November 2, 2022

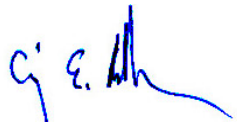
To: All Planholders

RE: W.O. 22-: West End Intake/Pump Station
City of Billings Public Works Department, Billings, Montana

Attached is Addendum No. 3 for the above-referenced project. On the Bid Form, Specification Section 00300, acknowledge this addendum by writing the number and date in the first available blank line in Paragraph 3.01 A.

Sincerely,

HDR ENGINEERING, Inc.



Craig Habben
Project Manager

cc: File

ADDENDUM NO. 3
TO
CONTRACT DOCUMENTS AND SPECIFICATIONS
FOR
W.O. 22-19, WEST END WATER INTAKE/PUMP STATION
FOR
CITY OF BILLINGS, MONTANA
PUBLIC WORKS DEPARTMENT

Prepared by: HDR Engineering, Inc.
970 South 29th Street West
Billings, MT 59102

Owner: City of Billings
Public Works Department

Date: November 2, 2022

TO ALL PLANHOLDERS:

This addendum shall become a part of the Contract Documents as if originally included. The Bidders shall acknowledge receipt of the Addendum on the Bid Form.

The Specifications and Drawings shall be modified as required by the following items:

SPECIFICATIONS

AD-3 Item 1. Section 01 61 05, Page 1, Line 29. ADD the following to the Acceptable Manufacturers of 43 24 05 – Vertically Suspended Centrifugal Pumps Turbine Pump.

"- Johnston Pump".

AD-3 Item 2. Section 03 31 30, Page 2, Line 38. ADD the following:

"For the purposes of this project, all concrete placed at and below Elevation 3205.00 shall be considered Water-Bearing Concrete. Water-Bearing Concrete and Normal Weight Concrete are synonymous."

AD-3 Item 3. Section 03 31 30, Page 4, Line 24. Add the following:

"or Type 1L."

AD-3 Item 4. Section 03 31 30, Page 5, Line 18. ADD the following:

"and Water-Bearing Concrete."

AD-3 Item 5. Section 03 31 30, Page 9, Line 39. DELETE "0.032" and REPLACE with "0.048".

AD-3 Item 6. Section 03 31 30, Page 10, Table 1. Associated with the requirements for Lightweight concrete topping, DELETE "4000 psi" and REPLACE with "3000 psi".

AD-3 Item 7. Section 03 31 31, Page 2, Line 40. INSERT the following after Line 40.

"B. Water-Bearing Concrete: Any concrete surface to be in contact with process fluids during normal operation of the facility, including, but not limited to, tank, channels, wet wells and distribution chambers. For the purposes of this project, all concrete placed at and below Elevation 3205.00 shall be considered Water-Bearing Concrete."

AD-3 Item 8. Section 03 31 31, Page 11, Line 8. DELETE "72" and REPLACE with "168".

AD-3 Item 9. Section 11 94 00, Exhibit A. DELETE this exhibit in its entirety and REPLACE with the attached 11 94 00 – Exhibit A: Intake Screens, Inc.

AD-3 Item 10. Section 40 05 51, Page 9, Line 33. ADD the following after "PH"

"and 120 V, 1 PH for IPS-MODV-FLW-1, IPS-MODV-FLW-2, IPS-MODV-FLW-3, IPS-MODV-FLW-4, IPS-MODV-FLW-5"

AD-3 Item 11. Section 40 05 51, Page 9, Line 33. ADD the following after "PH"

", for IPS-MODV-STRNR only"

AD-3 Item 12. Section 40 05 51, Page 9, Line 35. DELETE "ROMpak" and replace with "RCEL Series".

AD-3 Item 13. Section 40 05 51, Page 12, last row of table. DELETE "Modulating Type" and replace with "Open/Close Type".

DRAWINGS

AD-3 Item 14. Sheet 00Y001, KEY NOTES. DELETE Key Note No. 7 and all associated call-outs.

AD-3 Item 15. Sheet 00S001, GENERAL STRUCTURAL NOTES CONCRETE, ADD the following to Note C13. MACROSYNTHETIC FIBERS

"MACROSYNTHETIC FIBERS ARE ALSO REQUIRED FOR ALL WATER-BEARING CONCRETE, WHICH IS DEFINED AS ALL CONCRETE PLACED AT OR BELOW ELEVATION 3205.00."

AD-3 Item 16. Sheet 00C007. DELETE this sheet in its entirety and REPLACE with the attached sheet.

AD-3 Item 17. Sheet 00C008. DELETE this sheet in its entirety and REPLACE with the attached sheet.

AD-3 Item 18. Sheet 00C010, FABRIC ENCAPSULATED SOIL (FES) CONSTRUCTION DETAIL 3, GENERAL NOTES ON SECURING FABRIC FOR FES LIFT TREATMENT: Note 1. ADD the following to Note 1:

"OUTER WOVEN COIR FABRIC LAYER TO BE EAST COAST EC-7Y OR EQUAL, INNER NON-WOVEN COIR FABRIC LAYER TO BE EAST COAST ECC-2B OR EQUAL."

AD-3 Item 19. Sheet 01D001. DELETE this sheet in its entirety and REPLACE with the attached sheet.

This addendum is made part of the specifications and contract documents and shall be noted on the Bid Form. Bidders must acknowledge receipt and acceptance of this Addendum No. 3 by indicating such acknowledge in the Bid Form. FAILURE TO ACKNOWLEDGE RECEIPT AND ACCEPTANCE MAY RESULT IN REJECTION OF THE BID.

HDR ENGINEERING, INC.

Craig Habben, P.E.

DATE: November 2, 2022

11 94 00 - Exhibit A: Intake Screens, Inc.

REVISED PER ADDENDUM NO. 3

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Intake Screens, Inc.

QUOTE

8417 RIVER ROAD, SACRAMENTO, CA 95832
WWW.ISI-SCREENS.COM
OFFICE: (916) 665-2727

DATE: 10/27/2022
QUOTE NO.: 21-1700-01
VALID UNTIL: 4/15/2023
PREPARED BY: John Burnett
jburnett@isi-screens.com
Direct: (435) 640-9147

PROJECT	**City of Billings West End Intake Facility (QTY 1 Tee Screen System)**
CONTACT	Jacob Ostrander, P.E.
COMPANY	HDR
ADDRESS	970 S 29th Street West, Billings, MT 59102
PHONE	406-651-6612
EMAIL	jacob.ostrander@hdrinc.com

COMMENTS OR SPECIAL INSTRUCTIONS:

Quote is based off of the attached conceptual design drawings and includes quantity one (1) retrievable wedgewire tee screen unit, track assembly with slide gate and hoist, and project services. Screen system designed with a total flow capacity of ≈25.5 cfs (≈16.5 MGD) at 0.5 fps slot velocity using #69V wedgewire with 1.75 mm slot openings for ≈50% open area. Major steel items to be produced and made in whole or substantial part in the United States, its territories, or possessions and subject to material availability. Screen system controls, including pressure differential monitoring system, by others.

ITEM	QTY	DESCRIPTION
1	1	**T36-66EA-R SCREEN UNIT:** Brush-cleaned tee screen unit assembly includes two wedgewire cylinders each measuring 36-inches in diameter and 66-inches long fabricated from type 304 stainless steel using #69V wedgewire (1.75-mm wire width) and 1.75-mm slot openings for ≈50% open area. Screen unit to include a central manifold with internal suction pipes for flow distribution, brush cleaning system with internal and external brushes and submersible electric drive assembly, screen rotation sensors, and lifting provisions. Screen unit will be designed for mounting to a vertical retrieval track and to seal over the intake opening. Screen unit to have a maximum flow capacity of ≈25.5 cfs at 0.5 fps slot velocity and to weigh ≈3,200 lbs.
2	1	**RETRIEVAL SYSTEM:** Retrieval track assembly to be fabricated from type 304 stainless steel and measure ≈50-inches wide by 29-feet tall. Track assembly to include a sealing surface to screen unit's central manifold and type 304 stainless steel slide gate with electric actuator to provide a fish-tight seal when the screen is in the raise position. Track assembly to include separate type 304 stainless steel thimble to be cast in concrete wall. Anchoring hardware and isolation materials to be provided by ISI. Retrieval system to include winch system with limit switches (top and mid-travel) and locking pins and cable carrier system with linked umbilical terminating in track mounted junction box. Track, winch, and cable carrier assembly with junction box to weigh ≈4,100 pounds. Thimble to weigh ≈220 lbs.
3	1	**CONTROLS:** Control system to be design, fabricated, and installed by others. ISI will be available for controls consultation based on a Time & Materials contract. This budgetary estimate assumes the Time & Materials contract is $5,000. Actual Time & Materials contract value to be determined by contractor.
4	1	**PROJECT SERVICES:** Design services, engineering analysis, project submittals, factory acceptance testing, Operations and Maintenance Manual, and two-year warranty.
5	1	**DELIVERY:** ISI to deliver all ISI supplied equipment to the site; offloading by others.
6	1	**SYSTEM COMMISSIONING:** Startup and operator training; this does not include any installation, construction, or on-site lifting of material or equipment; includes one (1) ISI staff member on site for a maximum of three (3) consecutive, eight (8) hour workdays including any site-required training; on-site work is to be completed on Tuesday through Thursday to accommodate weekday travel; additional workdays will be provided at a cost of $1,500/day plus travel expenses.

