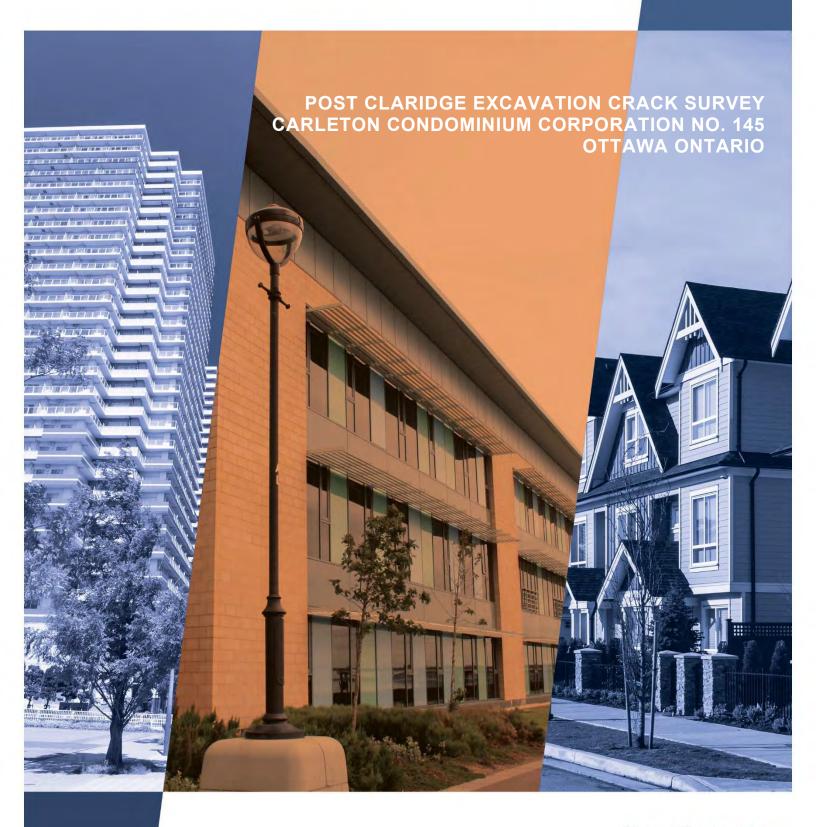
KELLER





500-885 MEADOWLANDS DR.
OTTAWA, ONTARIO, K2C 3N2
TEL. 613-224-1594
FAX. 613-224-1642
www.kellerengineering.com

2020-09-18 20290

Carleton Condominium Corporation No. 145 % Des Services 2339 Ogilvie Road, Box 46104 Ottawa, ON K1J 8M6

Attn: Ms. Josee Deslongchamps

CCC 145 – POST CLARIDGE EXCAVATION – CRACK SURVEY

Dear Ms. Deslongchamps:

At your request, Keller Engineering performed a follow-up crack survey of all unit interiors and the garage of Carleton Condominium Corporation No. 145 (CCC No. 145) located at 151 Bay Street in Ottawa, ON. The crack survey of all units of CCC 145 was conducted between July 27, 2020 and July 29, 2020 as the blasting for the new high-rise tower in the parking lot on Slater and Lyon, adjacent to CCC No. 145 was completed.

The history of crack surveys is as follows:

- 1. March 5, 2013 Garage, installation of crack monitoring gauges at locations shown on the appended drawings
- 2. March 31, 2014 North Wing unit interiors (07, 08, 09, 10, 11) prior to LRT tunneling
- 3. February 9, 2015 North Wing unit interiors upon completion of tunneling
- 4. May 8, 2015 04 unit interiors
- 5. July 29, 2019 all unit interiors, upon substantial completion of LRT
- 6. August 6, 2019 Garage, previously installed crack monitoring gauges and visual assessment of the existing cracks
- 7. July 27, 2020 July 29, 2020 All unit interiors, parking garage crack monitoring gauges, and lobby masonry assessment; discussed in this report.

CCC No. 145 is a 38-year old, 13-storey apartment building containing 141 residential units. The building structure consists of reinforced concrete cladded with brick veneer. The interiors of the units are painted drywall ceiling and walls with varying types of finished flooring. The corridors walls are covered with wallpaper. The parking garage structure consists of typical two-way concrete slabs supported on concrete columns. Repairs to the parking garage were carried out in 2010.

Our condition documentation and assessment work consisted of the following:

- visual observation of existing and new interior cracks
- illustration of survey findings
- · monitoring of garage crack size using gauges



DISCUSSION

Based on the periodic surveys of the unit interiors, new cracks developed in the interior finishes of the majority of the units during the time that the blasting for the neighboring new high rise building adjacent to the CCC 145 was occurring. While some cracking in the drywall ceilings and walls were pre-existing, 411 new or expanded cracks were observed on the walls and 247 new or expanded cracks were observed in the ceiling, after completion of the blasting at the neighboring Claridge building.

In the "151 Bay Street – Blasting Vibration Monitoring Report" provided by Explotech and dated April 30, 2020, 14 instances of particle velocity exceeding the safe maximum value of 50 mm/s (2 in/s) was reported. Although it is stated in the report that the risk of damage associated with these events is low, given the widespread presence of new cracks, it is reasonable to assume that the damage observed in each unit is a direct result of the blasting.

The gauges installed on pre-existing cracks in the garage foundation walls were monitored since their original installation in 2013. During this monitoring period, no significant movement was noted at these gauges.

The accumulated findings of the surveys are included in Appendix A.

Trusting this meets with your present requirements, please feel free to contact us should you

PROFESSIONA

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Sept 18, 2020

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require further information.

Sincerely,

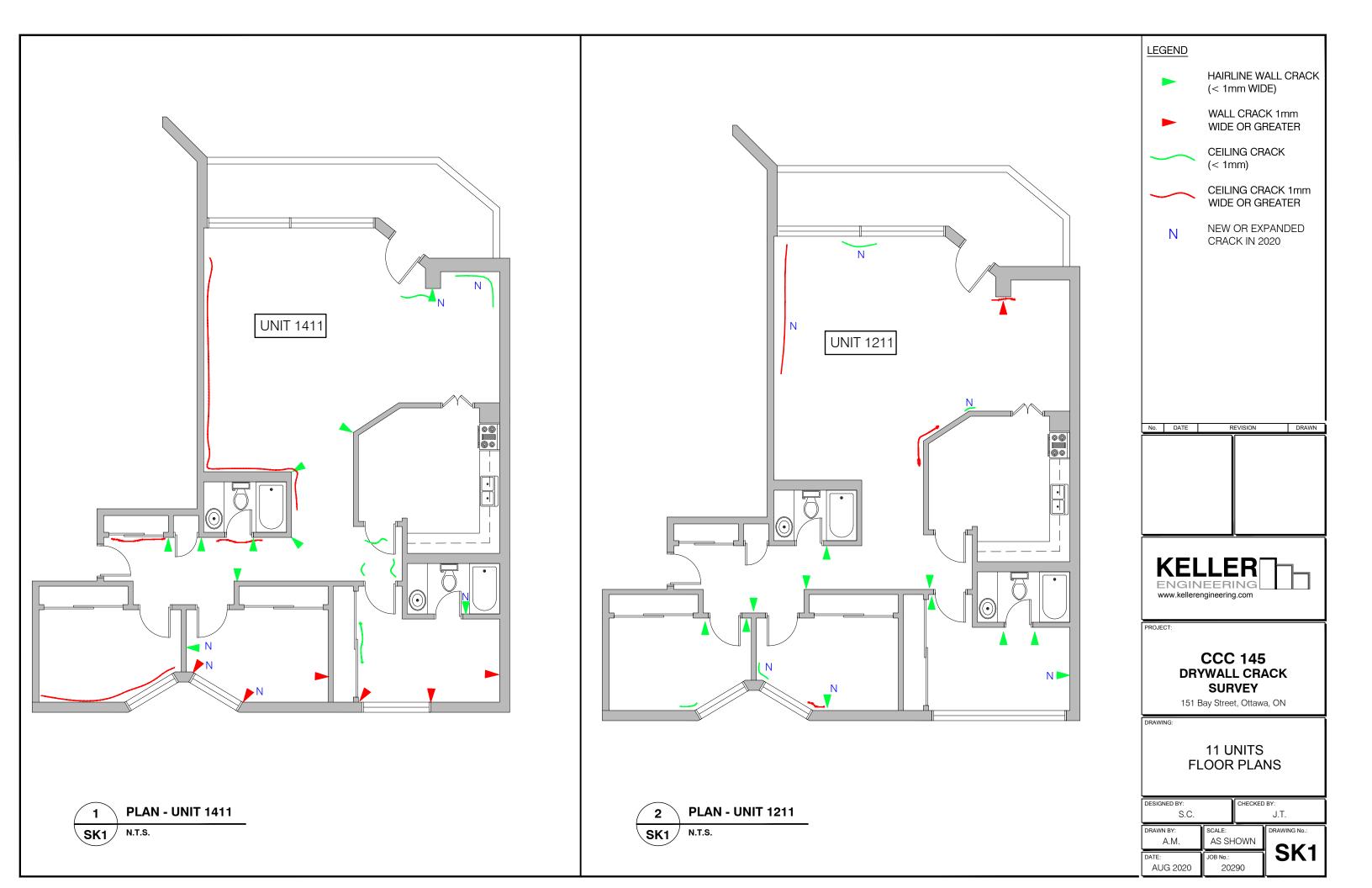
Alex Montpellier, B.A.Sc.Civ.Eng.

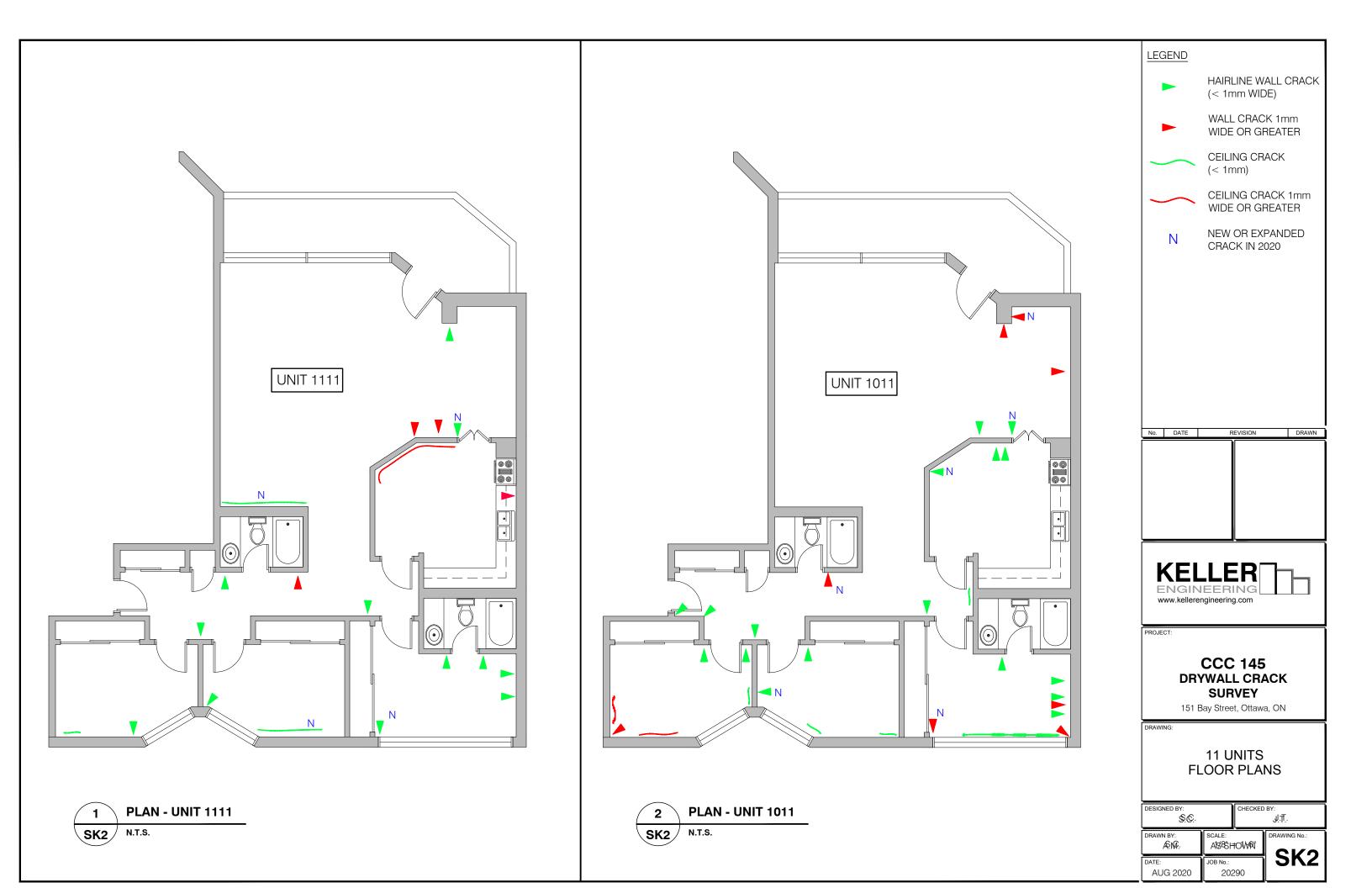
Steve Christison, P.Eng.

