



NC DEPARTMENT OF  
**INSURANCE**  
OFFICE OF STATE FIRE MARSHAL

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A presentation to the Joint Legislative Oversight  
Committee on General Government

**January 3, 2019**

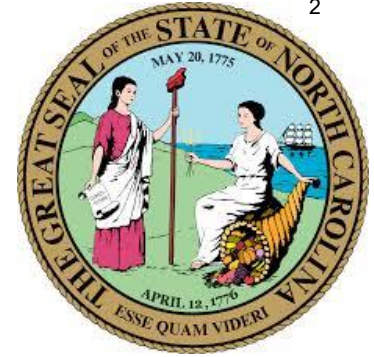
Cliff Isaac, Deputy Commissioner





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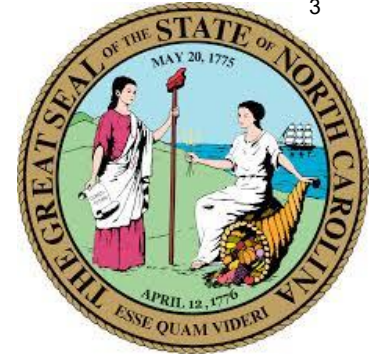


## Session Law 2018-29

- This summarizes what the new law had on construction.



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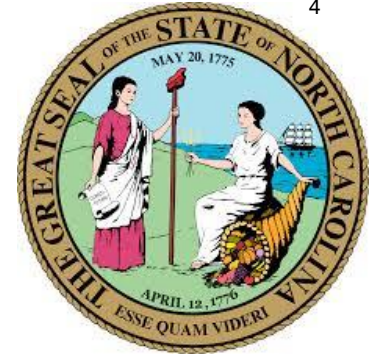
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## Session Law 2018-29

- NCDOI has instituted the changes specified by the Law. Notice to all inspection departments of the 2 business day requirement on all requested inspections was sent out shortly after the passage of the law.
- The law and the efforts of NCDOI have provided a more service oriented atmosphere for the building community.
- NCDOI has begun to compile inspection department results related to:
  - Inspection departments that are not within the two business days.
  - Proper use of the permit fees for the administration and activities of the inspection departments.



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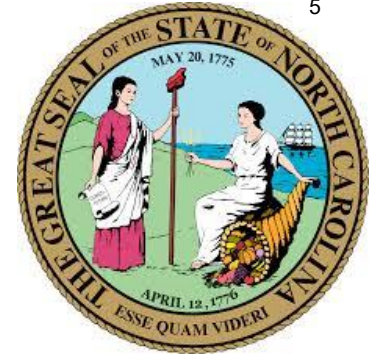
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## Metrics and Accomplishments

- Session law 2018-29 has also defined mutual aid contracts as an option for use by Inspection departments experiencing high inspection demand.
- NCDOI has answered calls from permit holders and responded by calling the jurisdiction to determine if a requested inspection will not be performed within two business days. Because of our work and those of the jurisdictions, no official written request has been submitted to us to provide inspections.
- There are several areas effected by the Hurricanes. These areas are still experiencing a high volume of inspections and will for some time as the recovery continues.



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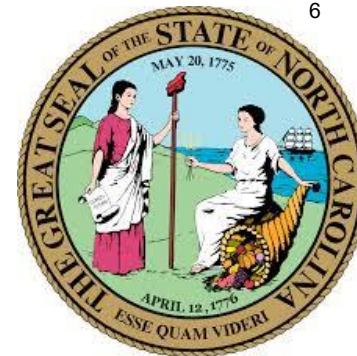
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## Metrics and Accomplishments

- A recent survey sent to 220 building inspection departments shows that less than 1% are out more than two business days verses 8-10% from a survey before the new law.
- Jurisdictions are hiring more inspectors across the state and ones from out of state with ICC certifications.
- More inspections are being performed statewide and in a timely manner.



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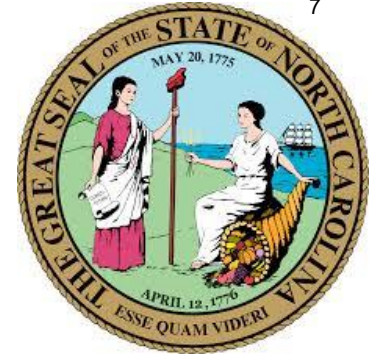
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## Session Law 2018-29

- In an effort to determine the root cause of the inefficiency in the building process the law gave NCDOL the opportunity to collect information about the performance of the building community as well.
- As a result, inspection departments are reporting on residential builders in which have 15 or more separate framing violations.
  - The violation list of so many items is a significant tax on the inspectors time.
  - This impacts the inspection schedule for the remainder of the day.
  - This impacts other builders that have checked their projects and are ready.
  - Is typically a clear indication of a builder that was not ready.



