

## ISOMETRIC IFC - CHECK LIST

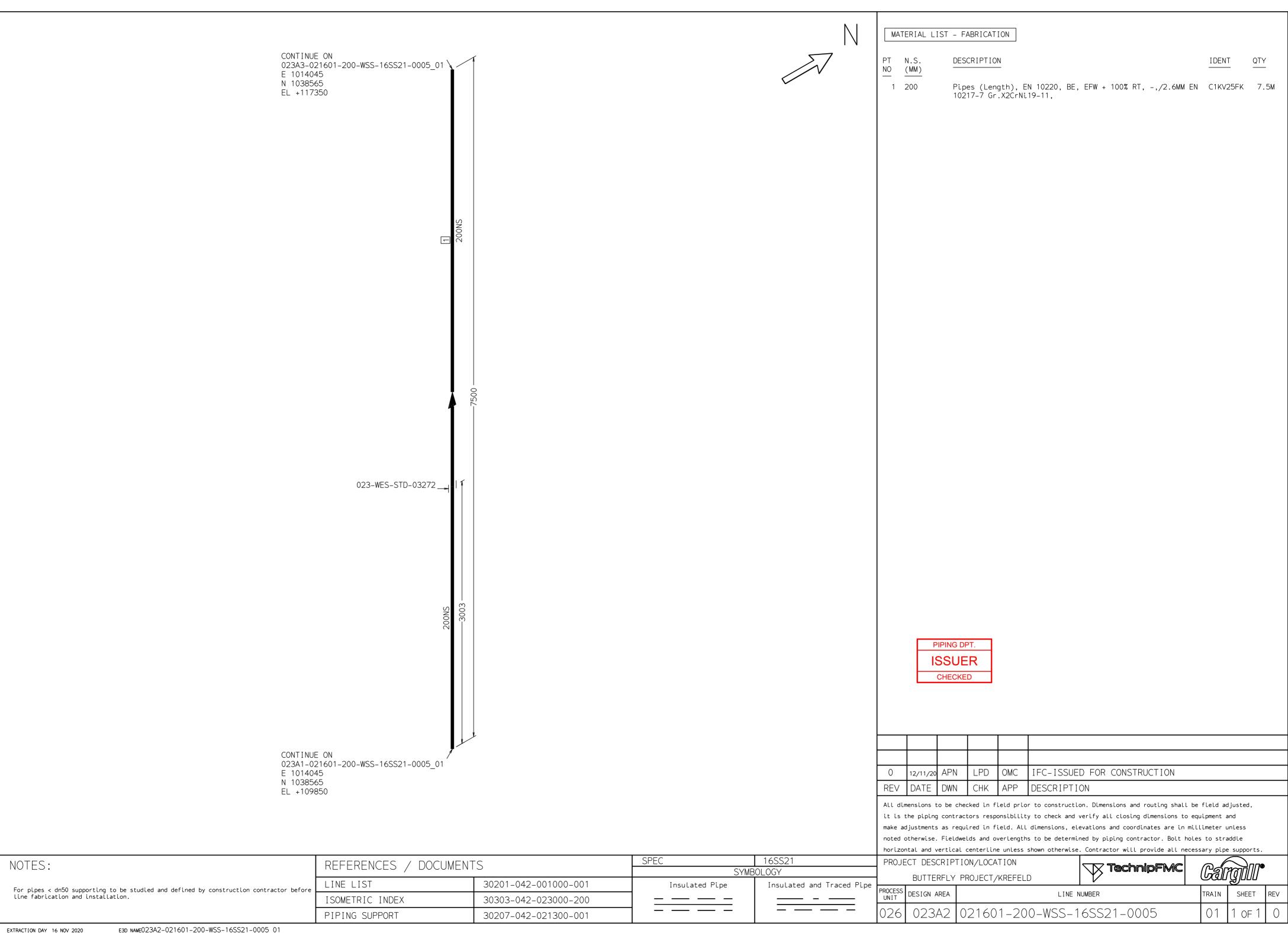
Line Number		021601WSS00	05			Stress CN / Level N° 035 Level: II											
Isometric Number		023A2021601W	/SS0005_01			Process Approval Required YES NO X Carqui					argill"	TechnipFMC - Butterfly Project					
Information to be attached:				Intrumetation Approval Required (N/A) YES NO X													
Infor	mation to be attache	d:									╫─			HOLDS	S		
_	aster Copy of PID: YES V N/A N/A Nº 800124-026-PID-0021-015 Rev. 1 Nº								SHORT DE		_	RESOLVED (√)					
_	fodification Sheet:	YES [		N/A	<b>✓</b>	N°	000114 010 110 0011 013	$\overline{}$	Rev.		╫						.,
Equip	ment Vendor Dwg. :					N°		$\overline{}$	Rev.		11						
Instru	ment Dwg. :	YES		N/A	✓	N°		$\overline{}$	Rev.		1 - 1						
Projec	ct By-Pass (4):	YES		N/A	✓	N°		$\overline{}$	Rev.		11						
	Approved Isometric:	YES [		N/A	<b>✓</b>	Rev.		$\overline{}$	Extraction Date	:	╫						
_	pproved Isometric:	YES [		N/A	<b>✓</b>	Rev.		$\overline{}$	Extraction Date		11						
													~ ш	IFC	REV 0	REV 1	REV 2
					<u>A</u>	VERIFICAR /	TO BE CHECKED						" N/A " NO APLICA I NOT APPLICABLE	IFC	KEV U	KEV I	KEV 2
		(CD) C					der / (ST) Stress Sp Materials / (SL) Spo						" N// NO PLIC		<u> </u>		
		(3F) 30	apports speci	alist/	(LSF) Supports				rt) issuel / (L	Discipline Lead			N A	✓	<b>X</b> <sup>(1)</sup>	1st-Chk (2)	2nd-Chk (3)
							) Designer / (LDG) Design	Leader					_	By:	: D	By:	LDG
_	Nº de línea según	PID y lista d	e líneas / Line Nbi	. accord	ling to PID and line lis	t										<b>V</b>	
atior	Datos de la línea s	alos de la línea según lista de líneas / Line data according to line list  lase de tubería según PID y Lista de Líneas / Piping class according to PID and Line List  inculo E3D con Diagrams (Process Unit, Temp Operación, Numeración TODAS válvulas manuales) / Link between E3D and Diagrams (Process Unit, Op Temp, ALL manual valves Tagged)									<b>V</b>		<b>V</b>				
ormi	Clase de tubería s										<b>V</b>		<b>V</b>				
Iso Information	Vinculo E3D con F								red)		<b>V</b>		<b>√</b>				
<u>s</u>									(,	rp,		,,		* .		<b>√</b>	
							e number in the title block			20.			-	<b>V</b>		w	
	Código / Code: 2	egun piano 3	vendor valido par	a genera	ar isometrica IFC / Eq	јиіртепт тоаенеа	according Vendor drawing	g valla for Iso	metric IFC genera	tion							
nen	Nombre de bubladuras según PID y plano Vendor / Name of nozzle according to PID and Vendor drawing										<b>V</b>						
