

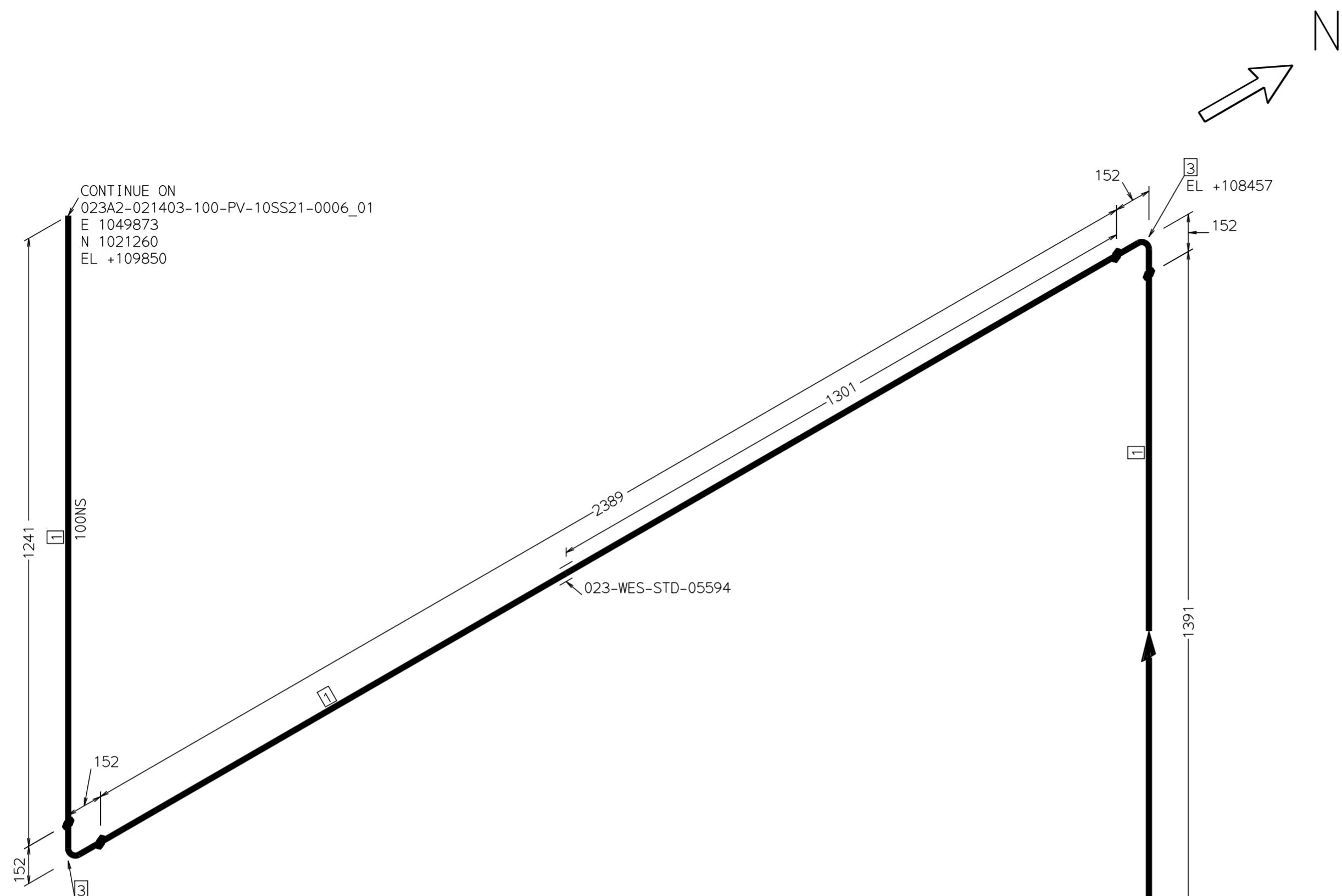
SIGNATURES (Name and date)

DESIGN LEADER (LD)	REVIEWED By rvasquezhu at 12:28 pm, Feb 16, 2021	SUPPORTS LEADER (LSP)	REVIEWED By Sergio Zamora at 11:48 am, Feb 17, 2021	ISSUER (CHK)	REVIEWED By oscar at 8:46 am, Feb 20, 2021
STRESS LEADER (LST)		MATERIALS (M)	REVIEWED By Jose G. Suarez at 12:46 pm, Feb 17, 2021	DISCIPLINE LEAD (L)	

NOTES:

- NOTES:**

 - [1] If "X" marqued, a "HOLD" note should be included in the Holds area for justification.
 - [2] 1st checking round: Checker to place a or a (X) confirming or not Designer verification. A or a (X) should also be placed to confirm or reject any mark placed by the Designer confirming or not the implicit HOLD.
 - [3] 2nd checking round: Checker to place a to validate the points that were not confirmed in the 1st round and were corrected by respective Specialist.
 - [4] If an isometric with HOLD is approved by IFC Leader for issuance, the correspondent By-Pass should be attached.