Terms:

LEAD TIME: 40 Weeks
SHIPPING: FOB Sacramento, CA
SALES TAX: TBD

SUBTOTAL	$ 469,000.00
TAX RATE	TBD
SALES TAX	TBD
	$ 469,000.00

Intake Screens, Inc.

QUOTE

8417 RIVER ROAD, SACRAMENTO, CA 95832
WWW.ISI-SCREENS.COM
OFFICE: (916) 665-2727

DATE: 10/27/2022
QUOTE NO.: 21-1700-02
VALID UNTIL: 4/15/2022
PREPARED BY: John Burnett
jburnett@isi-screens.com
Direct: (435) 640-9147

PROJECT	**City of Billings West End Intake Facility (QTY 2 Tee Screen Systems)**
CONTACT	Jacob Ostrander, P.E.
COMPANY	HDR
ADDRESS	970 S 29th Street West, Billings, MT 59102
PHONE	406-651-6612
EMAIL	jacob.ostrander@hdrinc.com

COMMENTS OR SPECIAL INSTRUCTIONS:

Quote is based off of the attached conceptual design and includes quantity two (2) retrievable wedgewire tee screen units, track assemblies with slide gates and hoists, and project services. Screen system designed with a total flow capacity of ≈51 cfs (≈33 MGD) at 0.5 fps slot velocity using #69V wedgewire with 1.75 mm slot openings for ≈50% open area. Major steel items to be produced and made in whole or substantial part in the United States, its territories, or possessions and subject to material availability. Screen system controls, including pressure differential monitoring system, by others.

ITEM	QTY	DESCRIPTION
1	2	**T36-66EA-R SCREEN UNIT:** Brush-cleaned tee screen unit assembly includes two wedgewire cylinders each measuring 36-inches in diameter and 66-inches long fabricated from type 304 stainless steel using #69V wedgewire (1.75-mm wire width) and 1.75-mm slot openings for ≈50% open area. Screen unit to include a central manifold with internal suction pipes for flow distribution, brush cleaning system with internal and external brushes and submersible electric drive assembly, screen rotation sensors, and lifting provisions. Screen unit will be designed for mounting to a vertical retrieval track and to seal over the intake opening. Screen unit to have a maximum flow capacity of ≈25.5 cfs at 0.5 fps slot velocity and to weigh ≈3,200 lbs.
2	2	**RETRIEVAL SYSTEM:** Retrieval track assembly to be fabricated from type 304 stainless steel and measure ≈50-inches wide by 29-feet tall. Track assembly to include a sealing surface to screen unit's central manifold and type 304 stainless steel slide gate with electric actuator to provide a fish-tight seal when the screen is in the raise position. Track assembly to include separate type 304 stainless steel thimble to be cast in concrete wall. Anchoring hardware and isolation materials to be provided by ISI. Retrieval system to include winch system with limit switches (top and mid-travel) and locking pins and cable carrier system with linked umbilical terminating in track mounted junction box. Track, winch, and cable carrier assembly with junction box to weigh ≈4,100 pounds. Thimble to weigh ≈220 lbs.
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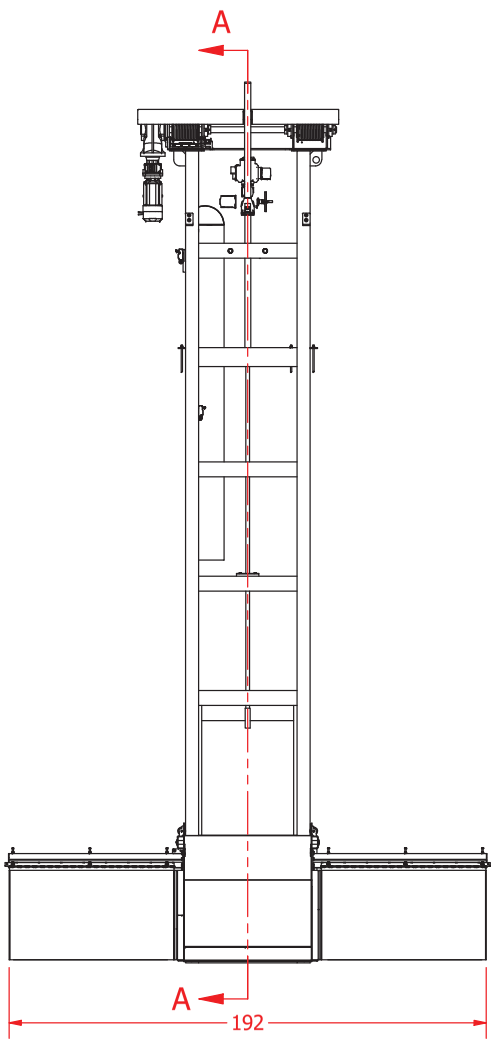
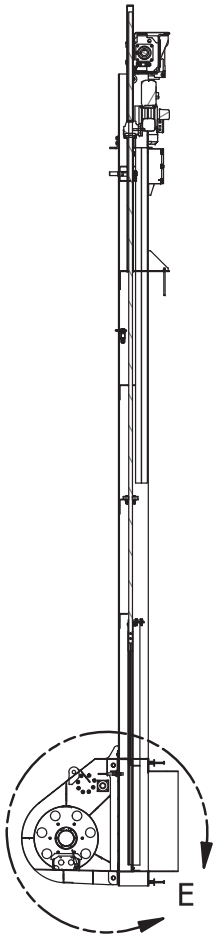
4	1	**PROJECT SERVICES:** Design services, engineering analysis, project submittals, factory acceptance testing, Operations and Maintenance Manual, and two-year warranty.
5	1	**DELIVERY:** ISI to deliver all ISI supplied equipment to the site; offloading by others.
6	1	**SYSTEM COMMISSIONING:** Startup and operator training; this does not include any installation, construction, or on-site lifting of material or equipment; includes one (1) ISI staff member on site for a maximum of three (3) consecutive, eight (8) hour workdays including any site-required training; on-site work is to be completed on Tuesday through Thursday to accommodate weekday travel; additional workdays will be provided at a cost of $1,500/day plus travel expenses.

Terms:
LEAD TIME: 40 Weeks
SHIPPING: FOB Sacramento, CA
SALES TAX: TBD

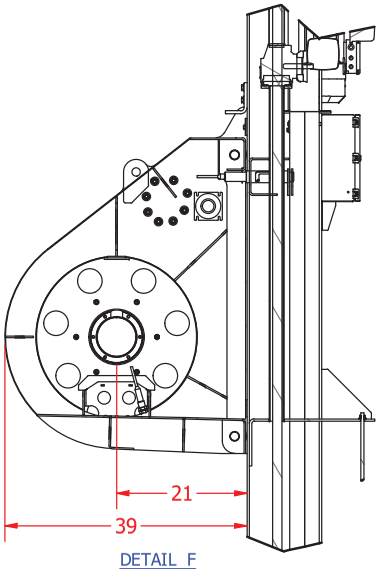
SUBTOTAL	$ 846,000.00
TAX RATE	TBD
SALES TAX	TBD
	$ 846,000.00



