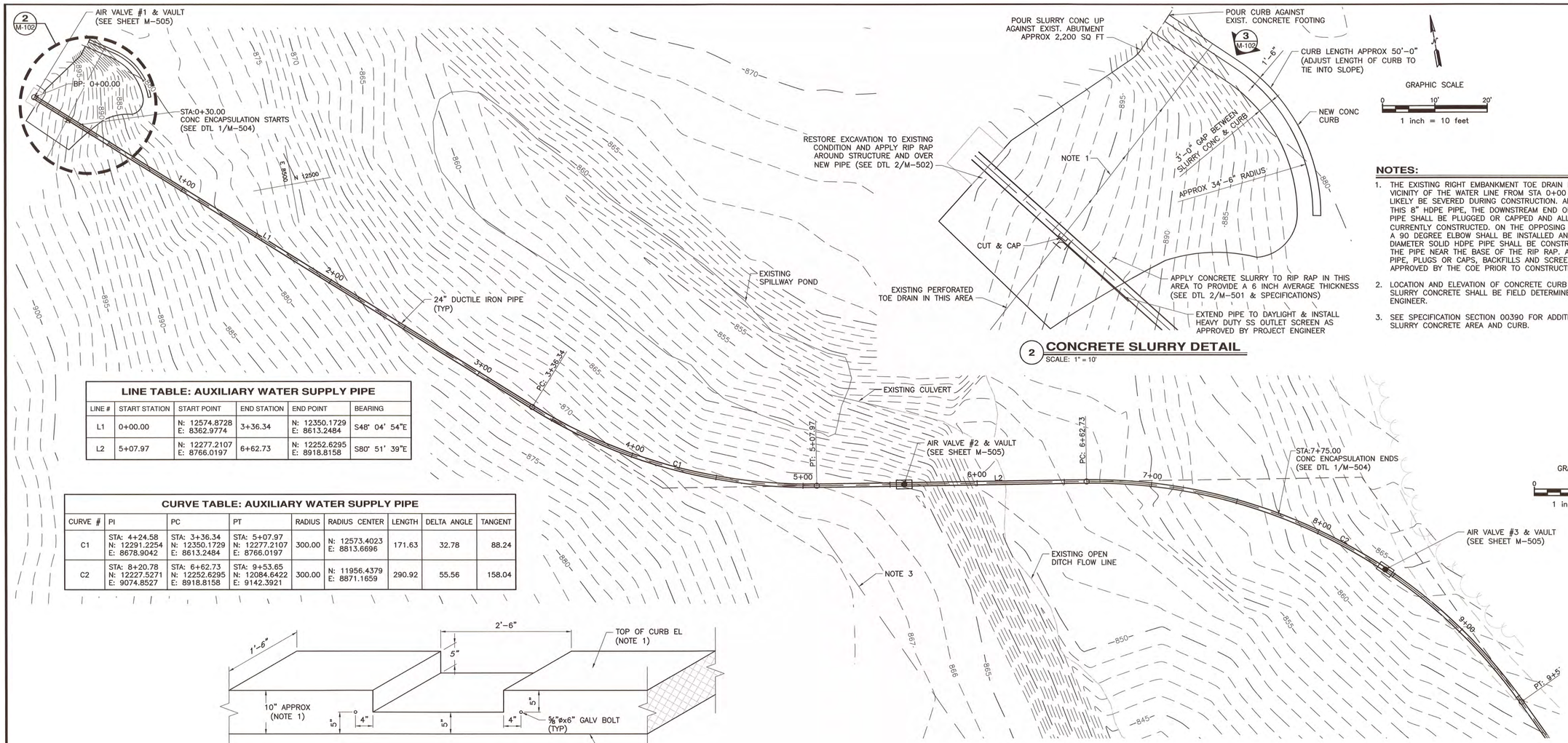


2 CONCRETE SLURRY DETAIL

SCALE: 1" = 10'

NOTES:

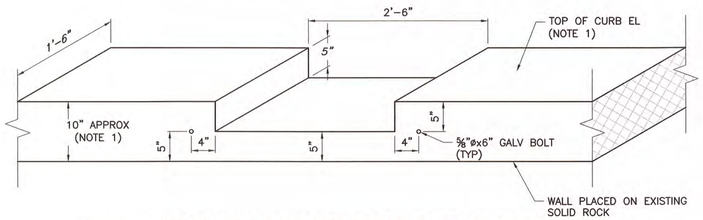
1. THE EXISTING RIGHT EMBANKMENT TOE DRAIN PIPE EXISTS IN THE VICINITY OF THE WATER LINE FROM STA 0+00 TO 1+00 AND WILL LIKELY BE SEVERED DURING CONSTRUCTION. AFTER SEVERING OF THIS 8" HDPE PIPE, THE DOWNSTREAM END OF THE PERFORATED PIPE SHALL BE PLUGGED OR CAPPED AND ALLOWED TO DRAIN AS CURRENTLY CONSTRUCTED. ON THE OPPOSING SIDE (WEST END), A 90 DEGREE ELBOW SHALL BE INSTALLED AND A NEW 8 INCH DIAMETER SOLID HDPE PIPE SHALL BE CONSTRUCTED TO DAYLIGHT THE PIPE NEAR THE BASE OF THE RIP RAP. ALL NEW TOE DRAIN PIPE, PLUGS OR CAPS, BACKFILLS AND SCREEN SHALL BE APPROVED BY THE COE PRIOR TO CONSTRUCTING.
2. LOCATION AND ELEVATION OF CONCRETE CURB AND LIMITS OF THE SLURRY CONCRETE SHALL BE FIELD DETERMINED BY PROJECT ENGINEER.
3. SEE SPECIFICATION SECTION 00390 FOR ADDITIONAL SKETCHES OF SLURRY CONCRETE AREA AND CURB.

LINE TABLE: AUXILIARY WATER SUPPLY PIPE

LINE #	START STATION	START POINT	END STATION	END POINT	BEARING
L1	0+00.00	N: 12574.8728 E: 8362.9774	3+36.34	N: 12350.1729 E: 8613.2484	S48° 04' 54"E
L2	5+07.97	N: 12277.2107 E: 8766.0197	6+62.73	N: 12252.6295 E: 8918.8158	S80° 51' 39"E

CURVE TABLE: AUXILIARY WATER SUPPLY PIPE

CURVE #	PI	PC	PT	RADIUS	RADIUS CENTER	LENGTH	DELTA ANGLE	TANGENT
C1	STA: 4+24.58 N: 12291.2254 E: 8678.9042	STA: 3+36.34 N: 12350.1729 E: 8613.2484	STA: 5+07.97 N: 12277.2107 E: 8766.0197	300.00	N: 12573.4023 E: 8813.6696	171.63	32.78	88.24
C2	STA: 8+20.78 N: 12227.5271 E: 9074.8527	STA: 6+62.73 N: 12252.6295 E: 8918.8158	STA: 9+53.65 N: 12084.6422 E: 9142.3921	300.00	N: 11956.4379 E: 8871.1659	290.92	55.56	158.04



