

Reinventing the wheel again: Part II

The On30 Conspiracy Module Standards (OCMODS)

Making the Grade

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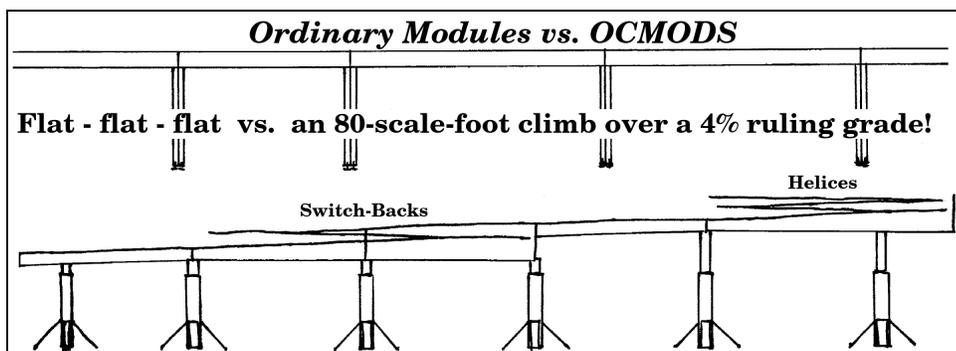
In "Reinventing the wheel again" I introduced the OCMODS, outlined the history and described some of the unique features.

One of the coolest features of the OCMODS is the way that grades are handled. The OCMODS allow grades of up to 4% (1" in 25") on the mainline and even steeper grades on sidings and branch lines. Instead of grades being contained within a single module or module set, you can have module interfaces at different heights. The rail height at the interface is allowed to vary 20", from 36" to 56" above the floor. Therefore, the OCMODS legs need to be vertically adjustable 20" to raise or lower the track at the interface. This is a huge departure from most

other module standards.

Set-up time becomes a factor when you have four legs on each module to adjust, which can be a real hassle at shows and meets.

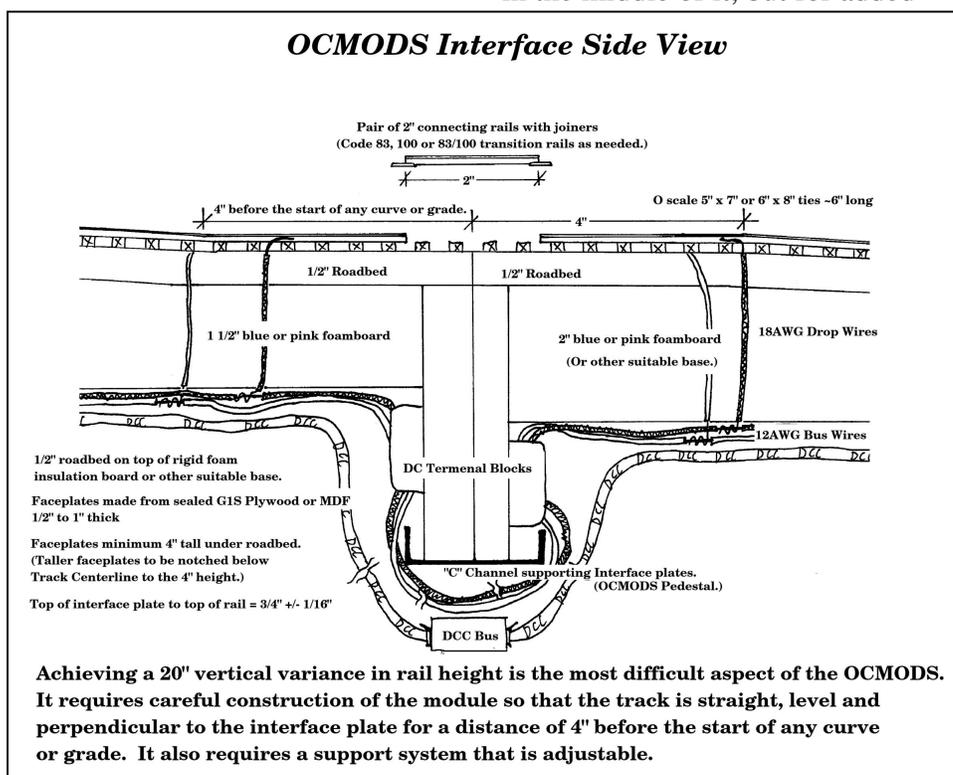
stability I have found that it is best to put the support under the mating interface plates. Start with two pedestals for your first module to support each end, and then build one pedestal for each module thereafter, or one pedestal for each mating pair of interfaces. Cantilever the first and last module in a set-up, so that the "Wing" legs don't create a tripping hazard.



