Spanish Fork South Irrigation Company

Typical Drawings

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DISCLAIMER:

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		SPANISH FORK SOUTH			IRRIGATION COMPANY		
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KYLE DEVANEY	APRIL 2, 2025						
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SPANISH FORK SOUTH IRRIGATION COMPANY (SFSIC) NOTES

GENERAL

- □ NOTIFICATION MUST BE GIVEN AT LEAST 24 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION WORK AND RE-NOTIFICATION OF RE-COMMENCEMENT OF WORK FOLLOWING ANY CESSATION OF WORK FOR MORE THAN 4 (FOUR) DAYS. CALL KYLE DEVANEY AND THE CANAL WATER MASTER. FAILURE TO DO SO MAY RESULT IN A \$5,000 FINE.
- □ CONTACT INFORMATION FOR FRANSON CIVIL AND SFSIC:
 - 0 Kyle DeVaney, P.E., Franson Civil Engineers, 801-756-0309
 - 0 JOHN LUDLOW, PRESIDENT, SPANISH FORK SOUTH IRRIGATION COMPANY, 801-836-8894
 - 0 BRYAN OTTESEN, WATER MASTER, SFSIC CANAL, 801-369-6329
- ANY CHANGES IN DESIGN DRAWINGS AFTER THE ENCROACHMENT AGREEMENT HAS BEEN EXECUTED MUST BE REVIEWED AND ACCEPTED BY FRANSON CIVIL AND SFSIC.
- □ Work cannot interfere with delivery of water. Construction within canal corridors that impacts the canal or operation & maintenance road (0&M road) must be completed between October 31 and April 1. Failure to comply may result in agreement termination and monetary fines.
- □ ALL CONSTRUCTION WITHIN THE CANAL CORRIDOR MUST BE COMPLETED TO SFSIC STANDARDS.
- □ IF DISTURBED, THE CANAL O&M ROAD SHALL BE REINSTALLED FOLLOWING CONSTRUCTION. O&M ROAD MUST BE AVAILABLE FOR USE BY CANAL PERSONNEL NO LATER THAN APRIL I.
 - O THE O&M ROAD SHALL BE GRADED AT A 2% SLOPE AWAY FROM THE CANAL.
 - 0 AFTER PLACING AND COMPACTING NATIVE MATERIAL, PLACE A MINIMUM OF TWO INCHES OF COMPACTED ROADBASE ON ROAD SURFACE. COMPACTION SHALL BE 95% STANDARD PROCTOR DENSITY.
- □ STORM WATER RUNOFF ENTERS THE CANAL DURING STORM EVENTS OR AT OTHER UNEXPECTED TIMES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT THE WORK SITE. ANY DAMAGE TO THE CANAL CORRIDOR CAUSED BY CONSTRUCTION ACTIVITIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND APPLICANT.
- □ ALL BACKFILL MATERIALS SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY.
- □ APPLICANT IS REQUIRED TO PERFORM COMPACTION TESTING AT APPLICANT'S COST. IF REQUESTED, COMPACTION TEST RESULTS SHALL BE SUBMITTED TO FRANSON CIVIL ENGINEERS. ALL FAILED MATERIAL SHALL BE REMOVED AND COMPACTED TO SPECIFICATIONS. TESTING MUST BE PERFORMED BY A LICENSED SOILS LAB.
- □ ALL CONCRETE USED IN CONSTRUCTION SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI. THE CONCRETE MIX SHALL INCLUDE BETWEEN 5% AND 7% AIR ENTRAINMENT.
- APPLY SWELLSTOP, WATERSTOP RX, OR WFIC ENGINEER APPROVED EQUIVALENT TO ALL CONCRETE COLD JOINTS TO PREVENT WATER SEEPAGE.
- □ PVC, WATERSTOP, OR EQUIVALENT IS REQUIRED IN ALL JOINTS OF CAST-IN-PLACE CONCRETE TO PREVENT SEEPAGE BETWEEN THE SURFACES.
- □ PIPES, CONDUITS, OR OTHER SIMILAR FACILITIES ARE NOT ALLOWED TO BE INSTALLED OVER THE CANAL CHANNEL. TREES, OR OTHER UTILITY FACILITIES ARE NOT ALLOWED TO BE INSTALLED IN SFSIC CORRIDORS. TURNOUTS, OVERHEAD POWER LINES, ETC. CAN BE EXCEPTIONS.
- FENCES DISTURBED DURING CONSTRUCTION ACTIVITIES MUST BE REPLACED AND RETURNED TO PRE-CONSTRUCTION CONDITION, OR BETTER.
- □ NEITHER SFSIC NOR FRANSON CIVIL CAN VERIFY THE LOCATIONS OF UNDERGROUND FACILITIES. BLUE STAKES SHOULD ALWAYS BE CALLED BEFORE DIGGING (I-800-662-411).