3 WEIR DRAIN IN CONCRETE CURB @ RIGHT ABUTMENT

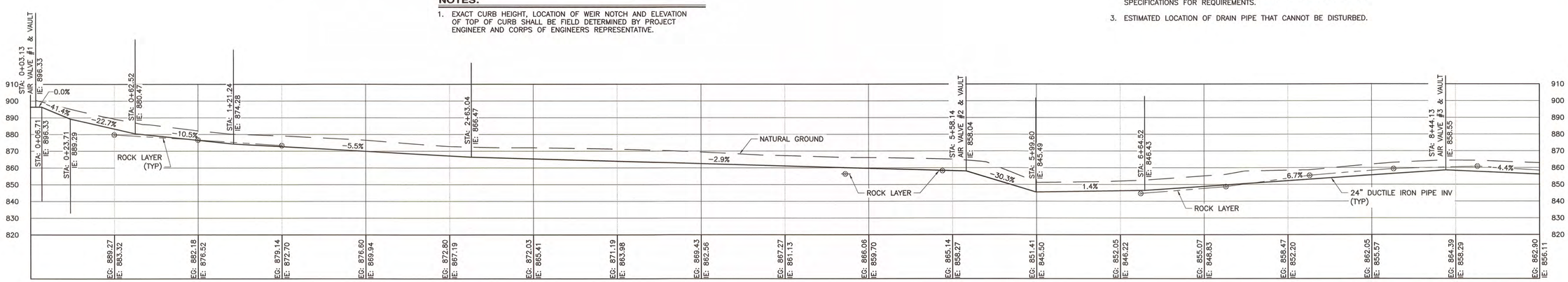
SCALE: NTS

NOTES:

1. EXACT CURB HEIGHT, LOCATION OF WEIR NOTCH AND ELEVATION OF TOP OF CURB SHALL BE FIELD DETERMINED BY PROJECT ENGINEER AND CORPS OF ENGINEERS REPRESENTATIVE.

NOTES:

1. FITTINGS WILL BE REQUIRED WHERE SHOWN ON THE PLANS AND AS NEEDED FOR PROPER INSTALLATION.
2. THE CONTRACTOR MAY USE JOINT DEFLECTION OR FITTINGS TO ACHIEVE THE HORIZONTAL AND VERTICAL ALIGNMENT OF THE PIPE. SEE THE SPECIFICATIONS FOR REQUIREMENTS.
3. ESTIMATED LOCATION OF DRAIN PIPE THAT CANNOT BE DISTURBED.



1 PIPE PLAN & PROFILE STA 0+00 THRU 9+00

SCALE: 1" = 30'

DESIGN AND DEVELOPMENT
MISSOURI DEPARTMENT OF CONSERVATION
P.O. BOX 180, JEFFERSON CITY, MO 65102
(573) 522-4115 www.mdc.mo.gov

