Intact Transport Infrastructure for the Expansion of Renewable Energy Generation

The erection of new wind turbines in the Swabian Jura region is one of the measures contributing to the expansion of Germany’s renewable energy generation capacities. A well-developed transport infrastructure is essential for enabling access to the sites and the construction of new power generation facilities. In the course of a construction project in Obersontheim, Germany, the contractor deployed a Wirtgen Group Production System comprising two Hamm rollers, a John Deere 622 GP motor grader, a cold recycler WR 240i from Wirtgen, and a Streumaster SW 112 TC tractor-towed binding agent spreader.

**Road Widening with a Cement Treated Base Layer (CTB)**

The project brief for the resurfacing of the access road to a wind park foresaw the rehabilitation of the existing road with a cement-treated base layer (CTB) and simultaneous widening from 4.5 m to 7 m over a distance of 1,100 m. In the first step, a SW 112 TC tractor-towed spreader laid down the cement for the production of the cement-treated base layer.

This was followed by a wheeled recycler WR 240i from Wirtgen, which milled the base layer to a depth of exactly 35 cm and homogeneously mixed the material with 49 kg of pre-spread cement per square meter with its powerful milling and mixing rotor. Water was sprayed into the mixing chamber by means of an injection bar during the mixing process.

Precision at the Press of a Button

Behind the recycler, a Hamm H 7i CompactLine compactor performed the first pre-compaction pass before the John Deere 672 GP motor grader graded the pre-processed base layer material to a cross-slope of 3%. One of the impressive features of the Grader is the Auto-Pass function, which significantly simplifies precise surface grading. The press of a button places the grader moldboard on the ground and activates the Grade Pro system. At the end of a pass, the moldboard is raised again and turned to automatically replicate the desired grade value on the other side of the road. This means that the Grader no longer has to be driven back to the starting point to start all over again from there. “The automation offered by the Auto-Pass function was really useful, particularly here. Just one press of a button sets the cross-slope we need after turning the machine.” says Heinrich Eichele jun., Managing Director of Gebrüder Eichele GmbH, expressing his satisfaction with the results. Final compaction was carried out by a Hamm HC 130i compactor.

Despite the unsettled weather and the tight deadline, the construction phase was completed as planned within a period of two days.

The subsequent paving of the asphalt surface layer was carried out by a SUPER 1800-3i road paver from Vögele.

**Project Parameters**

* Location: Obersontheim (Swabian Jura)
* Length: 1,100 m
* Width: widening from 4.50 m to 7.00 m
* Cement added: 49 g/m²
* Working depth: 35 cm
* Cross-slope on each side 3%

**Photos:**

  
SW 112TC - JD 622GP\_Jobsite\_Swabian Alb\_Photo\_0007\_HI

In the first step, cement was laid down by a Streumaster SW 112 TC tractor-towed binding agent spreader from Streumaster.

  
WG\_Jobsite\_Swabian Alb\_Photo\_0081\_HI

Step 2: The Wirtgen cold recycler WR 240i homogeneously mixes the base layer and the pre-spread binding agent to a depth of 35 cm. After this step, initial pre-compaction is carried out by a Hamm H7i CompactLine compactor.



JD 622GP\_Jobsite\_Swabian Alb\_Photo\_0035

Steps 3+4: After the first pre-compaction pass, the John Deere 622 GP motor grader graded the pre-processed material to a cross-slope of 3%.

  
HC 130i\_Jobsite\_Swabian Alb\_Photo\_0085\_HI

Step 5: Final compaction was carried out by a Hamm HC 130i compactor.

  
SUPER 1800-3i\_Jobsite\_Swabian Alb\_Photo\_0085

Step 6: In the final step of the road widening and resurfacing project, the Vögele SUPER 1800-3i road paver took over and paved the asphalt surface layer.

Note: the photographs shown here are only previews. If you wish to publish them in other media, please use the higher resolution (300 dpi) versions from the download provided here.

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