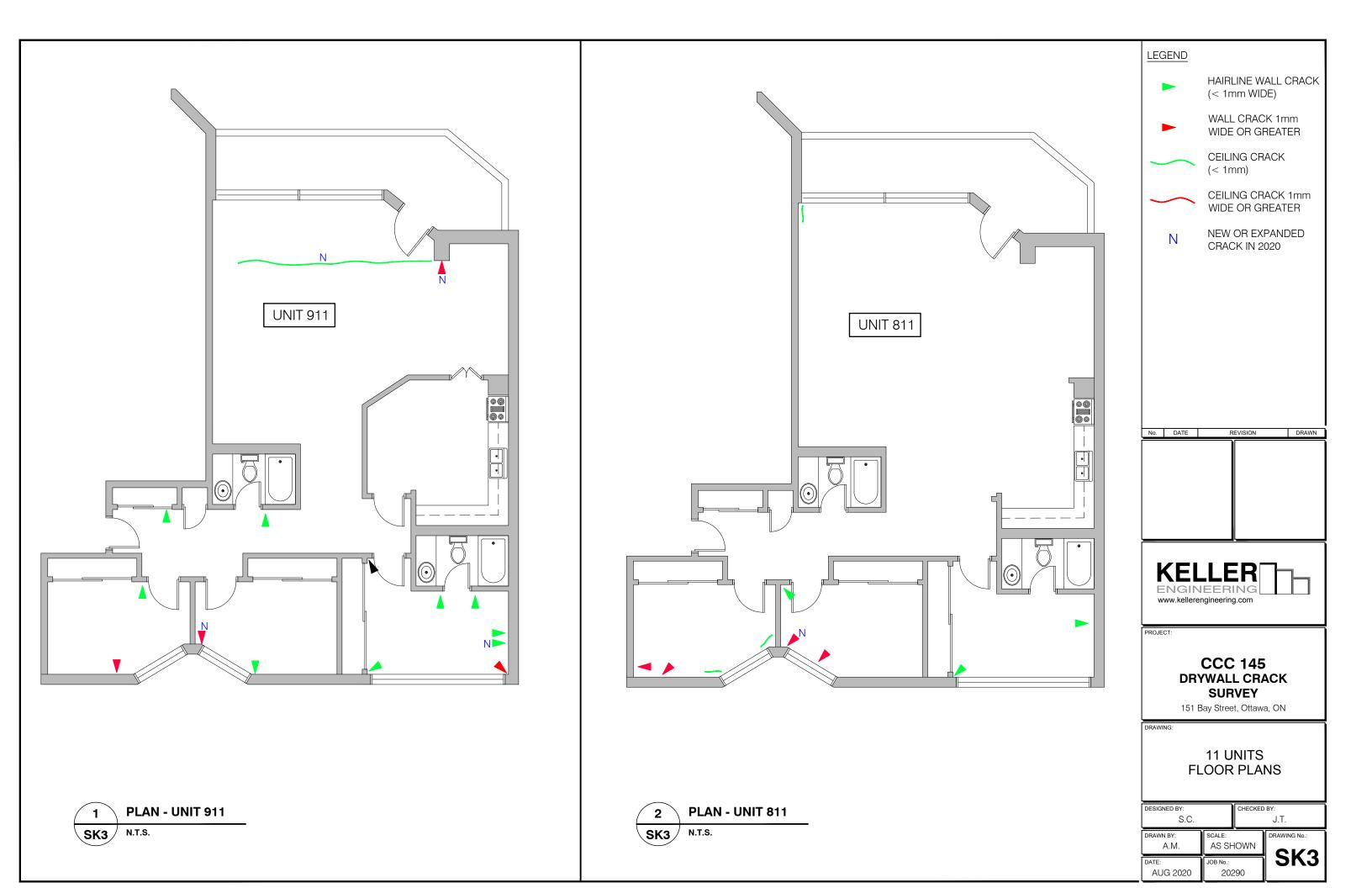


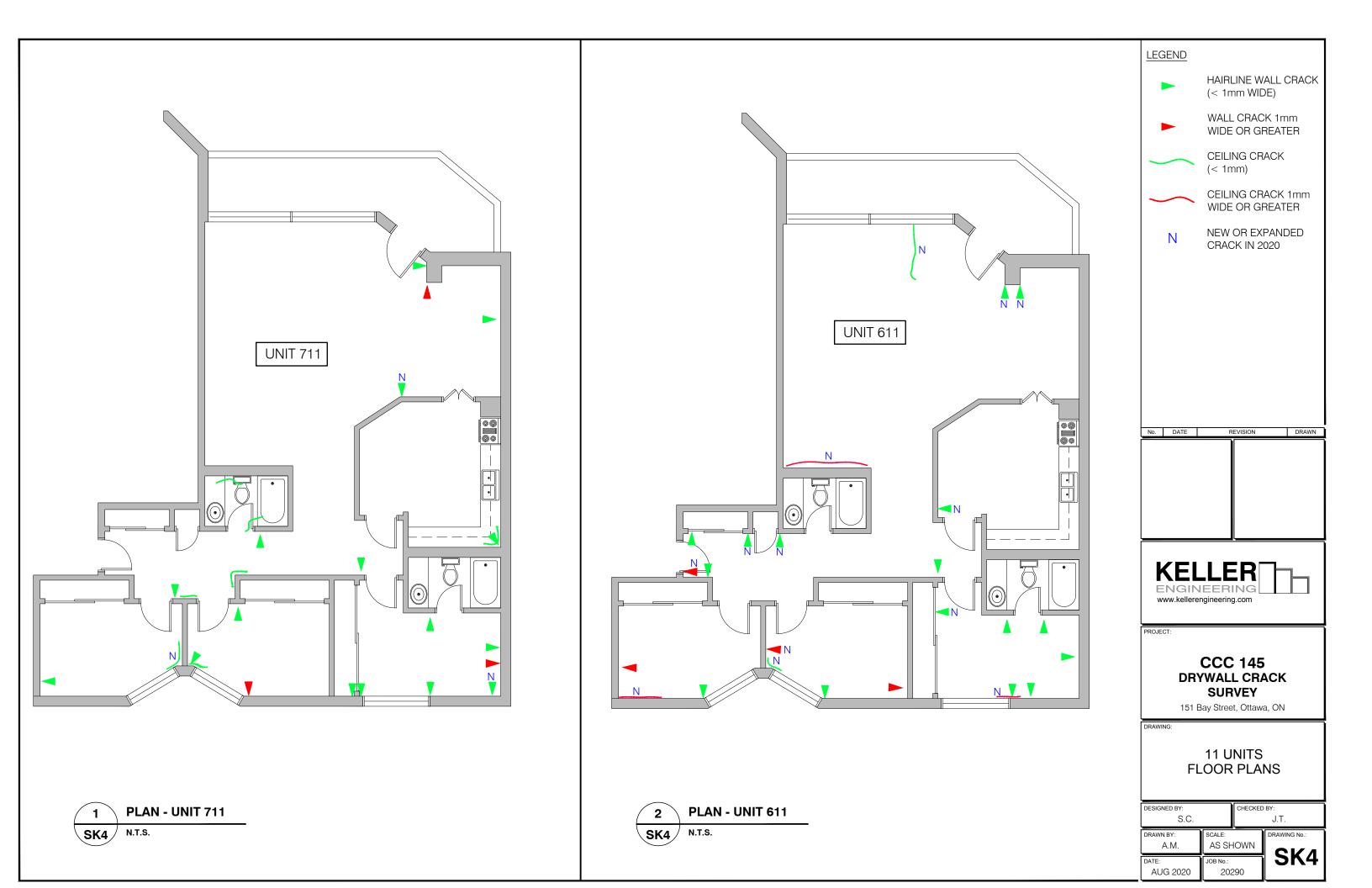
APPENDIX A CRACK SURVEY

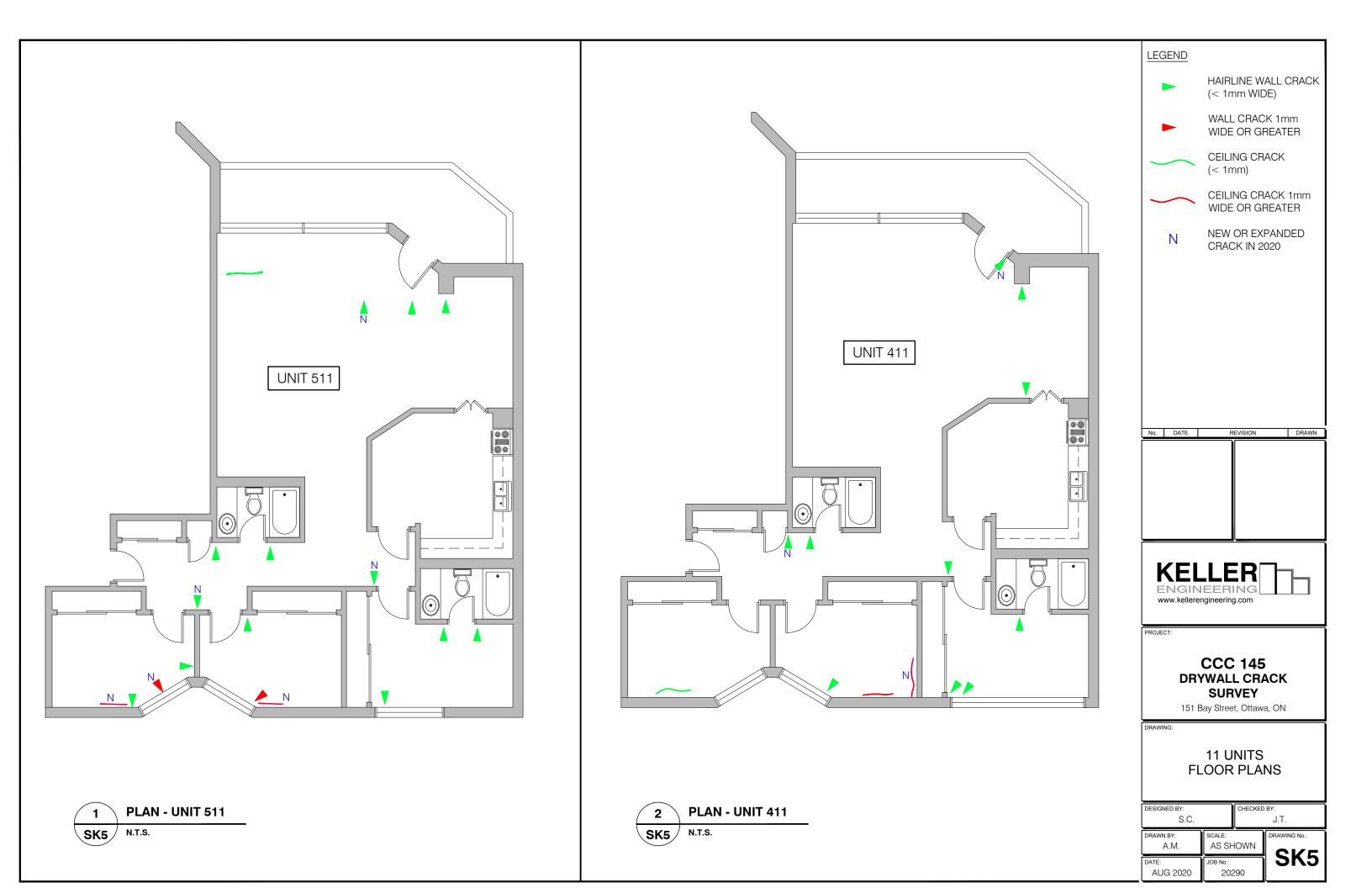


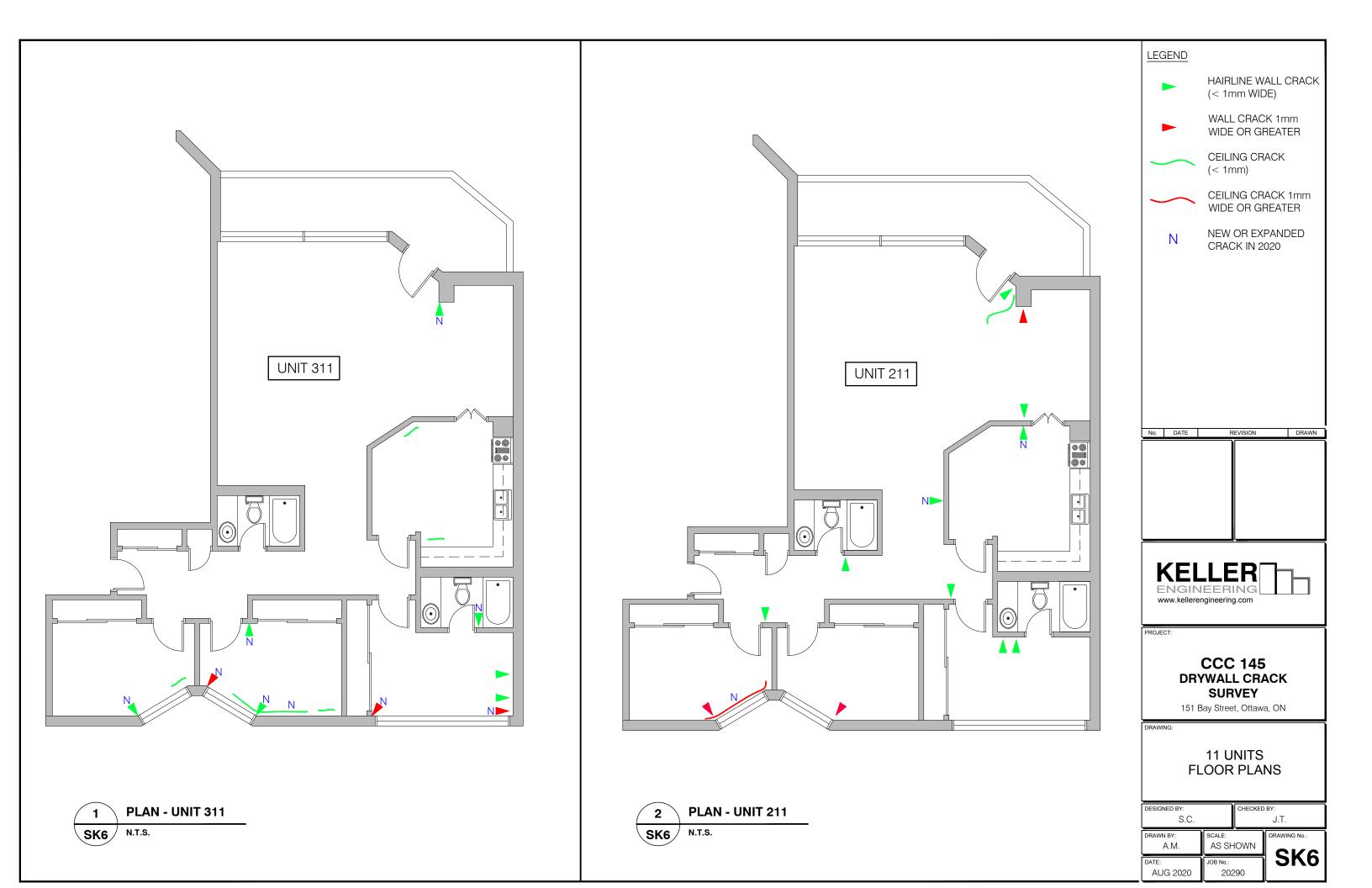


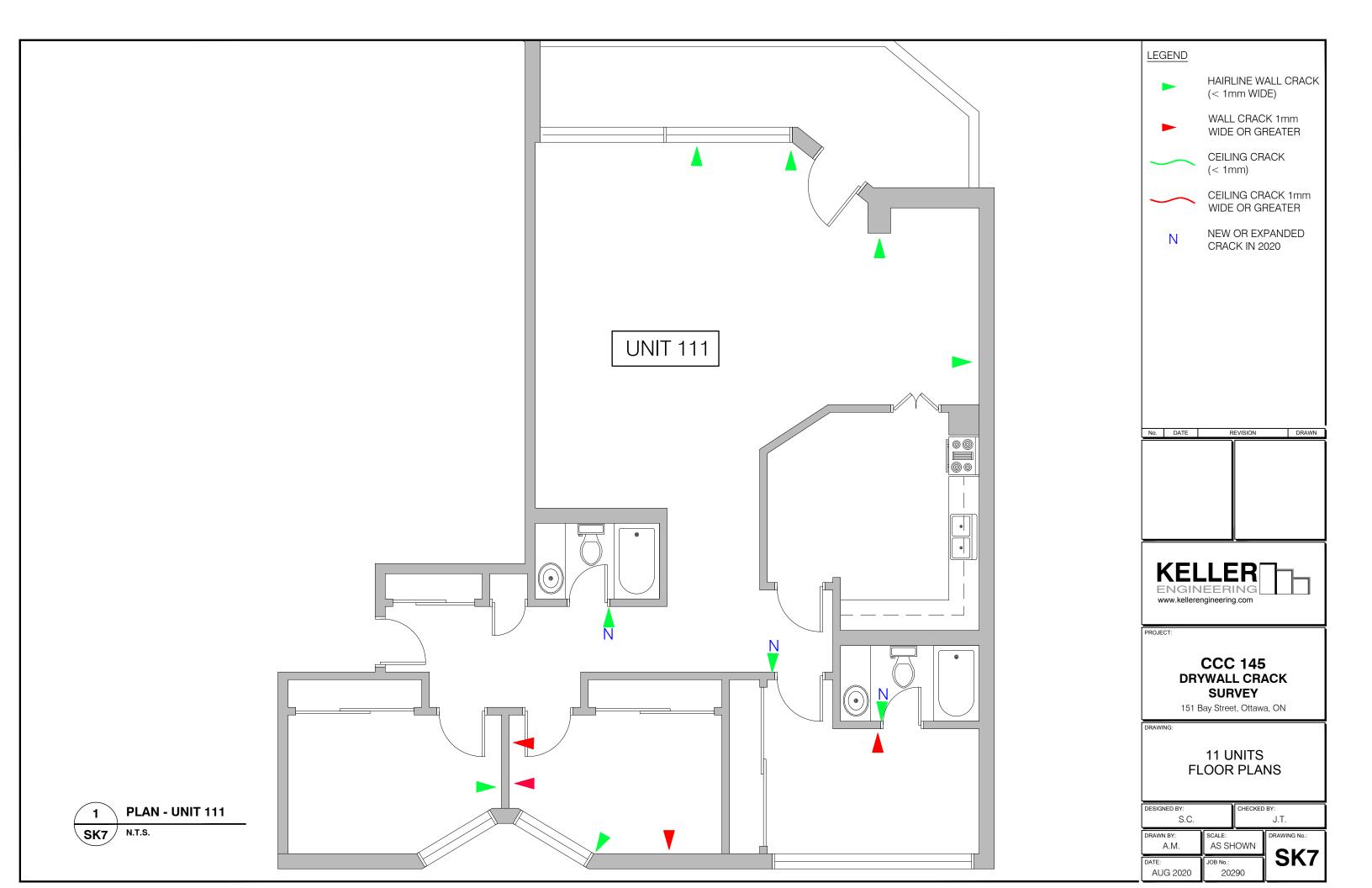


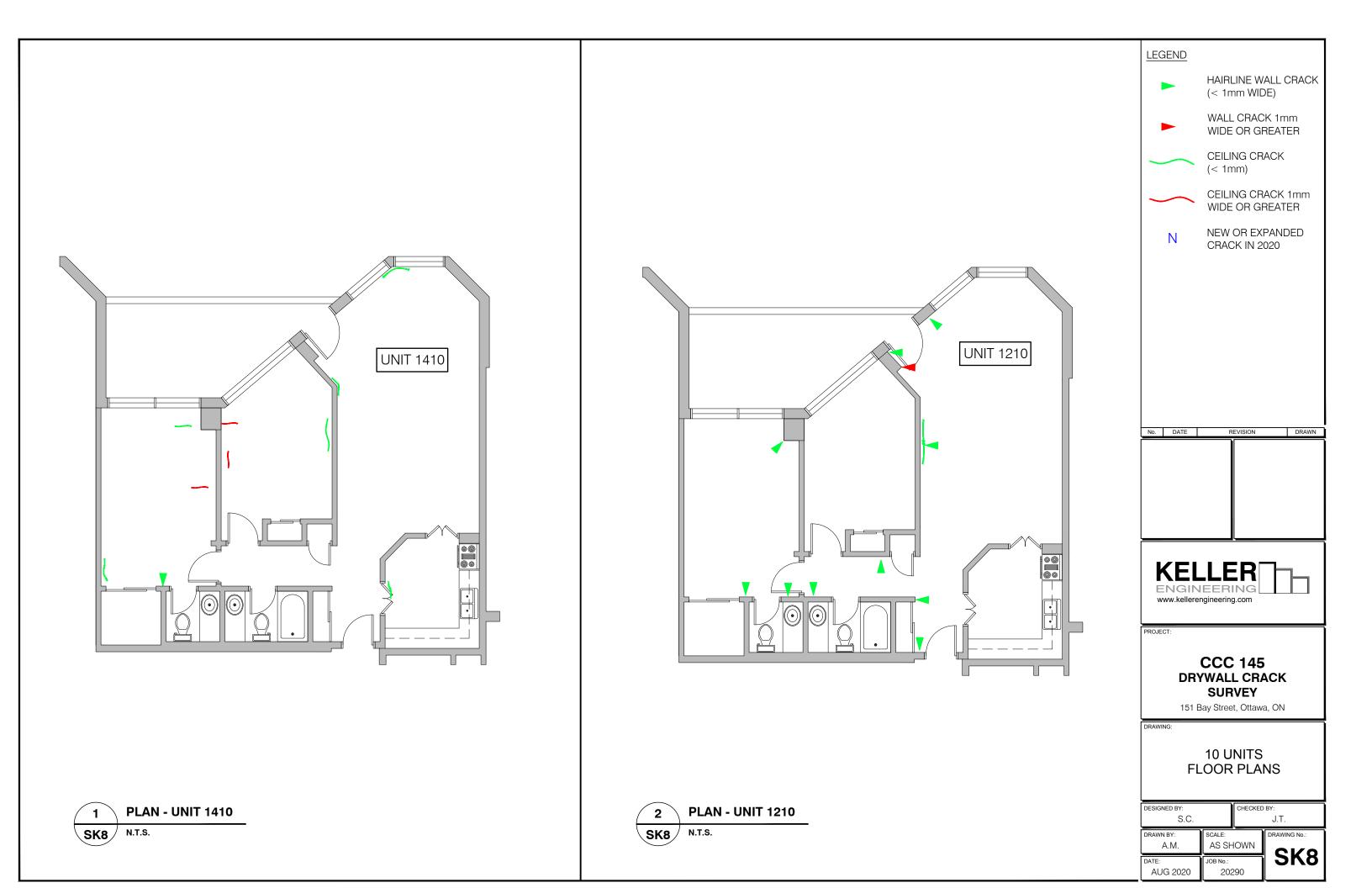


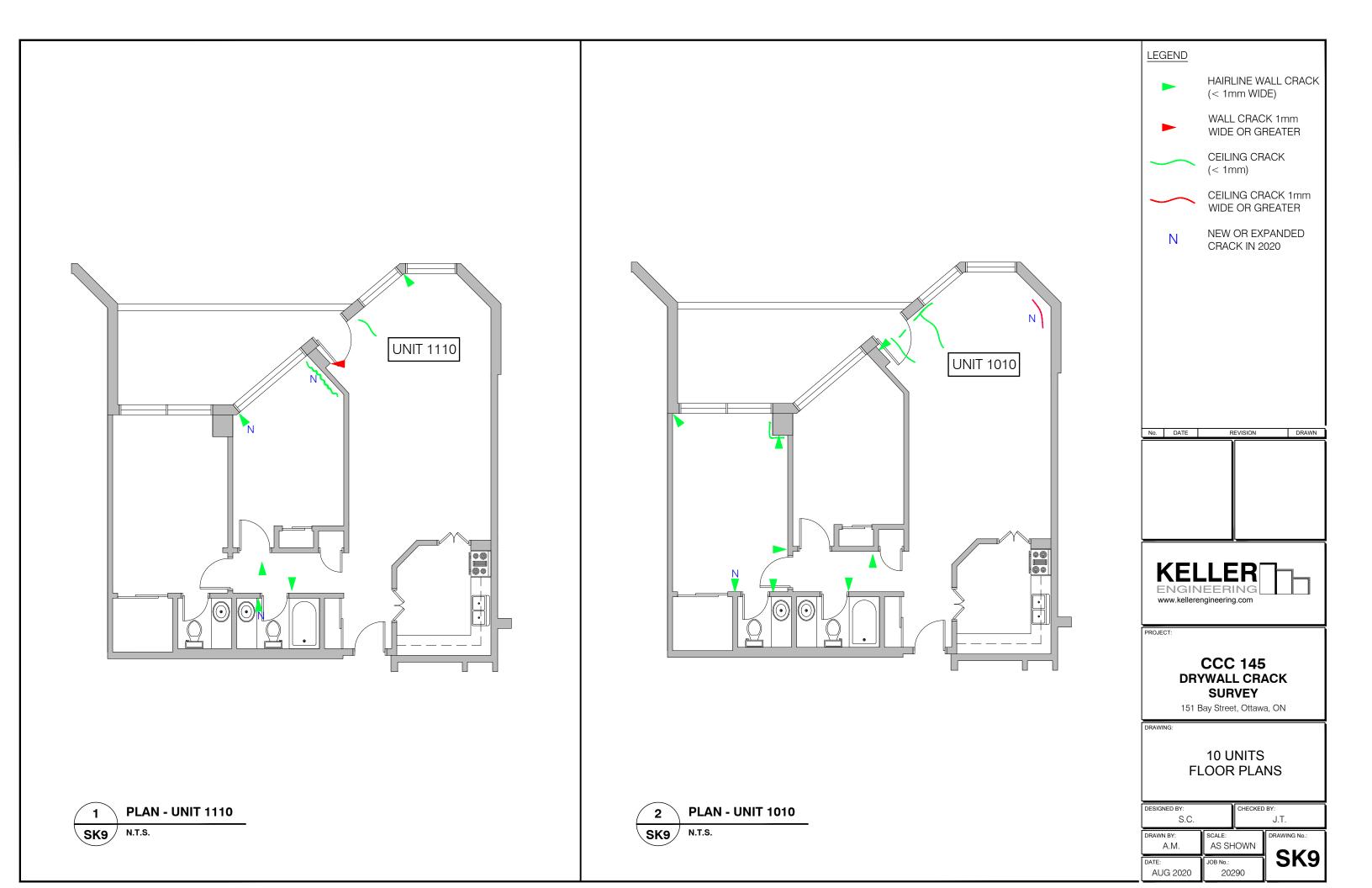


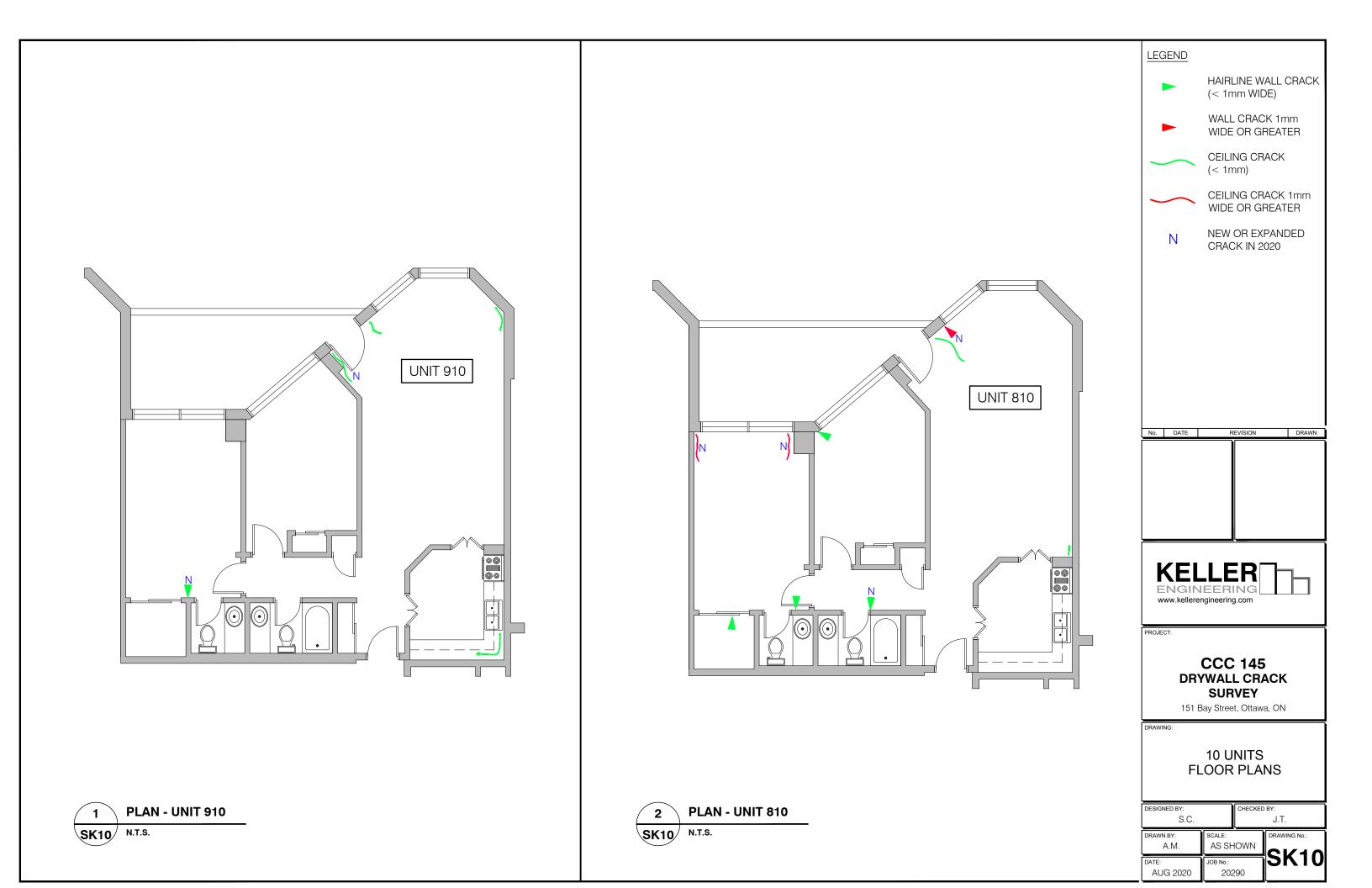


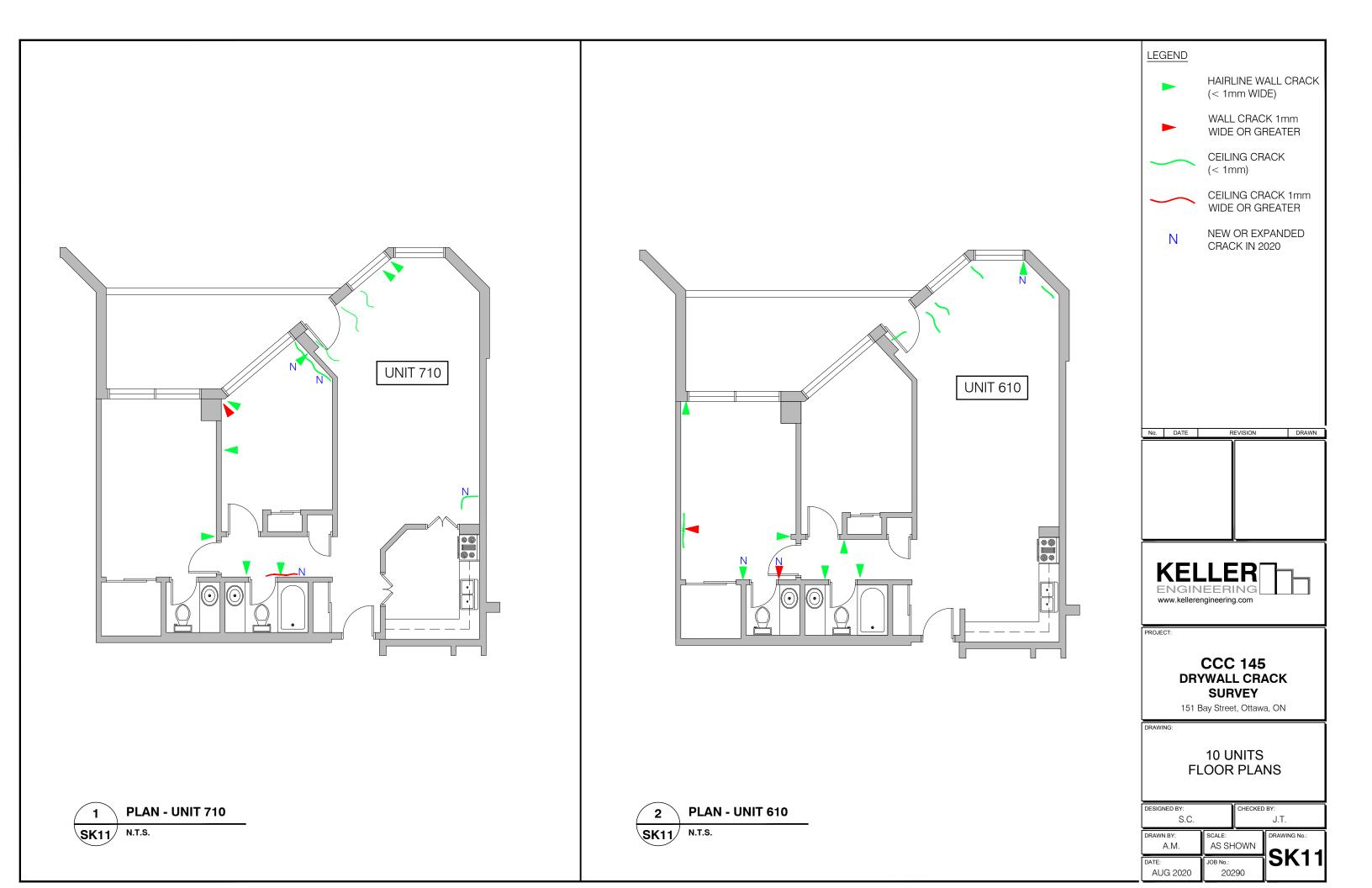


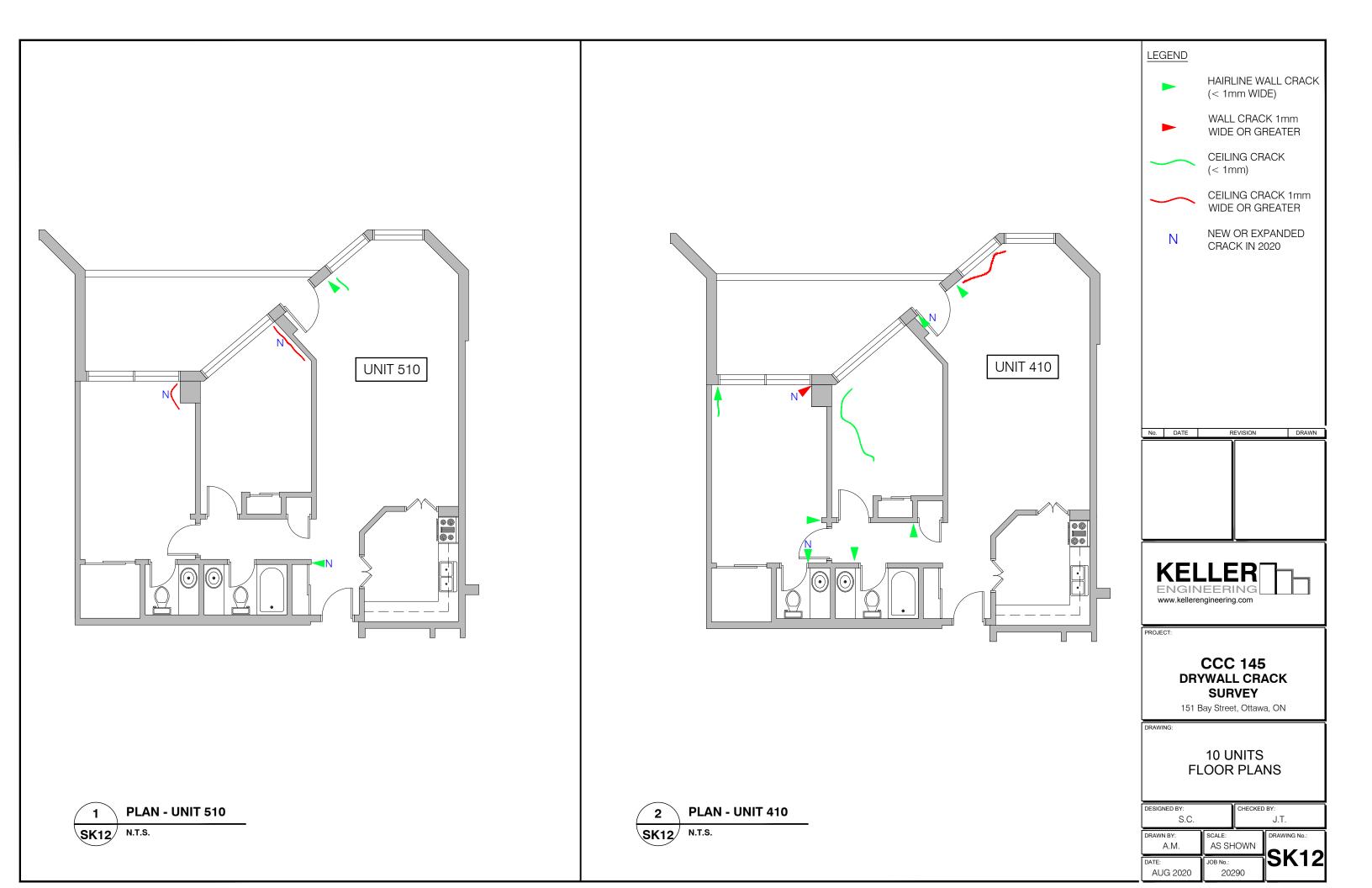


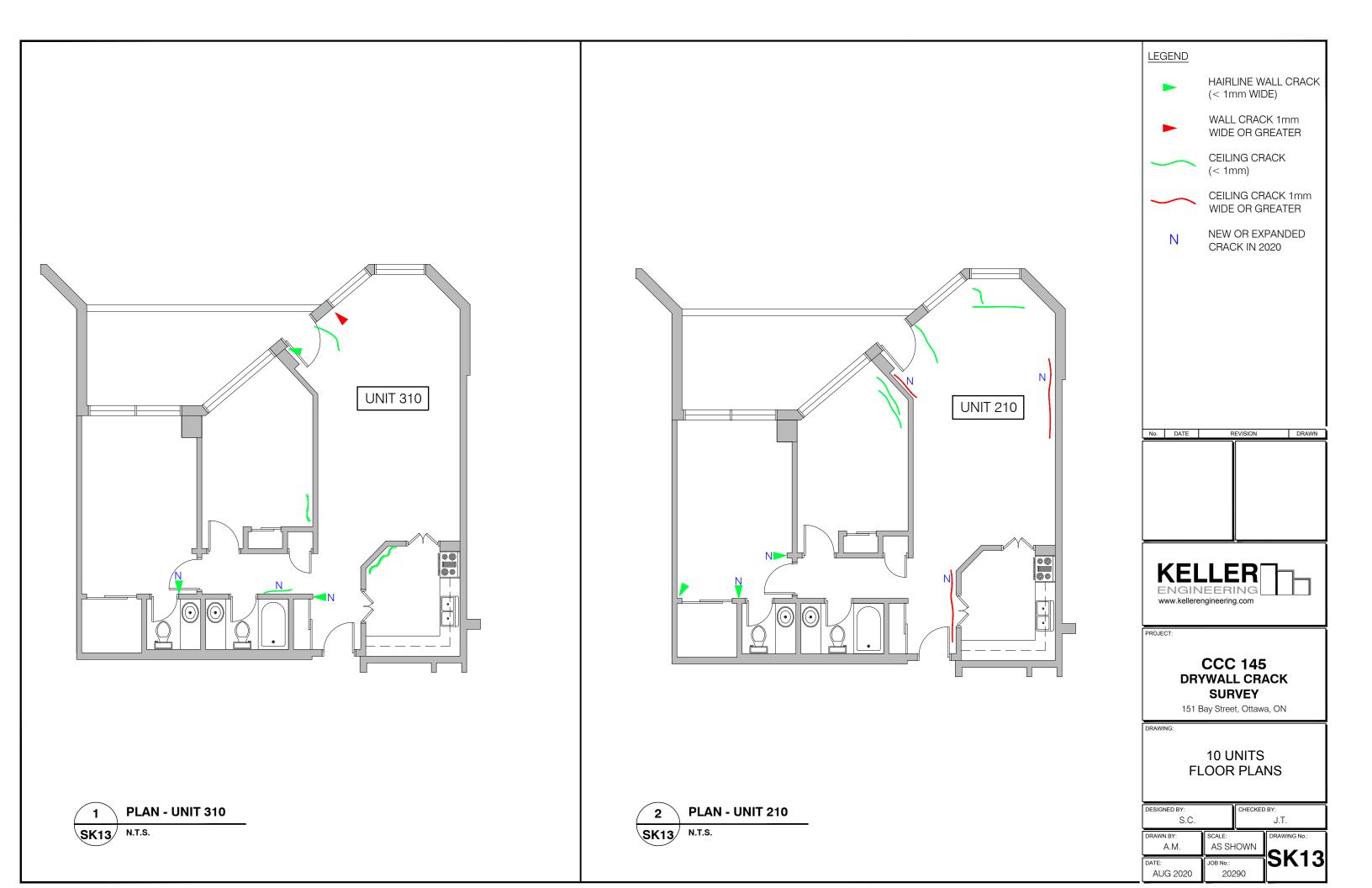


