

# National Model Railroad Association

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## Achievement Program

### Master Builder - Prototype Models

This category is the newest in the Achievement Program, having only been added in 1987. It is also the category which many consider to be the most challenging. It goes beyond the [Master Builder - Scenery](#) which calls for creating scenery in a prototypical manner, and judges how well you create a specific prototype scene.

To qualify for this certificate:

1. Construct an animated or static model of a prototype scene containing at least six models of prototype equipment or structures.

The first difference that you should notice between this category and [Master Builder - Scenery](#) is that there is no minimum size requirement for your prototype scene. The only requirement is that it be big enough to adequately display the required models, and give the overall effect of the intended scene.

A. At least four different types of models must be represented:

- Rolling stock
- Railroad structure
- Caboose or passenger car
- Motive power.

B. Any two of the six models must be [scratch built](#); the remainder must be [super detailed](#).

Plans or photographs must be provided to verify the final prototypical appearance of each model and of the total scene.

2. Earn a Merit Award of at least 87.5 points with the above scene.

This does not mean that each of the six models must win a Merit Award individually. It means that the scene as a whole, with the six models in place, is judged using the Prototype Modeler criteria. You may have these models judged separately if you wish, either before or after their inclusion in a Prototype Model scene. You may also use them as some of your qualifying models for other categories, such as Motive Power, Cars, or Structures. None of this will affect, or be affected by, their use in a Prototype Model scene.

Note that in this category, simply having the scene win 87.5 points in an NMRA contest (in "Modules" or "Displays", for example) will not qualify it. It must be evaluated using the judging factors (and point ranges)

specifically for this category, which are described below. However, if there is time, you can ask the contest coordinator or AP Manager to have the module judged according to the Prototype Modeler standards. It is a good idea to arrange for this in advance.

The judging factors and point ranges for the Prototype Structures Certificate are as follows:

**A. Terrain (35 pts)**

The ground and all natural features such as rocks, water, trees, hills and depressions, as well as manmade features such as railroad roadbed, cuts, fills, drainage ditches, embankments, streets and roads, etc.

Also remember different types of vegetation and the effects of weather animals and humans. Remember the detail on streets and roads, whether in urban or rural areas: sewers / storm drains, man-hole covers, shoulders, drainage ditches, cracks, patches, road wear marks, oil stains, and tire ruts in dirt roads. Look at the photograph(s) that you are working from, and notice the details there, then work to recreate them. If your model includes areas which are not included in the photographs, make sure to carry the same level and type of detail throughout.

**B. Structures (35 pts)**

Structures are considered from the standpoint of prototypical suitability, placement, and appearance as scenic effects - Not as to construction, which is covered under Master Builder - Structures. This includes bridges, trestles, culverts, buildings and all other types of structures (towers, power lines, signs, fences, retaining walls, etc.), track and right-of-way features such as turnout controls, signaling structures, crossing gates and shanties, turntables and other service structures, etc.

These are but a few examples - additional features are encouraged. Also remember that structures should be *in* the ground, not sitting on top of it. Again, notice the little things about the structure that you are trying to model, such as the number of chimneys and other roof details. It is those things which will give your model the look and feel of the prototype. Selective compression is acceptable as long as the character of the original is preserved (modeling a six-door prototype freight house as having only four doors to save space, for example). If you are in doubt, consult your local or regional AP Manager.

**C. Background (15 pts)**

Treatment of the wall, backdrop, and/or ceiling to realistically depict depth, distance, horizon, and sky.

This doesn't mean that you have to have a photographic quality background. Your background should continue the 'illusion of reality' that you are trying to create with your scenery. Make sure that the background matches the scenery, and the transition where the two of them meet is smooth and/or hidden. Skyboards behind the model are a good way to control the background.

**D. Lighting (5 pts)**

Illumination effects from three aspects:

- Railroad cars, signals, etc.

- Buildings, streets, and roads, etc.
- Overall lighting effects - day and/or night.

Note that a fully day lit scene is perfectly acceptable, although you may get more points for a scene that allows you to show off more lighting elements. You should include the lighting information in your documentation for the judges.