I've puzzled through this problem and resolved that a single pedestal type support is the best solution.

Each module can be supported with a single pedestal positioned in the middle of it, but for added

For dimensional stability I recommend 1/2" G1S plywood. A single pedestal can be built from a 2' by 4' sheet of 1/2" G1S plywood with enough material left over to make module interface plates. I took the heavy card stock off of the back of an old pad of paper to use as shims.



Have the plywood ripped into six 3" x 48" strips. Depending on the thickness of the saw curf the remaining strip will be ~5" wide. Set the wider strip aside for use as interface plates. The cutting can be done at home with either a table or panel saw, or have the lumberyard do it for you. I recommend that you don't try doing this with a handsaw or circular saw because it is important that these first cuts be as accurate as possible so that the moving parts of the pedestal don't bind.

The overall pedestal should give you a 24" x 24" footprint. The wing legs can be made longer to create a larger footprint if needed for added stability for larger modules.

Aside from needing the adjustable height in order to accommodate grades, there is an added bonus. For viewing and operations, some people prefer their trains to be at or near eye level. To facilitate introducing the hobby to younger folks, the OCMODS can be set up closer to their eye level!

The OCMODS' are simple and straightforward. There's also a great amount of information included in the Recommended Practices and other supplementary documents that address many of the concerns that came about during the creation of the OCMODS. On the Internet you can get more information on the OCMODS by visiting <http://groups.yahoo.com/group/OCMODS/files/OCMODS/intro>. You are also invited to join the OCMODS Yahoo Group at <http://groups.yahoo.com/group/OCMODS/> to ask questions or join in on the fun.

I'd like to thank the members of the OCMODS Yahoo Group for their enthusiasm and encouragement as well as their experience, technical expertise and dedication. A few stand out and deserve special recognition. In alphabetical order are: Chris Abbott, Bobber Gibbs, Tom Harbin, Roland Marcotte, David Michailof, Geren W. Mortensen Jr., John Roth, Bill Uffelman, and Bob Westerman. As well as those others that contacted me off list.

Materials:

Plywood:

- * Start with a 24" x 48" sheet of G1S plywood cut into six 48" x 3" strips with a 48" x ~5" strip left over for use as interface plates.
- * 3 - 32" x 3" x 1/2" assembled into an "H" beam.
- * 2 - 28" x 3" x 1/2" for the sides of the "Box" beam.
- * 8 - 5 1/8" x 3" x 1/2" for the cross pieces on the "Box" beam.
- * 4 - 16" x 3" x 1/2" for "Wing" legs.
- * 4 - 2" x 3" x 1/2" for the first layer of the foot
- * 4 - 1 1/2" x 3" x 1/2" for the second layer of the foot.
- * 2 - 3" x 3" x 1/2" for the support blocks in the upper end of the "H" beam.

Heavy Card Stock Shims:

- * 16 - 3" x 1/2" as permanent spacer between sides and cross pieces of the "Box" beam.
- * 4 - 3" x 3" as temporary spacer between the "H" beam and "Box" beam during assembly to ensure that the "H" beam will move freely inside of the "Box" beam.

Hardware:

- * 6 - 1/4" "T" nuts.
- * 4 - 2" strap hinges. (To attach "Wing" legs to "Box" beam.)
- * 1 1/2" x #6 wood screws. (Box of 100) (Glue and screw all joints.)
- * 2 - 1/4" x 1" carriage bolts. (Cut slot in head so that they can be adjusted with a screwdriver, for locking "H" Beam in position inside of "Box" beam.)
- * 4 - 1/4" x 3" carriage bolts. (Cut slot in end so that they can be adjusted with a screwdriver for levelling the pedestal.)

* ~10' of light chain or aviator cable for holding "Wing" legs in position. (Attach to foot of "Wing" leg and base of "Box" beam.)

~18" of 1/2" x 2" "C" channel for across the top of the "H" beam to steady module.