STATE OF MISSOURI STEPHEN DON ATKINSON NUMBER E-26960 REGISTERED PROFESSIONAL ENGINEER

9/11/14

STEPHEN D. ATKINSON
CIVIL ENGINEER
E-26960

SHEPHERD OF THE HILLS FISH HATCHERY

AUXILIARY WATER SUPPLY CONNECTION

483 HATCHERY ROAD
BRANSON, MO 65616

MARK	DATE	DESCRIPTION
0	9/9/14	ISSUED

ISSUE

PROJECT NO: 56-01-59
CAD DWG FILE: 56-01-59_M-102.dwg
DRAWN BY: JMT
DESIGNED BY: SDA
CHECKED BY: HDT

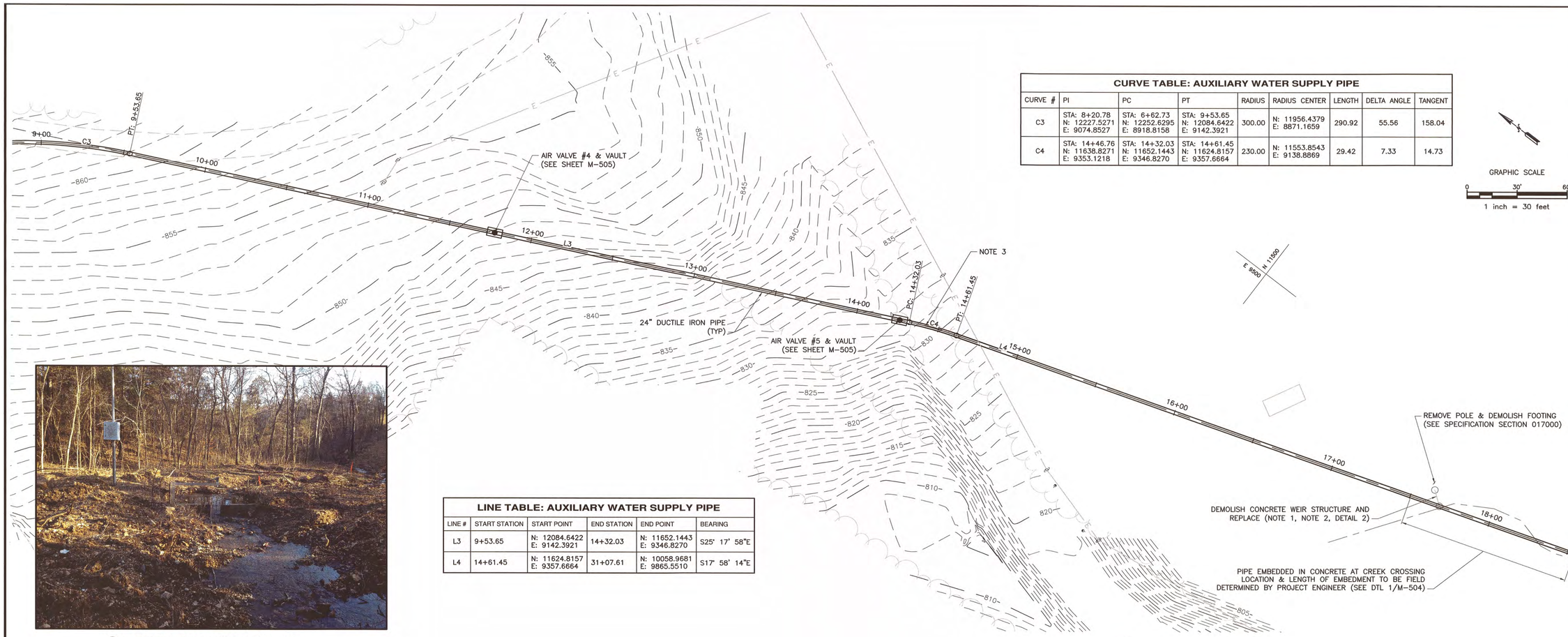
SHEET TITLE

PIPE PLAN & PROFILE

M-102

SHEET 3 OF 13

Path and filename: N:\Projects\56-01\56-01-59\Drawings\Mechanical\56-01-59_M-102.dwg Printed on 09/10/14 3:18 PM by Mike Tuter



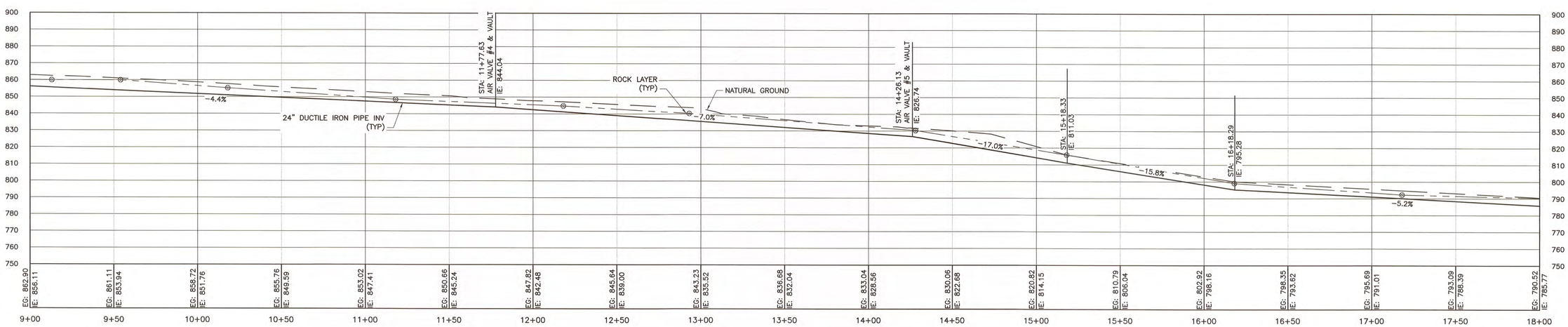
CURVE TABLE: AUXILIARY WATER SUPPLY PIPE								
CURVE #	PI	PC	PT	RADIUS	RADIUS CENTER	LENGTH	DELTA ANGLE	TANGENT
C3	STA: 8+20.78 N: 12227.5271 E: 9074.8527	STA: 6+62.73 N: 12252.6295 E: 8918.8158	STA: 9+53.65 N: 12084.6422 E: 9142.3921	300.00	N: 11956.4379 E: 8871.1659	290.92	55.56	158.04
C4	STA: 14+46.76 N: 11638.8271 E: 9353.1218	STA: 14+32.03 N: 11652.1443 E: 9346.8270	STA: 14+61.45 N: 11624.8157 E: 9357.6664	230.00	N: 11553.8543 E: 9138.8869	29.42	7.33	14.73

