Attachment 4

Transportation Plan and Letter Confirmation

www.barnhartcrane.com

June 15, 2015

Kate Valentine
Development Manager
BayWa r.e. Wind, LLC
4365 Executive Drive, Suite 1470 | San Diego, CA 92121
Phone 858.450.6800
Fax 858.450.6801
valentine@baywa-re.us
www.baywa-re.us

Re: Chopin Wind Project Route Survey

Kate,

The attached route survey for the Chopin Wind project from was detailed around the V112 platform. With the new turbine specification being a V110, this will add no additional level of difficulty to the project given the overall blade length will be shorter and the heaviest load being the nacelle (weight increase of ~ 15,000lbs given it ships with gearbox installed). The overall impact is fewer loads per turbine and no additional route modifications would need to be performed other than those previously recommended if nothing has changed since the original site visit in mid 2011.

If you have any questions, please don't hesitate to call. Barnhart has been serving the industry for almost 40 years with machinery moving, crane service, engineered heavy lifts, and heavy transportation. Your consideration of our services is greatly appreciated.

Regards,

Brian Thomas (BT)
Vice President Business Development
133A N. Gay Street
Knoxville, TN 37902
865-603-5782 cell
865-342-2509 desk
brian@barnhartcrane.com
www.barnhartcrane.com

Chopin Wind Energy Facility Transport Study

For Vestas V112 3MW wind turbine generators

84m HH

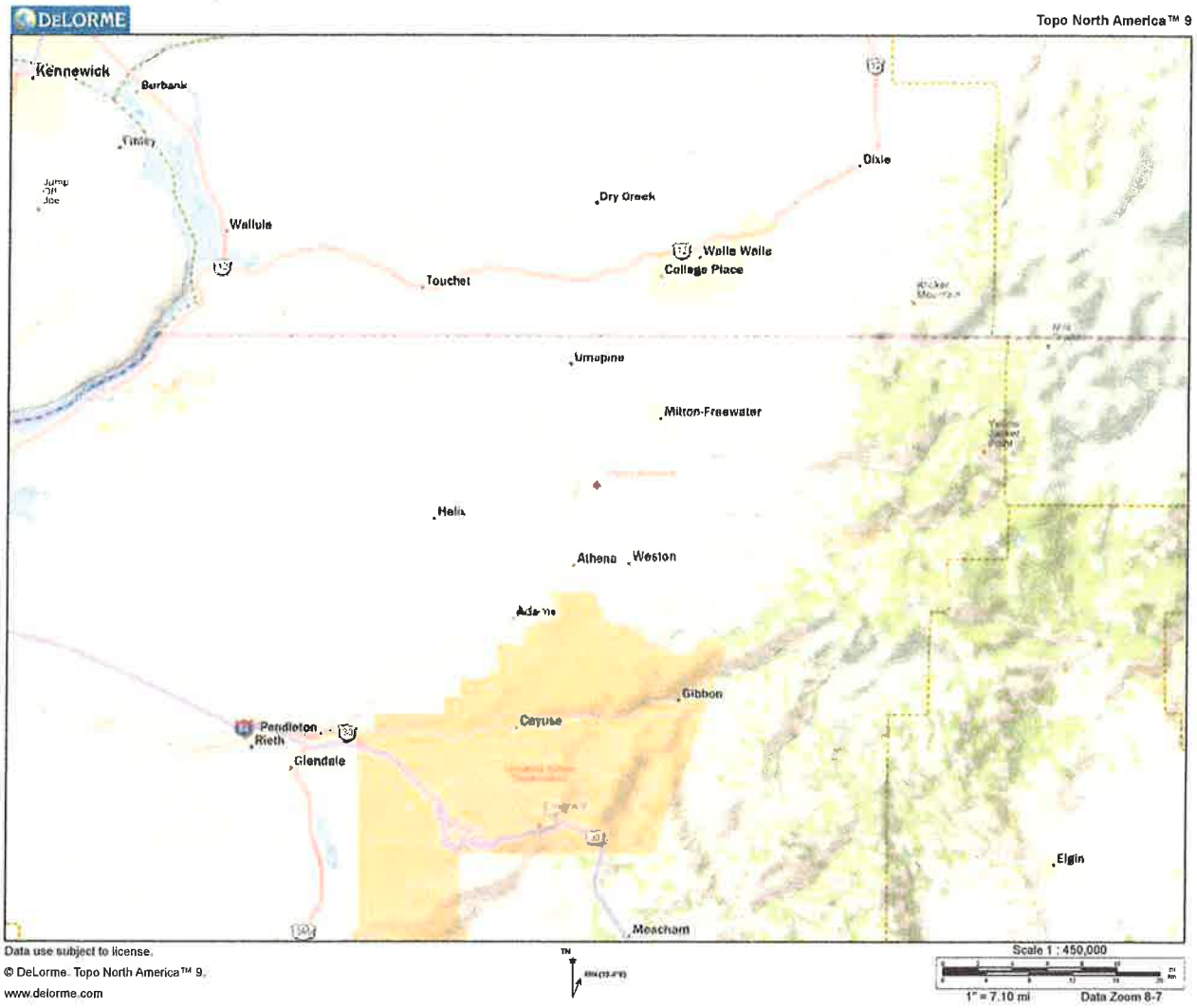
Prepared by:

Brian Thomas
865.603.5782
brian@barnhartcrane.com
February 11, 2011
8187-6200

Chopin Wind Energy Facility Transport Study

Overview

The following is a transport study for the Chopin Wind Energy Facility located approximately 30 miles North East of Pendleton, OR. The project consist of 33 Vestas 3MW V112 wind turbine generators located on 84m hub height towers with generation capacity of 99 MW.



The site can be accessed from I-84 from the south and from Walla Walla via Highway 11 from the north.

The south access is the most likely for the proposed wind turbine and components for the Chopin Project. The Vestas V112 components are typically delivered from factories in Colorado or overseas. Either of these delivery origination points would lead to the delivery of components accessing thethe site will come from the south via I-84.

Component Dimensions

Vestas V-112 Component Transport Weights and Dimensions

Component	Length (m)	(ft)	Width (m)	(ft)	Height (m)	(ft)	Weight (tons)	Kips
Bed frame	12.80	41.98	4.00	13.12	3.40	11.15	65	143
Drive train	6.90	22.63	4.00	13.12	3.00	9.84	62	136.4
Hub	3.90	12.79	3.70	12.14	3.70	12.14	40	88
Blade*	55.00	180.40	4.98	16.33	2.60	8.53	13.5	29.7

**Blade support saddles are located 10m (32.8') in from each end of blade. Weights & dimensions include transport fixtures*