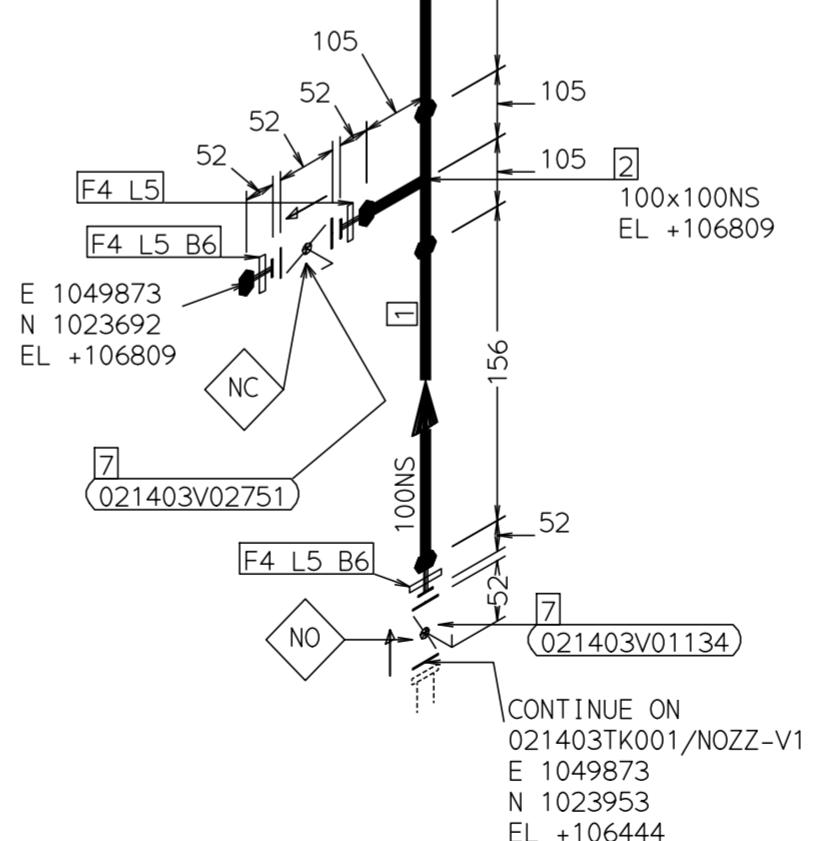


MATERIAL LIST - FABRICATION

PT NO	N.S. (MM)	DESCRIPTION	IDENT	QTY
1	100	Pipes (Length), EN 10220, BE, EFW + 100% RT, - ,/2MM EN 10217-7 Gr.X2CrNi19-11,	C1P0FPD5	5.2M
2	100 x 100	Eq Te, EN 10253-4 Type A, BW Ends, Welded + 100% RT, - ,/2.6MM EN 10253-4 Gr.X2CrNi19-11,	C1MSER99	1
3	100	90° Elb LR, EN 10253-4 Type A, BW Ends, Welded + 100% RT, C1KXKEKD M.3D, Serie 1,/2MM EN 10253-4 Gr.X2CrNi19-11,		2
4	100	LJ Flg, EN 1092-1 Type 02, FF, PN 16, - ,/ EN 10222-2 Gr. P245GH Galv. as per EN 10240,	C1KXSGYH	3
5	100	Stub LP, EN 1092-1 Type 36, BW Ends, Seamless, PN16 Flgs,/3.2MM EN 10216-5 Gr.X2CrNi19-11,	C1LD5M7R	3

MATERIAL LIST - ERECTION

<u>PT NO</u>	<u>N.S. (MM)</u>	<u>DESCRIPTION</u>	<u>IDENT</u>	<u>QTY</u>
6	16	175 SBLt 2 HHx N&2W, ISO 261/ISO 4032, Full Length Threaded, F.Wash. EN ISO 887, A2, EN ISO 7089 ISO 3506-1 Gr.A2-70,	C3JHBD8E	16
7	100	But Waf,PN 10,RF or FF,Datasheet: 6100/ Ductile Iron,	C2W7XUSV	2