PIPES

- □ ALL NEW PIPES MUST BE DOCUMENTED BY VIDEO CAMERA AFTER INSTALLATION AND BACKFILL. ANY PROBLEMS WITH JOINTS, LEVELS, SLOPES, ETC. DISCOVERED BY THE VIDEO TECHNICIANS MUST BE REPAIRED. A DIGITAL COPY OF THE VIDEO MUST BE SUBMITTED TO FRANSON CIVIL.
- □ PIPES OR OTHER UTILITIES RUNNING PARALLEL TO THE IRRIGATION PIPE IN A SHARED EASEMENT SHALL BE PLACED A MINIMUM OF 5 FEET HORIZONTALLY DISTANCED FROM THE IRRIGATION PIPE.
- PIPES CROSSING PERPENDICULARLY OVER OR UNDER THE IRRIGATION PIPE SHALL HAVE A MINIMUM I_FOOT VERTICAL CLEARANCE.
- BEFORE BACKFILLING THE PIPES, THE CONTRACTOR MUST NOTIFY KYLE DEVANEY OF FRANSON CIVIL ENGINEERS SO A GPS SURVEY OF THE LOCATION AND ELEVATION OF THE INSTALLED PIPELINES CAN BE PERFORMED.
- □ PIPES ENTERING BOXES SHALL BE CONCRETED ON THE OUTSIDE AND GROUTED ON THE INSIDE.

BOX AND PIPE CULVERTS

- □ CANAL FLOOR AND EMBANKMENT MATERIAL REMOVED FOR EXCAVATION (BETWEEN APRON AND UNDISTURBED CANAL) SHALL BE REPLACED WITH A 12_INCH MINIMUM THICKNESS OF 10⁻⁶ CM/SEC PERMEABILITY CLAY MATERIAL IN 6-INCH MAXIMUM LIFTS.
- COMPACTION AROUND THE BOX CULVERTS TO MEET MANUFACTURER REQUIREMENTS OR A MINIMUM OF 95% STANDARD PROCTOR DENSITY.
- □ CANAL EMBANKMENT SHALL BE SHAPED TO MATCH THE EXISTING CANAL PRISM.
- □ OPEN-CUT TRENCHES FOR THE CUTOFF WALLS SHALL BE CUT AT A MINIMUM OF 2 HORIZONTAL TO I VERTICAL SO THAT BACKFILL CAN BE PROPERLY COMPACTED.
- □ IF EXTENDING AN EXISTING BOX CULVERT, WATERSTOP RX, SWELLSTOP, OR AN APPROVED EQUIVALENT SHALL BE PLACED BETWEEN THE OLD CULVERT AND THE NEW CULVERT TO PREVENT SEEPAGE. MASTIC IS NOT ACCEPTABLE.
- CONDUITS SHOWN ON THESE DRAWINGS DO NOT GIVE PERMISSION FOR THE CONDUIT TO BE OCCUPIED BY AN ENTITY OTHER THAN THE ORIGINAL APPLICANT. EACH ENTITY CROSSING THE CANAL MUST APPLY FOR, AND RECEIVE, AN ENCROACHMENT AGREEMENT FROM SFSIC.
- □ SIGNS MUST BE PLACED AT EACH ENTRANCE TO THE CANAL O&M ROAD THAT STATE:
 - O NO TRESPASSING. WARNING: CANAL MAINTENANCE ROAD, AUTHORIZED PERSONNEL ONLY. NO SWIMMING OR TUBING.