Tower Components

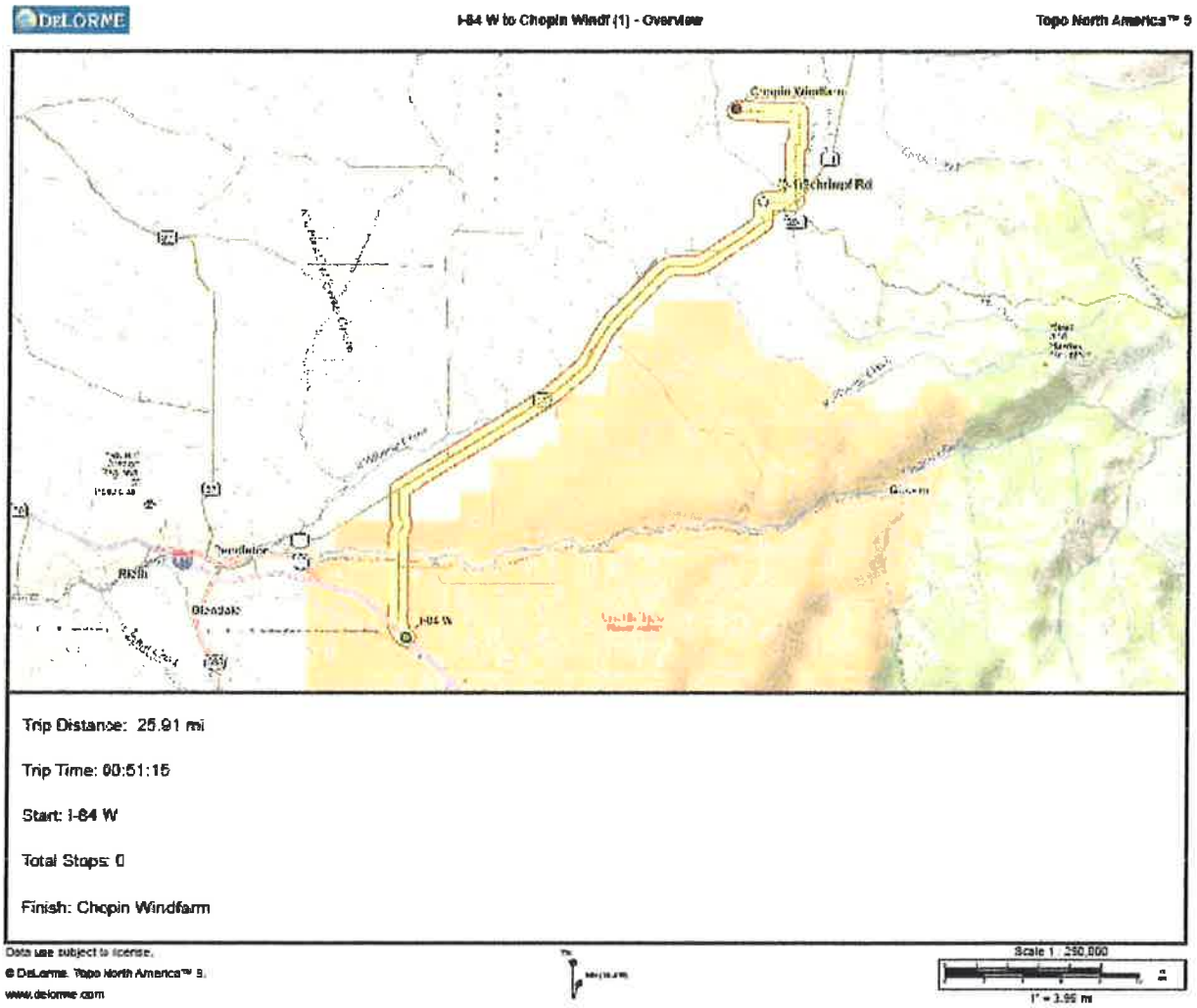
Hub Height	Length (m)	(ft)	Top Dia (m)	(ft)	Bottom Dia (m)	(ft)	Weight (tons)	Kips
Top (ALL hub heights)	32.2	105.6	3.26	10.7	3.67	12.0	41	90.2
Mid (ALL hub heights)	28.9	94.8	3.67	12.0	3.92	12.9	54	118.8
84m HH								
Base	20.6	67.6	3.92	12.9	4.15	13.6	64	140.8

The heaviest tower section is the base section weighing 140,800lbs with an outer diameter of 13.6'. This section would most likely be delivered using a Schnabel trailer (attachment of the tower section at each end with transport frames with the tower becoming the trailer). The nacelle has even been divided into manageable loads with the heaviest being the nacelle bed frame weighing 143,000lbs which keeps the load in the 13-axle range much less than the nacelle loads that were delivered to the project to the east. Other recent projects in the area using similar sized components, turbine steel tower sections, nacelles and other components should not have an issue getting to site. The majority of the modifications discussed in this Transportation Study relate to the length of the blades. The 112 meter rotor diameter has a single blade length of 180.4'. This presents a series of turns that need to be investigated for any minor modifications to accommodate turning radius and blade length.

Attached to this Transportation Study is the manufacturer provided information on transporting the components.

Suggested Route

The suggested route into the site is via I-84. Exit 216 off I-84 will provide the best access to the site when traveling along the suggest route, coming from the east.



Trip directions:

1. From I-84 east take Exit 216
2. Turn right on Highway 331 and proceed 4.4 miles.
3. Turn right on Highway 11 and then proceed 14.3 miles.
4. Turn left on Schrimpf Road and proceed .7 miles
5. Turn right on Johnson Road and proceed 1.0 miles.
6. Turn left on York Road and proceed 1.8 miles.
7. Turn right on La Mar Gulch Road and proceed .2 miles.
8. Turn left on Dry Creek Road and proceed 1 mile.

9. Turn left and proceed 1.1 mile into the southern string of turbines of the jobsite.

Given this route, the first area of possibly improvements or modifications will be the exit ramp of I-84 exit 216.

Looking north on Hwy 331. Shows adequate space on west side of road and exit has enough room for tailswing of trailer. Stop signs may have to be removed temporarily for blade clearance.

The turn from Hwy 331 onto Highway 11 has sufficient clearance for all component loads and will not require any modifications.

Looking south west on Hwy 11. Loads will come from 331 from the road entering on the left.

Route continues to Schrimpf Road

Looking North at turn onto Schrimpf Rd entrance. Sufficient clearance for all loads to make turn.

Turn from Schrimpf onto Johnson Rd

Looking north on Schrimpf Rd at Johnson Rd intersection. Turn will have to be widened for all components according to transport vehicle needs. All adjacent properties have sufficient area for widening at minimal cost.

All components would proceed east on Johnson Rd. The major issue that exists on Johnson Rd is the dip into the stream crossing at Pine Creek. The grades are approximately 12-13% leading into the crossing with approximately 9% coming out.