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## Session Law 2018-29

- As a result of the authority, NCDOI's positive reporting techniques, and the desire of the regulatory and building communities to embrace these proactive changes, great strides have been made in the efficiency of the building process.
- NCDOI has taken an active role in identifying and actively pursuing improvement with builders identified as having 15 violations or greater.
- Marked improvements in builder performance have resulted from this data collection.





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## Session Law 2018-29

- Since July 1, NCDOI has 136 framing inspection reports that have 15 or more code violations. Not all reports have been sent.
- Upon receiving the report and verifying the violations are valid, NCDOI sends an email to the permit holder and often calls and speaks to them.
- NCDOI has met with builders and jurisdictions about the reports.
- NCDOI has made a common violation checklist in English and Spanish and sent it out to the home builders and jurisdictions to share.

### Common Residential Building Framing Violations Checklist

September 2018 – per the 2018 NCRC – version 1.0

#### SECTION 107 – NCACP Building framing inspection

- ☐ Not ready.
- ☐ Previous violations not corrected.
- ☐ Jobsite not safe to inspect.
- ☐ Started work without prior approval of past inspections or acceptance of designer's letter on a footing, foundation or slab. [NCACP Section 107.3]
- ☐ No plans on site.  
[NCACP Section 106]

- ☐ Not a positive connection on all post and beams.  
[NCRC R602.3]
- ☐ Stud columns or walls not nailed per Code.  
[NCRC Table R602.3(1)]
- ☐ Over spanned framing members.  
[NCRC Chapters 4,6,8 and tables]
- ☐ Portal frame at garage not installed correctly.  
[NCRC Figure R602.10.1 or [NCACP Section 105]
- ☐ Over notching, drilling and cutting of framing members.  
[NCRC Figure R602.3(1) and R602.6(1)]
- ☐ Missing bracing on trusses.  
[NCRC R802.10.3]
- ☐ Cut or damaged truss with no engineering fix.  
[NCRC R802.10]

### Lista de Violaciones Comunes de Construcción de Armazones Residenciales

Septiembre 2018 – por el 2018 NCRC – versión 1.0 SV

#### Sección 107 – NCACP Inspección del Armazón

- ☐ No está listo.
- ☐ Violaciones anteriores no corregidas.