TURNOUT/WEIR

- □ COMPACTION OF ALL REPLACED EMBANKMENT MATERIAL SHALL BE IMPERMEABLE MATERIAL, MEETING A STANDARD PROCTOR DENSITY OF 95%.
- □ A TRENCH PLUG IS REQUIRED BEHIND THE HEAD WALL. TRENCH PLUG TO BE PLACED IN LOCATION SHOWN FOR WIDTH OF TRENCH, 12 INCHES ABOVE AND BELOW THE PIPE, AND A THICKNESS OF 24 INCHES.
- □ TRENCH PLUGS SHALL BE A 10% BENTONITE AND 90% CLAY MIXTURE. AT LEAST 40% OF THE BACKFILL MATERIAL MUST PASS A NO. 200 U.S. STANDARD SIEVE PRIOR TO ADDING BENTONITE POWDER. THE BACKFILL MATERIAL MUST THEN BE AMENDED BY ADDING AND THOROUGHLY MIXING COMMERCIAL BENTONITE POWDER WITH THE BACKFILL MATERIAL AT A RATIO OF ONE-PART BENTONITE TO NINE-PARTS BACKFILL MATERIAL. IMPERMEABLE FLOWABLE FILL IS AN ACCEPTABLE ALTERNATIVE.

INLET AND OUTLET STRUCTURES

□ CANAL FLOOR AND EMBANKMENT MATERIAL REMOVED FOR EXCAVATION (BETWEEN APRON AI MINIMUM THICKNESS OF 10⁻⁶ CM/SEC PERMEABILITY CLAY MATERIAL IN 6-INCH MAXIMUM LIF □ CANAL EMBANKMENT SHALL BE SHAPED TO MATCH THE EXISTING CANAL PRISM.

IRRIGATION/CLEANOUT BOXES AND MANHOLES

- □ KNOCK-OUT BOXES ARE NOT ALLOWED. ALL BOXES SHALL BE PRE-CAST WITH CORED OPENIN
- □ IRRIGATION BOXES SHALL NOT BE BURIED. THEY SHALL EXTEND TO THE SURFACE OF THE F THE FINAL GRADE SURFACE SHALL BE EXTENDED TO MATCH THE FINAL GRADE.

OPEN CUT OF CANAL

- □ CONTRACTOR TO NOTIFY KYLE DEVANEY, P.E., OF FRANSON CIVIL ENGINEERS WHEN TRE COMPLETION MUST BE PERFORMED BY FRANSON CIVIL BEFORE BACKFILLING. KYLE CAN BE RE
- □ TRENCH PLUGS ARE TO BE PLACED AT EACH END OF THE CASING.
- □ TRENCH PLUGS ARE TO EXTEND THE WIDTH OF TRENCH, 12 INCHES ABOVE AND BELOW CASIN
- □ TRENCH PLUGS SHALL BE 10% BENTONITE AND 90% CLAY MIXTURE. AT LEAST 40% OF TH SIEVE PRIOR TO ADDING BENTONITE POWDER. THE BACKFILL MATERIAL MUST THEN BE BENTONITE POWDER WITH THE BACKFILL MATERIAL AT A RATIO OF ONE-PART BENTONITE FILL IS AN ACCEPTABLE ALTERNATIVE.
- □ CANAL EMBANKMENT SHALL BE SHAPED TO MATCH THE EXISTING CANAL PRISM.
- □ SILT COLLECTS AT THE BOTTOM OF THE CANAL. THE INSTALLATION OF THE CONCRETE LIN CURRENT SILT LAYER.
- \square Rebar shall be a minimum of #4 bar at 12 inches on center.
- A TWO-FOOT-DEEP CONCRETE CUTOFF WALL IS REQUIRED ON BOTH ENDS OF THE CONCRETE LI

IF CANAL IS EARTHEN:

- □ THE CANAL FLOOR AND EMBANKMENT MATERIAL REMOVED FOR EXCAVATION (EXCLUDING UN MINIMUM THICKNESS OF 10⁻⁶ CM/SEC PERMEABILITY CLAY MATERIAL, IN 6-INCH MAXIMUM LIF
 □ ALL REPLACED MATERIALS SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- □ THE TRENCH THROUGH THE CANAL MAY BE CUT AS LITTLE AS ¼ HORIZONTAL TO I VERTICAL
- IF CANAL IS CONCRETE-LINED:

CANAL 13 CONCRETE-LINED.

