3
7-18-12

**SOLANO IRRIGATION DISTRICT
STANDARD POTABLE WATER SYSTEM NOTES**

1. ALL MATERIALS AND INSTALLATION OF THE POTABLE WATER SYSTEM SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE SOLANO IRRIGATION DISTRICT'S LATEST REVISIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL EXISTING UTILITIES.
3. CONTRACTOR SHALL NOTIFY THE SOLANO IRRIGATION DISTRICT AT (707) 448-6847, FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING CONSTRUCTION AND FOR INSPECTION OF THE POTABLE WATER SYSTEM.
4. WATER MAINS SHALL BE AWWA C-900, CLASS 150 (DR 18) FOR 4"-12" PIPELINES OR AWWA C-900, CLASS 165 (DR25) FOR 14"-20" PIPELINES. PIPES SHALL BE LAID AND CONSTRUCTED IN CONFORMANCE WITH DEPARTMENT OF PUBLIC HEALTH SERVICES GUIDANCE CRITERIA FOR THE SEPARATION OF WATER MAINS AND NON-POTABLE PIPELINES, LATEST REVISION.
5. TRACER WIRES SHALL BE INSTALLED ON ALL MAIN LINES IN THIS PROJECT. WIRES SHALL BE BROUGHT UP IN EACH VALVE RISER.
6. THE CONTRACTOR GUARANTEES THE RUBBER GASKETED PVC PIPELINES AND APPURTENANCES AGAINST DEFECTIVE WORKMANSHIP, MATERIALS AND LEAKAGE FOR A PERIOD OF ONE (1) YEAR AFTER THE PIPELINE IS ACCEPTED. THE CONTRACTOR AGREES TO REPAIR ALL LEAKS AND TO MAINTAIN THE PIPELINE AND ITS APPURTENANCES IN A SATISFACTORY OPERATING CONDITION DURING THE ABOVE SPECIFIED PERIOD. UPON NOTICE BY THE DISTRICT OF NEEDED REPAIRS, THE CONTRACTOR SHALL UNDERTAKE SUCH REPAIRS, INCLUDING NECESSARY DEWATERING, WITHIN FORTY-EIGHT (48) HOURS. NEITHER THE GUARANTY NOR MAINTENANCE REQUIREMENTS SHALL APPLY TO DAMAGE CAUSED BY AN ACT OF GOD, NEGLIGENCE IN THE OPERATION OF THE SYSTEM OR ACTS OF THIRD PARTIES.
7. FIELD HYDROSTATIC TESTING SHALL BE IN ACCORDANCE TO THE DISTRICT'S STANDARD SPECIFICATIONS LATEST REVISION.
8. THE CONTRACTOR SHALL FURNISH TO THE DISTRICT, THREE (3) COPIES OF SHOP AND FABRICATION DRAWINGS WHICH ARE REQUIRED PRIOR TO THE FABRICATION AND/OR PLACEMENT OF ANY OR ALL ITEMS. THE DISTRICT WILL RETURN ONE (1) COPY OF THESE DRAWINGS TO THE CONTRACTOR MARKED "NO EXCEPTIONS TAKEN", "MAKE CORRECTIONS NOTED", "AMEND AND RESUBMIT", OR "REJECTED - RESUBMIT". THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING THE SHOP AND/OR FABRICATION DRAWINGS, AS REQUIRED BY THE DISTRICT, OR RESUBMIT AN ALTERNATE FOR APPROVAL.
9. ALL STRUCTURE COVERS ARE TO BE MARKED WITH "WATER". ALL COVER LETTERING IS SUBJECT TO SID APPROVAL.
10. THE CONTRACTOR SHALL PLACE A "W" IN THE WET CONCRETE CURB TOP FOR WATER SERVICE LOCATIONS.
11. THE DISTRICT INSPECTOR WILL LOCATE THE EXACT PLACEMENT OF BOV'S AND ARV'S.
12. ALL SECTIONALIZING VALVES SHALL BE BUTTERFLY VALVES AND CONFORM TO THE APPLICABLE PROVISIONS OF AWWA C-504. ALL BUTTERFLY VALVES SHALL BE FLANGED (SHORT BODY) AND NOT OF THE WAFER TYPE WITH A PRESSURE RATING EQUIVALENT TO THAT OF THE PIPELINE. REFER TO THE DISTRICT'S STANDARDS FOR COATING REQUIREMENTS.
13. ALL WORK PERFORMED SHALL BE INSPECTED BY SOLANO IRRIGATION DISTRICT'S INSPECTOR. IF ANY WORK SHALL BE PERFORMED WITHOUT APPROVAL OR CONSENT OF THE INSPECTOR, IT MUST, IF REQUIRED BY THE INSPECTOR, BE EXPOSED FOR EXAMINATION AT THE CONTRACTOR'S EXPENSE, IRRESPECTIVE OF WHETHER THE WORK EXPOSED IS FOUND TO BE DEFECTIVE OR NOT.
14. THE INSPECTION OF THE WORK SHALL NOT RELIEVE THE CONTRACTOR OF ANY OF HIS OBLIGATIONS TO FULFILL HIS CONTRACT, DEFECTIVE WORK SHALL BE MADE GOOD AND UNSUITABLE MATERIALS MAY BE REJECTED, NOTWITHSTANDING SUCH WORK AND MATERIALS THAT HAVE BEEN PREVIOUSLY OVERLOOKED BY THE INSPECTOR.
15. FREEZE PROTECTION IS REQUIRED FOR ALL REDUCED PRESSURE BACKFLOW PREVENTERS (BFPs) AND DOUBLE CHECK DETECTOR CHECKS (DCDCs).
16. ELECTRONIC AUTOCAD FILES AND TIFF IMAGES OF THE IMPROVEMENT PLAN SHEETS (AT 300 DPI) SHOWING AS-BUILTS ARE TO BE TRANSMITTED TO THE DISTRICT PRIOR TO FINAL OF PROJECT.



NOTE: CALL U.S.A.
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1-800-642-2444

REFER TO THE
STANDARD SPECIFICATIONS

STANDARD POTABLE PIPELINE NOTES

APPROVED BY:

DIRECTOR OF ENGINEERING

RCE #66517

7-18-12
DATE

DETAIL
DS-2

REVISION
3
7-18-12

**SOLANO IRRIGATION DISTRICT
STANDARD PRESSURIZED NON-POTABLE WATER SYSTEM NOTES**

1. ALL MATERIALS AND INSTALLATION OF THE NON-POTABLE WATER SYSTEM SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF SOLANO IRRIGATION DISTRICT'S LATEST REVISION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL EXISTING UTILITIES.
3. CONTRACTOR SHALL NOTIFY SOLANO IRRIGATION DISTRICT AT (707) 448-6847, FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING CONSTRUCTION AND FOR INSPECTION OF THE NON-POTABLE WATER SYSTEM.
4. NON-POTABLE WATER MAINS SHALL BE AWWA C-900, CLASS 150 (DR 18) FOR 4"-12" PIPELINES OR AWWA C-900, CLASS 165 (DR25) FOR 14"-20" PIPELINES, EITHER CASE THE WORDING "CAUTION - RECLAIMED WATER - DO NOT DRINK" PRINTED ON TWO SIDES EVERY 24", MANUFACTURED BY PW PIPE (PURPLE PLUS) OR APPROVED EQUAL.
5. A CONTINUOUS PURPLE POLYETHYLENE SLEEVE WITH THE PRINTED WORDING "CAUTION - RECLAIMED WATER - DO NOT DRINK" IS AN ACCEPTABLE ALTERNATIVE TO PURPLE PIPE. THE SLEEVE SHALL RUN CONTINUOUSLY THE ENTIRE LENGTH OF THE PIPELINE. EACH SECTION OF SLEEVE SHOULD OVERLAP THE NEXT SECTION OF MINIMUM OF 24" AND SHOULD BE SECURED AT EACH SLEEVE JOINT.
6. THE CONTRACTOR GUARANTEES THE RUBBER GASKETED PVC PIPELINES AND APPURTENANCES AGAINST DEFECTIVE WORKMANSHIP, MATERIALS AND LEAKAGE FOR A PERIOD OF ONE (1) YEAR AFTER THE PIPELINE IS ACCEPTED. THE CONTRACTOR AGREES TO REPAIR ALL LEAKS AND TO MAINTAIN THE PIPELINE AND ITS APPURTENANCES IN A SATISFACTORY OPERATING CONDITION DURING THE ABOVE SPECIFIED PERIOD. UPON NOTICE BY THE DISTRICT OF NEEDED REPAIRS, THE CONTRACTOR SHALL UNDERTAKE SUCH REPAIRS, INCLUDING NECESSARY DEWATERING, WITHIN FORTY-EIGHT (48) HOURS. NEITHER THE GUARANTY NOR MAINTENANCE REQUIREMENTS SHALL APPLY TO DAMAGE CAUSED BY AN ACT OF GOD, NEGLIGENCE IN THE OPERATION OF THE SYSTEM OR ACTS OF THIRD PARTIES.
7. FIELD HYDROSTATIC TESTING SHALL BE IN ACCORDANCE TO THE DISTRICT'S STANDARD SPECIFICATIONS LATEST REVISION.
8. THE CONTRACTOR SHALL FURNISH TO THE DISTRICT, THREE (3) COPIES OF SHOP AND FABRICATION DRAWINGS WHICH ARE REQUIRED PRIOR TO THE FABRICATION AND/OR PLACEMENT OF ANY OR ALL ITEMS. THE DISTRICT WILL RETURN ONE (1) COPY OF THESE DRAWINGS TO THE CONTRACTOR MARKED "NO EXCEPTIONS TAKEN", "MAKE CORRECTIONS NOTED", "AMEND AND RESUBMIT", OR "REJECTED - RESUBMIT". THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING THE SHOP AND/OR FABRICATION DRAWINGS, AS REQUIRED BY THE DISTRICT, OR RESUBMIT AN ALTERNATE FOR APPROVAL.
9. ALL STRUCTURE COVERS ARE TO BE MARKED "NPW" TO DISTINGUISH FROM CITY POTABLE WATER. ALL COVER LETTERING SUBJECT TO SID APPROVAL.
10. THE CONTRACTOR SHALL PLACE A "NPW" IN THE WET CONCRETE CURB TOP FOR WATER SERVICE LOCATIONS.
11. THE DISTRICT INSPECTOR WILL LOCATE THE EXACT PLACEMENT OF BOV'S AND ARV'S.
12. ALL SECTIONALIZING VALVES SHALL BE BUTTERFLY VALVES AND CONFORM TO THE APPLICABLE PROVISIONS OF AWWA C-504. ALL BUTTERFLY VALVES SHALL BE FLANGED (SHORT BODY) AND NOT OF THE WAFER TYPE WITH A PRESSURE RATING EQUIVALENT TO THAT OF THE PIPELINE. REFER TO THE DISTRICT'S STANDARDS FOR COATING REQUIREMENTS.
13. ALL WORK PERFORMED SHALL BE INSPECTED BY SOLANO IRRIGATION DISTRICT'S INSPECTOR. IF ANY WORK SHALL BE PERFORMED WITHOUT APPROVAL OR CONSENT OF THE INSPECTOR, IT MUST, IF REQUIRED BY THE INSPECTOR, BE EXPOSED FOR EXAMINATION AT THE CONTRACTOR'S EXPENSE, IRRESPECTIVE OF WHETHER THE WORK EXPOSED IS FOUND TO BE DEFECTIVE OR NOT.
14. THE INSPECTION OF THE WORK SHALL NOT RELIEVE THE CONTRACTOR OF ANY OF HIS OBLIGATIONS TO FULFILL HIS CONTRACT, DEFECTIVE WORK SHALL BE MADE GOOD AND UNSUITABLE MATERIALS MAY BE REJECTED, NOTWITHSTANDING SUCH WORK AND MATERIALS THAT HAVE BEEN PREVIOUSLY OVERLOOKED BY THE INSPECTOR.
15. THE DISTRICT INSPECTOR AND/OR DISTRICT STAFF WILL INSTALL THE DISTRICT STANDARD NON-POTABLE WATER TAGS ON ALL NON-POTABLE SERVICES, AIR RELIEF VALVES AND BLOWOFFS. THE TAGS ARE TO BE SUPPLIED BY THE DISTRICT AT THE CONTRACTOR'S EXPENSE. CURRENT PRICING OF TAGS ARE \$7.50 EACH (PRICE SUBJECT TO CHANGE WITHOUT NOTICE).



NOTE: CALL U.S.A.
AT LEAST 48 HOURS
PRIOR TO EXCAVATION
1-800-642-2444

REFER TO THE
STANDARD SPECIFICATIONS

STANDARD NON-POTABLE PIPELINE NOTES

APPROVED BY: 
DIRECTOR OF ENGINEERING

RCE #66517

7-16-12
DATE

DETAIL
DS-3

REVISION
3
7-18-12

**SOLANO IRRIGATION DISTRICT
STANDARD GRAVITY IRRIGATION WATER SYSTEM NOTES**

1. ALL MATERIALS AND INSTALLATION OF THE IRRIGATION WATER SYSTEM SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF SOLANO IRRIGATION DISTRICT'S LATEST REVISION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL EXISTING UTILITIES.
3. CONTRACTOR SHALL NOTIFY SOLANO IRRIGATION DISTRICT AT (707) 448-6847, FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING CONSTRUCTION AND FOR INSPECTION OF THE IRRIGATION WATER SYSTEM.
4. IRRIGATION WATER MAINS, LATERALS AND SERVICES SHALL BE:
 - 4" - 12" PIPES - IRON PIPE SIZE (IPS) RUBBER GASKETED PVC, CLASS 160 (SDR 26)
 - 15" - 24" PIPES - PRESSURIZED IRRIGATION PIPE (PIP) RUBBER GASKETED PVC, CLASS 125 (SDR 32.5)
 - 30" - 48" PIPE - AWWA C-905, CLASS 125 (DR 32.5)
 - 54" & LARGER - RUBBER GASKETED REINFORCED CONCRETE PIPE (RGRCP)

NOTE: FUSION WELDED HIGH DENSITY POLYETHYLENE (HDPE) MAY BE AN ACCEPTABLE ALTERNATIVE WITH THE WRITTEN APPROVAL FROM THE DISTRICT ENGINEER.

