Appendix: Temporal Evolution of Cracking in Prestressed Concrete Studied Using a Continuous-Damage Approach

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This appendix contains additional figures for "Temporal Evolution of Cracking in Prestressed Concrete Studied Using a Continuous-Damage Approach," by Junying Rao, Chi Chen and Tongyan Pan, which appears on pages 51–68 in the November–December 2019 issue of *PCI Journal*.

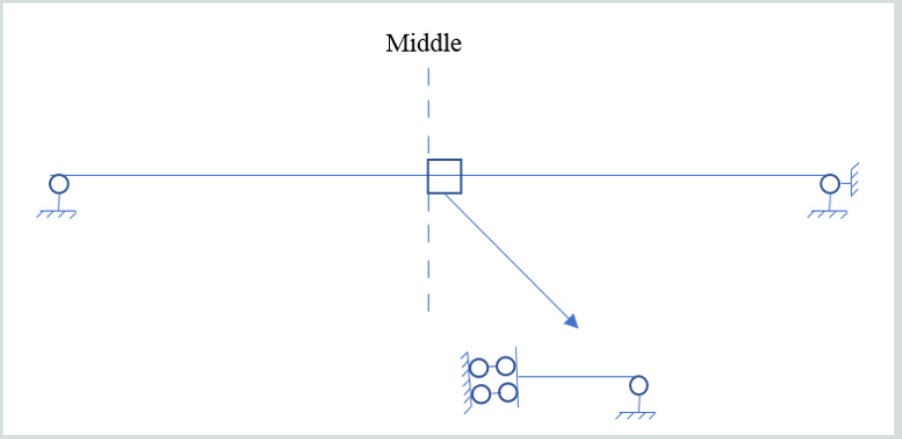

Figure A.1. Location and displacement boundary conditions of 3-D finite element method micromechanical model.

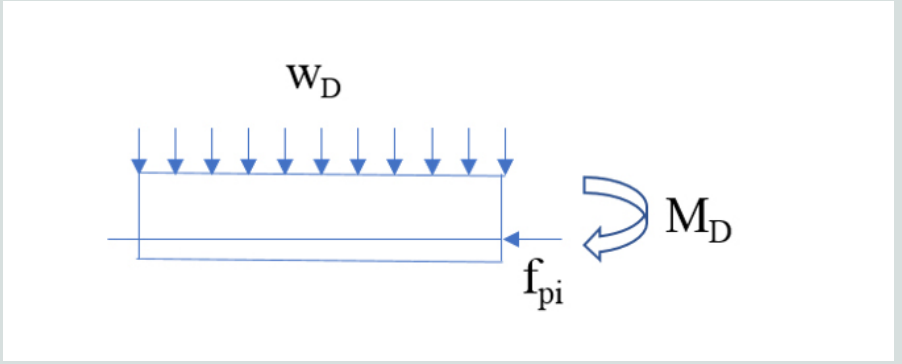

Figure A.2. Mechanical boundary conditions for the 3-D finite element method micromechanical model. Note: f_{pi} = initial prestress in tendon; M_D = moment for boundary conditions of prestressed concrete slab; W_D = self-weight of prestressed concrete slab.

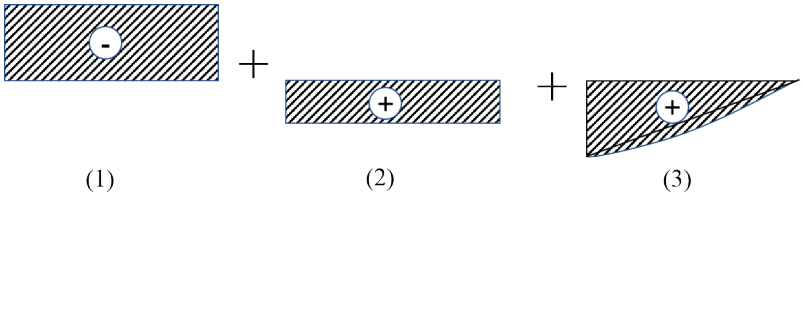

Figure A.3. Diagrams of three moment components for the 3-D finite element method micromechanical model. 1 psi = 6.895 kPa.

