

2017 NEC

and Future Concerns

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How Does the NEC Change?

- Year 1: Notification of Entering Cycle, proposals may now be submitted.
- Year 2: Proposals reviewed and discussed by appropriate panel. Late Jan 2018. Review and recommendations collected and voted on via mail by all panels.
- Comment period: Allows authors and others to comment on panel recommendations (Sep 2018)
- Report on Comments (Nov 18)
- Year 3: Voting on Comments (Final Panel votes Mar 19)
- Board Motions Made May 19
- Association Meeting for Vote Jun 19
- Document Issued for Jan 2020 publication.
- PROCESS STARTS ALL OVER.

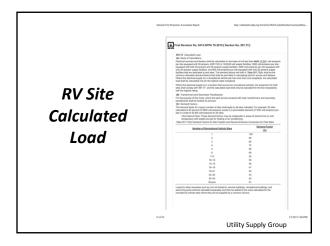
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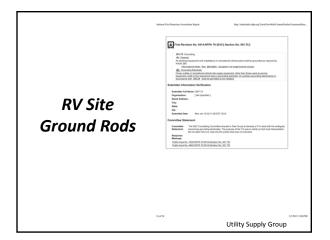
NEC Article 551

- Receptacles 551.71

 100% 20 amp GFI, 70% 30 amp, 20% 50 amp (40% 50 amp in 2017)
- RV Site Supply 551.77
- Power Supply 551.44
- Distribution System 551.72
- Feeder Circuit Capacity 551.72(D)
 Neutral conductors shall have the same ampacity as the ungrounded conductors.
- Load Calculations 551.73

Presently 50@12,000va; 30@3600va; 20@ 2400va. (12,000va in 2017)





Pitfalls in NEC for RV

- Reduced Neutral (For RV's Don't do it!)
- Ground back to Service Entrance. Do not bond ground to neutral at pedestal.
- If electrified, 100% must have 20Amp GFCI protected.
- 70% must have 30 Amp
- 20% must have 50 Amp New Sites changed to 40%.

This Percentage may approach 100%

Demand Factor Table 551.73

Table 551.73 Demand Factors for Site Feeders and Service-Entrance Conductors for Park Sites

Number of Recreational Vehicle Sites	Demand Factor (%)
ı	100
2	90
3	80
4	75
4 5	65
6	60
7–9	55
10-12	50
13-15	48
16-18	47
19-21	45
22-24	43
25-35	42
36 plus	41

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Typical Load Calculation 2017 Revision

- Using Table 551.73
- Assuming (17) 50 Amp sites
- 17 x <u>12,000va</u> / 240v = 800 amps (100%)
- 800 amps x .47 demand factor
 - = 400 Amps

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NEC Changes

• Grounding 551.75 & 250.32(A):

Change language to 'Grounding electrodes shall not be required, but are allowed' Cost (est.) \$80-100 per site

• Load Calculations 551.73:

Increased 50 amp rating from 9600vA to 12,000vA.

• 100 Amp RV Services:

No changes for 2017, possibly 2020?

NEC Change	S
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- GFCI Receptacles 551.71): No longer required to be Weather or Tamper Resistant (changes 2008 code)
- Distribution System 551.72:

RV Circuits are not Continuous Loads, so no wire restrictions

- Dodged Bullets:
 - 5 % Voltage Drop is NOT Code but a design
 - Prevented overcurrent protection addition. Think Main Circuit Breaker on pedestal. ~ \$80 per site

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NEC Mid Cycle Dumpster Fire

(Definition: a chaotic or disastrously mishandled situation.)

• GFCI Requirement from 210.8B

All Single Phase receptacles rated 150v to ground or less, 50a or less... installed in the following locations shall have GFCI protection for personnel:

Bathrooms

Kitchens

Rooftops

Outdoors...

This was entered into a general article and not coordinated with the Code Making Panel for RV's and RV parks. We are working with NFPA now to stop implementation.

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Questions & Comments:

Thank you for attending!!!