Equipment	Rating y diámetro de tubuladuras según plano Vendor / Rating and diameter of nozzles according to vendor drawing										-						
й													<b>V</b>				
	Posición y elevación	on de tubula	duras según plano	vendor	Position and elevat		ording to Vendor drawing						<b>V</b>				
							) Designer / (LDG) Design	Leader						By:	: ט	By:	LDG
	Línea sin colisión (	verificación	incluyendo la nub	e de pun	ntos) / Line is clash fre	ee (checked includ	ling points cloud)							<b>V</b>		<b>V</b>	
	Comentarios de SI	O a líneas	críticas recibidos e	implem	entados antes de ext	racción final para e	emisión / Process comme	ents to critical	lines received and	implemented before f	inal extracti	on for issuance	<b>V</b>				
					P&ID and Line List :	•							▼				
	Correcta referencia	a de la conti	nuidad de la isomé	étrica en	líneas nuevas, líneas	s existentes u otra	hoja de la isométrica en le	os extremos	de línea y sus ram	ales, incluyendo eleva	ciones y co	ordenadas /	]	<b>V</b>		<b>V</b>	
				s, existin	ng lines or other isome	etric sheet in each	end of the line and its bra	nches includii	ng elevations and	coordinates							
	Verificación contra			ae nand	lianta cantido da fluir	numeración de i	nstrumentos, cambios de	especificació	n cumplimiento d	a notae / in-line comno	nente inclu	ded branch		<b>V</b>		-	
					pe class breaks, note			Сэрсстойсю	n, cumpiliniono u	s notas r in-ine compe	nonto mora	ucu, brancii		~		•	
Design	Verificación contra															_	
Line Des	Longitudes requeri	das de entra	ada y/o salida a ec elevations conden	juipos, di sate gen	istancias y/o elevacio neration	ones mínimas o má	áximas requeridas, forma	ción de conde	ensados / Require	d inlet and/or outlet ler	igths to equ	ipments, minimum		~		<b>V</b>	
	or maximum distances and/or elevations, condensate generation  Comentarios de SIT a recibidos e implementados antes de extracción final para emisión / Instrumentation comments received and implemented before final extraction for issuance										<b>V</b>						
									emented before n	iai extraction for issua	700						
	Verificación contra Planos de Vendor o Hook-up Instrumentacion / Check Iso vs Instrument Vendor Drawings or Hook-up: Tamaño de Isa válvulas de control y de seguridad, instalación de acuerdo a hook-up / Size de control valves and safety valves, instrument installation according to hook-up																