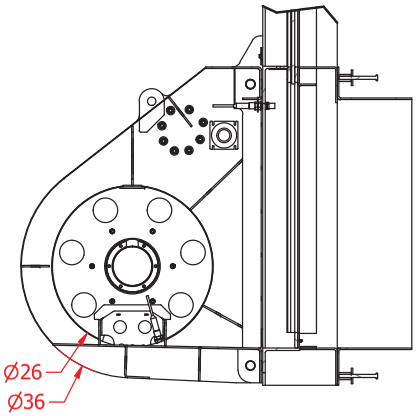
VIEW - SCREEN LOWERED



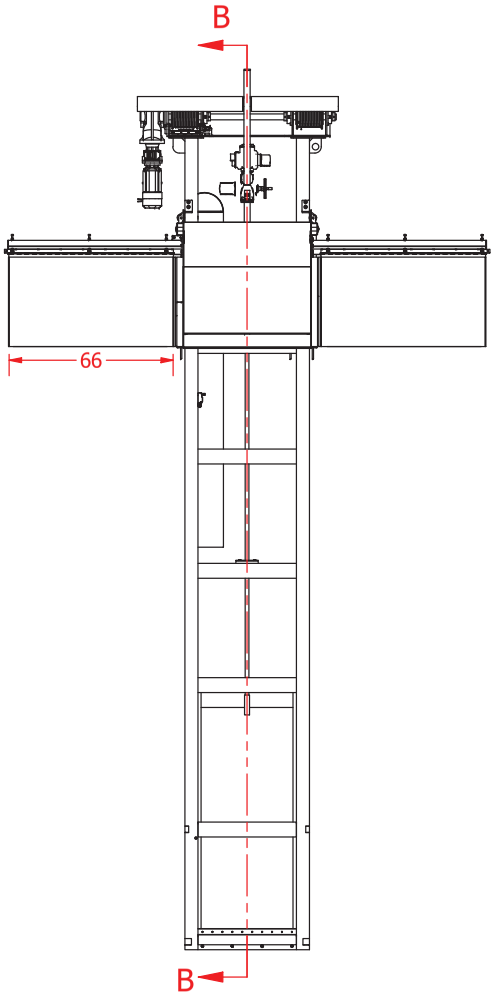
SECTION A-A



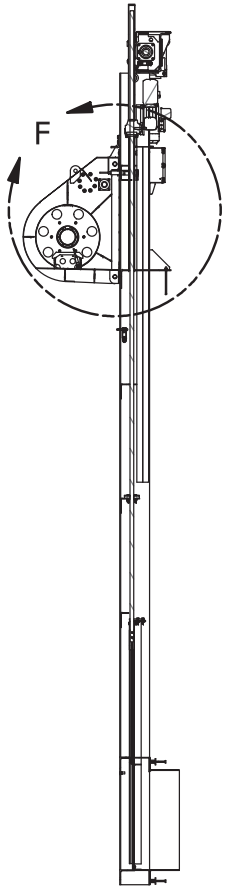
DETAIL F



DETAIL E



VIEW - SCREEN RAISED



SECTION B-B

REV	DESCRIPTION	DATE	APPROVED

ALL DIMENSIONS IN INCHES UNLESS NOTED

STANDARD TOLERANCES
Fractional Dimensions ± 1/32
Decimal Dimensions ± 0.005

www.intakescreensinc.com
CA C.L. 796197
ISI Intake Screens, Inc.
8417 River Road - Sacramento, California 95832
(916) 665-2727 (916) 665-2729 FAX