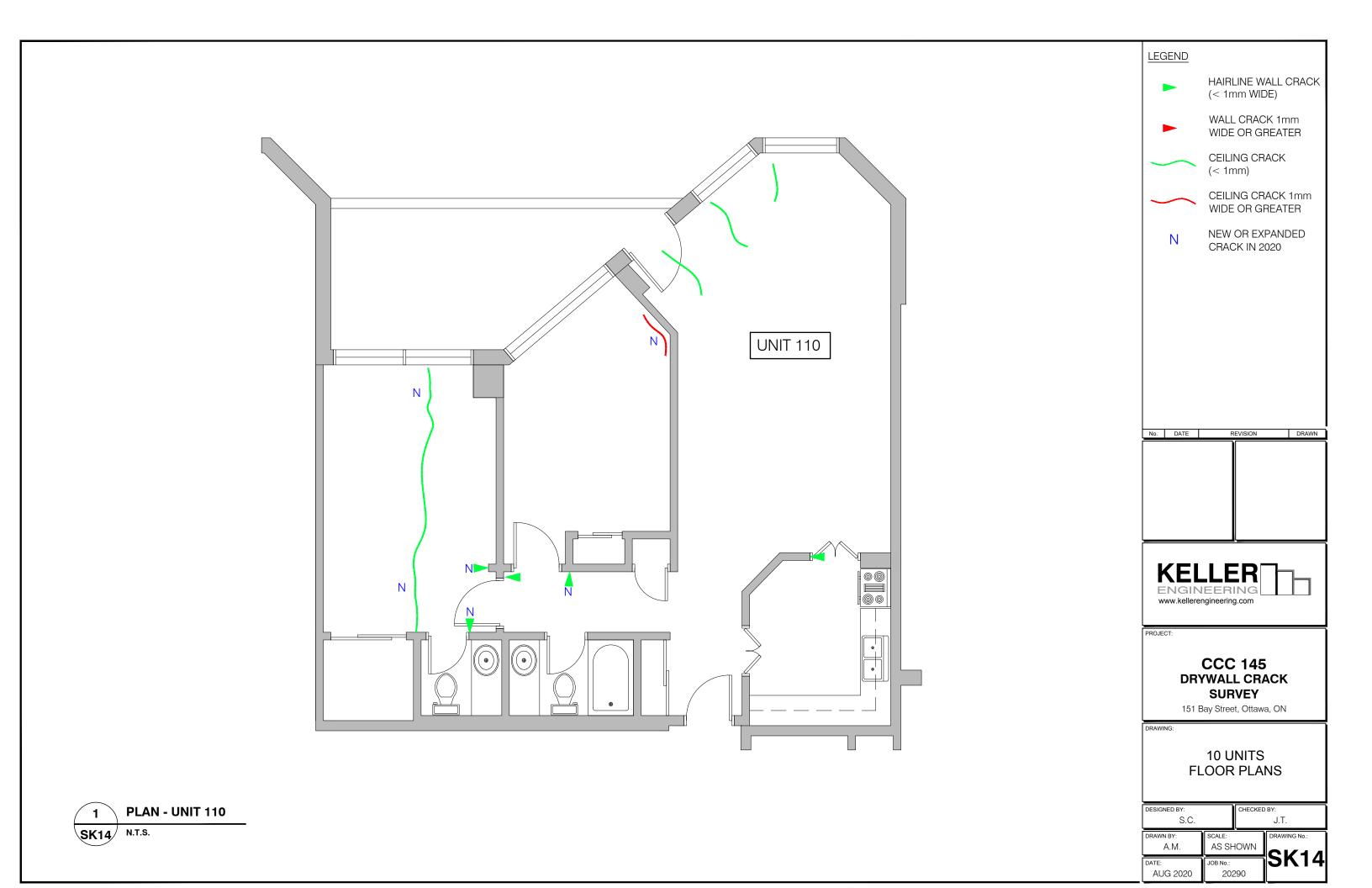


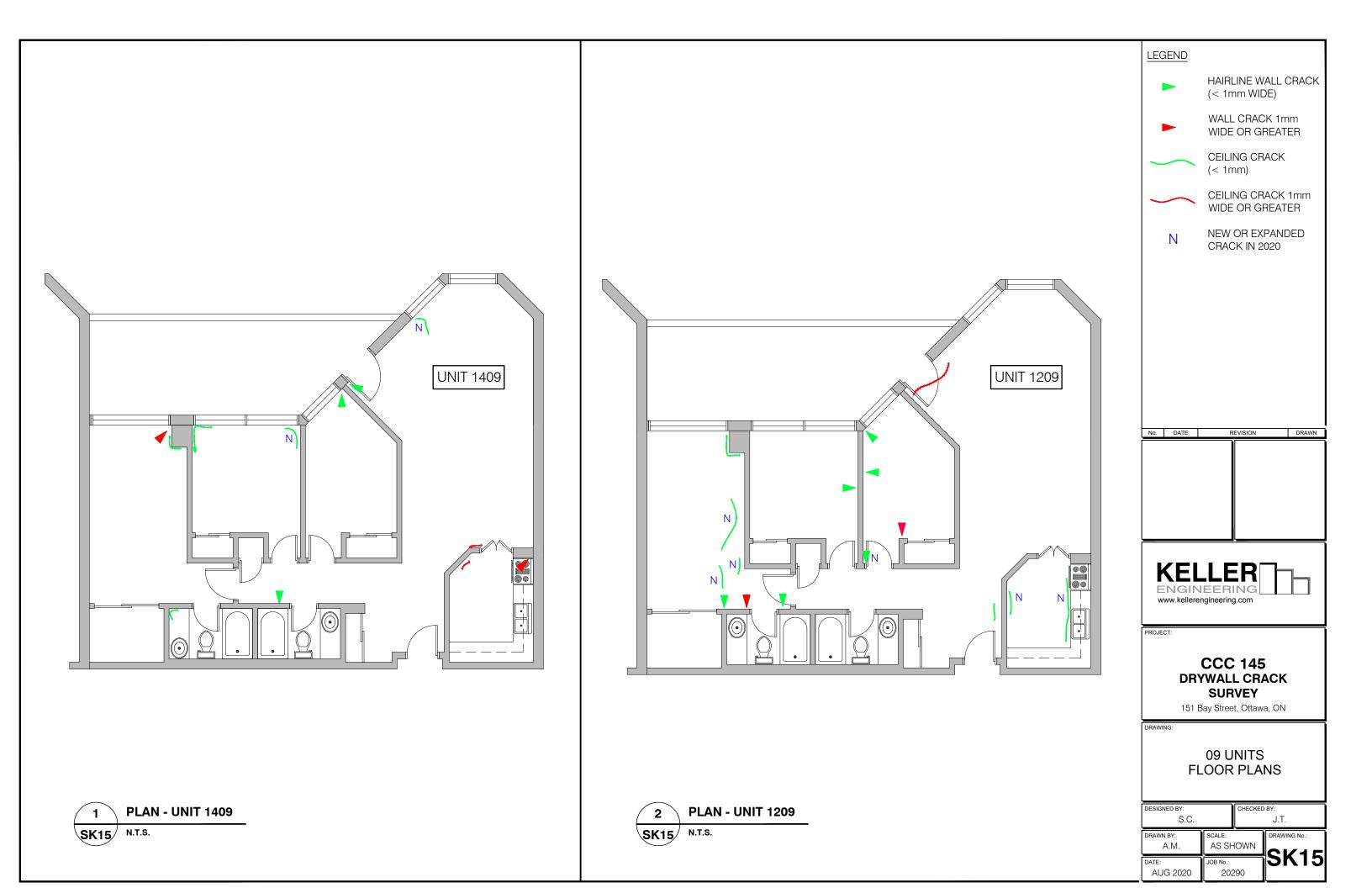


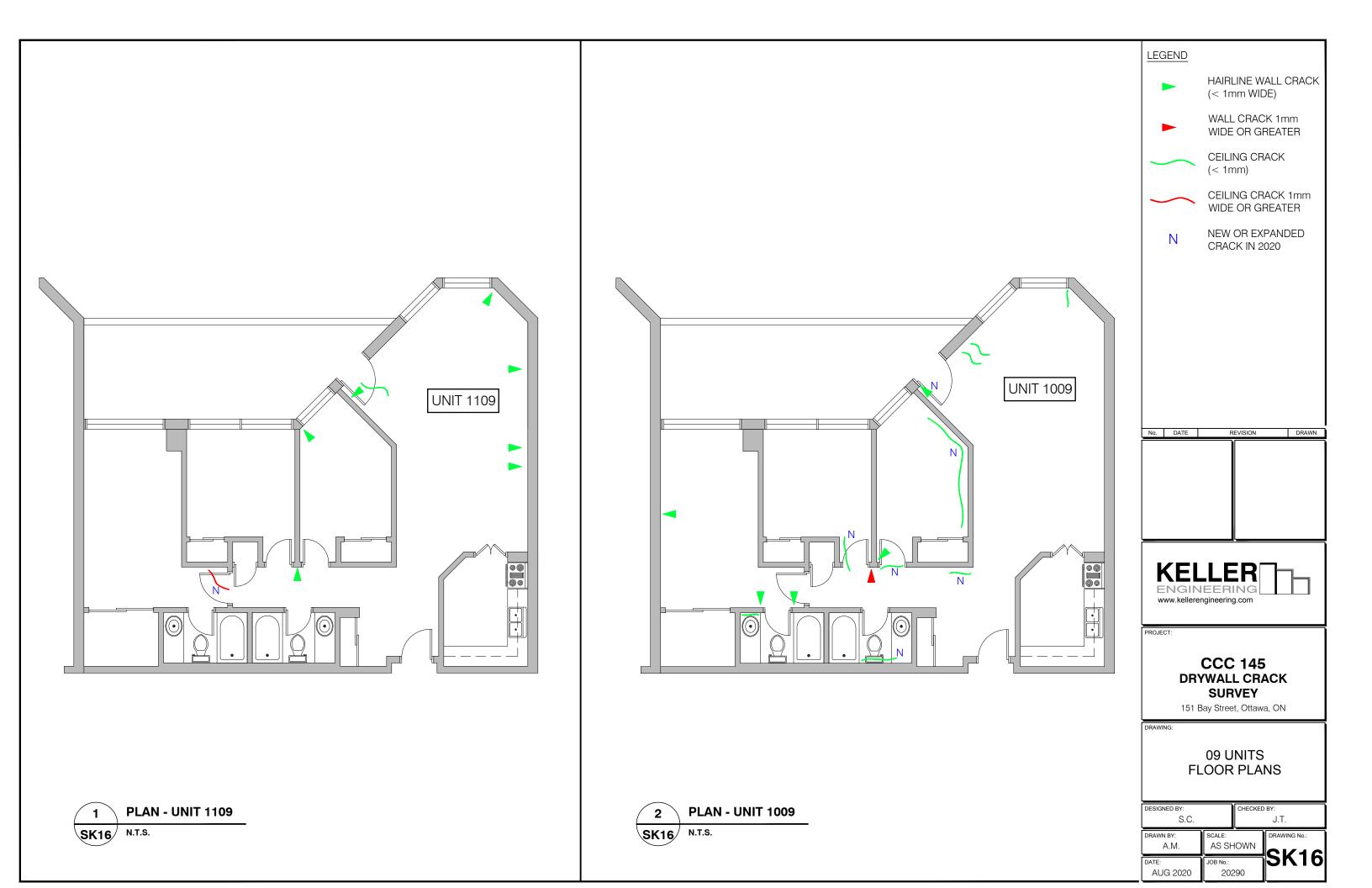


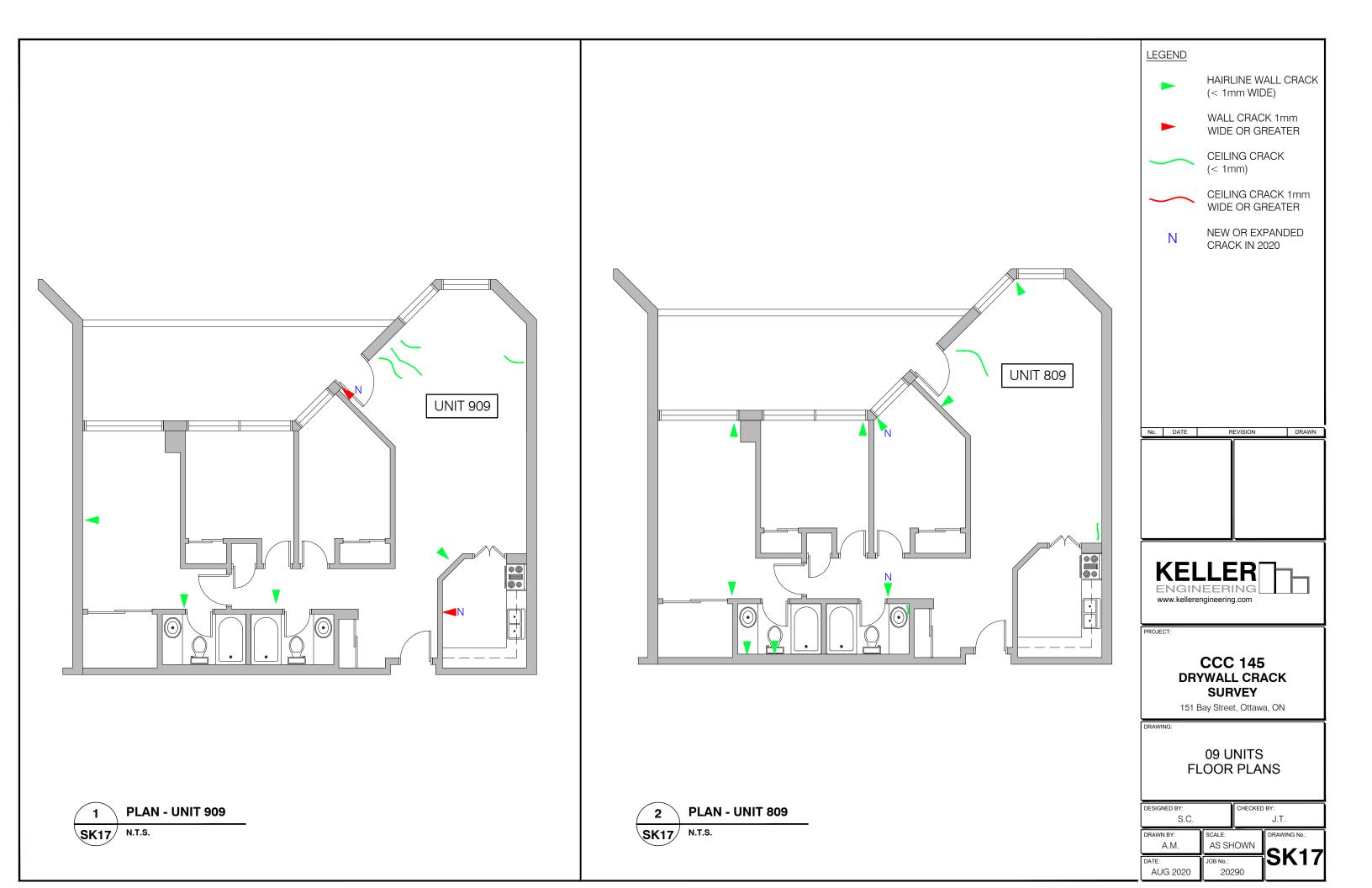


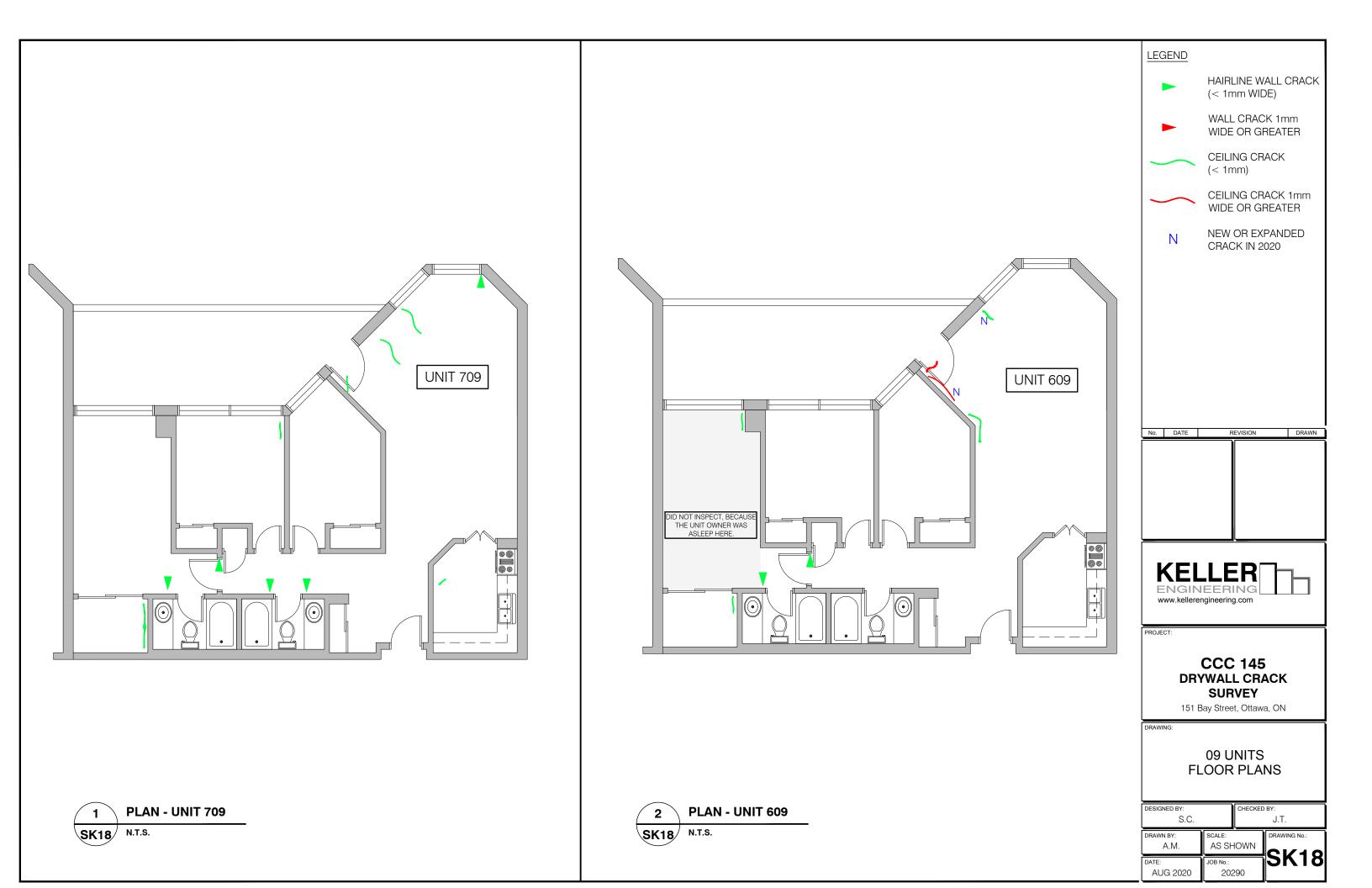


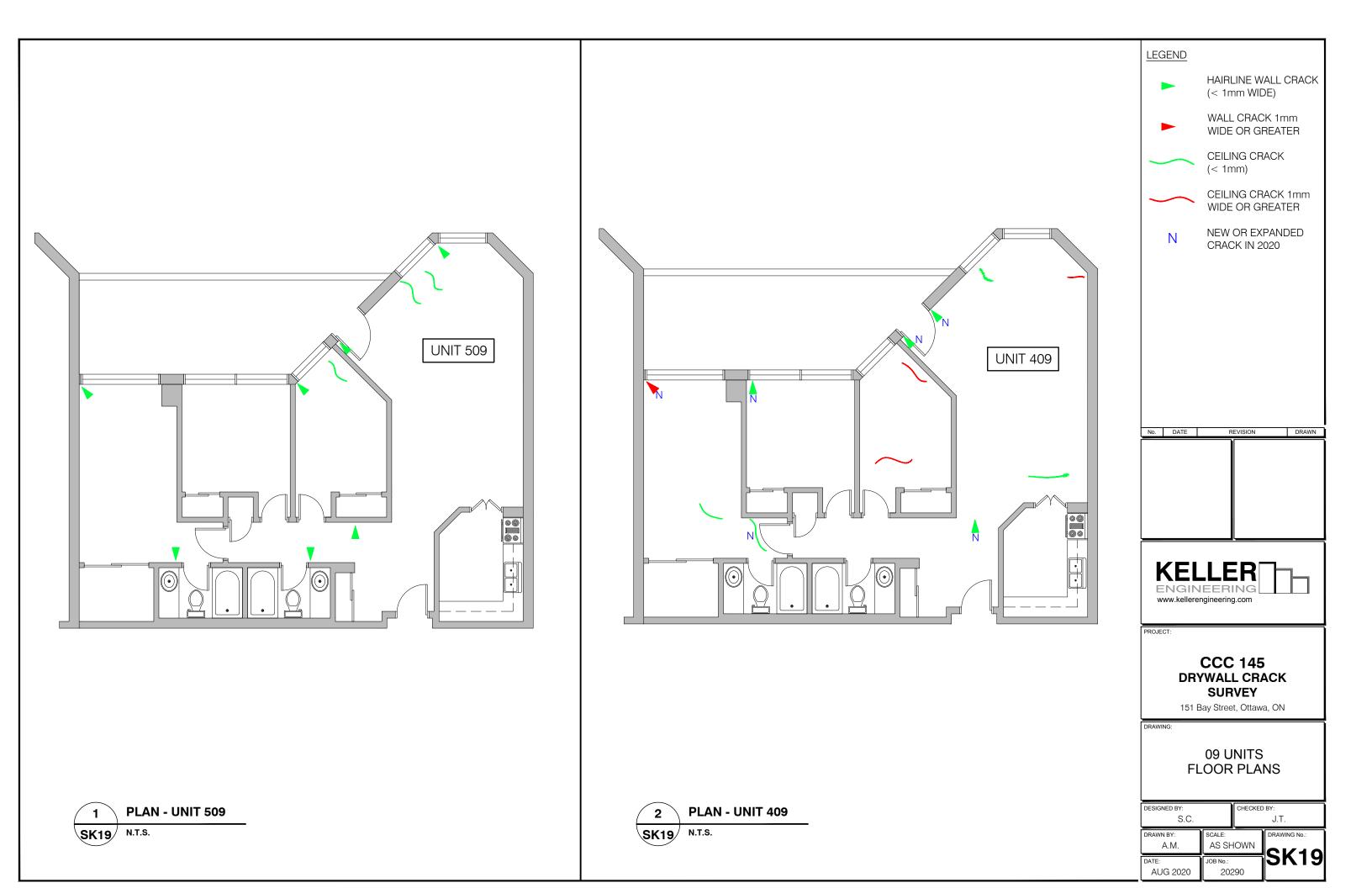


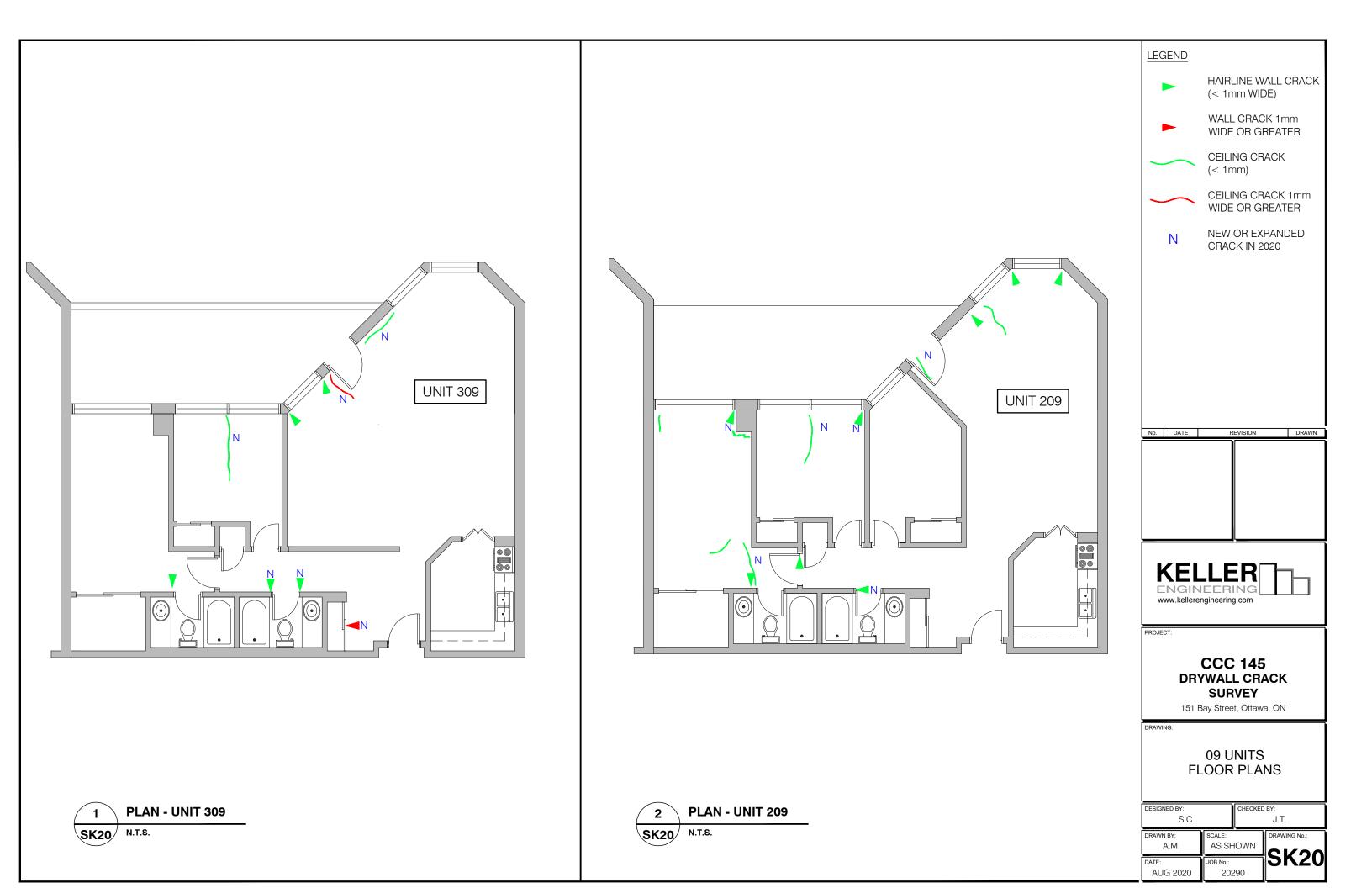


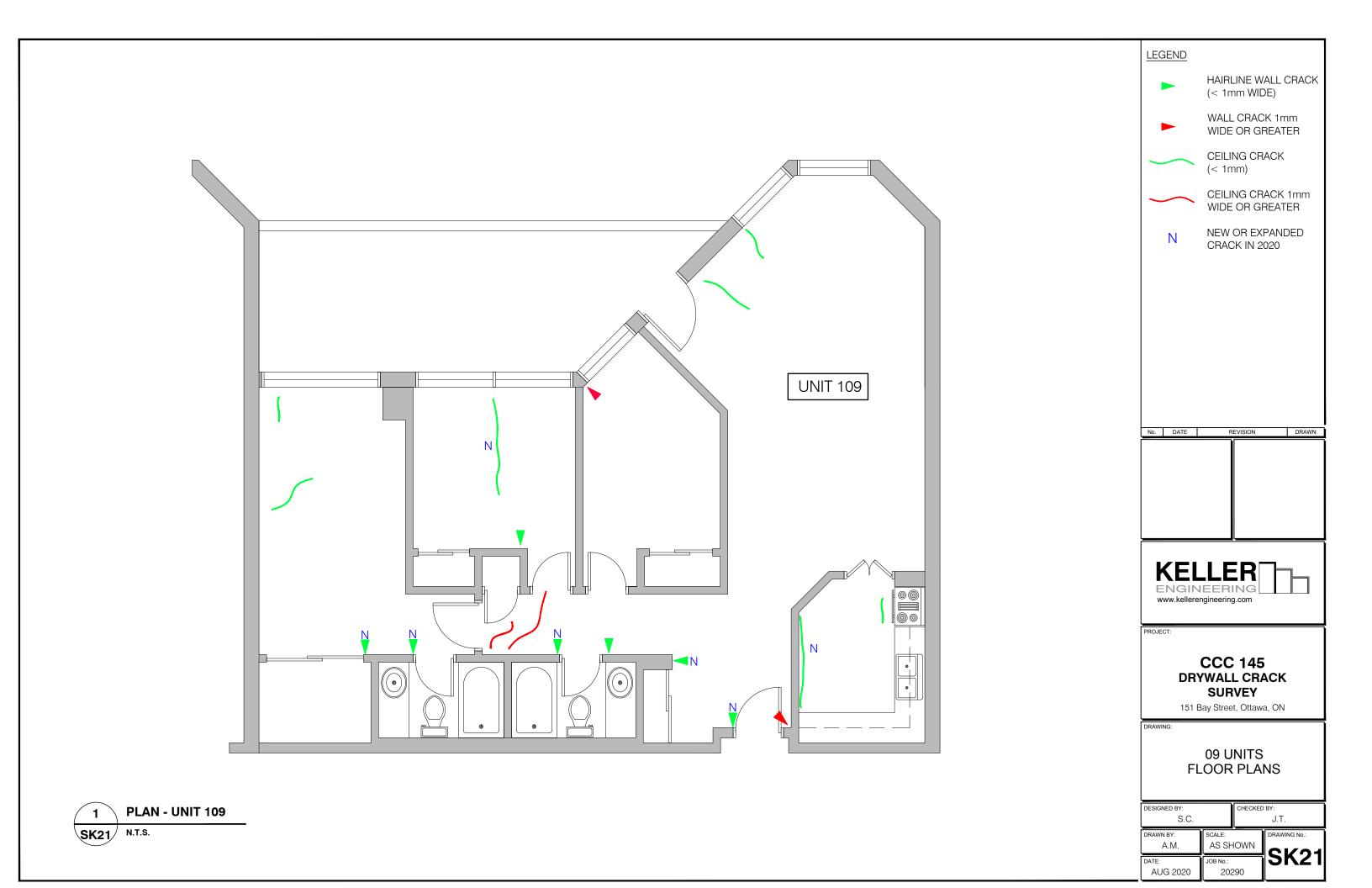


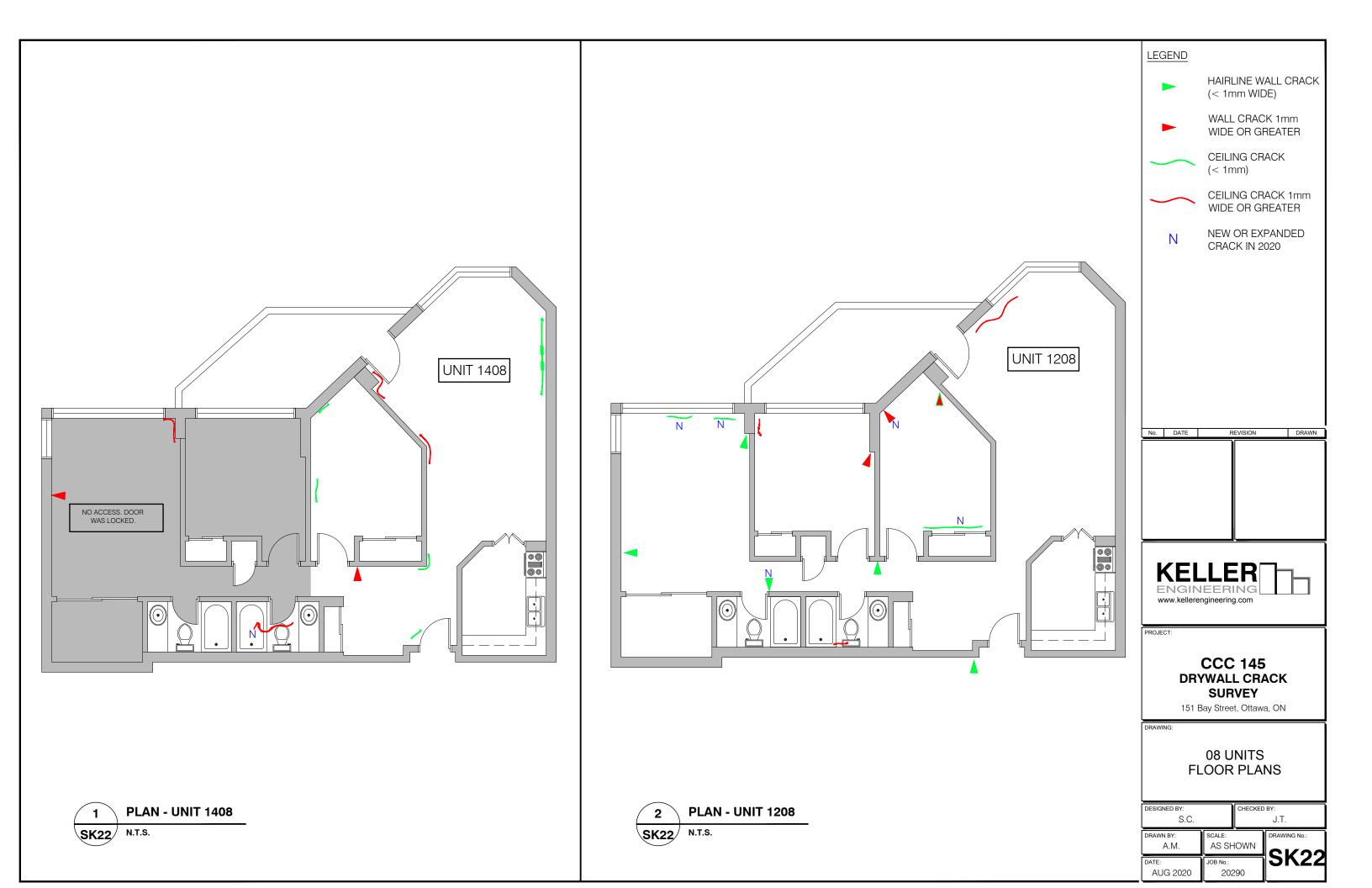




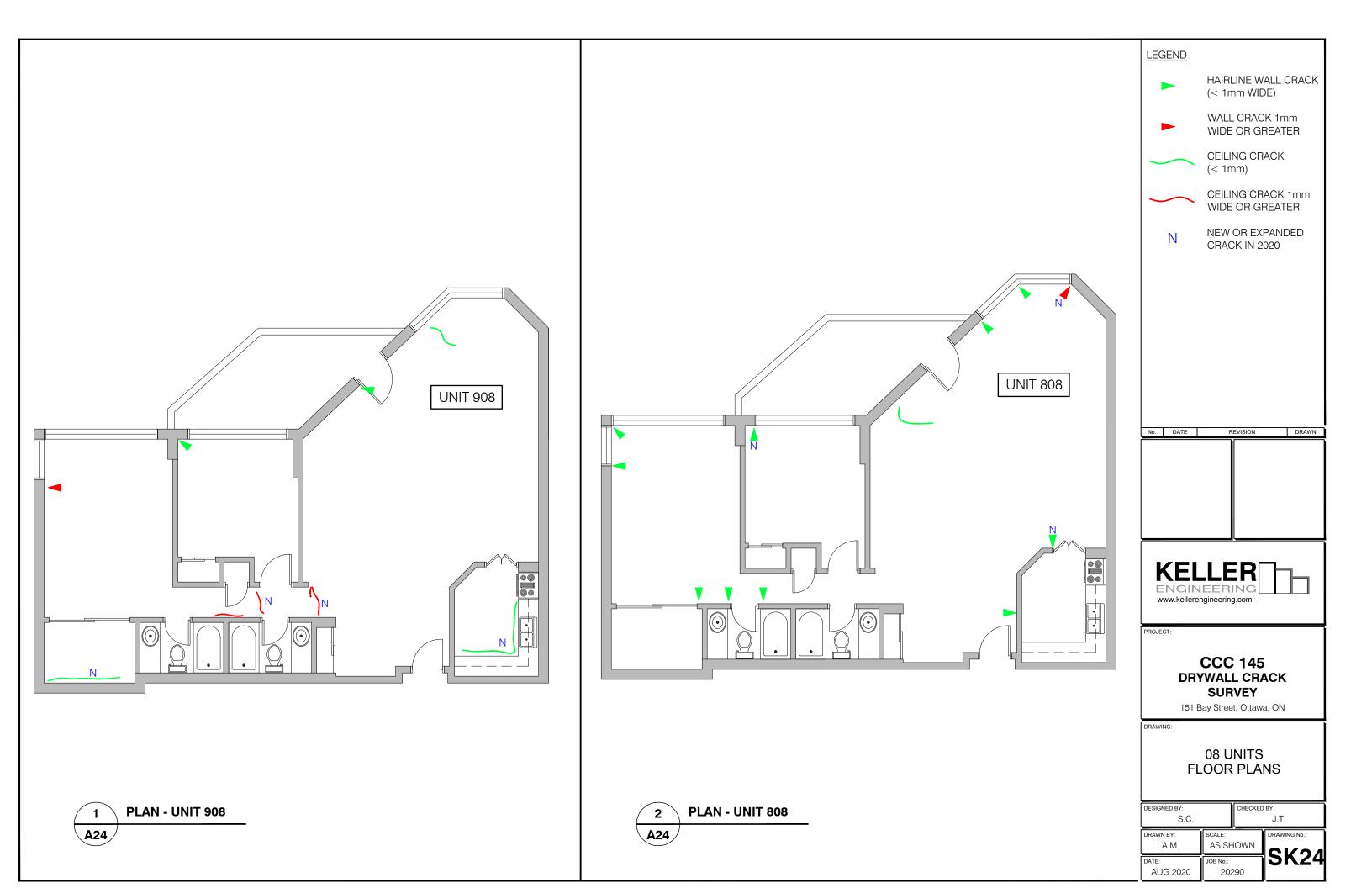


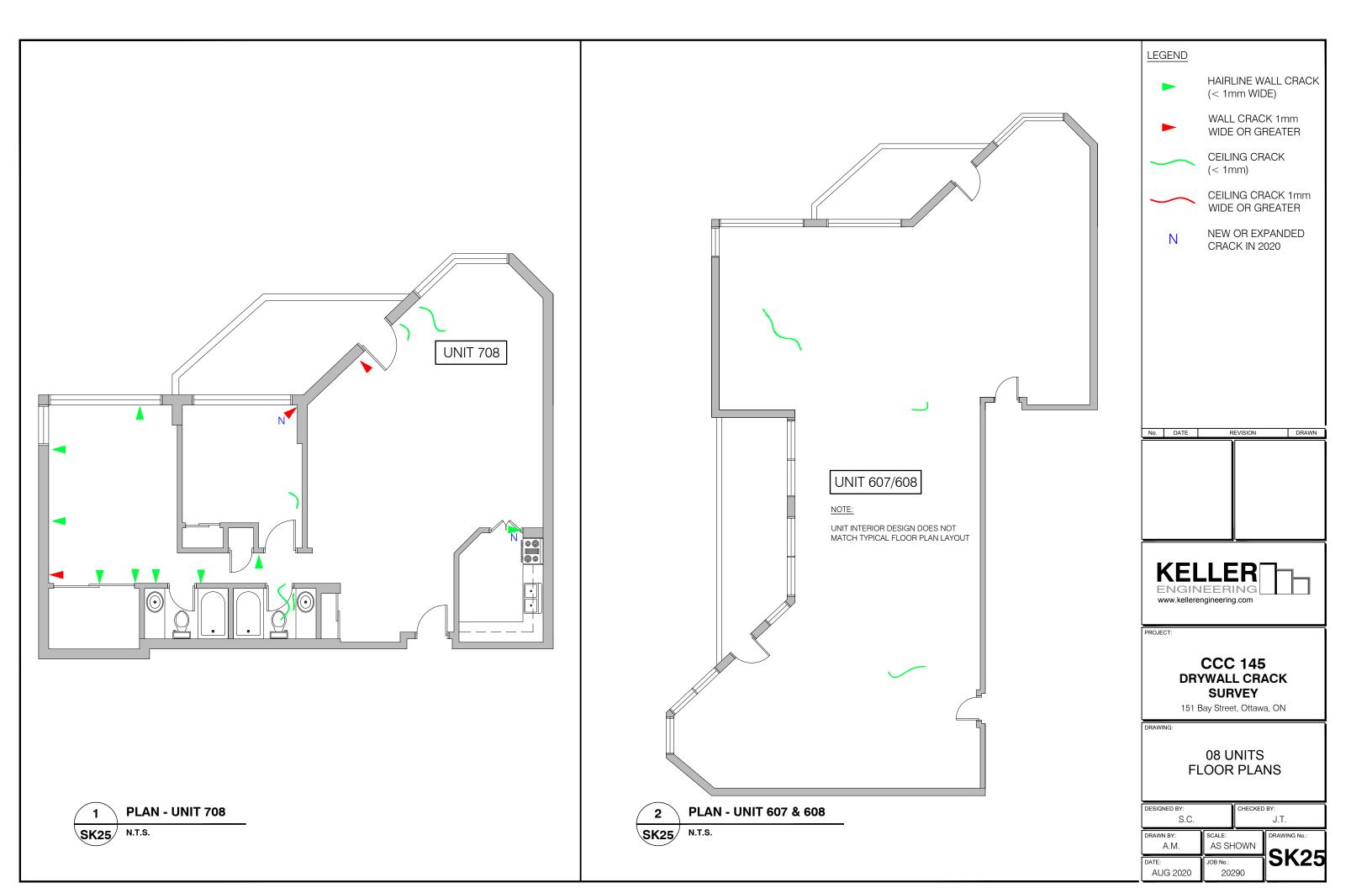