	Picajes según tabla de picajes correspondiente / Branch configuration according to correspondent branch table										<b>V</b>		<b>√</b>				
													· .				
	Venteos y drenajes de Procesos según requerimientos de PIDs y de puntos altos y bajos para prueba hidrostática y modelados según "assembly" correspondiente / Process v ents and drains according PID requirements and high and two points for hydrostatic test and modelled according proper assembly										<b>V</b>		<b>V</b>				
	Verificación de dis	tancia mínin	na entre soldadura	s / Chec	k minimum distance i	between welds								<b>V</b>		<b>V</b>	
	Notas explicativas adicionales incorporadas / Additional clarification notes added									<b>V</b>	Ť						
					Re	evision Bv : (ST) St	tress Specialist / (LST) St	ress Leader					·	By:	ST	By:	LST
s	El cálculo de stres	s disnonible	no está nendiente	de revis			ion is not awaiting for revis							<b>√</b>		-/	
Stress														٠,		V	
0,	Los requisitos seg	un ei calculo	de stress estan ir	icorpora			ion requirements have be							<b>V</b>			
					Revi	sion By : (SP) Sup	ports Specialist / (LSP) Si	upports leade	г					Ву:	SP	Ву:	LSP
	La línea está sopo	rtada por co	mpleto y la lista de	soporte	es está actualizada er	n el exel extraído d	lel E3D / Line is complete	ly supported	and support list up	dated according file fro	m E3D			<b>V</b>		<b>V</b>	
	Concepto de sopo	rte y separa	ción máxima entre	soportes	s / Support concept a	nd support spans								<b>V</b>		<b>V</b>	
st.		soportes e	stan de acuerdo al	cálculo	de stress y ajustados	con el especialist	a de Stress / Support requ	uirements acc	cording to stress o	alculation note are incl	uded and a	djusted jointly with		<b>√</b>		<b>√</b>	
pports	stress specialist													*			
Š	Numeración correc													✓		✓	
	Código de soportes correctamente indicados (STD - SPC - COM - MRS - PRF) / Support code correctly indicated (STD - SPC - COM - MRS - PRF)									<u>                                      </u>	✓		✓				
	Marcado de eleme	ntos soldad	os de los soportes	en Iso S	Spool preliminar corre	spondiente / Mark	-up of welded supports co	mponents in	the corresponden	t preliminary Iso Spool			N/A				
							sion By : (M) Materials							Ву:	: M		
							e Lineas Críticas de Mate			n Verificacion exahust	iva / The Li	ine belongs to	N/A				
							isometrics require exahus le materiales / All material			and are listed in the Di	DM .			<b>√</b>			
													<del>                                     </del>	₩"			