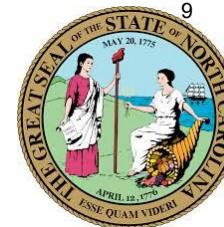




# NC DEPARTMENT OF INSURANCE

## OFFICE OF STATE FIRE MARSHAL

# Framing Reports



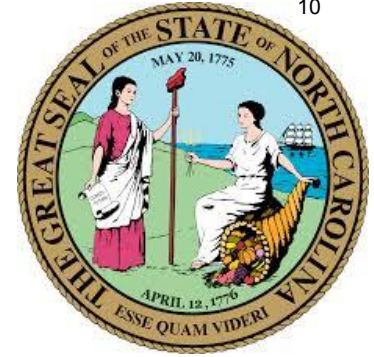
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	A	B	C	D	E	F	G	H	I	J	K	L	
1													
2		136	= homes	Date					Date Called or		Separate		
3	No.	x	Address	Received	Builder	Area Manager	Cell Phone	Email Address	Email Sent	Jurisdiction	Violations	Date	Tin
4	1	1	2225 Heather Road, Wake	7/13/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	7/20/2018	Cary	20	6/26/2018	
5	2	1	2225 Heather Road, Wake	7/13/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	7/20/2018	Cary	20	6/26/2018	
6	3	1	2225 Heather Road, Wake	7/17/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	7/20/2018	Apex	40	7/16/2018	
7	4	1	2225 Heather Road, Wake	7/20/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	7/23/2018	Wake Forest	16	7/9/2018	
8	5	1	2225 Heather Road, Wake	7/20/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	7/23/2018	Wake Forest	19	7/10/2018	
9	6	1	2225 Heather Road, Wake	7/20/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	7/23/2018	Wake Forest	16	7/19/2018	
10	7	1	2225 Heather Road, Wake	7/23/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	7/26/2018	Cary	21	7/23/2018	
11	8	1	2225 Heather Road, Wake	7/25/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	7/24/2018	Wake Forest	18	7/2/2018	
12	9	1	2225 Heather Road, Wake	7/25/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	7/24/2018	Wake Forest	26	7/2/2018	
13	10	1	2225 Heather Road, Wake	7/25/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	7/25/2018	Wake Forest	25	7/16/2018	
14	11	1	2225 Heather Road, Wake	7/25/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	7/25/2018	Wake Forest	20	7/2/2018	
15	12	1	2225 Heather Road, Wake	7/27/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/8/2018	Wake Forest	28	7/20/2018	
16	13	1	2225 Heather Road, Wake	7/27/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/8/2018	Wake Forest	15	7/25/2018	
17	14	1	2225 Heather Road, Wake	7/27/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/8/2018	Wake Forest	17	7/23/2018	
18	15	1	2225 Heather Road, Wake	7/27/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/8/2018	Wake Forest	17	7/26/2018	
19	16	1	2225 Heather Road, Wake	7/27/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	7/28/2018	Wake Forest	20	7/20/2018	
20	17	1	2225 Heather Road, Wake	8/2/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/2/2018	Cary	18	7/27/2018	
21	18	1	2225 Heather Road, Wake	8/2/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/2/2018	Cary	22	8/2/2018	
22	19	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/6/2018	Cary	25	8/3/2018	
23	20	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/10/2018	Mecklenburg	16	7/16/2018	
24	21	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/10/2018	Mecklenburg	16	7/2/2018	
25	22	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/7/2018	Mecklenburg	20	7/20/2018	
26	23	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/7/2018	Mecklenburg	15	7/10/2018	
27	24	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/7/2018	Mecklenburg	16	7/13/2018	
28	25	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/7/2018	Mecklenburg	16	7/24/2018	
29	26	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/6/2018	Mecklenburg	25	7/3/2018	
30	27	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/13/2018	Mecklenburg	15	7/11/2018	
31	28	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/10/2018	Mecklenburg	20	7/9/2018	
32	29	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/10/2018	Mecklenburg	20	7/17/2018	
33	30	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/13/2018	Mecklenburg	18	7/11/2018	
34	31	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/13/2018	Mecklenburg	16	7/2/2018	
35	32	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/13/2018	Mecklenburg	15	7/24/2018	
36	33	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/16/2018	Mecklenburg	19	7/16/2018	
37	34	1	2225 Heather Road, Wake	8/3/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/13/2018	Mecklenburg	15	7/26/2018	
38	35	1	2225 Heather Road, Wake	8/7/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/9/2018	Apex	23	8/6/2018	
39	36	1	2225 Heather Road, Wake	8/7/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/3/2018	Apex	29	8/3/2018	
40	37	1	2225 Heather Road, Wake	8/9/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/9/2018	Apex	34	8/7/2018	
41	38	1	2225 Heather Road, Wake	8/10/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/10/2018	Apex	35	8/8/2018	
42	39	1	2225 Heather Road, Wake	8/10/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/10/2018	Apex	27	8/9/2018	
43	40	1	2225 Heather Road, Wake	8/10/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/10/2018	Apex	59	8/7/2018	
44	41	1	2225 Heather Road, Wake	8/14/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/14/2018	Apex	39	8/10/2018	
45	42	1	2225 Heather Road, Wake	8/14/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/14/2018	Apex	35	8/10/2018	
46	43	1	2225 Heather Road, Wake	8/15/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/15/2018	Gastonia	17	8/14/2018	
47	44	1	2225 Heather Road, Wake	8/14/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/16/2018	Holly Springs	27	8/14/2018	
48	45	1	2225 Heather Road, Wake	8/15/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/16/2018	Gastonia	16	8/15/2018	
49	46	1	2225 Heather Road, Wake	8/16/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/17/2018	Apex	29	8/10/2018	
50	47	1	2225 Heather Road, Wake	8/21/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/21/2018	Gastonia	25	8/20/2018	
51	48	1	2225 Heather Road, Wake	8/22/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/22/2018	Cary	19	8/21/2018	
52	49	1	2225 Heather Road, Wake	8/22/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	7/26/2018	Cary	21	8/21/2018	
53	50	1	2225 Heather Road, Wake	8/28/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/28/2018	Wake Forest	17	8/22/2018	
54	51	1	2225 Heather Road, Wake	8/29/2018	SPH Homes	Mike Pomeroy	919-294-3893	mpomeroy@sphomes.com	8/29/2018	Wake Forest	18	8/24/2018	