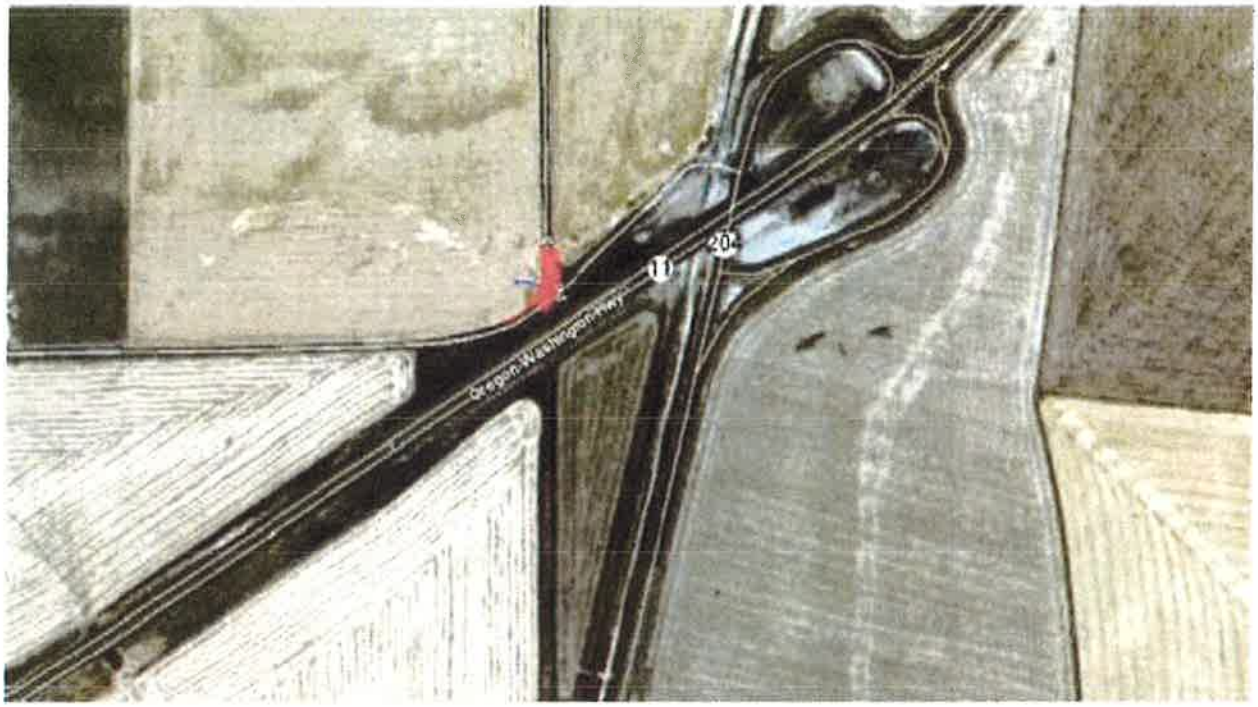
The current vertical curve is insufficient for the typical blade trailer and would require either a trailer modification to raise the tip of the blade or a laydown yard that would switch blades

from an over-the-road trailer to a site specific trailer that would accommodate the current vertical curve.

Picture of site specific trailer that has the ability to overcome vertical and horizontal curve issues.

Once past the Pine Creek crossing the route continues on Johnson Rd and then turns north on York Rd.

The turn from Johnson to York looking south at the Highway 11 overpass. Johnson Road is entering from the right side of the picture.



The balance of the route has turns that allow for sufficient clearance with ability to widen as necessary for equipment movement.

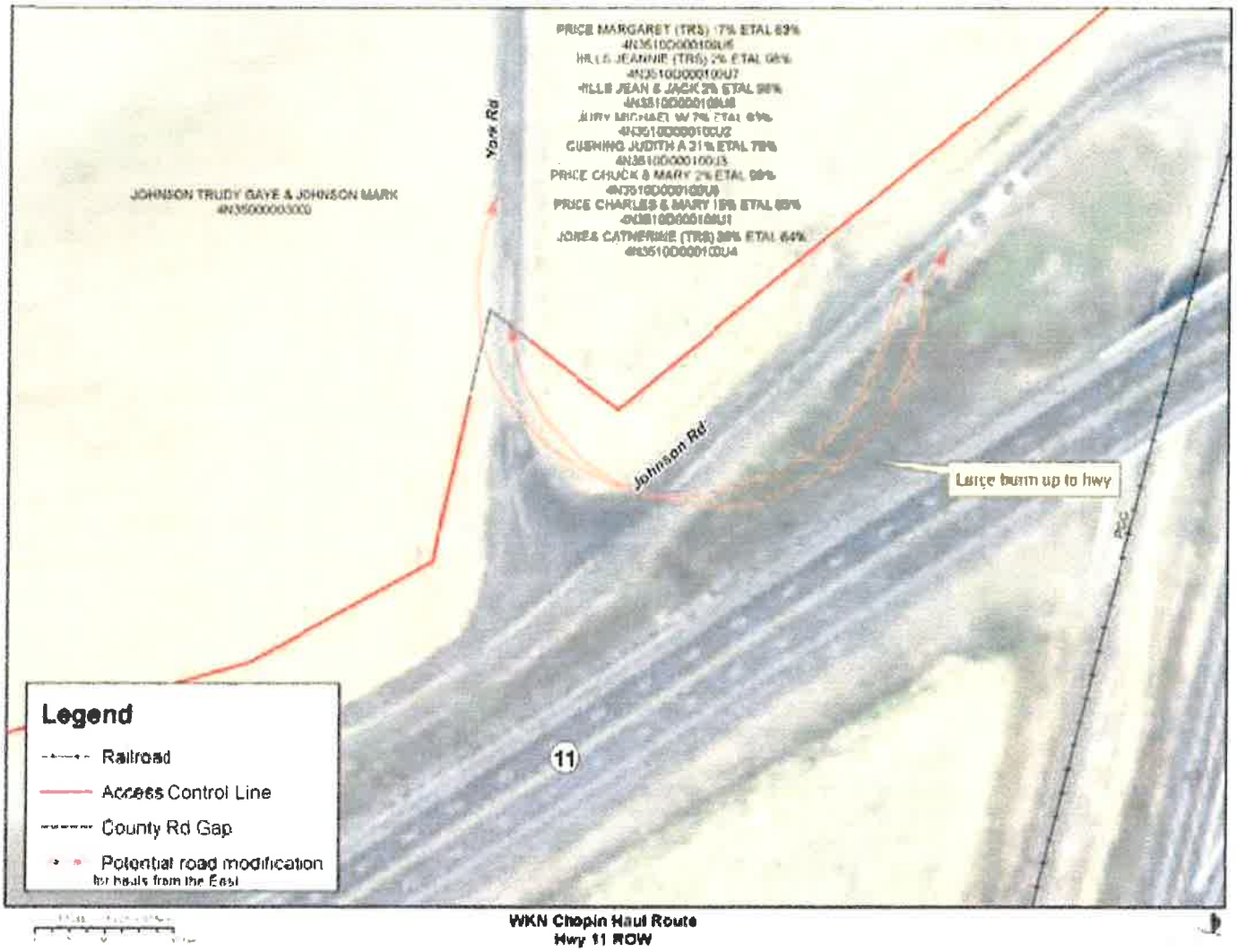
Both the turn from York to La Mar Gulch and from La Mar Gulch to Dry Creek may require minor curve widening, but both have sufficient space to do so.

Alternate Route

The alternate route would come from the north on Highway 11 from Walla Walla or if loads still come from the south components would have to pass Schrimpf Rd going northeast on Highway 11 passing the exit, turning around then exiting off Highway 11 heading southwest down to the Johnson Road/York Road intersection. There exists an area on the southeast side of Highway 11 that with modifications could provide an area for truck turnaround.