**PIPING DPT.
ISSUER
CHECKED**

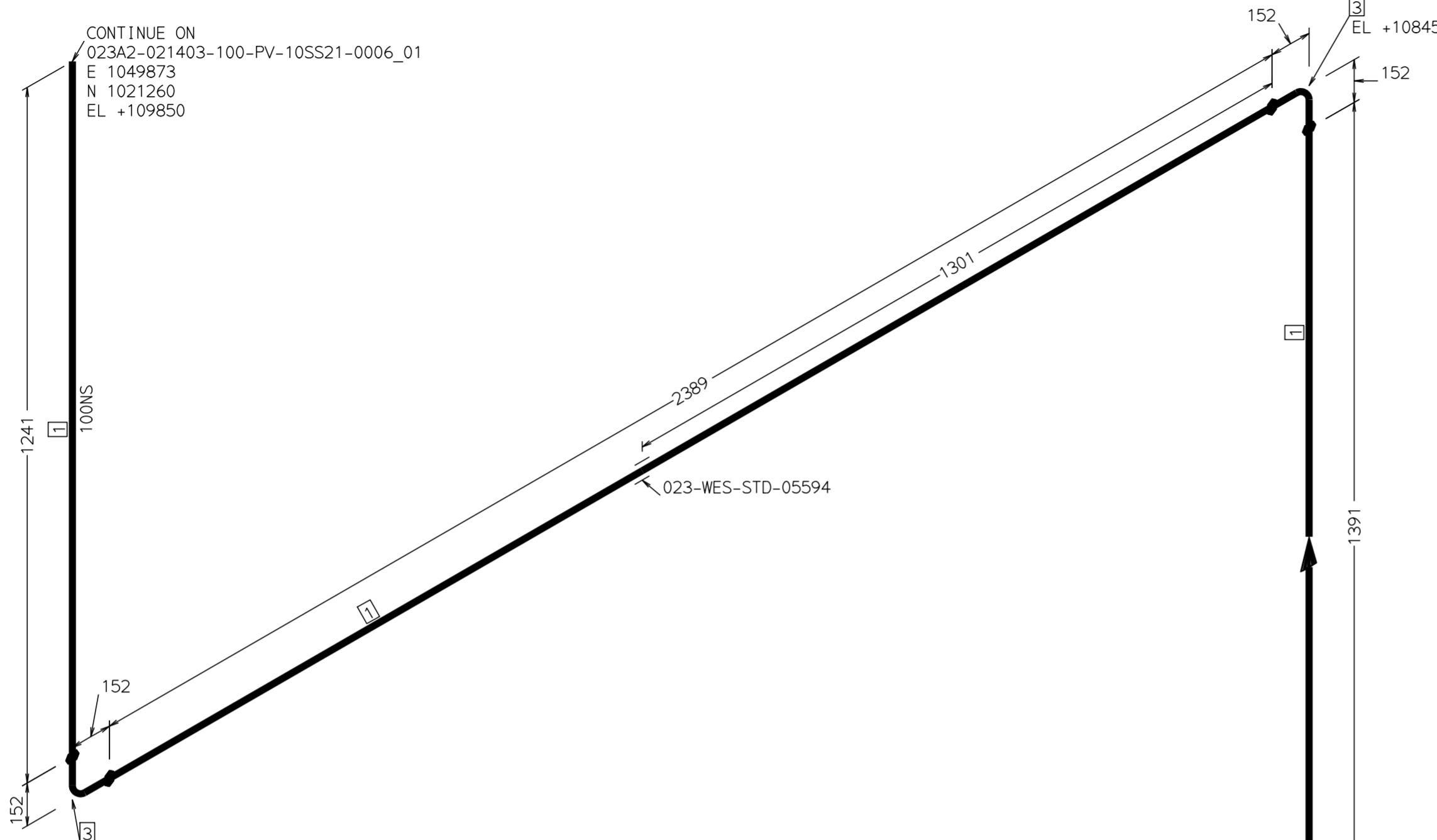
By oscar at 8:44 am, Feb 20, 2021

0	19/02/21	AF	LP	OMC	IFC - ISSUED FOR CONSTRUCTION
RFV	DATE	DWN	CHK	APP	DESCRIPTION

All dimensions to be checked in field prior to construction. Dimensions and routing shall be field adjusted, it is the piping contractors responsibility to check and verify all closing dimensions to equipment and make adjustments as required in field. All dimensions, elevations and coordinates are in millimeter unless noted otherwise. Fieldwelds and overlengths to be determined by piping contractor. Bolt holes to straddle horizontal and vertical centerline unless shown otherwise. Contractor will provide all necessary pipe supports.

NOTES:		REFERENCES / DOCUMENTS		SPEC	10SS21	PROJECT DESCRIPTION/LOCATION		horizontal and vertical centerline unless shown otherwise. Contractor will provide all necessary pipe supports.		
				SYMBOLS		BUTTERFLY PROJECT/KREFELD				
		LINE LIST	30201-042-001000-001	Insulated Pipe — — — —	Insulated and Traced Pipe — — — — — — — —	LINE NUMBER		TRAIN	SHEET	REV
		ISOMETRIC INDEX	30303-042-023000-200							
		PIPING SUPPORT	30207-042-021300-001					024	023A1	021403-100-PV-10SS21-0006