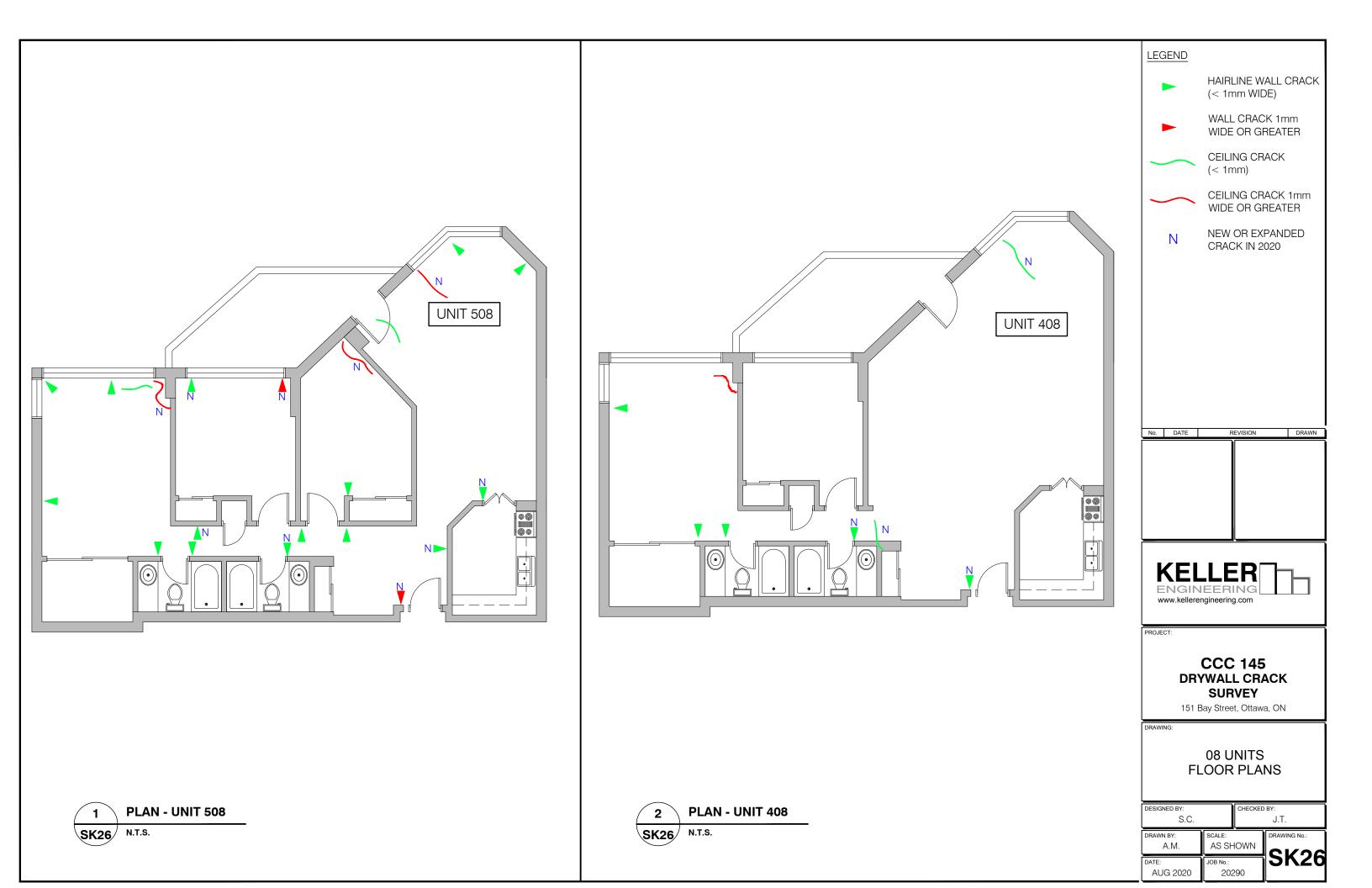


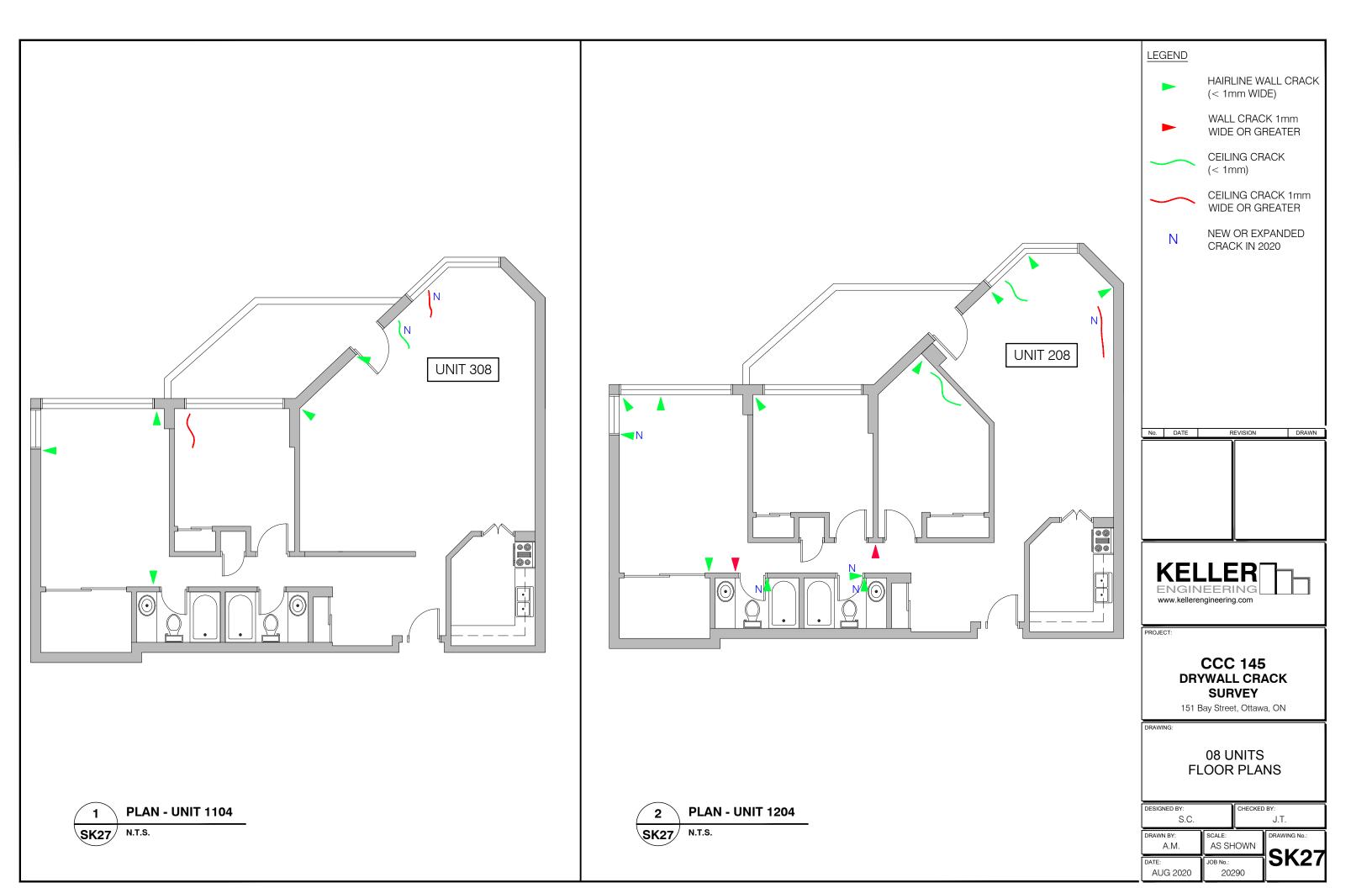


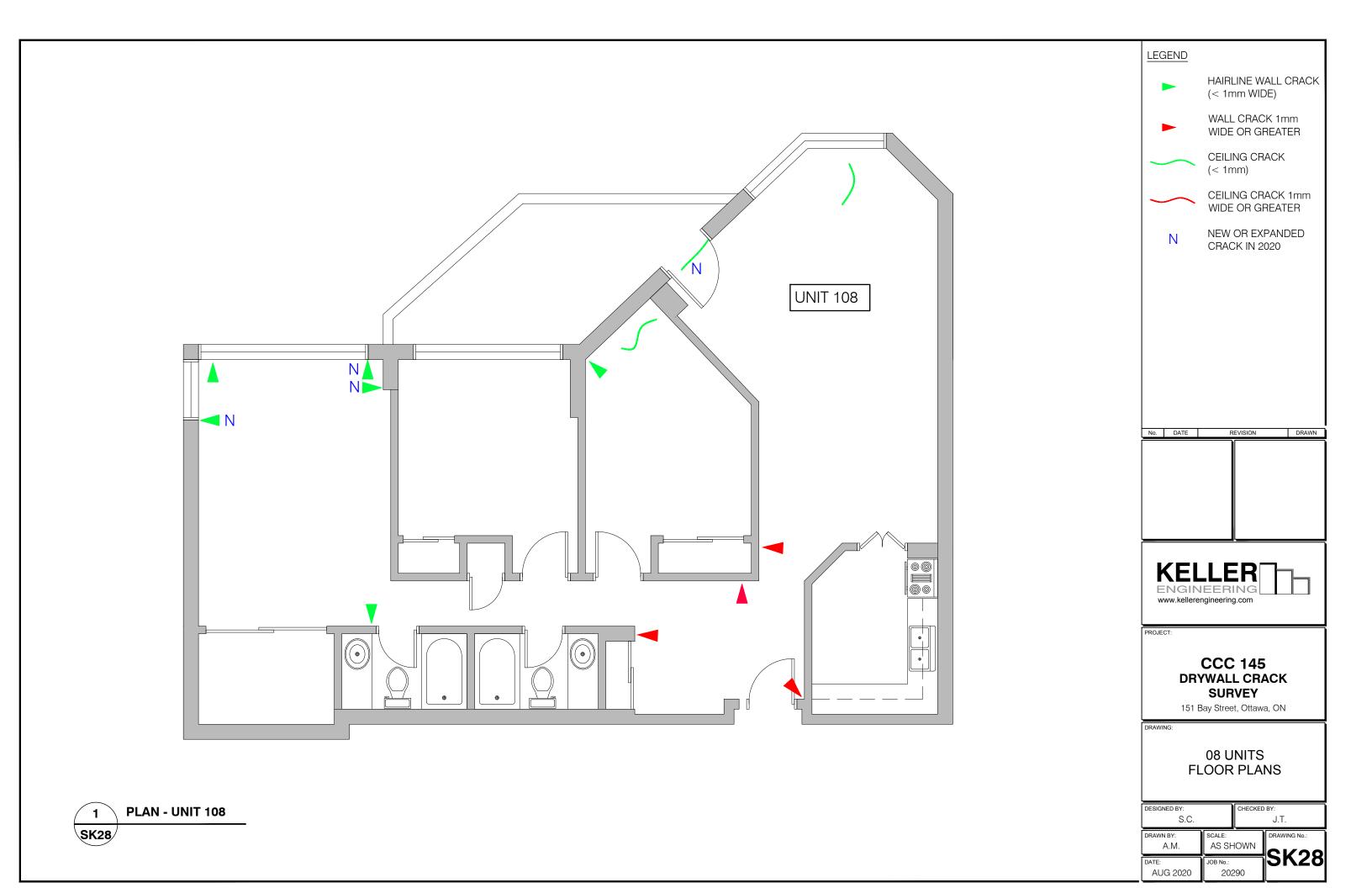


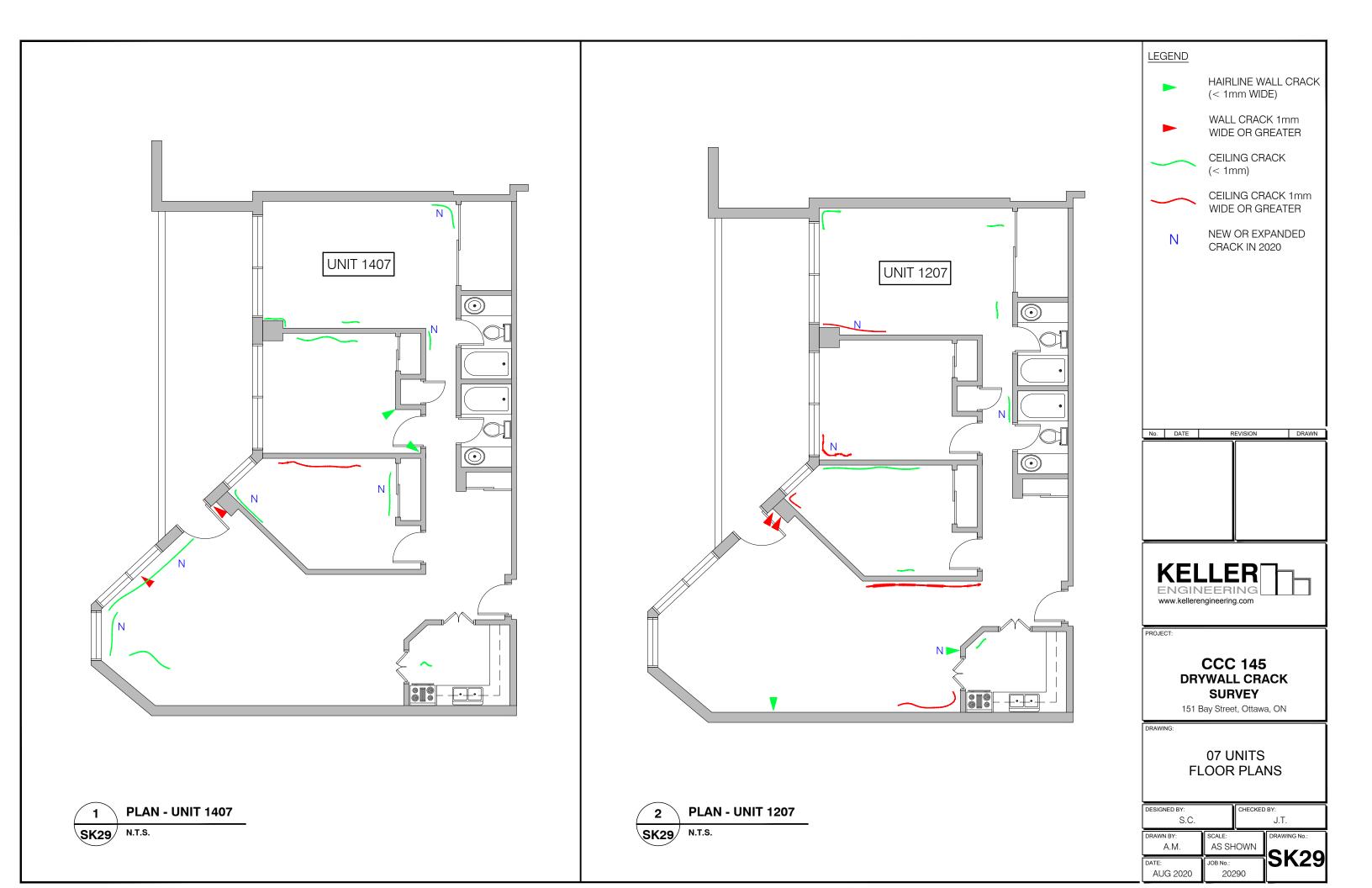


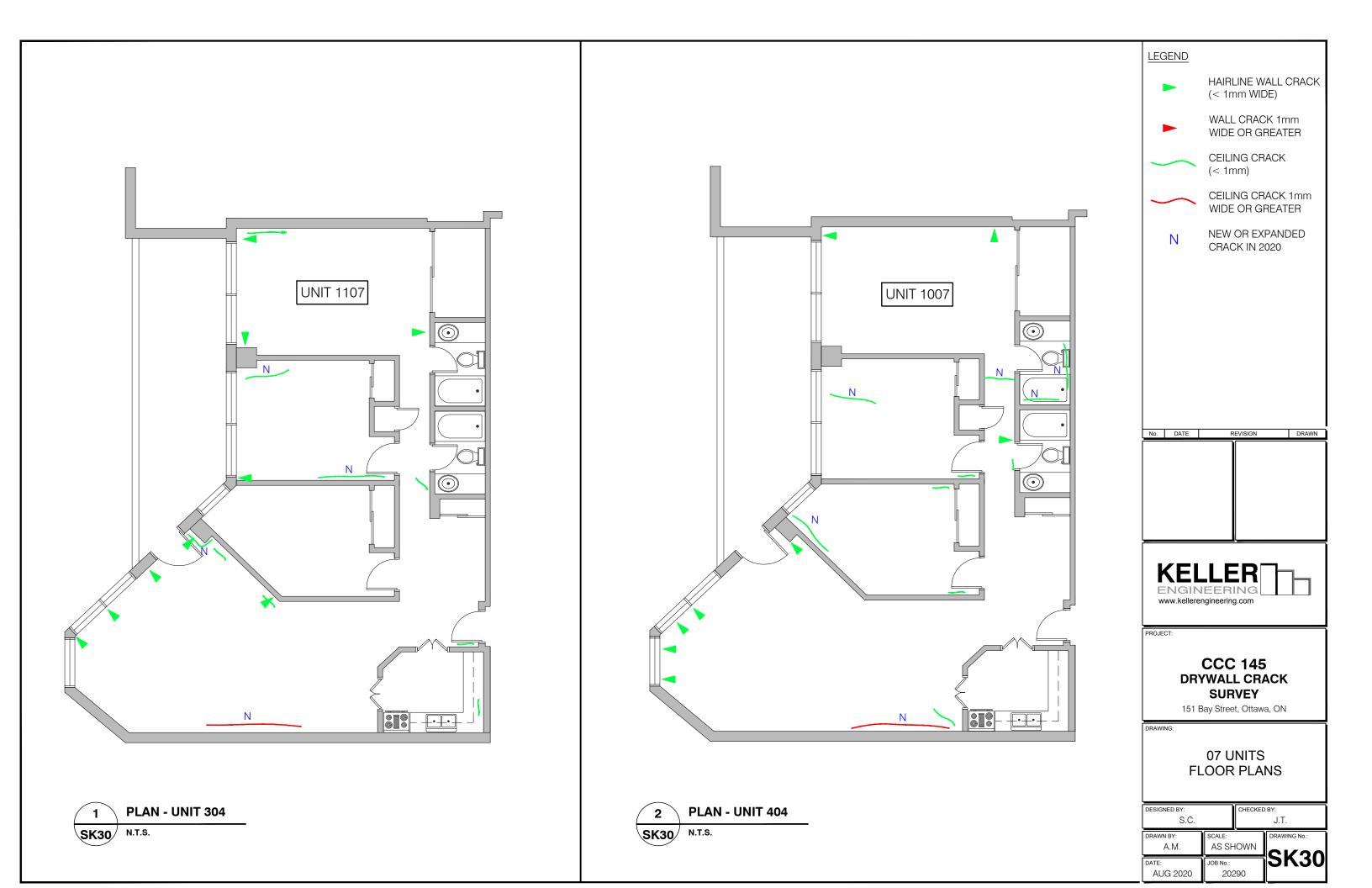


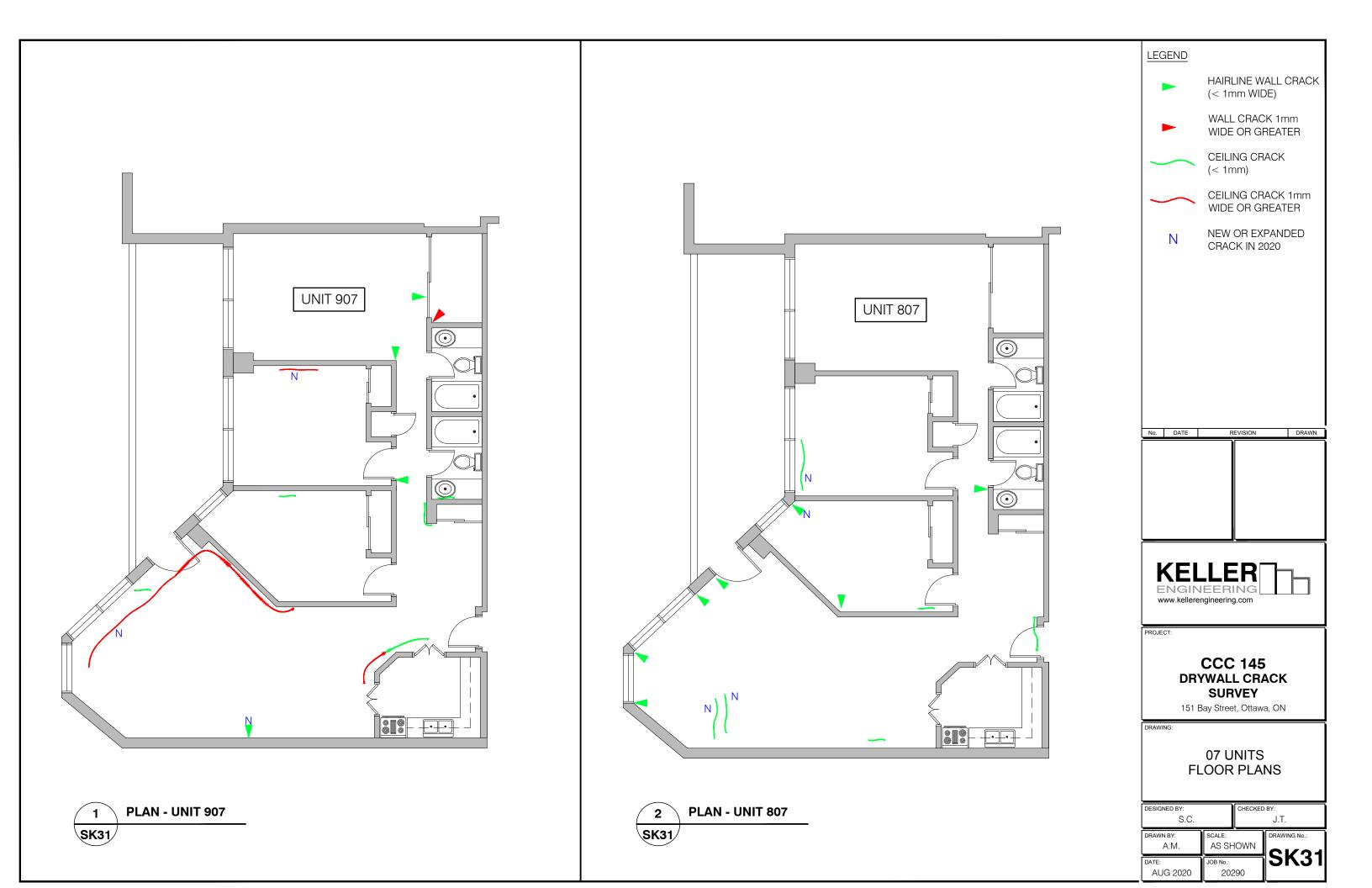


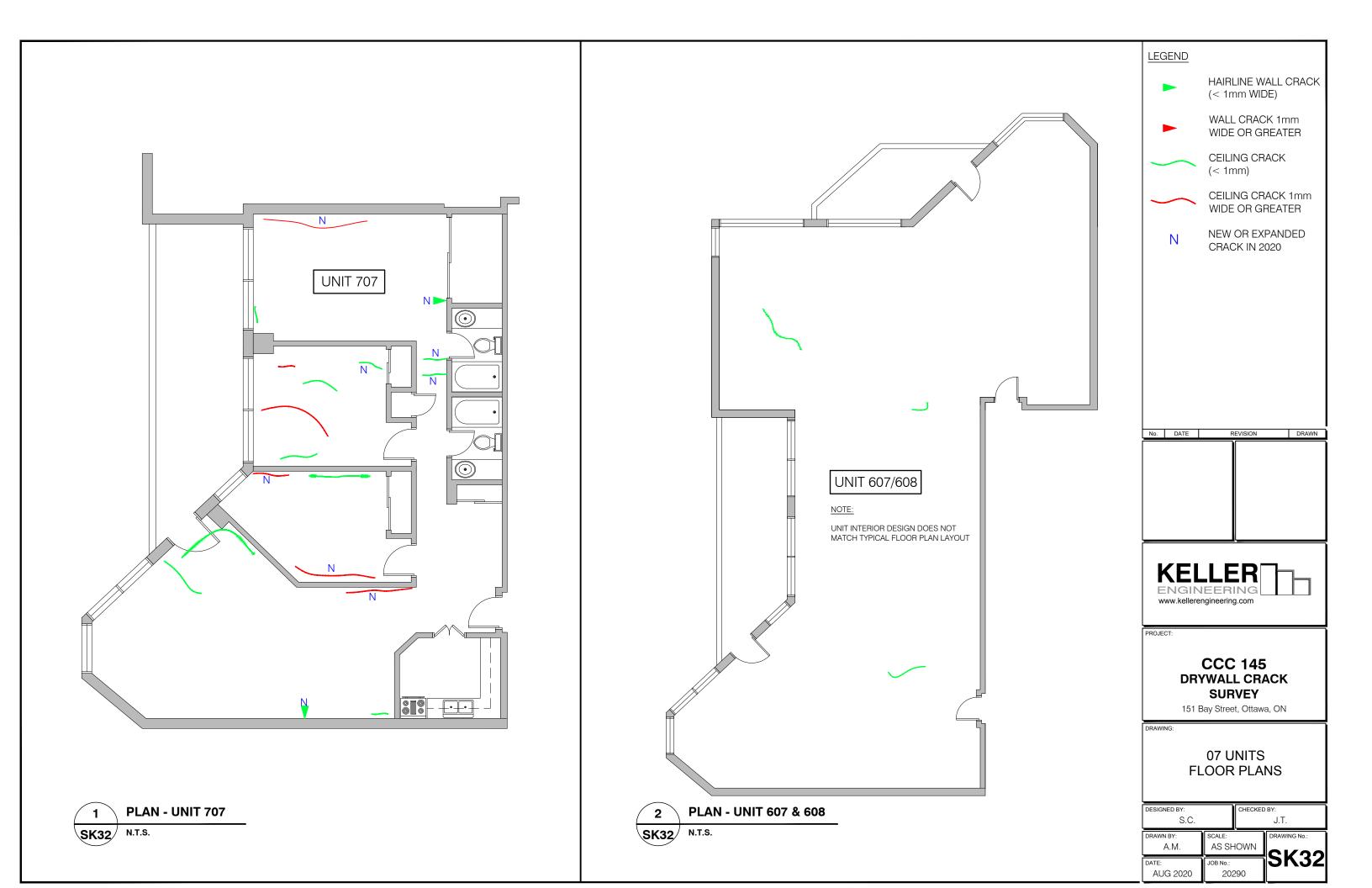


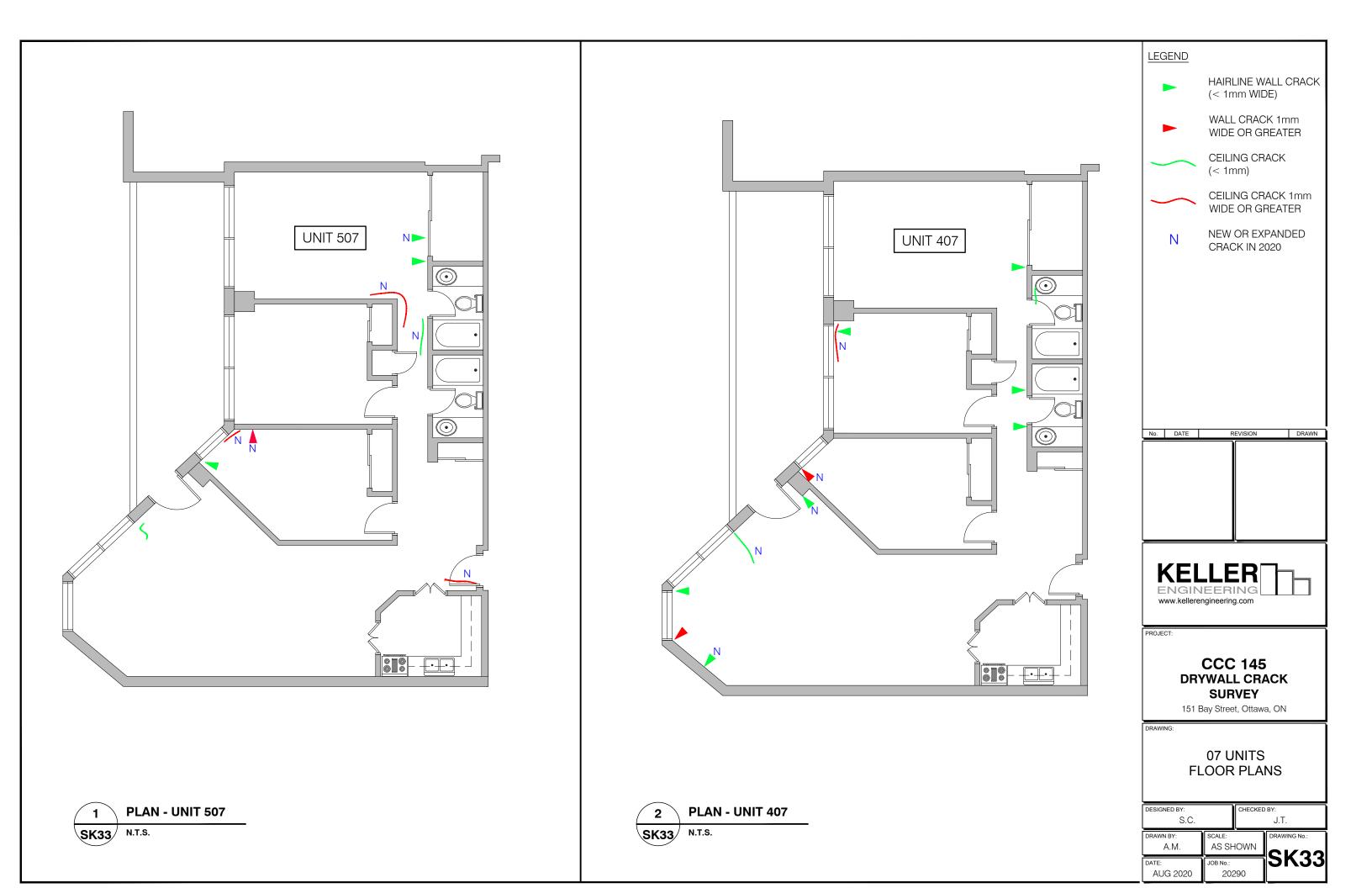


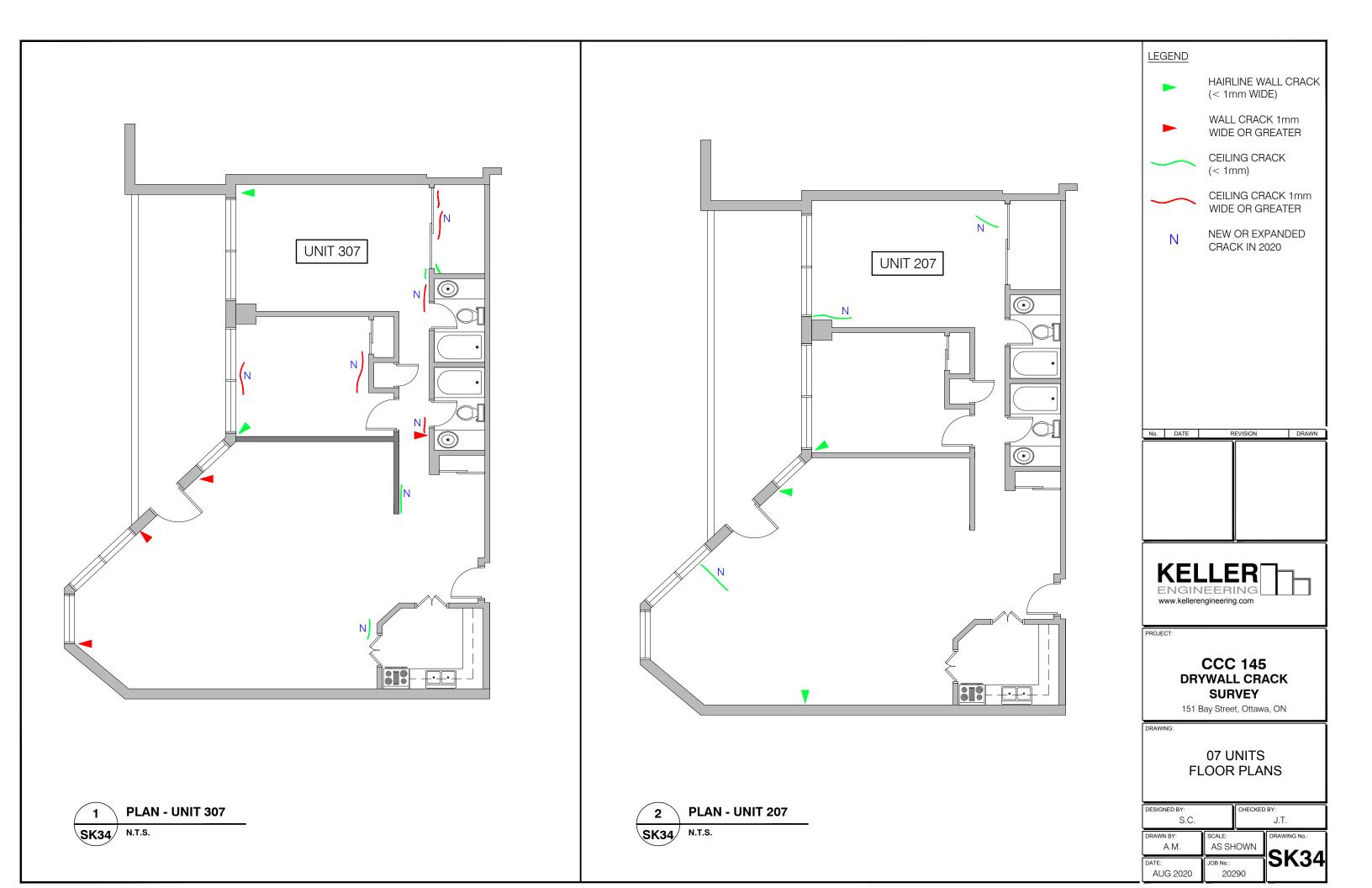


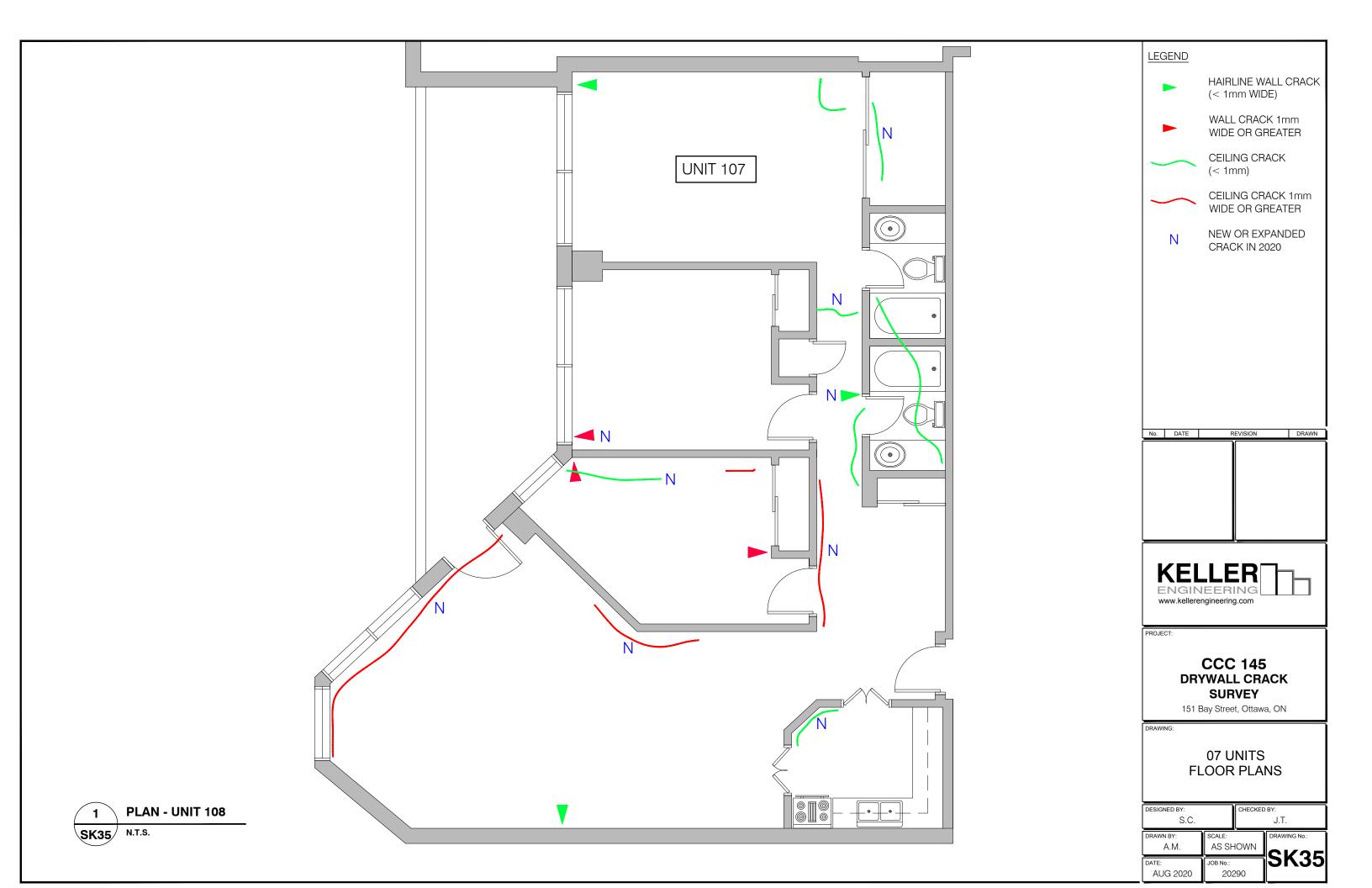


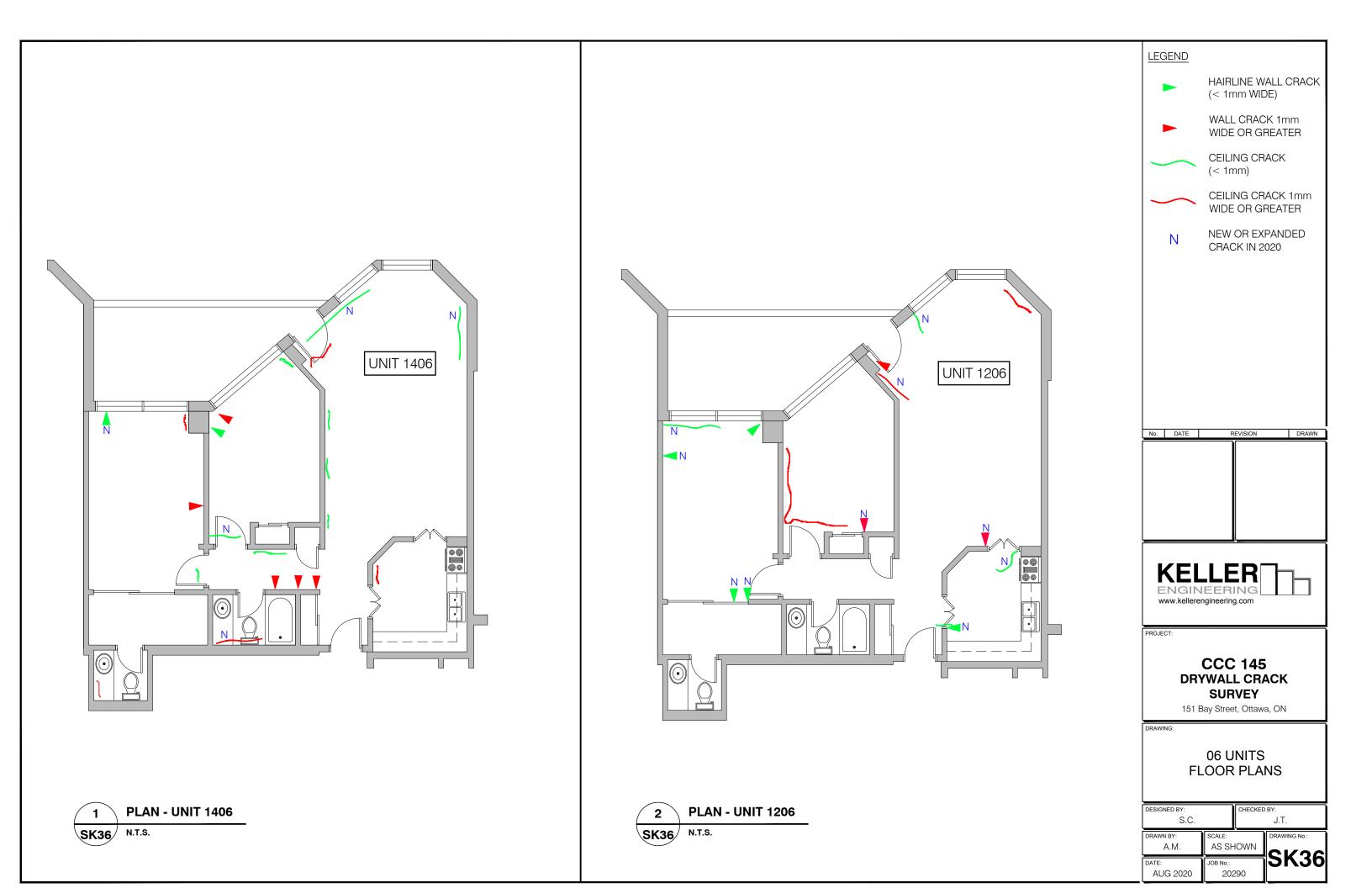