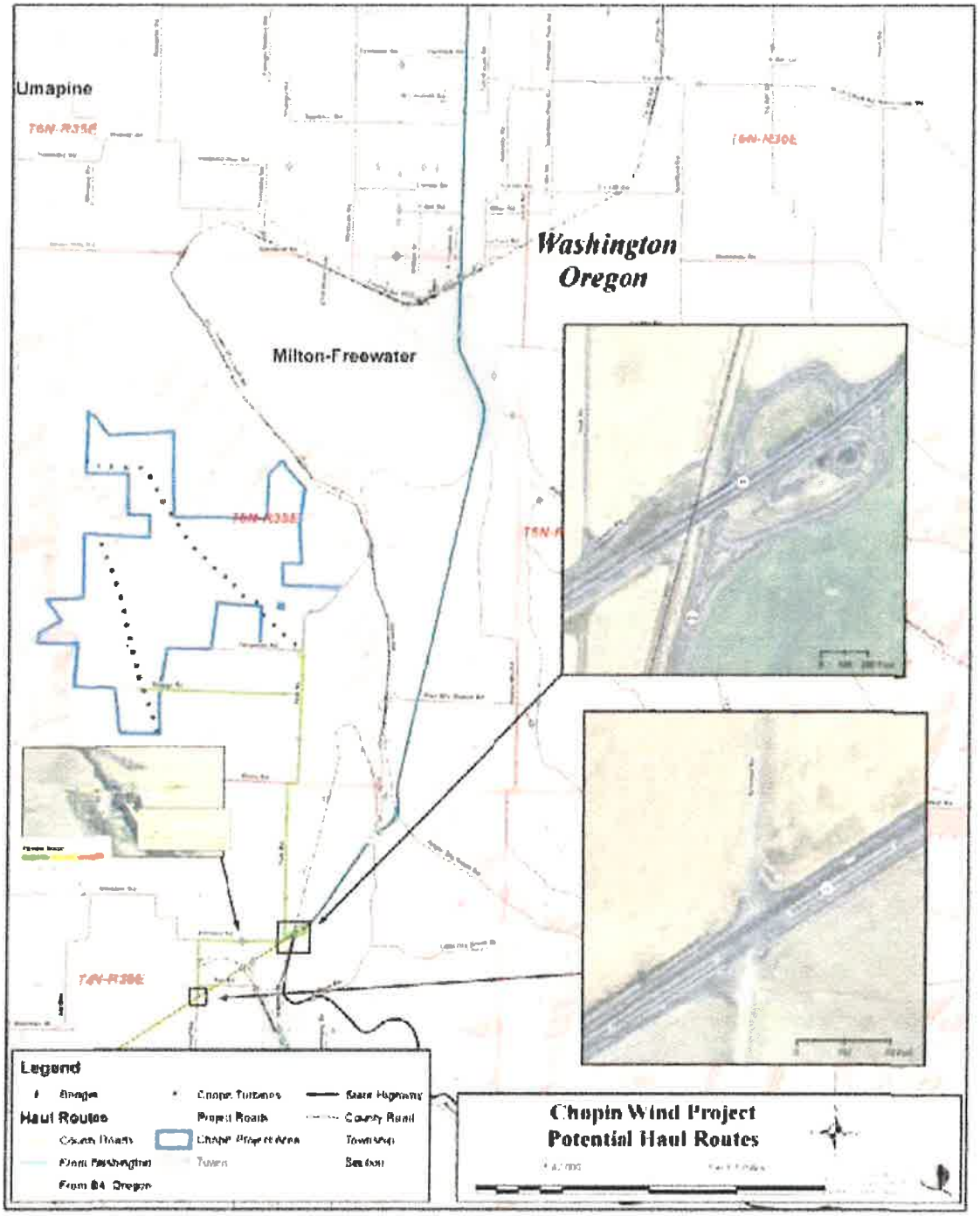
Potential turn around location

The turn radius to get onto York Rd coming from this direction will require modification to accommodate component travel.



WKN Chopin Haul Route
Hwy 11 ROW

Overview map of transport options



Summary

In summary, the Chopin Wind Energy facility has adequate access for the Vestas V112 components with minor modifications to the route to accommodate the blades. The nacelle weights are lighter than most turbines over 2MW and the tower sections can work within the limitations that the blade transport will require. There would also exist the alternative of relocating the blades from over-the-road blade trailers to site specific that would have the ability to overcome the additional obstacles that exist from Highway 11 to the project site. A suitable site will also have to be located for such activity. The V112 nacelle also lends itself to have pre-assembly performed in a laydown yard and then deliver "just in time" to the main erection crane. Given this need a laydown yard would be preferable and would help absorb the cost of constructing the laydown yard. A preferable location would be just off Schrimpf Road before the Johnson Road intersection.

Vestas V112 Transport data

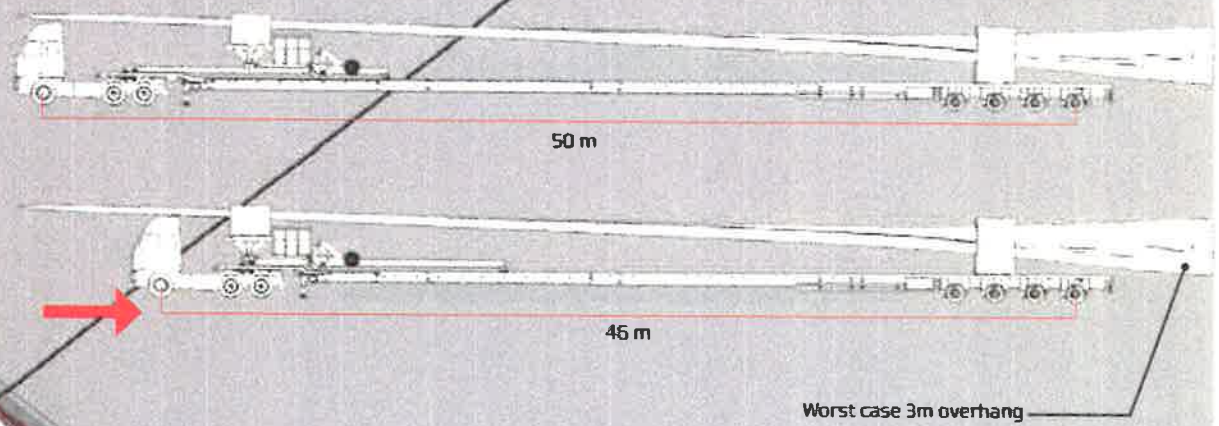
Attached are transport storyboards for the Vestas V112 3MW turbine showing potential transport trailer options that may be applicable for the Chopin project.

- End of Report -

½ hrs
(½ man hrs)