CONTINUE ON
023A2-021403-100-PV-10SS21-0006_01
E 1049873
N 1021260
EL +109850

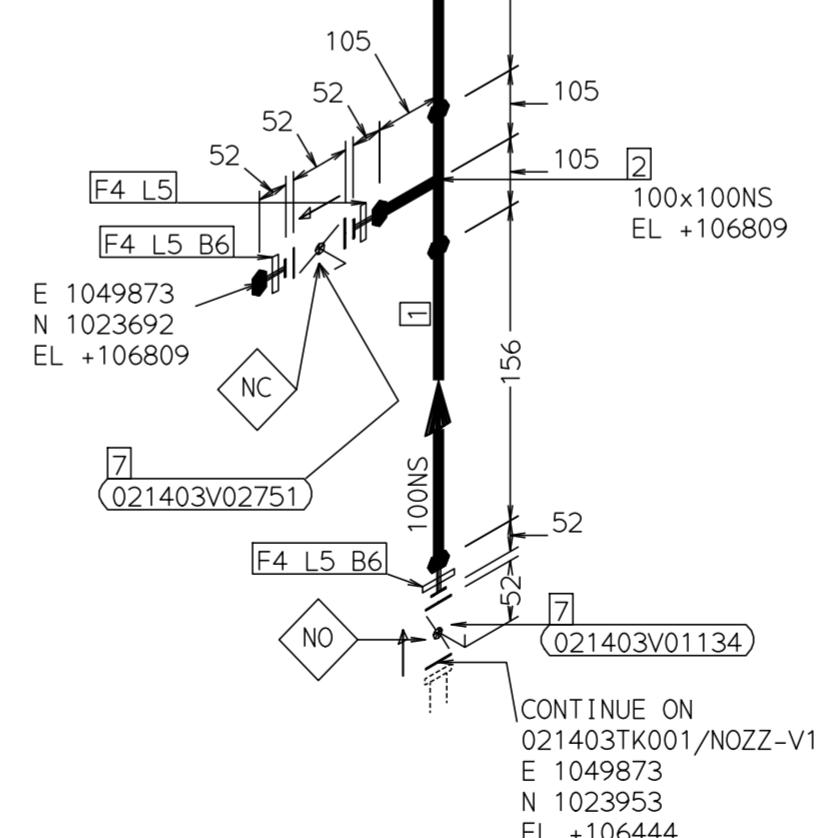


MATERIAL LIST - FABRICATION

PT NO	N.S. (MM)	DESCRIPTION	IDENT	QTY
1	100	Pipes (Length), EN 10220, BE, EFW + 100% RT, -, /2MM EN 10217-7 Gr. X2CrNi19-11,	C1P0FPD5	5.2M
2	100 x 100	Eq Te, EN 10253-4 Type A, BW Ends, Welded + 100% RT, -, /2.6MM EN 10253-4 Gr. X2CrNi19-11,	C1MSER99	1
3	100	90° Elb LR, EN 10253-4 Type A, BW Ends, Welded + 100% RT, C1KXKEKD M.3D, Serie 1, /2MM EN 10253-4 Gr. X2CrNi19-11,	2	
4	100	LJ Flg, EN 1092-1 Type 02, FF, PN 16, -, / EN 10222-2 Gr. C1KXSGYH P245GH Galv. as per EN 10240,	3	
5	100	Stub LP, EN 1092-1 Type 36, BW Ends, Seamless, PN16 Flgs, /3.2MM EN 10216-5 Gr. X2CrNi19-11,	C1LD5M7R	3

MATERIAL LIST - ERECTION

PT NO	N.S. (MM)	DESCRIPTION	IDENT	QTY
6	16	175 SBLT 2 HHx N&W, ISO 261/ISO 4032, Full Length Threaded, F.Wash. EN ISO 887, A2, EN ISO 7089 ISO 3506-1 Gr.A2-70,	C3JHBD8E	16
7	100	But Waf, PN 10, RF or FF, Datasheet: 6100/ Ductile Iron,	C2W7XUSV	2



**PIPING DPT.
MATERIALS
CHECKED**

By Jose G. Suarez at 12:46 pm, Feb 17, 2021

0	19/02/21	AF	LP	OMC	IFC - ISSUED FOR CONSTRUCTION
REV	DATE	DWN	CHK	APP	DESCRIPTION

All dimensions to be checked in field prior to construction. Dimensions and routing shall be field adjusted, it is the piping contractors responsibility to check and verify all closing dimensions to equipment and make adjustments as required in field. All dimensions, elevations and coordinates are in millimeter unless noted otherwise. Fieldwelds and overlengths to be determined by piping contractor. Bolt holes to straddle horizontal and vertical centerline unless shown otherwise. Contractor will provide all necessary pipe supports.

NOTES:

For pipes < dn50 supporting to be studied and defined by construction contractor before line fabrication and installation.