5. THE CONTRACTOR GUARANTEES THE RUBBER GASKETED PVC PIPELINES AND APPURTENANCES AGAINST DEFECTIVE WORKMANSHIP, MATERIALS AND LEAKAGE FOR A PERIOD OF ONE (1) YEAR AFTER THE PIPELINE IS ACCEPTED. THE CONTRACTOR AGREES TO REPAIR ALL LEAKS AND TO MAINTAIN THE PIPELINE AND ITS APPURTENANCES IN A SATISFACTORY OPERATING CONDITION DURING THE ABOVE SPECIFIED PERIOD. UPON NOTICE BY THE DISTRICT OF NEEDED REPAIRS, THE CONTRACTOR SHALL UNDERTAKE SUCH REPAIRS, INCLUDING NECESSARY DEWATERING, WITHIN FORTY-EIGHT (48) HOURS. NEITHER THE GUARANTY NOR MAINTENANCE REQUIREMENTS SHALL APPLY TO DAMAGE CAUSED BY AN ACT OF GOD, NEGLIGENCE IN THE OPERATION OF THE SYSTEM OR ACTS OF THIRD PARTIES.
6. FIELD HYDROSTATIC TESTING SHALL BE IN ACCORDANCE TO THE DISTRICT'S STANDARD SPECIFICATIONS LATEST REVISION.
7. THE CONTRACTOR SHALL FURNISH TO THE DISTRICT, THREE (3) COPIES OF SHOP AND FABRICATION DRAWINGS WHICH ARE REQUIRED PRIOR TO THE FABRICATION AND/OR PLACEMENT OF ANY OR ALL ITEMS. THE DISTRICT WILL RETURN ONE (1) COPY OF THESE DRAWINGS TO THE CONTRACTOR MARKED "NO EXCEPTIONS TAKEN", "MAKE CORRECTIONS NOTED", "AMEND AND RESUBMIT", OR "REJECTED - RESUBMIT". THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING THE SHOP AND/OR FABRICATION DRAWINGS, AS REQUIRED BY THE DISTRICT, OR RESUBMIT AN ALTERNATE FOR APPROVAL.
8. ALL STRUCTURE COVERS ARE TO BE MARKED "SID" TO DISTINGUISH FROM OTHER UTILITIES. ALL COVER LETTERING SUBJECT TO SID APPROVAL.
9. THE DISTRICT INSPECTOR WILL LOCATE THE EXACT PLACEMENT OF BOV'S AND ARV'S.
10. ALL SECTIONALIZING AND DISTRIBUTION VALVES SHALL BE BUTTERFLY VALVES AND CONFORM TO THE APPLICABLE PROVISIONS OF AWWA C-504. ALL BUTTERFLY VALVES SHALL BE FLANGED (SHORT BODY) AND NOT OF THE WAFER TYPE WITH A PRESSURE RATING EQUIVALENT TO THAT OF THE PIPELINE. REFER TO THE DISTRICT'S STANDARDS FOR COATING REQUIREMENTS.
11. ALL WORK PERFORMED SHALL BE INSPECTED BY SOLANO IRRIGATION DISTRICT'S INSPECTOR. IF ANY WORK SHALL BE PERFORMED WITHOUT APPROVAL OR CONSENT OF THE INSPECTOR, IT MUST, IF REQUIRED BY THE INSPECTOR, BE EXPOSED FOR EXAMINATION AT THE CONTRACTOR'S EXPENSE, IRRESPECTIVE OF WHETHER THE WORK EXPOSED IS FOUND TO BE DEFECTIVE OR NOT.
12. THE INSPECTION OF THE WORK SHALL NOT RELIEVE THE CONTRACTOR OF ANY OF HIS OBLIGATIONS TO FULFILL HIS CONTRACT, DEFECTIVE WORK SHALL BE MADE GOOD AND UNSUITABLE MATERIALS MAY BE REJECTED, NOTWITHSTANDING SUCH WORK AND MATERIALS THAT HAVE BEEN PREVIOUSLY OVERLOOKED BY THE INSPECTOR.
13. THE DISTRICT INSPECTOR AND/OR DISTRICT STAFF WILL INSTALL THE DISTRICT STANDARD NON-POTABLE WATER TAGS ON ALL NON-POTABLE SERVICES, AIR RELIEF VALVES AND BLOWOFFS. THE TAGS ARE TO BE SUPPLIED BY THE DISTRICT AT THE CONTRACTOR'S EXPENSE. CURRENT PRICING OF TAGS ARE \$7.50 EACH (PRICE SUBJECT TO CHANGE WITHOUT NOTICE).



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REFER TO THE
STANDARD SPECIFICATIONS

STANDARD GRAVITY PVC PIPELINE NOTES

APPROVED BY:

DIRECTOR OF ENGINEERING

RCE #66517

7-18-12
DATE

DETAIL
DS-4

REVISION
3
7-18-12

**SOLANO IRRIGATION DISTRICT
STANDARD REINFORCED CONCRETE IRRIGATION WATER SYSTEM NOTES**


1. ALL MATERIALS AND INSTALLATION OF THE IRRIGATION WATER SYSTEM SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE SOLANO IRRIGATION DISTRICT LATEST REVISION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL EXISTING UTILITIES.
3. CONTRACTOR SHALL NOTIFY THE SOLANO IRRIGATION DISTRICT AT (707) 448-6847, FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING CONSTRUCTION AND FOR INSPECTION OF THE IRRIGATION WATER SYSTEM.
4. IRRIGATION WATER MAINS SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM C-361 AND MANUFACTURED BY THE CENTRIFUGAL SPIN METHOD. IN ADDITION, ALL PIPE SHALL CONTAIN SUFFICIENT REINFORCEMENT TO SUSTAIN EXTERNAL LOADS IN THE CATEGORY OF CLASS III UNDER ASTM C-76. CONCRETE SHALL BE PORTLAND CEMENT TYPE II.
5. SPECIALS AND FITTINGS SHALL MEET THE REQUIREMENTS OF SECTION 4 OF AWWA C-200 OR SHALL BE OF THE SAME MATERIAL AS THE PIPELINE OF WHICH THEY ARE A PART OF, PROVIDED THE STEEL REINFORCEMENT IS EQUAL TO OR GREATER IN AREA. THE DIMENSIONS OF SPECIALS AND FITTINGS SHALL BE IN CONFORMANCE WITH AWWA C-208.
6. THE CONTRACTOR GUARANTEES THE RUBBER GASKETED REINFORCED CONCRETE PIPELINE AND APPURTENANCES AGAINST DEFECTIVE WORKMANSHIP, MATERIALS AND LEAKAGE FOR A PERIOD OF ONE (1) YEAR AFTER THE PIPELINE IS ACCEPTED. THE CONTRACTOR AGREES TO REPAIR ALL LEAKS AND TO MAINTAIN THE PIPELINE AND ITS APPURTENANCES IN A SATISFACTORY OPERATING CONDITION DURING THE ABOVE SPECIFIED PERIOD. UPON NOTICE BY THE DISTRICT OF NEEDED REPAIRS, THE CONTRACTOR SHALL UNDERTAKE SUCH REPAIRS, INCLUDING NECESSARY DEWATERING, WITHIN FORTY-EIGHT (48) HOURS. NEITHER THE GUARANTY NOR MAINTENANCE REQUIREMENTS SHALL APPLY TO DAMAGE CAUSED BY AN ACT OF GOD, NEGLIGENCE IN THE OPERATION OF THE SYSTEM OR ACTS OF THIRD PARTIES.
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9. ALL STRUCTURE COVERS ARE TO BE MARKED "SID". ALL COVER LETTERING SUBJECT TO SID APPROVAL.
10. THE DISTRICT INSPECTOR WILL LOCATE THE EXACT PLACEMENT OF BOV'S AND ARV'S.
11. CONTRACTOR SHALL USE PVC PIPE FOR VALVE BOX DEPTH EXTENSIONS.
12. ALL SECTIONALIZING AND DISTRIBUTION VALVES SHALL BE BUTTERFLY VALVES AND CONFORM TO THE APPLICABLE PROVISIONS OF AWWA C-504. ALL BUTTERFLY VALVES SHALL BE FLANGED (SHORT BODY) AND NOT OF THE WAFER TYPE WITH A PRESSURE RATING EQUIVALENT TO THAT OF THE PIPELINE. REFER TO THE DISTRICT'S STANDARDS LATEST REVISION FOR COATING REQUIREMENTS.
13. ALL WORK PERFORMED SHALL BE INSPECTED BY SOLANO IRRIGATION DISTRICT'S INSPECTOR. IF ANY WORK SHALL BE PERFORMED WITHOUT APPROVAL OR CONSENT OF THE INSPECTOR, IT MUST, IF REQUIRED BY THE INSPECTOR, BE EXPOSED FOR EXAMINATION AT THE CONTRACTOR'S EXPENSE, IRRESPECTIVE OF WHETHER THE WORK EXPOSED IS FOUND TO BE DEFECTIVE OR NOT.
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STANDARD REINFORCED CONCRETE PIPELINE NOTES

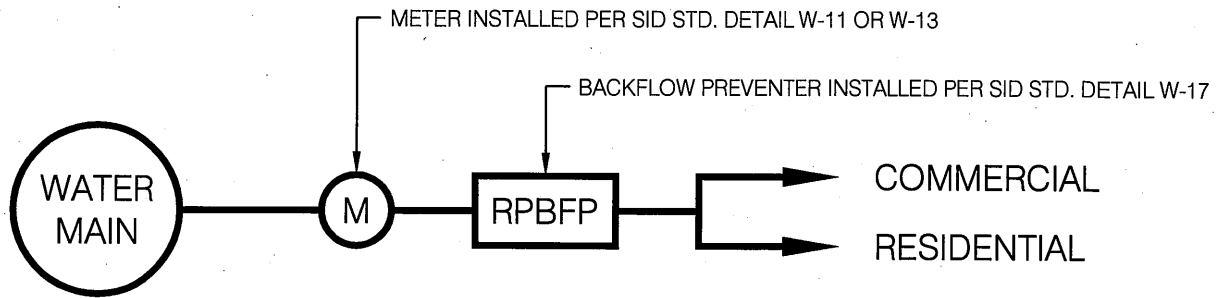
APPROVED BY: 
DIRECTOR OF ENGINEERING

RCE #66517

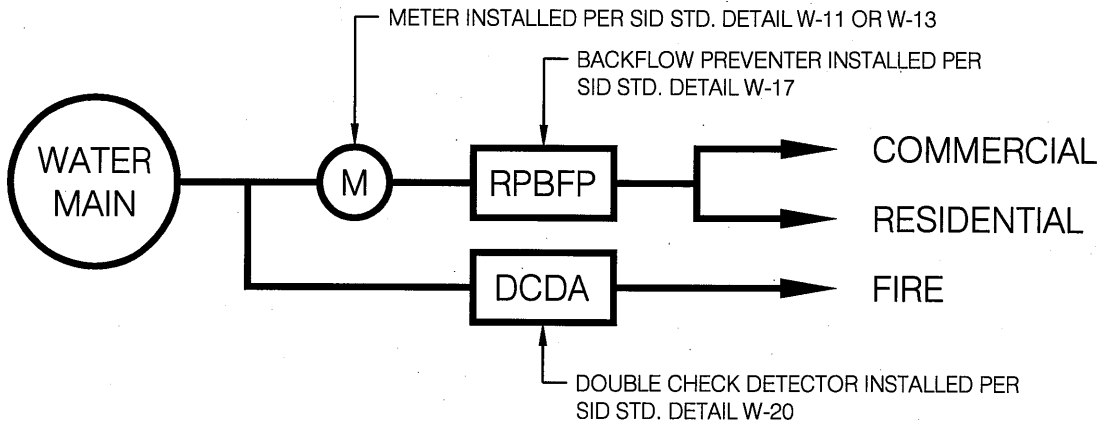
7-18-12
DATE

DETAIL
DS-5

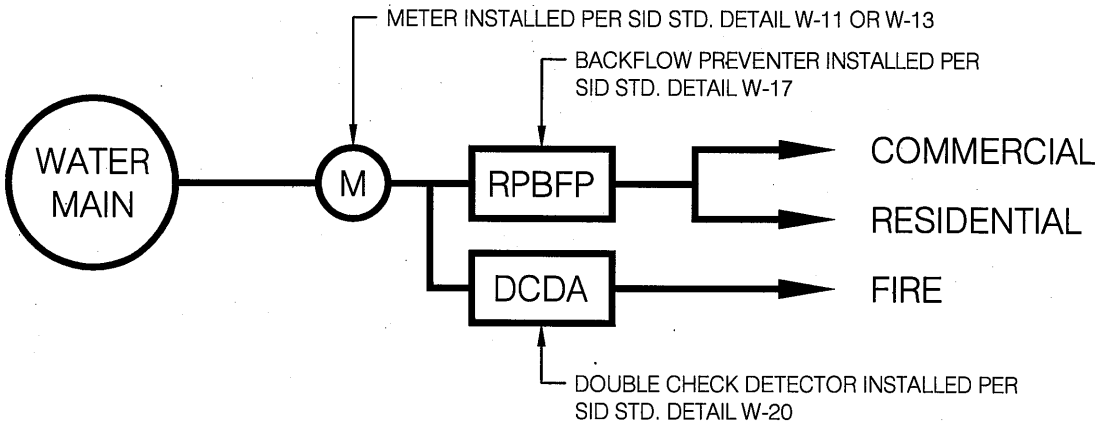
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TYPICAL CONNECTION



TYPICAL CONNECTION WITH FIRE PROTECTION (PREFERRED)