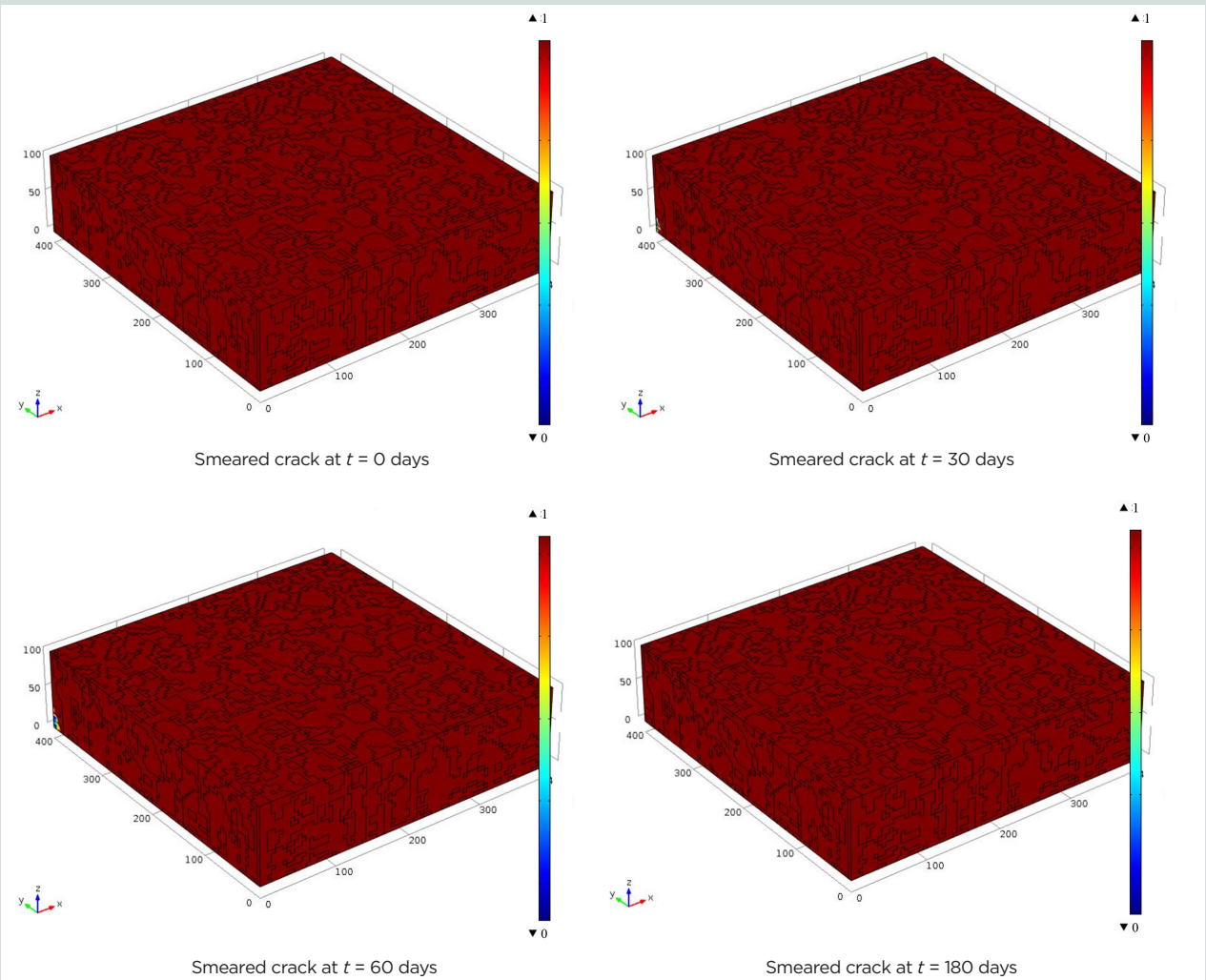

Figure A.4. Continuous damage of concrete by steel relaxation loss at 0 days, 30 days, 60 days, and 180 days. Note: All dimensions are in millimeters. *t* = time. 1 mm = 0.394 in.