REFERENCES / DOCUMENTS

LINE LIST	30201-042-001000-001
ISOMETRIC INDEX	30303-042-023000-200
PIPING SUPPORT	30207-042-021300-001

SPEC

SYMBOLIC

Insulated Pipe

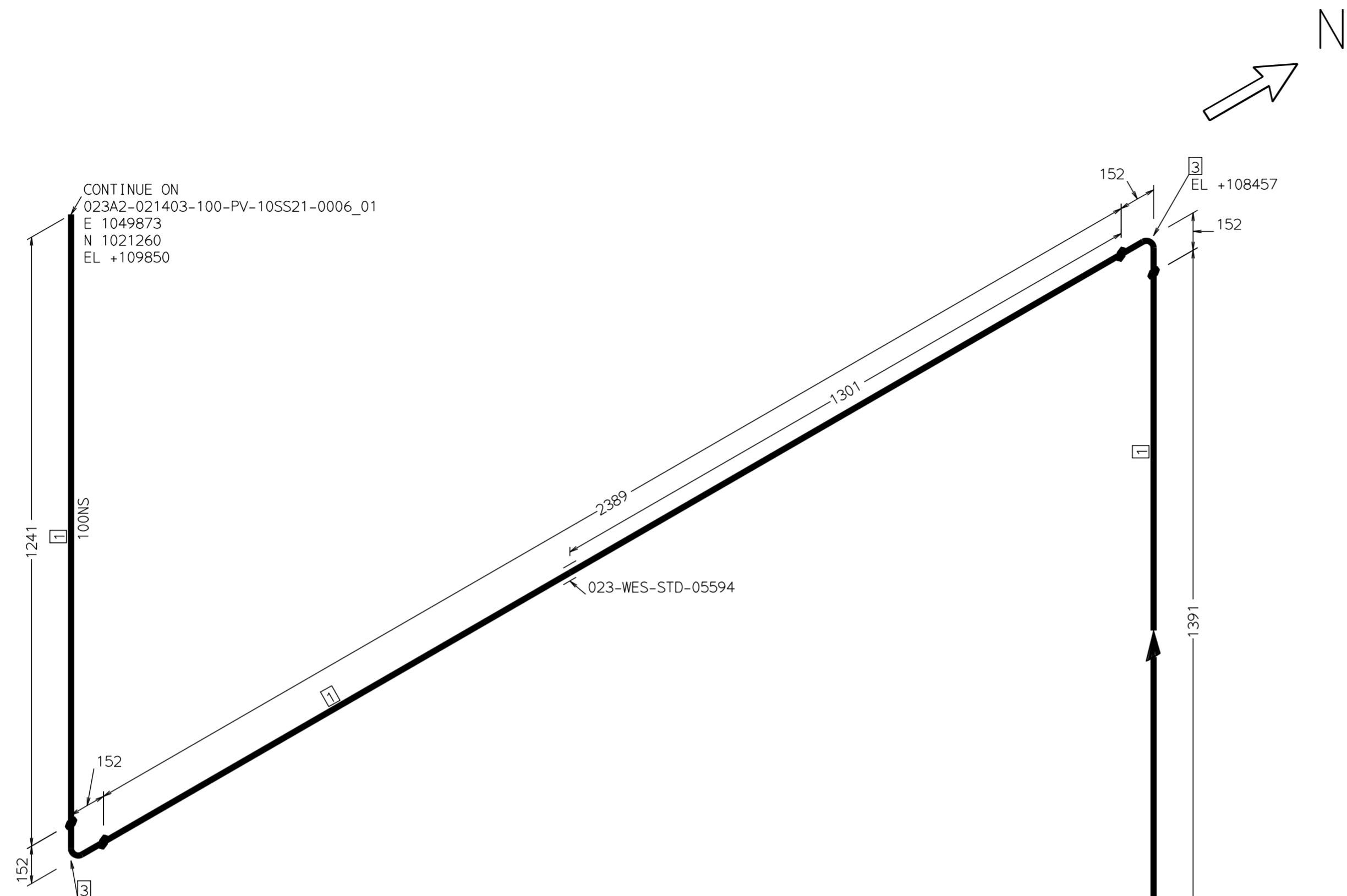
Insulated and Traced Pipe

PROJECT DESCRIPTION/LOCATION

BUTTERFLY PROJECT/KREFELD



PROCESS UNIT	DESIGN AREA	LINE NUMBER	TRAIN	sheet	REV
024	023A1	021403-100-PV-10SS21-0006	01	1 OF 1	0

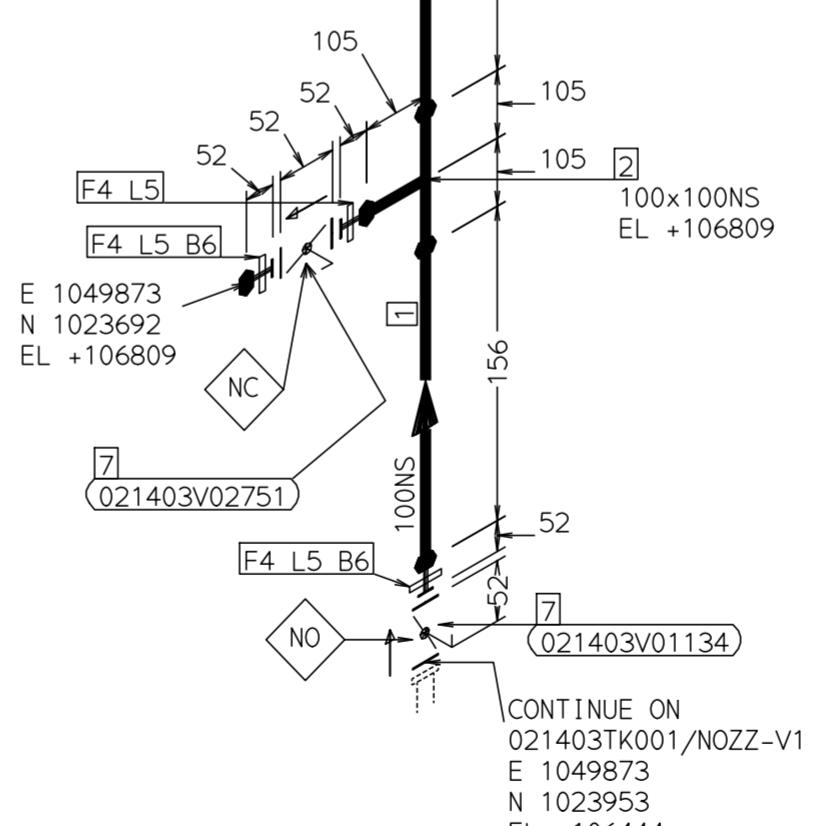


MATERIAL LIST – FABRICATION

PT NO	N.S. (MM)	DESCRIPTION	IDENT	QTY
1	100	Pipes (Length), EN 10220, BE, EFW + 100% RT, - ,/2MM EN 10217-7 Gr.X2CrNi19-11,	C1P0FPD5	5.2M
2	100 x 100	Eq Te, EN 10253-4 Type A, BW Ends, Welded + 100% RT, - ,/2.6MM EN 10253-4 Gr.X2CrNi19-11,	C1MSER99	1
3	100	90° Elb LR, EN 10253-4 Type A, BW Ends, Welded + 100% RT, C1KXKEKD M.3D, Serie 1,/2MM EN 10253-4 Gr.X2CrNi19-11,		2
4	100	LJ Flg, EN 1092-1 Type 02, FF, PN 16, - ,/ EN 10222-2 Gr. P245GH Galv. as per EN 10240,	C1KXSGYH	3
5	100	Stub LP, EN 1092-1 Type 36, BW Ends, Seamless, PN16 Flgs,/3.2MM EN 10216-5 Gr.X2CrNi19-11,	C1LD5M7R	3

MATERIAL LIST - ERECTION

<u>PT NO</u>	<u>N.S. (MM)</u>	<u>DESCRIPTION</u>	<u>IDENT</u>	<u>QTY</u>
6	16	175 SBLt 2 HHx N&2W, ISO 261/ISO 4032, Full Length Threaded, F.Wash. EN ISO 887, A2, EN ISO 7089 ISO 3506-1 Gr.A2-70,	C3JHBD8E	16
7	100	But Waf,PN 10,RF or FF,Datasheet: 6100/ Ductile Iron,	C2W7XUSV	2



