

STAND Structural Engineering Inc 12417 Connell Dr. Overland Park, KS 66213 (913) 424-9115

Date:

09/26/2016

To:

**New Longview Apartments** 

From:

Josh Davis, IE

Subject:

Structural Inspection at:

3371 Sensation Drive, Lee's Summit, MO 64081

To whom it may concern,

This letter serves to report on findings concluded from a structural inspection performed by Stand Structural Engineering at the residence, address listed above, on September 26th, 2016 at approximately 3:00PM. The inspection was visual in nature, only readily accessible areas were reviewed, and non-invasive observation was employed. Josh Davis (Stand SE) was accompanied on site by service supervisor Marc Dierking, in charge of maintenance at the complex.

This inspection was requested to review damage to the south wall of one of the apartment complex buildings, caused over the weekend by a car hitting the base of wall. After performing the inspection, we offer the following observations:

The car struck the wall near the lower corner of an approximately 9-foot-wide window. The jamb and king studs were pushed in during the impact. One pair of double studs was pushed almost all of the way off of the wall plate, bending the nails at that connection. The members directly adjacent to the window appeared to stay connected to the sill plate but were broken at the location of impact (approximately sill height).

The pushed in jamb and king studs caused a crack in the drywall up the wall toward the ceiling. This crack gets thinner the higher up the wall and appears to terminate before actually getting to the ceiling level. We investigated adjacent corners in the apartment and did not see any damage outside of the wall that was hit. We did not have access to the apartment directly above, but it is reported that it has been reviewed and there are no cracks or other apparent damage there.

Based on these observations, we believe that the impact only caused damage to the wall that was hit. We recommend removing the window and shoring the existing header and floor framing above. At that time the framing needs to be exposed up to the ceiling level. The jamb and king studs will have to be replaced at a minimum, along with damaged wall sheathing. The sill framing will likely have to be rebuilt as well. It appears that the header above the window can be reused (kept in place and reattached) but that can't be confirmed until the framing is exposed.

In general, the wall can be rebuilt in kind to the existing construction. All nailing and attachments should be per the building code of the local jurisdiction. If changes to the existing design are desired, please feel free to contact us.

It is unknown at this time if the damaged wall is load bearing. Because 2 of the studs are pushed within about ½" of falling off of the base plate, we recommend that this area be temporarily shored right away until the repair can be completed.

9/26/2016

Please let us know if we can be of further assistance.

Sincerely,

Josh Davis, IE

Paul Spears, PE
Paul Aplum