- THE EXISTING CONCRETE SECTION MUST BE SAWCUT TO GIVE A CLEAN EDGE FOR THE REPLA
- □ THE TRENCH THROUGH THE CANAL MAY BE CUT AS LITTLE AS ¼ HORIZONTAL TO I VERTICA TO BE REMOVED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT COMPACTI
- EMBANKMENT MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR

BORING

- □ CONTRACTOR TO NOTIFY KYLE DEVANEY, P.E., OF FRANSON CIVIL ENGINEERS WHEN TRI COMPLETION MUST BE PERFORMED BY FRANSON CIVIL BEFORE BACKFILLING. KYLE CAN BE RE
- □ TRENCH PLUGS ARE TO BE PLACED AT EACH END OF THE CASING.
- □ TRENCH PLUGS ARE TO EXTEND THE WIDTH OF TRENCH, 12 INCHES ABOVE AND BELOW CASIN
- □ TRENCH PLUGS SHALL BE 10% BENTONITE AND 90% CLAY MIXTURE. AT LEAST 40% OF TH SIEVE PRIOR TO ADDING BENTONITE POWDER. THE BACKFILL MATERIAL MUST THEN BE BENTONITE POWDER WITH THE BACKFILL MATERIAL AT A RATIO OF ONE-PART BENTONITE FILL IS AN ACCEPTABLE ALTERNATIVE.
- □ BORE PIT COMPACTION SHALL BE 95% STANDARD PROCTOR DENSITY.
- □ FILL BORE PITS WITH A MIXTURE OF NATIVE MATERIAL AND 10% BENTONITE POWDER TO C THE NEW CONDUIT.
- □ SILT COLLECTS AT THE BOTTOM OF THE CANAL. THE INSTALLATION OF THE CONCRETE LIN CURRENT SILT LAYER.
- □ REBAR FOR THE CANAL LINER SHALL BE A MINIMUM OF #4 BAR AT 12 INCHES ON CENTER
- A TWO-FOOT-DEEP CONCRETE CUTOFF WALL IS REQUIRED ON BOTH ENDS OF THE CONCRETE L

DIRECTIONAL DRILLING AND MICROTRENCHING

- □ WORK CANNOT INTERFERE WITH DELIVERY OF IRRIGATION WATER. INSTALLATION ACTIVITIES OPERATION, MAINTENANCE, AND REPLACEMENT OF IRRIGATION FACILITIES IS NOT IMPACTED.
- □ BORE PITS MUST BE LOCATED OUTSIDE THE CANAL RIGHT-OF-WAY.
- □ FILL BORE PITS WITH A MIXTURE OF NATIVE MATERIAL AND 10% BENTONITE POWDER TO C THE NEW CONDUIT.
- □ BORE PIT COMPACTION SHALL BE A MINIMUM OF 95% STANDARD PROCTOR DENSITY.

EASEMENTS

ADD THE FOLLOWING NOTE TO THE DRAWINGS/PLAT:

□ NO FOLIAGE, STRUCTURES, OR OTHER UNAUTHORIZED IMPROVEMENTS ARE ALLOWED IN SPANISH

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ND UNDISTURBED CANAL) SHALL BE REPLACED WITH A $12_$ inch ts.			CH FORK SOUT		TION COMPANY	
gs for the pipes or shall be cast-in-place. Inal grade. Any existing boxes that will not extend to			SPANIC	5	IRRIG A	
RENCH PLUGS ARE INSTALLED. VERIFICATION OF TRENCH PLUG EACHED AT 801-756-0309.						
ig pipes, and with a thickness of 24 inches. He Backfill material must pass a No. 200 U.S. standard amended by adding and thoroughly mixing commercial to nine-parts backfill material. Impermeable flowable						
NER SHALL MATCH THE BOTTOM OF THE CANAL AND NOT THE	KYLE DEVANEY	APRIL 2, 2025				
LINER. JNDER CONCRETE LINER) SHALL BE REPLACED WITH A 12-INCH	PROJECT LEADER:	PRINT DATE:		NOIL		
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ACEMENT SECTION. AL TO MINIMIZE THE AMOUNT OF CONCRETE LINER THAT NEEDS ION WILL NOT BE AFFECTED.	CHBCKED: CHE	REVIEWED: REV	R			
DENSITY. NATIVE MATERIAL MAY BE USED. RENCH PLUGS ARE INSTALLED. VERIFICATION OF TRENCH PLUG EACHED AT 801-756-0309.	YILE DEVANEY	1ATT GURR		INITS.		
ig pipes, and with a thickness of 24 inches. He backfill material must pass a No. 200 U.S. standard Amended by adding and thoroughly mixing commercial	DESIGNER:	DRAFTSMAN:		NO. DATE		
TO NINE-PARTS BACKFILL MATERIAL. IMPERMEABLE FLOWABLE						
CREATE A SEAL THAT WILL PREVENT WATER FROM FOLLOWING NER SHALL MATCH THE BOTTOM OF THE CANAL AND NOT THE	ANY					
LINER.	GATION COMP.		SUINES	OTES	Drawings	,
CAN TAKE PLACE AT ANY TIME PROVIDED SFSIC'S ACCESS TO	RK SOUTH IRI			SIC N	a.dwg views/Standard	
CREATE A SEAL THAT WILL PREVENT WATER FROM FOLLOWING	SPANISH FO			ц.	02-SFSIC Notes 0:\21073 SFSIC Re-	
SH FORK SOUTH IRRIGATION COMPANY EASEMENT.					JOB NO.	
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NOTES:

- I. BOX NOT TO BE PLACED IN DRIVEWAYS, ROADS, OR OTHER TRAFFIC AREAS.
- 2. ALL PIPES INTO BOXES SHALL BE GROUTED AND WATERTIGHT.
- 3. BOX WALL THICKNESS AND REINFORCEMENT ARE DEPENDENT ON SITE CONDITIONS AND DEPTH. MINIMUM SIZE AS SHOWN.
- 4. DIMENSIONS SHOWN ON WALLS AND BOXES ARE MINIMUM SIZE, SPECIFIC SITE CONDITIONS OF BOXES AND WALLS MAY REQUIRE ADDITIONAL THICKNESS OR WIDTH.
- 5. TRENCH PLUG TO BE PLACED IN LOCATION SHOWN FOR WIDTH OF TRENCH AND 12 INCHES ABOVE AND BELOW PIPE AT A THICKNESS OF 24 INCHES. PLUGS SHALL BE A 10% BENTONITE AND 90% CLAY MIXTURE.
- 6. PLACE STRUCTURE ON 6-INCHES OF IRRIGATION COMPANY ENGINEER APPROVED COMPACTED BEDDING.

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1	MINIMUM PIPE SLOPE	S
PIPE SIZE	MIN. SLOPE, FT/FT	Min. Slope, %
24"	0.0008	.08%
30"	0.00058	.058%

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WEIR SECTION

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5 OF 19

- 1'-3" -

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- 2'-0" ·

- 3'-0"

NOTES:

- I. REINFORCING TO BE #4 REBAR @ 12-INCHES O.C. E.W. WITH 20-INCH MINIMUM SPLICE LENGTH.
- 2. REBAR TO BE BENT AT ANGLES OF STRUCTURES. OVERLAP TO BE IN STRAIGHT LENGTHS ONLY.
- 3. APPLICANT TO SUBMIT ACTUAL PLANS AND MATERIAL OF FLUME PRIOR TO CONSTRUCTION.