PIPING DPT.
SUPPORTED

Performance at 10-15 cm, Feb 17, 2021

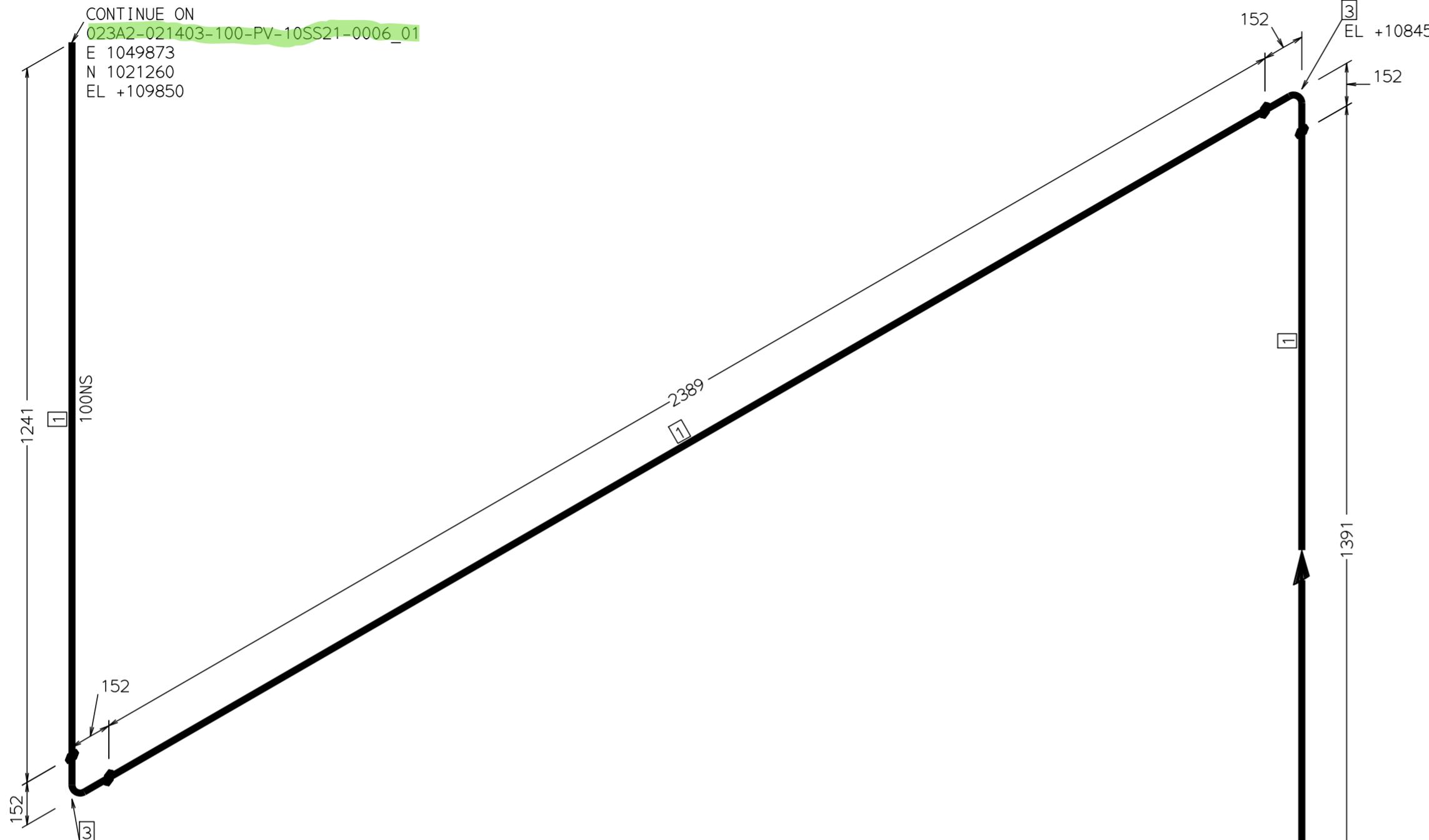
PIPING DPT.
SUPPORTS
CHECKED

Scanned by Zemanta at 11:11:18 am, Feb 17, 2021

All dimensions to be checked in field prior to construction. Dimensions and routing shall be field adjusted, it is the piping contractors responsibility to check and verify all closing dimensions to equipment and make adjustments as required in field. All dimensions, elevations and coordinates are in millimeter unless noted otherwise. Fieldwelds and overlengths to be determined by piping contractor. Bolt holes to straddle horizontal and vertical centerline unless shown otherwise. Contractor will provide all necessary pipe supports.

NOTES:		REFERENCES / DOCUMENTS		SPEC	10SS21	PROJECT DESCRIPTION/LOCATION		horizontal and vertical centerline unless shown otherwise. Contractor will provide all necessary pipe supports.				
				SYMBOLS		BUTTERFLY PROJECT/KREFELD						
		LINE LIST	30201-042-001000-001 <th data-kind="parent" data-rs="3">Insulated Pipe — — — — — — — — — — — —</th> <th data-kind="parent" data-rs="3">Insulated and Traced Pipe — — — — — — — — — — — —</th> <th>PROCESS UNIT</th> <th>DESIGN AREA</th> <th data-cs="2" data-kind="parent">LINE NUMBER</th> <th data-kind="ghost"></th> <th>TRAIN</th> <th>SHEET</th> <th>REV</th>	Insulated Pipe — — — — — — — — — — — —	Insulated and Traced Pipe — — — — — — — — — — — —	PROCESS UNIT	DESIGN AREA	LINE NUMBER		TRAIN	SHEET	REV
For pipes < dn50 supporting to be studied and defined by construction contractor before line fabrication and installation.		ISOMETRIC INDEX	30303-042-023000-200									
		PIPING SUPPORT	30207-042-021300-001			024 023A1 021403-100-PV-10SS21-0006		01	1 OF 1	0		