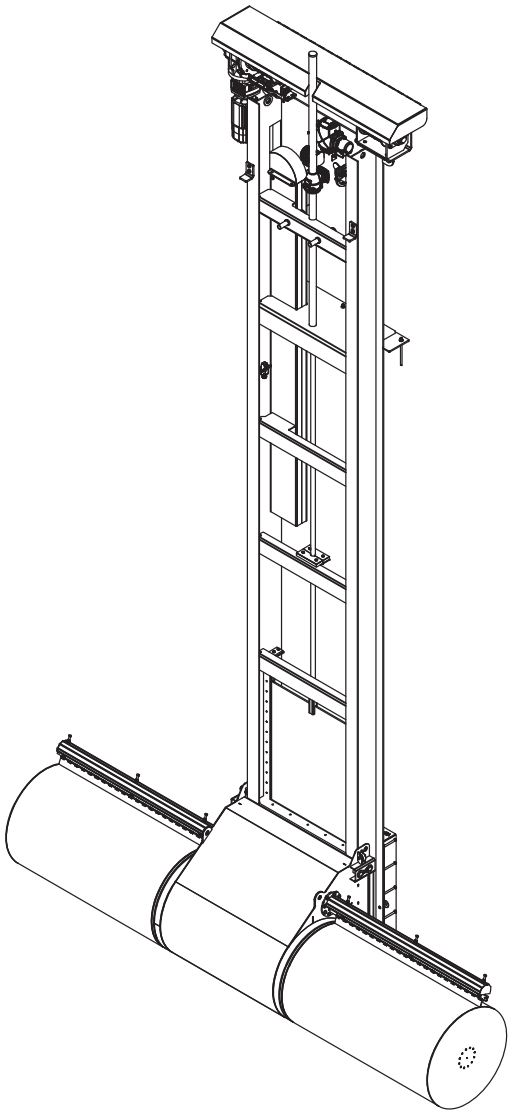
DATE 3/18/22
APP'D BY RUSSELL BERRY IV
DRAWN BY JACOB CHAPIN
"B" SHEET SCALE

PROJECT: DC

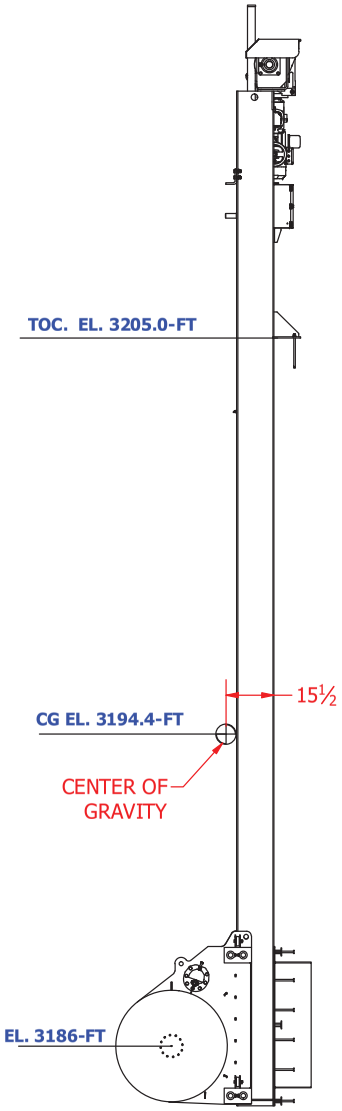
DESCRIPTION: SCREEN AND TRACK
MATERIAL: ASSEMBLY

DRAWING NUMBER: DC1-TR03-A AND DC1-T36-66EA-R
MASS: 7303 lbmass

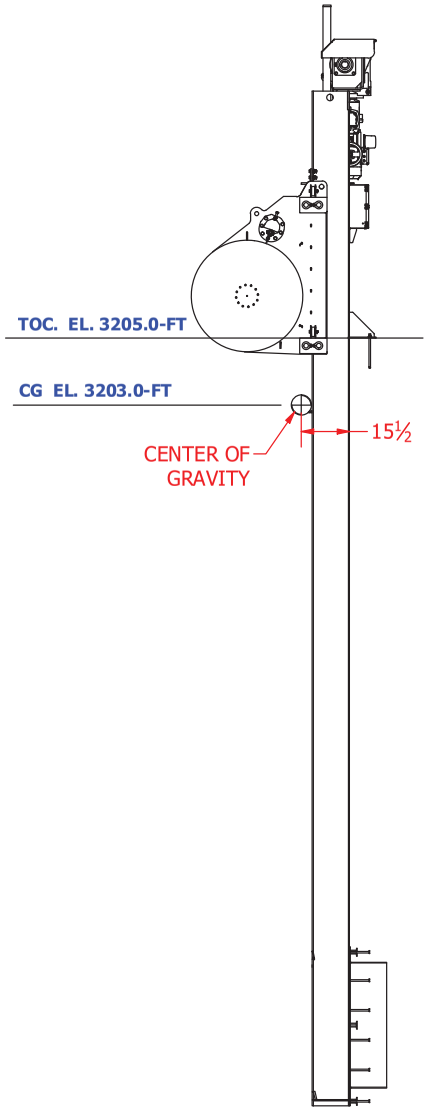
SHEET NUMBER: 1 of 5



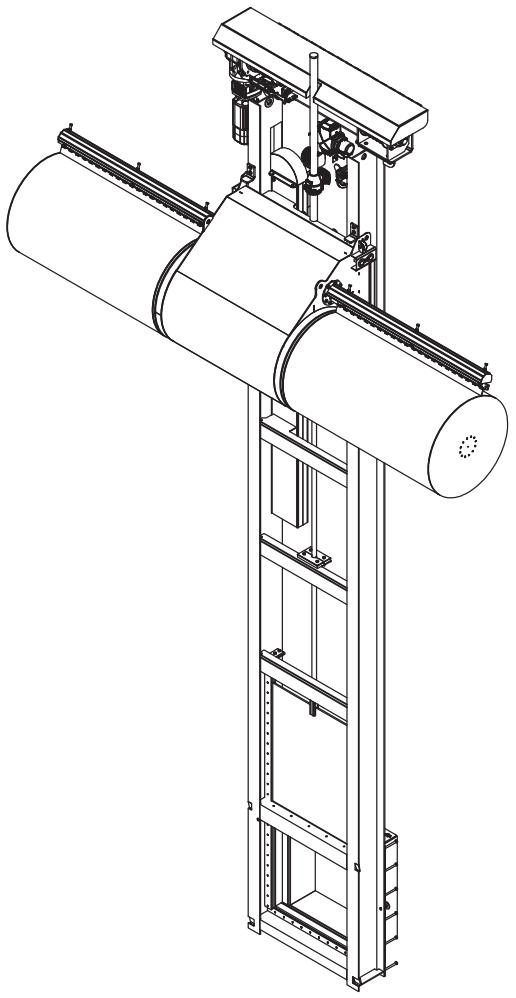
ISOMETRIC VIEW - SCREEN LOWERED



VIEW - SCREEN LOWERED

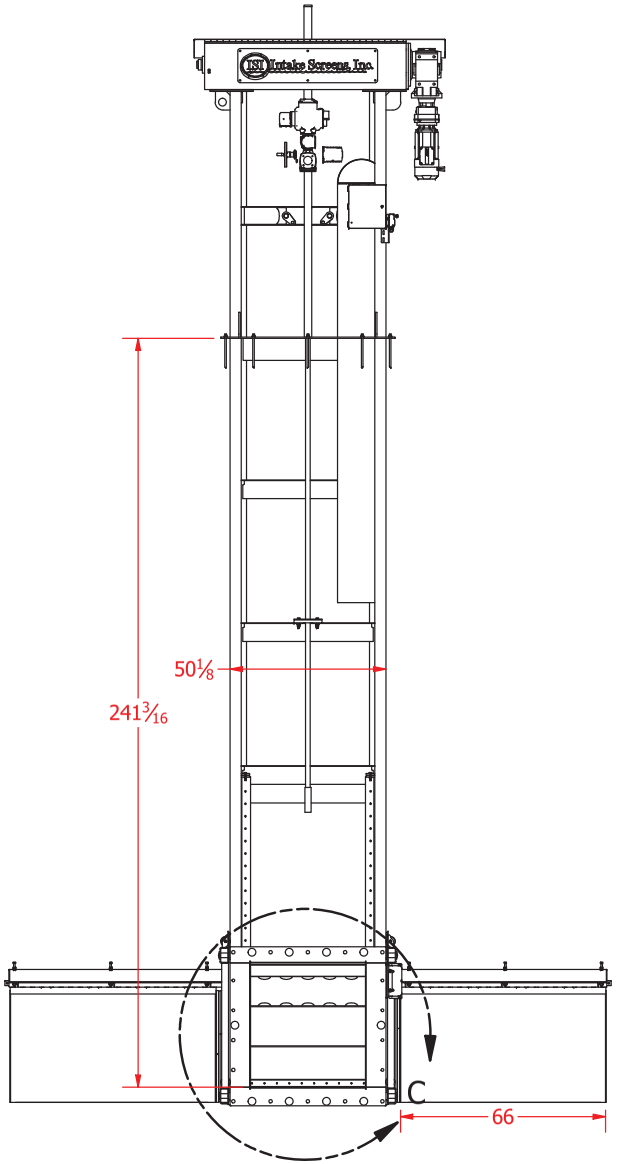


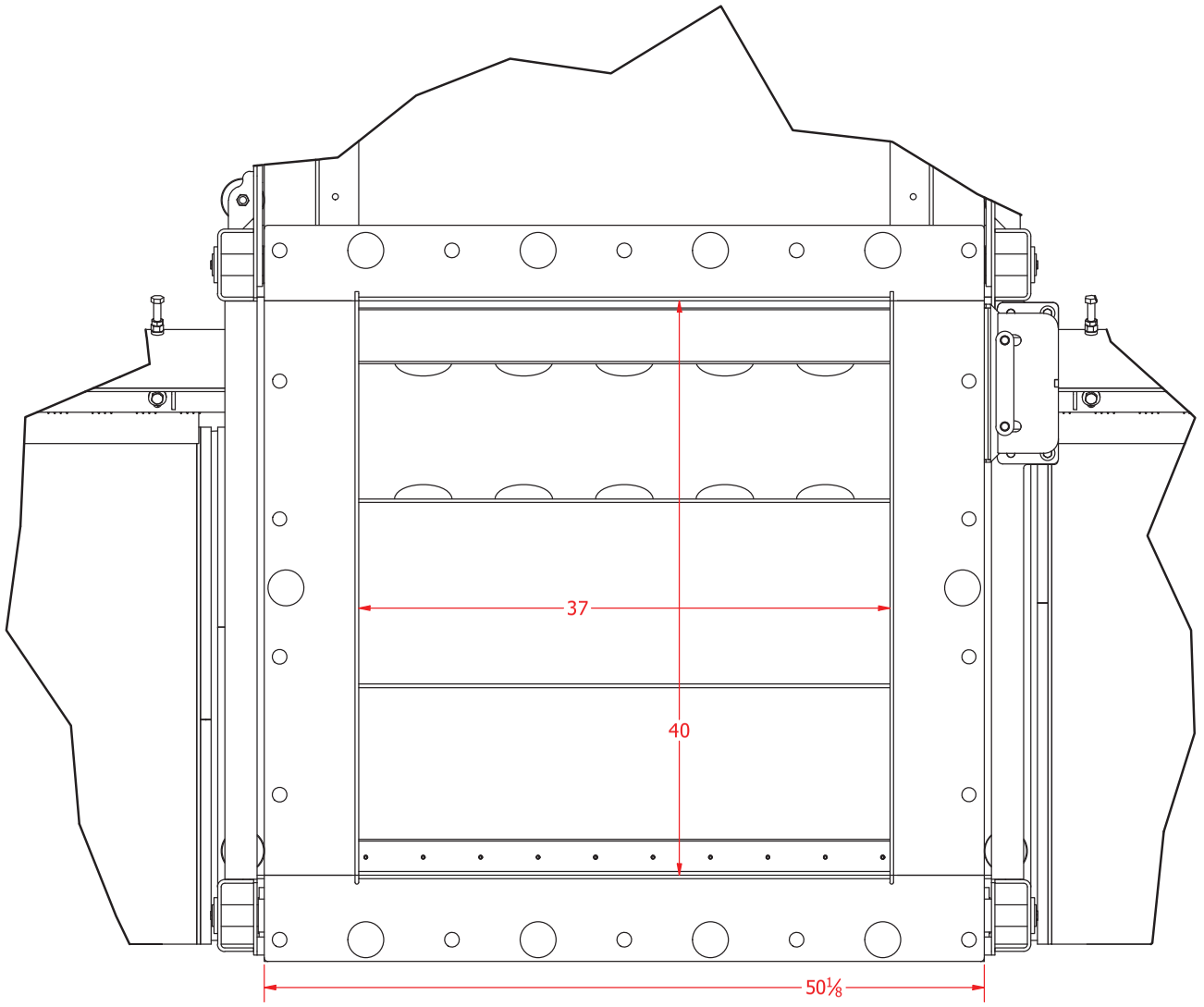
VIEW - SCREEN RAISED



ISOMETRIC VIEW - SCREEN RAISED

ALL DIMENSIONS IN INCHES UNLESS NOTED			www.intakescreensinc.com CA C.L. 796197 ISI Intake Screens, Inc. 8417 River Road - Sacramento, California 95832 (916) 665-2727 (916) 665-2729 FAX	DATE 3/18/22	PROJECT DC	DESCRIPTION SCREEN AND TRACK	DRAWING NUMBER DC1-TR03-A AND DC1-T36-66EA-R
				APP'D BY RUSSELL BERRY IV		MATERIAL ASSEMBLY	MASS 7303 lbmass
Designs are property of INTAKE SCREENS INC; and are subject to change without notice.		STANDARD TOLERANCES Fractional Dimensions ± 1/32 Decimal Dimensions ± 0.005		DRAWN BY JACOB CHAPIN			SHEET NUMBER 2 of 5
				"B" SHEET SCALE			