TYPICAL CONNECTION WITH FIRE PROTECTION (ALTERNATE)

NOTES:

1. THE APPLICANT SHALL BE CHARGED THE COMMERCIAL RATE FOR WATER.
2. NO CONNECTION SHALL BE PERMITTED UPSTREAM OF THE DCDA.
3. ALL BACKFLOW PREVENTERS SHALL BE FROM THE APPROVED LIST FROM THE FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH AT THE UNIVERSITY OF SOUTHERN CALIFORNIA. THE LIST CAN BE FOUND AT WWW.DHS.CA.GOV/PS/DDWEM/PUBLICATIONS. THE BACKFLOW PREVENTER SHALL BE TESTED BY THE DISTRICT PRIOR TO ACTIVATION.
4. THE METER, RPBFP & DCDA SHALL BE INSTALLED PER THE DISTRICT STANDARD DETAILS.
5. THE DEVELOPMENT ENGINEER IS RESPONSIBLE TO DETERMINE SIZES OF SERVICE LINES NEEDED TO PROVIDE ADEQUATE WATER PRESSURE AND QUANTITY. THE HYDRAULIC CALCULATIONS SHALL BE SUBMITTED TO THE DISTRICT ENGINEER FOR APPROVAL.
6. FIRE DEPARTMENT APPROVAL OF THE FIRE SUPPRESSION WATER SYSTEM IS HIGHLY RECOMMENDED.
7. LANDSCAPE IRRIGATION SERVICE, IF REQUIRED, SHALL BE CONNECTED TO THE RESIDENTIAL/COMMERCIAL SERVICE LINE AFTER THE RPBFP.



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DESIGN SCHEMATIC OF WATER SERVICES FOR
COMBINED OCCUPANCIES

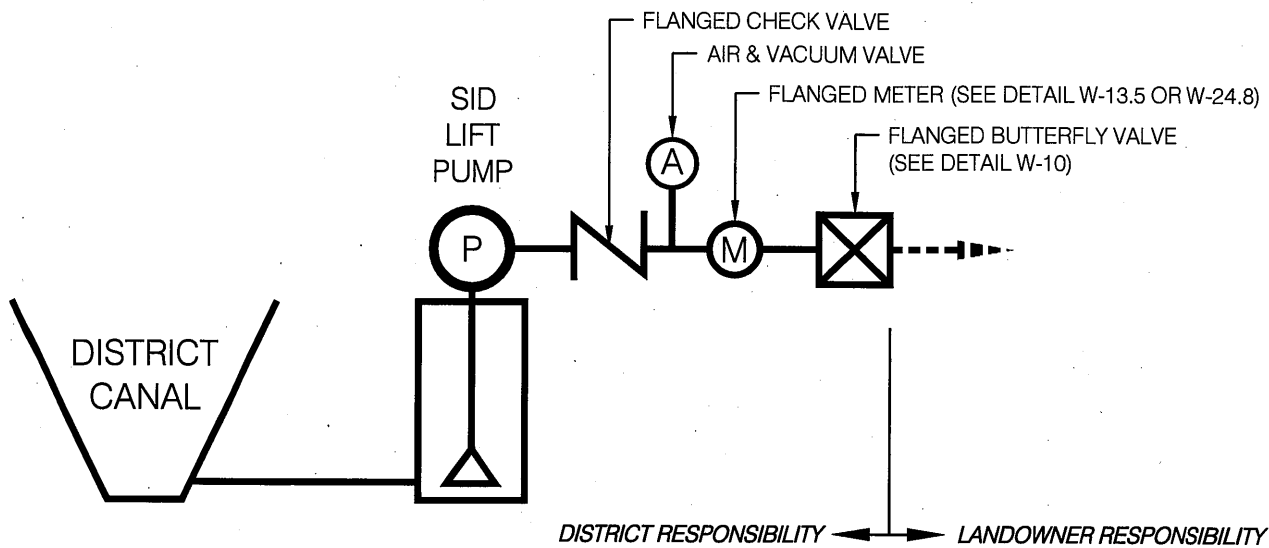
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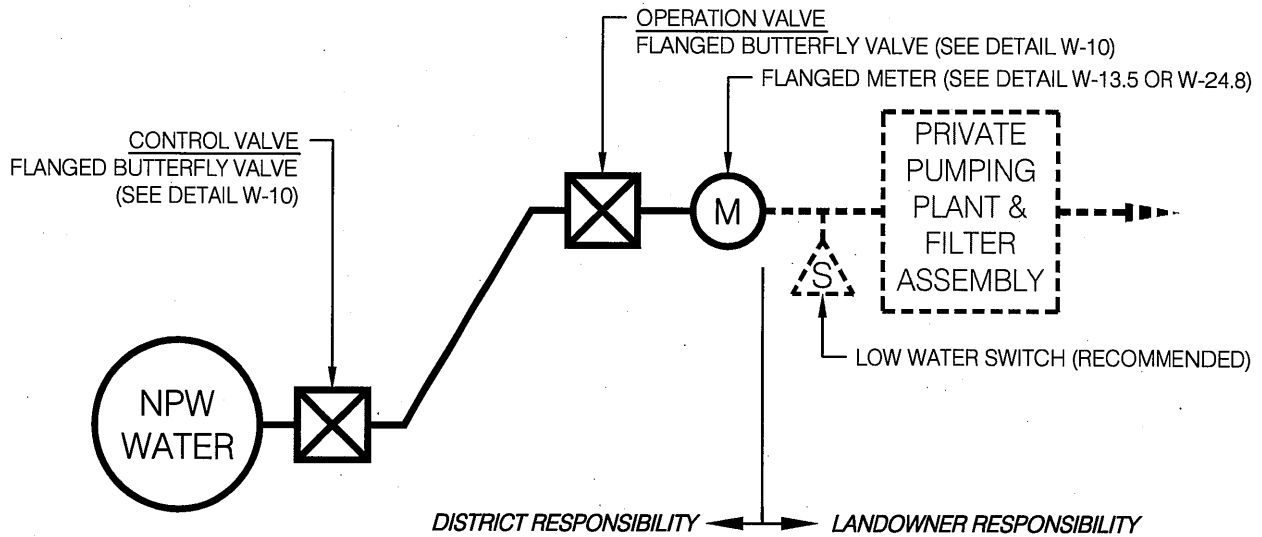
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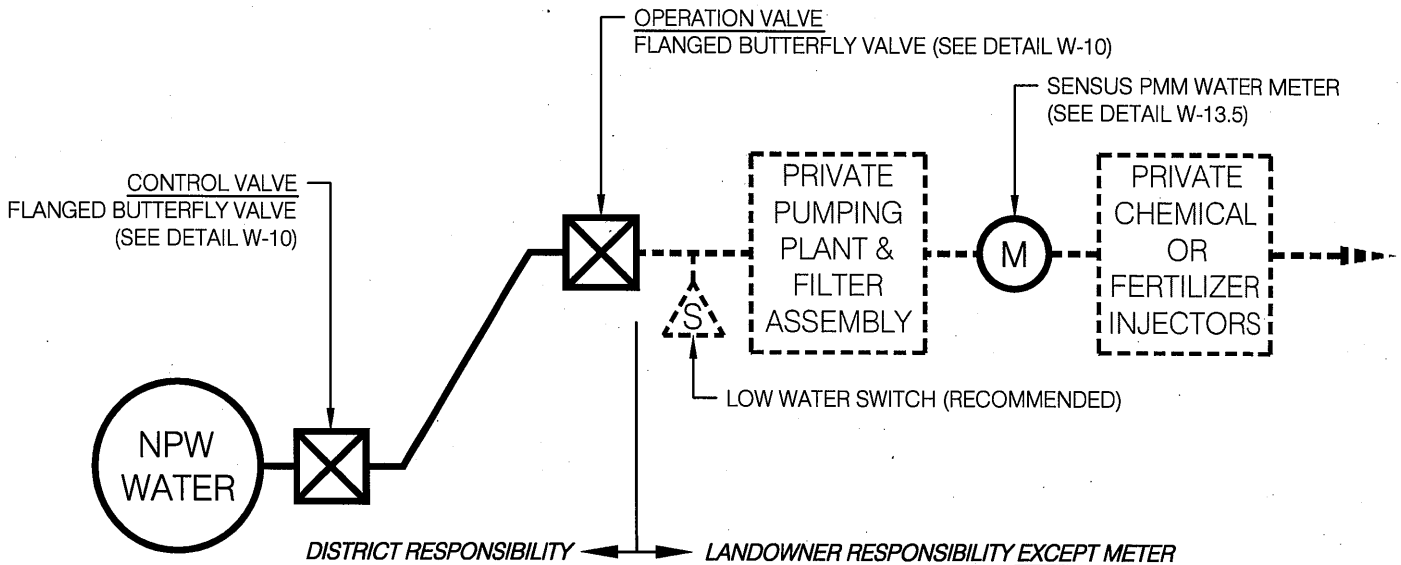
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TYPICAL LIFT PUMP IRRIGATION CONNECTION