LINE TABLE: AUXILIARY WATER SUPPLY PIPE					
LINE #	START STATION	START POINT	END STATION	END POINT	BEARING
L3	9+53.65	N: 12084.6422 E: 9142.3921	14+32.03	N: 11652.1443 E: 9346.8270	S25° 17' 58"E
L4	14+61.45	N: 11624.8157 E: 9357.6664	31+07.61	N: 10058.9681 E: 9865.5510	S17° 58' 14"E

2 **CREEK CROSSING PHOTO**
SCALE: NTS

NOTES:

1. THE CONTRACTOR HAS THE OPTION OF PROPOSING A MINOR ALIGNMENT CHANGE NEAR STATION 20+50 IN ORDER TO AVOID THE WEIR STRUCTURE. IF AN ALIGNMENT CHANGE FOR THIS PURPOSE IS APPROVED BY THE PROJECT ENGINEER, THE ASSOCIATED DEMOLITION WILL NOT BE REQUIRED.
2. REPLACE WITH MATCHING STRUCTURE IN SAME LOCATION (SEE SPECIFICATION SECTION 017000).
3. THE CONTRACTOR WILL RESTORE ACCESS ROAD TO ORIGINAL CONDITION AFTER PIPE IS INSTALLED.



1 **PIPE PLAN & PROFILE STA 9+00 THRU 18+00**
SCALE: 1" = 30'

DESIGN AND DEVELOPMENT
MISSOURI DEPARTMENT OF CONSERVATION
P.O. BOX 180, JEFFERSON CITY, MO 65102
(573) 522-4115 www.mdc.mo.gov

STATE OF MISSOURI
STEPHEN D. ATKINSON
NUMBER E-26960
REGISTERED PROFESSIONAL ENGINEER
9/9/14
STEPHEN D. ATKINSON
CIVIL ENGINEER
E-26960