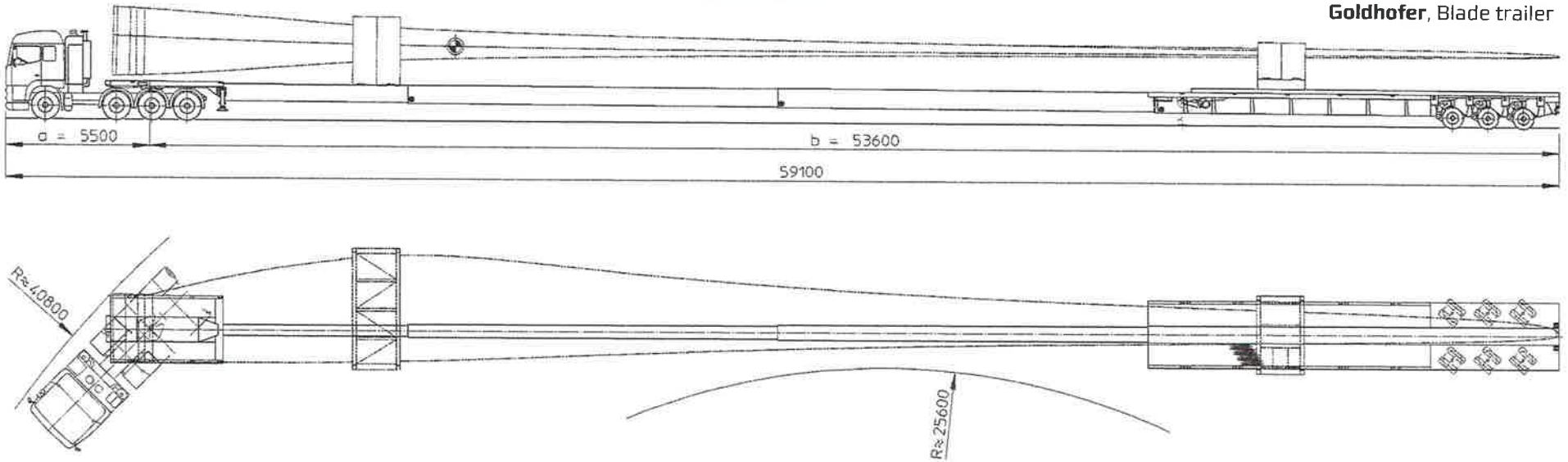
x 1

02 Truck on roads

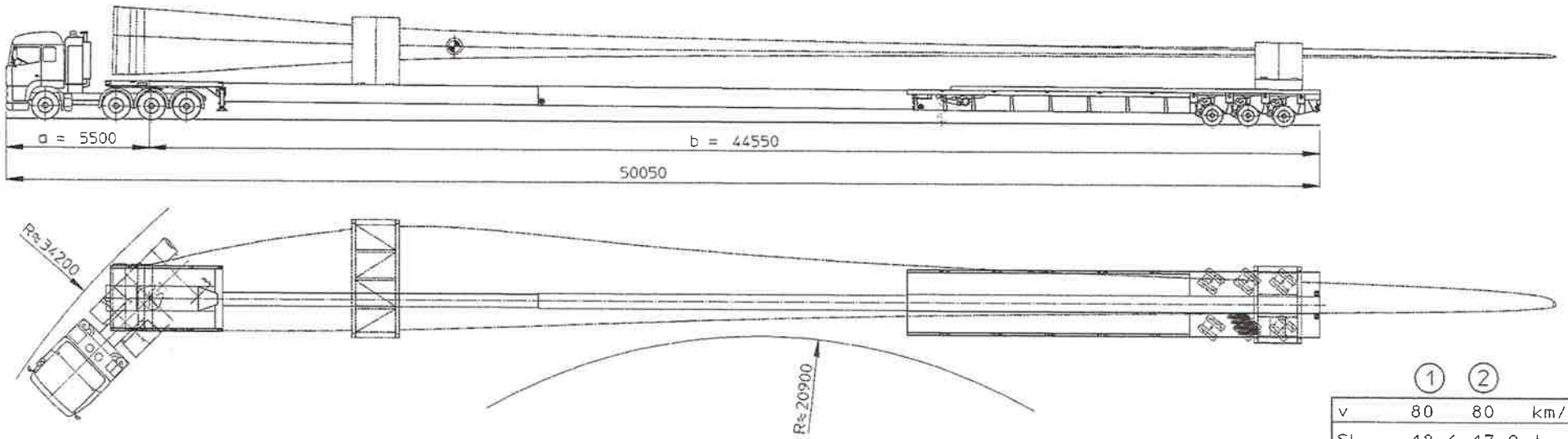


Goldhofer, Blade trailer

①



②



	①	②	
v	80	80	km/h
SL	18,6	17,9	t
AL 3x	6,2	6,4	t
GG	37,2	37,2	t
EG ≈	23,7	23,7	t
NL ≈	13,5	13,5	t

Goldhofer
www.goldhofer.de

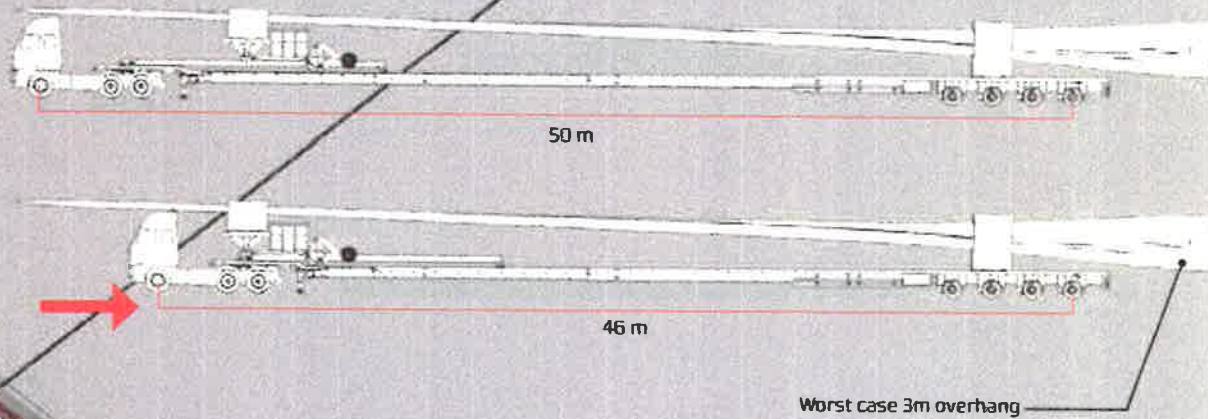
SPZ-XH 3-38/80 AAA
with blade / mit Fluegel

ID	Name	Datum	Zeichnungs-Nr./drawing #	Index	Blatt/sheet
40266	prchat	15.10.2009	P4006.03.00.01- 1 - 2		

½ hrs
(½ man hrs)