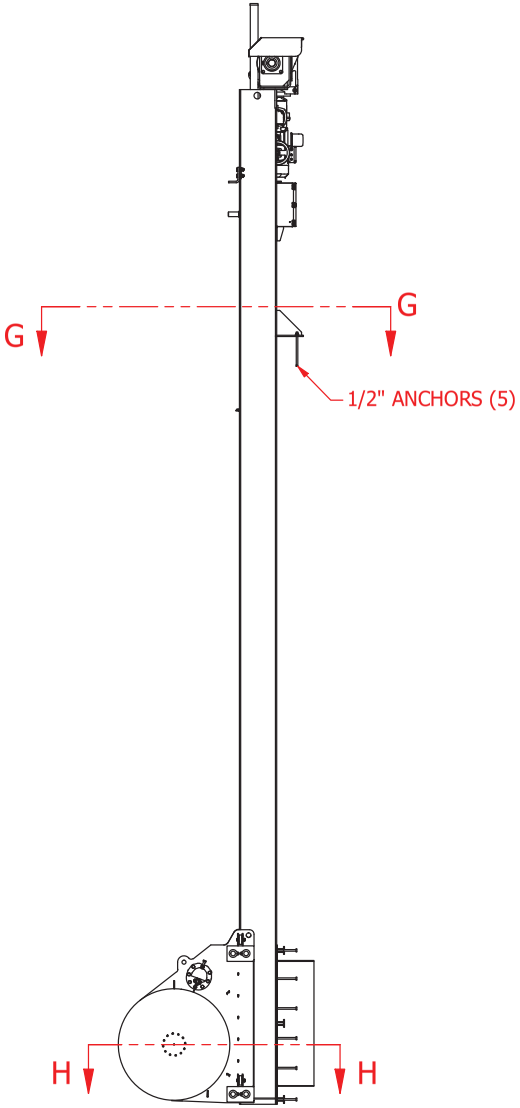


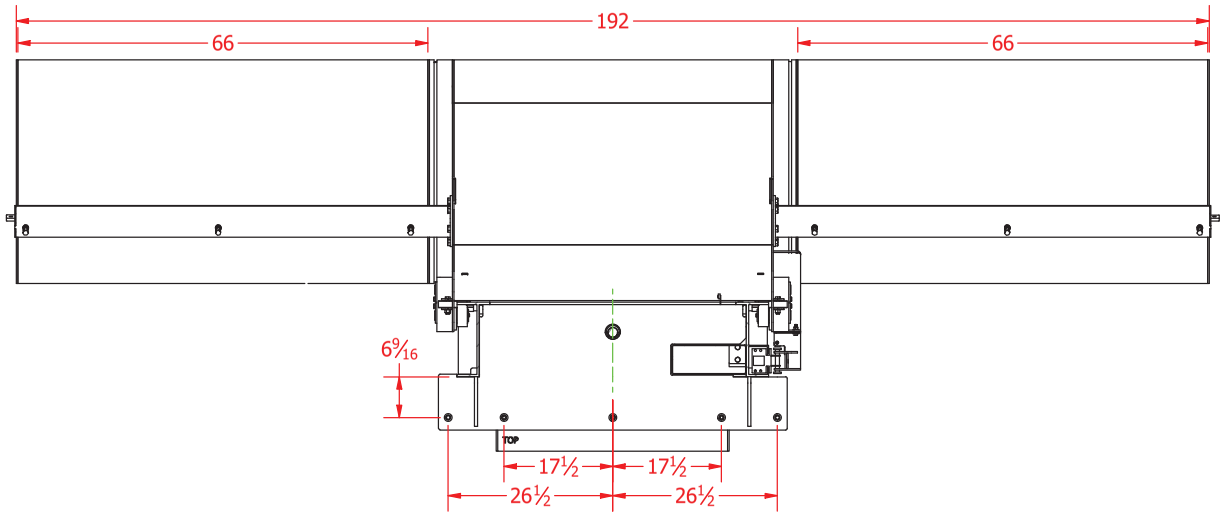


DETAIL C

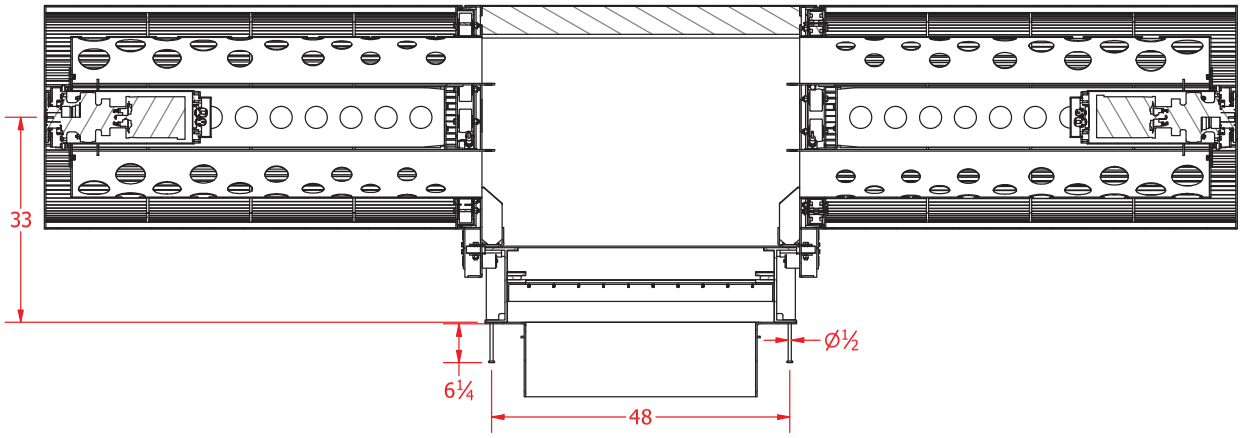
ALL DIMENSIONS IN INCHES UNLESS NOTED	www.intakescreensinc.com CA C.L. 796197 ISI Intake Screens, Inc. 8417 River Road - Sacramento, California 95832 (916) 665-2727 (916) 665-2729 FAX	DATE 3/18/22	PROJECT	DESCRIPTION	DRAWING NUMBER	SHEET NUMBER
		APP'D BY RUSSELL BERRY IV	DC	SCREEN AND TRACK	DC1-TR03-A AND DC1-T36-66EA-R	3 of 5
		DRAWN BY JACOB CHAPIN		MATERIAL	MASS	
		"B" SHEET SCALE		ASSEMBLY	7303 lbmass	

