

BILL OF MATERIAL			
QTY	SP/BID	MARK	DESCRIPTION
1	CL-OSP	Y901	6"X6"X6" M.J. C153 TEE, ALL CENTERS, 6', 350 PSI, (P), 4-2-2-2
1	CL-OSP	Y902	6' M.J. C153 90 BEND, ALL CENTERS, 6.5', 350 PSI, (P), 4-2-2-2
11	CL-ASPPFG	Y903	6' FST FSTIPE PIPE CL-350/CL-50 0.75' 20' 2-2-2-2

** - Indicates the item has been placed on order.

SPECIFICATION BOUNDARY DEFINITIONS

Boundary ID: CL-OSP Service type: PROCESS
 Boundary name: CL-OSP Service temp: 50
 Boundary unit: 1 Environment: EXT/BURIED

Pipe lining: Single Thick C/L with Seal Coat: Black, 1-Coat, AWWA C104
 Pipe coating: Asphaltic Coated: Black, 1-Coat, 3-Avg, 1-Min
 Fitting lining: Double Thick C/L with Seal Coat: Black, 1-Coat, AWWA C104
 Fitting coating: Asphaltic Coated: Black, 1-Coat, 3-Avg, 1-Min

Gasket types

FASTITE - Fastite Gasket, Plain Rubber Styrene-Butadiene
 FLEX-RING 4-12 - Fastite Gasket, Plain Rubber Styrene-Butadiene
 FLG LESS ACCESSORIES - none
 FRBELL FLEX-RING - Fastite Gasket, Plain Rubber Styrene-Butadiene
 MJ MEGALUG GLAND - Mechanical Joint Gasket, Plain Rubber Styrene-Butadiene
 RIGID GROOV LESS ACC - none

Boundary ID: CL-ASPPFG Service type: PROCESS
 Boundary name: FAST GRIP Service temp: 50
 Boundary unit: 1 Environment: EXT/BURIED

Pipe lining: Single Thick C/L with Seal Coat: Black, 1-Coat, AWWA C104
 Pipe coating: Asphaltic Coated: Black, 1-Coat, 3-Avg, 1-Min
 Fitting lining: Double Thick C/L with Seal Coat: Black, 1-Coat, AWWA C104
 Fitting coating: Asphaltic Coated: Black, 1-Coat, 3-Avg, 1-Min

Gasket types

FAST GRIP - Fastgrip Gasket, Plain Rubber Styrene-Butadiene
 FLEX-RING 4-12 - Fastite Gasket, Plain Rubber Styrene-Butadiene
 FLG LESS ACCESSORIES - none
 FRBELL FLEX-RING - Fastite Gasket, Plain Rubber Styrene-Butadiene
 MJ - Mechanical Joint Gasket, Plain Rubber Styrene-Butadiene
 RIGID GROOVED - Victaulic style 31 Flush-Seal Gasket, Butyl Rubber for Victaulic Gaskets

NO EXCEPTIONS NOTED
 EXCEPTIONS NOTED
 RETURNED FOR CORRECTION
 RECORD COPY NOT ACCEPTABLE
 RETURNED WITHOUT REVIEW

AUG 01 2002

REVIEW DOES NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS, OMISSIONS, OR DEVIATIONS FROM CONTRACT REQUIREMENTS.
 BLACK & VEATCH

UNDERGROUND PIPE LENGTHS

Installed underground pipe lengths cannot be guaranteed. The industry practice of nominal laying lengths as described in AWWA C151, manufacturing tolerances, inadvertent and inadvertent joint deflection, and joint take-up will influence the assembled length. For 4'-36" restrained joint piping, AMERICAN suggests the use of field adaptable joints such as FAST GRIP or FIELD FLEX-RING (depending on diameter) in any critical closure areas that may be shown on this drawing to provide practical field adaptability.

RESTRAINED JOINT PIPING (NE)
 (Nominal Extension)

Flex-Ring and Lok-Ring joint pipe designated 'NE', have been detailed on this drawing with a nominal joint extension or creep allowance at each joint of 1/4". This joint extension or creep is anticipated due to normal installation practice and tolerance in the joint itself.