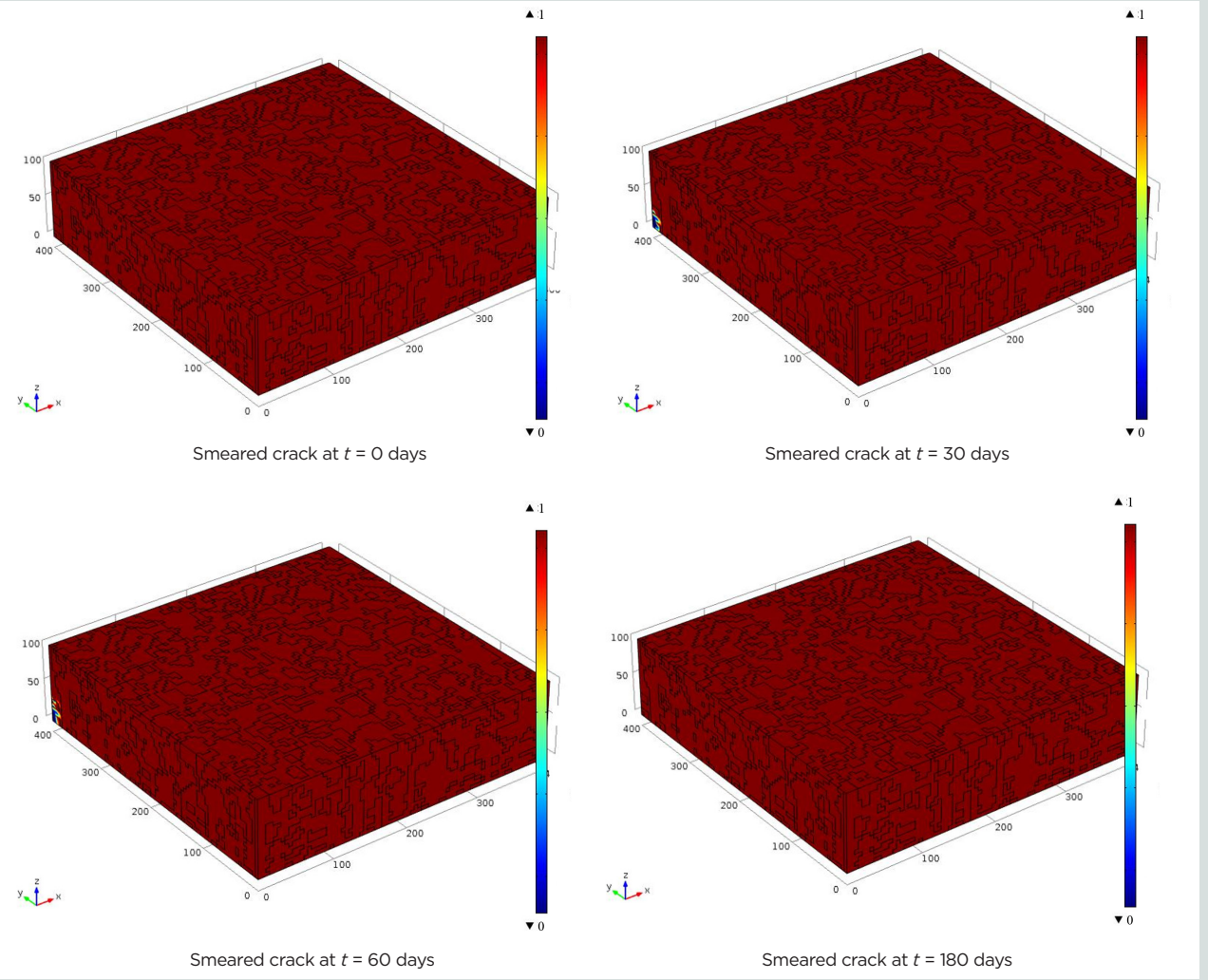

Figure A.5. Continuous damage of concrete by concrete creep at 0 days, 30 days, 60 days, and 180 days. Note: All dimensions are in millimeters. t = time. 1 mm = 0.394 in.