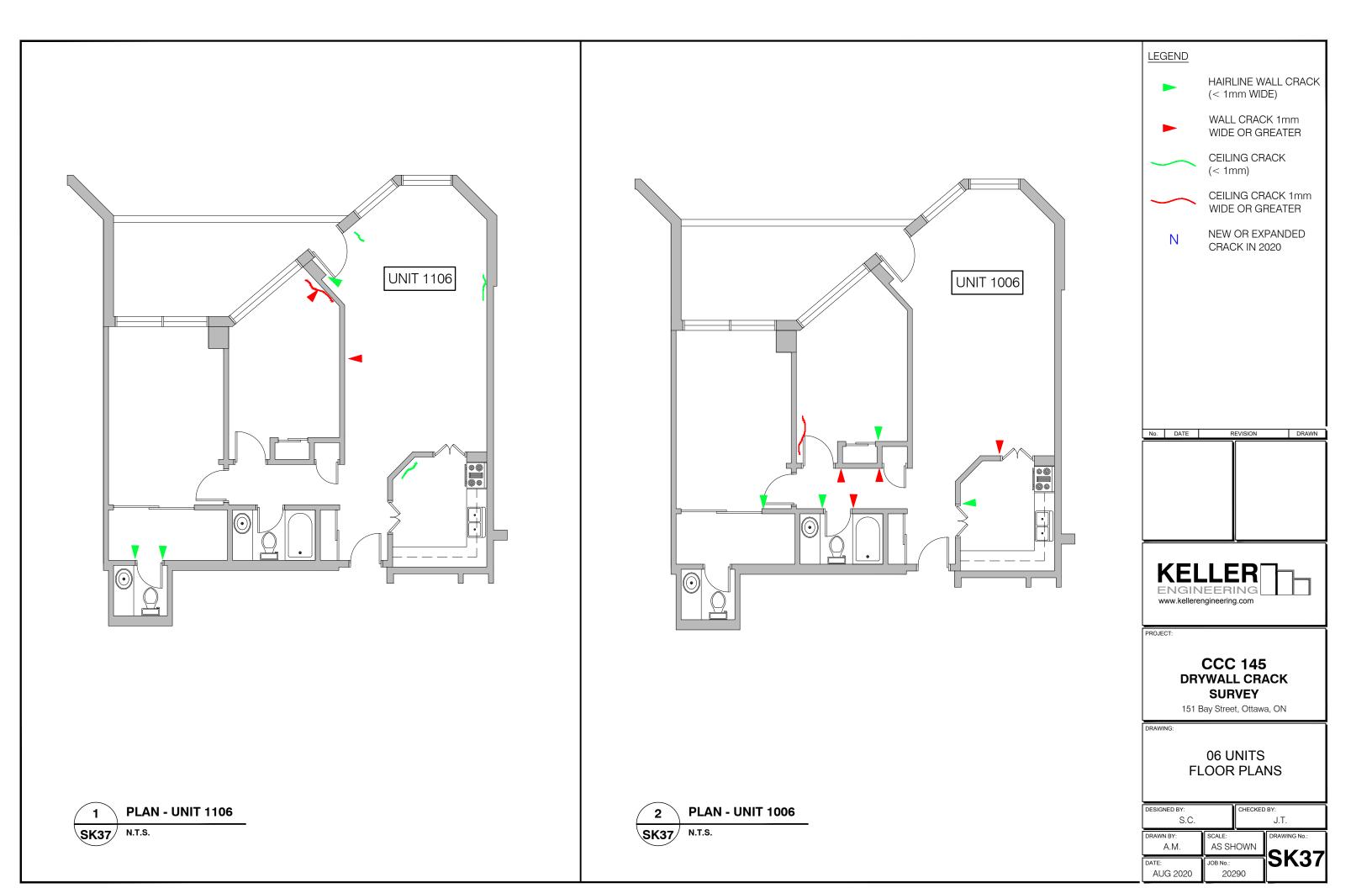


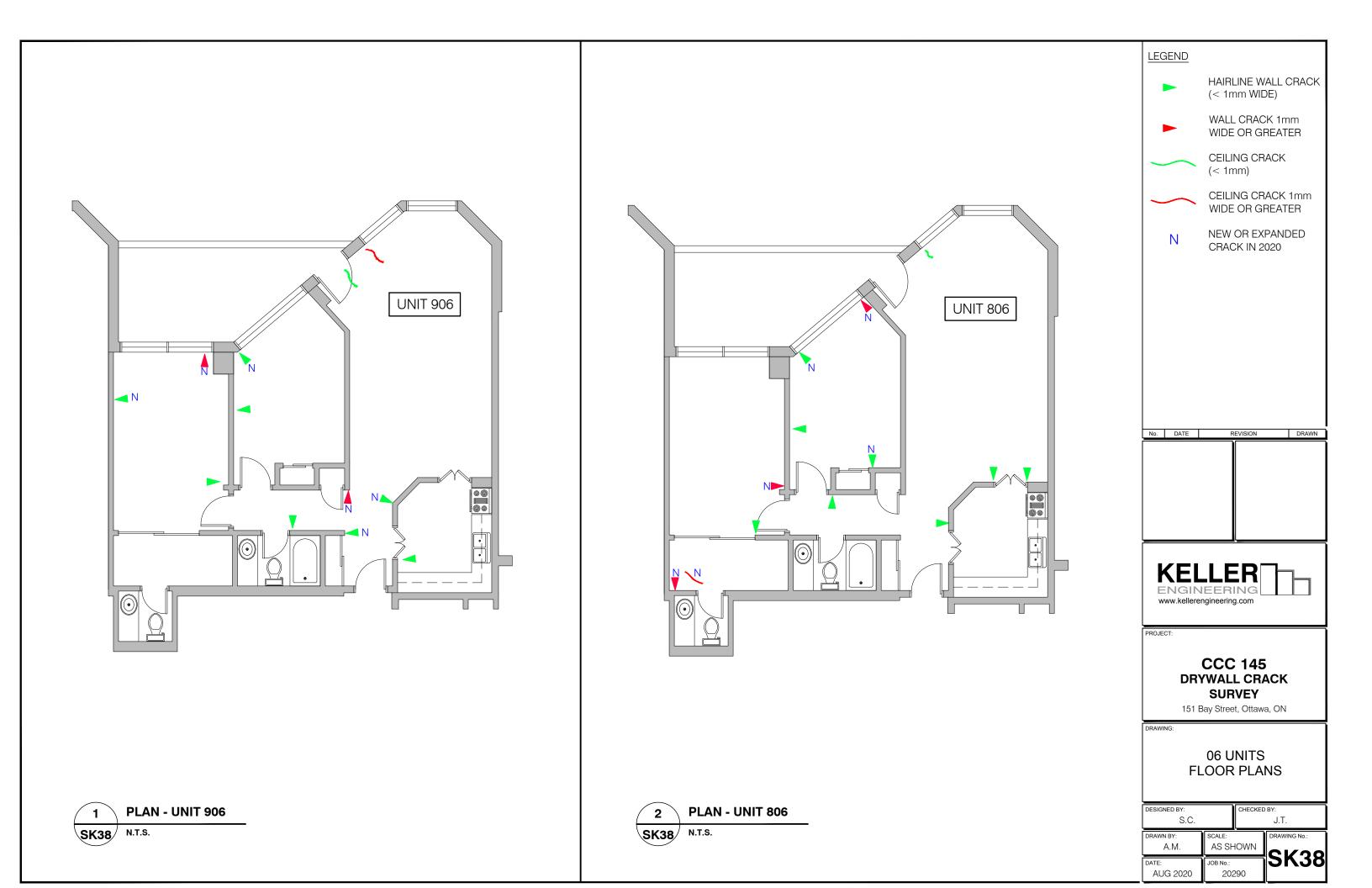


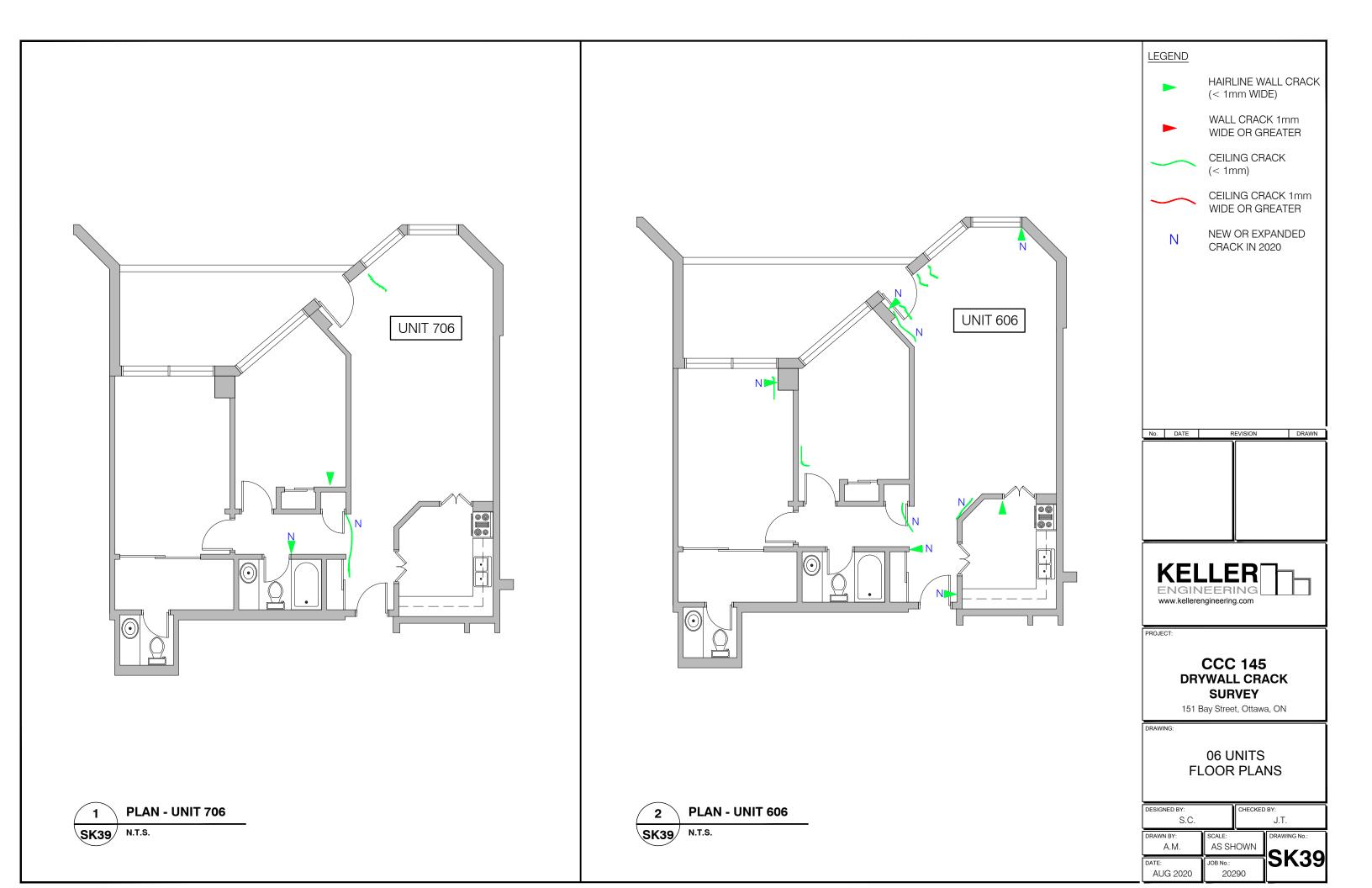


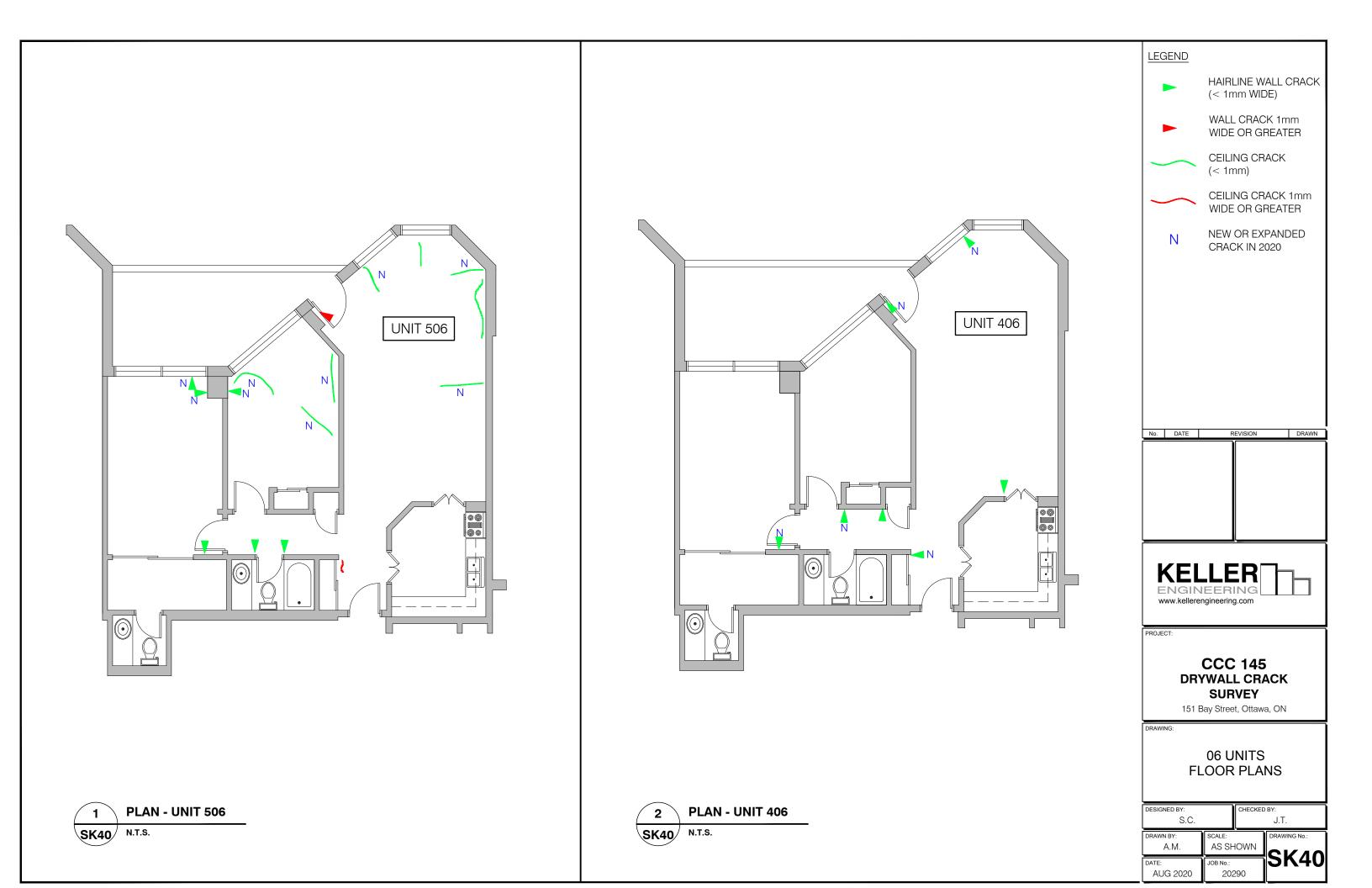


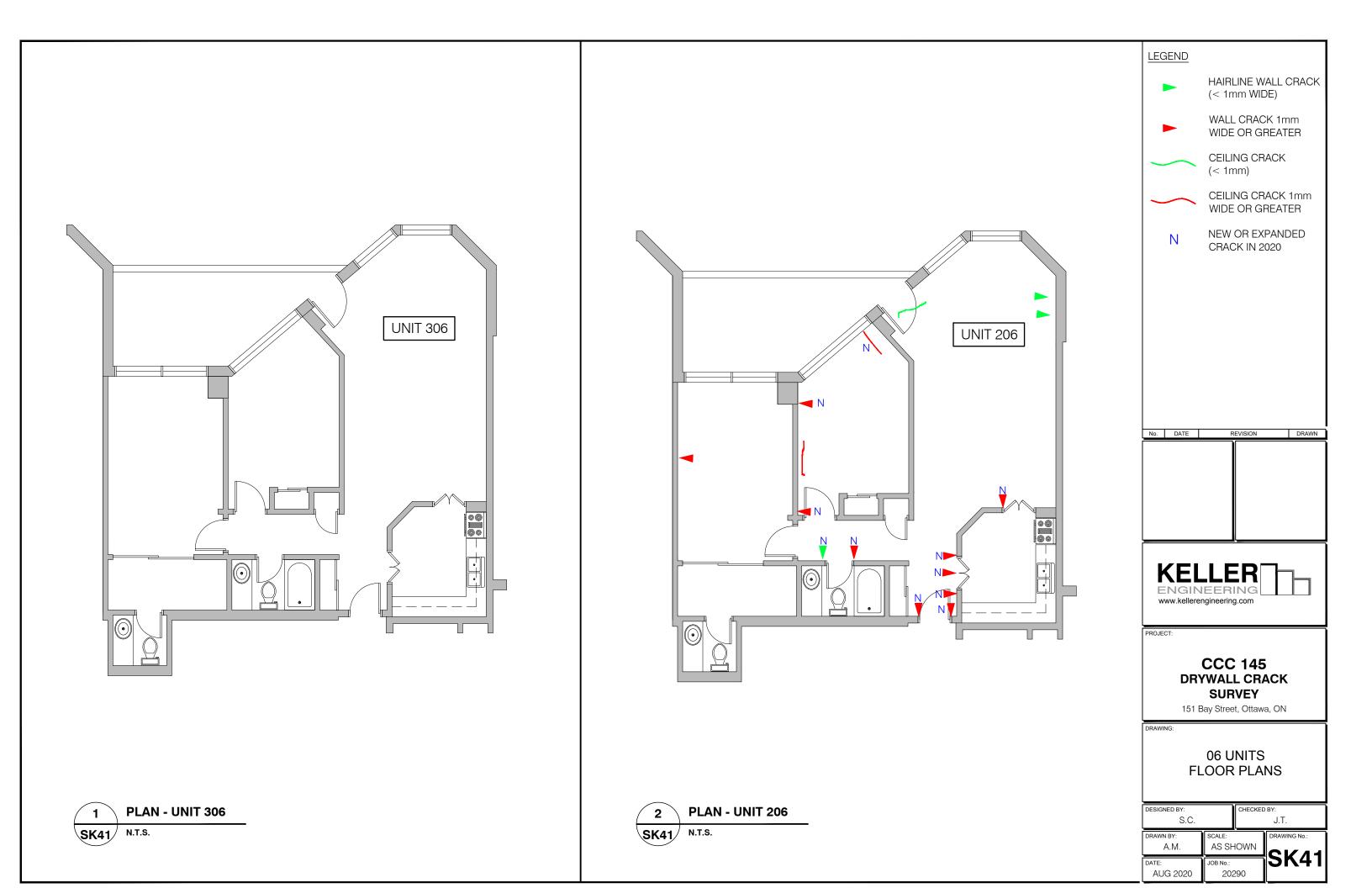


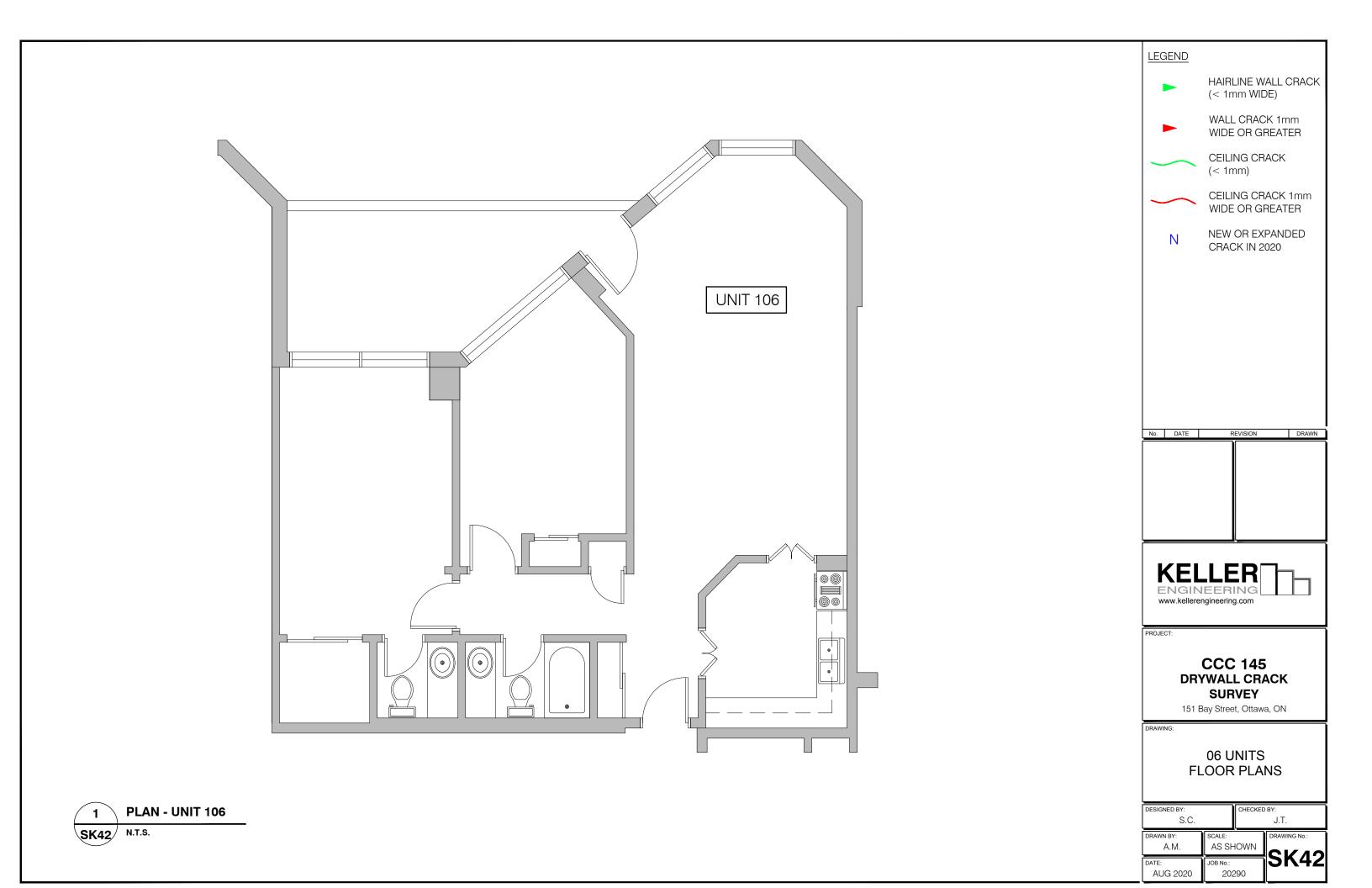


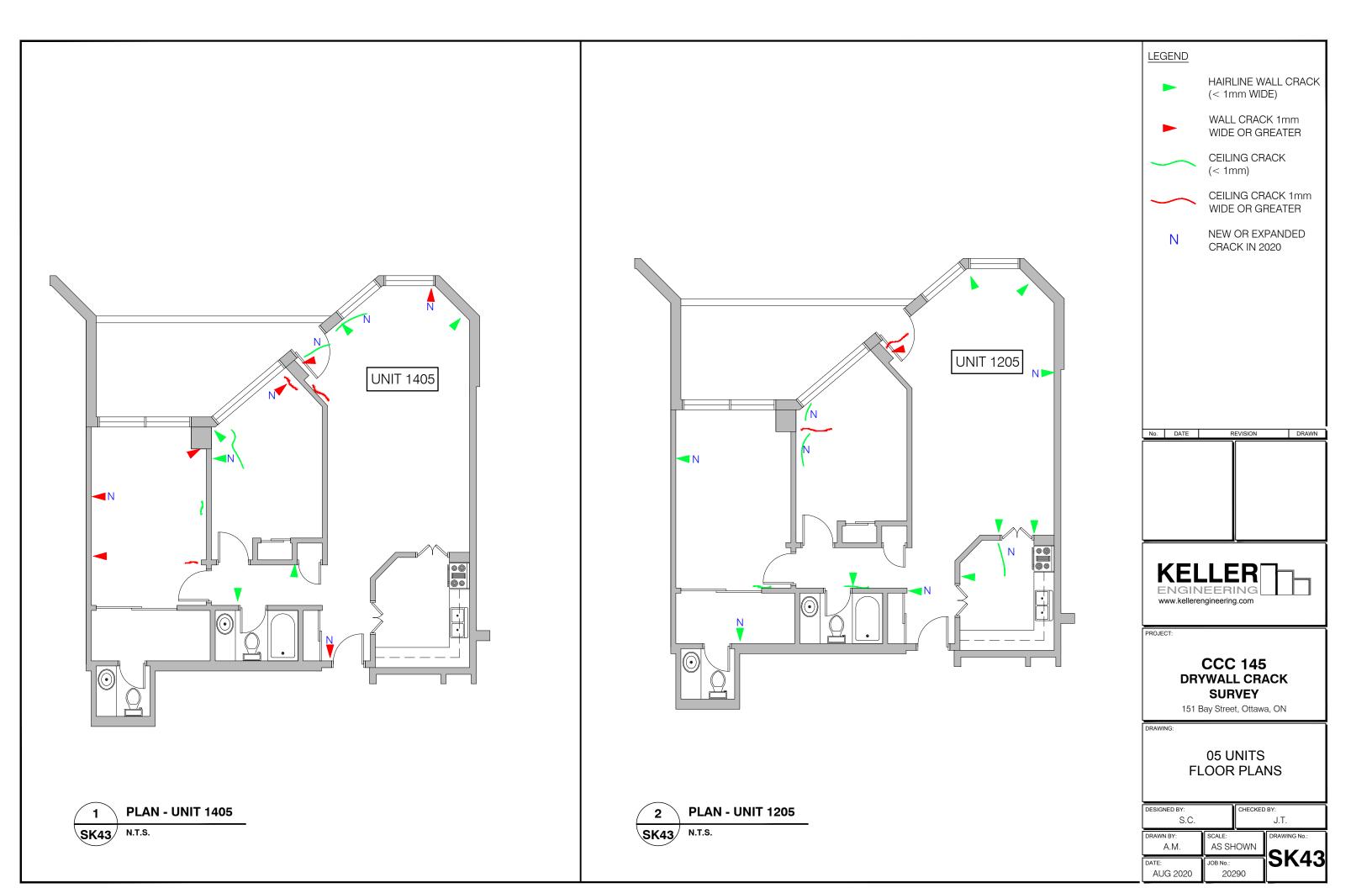


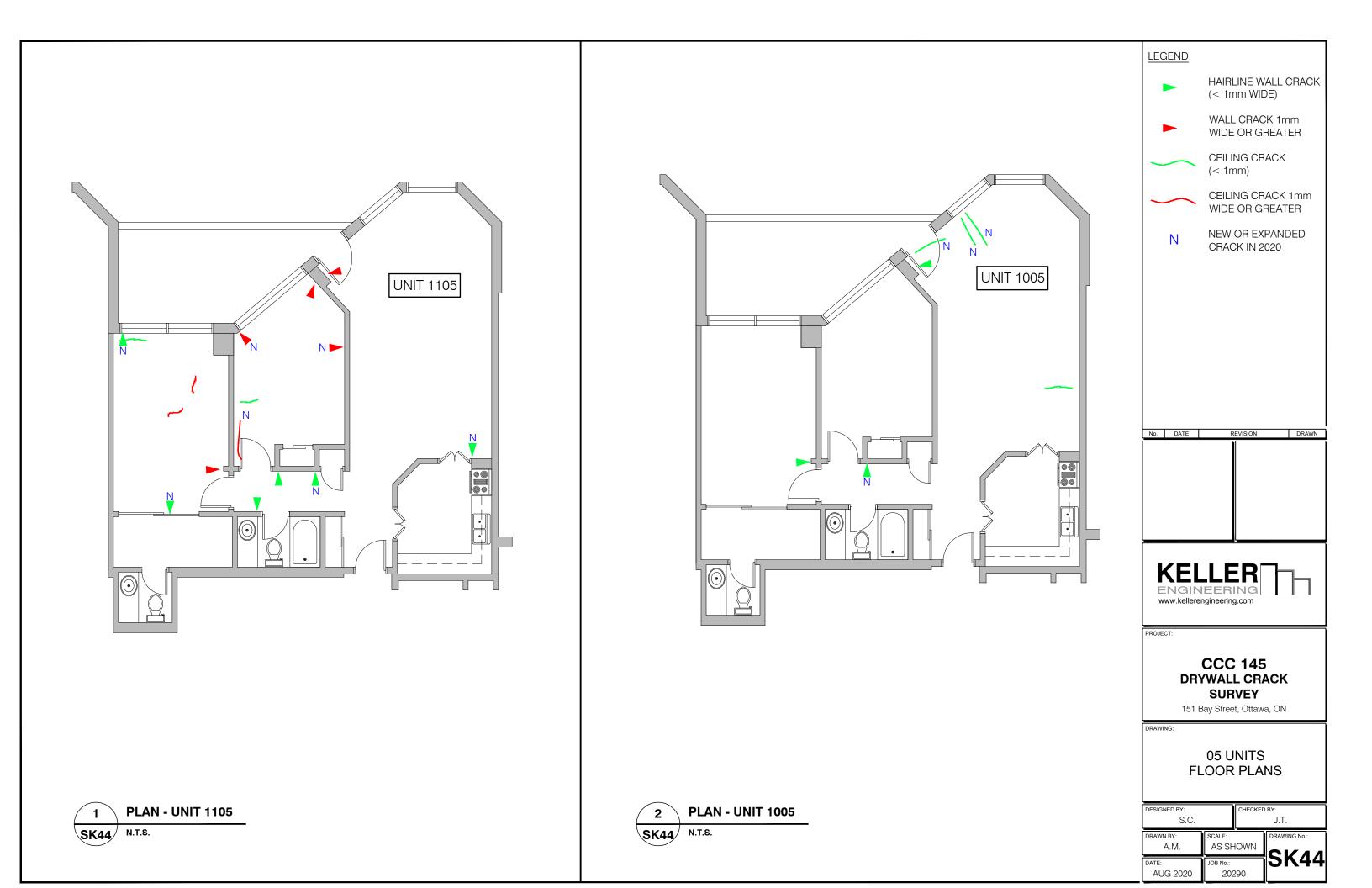


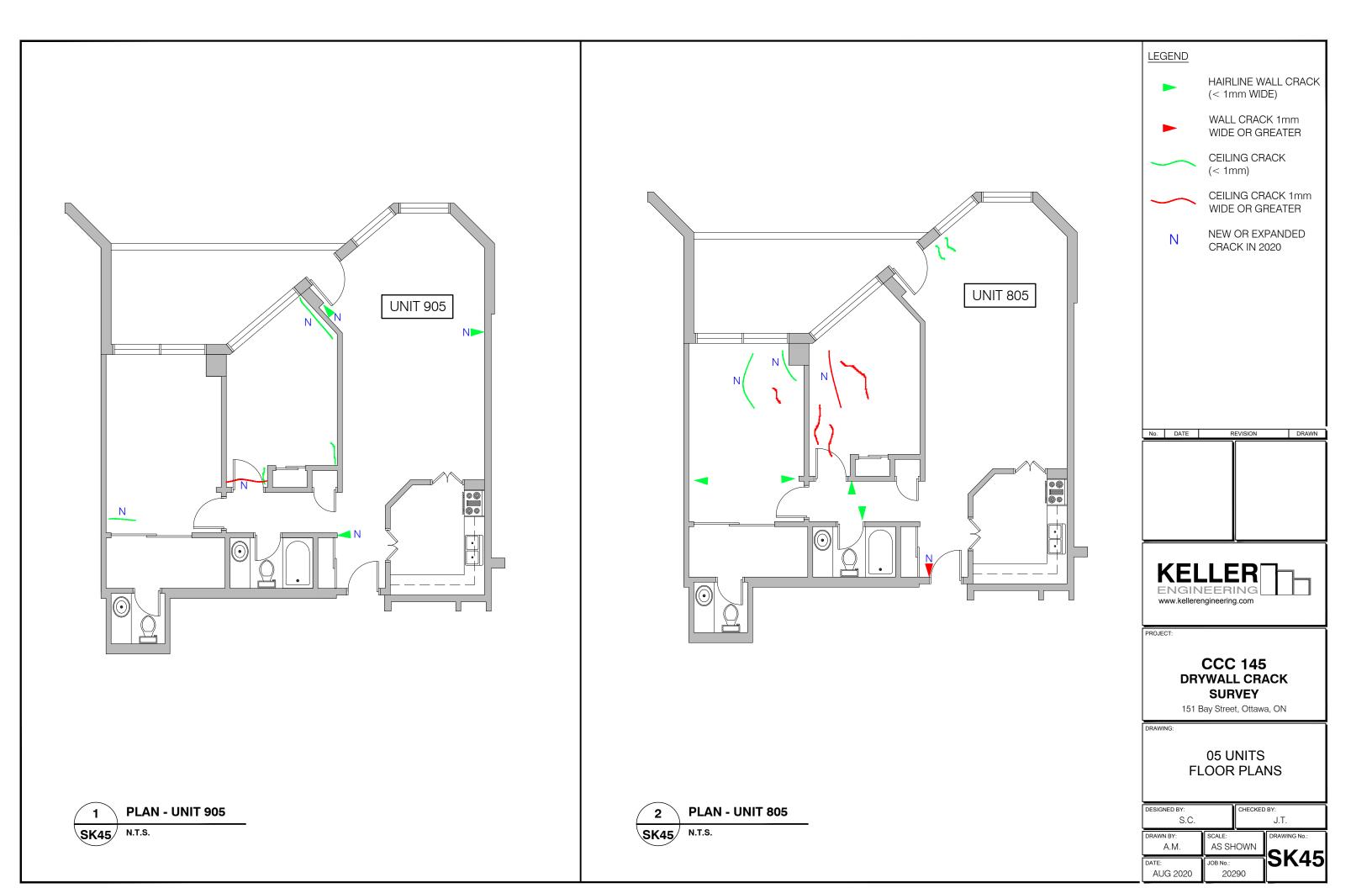


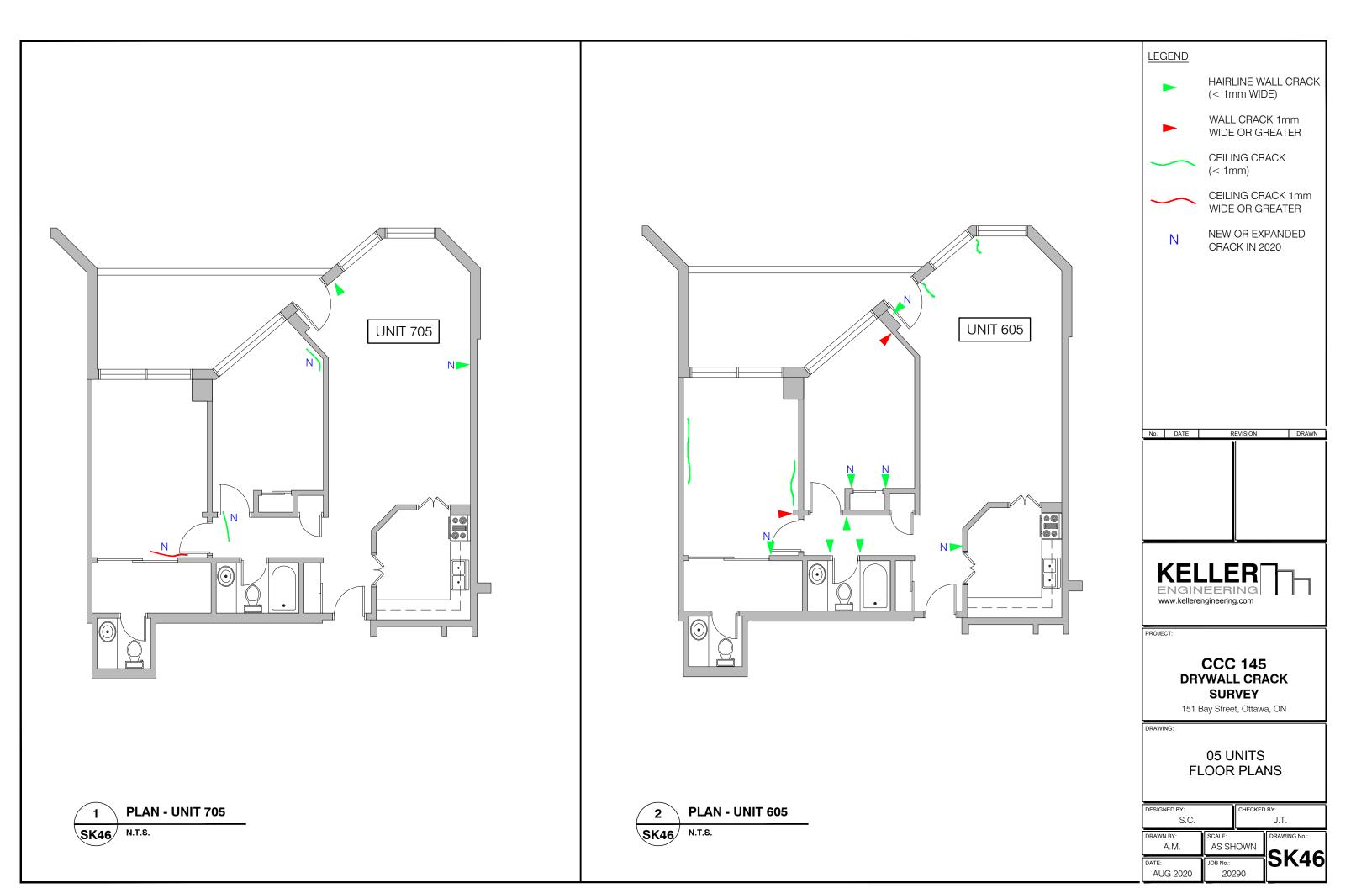


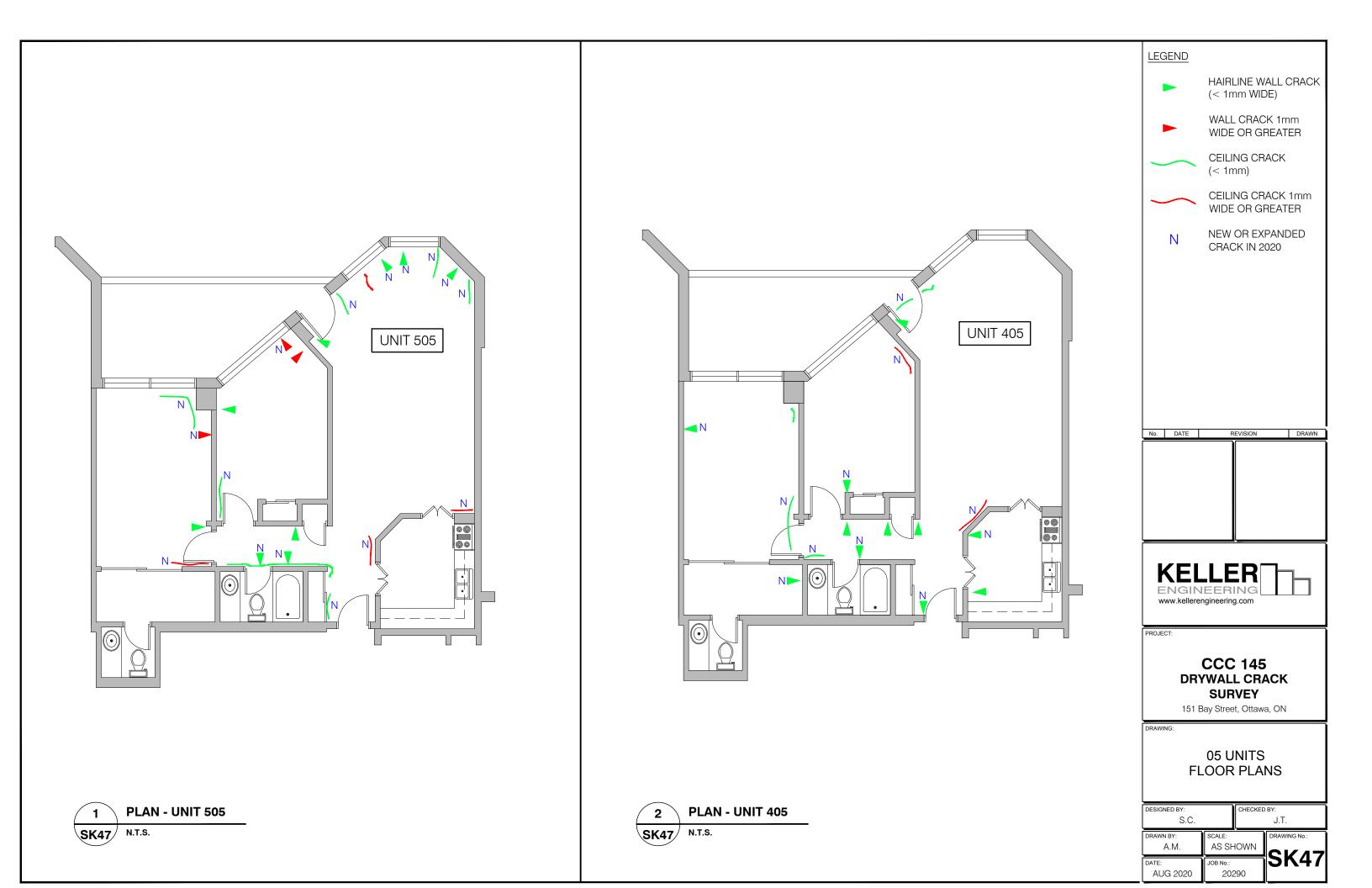