0.20	0.35
0.21	0.37
0.22	0.40
0.23	0.43
0.20	0.40
0.24	0.46
0.25	0.49
0.26	0.51
0.27	0.54
0.28	0.58
0.20	0.00
0.29	0.01
0.30	0.64
0.31	0.68
0.32	0.71
0.33	0.74
0.34	0.77
0.34	0.77
0.55	0.80
0.36	0.84
0.37	0.88
0.38	0.92
0.39	0.95
0.07	0.70
0.40	0.99
0.41	1.03
0.42	1.07
0.43	1.11
0 /./.	1.15
0/5	1.10
0.45	1.19
0.46	1.23
0.47	1.27
0.48	1.31
0.49	1.35
0.50	1.39
0.00	1.07
0.51	1.44
0.52	1.48
0.53	1.52
0.54	1.57
0.55	1.62
0.00	1.66
0.50	1.00
0.57	1.70
0.58	1.75
0.59	1.80
0.60	1.84
0.61	1.88
0.01	1.00
0.62	1.95
0.63	1.98
0.64	2.03
0,65	2.08
0.66	213
0.67	2.10
0.07	2.10
0.68	2.23
0.69	2.28
0.70	2.33
0.71	2.38
0.72	2.43
0.73	2/.8
0.75	2.40
0.74	2.53
0.75	2.58
0.76	2.63
0.77	2.68
0.78	2.74
0.70	2 00
0.79	2.00
0.80	2.85
0.81	2.90
0.82	2.96
0.83	3.02
0.8.0	3.07
0.00	3.07
0.00	J.IZ

HEAD Ha (FEET)

FLOW Q (CFS)

		HEAD
	(CFS)	(FEET)
	3.18	0.86
	3.24	0.87
	3.29	0.88
	3.35	0.89
	3.46	0.91
	3.52	0.92
	3.58	0.93
	3.70	0.95
	3.76	0.96
	3.82	0.97
ř	3.94	0.98
EVAN	4.00	1.00
Ē	4.06	1.01
ž	4.12	1.02
ä	4.25	1.04
EAD	4.31	1.05
E	4.37	1.06
PRO	4.43	1.07
	4.56	1.09
	4.62	1.10
	4.68	.
CKED	4.82	1.12
ł	4.88	1.14
Ä	4.94	1.15
BCK	5.01	1.16
₿	5.15	1.17
	5.21	1.19
ž	5.28	1.20
EVA	5.41	1.22
۲,	5.48	1.23
¥	5.55	1.24
ë	5.62	1.25
ICONE	5.76	1.27
DBS	5.82	1.28
	5.89	1.29
	5.96	1.30
	6.10	1.32
	6.18	1.33
	6.25	1.34
	6.39	1.35
ž	6.46	1.37
dW	6.53	1.38
2	6.60	1.39
Ê	6.75	1.40
	6.82	1.42
	6.89	1.43
Ē	7.04	1.44
SOLT	7.12	1.46
ARK SOLTE	7.16	1/.7
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ANISH FORK SOUTH	7.19 7.26	1.48
ļ	6.82 6.89 6.97 7.04 7.12	1.42 1.43 1.44 1.45 1.46

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Flow	Table
Q=CW X	: H^2.5
Cw	2.5
Н (Fт.)	Q (CFS)
0.20	0.04
0.30	0.12
0.40	0.25
0.50	0.44
0.60	0.70
0.70	1.02
0.80	1.43
0.90	1.92
1.00	2.50
1.10	3.17
1.20	3.94
1.30	4.82
1.40	5.80
150	6 80

		SPANISH FORK SOUTH IRIGATION COMPANY	DESIGNER:	KYLE DEVANEY	CHECKED:	CHECKED	PROJECT LEADER:	KYLE DEVANEY	
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NOTES:

- 1. BOX CULVERT TO HAVE A MINIMUM OF 4 FEET FROM THE INVERT TO THE OBVERT, AND A MINIMUM OF 2 FEET FROM THE HIGH WATER MARK TO THE OBVERT. PLEASE SPECIFY THE HIGH WATER MARK ELEVATION.
- 2. WIDTH OF BOX CULVERT SHALL BE A MINIMUM OF 6 FEET.
- 3. Access to Canal Operation and Maintenance Road Shall be Installed with Curb Cuts at Drive Approaches and Thickened Concrete at Sidewalks.
- 4. CUTOFF WALLS AND APRONS BETWEEN WING WALLS ARE REQUIRED.
- 5. END OF WING WALL SHALL NOT INTERFERE WITH OPERATION AND MAINTENANCE ROAD.
- 6. 6 FOOT CHAIN LINK FENCE OR 2 FOOT PARAPET WALL IS REQUIRED ON ALL BOX CULVERTS THAT CARRY PEDESTRIAN TRAFFIC. EXCEPTIONS MAY OCCUR WHERE LOCAL ORDINANCES NOTE OTHERWISE AND UPON APPROVAL BY CANAL COMPANY.
- 7. DRAWINGS SUBMITTED FOR REVIEW ARE TO SHOW PLAN AND PROFILE VIEWS, NOTE SLOPE, INCLUDE DETAIL INDICATING REBAR SIZE AND SPACING, AND STATE TRAFFIC LOADING.
- CASINGS MUST HAVE A MINIMUM OF 2 FEET BETWEEN TOP OF CASING AND BOTTOM OF BOX CULVERT.
 ALL CONCRETE USED IN CONSTRUCTION SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI. THE
- Concrete Mix Shall Include Between 5% and 7% air Entrainment. 10. The Top of the Wingwall on the Outer end Shall be at an Elevation at or Above the Level of the Ground.

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NOTE: ENGINEER TO DETERMINE REBAR SIZE AND SPACING IN CUTOFF WALL.

CUTOFF WALL CROSS SECTION С NTS

SOUTH COMPANY SPANISH FORK RRIGATION DATE PRINT I BSCRIPTION 19 SIIN ĝ Typical Drawings Large Diameter Pipe Details ANISH FORK SOUTH TYPICAL -15-16-large ğ 8 SHEET

14 OF 19

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		SPANISH FORK SOUTH IRIGATION COMPANY	DESIGNER:	KYLE DEVANEY	CHECKED:	CHECKED	PROJECT LEADER:	KYLE DEVANEY		
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	210/3	LAYOUT: Details								

I. BORE PIT COMPACTION TO BE 95% STANDARD PROCTOR DENSITY.

- 2. TRENCH PLUGS ARE TO BE PLACED IN LOCATIONS SHOWN ON BOTH SIDES FOR WIDTH OF TRENCH AND 12 INCHES ABOVE AND BELOW CASING PIPES AND A THICKNESS OF 24 INCHES. PLUGS SHALL BE A 10% BENTONITE AND 90% CLAY MIXTURE.
- 3. CONTRACTOR SHOULD NOTE CANALS ARE SOMETIMES USED FOR STORM DRAIN AND WILL COLLECT STORM WATER DURING AND FOLLOWING RAIN, SNOW, OR OTHER EVENT RESULTING IN WATER BEING DISCHARGED IN THE STORM DRAIN SYSTEM.
- 4. WATERLINE PIPE INSIDE OF CASING SHALL HAVE RESTRAINING JOINTS.
- 5. THRUST BLOCKS ARE REQUIRED ON ALL BENDS FOR DIP, PVC, OR PIP WATERLINES.
- 6. CASING MUST BE A MINIMUM OF 2 FEET BELOW THE BOTTOM OF THE EXISTING CANAL BOX CULVERT OR 4 FEET BELOW EARTHEN OR CANAL BOTTOM.
- 7. BORE PITS MUST BE COMPLETELY PLACED OUTSIDE OF THE CANAL RIGHT-OF-WAY.

Diameter (Inches)	WALL THICKNESS (INCHES)
12	0.188
14 - 16	0.312
18	0.312
20 - 22	0.375
24 - 26	0.438
28 - 32	0.500
34 - 36	0.562
38 - 42	0.562

Table I

STEEL CASING DIAMETER

THESE ARE NOT INTENDED TO BE USED DIRECTLY IN THE DESIGN OF FACILITIES APPLICANT'S DESIGN ENGINEER, WHO WILL STAMP THE DRAWING, TO ENSURE

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SEE WWW.WATERMANUSA.COM/PDF/C-I0.PDF

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