AMERICAN DUCTILE IRON PIPE
 A DIVISION OF AMERICAN CAST IRON PIPE COMPANY

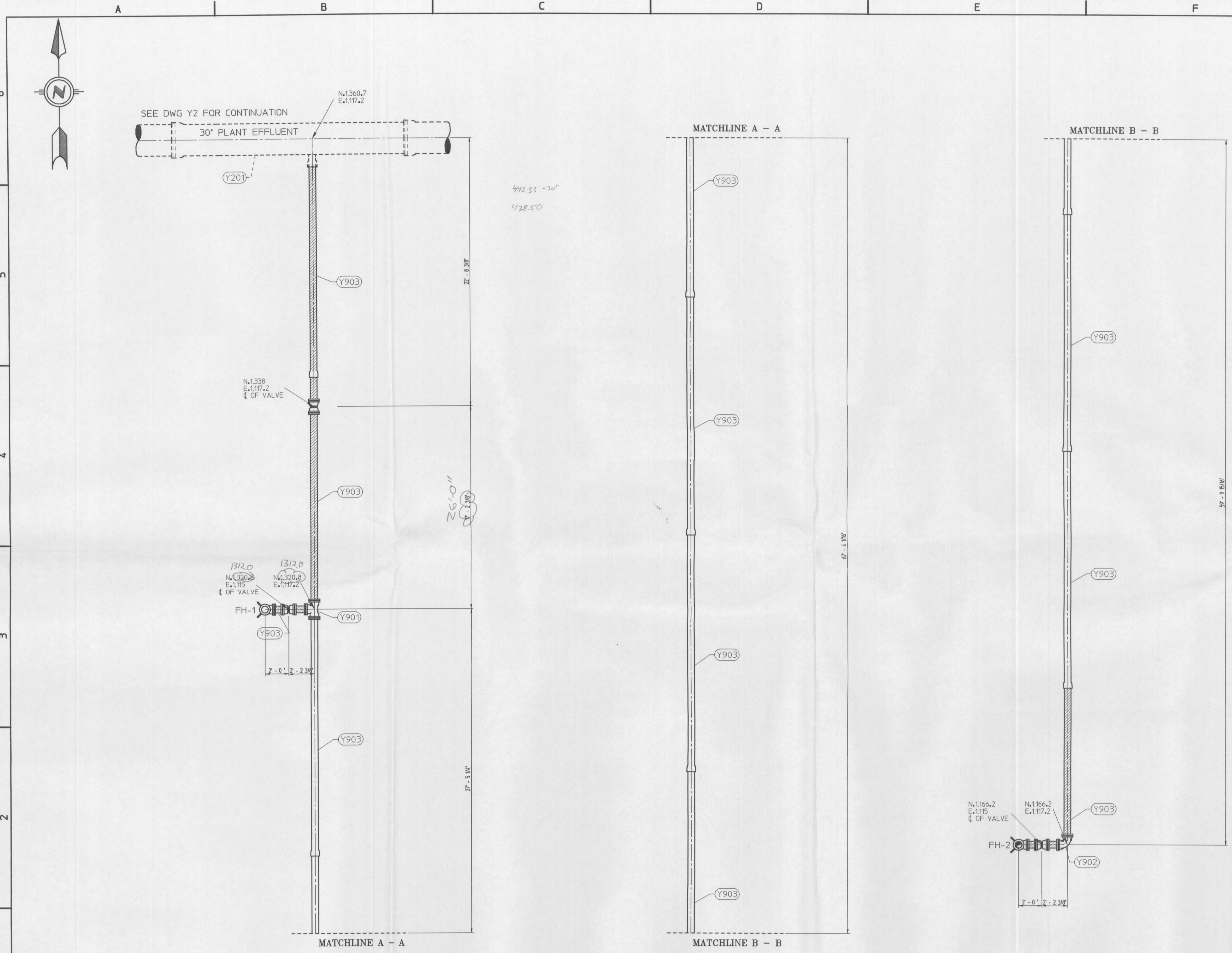
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 BIRMINGHAM, ALABAMA 35202 BIRMINGHAM, ALABAMA 35207

4'-64" Diameter Ductile Iron Pipe - Fastite Joint, Mechanical Joint, Flanged Joint
 Flex-Ring Restrained Joint, Lok-Ring Restrained Joint, Flex-Lok Restrained Joint,
 ANSI A21.4, A21.5, & AMERICAN Standard Fittings
 ANSI A21.4 Cement Lining, POLYBOND Lining, plus Special Coatings & Linings
 American Flow Control - Valves And Hydrants

This drawing is a service to the customer as an aid in developing a detailed bill of material. The purchaser must verify correctness of design and dimensions. It is the responsibility of the purchaser to verify all details on receipt of prints. Changes desired shall be noted on a print and returned to American. Drawings will be revised per these changes. Drawings returned to American without signature or initial will be considered to have been reviewed by the customer with any required change noted.

REVISED BY:	DATE:	REV #	CONDAIRE, INCORPORATED
Angelia Neelley	18 Jun 2002	1	
			WATER TREATMENT FACILITIES O'FALLON, MO
			WATER MAIN REF. DWGS. B1, B2 & B6
DRAWN BY: Angelia Neelley PROJECT NUMBER: KM001998			C02010-Y9
DATE DRAWN: 22 May 2002 SCALE: NTS			

6" WATER MAIN



6
5
4
3
2
1