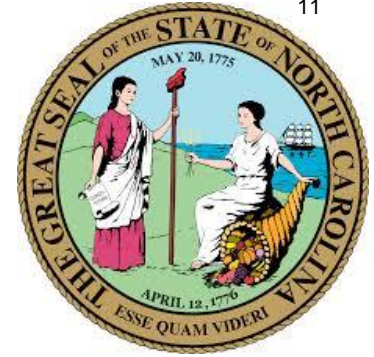
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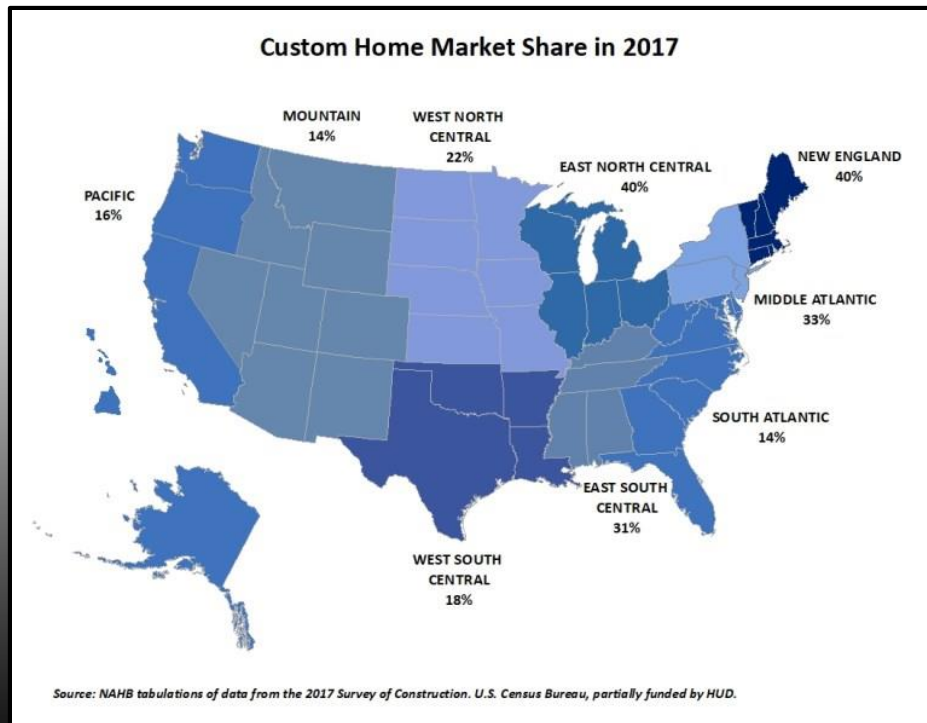
## Report Data

- One framing inspection took 8 hours and had 102 code violations. This rolled 12-14 other requested inspections.
- Builders in the high growth areas have a difficult time complying with the Code due to the lack of knowledge or time and skilled personnel.
- Due to the understanding that reports would be sent to NCDOI and with our proactive approach, builders have improved.
- Inspectors are performing a complete inspection per SL2018-29.
- The reduction in re-inspections has saved money across the board.
- Lower costs produces more affordable homes to every citizen.



## Report Data

- Out of the 135 framing reports, roughly 14% are from custom builders. This mirrors the current trend in the South Atlantic from 2017 data.



### Fastest growing jurisdictions (pop%):

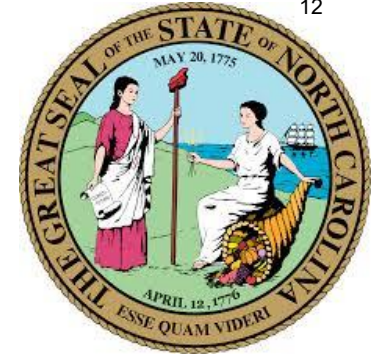
- 1 – Wake County
- 2 – Waxhaw
- 3 – Leland
- 4 – Morrisville
- 5 – Holly Springs
- 6 – Cabarrus County
- 7 – Wake Forest
- 8 – Mebane
- 9 – Apex
- 10 – Clayton

[ 2010 – 2018 ]