SHEPHERD OF THE HILLS FISH HATCHERY

AUXILIARY WATER SUPPLY CONNECTION

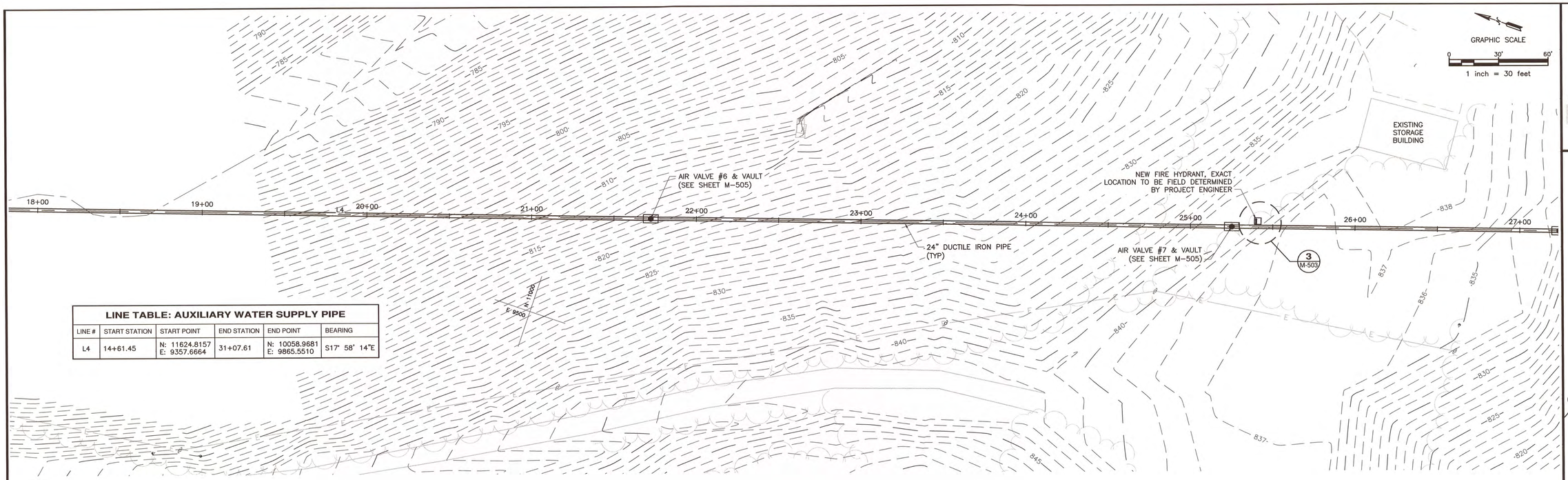
483 HATCHERY ROAD
BRANSON, MO 65616

MARK	DATE	DESCRIPTION
0	9/9/14	ISSUED ISSUE

PROJECT NO: 56-01-59
CAD DWG FILE: 56-01-59_M-103.dwg
DRAWN BY: JMT
DESIGNED BY: SDA
CHECKED BY: HDT
SHEET TITLE
PIPE PLAN & PROFILE

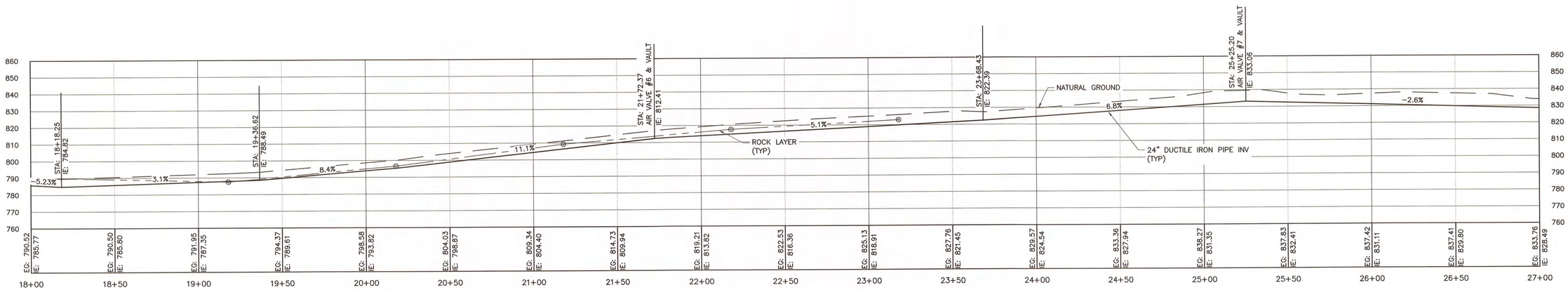
M-103
SHEET 4 OF 13

Path and filename: N:\Projects\56-01\56-01-59\Drawings\Mechanical\56-01-59_M-103.dwg Printed on 09/10/14 3:47 PM by Mike Tuter



LINE TABLE: AUXILIARY WATER SUPPLY PIPE

LINE #	START STATION	START POINT	END STATION	END POINT	BEARING
L4	14+61.45	N: 11624.8157 E: 9357.6664	31+07.61	N: 10058.9681 E: 9865.5510	S17° 58' 14"E



1 PIPE PLAN & PROFILE STA 18+00 THRU 27+00
SCALE: 1" = 30'

DESIGN AND DEVELOPMENT
MISSOURI DEPARTMENT OF CONSERVATION
P.O. BOX 180, JEFFERSON CITY, MO 65102
(573) 522-4115 www.mdc.mo.gov