<u>s</u>							especiales de tubería (Ve Piping Material List (Veri						N/A				
Materials			-					,	piping	gauon onton	p.i.odi	·	NI/A				
Ma					dentification number of								N/A				
	Todas las juntas y	pernos colo	cadas según tipo i	equerido	o (RF, FF, Bolts, Mac	hine Bolts) / All ga	askets and bolts placed ac	cording requi	red type (RF, FF,	Bolts, Machine Bolts)			N/A				
	Extensión de volar	ite de válvul	a modelada y refle	jada en	lista de materiales de	e la isométrica / Va	alves axis extension mode	lled and refle	cted in Isometric E	OM			N/A				
	Válvulas colocadas según PID y Piping Class / Valves placed according PID an Piping Class										N/A						
	Revision By : (CHK) Issuer										By:	СНК					
										1st-C		2nd-C	hk <sup>(3)</sup>				
														<b>√</b>	Х	✓	Х
	La isométrica verificada por Procesos (SPO) se corresponde a la última revisión / The isometric verified by Process (SPO) corresponds to its last revision									V							
													T				
heck	La isométrica verificada por Instrumentación (SIT) se corresponde a la última revisión / The isometric verified by Instrumentation (SIT) corresponds to its last revision									<b>V</b>	70						
Final Check	Las notas a mano están incorporadas en las isométricas / The hand-made annotation is included									1	<b>V</b>						
듄	La revisión de los documentos para la verificación siguen siendo las actuales / Current revision of documents for checking are still the latest available									1	V						
	El número de revisión y la fecha son correctos / The revision number and the date are correct										V						
	Todos los comentarios se han revisado para se incluidos o descartados / All comments have been checked to be included or discarded									] ]	V						
	Holds resueltos o	en su defect	o By-Pass aproba	do / Hola	ds resolved or instead	By-Pass approve	d							V			
Ħ								ONATOR	'O (N	d=4=1				· · ·			
							SIC	SNATURE	S (Name and	uate)		1					
DESI	GN LEADER (LD)	REVIEWE By Andrea Fe		2020			SUPPORTS LEADER	(LSP)	REVIEWED  By Fernando Perez lacono	at 5:02 pm, Nov 16, 2020		ISSUER	(CHK)	REVIEWED By occur at 4:21 pm, Dec 64, 2	1000		
Optional Patients 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1																	
STRESS LEADER (LST)  REVIEWED By J. LL at 11:15 am, Dec 03, 2020  MATERIALS  (M)  REVIEWED By J. LL at 11:15 am, Dec 03, 2020																	
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.