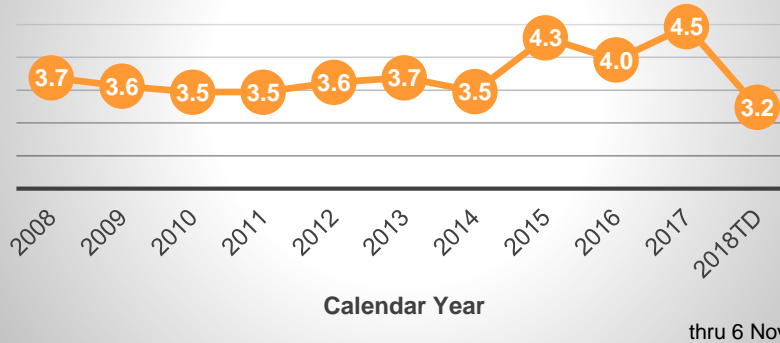


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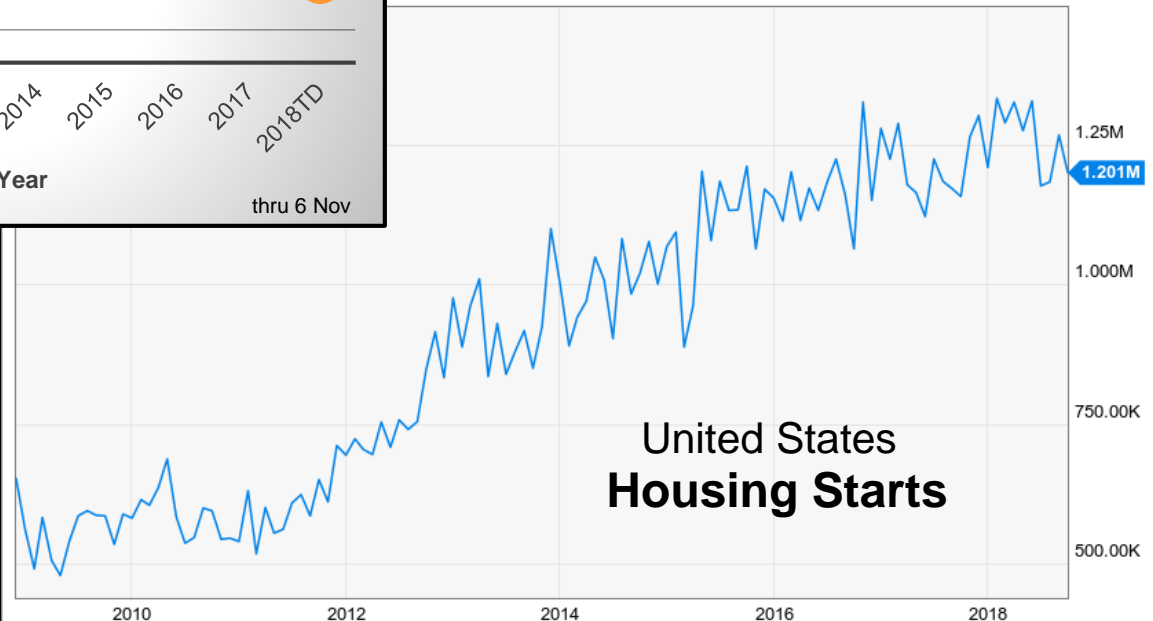
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**Avg. No. Framing Re-  
inspections per Project**

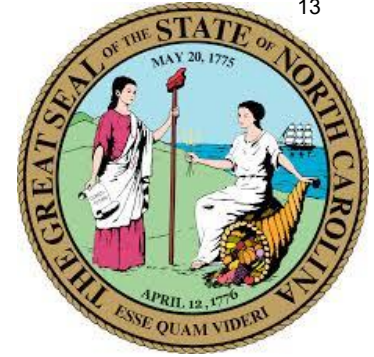


Reduction of  
1.3 trips





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## Further Results and Survey

- In a recent survey of 220 building inspection departments, 80% say that the builders have improved code compliance and 72.86% are for extending the reporting to any of all inspections.
- Added inspection capacity makes for completing inspections without delays and time to assist builders that needs help.



## 5-Star Plan

### Conclusion

The passage of HB 948 has produced positive affects throughout the state. The entire *home building community* has benefited. Less cost, more inspections, and improved Code compliance saves time and money for home builders, commercial contractors, jurisdictions and the citizens of our state.

A simple analysis of such savings we have estimated so far (½ year since July 2018):

<u>One less</u> framing inspection (jurisdiction)	\$75
5-10 days less of production (builder)	\$750
5-10 days less on construction loan (bank)	<u>\$250</u>
	\$1,075 per house

(\$1,075 per house) x (30,000 homes produced) = \$32,250,000\*

\* Note: This estimate is conservative. More than 70% of the homes are being built in high growth counties throughout North Carolina. With future passage of HB 949 - The Code Response Team will result in more consistent inspections and improved Code compliance through field training to builders and trade subcontractors. This will increase the savings close to 100 million per year.

*Let's build North Carolina together.*