STATE OF MISSOURI
STEPHEN D. ATKINSON
NUMBER E-26960
REGISTERED PROFESSIONAL ENGINEER

9/9/14
STEPHEN D. ATKINSON
CIVIL ENGINEER
E-26960

SHEPHERD OF THE HILLS FISH HATCHERY

AUXILIARY WATER SUPPLY CONNECTION

483 HATCHERY ROAD
BRANSON, MO 65616

MARK	DATE	DESCRIPTION
0	9/9/14	ISSUED

ISSUE

PROJECT NO: 56-01-59
CAD DWG FILE: 56-01-59_M-104.dwg
DRAWN BY: JMT
DESIGNED BY: SDA
CHECKED BY: HDT

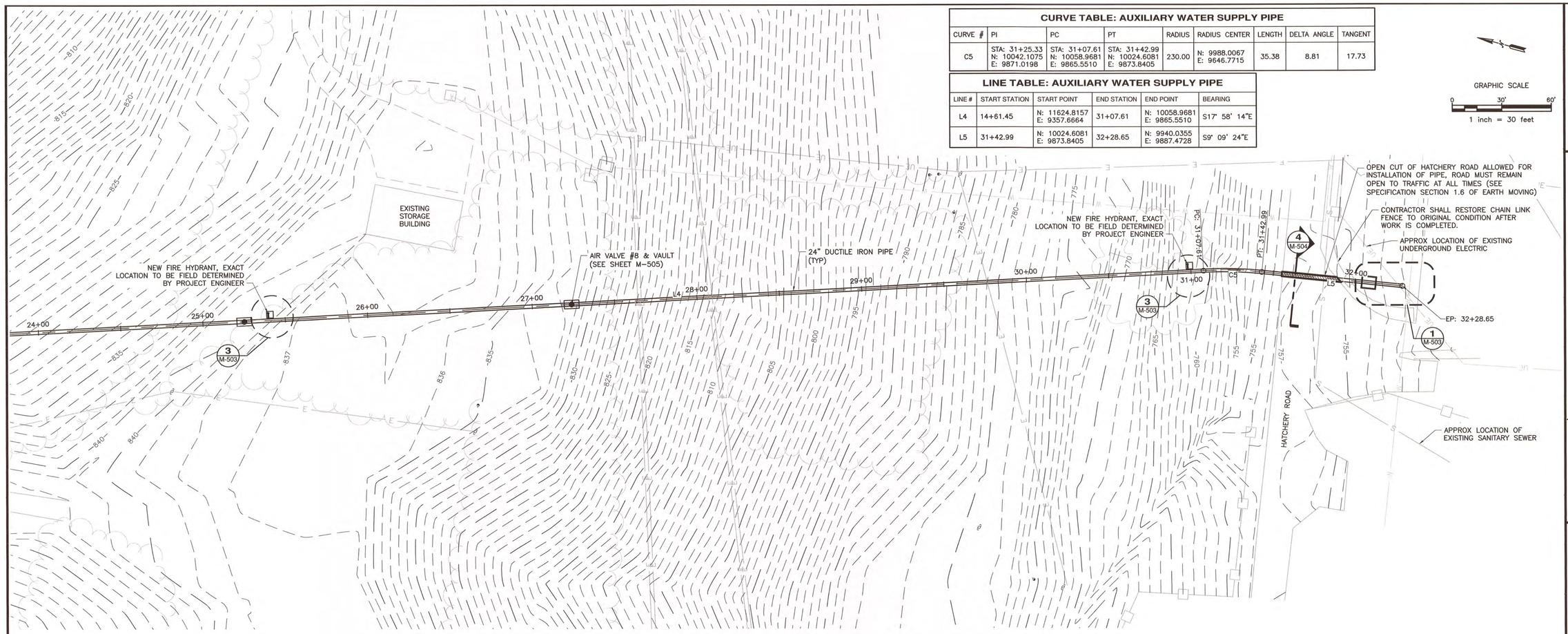
SHEET TITLE
PIPE PLAN & PROFILE

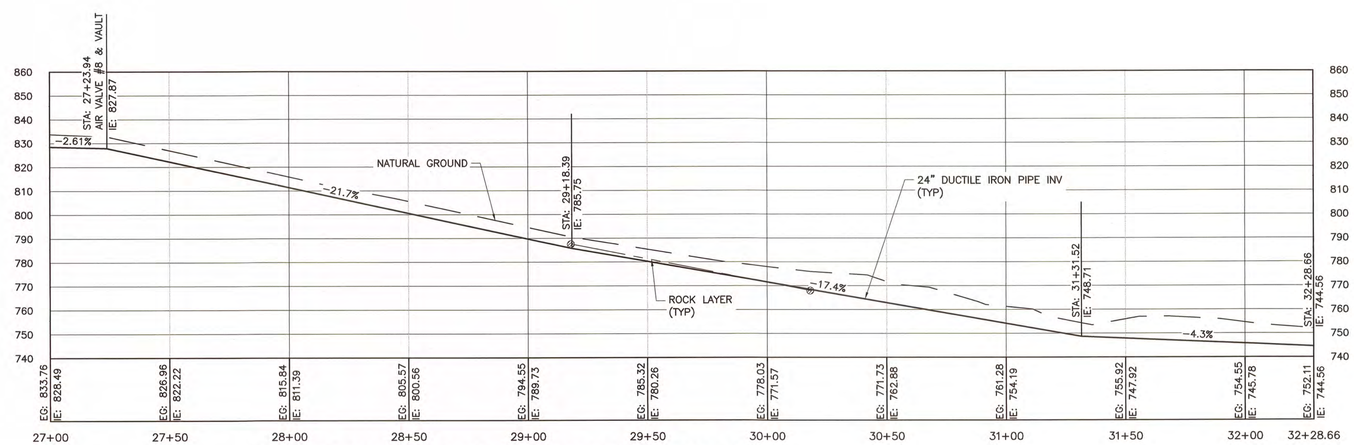
M-104
SHEET 5 OF 13

Path and filename: N:\Projects\56-01\56-01-59\Drawings\Mechanical\56-01-59_M-104.dwg Printed on 09/10/14 3:29 PM by Mike Tuter

CURVE TABLE: AUXILIARY WATER SUPPLY PIPE								
CURVE #	PI	PC	PT	RADIUS	RADIUS CENTER	LENGTH	DELTA ANGLE	TANGENT
C5	STA: 31+25.33 N: 10042.1075 E: 9871.0198	STA: 31+07.61 N: 10058.9681 E: 9865.5510	STA: 31+42.99 N: 10024.6081 E: 9873.8405	230.00	N: 9988.0067 E: 9646.7715	35.38	8.81	17.73

LINE TABLE: AUXILIARY WATER SUPPLY PIPE					