STANDARD TOLERANCES
Fractional Dimensions ± 1/32
Decimal Dimensions ± 0.005





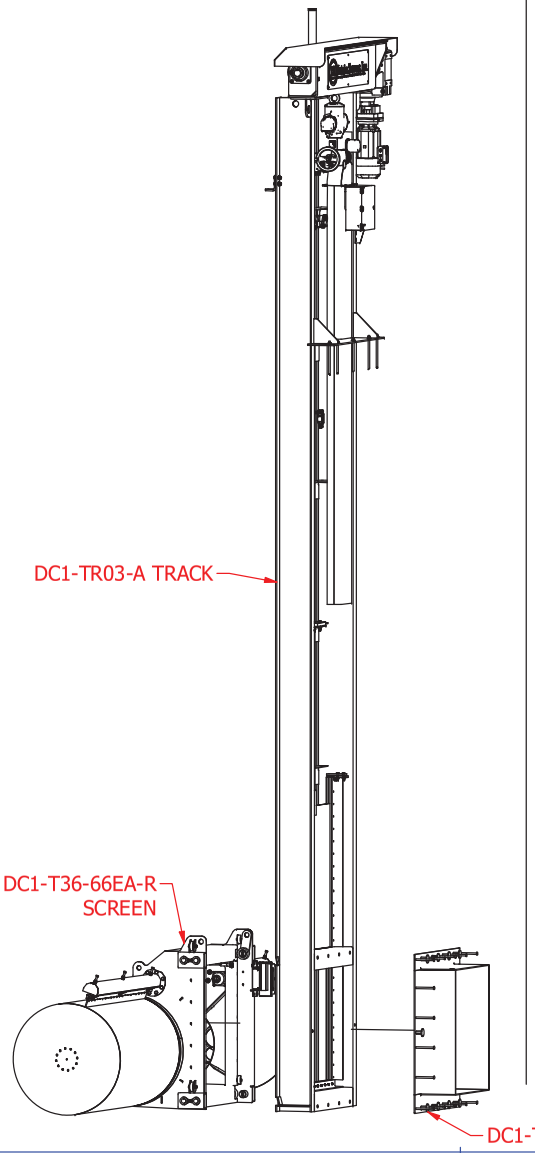
SECTION G-G

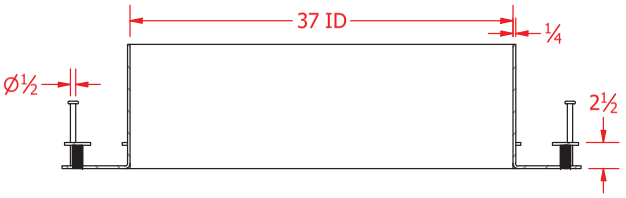


SECTION H-H

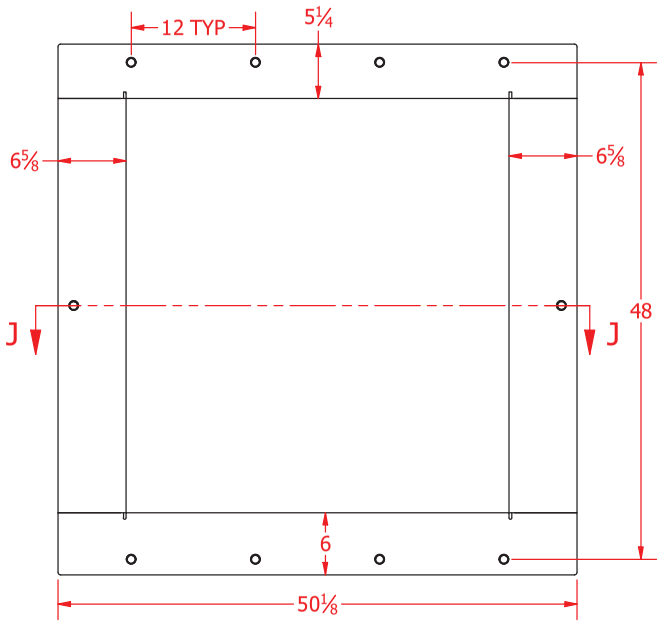
ALL DIMENSIONS IN INCHES UNLESS NOTED	www.intakescreensinc.com CA C.L. 796197 ISI Intake Screens, Inc. 8417 River Road - Sacramento, California 95832 (916) 665-2727 (916) 665-2729 FAX	DATE 3/18/22	PROJECT DC	DESCRIPTION SCREEN AND TRACK	DRAWING NUMBER DC1-TR03-A AND DC1-T36-66EA-R	SHEET NUMBER 4 of 5
		APP'D BY RUSSELL BERRY IV				
		DRAWN BY JACOB CHAPIN		MATERIAL ASSEMBLY	MASS 7303 lbmass	
Designs are property of INTAKE SCREENS INC; and are subject to change without notice. STANDARD TOLERANCES Fractional Dimensions ± 1/32 Decimal Dimensions ± 0.005		"B" SHEET SCALE				

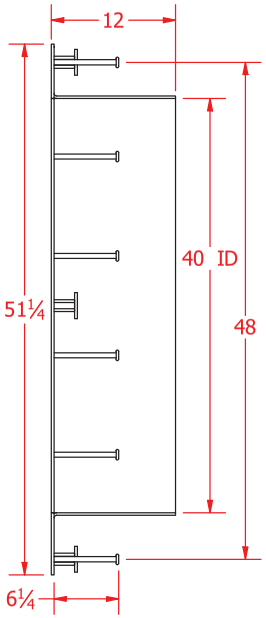
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	2	DC1-TR10-01	THIMBLE LH SIDE	1/4" 304 SS
2	1	DC1-TR10-03	THIMBLE BOTTOM	1/4" 304 SS
3	1	DC1-TR10-03T	THIMBLE TOP	1/4" 304 SS
4	18	DC1-TR10-04	NELSON STUD, 1/2" x 6-1/8" H4L, 101-053-008	304 SS
5	10	DC1-TR10-06	COUPLER NUT CAP	1/4" 304 SS
6	10	DC1-TR10-07	3/4"-10 COUPLING NUT, MACHINED	18-8 SS

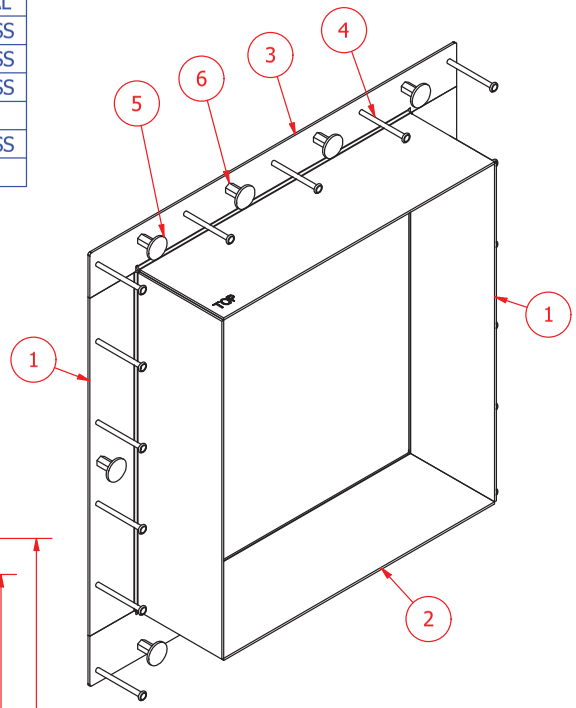




SECTION J-J







ALL DIMENSIONS IN INCHES UNLESS NOTED							
Designs are property of INTAKE SCREENS INC; and are subject to change without notice.	STANDARD TOLERANCES Fractional Dimensions ± 1/32 Decimal Dimensions ± 0.005						

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ISI Intake Screens, Inc.
8417 River Road - Sacramento, California 95832
(916) 665-2727 (916) 665-2729 FAX

DATE	PROJECT	DESCRIPTION	DRAWING NUMBER	SHEET NUMBER
3/18/22	DC	SCREEN AND TRACK	DC1-TR03-A AND DC1-T36-66EA-R	5 of 5
APP'D BY RUSSELL BERRY IV		MATERIAL ASSEMBLY	MASS 7303 lbmass	
DRAWN BY JACOB CHAPIN				
"B" SHEET SCALE				

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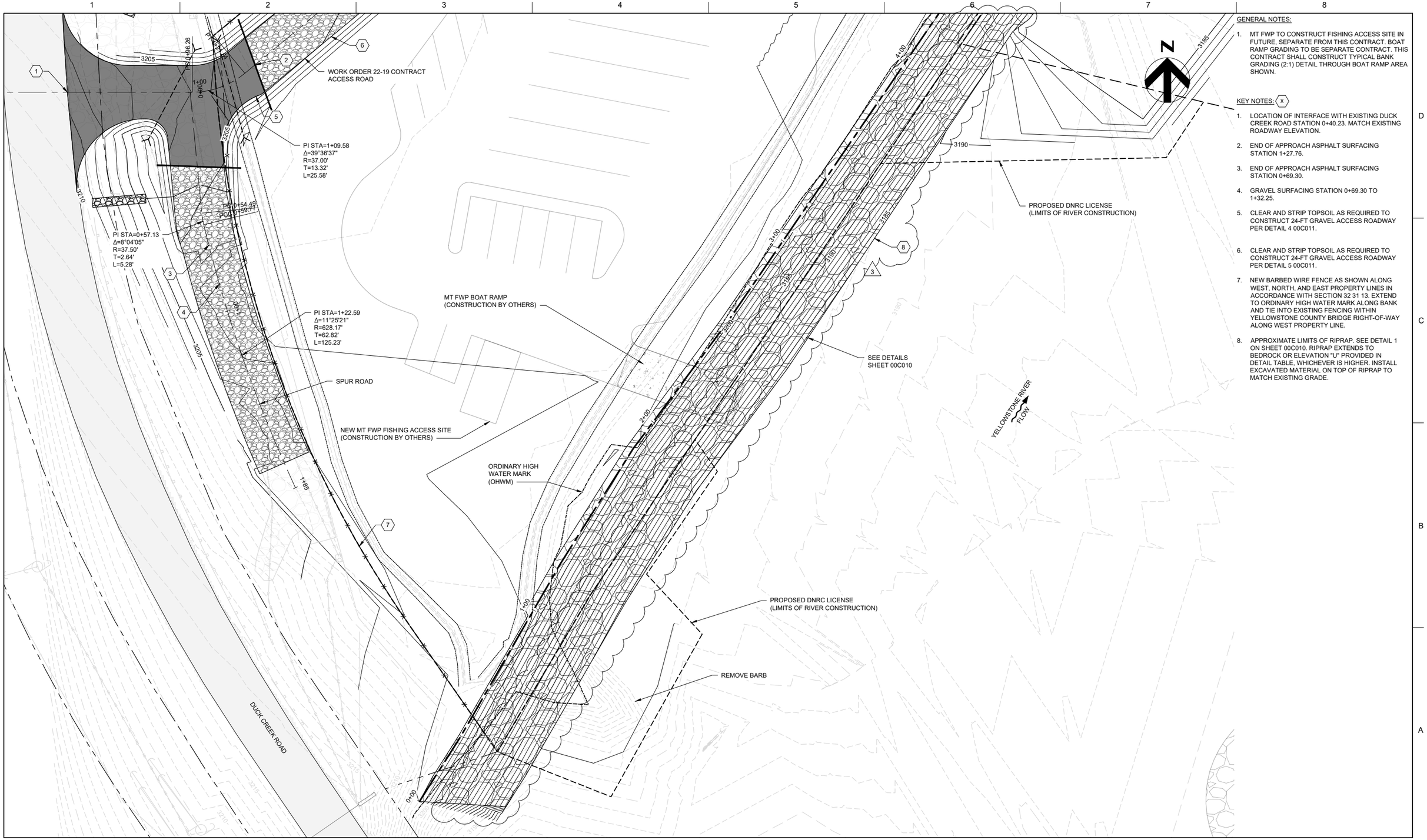