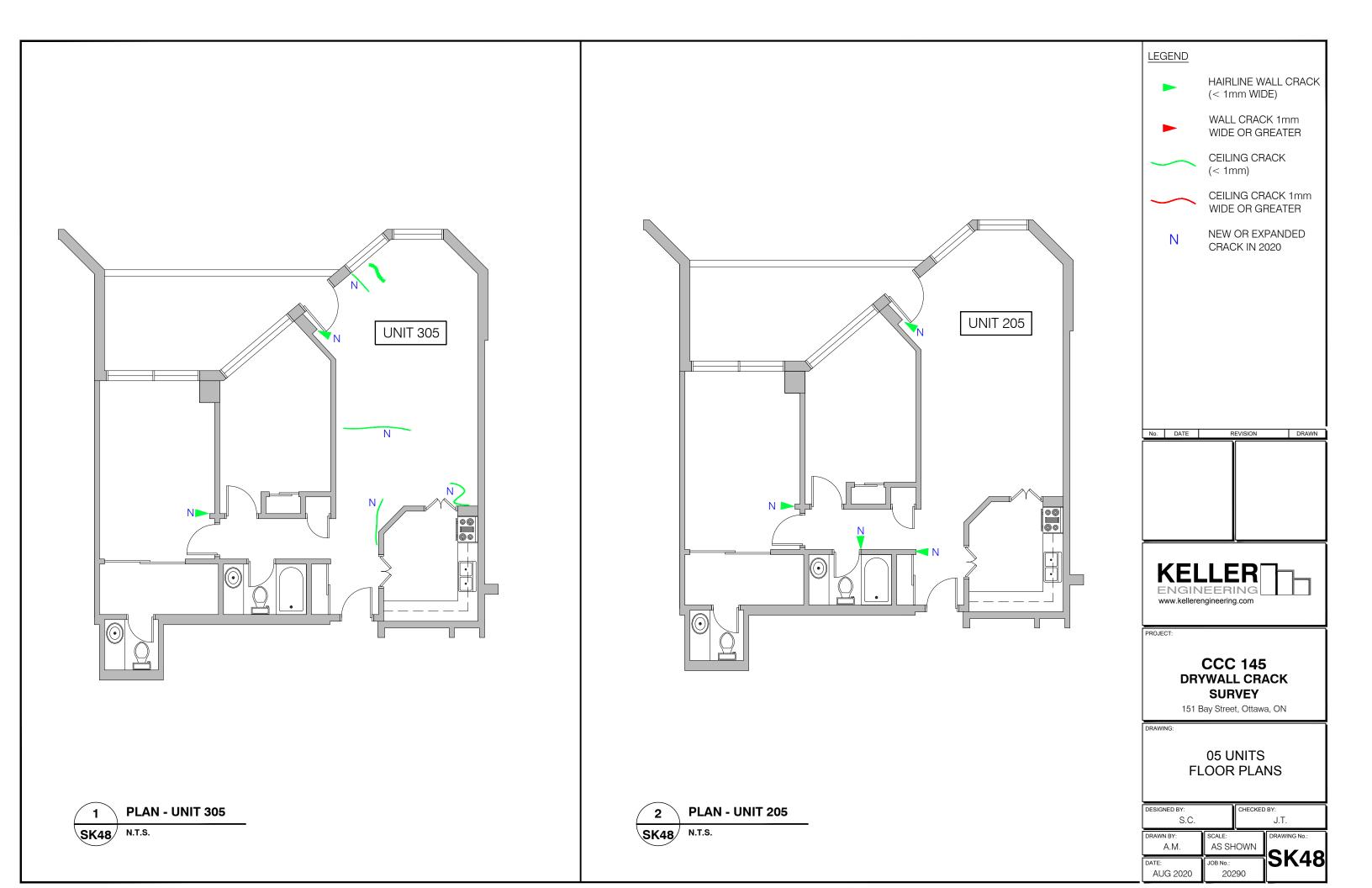


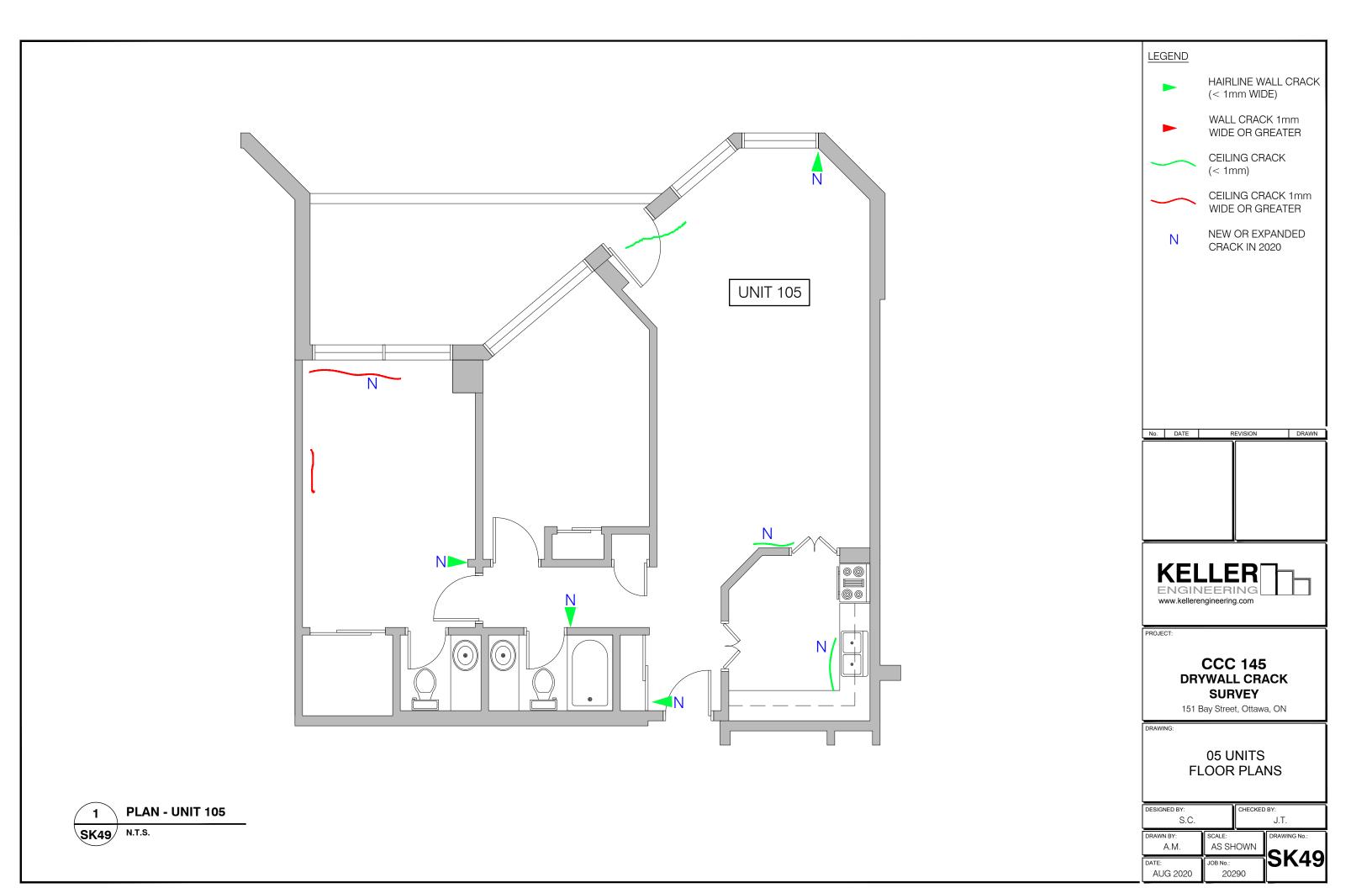


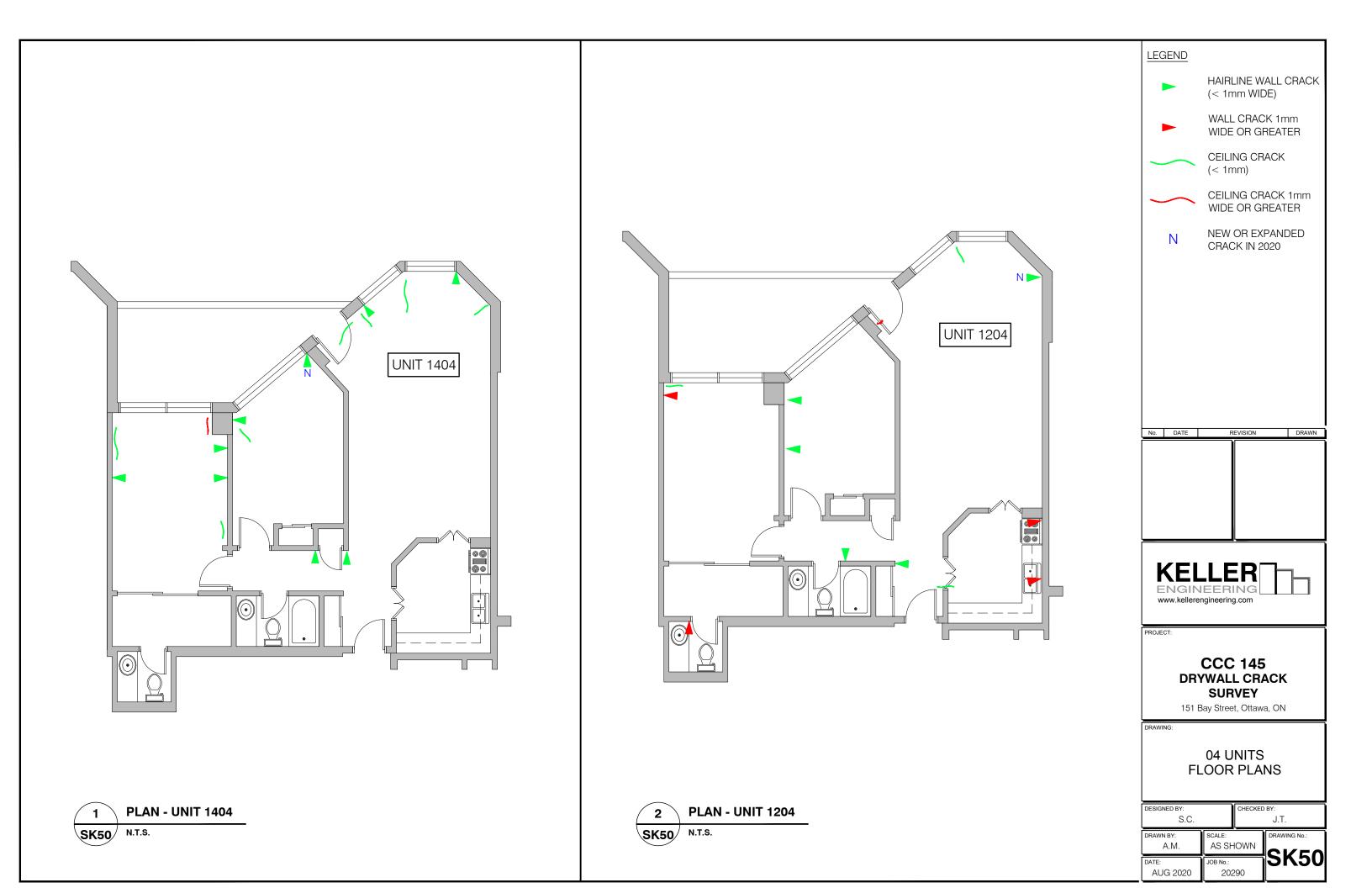


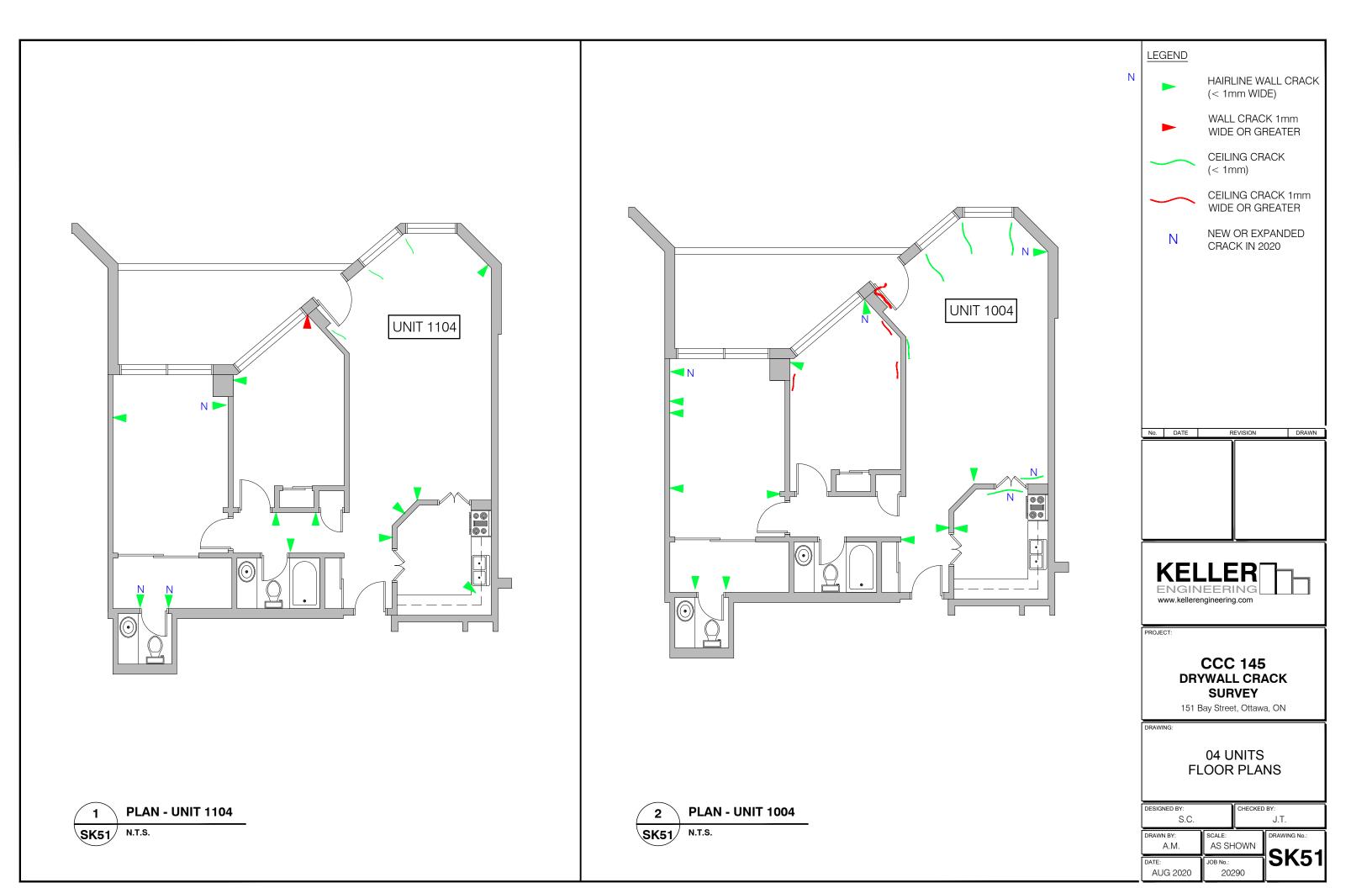


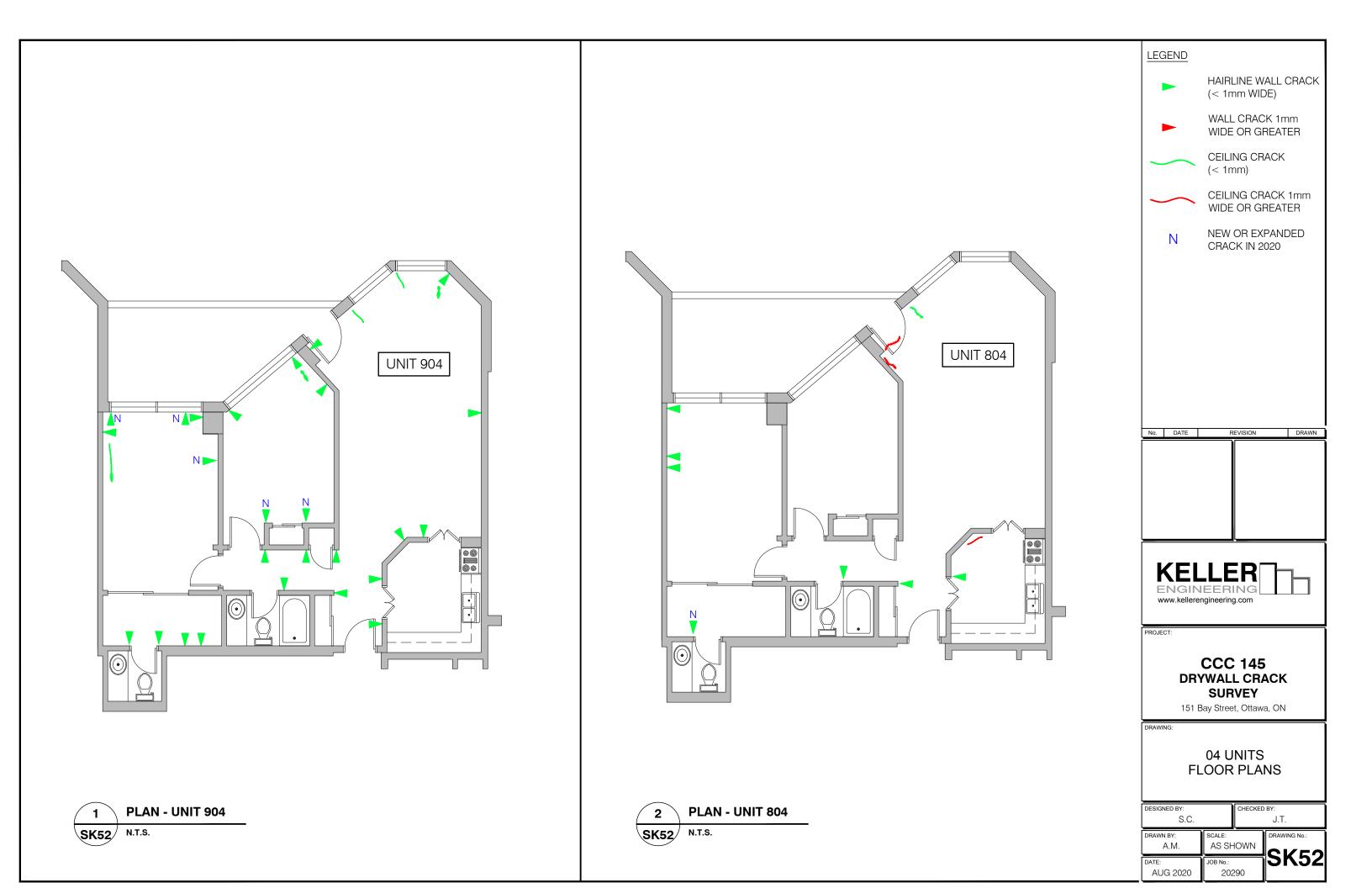


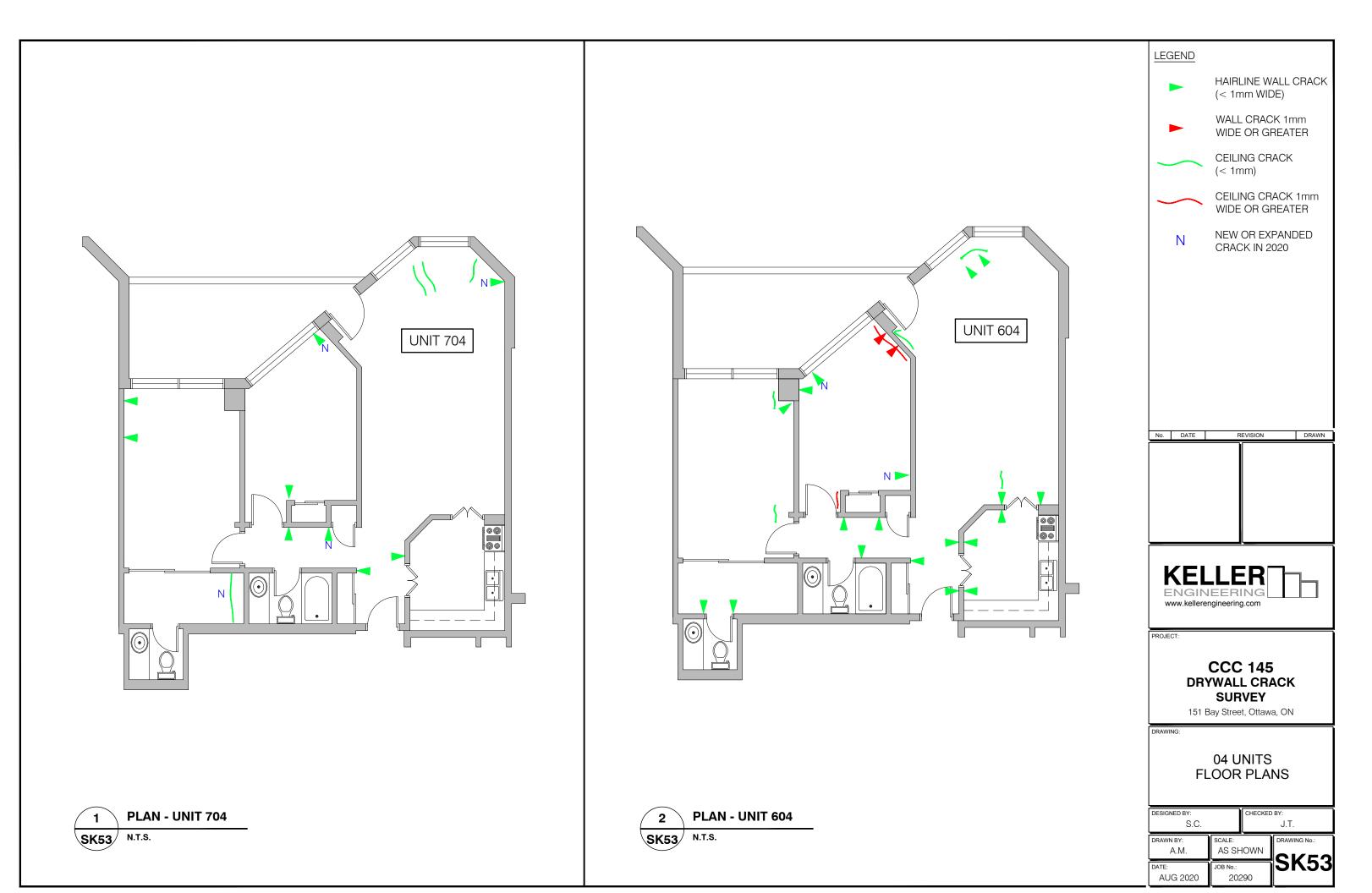


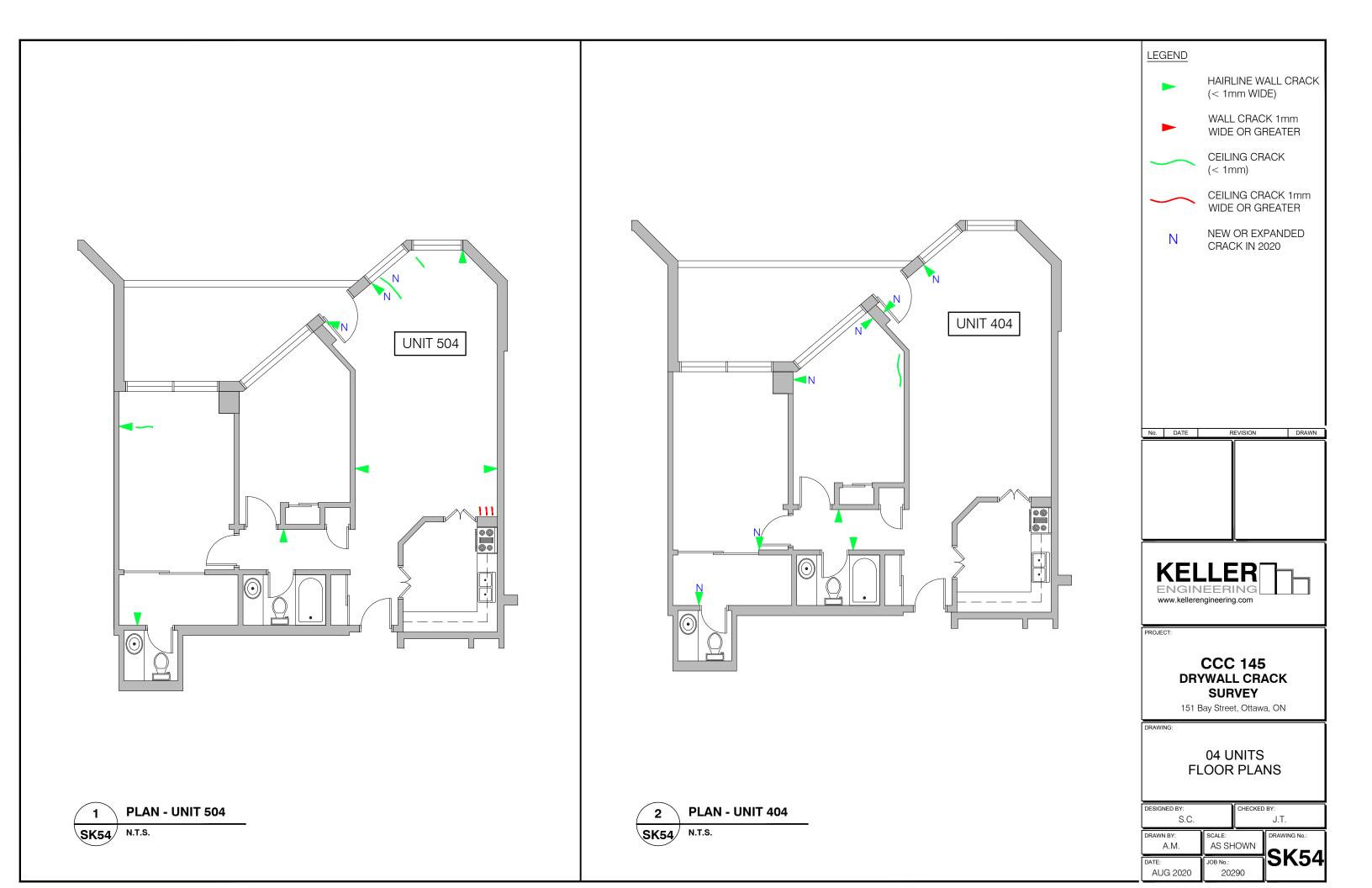


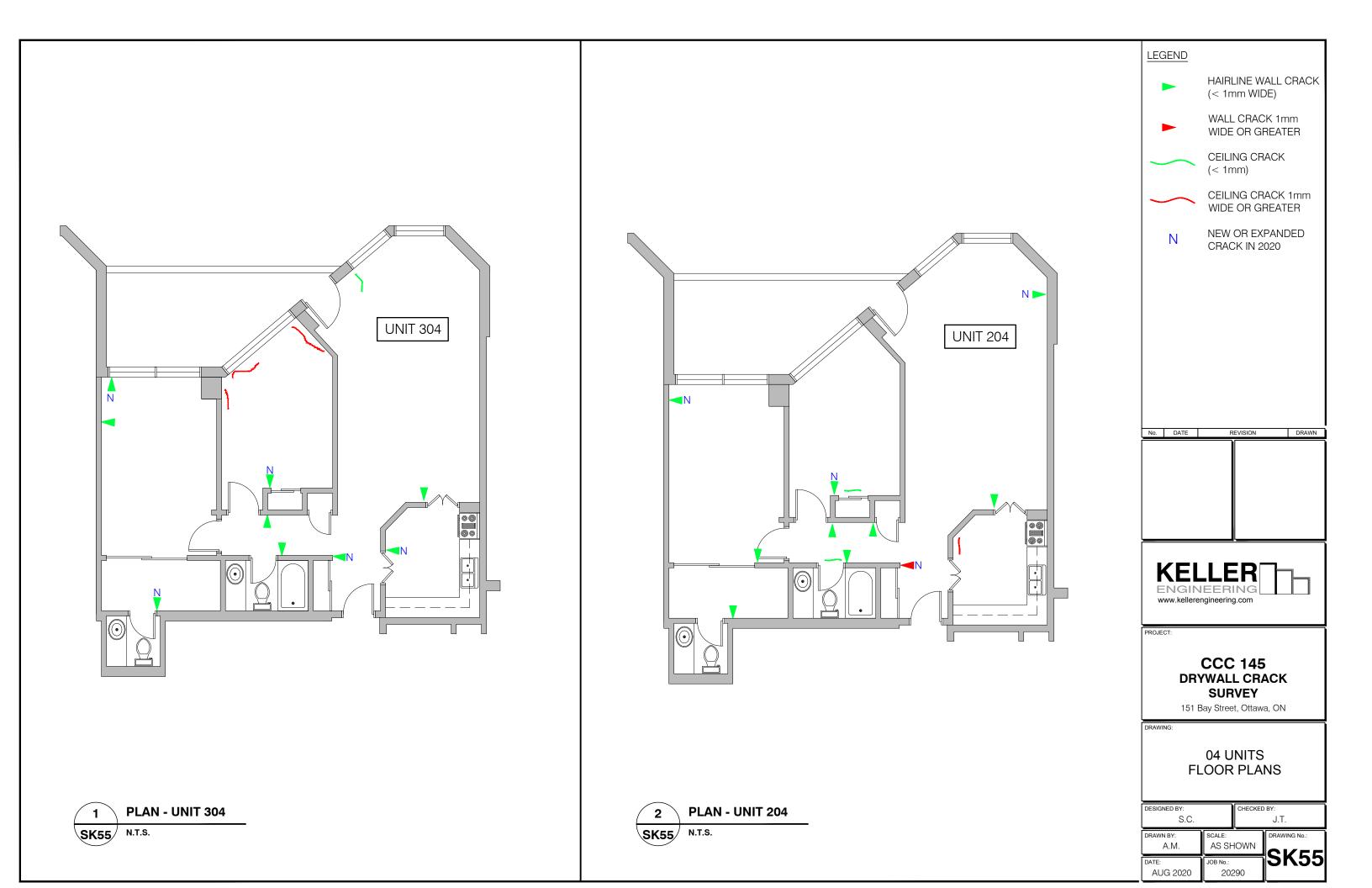


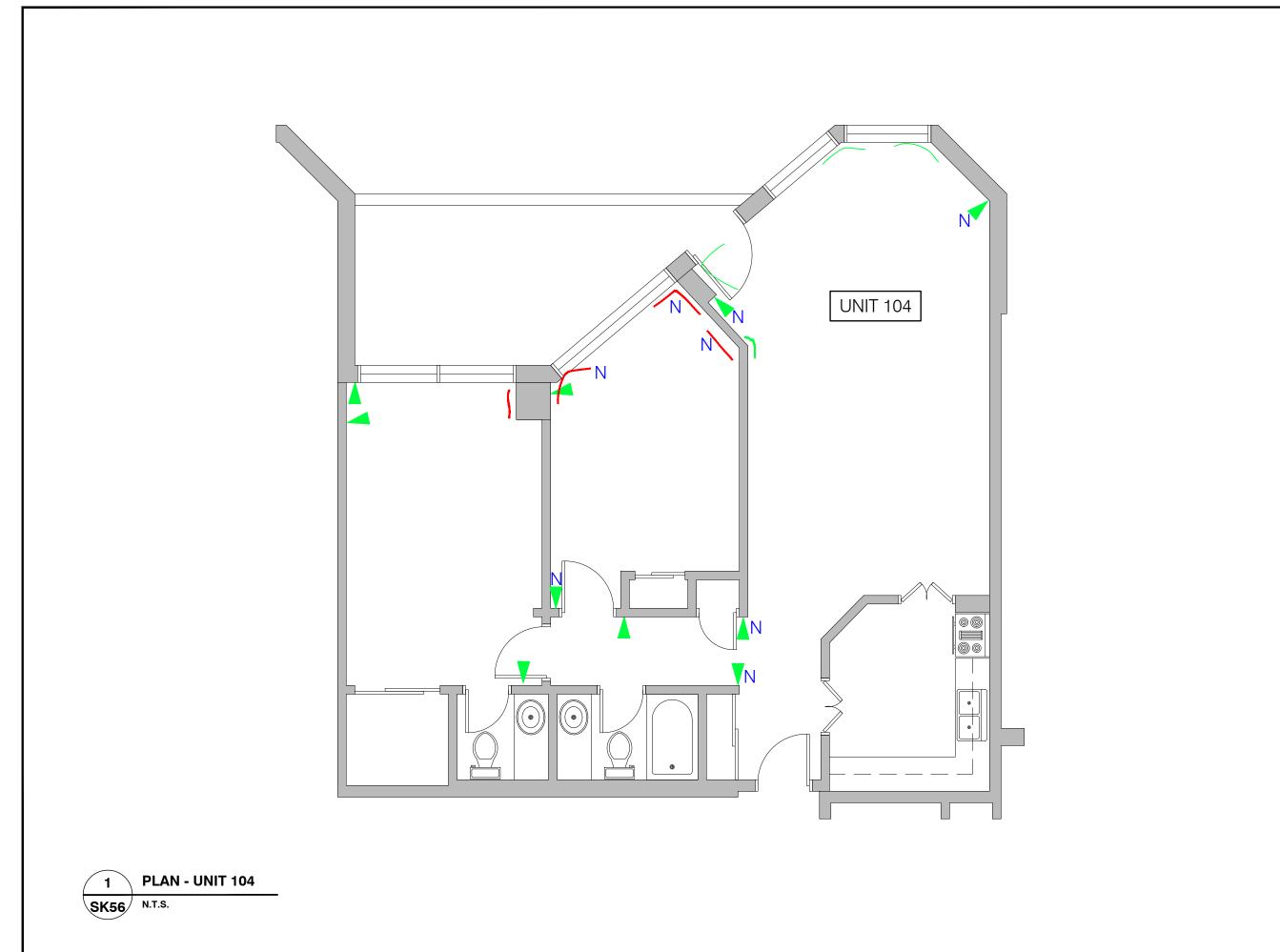






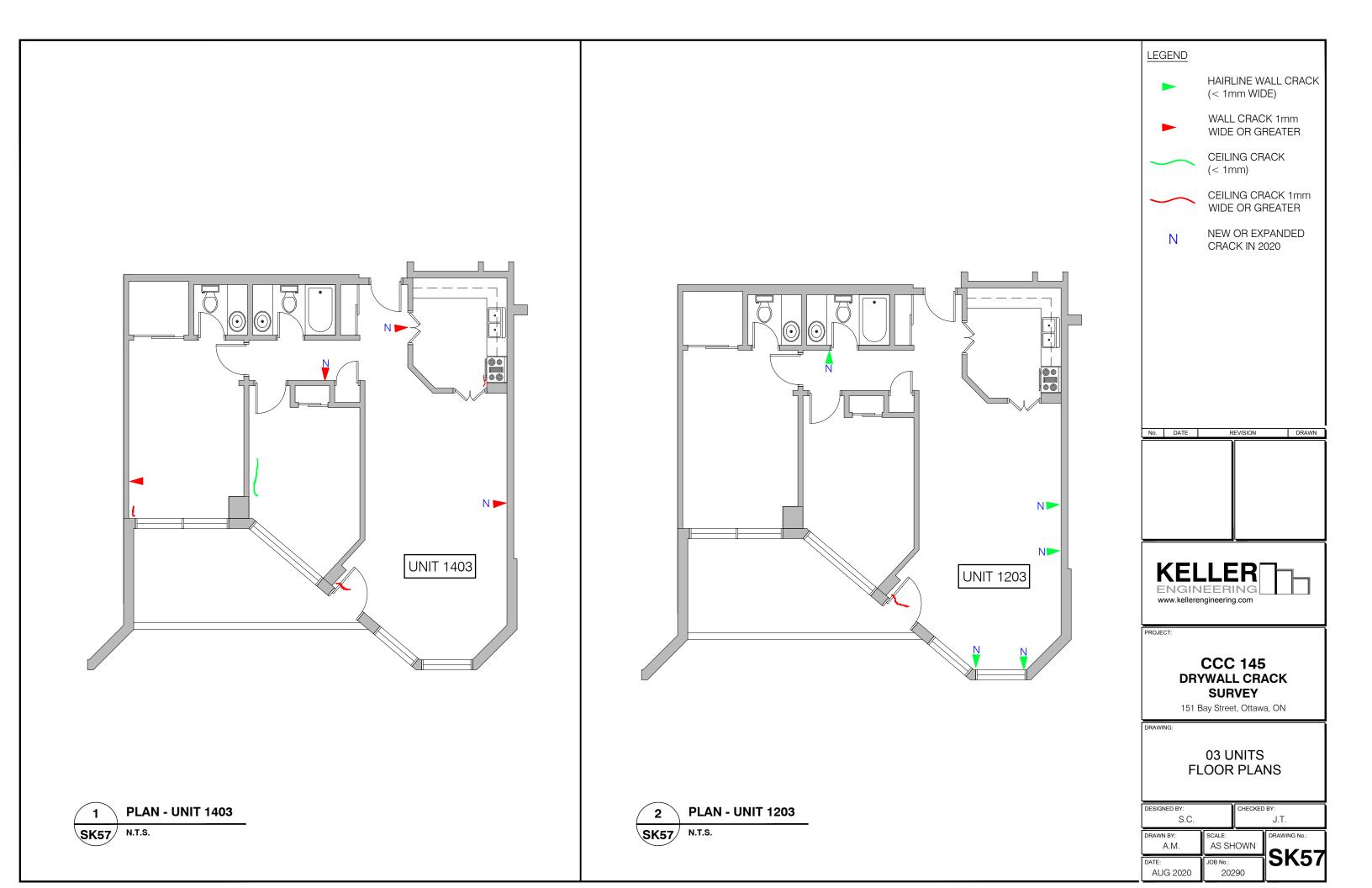


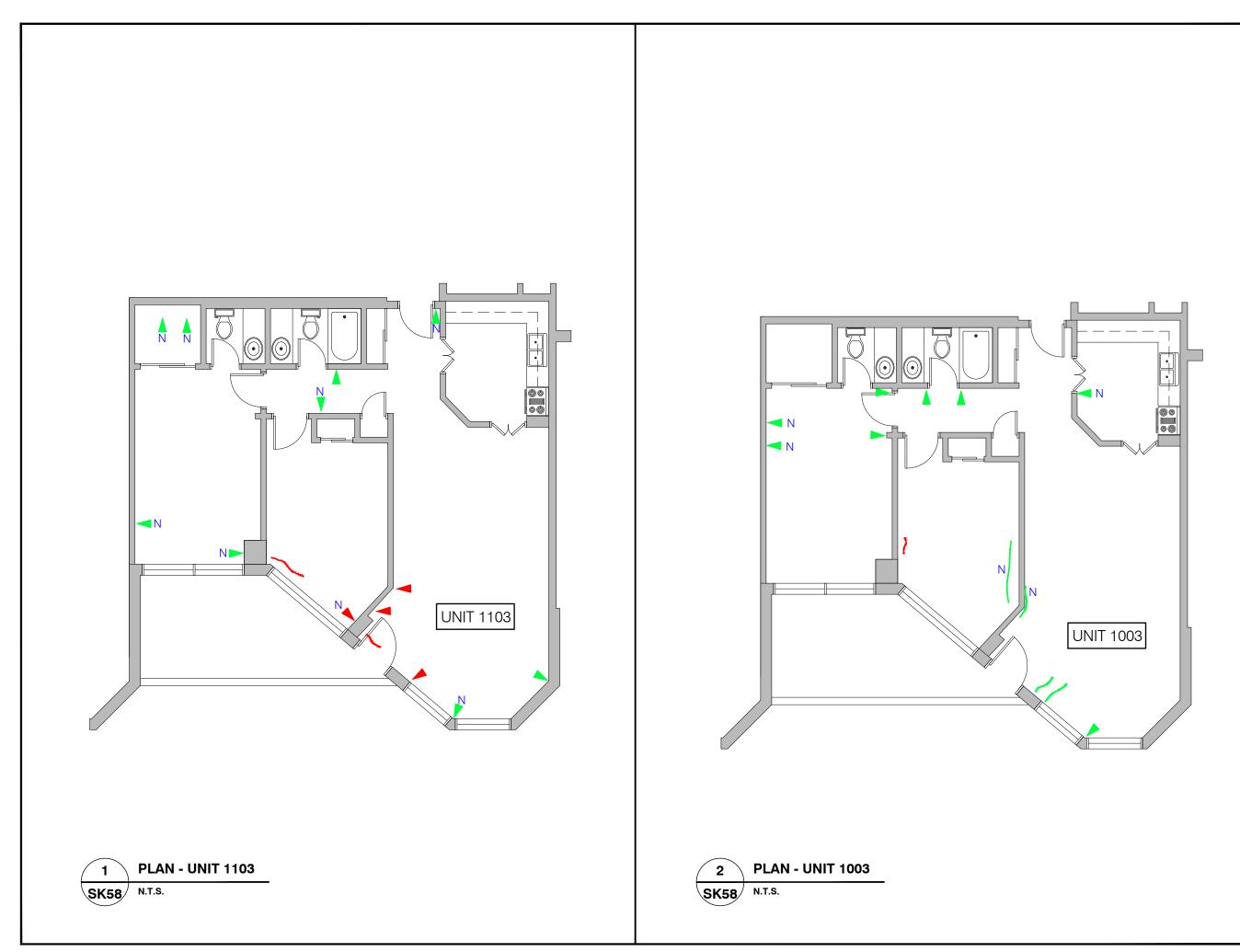