#### E. Realism / Conformity (35 pts)

Since this whole category is about conformity to the prototype, this area actually counts for more than the 35 points listed. Each of the other criteria are evaluated in terms of how well they match what you are trying to recreate

3. Prepare a written description along with photographs, documented evidence and/or maps, which will verify the actual prototype scene, used as a basis for the modeled scene. Some things to remember are:
  - A. Include 2 sets of photographs (or a video tape presentation) that will document the prototype being modeled and the model of the prototype
  - B. Include a written description that clearly describes the intended setting of the model railroad
  - C. Include a written description than clearly describe the scenic details, including any towns or cities used to achieve the desired effect

You must demonstrate that you have modeled from a specific prototype, by submitting plans and/or photographs. If at all possible try and take pictures of your model that are from the same angle as pictures that you have of the prototype. That way you can have side-by-side pictures showing how well you have re-created the scene you are modeling. If you create your own plans (which you will often have to do) you will need to include them, along with a description of how you developed them. This is one category in which you cannot have too much documentation!

4. Provide color photos (or video presentation) and a written description of materials and methods used to build the prototype scene
5. Submit a completed Statement of Qualifications (SOQ) which shall include the following
  - A. Attachments for Sections 2 & 3 above
  - B. The signed Merit Judging forms from Section 2
  - C. The supplemental material with the photographs of both the model and the prototype attached

#### Further Information

Contact National Achievement Program General Manager, Paul Richardson, MMR [achiev@hq.nmra.org](mailto:achiev@hq.nmra.org), or your Region or Division Achievement Program Manager for more information.

Also refer to the articles "Master Builder - Prototype models" NMRA Bulletin, March 1991, and "Prototype Modeler... Getting Judged" NMRA Bulletin, April 1991.

Forms available for this category:

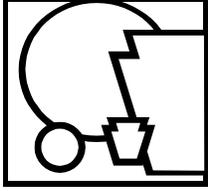
- [SOQ Form: \(PDF\)](#)
- [Record and Validation form: \(PDF\)](#)
- [Judging Form: \(PDF\)](#)

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National Model Railroad Association, Inc.  
4121 Cromwell Rd., Chattanooga, TN 37421  
Phone: (423) 892-2846 - Fax: (423) 899-4869  
[Email Contact List](#)



**ACHIEVEMENT PROGRAM  
MASTER BUILDER PROTOTYPE MODELS  
STATEMENT OF QUALIFICATIONS FORM  
May 2006**

page 1 of 2

Member's Name: \_\_\_\_\_ NMRA #: \_\_\_\_\_ Exp: \_\_\_\_\_

Street: \_\_\_\_\_ City: \_\_\_\_\_ State/Prov: \_\_\_\_\_

ZIP/PC: \_\_\_\_\_ Country: \_\_\_\_\_ NMRA Region: \_\_\_\_\_

Date Submitted: \_\_\_\_\_ E-Mail: \_\_\_\_\_ Phone: \_\_\_\_\_

**To qualify for this certificate you must:**

1. Construct an animated or static model of a prototype scene containing at least six models of prototype equipment or structures. At least four different types of models must be represented. They are: rolling stock, railroad structure, caboose or passenger car and a motive power. Any two of the six models must be scratchbuilt. The remainder must be superdetailed. Plans or photographs must be provided to verify the final prototypical appearance of each model and of the total scene.

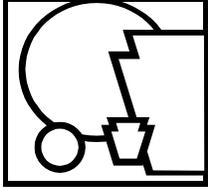
2. Earn a Merit Award of at least 87.5 points with the above scene.

3. Prepare a written description along with photographs, documented evidence and/or maps which will verify the actual prototype scene used as a basis for the modeled scene.

4. Provide color photos and a written description of materials and methods used to build the scene.

5. Submit a completed Statement of Qualifications (SOQ) which shall include the following:

- Attachments for Requirements 2 & 3 above.
- The signed Merit Judging forms from Requirement 2 above.
- The supplemental material with the photographs of both the model and the prototype attached.



**ACHIEVEMENT PROGRAM  
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May 2006**

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**REQUIRMENT 1**

	Description of Model	ScratchBuilt	Super-Detailed
1			
2			
3			
4			
5			
6			

**Requirement 3**

- Written description
- Photographs
- Documented evidence
- Map

**Requirement 4**

- Color photos
- Written description

**Member's Statement and Agreement:**

I certify that I have completed all of the requirements for this Certificate of Achievement as listed above and that I will agree to assist other members in this subject whenever possible, whether or not they are participants in the Achievement Program.

NAME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_ Date: \_\_\_\_\_

**Certification of Regional Achievement Program Chair**

As the NMRA Regional Achievement Program Chair of the \_\_\_\_\_, I certify that I have examined this SOQ and, having compared it to the stated requirements for this certificate, I am satisfied that the stated requirements have been met.