CONTINUE ON
023A2-021403-100-PV-10SS21-0006_01
E 1049873
N 1021260
EL +109850



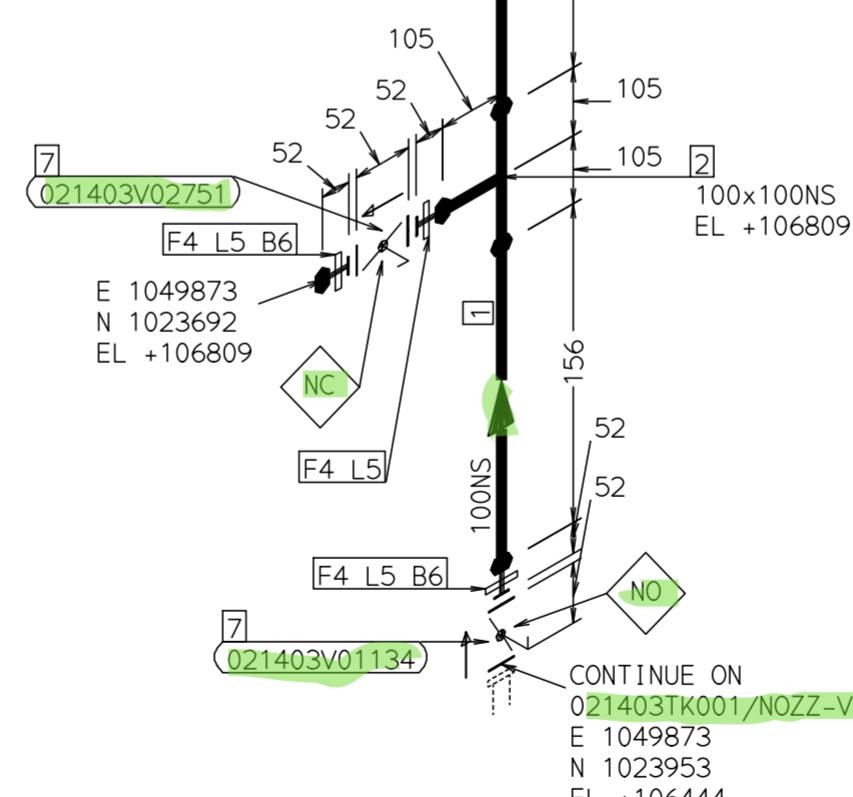
N

MATERIAL LIST - FABRICATION

PT NO	N.S. (MM)	DESCRIPTION	IDENT	QTY
1	100	Pipes (Length), EN 10220, BE, EFW + 100% RT, -, /2MM EN 10217-7 Gr. X2CrNi19-11,	C1P0FPD5	5.2M
2	100 x 100	Eq Te, EN 10253-4 Type A, BW Ends, Welded + 100% RT, -, /2.6MM EN 10253-4 Gr. X2CrNi19-11,	C1MSER99	1
3	100	90° Elb LR, EN 10253-4 Type A, BW Ends, Welded + 100% RT, C1KXKEKD M.3D, Serie 1, /2MM EN 10253-4 Gr. X2CrNi19-11,	2	
4	100	LJ Flg, EN 1092-1 Type 02, FF, PN 16, -, / EN 10222-2 Gr. C1KXSGYH P245GH Galv. as per EN 10240,	3	
5	100	Stub LP, EN 1092-1 Type 36, BW Ends, Seamless, PN16 Flgs, /3.2MM EN 10216-5 Gr. X2CrNi19-11,	C1LD5M7R	3

MATERIAL LIST - ERECTION

PT NO	N.S. (MM)	DESCRIPTION	IDENT	QTY
6	16	175 SBLT 2 HHx N&W, ISO 261/ISO 4032, Full Length Threaded, F.Wash. EN ISO 887, A2, EN ISO 7089 ISO 3506-1 Gr.A2-70,	C3JHBD8E	16
7	100	But Waf, PN 10, RF or FF, Datasheet: 6100/ Ductile Iron,	C2W7XUSV	2



VOID

PIPING DPT.
DESIGNED

By Andrea Ferranti at 11:13 am, Feb 15, 2021

PIPING DPT.
**DESIGN
CHECKED**

By rvasquezhu at 12:29 pm, Feb 16, 2021

NOTES:

For pipes < dn50 supporting to be studied and defined by construction contractor before line fabrication and installation.

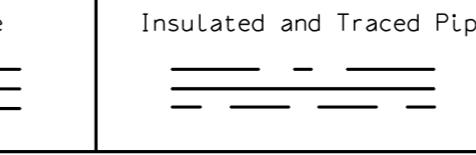
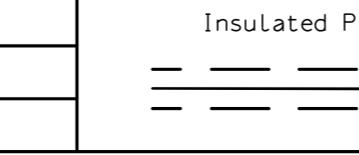
REFERENCES / DOCUMENTS

LINE LIST	30201-042-001000-001
ISOMETRIC INDEX	30303-042-023000-200
PIPING SUPPORT	30207-042-021300-001

SPEC

10SS21

SYMBOLS



PROJECT DESCRIPTION/LOCATION

BUTTERFLY PROJECT/KREFELD



PROCESS UNIT	DESIGN AREA	LINE NUMBER	TRAIN	sheet	REV
024	023A1	021403-100-PV-10SS21-0006	01	1 OF 1	0