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AUG 2020

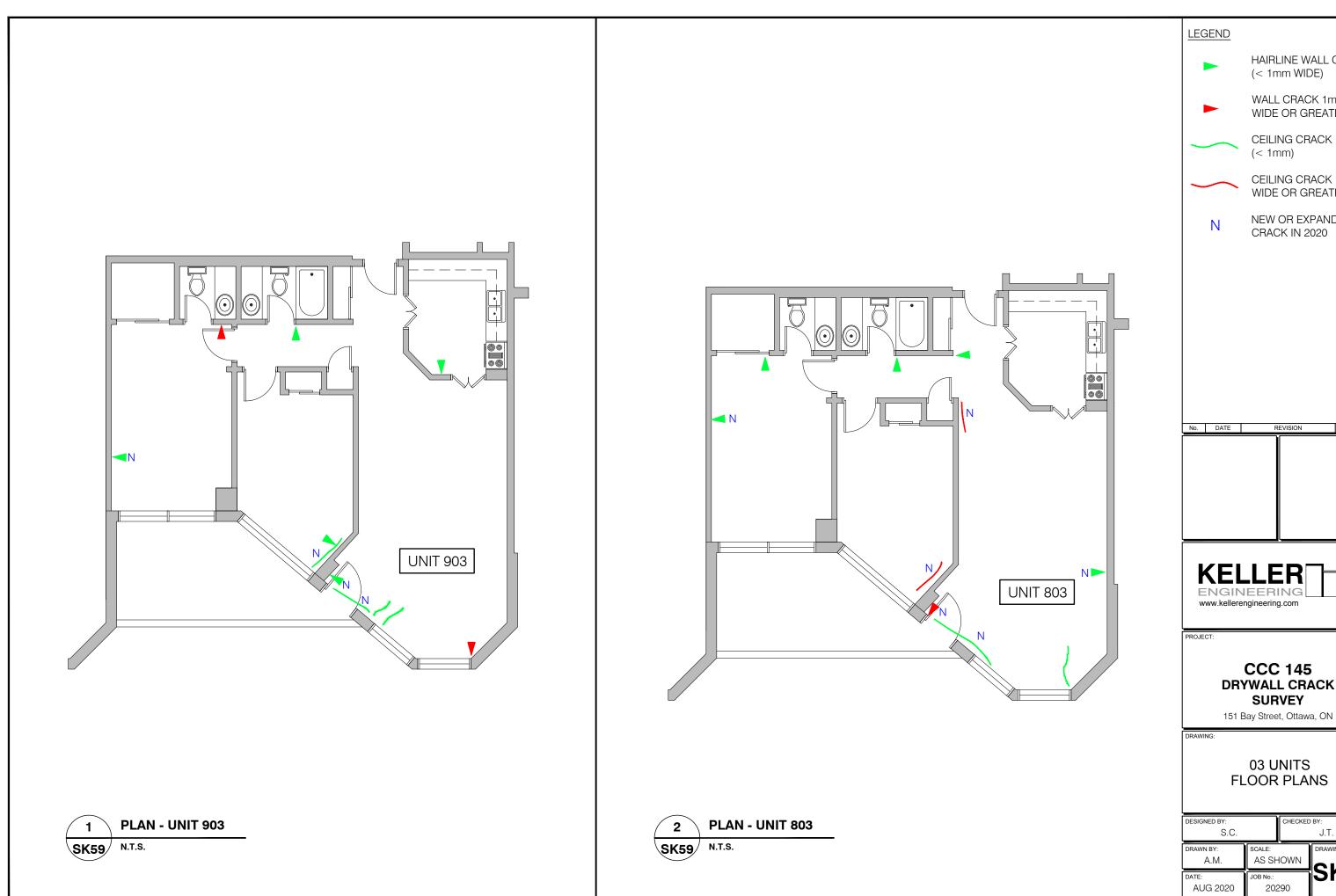




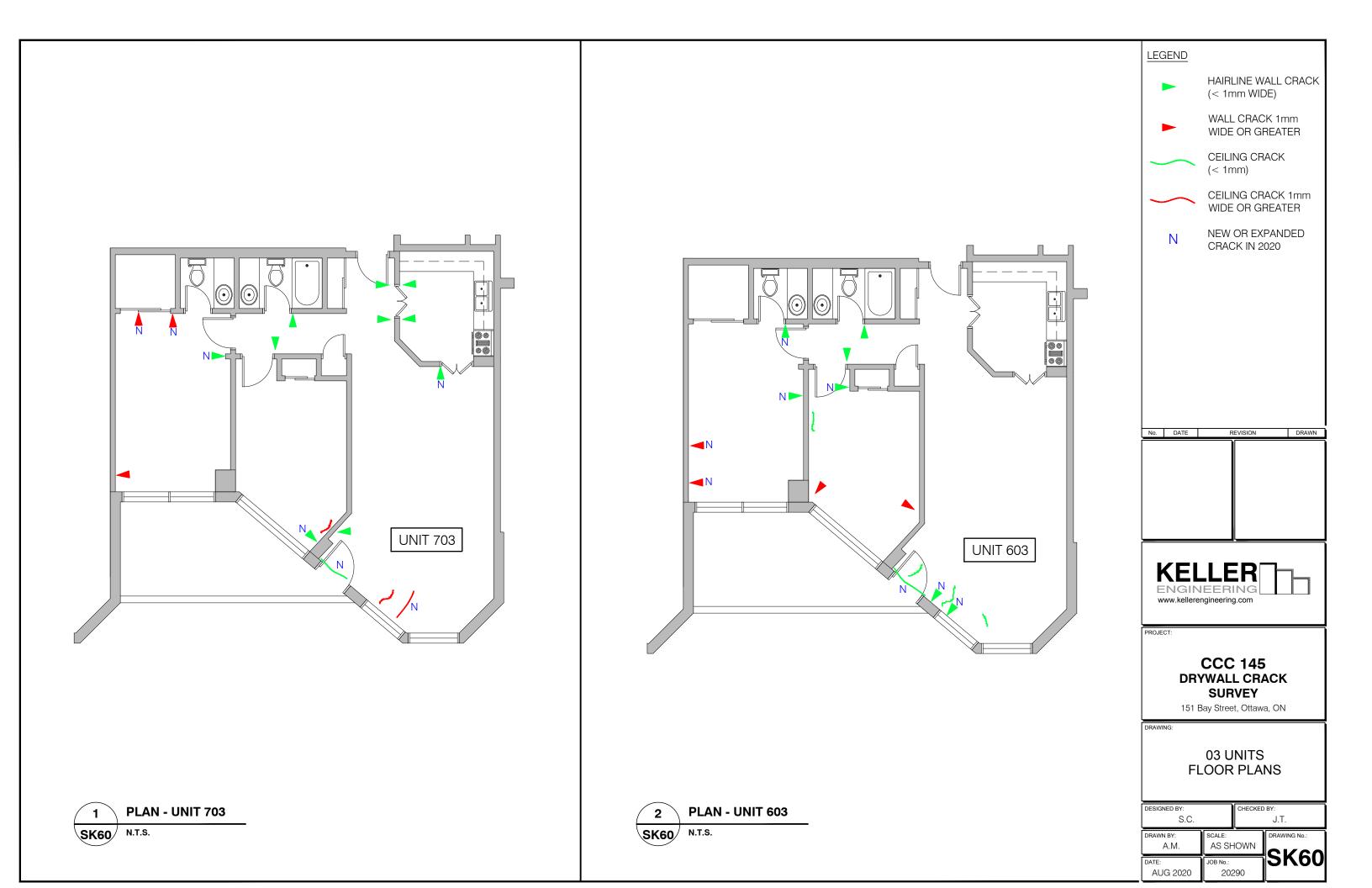
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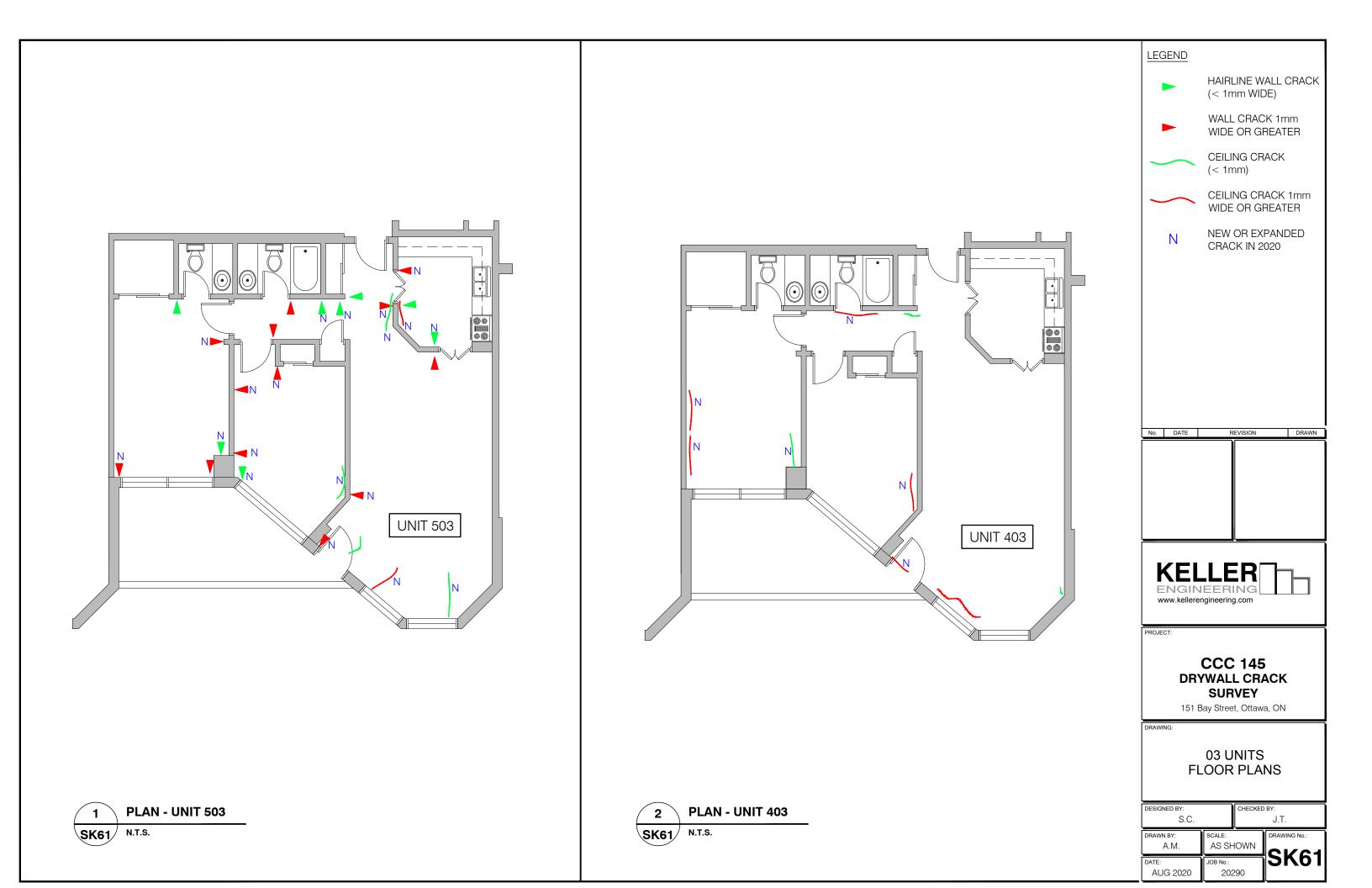
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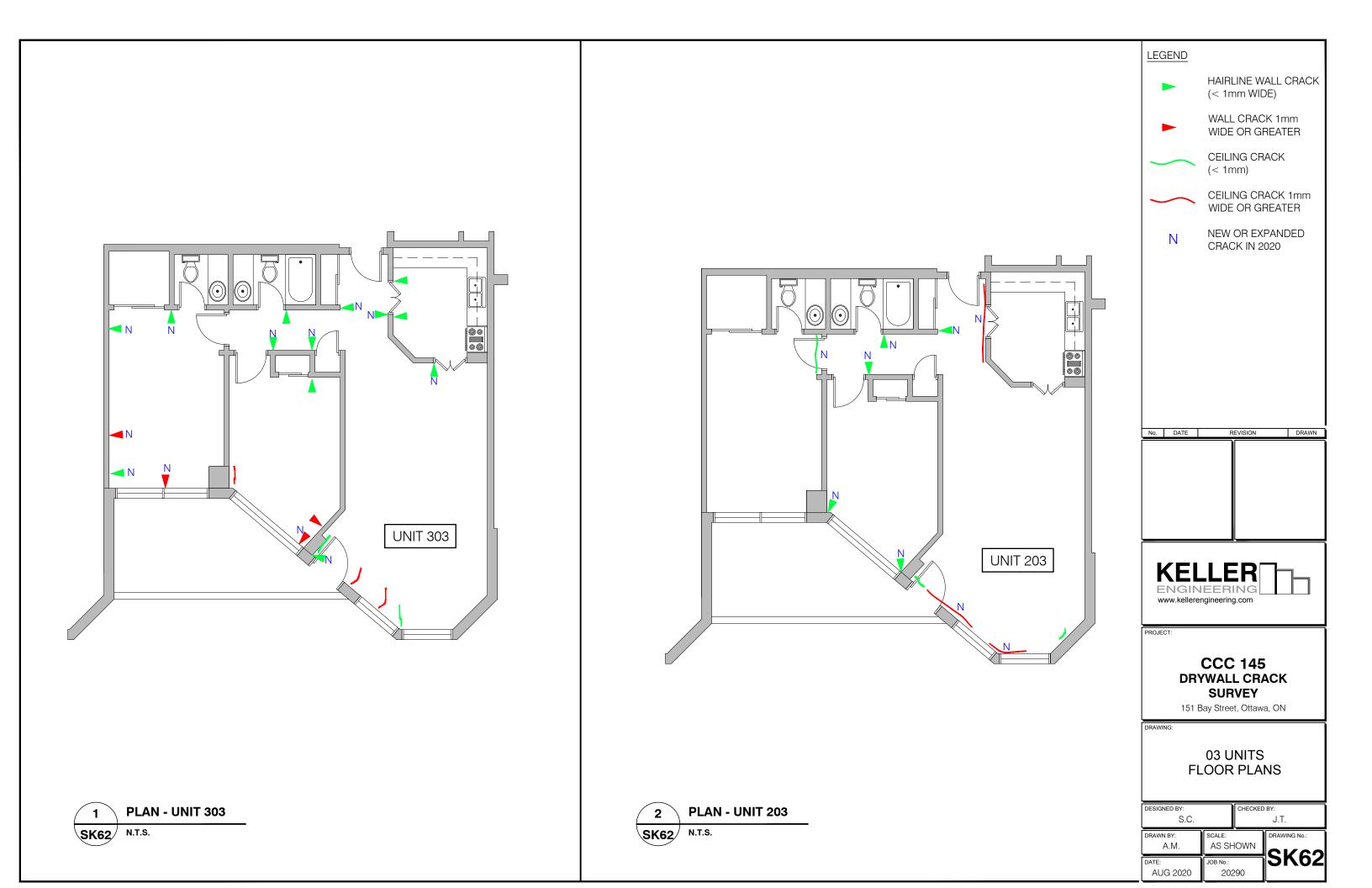
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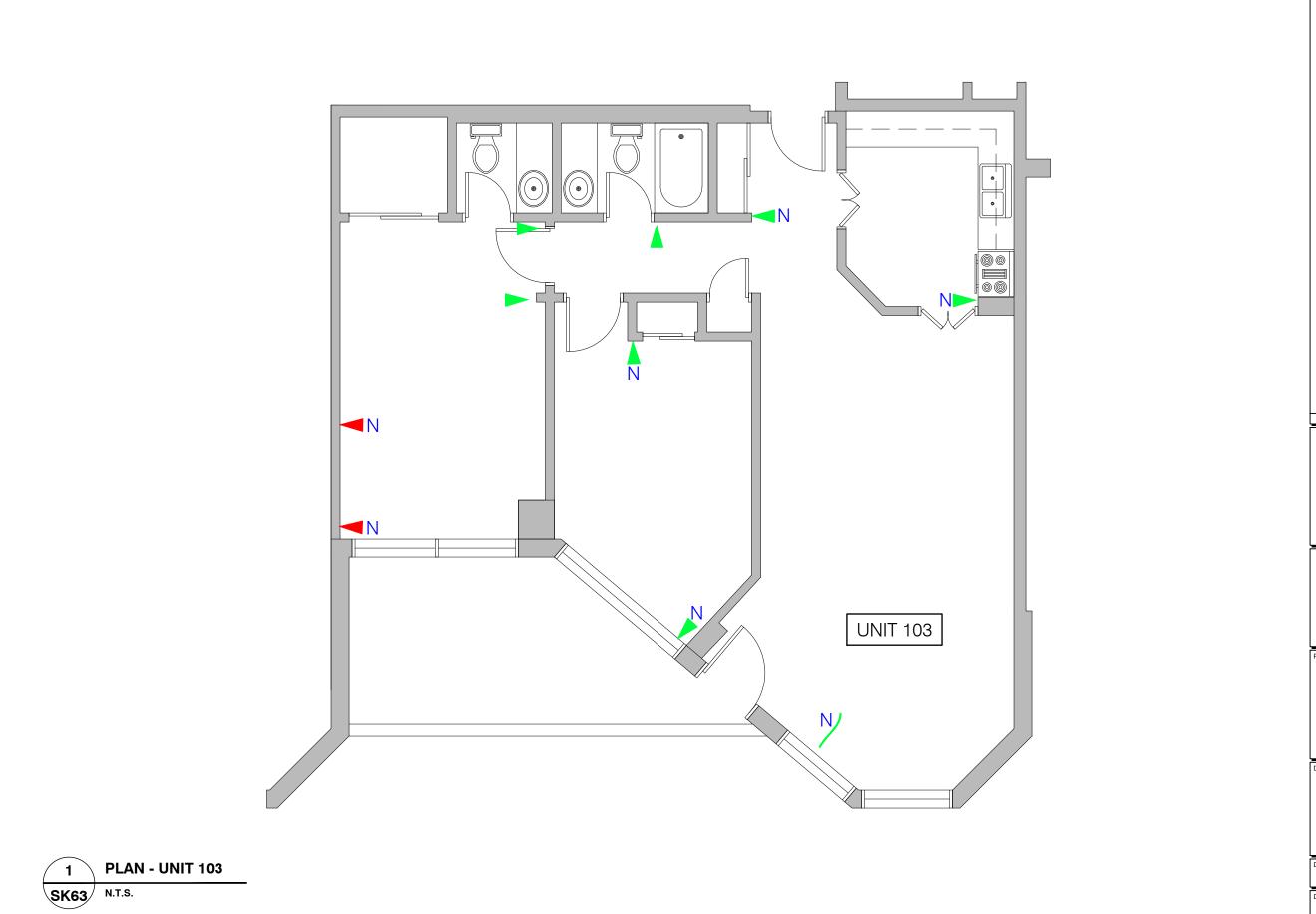


HAIRLINE WALL CRACK WALL CRACK 1mm WIDE OR GREATER CEILING CRACK CEILING CRACK 1mm WIDE OR GREATER **NEW OR EXPANDED** DRAWN **DRYWALL CRACK** 151 Bay Street, Ottawa, ON









LEGEND HAIRLINE WALL CRACK (< 1mm WIDE) WALL CRACK 1mm WIDE OR GREATER CEILING CRACK (< 1mm) CEILING CRACK 1mm WIDE OR GREATER NEW OR EXPANDED CRACK IN 2020 No. DATE REVISION DRAWN www.kellerengineering.com PROJECT: **CCC 145 DRYWALL CRACK** SURVEY 151 Bay Street, Ottawa, ON 03 UNITS FLOOR PLANS DESIGNED BY: CHECKED BY: J.T. S.C. AS SHOWN **SK63** 20290 AUG 2020