x 1

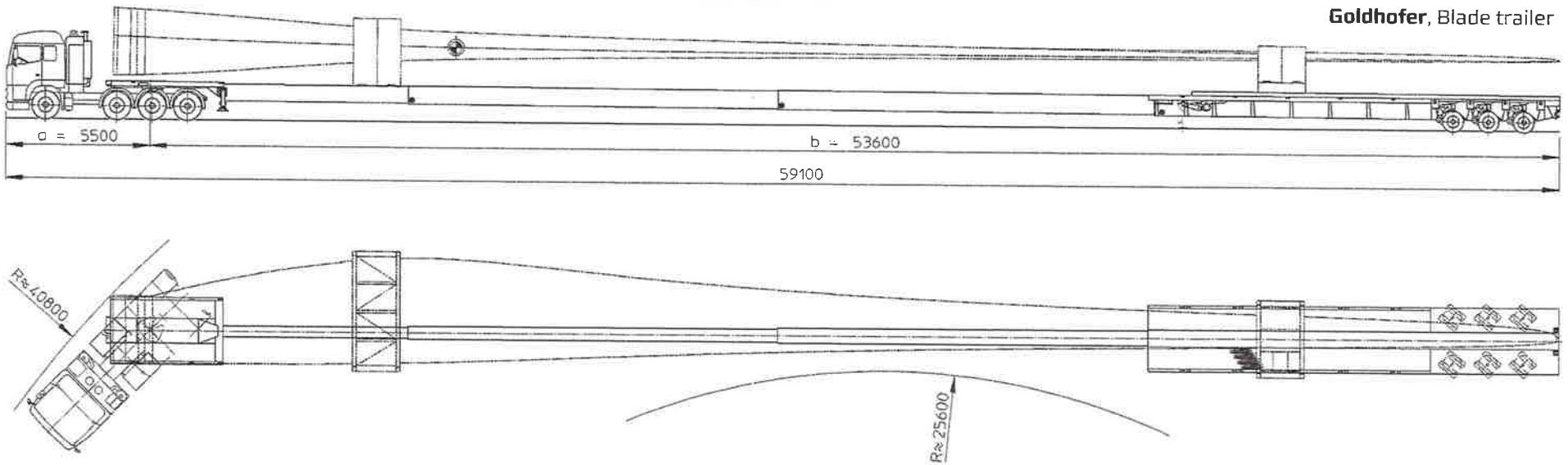
02 Truck on roads



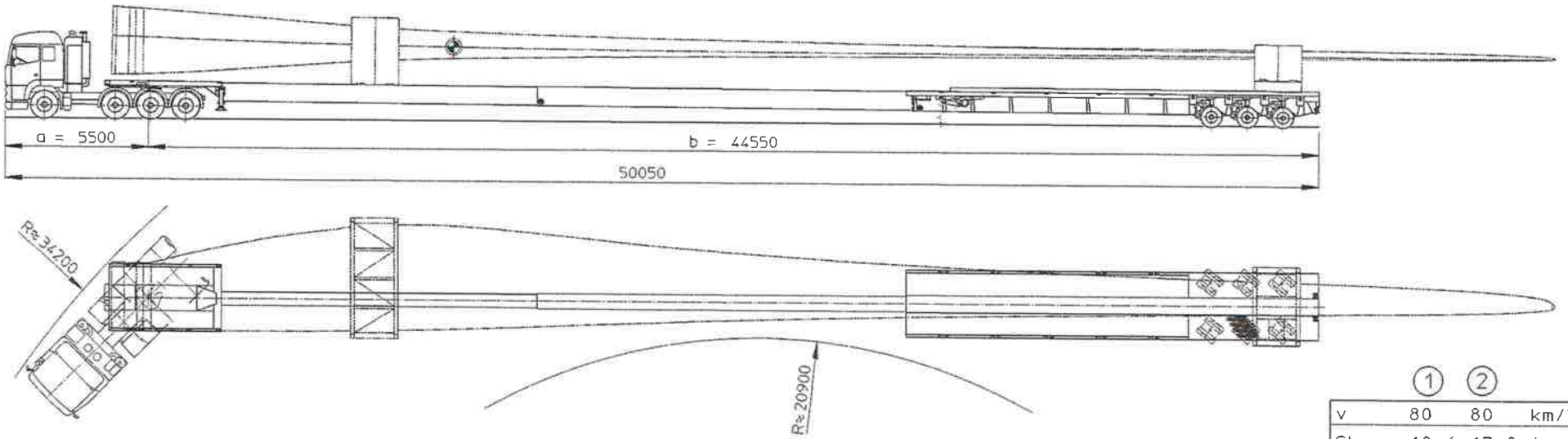
T09 0008-1824 Ver 01 - Approved - Exported from DMS: 2010-07-21 by CMELK

Goldhofer, Blade trailer

①



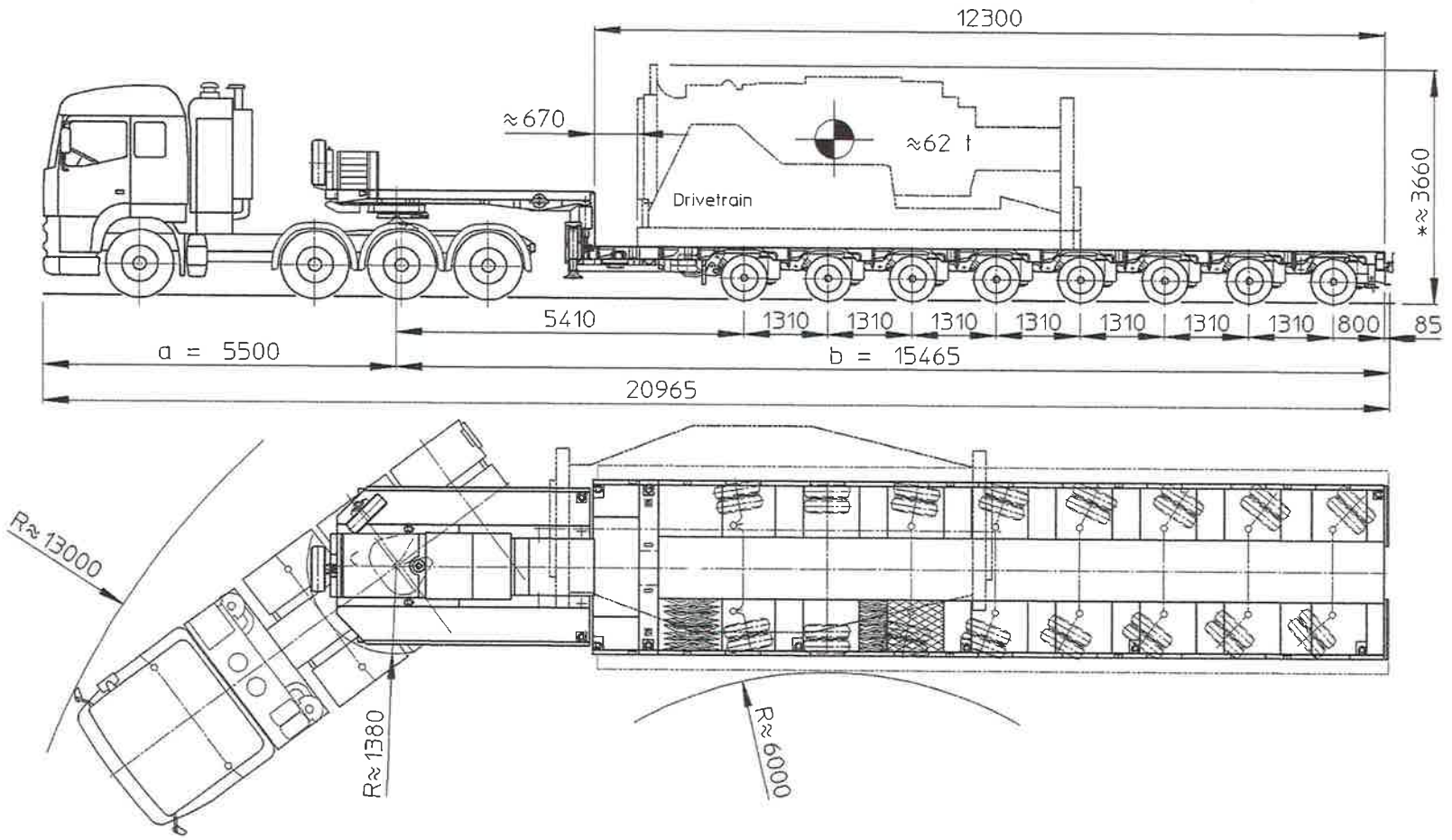
②



	①	②	
v	80	80	km/h
SL	18,6	17,9	t
AL 3x	6,2	6,4	t
GG	37,2	37,2	t
EG ≈	23,7	23,7	t
NL ≈	13,5	13,5	t