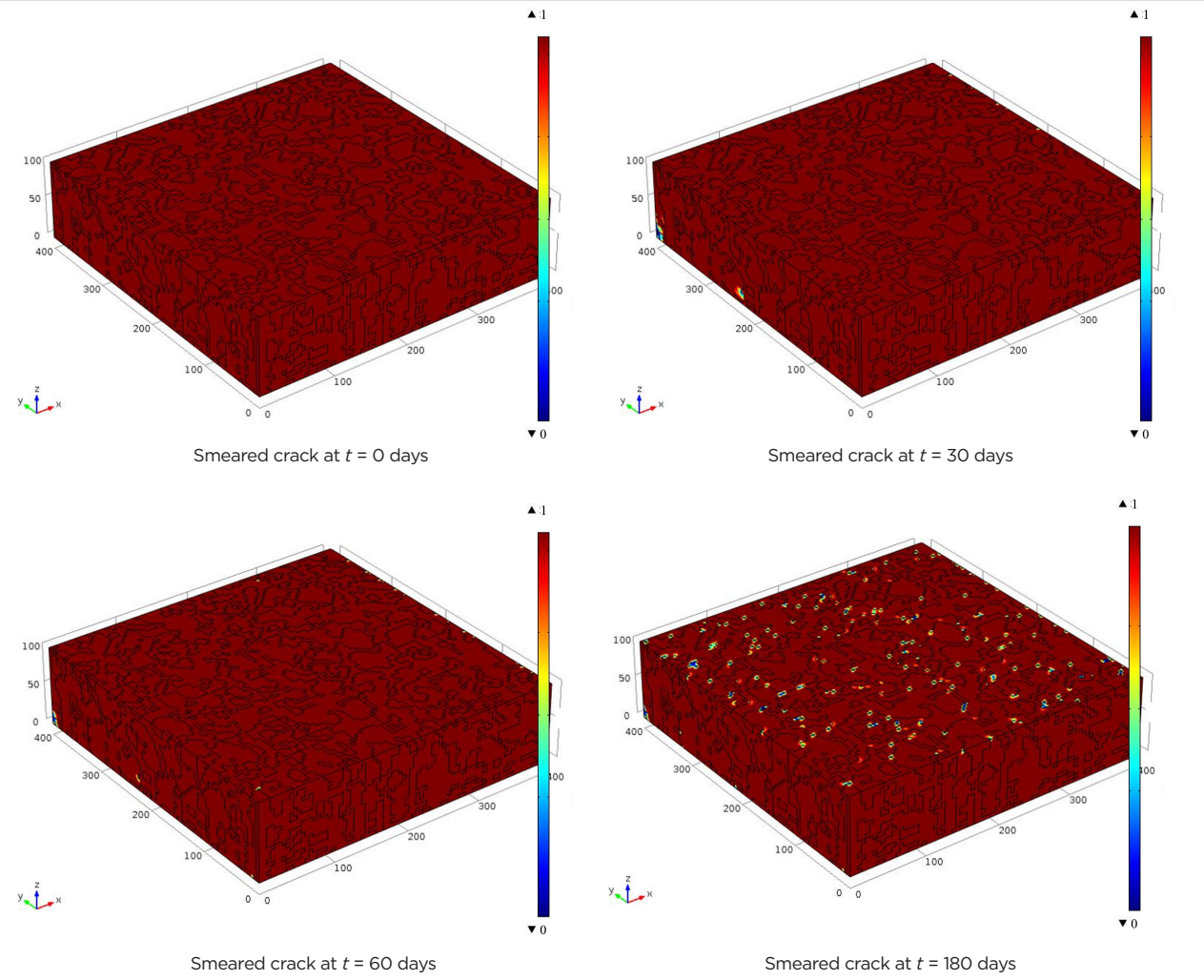

Figure A.6. Continuous damage of concrete by concrete shrinkage at 0 days, 30 days, 60 days, and 180 days. Note: All dimensions are in millimeters. t = time. 1 mm = 0.394 in.