GENERAL NOTES:

1. MT FWP TO CONSTRUCT FISHING ACCESS SITE IN FUTURE, SEPARATE FROM THIS CONTRACT. BOAT RAMP GRADING TO BE SEPARATE CONTRACT. THIS CONTRACT SHALL CONSTRUCT TYPICAL BANK GRADING (2:1) DETAIL THROUGH BOAT RAMP AREA SHOWN.

KEY NOTES: (X)

1. LOCATION OF INTERFACE WITH EXISTING DUCK CREEK ROAD STATION 0+40.23. MATCH EXISTING ROADWAY ELEVATION.
2. END OF APPROACH ASPHALT SURFACING STATION 1+27.76.
3. END OF APPROACH ASPHALT SURFACING STATION 0+69.30.
4. GRAVEL SURFACING STATION 0+69.30 TO 1+32.25.
5. CLEAR AND STRIP TOPSOIL AS REQUIRED TO CONSTRUCT 24-FT GRAVEL ACCESS ROADWAY PER DETAIL 4 00C011.
6. CLEAR AND STRIP TOPSOIL AS REQUIRED TO CONSTRUCT 24-FT GRAVEL ACCESS ROADWAY PER DETAIL 5 00C011.
7. NEW BARBED WIRE FENCE AS SHOWN ALONG WEST, NORTH, AND EAST PROPERTY LINES IN ACCORDANCE WITH SECTION 32 31 13. EXTEND TO ORDINARY HIGH WATER MARK ALONG BANK AND TIE INTO EXISTING FENCING WITHIN YELLOWSTONE COUNTY BRIDGE RIGHT-OF-WAY ALONG WEST PROPERTY LINE.
8. APPROXIMATE LIMITS OF RIPRAP. SEE DETAIL 1 ON SHEET 00C010. RIPRAP EXTENDS TO BEDROCK OR ELEVATION "U" PROVIDED IN DETAIL TABLE, WHICHEVER IS HIGHER. INSTALL EXCAVATED MATERIAL ON TOP OF RIPRAP TO MATCH EXISTING GRADE.

ISSUE	DATE	DESCRIPTION
3	11/2022	ADDENDUM #3
	JULY 2022	ISSUE FOR BID

PROJECT MANAGER	C. HABBEN
CIVIL	J. HILLIUS
STRUCTURAL	T. HAMLIN
ARCHITECTURAL	J. RICKERT
PROCESS	J. OSTRANDER
MECHANICAL	R. DALRYMPLE
ELECTRICAL	L. KIRMEYER
INSTRUMENTATION	D. BEST
PROJECT NUMBER	10126753

CITY OF BILLINGS PUBLIC WORKS

West End Water Facility
City of Billings, MT
W.O. 22-19

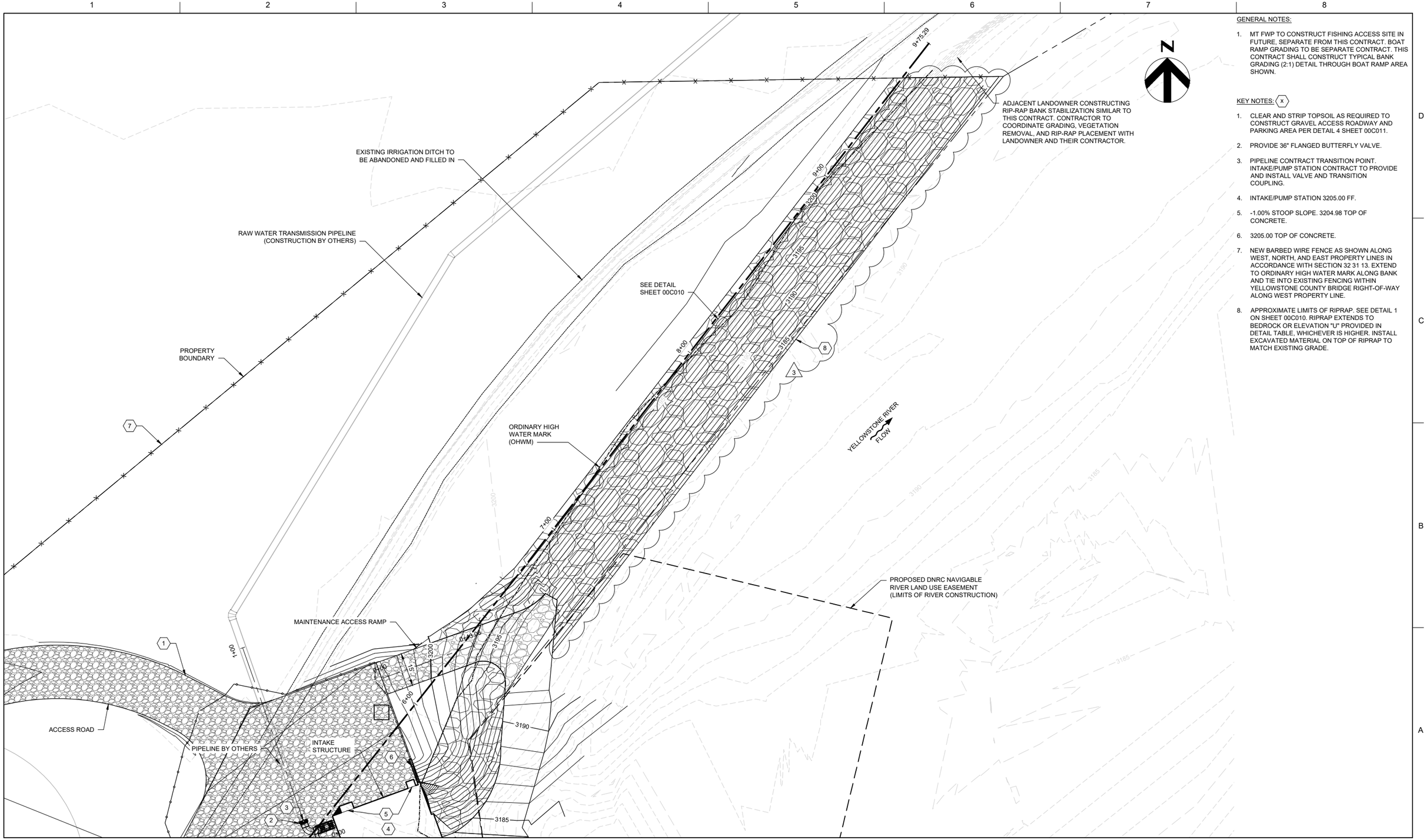
West End Water
Intake/Pump Station
Project

CIVIL
UPSTREAM RIVERBANK GRADING PLAN

0 1" 2"

FILENAME 00C007.DWG
SCALE 1" = 20'

SHEET 00C007



GENERAL NOTES:

1. MT FWP TO CONSTRUCT FISHING ACCESS SITE IN FUTURE, SEPARATE FROM THIS CONTRACT. BOAT RAMP GRADING TO BE SEPARATE CONTRACT. THIS CONTRACT SHALL CONSTRUCT TYPICAL BANK GRADING (2:1) DETAIL THROUGH BOAT RAMP AREA SHOWN.