LINE #	START STATION	START POINT	END STATION	END POINT	BEARING
L4	14+61.45	N: 11624.8157 E: 9357.6664	31+07.61	N: 10058.9681 E: 9865.5510	S17° 58' 14"E
L5	31+42.99	N: 10024.6081 E: 9873.8405	32+28.65	N: 9940.0355 E: 9887.4728	S9° 09' 24"E





1 **PIPE PLAN & PROFILE STA 27+00 THRU 32+28.66**
SCALE: 1" = 30'

DESIGN AND DEVELOPMENT
MISSOURI DEPARTMENT OF CONSERVATION
P.O. BOX 180, JEFFERSON CITY, MO 65102
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STATE OF MISSOURI
STEPHEN DON ATKINSON
NUMBER E-28860
REGISTERED PROFESSIONAL ENGINEER

9/11/14
STEPHEN D. ATKINSON
CIVIL ENGINEER
E-28860

SHEPHERD OF THE HILLS FISH HATCHERY

AUXILIARY WATER SUPPLY CONNECTION

483 HATCHERY ROAD
BRANSON, MO 65616

MARK	DATE	DESCRIPTION
0	9/9/14	ISSUED ISSUE

PROJECT NO: 56-01-59
CAD DWG FILE: 56-01-59_M-105.dwg
DRAWN BY: JMT
DESIGNED BY: SDA
CHECKED BY: HDT
SHEET TITLE
PIPE PLAN & PROFILE

M-105
SHEET 6 OF 13

Path and filename: N:\Projects\56-01\56-01-59\Drawings\Mechanical\56-01-59_M-105.dwg Printed on 09/10/14 3:52 PM by Mike Tuter