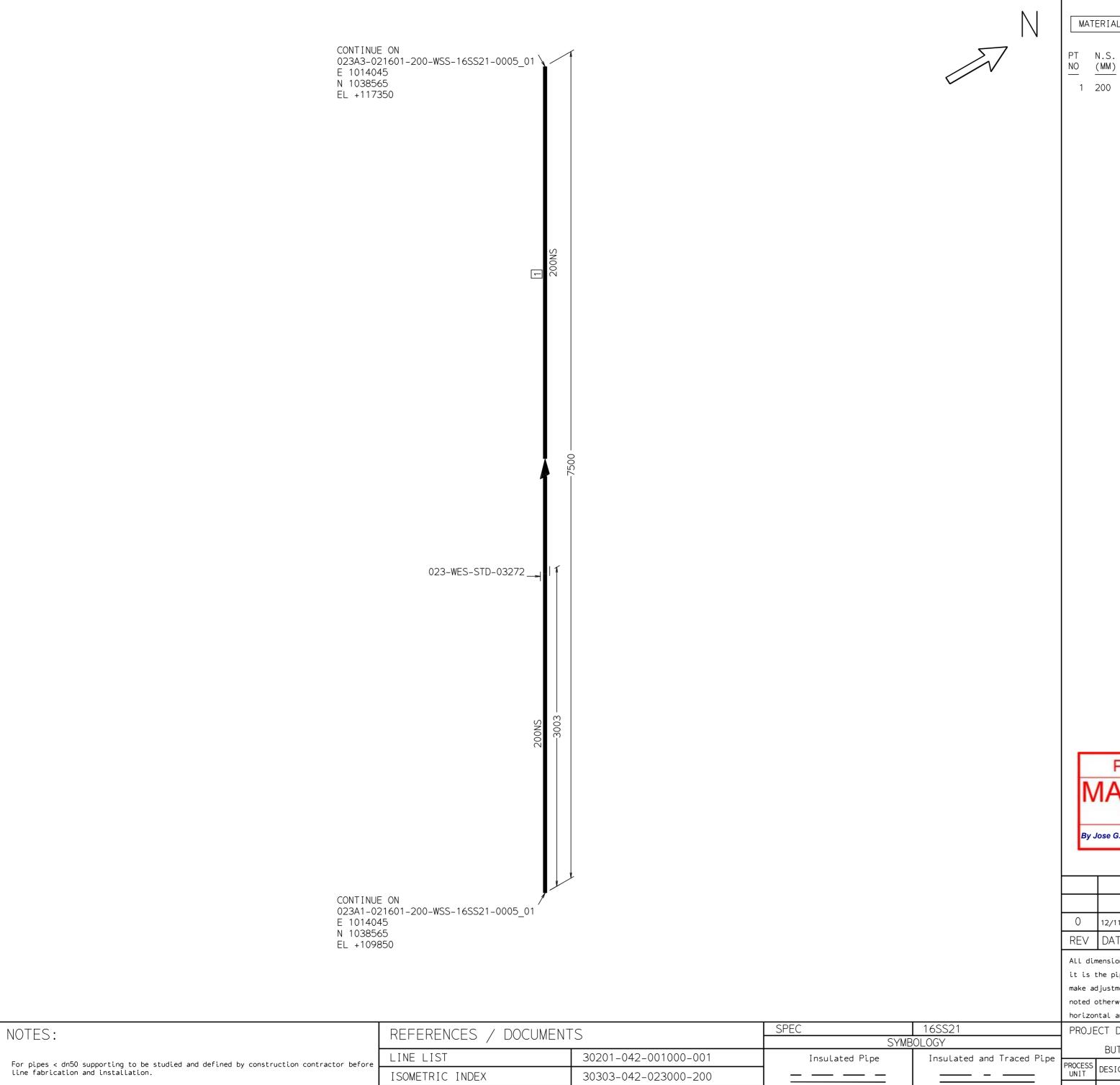
  [3] 2nd checking round: Checker to place a (\*) to validate the points that were not confirmed in the 1st round and were corrected by respective Specialist.