KEY NOTES: (x)

1. CLEAR AND STRIP TOPSOIL AS REQUIRED TO CONSTRUCT GRAVEL ACCESS ROADWAY AND PARKING AREA PER DETAIL 4 SHEET 00C011.
2. PROVIDE 36" FLANGED BUTTERFLY VALVE.
3. PIPELINE CONTRACT TRANSITION POINT. INTAKE/PUMP STATION CONTRACT TO PROVIDE AND INSTALL VALVE AND TRANSITION COUPLING.
4. INTAKE/PUMP STATION 3205.00 FF.
5. -1.00% STOOP SLOPE. 3204.98 TOP OF CONCRETE.
6. 3205.00 TOP OF CONCRETE.
7. NEW BARBED WIRE FENCE AS SHOWN ALONG WEST, NORTH, AND EAST PROPERTY LINES IN ACCORDANCE WITH SECTION 32 31 13. EXTEND TO ORDINARY HIGH WATER MARK ALONG BANK AND TIE INTO EXISTING FENCING WITHIN YELLOWSTONE COUNTY BRIDGE RIGHT-OF-WAY ALONG WEST PROPERTY LINE.
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CITY OF BILLINGS PUBLIC WORKS

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City of Billings, MT
W.O. 22-19

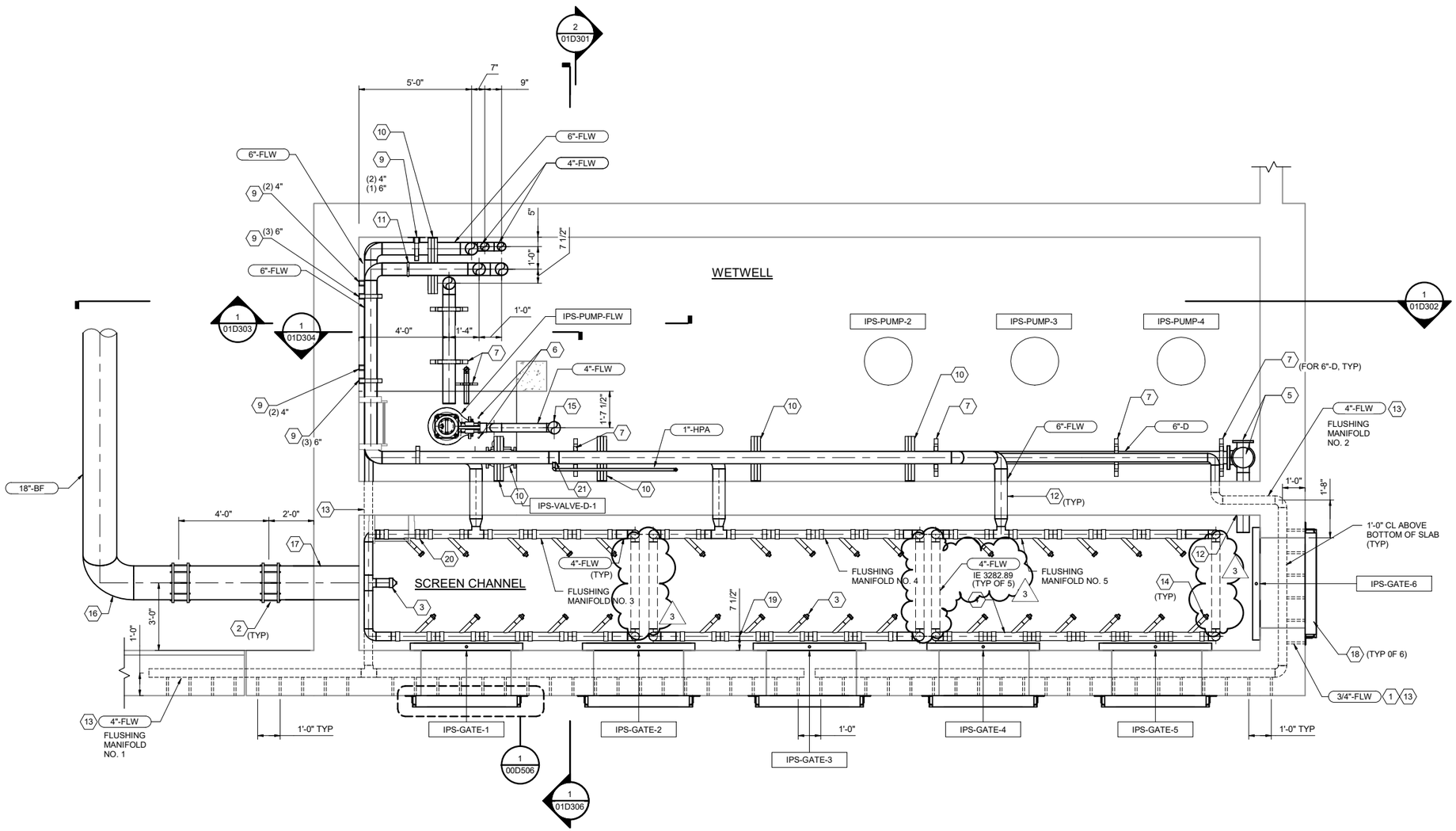
West End Water
Intake/Pump Station
Project

CIVIL
DOWNSTREAM RIVERBANK GRADING PLAN

0 1" 2"

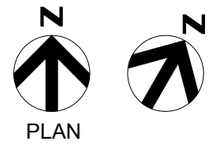
FILENAME 00C008.DWG
SCALE 1" = 20'

SHEET **00C008**



WETWELL LEVEL PLAN

3/8" = 1'-0"



PLAN

GENERAL NOTES:

1. PIPE SUPPORTS FOR PIPING SMALLER THAN 4" NOT CALLED OUT. PROVIDE SUPPORTS PER SPECIFICATION 40 05 07.

KEYNOTES: (X)

1. THREAD (27) 3/4" STEEL PIPE INTO 4"-FLW. END OF 3/4" PIPE TO BE FLUSH WITH WALL.
2. COUPLING.
3. PROVIDE 1/2" EDUCTOR NOZZLE, TYP. CARBON STEEL, BETE TURBOMIX EDUCTOR NOZZLE OR APPROVED EQUAL.
4. PROVIDE SUPPORTS AT 3 FT. SEE STANDARD DETAIL 40 05 07-03.
5. CLEANOUT PER STANDARD DETAIL 40 05 00-11.
6. PROVIDE PUMP REMOVAL GUIDE. ATTACH TO SIDE WALL AND TOP OF WETWELL HATCH. PROVIDE INTERMEDIATE SUPPORTS ATTACHED TO WALL.
7. PROVIDE PIPE SUPPORT PER STANDARD DETAIL 40 05 07-14.
8. PROVIDE PIPE SUPPORT PER STANDARD DETAIL 40 05 07-18.
9. PROVIDE PIPE SUPPORT PER STANDARD DETAIL 40 05 07-08.
10. PROVIDE PIPE SUPPORT PER STANDARD DETAIL 40 05 07-05.
11. PROVIDE PIPE SUPPORT PER STANDARD DETAIL 40 05 07-20.
12. PROVIDE PIPE PENETRATION PER STANDARD DETAIL 40 05 00-21.
13. ENCASED IN CONCRETE FLOOR/WALL.
14. 4X4X2 WYE WITH 2"X1/2" THREADED REDUCER.
15. PROVIDE PIPE SUPPORT PER STANDARD DETAIL 40 05 07-03.
16. PROVIDE THRUST BLOCK PER STANDARD DETAIL 40 05 00-08.AN OPTION TO THRUST BLOCK IS TO HARNESS THE COUPLINGS AND PROVIDE A FLANGED BY PLAIN END WALL PIPE WITH A 1/2" THICK WEEP RING AND 26" OUTSIDE DIAMETER.
17. PROVIDE PIPE PENETRATION PER STANDARD DETAIL 40 05 00-27.
18. COURSE SCREEN PER DETAILS ON 00D506.
19. VERIFY DIMENSION WILL ALLOW FLW TO NOT CONFLICT WITH GATE.
20. STOP LADDER ABOVE FLW HEADER.
21. PROVIDE TAP FOR 1"-HPA.

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Intake/Pump Station
Project

INTAKE/PUMP STATION LOWER LEVEL PLAN

0 1" 2"

FILENAME 10126753_PROCESS
SCALE 3/8" = 1'-0"

SHEET 01D101

B:\M 360://10126753_Bigs_W_End_Water_Facility_2020/10126753_v2020_RAW WATER DELIVERY_PROCESS.rvt
10/31/2022 9:28:01 AM