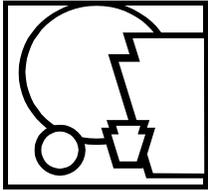
NAME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_ Date: \_\_\_\_\_

Region Cert #: \_\_\_\_\_

**Approval by AP National Executive Vice-Chair**

NAME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_ Date: \_\_\_\_\_

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# ACHIEVEMENT PROGRAM MASTER BUILDER PROTOTYPE MODELS RECORD AND VALIDATION FORM May 2006

PLEASE ATTACH THIS FORM TO A COMPLETED STATEMENT OF QUALIFICATIONS (SOQ) FORM.

Member's Name: \_\_\_\_\_

NMRA #: \_\_\_\_\_

Date Submitted: \_\_\_\_\_

Region: \_\_\_\_\_

To qualify for this certificate you must:

1. Construct an animated or static model of a prototype scene containing at least six models of prototype equipment or structures. At least four different types of models must be represented. They are: rolling stock, railroad structure, caboose or passenger car and a motive power. Any two of the six models must be scratchbuilt. The remainder must be superdetailed. Plans or photographs must be provided to verify the final prototypical appearance of each model and of the total scene.
2. Earn a Merit Award of at least 87.5 points with the above scene.
3. Prepare a written description along with photographs, documented evidence and/or maps which will verify the actual prototype scene used as a basis for the modeled scene.
4. Provide color photos and a written description of materials and methods used to build the scene.
5. Submit a completed Statement of Qualifications (SOQ) which shall include the following:

- Attachments for Requirements 2 & 3 above.
- The signed Merit Judging forms from Requirement 2 above.
- The supplemental material with the photographs of both the model and the prototype attached.

**Requirement 1**

DESCRIPTION	SCRATCHBUILT	SUPER-DETAILED

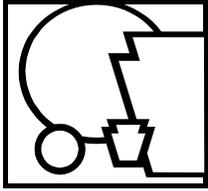
**Requirement 3**

- Written description
- Photographs
- Documented evidence
- Map

**Requirement 4**

- Color photos
- Written description

REGIONAL AP CHAIR: \_\_\_\_\_ REGION: \_\_\_\_\_ DATE: \_\_\_\_\_



# ACHIEVEMENT PROGRAM MASTER BUILDER PROTOTYPE MODELS JUDGING FORM

**May 2006**

PLEASE ATTACH THIS FORM TO A COMPLETED STATEMENT OF QUALIFICATIONS (SOQ) FORM.

Member's Name: \_\_\_\_\_

NMRA #: \_\_\_\_\_

Date Submitted: \_\_\_\_\_

Region: \_\_\_\_\_

The undersigned judges certify that the prototypical scenic area of model railroad, built by the above named NMRA member, has been personally examined by two or more judges appointed by the Region AP Chair. The scenic area judged has 6 models minimum of an actual railroad, using plans and/or photographs which were provided. There was at least one freight car, structure, caboose or passenger car and a locomotive. Two of the models were scratchbuilt with four different types of models represented and the remainder were superdetailed. The 6 models were displayed in a realistic scene or on modules large enough to represent a total railroad scene.

### MERIT AWARD SCORING SCHEDULE

CATEGORY	DESCRIPTION	POINTS	SCORE
TERRAIN	The ground and all natural features such as rocks, water, trees, hills and depressions, as well as manmade features such as the railroad roadbed, cuts, fills, drainage ditches, embankments, streets and roads.	0-35	
STRUCTURES	Structures are considered from the standpoint of prototypical suitability, placement and appearance as scenic elements. (The quality of construction is covered under the Master Builder Structures category). Structures include: bridges, trestles, culverts, buildings and all other types of structures (towers, power lines, signs, fences, etc.), track and right-of-way appurtenances (such as turnout controls, signaling structures, crossing gates and shanties etc.), turntables and other service structures.	0-35	
BACKGROUND	Treatment of wall, backdrop or ceiling to realistically depict depth and distance, horizon and sky.	0-15	
LIGHTING	Illumination effects from three aspects: railroad cars and signals, etc.; buildings, streets and roads, etc.; overall lighting effects - day and/or night. An entirely daylight scene is acceptable.	0-5	
REALISM/ CONFORMITY	General overall impression that the scene is a believable, miniature representation of prototype railroad.	0-35	
<b>Total</b>			

JUDGE'S NAME	SIGNATURE	NMRA #

**REGIONAL AP CHAIR:** \_\_\_\_\_ **REGION:** \_\_\_\_\_ **DATE:** \_\_\_\_\_