TYPICAL BOOSTER PUMP IRRIGATION CONNECTION



TYPICAL LOW-FLOW IRRIGATION CONNECTION



NOTE: CALL U.S.A.
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1-800-642-2444

REFER TO THE
STANDARD SPECIFICATIONS

DESIGN SCHEMATIC FOR PUMPED SERVICES

APPROVED BY
[Signature]
DIRECTOR OF ENGINEERING

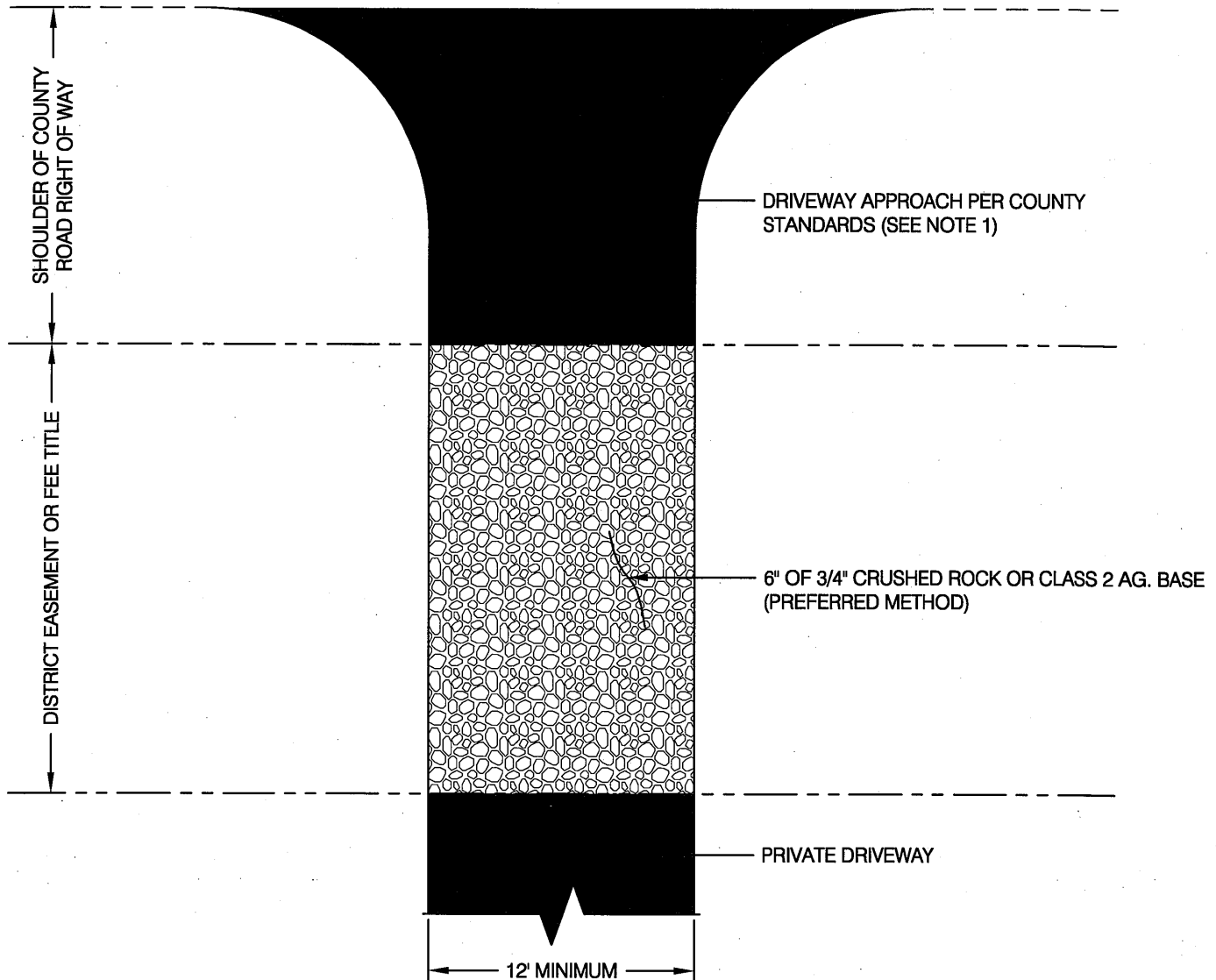
RCE #66517

7-18-12
DATE

DETAIL
DS-7

REVISION
3
7-18-12

← PAVED COUNTY ROAD →



NOTES:

1. ALL DRIVEWAYS SHALL BE CONSTRUCTED TO THE LATEST REVISION OF SOLANO COUNTY'S ROAD IMPROVEMENT STANDARDS AND LAND DEVELOPMENT REQUIREMENTS WHICH INCLUDES AN ENCROACHMENT PERMIT FROM THE COUNTY.
2. THE LANDOWNER SHALL SUBMIT FOR APPROVAL A COMPLETE CONSTRUCTION PACKAGE TO THE DISTRICT'S ENGINEERING DEPARTMENT. THE PACKAGE SHALL INCLUDE A SCALE DRAWING SHOWING THE COUNTY'S AND DISTRICT'S RIGHTS OF WAY AND A SITE PLAN FOR THE PROPOSED CONSTRUCTION PROJECT. DEPENDING ON THE SIZE AND COMPLEXITY OF THE PROJECT, AN DISTRICT WORK ORDER MAY BE REQUIRED.
3. DURING THE MAINTENANCE OF THE DISTRICT'S FACILITY, THE DISTRICT WILL NOTIFY THE LANDOWNER 48 HOURS IN ADVANCE OF CROSSING THE LANDOWNER'S DRIVEWAY.
4. IF SPECIAL DISTRICT CROSSING PROVISIONS ARE REQUESTED BY THE LANDOWNER, IT IS THE RESPONSIBILITY OF THE LANDOWNER TO PROVIDE THE MATERIALS FOR THEIR REQUEST AND PREPARE THEIR DRIVEWAY FOR THE DISTRICT EQUIPMENT CROSSING.
5. THE DISTRICT WILL TAKE REASONABLE PRECAUTIONS AS TO NOT DAMAGE THE LANDOWNER'S FACILITIES.
6. THE DISTRICT SHALL NOT BE RESPONSIBLE FOR CRACKING AND DAMAGES CAUSED BY DISTRICT EQUIPMENT WHILE EXERCISING THE DISTRICT'S LEGAL RIGHT TO UTILIZE THE DISTRICT'S EASEMENT OR FEE TITLE.



NOTE: CALL U.S.A.
AT LEAST 48 HOURS
PRIOR TO EXCAVATION
1-800-642-2444

REFER TO THE
STANDARD SPECIFICATIONS

TYPICAL DRIVEWAY CROSSING

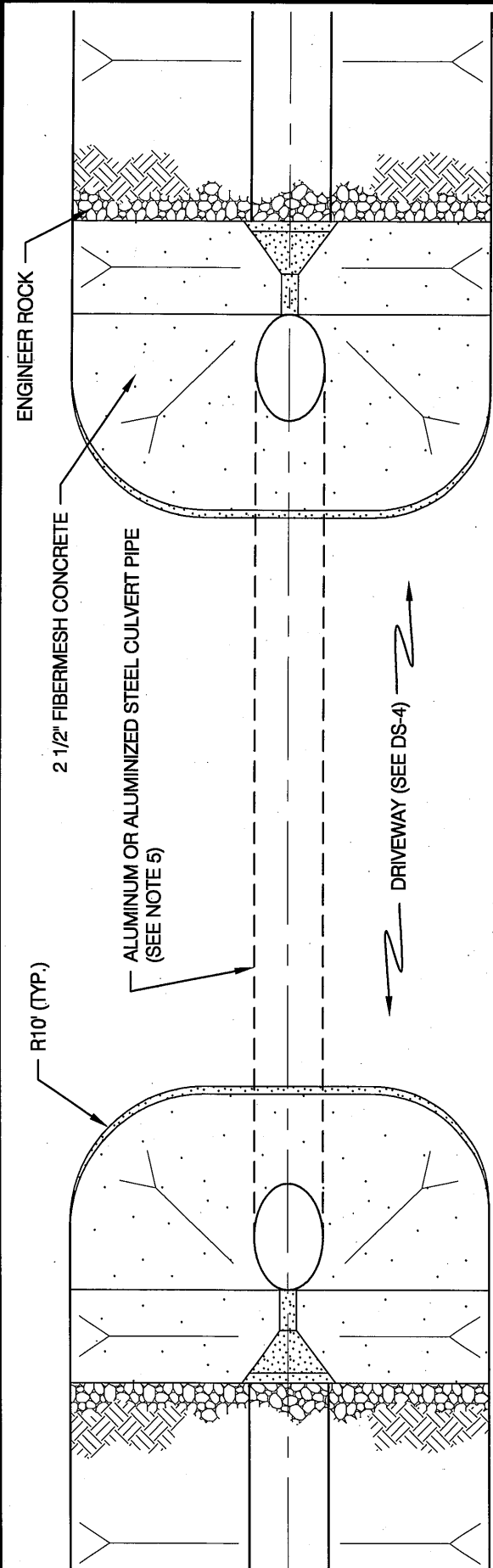
APPROVED BY: 
DIRECTOR OF ENGINEERING

RCE #66517

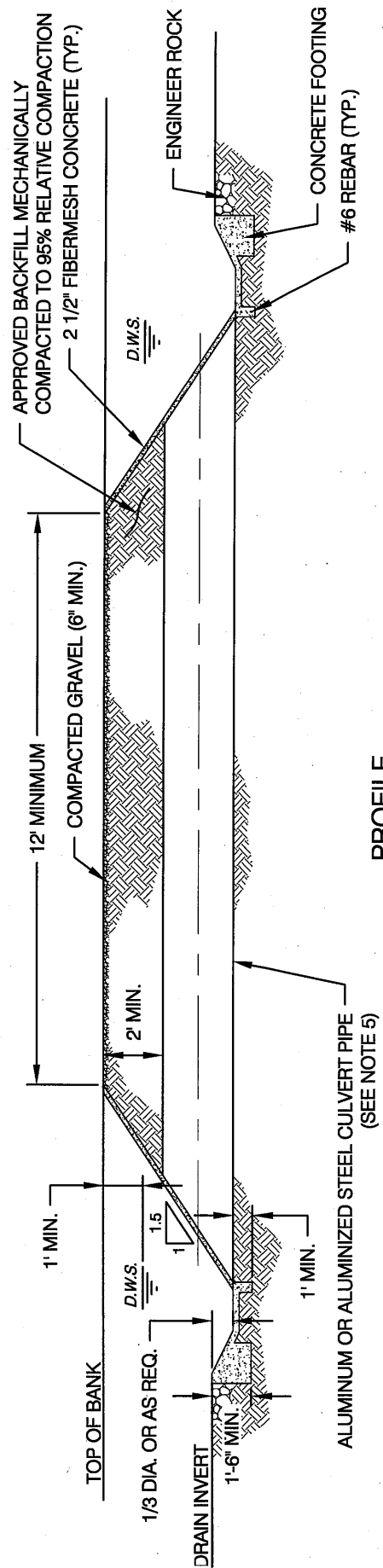
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7-18-12



PLAN VIEW



PROFILE

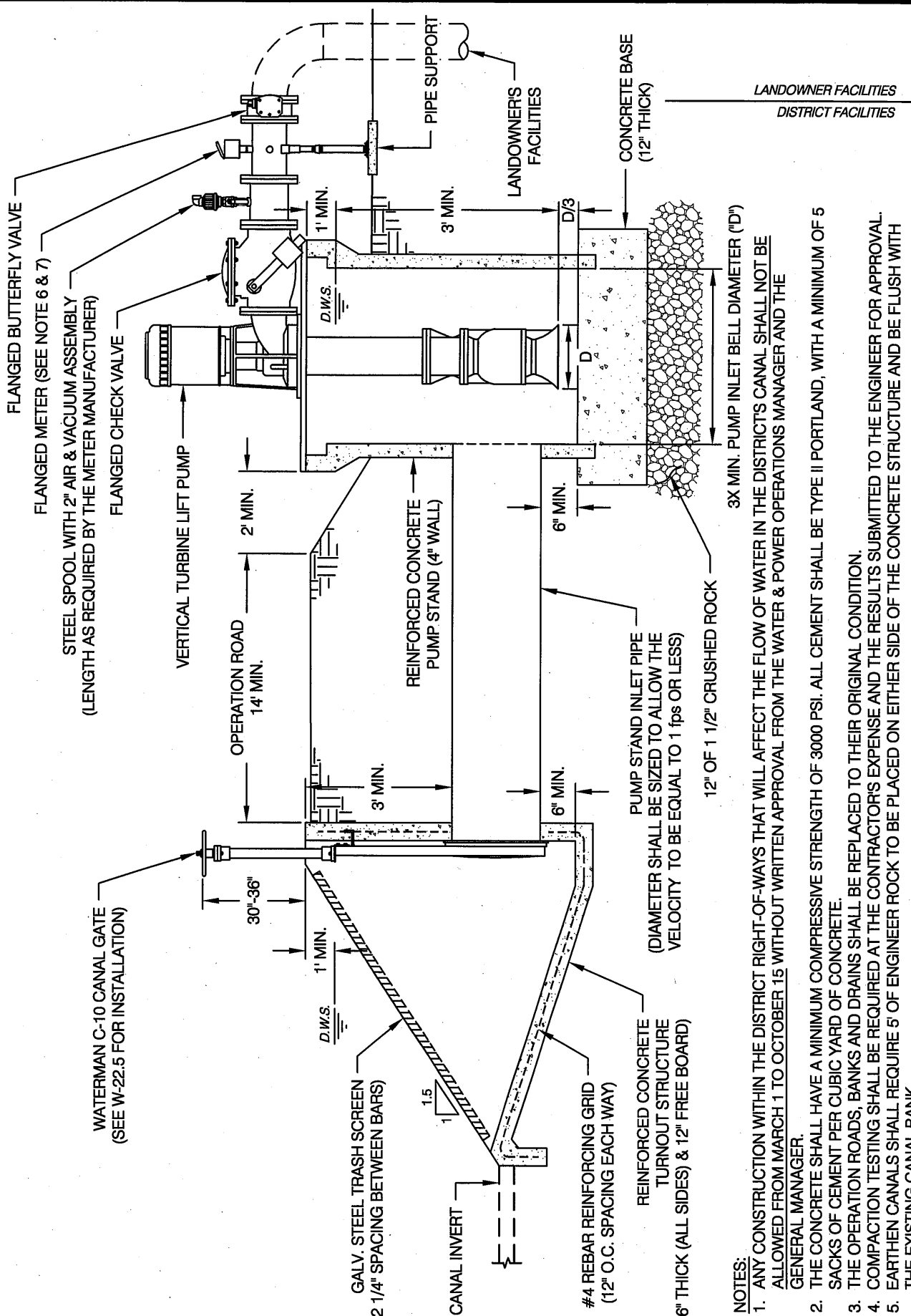
- NOTES:
1. ANY CONSTRUCTION WITHIN THE DISTRICT RIGHT-OF-WAYS THAT WILL AFFECT THE FLOW OF WATER IN THE DISTRICTS DRAIN SHALL NOT BE ALLOWED FROM MARCH 1 TO OCTOBER 15 WITHOUT WRITTEN APPROVAL FROM THE WATER & POWER OPERATIONS MANAGER AND THE GENERAL MANAGER.
 2. THE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI. ALL CEMENT SHALL BE TYPE II PORTLAND, WITH A MINIMUM OF 5 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
 3. THE OPERATION ROADS, BANKS AND DRAINS SHALL BE REPLACED TO THEIR PRE-CONSTRUCTION CONDITION.
 4. COMPACTION TESTING SHALL BE REQUIRED AT THE CONTRACTOR'S EXPENSE AND THE RESULTS SUBMITTED TO THE ENGINEER FOR APPROVAL.
 5. WHEN THE HYDRAULIC CALCULATIONS REQUIRE TWO (2) ROUND CULVERTS TO BE INSTALLED, A SINGLE ARCHED CULVERT OR CONCRETE BOX CULVERT SHALL BE UTILIZED.
 6. THE HYDRAULIC FLOW CALCULATIONS SHALL BE BASED ON A 100 YEAR STORM AND BE SUBMITTED THE THE DISTRICTS ENGINEER FOR APPROVAL.



NOTE: CALL U.S.A. AT LEAST 48 HOURS PRIOR TO EXCAVATION 1-800-642-2444
REFER TO THE STANDARD SPECIFICATIONS

TYPICAL DRAIN OR CANAL CROSSING
APPROVED BY: [Signature]
DIRECTOR OF ENGINEERING RCE #66517
DATE 7-18-12

DETAIL DS-9
REVISION 3
7-18-12



- NOTES:**
1. ANY CONSTRUCTION WITHIN THE DISTRICT RIGHT-OF-WAYS THAT WILL AFFECT THE FLOW OF WATER IN THE DISTRICTS CANAL SHALL NOT BE ALLOWED FROM MARCH 1 TO OCTOBER 15 WITHOUT WRITTEN APPROVAL FROM THE WATER & POWER OPERATIONS MANAGER AND THE GENERAL MANAGER.
 2. THE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI. ALL CEMENT SHALL BE TYPE II PORTLAND, WITH A MINIMUM OF 5 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
 3. THE OPERATION ROADS, BANKS AND DRAINS SHALL BE REPLACED TO THEIR ORIGINAL CONDITION.
 4. COMPACTION TESTING SHALL BE REQUIRED AT THE CONTRACTOR'S EXPENSE AND THE RESULTS SUBMITTED TO THE ENGINEER FOR APPROVAL.
 5. EARTHEN CANALS SHALL REQUIRE 5' OF ENGINEER ROCK TO BE PLACED ON EITHER SIDE OF THE CONCRETE STRUCTURE AND BE FLUSH WITH THE EXISTING CANAL BANK.
 6. FOR SERVICE SIZES FROM 6" TO 10" A FLANGED MAGNETIC METER OR FLANGED TUBE METER (HIGH VELOCITY) MAY BE USED.
 7. FOR SERVICE SIZES 12" OR LARGER, A FLANGED MAGNETIC METER SHALL BE REQUIRED. ELECTRICAL SERVICE FOR THE METER SHALL BE INSTALLED AND BILLED TO THE LANDOWNER.
 8. THE HYDRAULIC CALCULATIONS SHALL BE SUBMITTED TO THE DISTRICTS ENGINEER FOR APPROVAL.



NOTE: CALL U.S.A. AT LEAST 48 HOURS PRIOR TO EXCAVATION 1-800-642-2444
REFER TO THE STANDARD SPECIFICATIONS

TYPICAL LIFT PUMP SERVICE
APPROVED BY: *[Signature]*
DIRECTOR OF ENGINEERING RCE #66517

7-18-12
DATE

DETAIL DS-10
REVISION 3
7-18-12