  [4] If an isometric with HOLD is approved by IFC Leader for issuance, the correspondent By-Pass should be attached.



EXTRACTION DAY 16 NOV 2020

E3D NAME023A2-021601-200-WSS-16SS21-0005\_01



MATERIAL LIST - FABRICATION

PT N.S. DESCRIPTION

1 200 Pipes (Length), EN 10220, BE, EFW + 100% RT, -,/2.6MM EN C1KV25FK 7.5M 10217-7 Gr.X2CrNi19-11,

IDENT

QTY

PIPING DPT. CHECKED By Jose G. Suarez at 5:38 pm, Dec 03, 2020

12/11/20 APN OMC IFC-ISSUED FOR CONSTRUCTION LPD 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.

PROJECT DESCRIPTION/LOCATION TechnipFMC Cárgill BUTTERFLY PROJECT/KREFELD

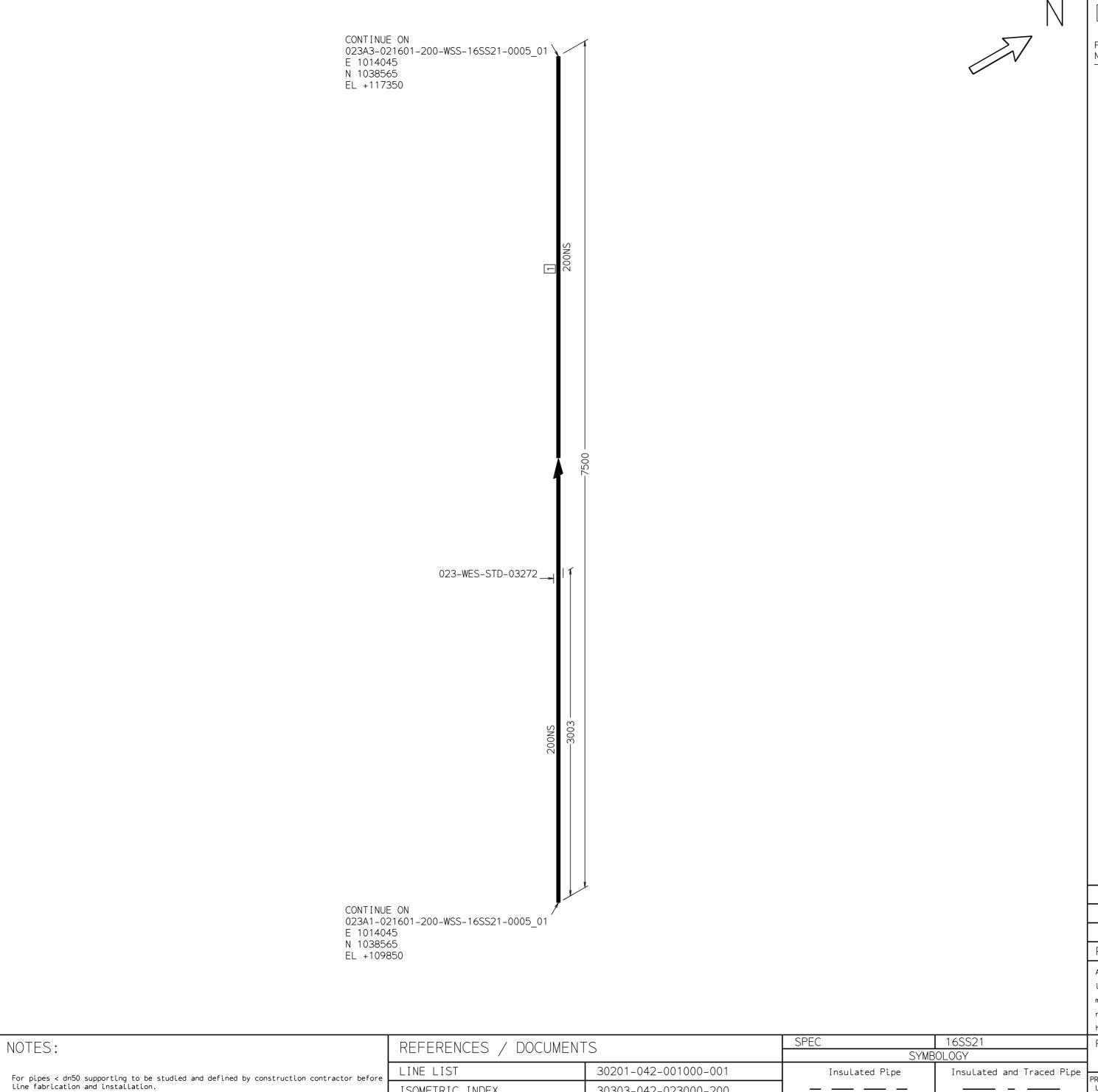
PROCESS DESIGN AREA LINE NUMBER SHEET 023A2 | 021601-200-WSS-16SS21-0005 of 1

EXTRACTION DAY 16 NOV 2020

E3D NAME023A2-021601-200-WSS-16SS21-0005\_01

PIPING SUPPORT

30207-042-021300-001



30303-042-023000-200

30207-042-021300-001

MATERIAL LIST - FABRICATION

PT N.S. DESCRIPTION

 $\frac{NO}{}$   $\frac{(MM)}{}$ 1 200

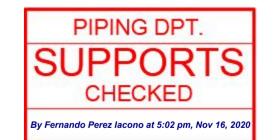
Pipes (Length), EN 10220, BE, EFW + 100% RT, -,/2.6MM EN C1KV25FK 7.5M 10217-7 Gr.X2CrNi19-11,

IDENT

QTY

PIPING DPT. **STRESS** CHECKED By J. LL at 11:14 am, Dec 03, 2020





0		12/11/20	APN	LPD	OMC	IFC-ISSUED FOR CONSTRUCTION
RE	V	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. PROJECT DESCRIPTION/LOCATION TechnipFMC<sub>i</sub> Cárgill

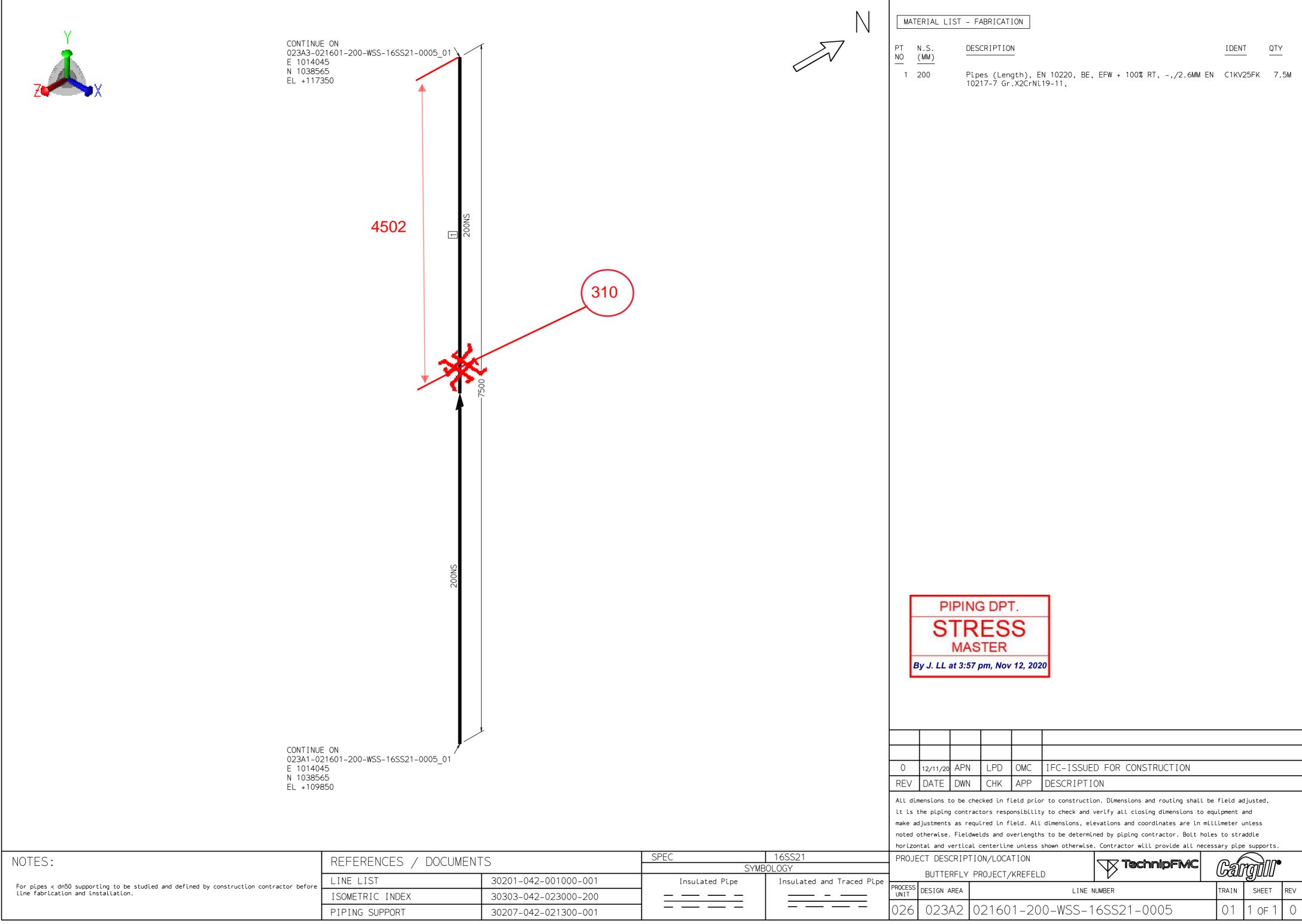
BUTTERFLY PROJECT/KREFELD PROCESS DESIGN AREA LINE NUMBER SHEET 023A2 | 021601-200-WSS-16SS21-0005 of 1

EXTRACTION DAY 16 NOV 2020

E3D NAME023A2-021601-200-WSS-16SS21-0005\_01

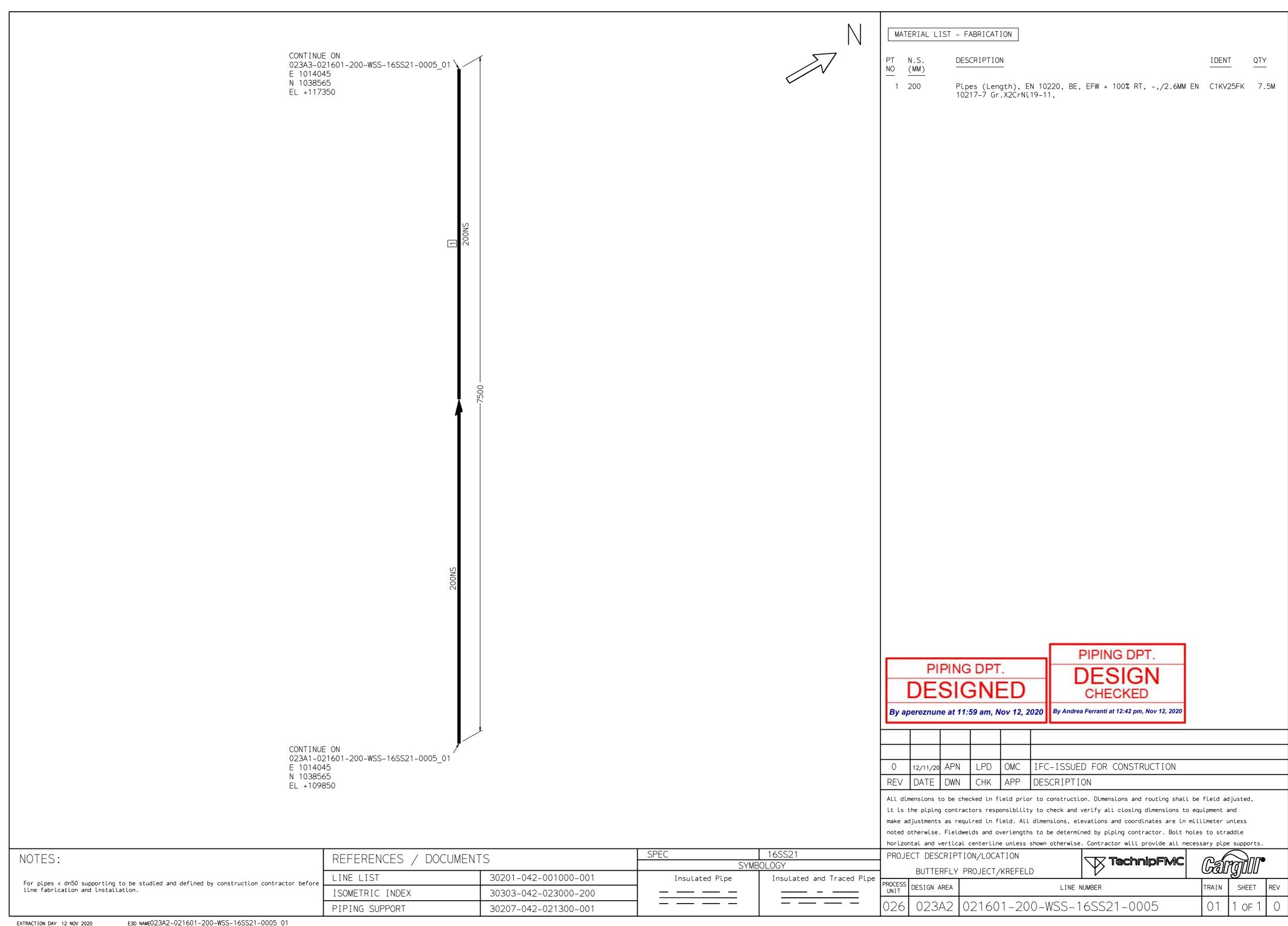
ISOMETRIC INDEX

PIPING SUPPORT



EXTRACTION DAY 12 NOV 2020

E3D NAME023A2-021601-200-WSS-16SS21-0005\_01



EXTRACTION DAY 12 NOV 2020

E3D NAME023A2-021601-200-WSS-16SS21-0005\_01