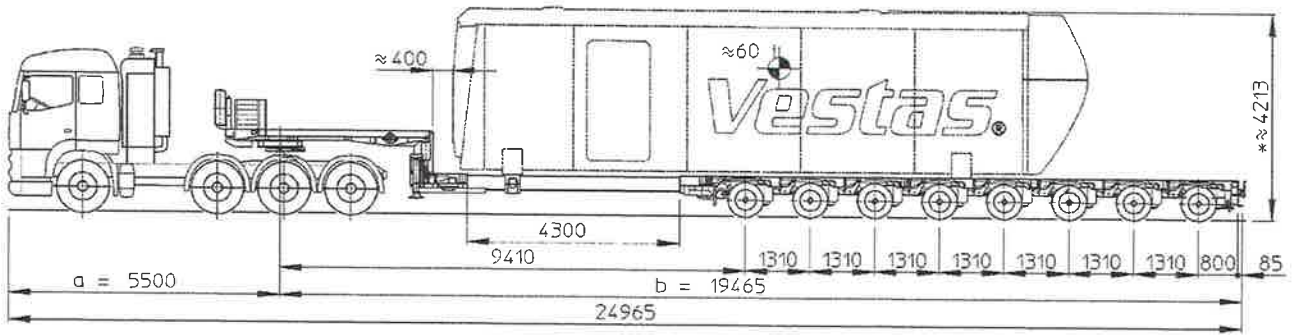
Goldhofer www.goldhofer.de	SPZ-XH 3-38/80 AAA with blade / mit Fluegel			
	Name	Datum	Zeichnungs-Nr /drawing #:	Index: / Blatt/sheet
ID 40266	prchal	15.10.2009	P4006.03.00.01- 1 - 2	

Goldhofer, 8 axel Flatbed



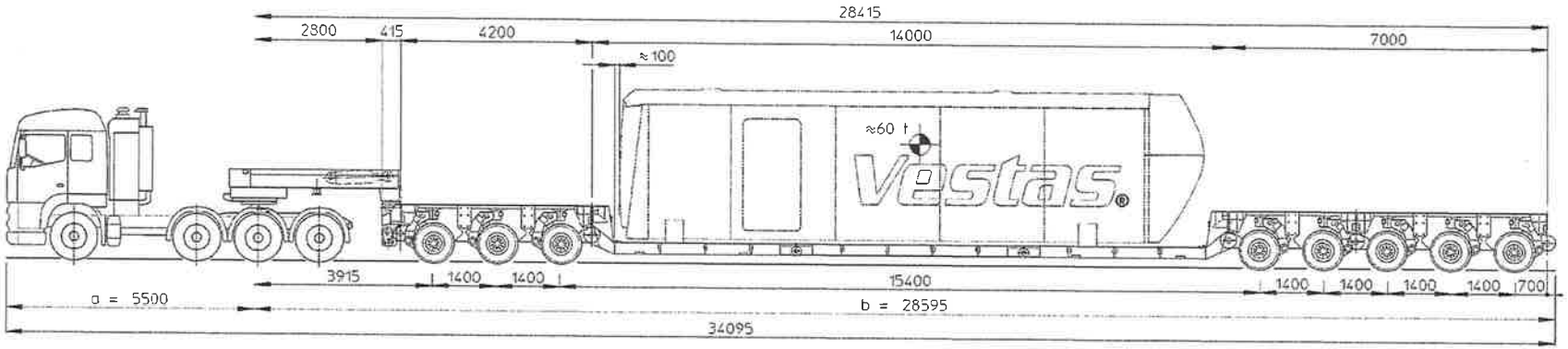
Goldhofer www.goldhofer.de	STZ-L 8-61/80 A F1 with / mit "drivetrain"		
	Name	Datum	Zeichnungs-Nr./drawing #: Index: Blatt/sheet
D: 40266	prchal	14.12.2009	P4004.21.01.11- 1 - 3

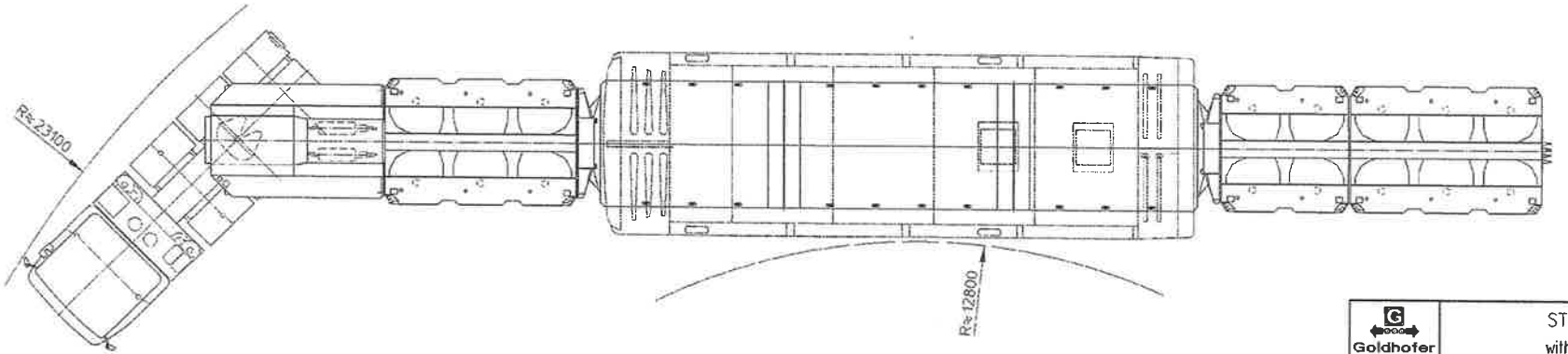
v	80	km/h
SL	23,2	t
AL 8x	7,6	t
GG	84,0	t
EG ≈	22,0	t
NL ≈	62,0	t



v	80	km/h
SL	≈ 21,3	t
AL 8x	≈ 7,6	t
GG	≈ 82,1	t
EG	≈ 22,0	t
NL	≈ 60,0	t

Goldhofer	STZ-L 8-61/80 A F1 with / mit "NACELLE"			
	Name	Datum	Zeichnungs-Nr./Anhang #	Index / Blattnummer
40266	prchal	16.12.2009	P4004.21.01.11 - 1 - 2	





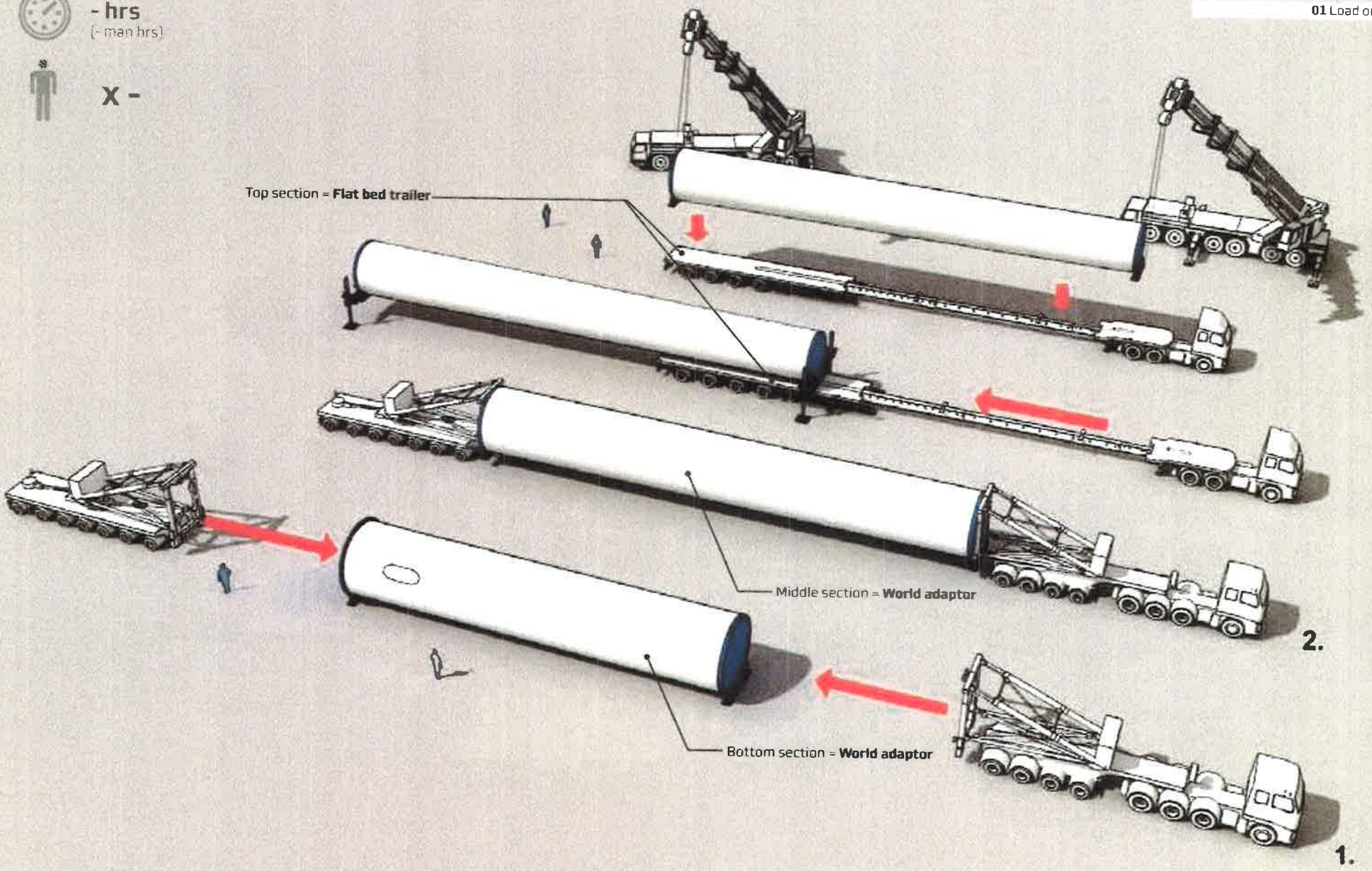
v	80	km/h
SL	20,2	t
ALv 2x	≈ 10,4	t
ALh 6x	≈ 11,3	t
GG	108,6	t
EG	≈ 48,6	t
NL	≈ 62,0	t

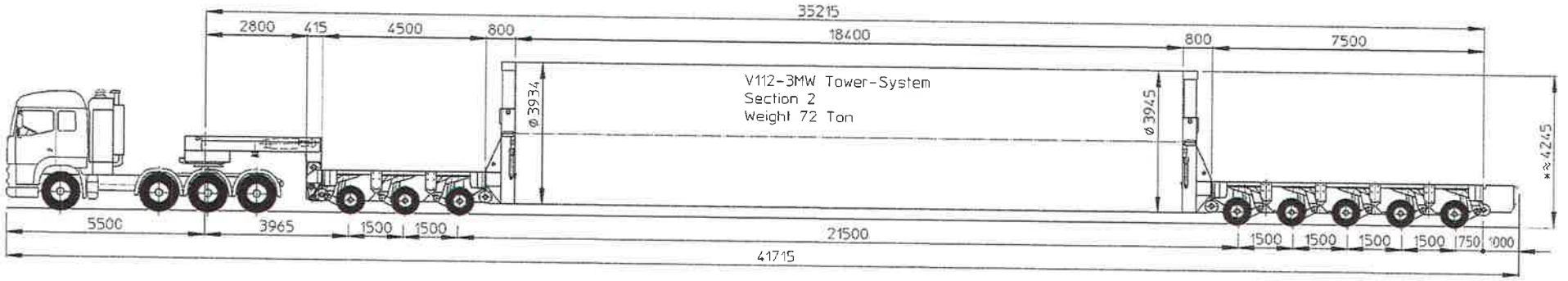
Goldhofer	STHP/ET 8 (3+FB+5) with / mit "NACELLE"			
	Name	Datum	Zeichnungs-Nr./Anhang #	Index / Blattnummer
40266	prchal	16.12.2009	P1002.63.07.99 - 0 - 2	

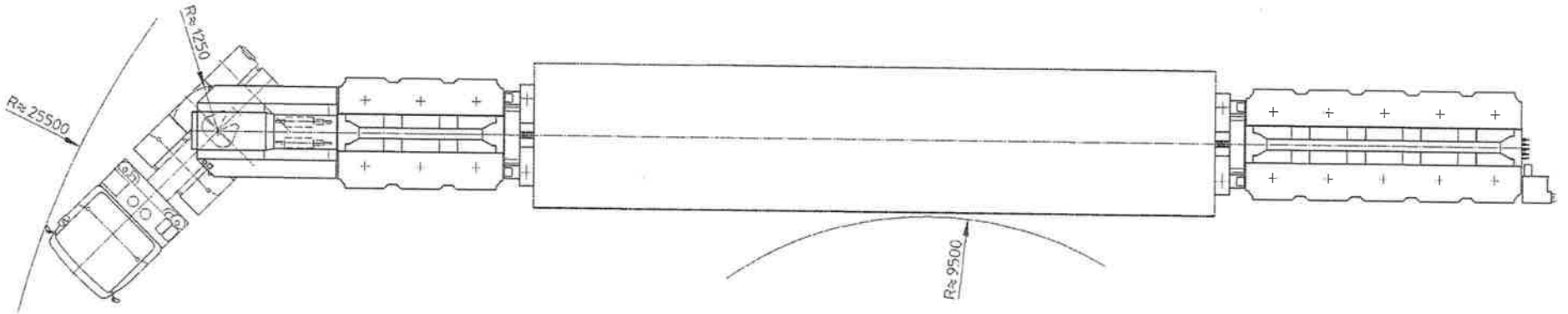
- hrs
(- man hrs)

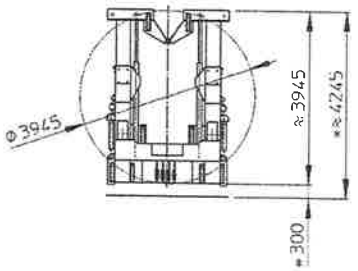
x -

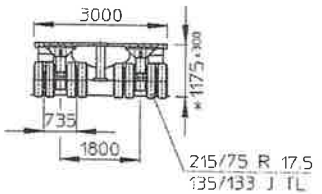
01 Load on truck











Goldhofer	STHP/SL 8 (3 + 5) Rohrtransport-Konzept	
© 40266	Name: prchal	Datum: 12.11.2009
	Zeichnungs-Nr./Drawing #: P1002.65.04.30 – 0 – 1	Index: