

October 3, 2017

Mr. Ryan Carter
Director of Construction
Capistrano Unified School District
33122 Valle Road
San Juan Capistrano, California 92675

REFERENCE: **Falling Debris Hazard Mitigation Recommendation**
 Dana Hills High School
 33333 Golden Lantern
 Dana Point, CA 92629
 KNA No. 371.002

Dear Mr. Carter:

This report presents our findings of our assessment and recommendations for the mitigation of the potential for falling debris on students or staff at the aforementioned site as a follow up to our report dated September 28, 2017 as it relates to our initial structural assessment at the Gymnasium and the Shower and Locker Buildings located at Dana Hills High School.

Our assessment of the potential for falling debris was made on September 22, 2017 under fair and sunny weather conditions. I was accompanied by Kelly Legere, representing Capistrano USD. Our assessment was limited to visual observations and did not include destructive testing or other similar investigative procedures. Existing drawings dated June 17, 1970 (DSA A#32658) were made available to us prior to our assessment and were carried on site to mark areas of deterioration and those areas that occurred over potential path of travel for students and staff. This report should be reviewed in conjunction with our initial report noted above.

BUILDING DESCRIPTION

Roofs utilizing pre-stressed, precast tee beams occur over the Gymnasium, Student Mall, Theater, and both the Boys' and Girls' Shower and Locker areas. All spaces are part of a multi-building structure. Where tee beams occur, they span to cast in place and precast concrete walls (with integral concrete beams in the walls at the gymnasium space) and cast in place concrete columns supported on concrete caisson foundations. The pre-stressed, precast tee beams at the roof bear on the integral beams within the walls at steel bearing plates.

SUMMARY OF FINDINGS

The tee beam ends for the roofs over the Gymnasium, Student Mall, and Theater all occur over adjacent low roofs. Consequently the current state of deterioration does not pose any threat of falling debris on students and staff from the tee beam ends in those areas. The tee beam ends for the roofs over the Boys' and Girls' Shower and Locker areas occur over exits, walkways and path of travel. We have identified areas on the attached markup of the existing structural roof framing plans where beam ends pose a threat of falling debris on students and staff. Areas of concern are circled in red.

RECOMMENDATIONS

We recommend that the loose material at the ends of all tee beams identified on the attached plans be knocked off by mechanical means such that only sound material remains. This is the most straightforward and full proof approach to protecting students and staff from the risks of falling debris.

LIMITATIONS

We make no representation or warranties, neither expressed nor implied, as to the structural integrity of the subject facility. The professional assessment and opinions presented in this report have been developed using the degree of care and skill ordinarily exercised under similar circumstances by reputable consultants practicing in this or similar locations. Thank you for the opportunity to be of service. Please call should you have any questions or if we can be of further service.

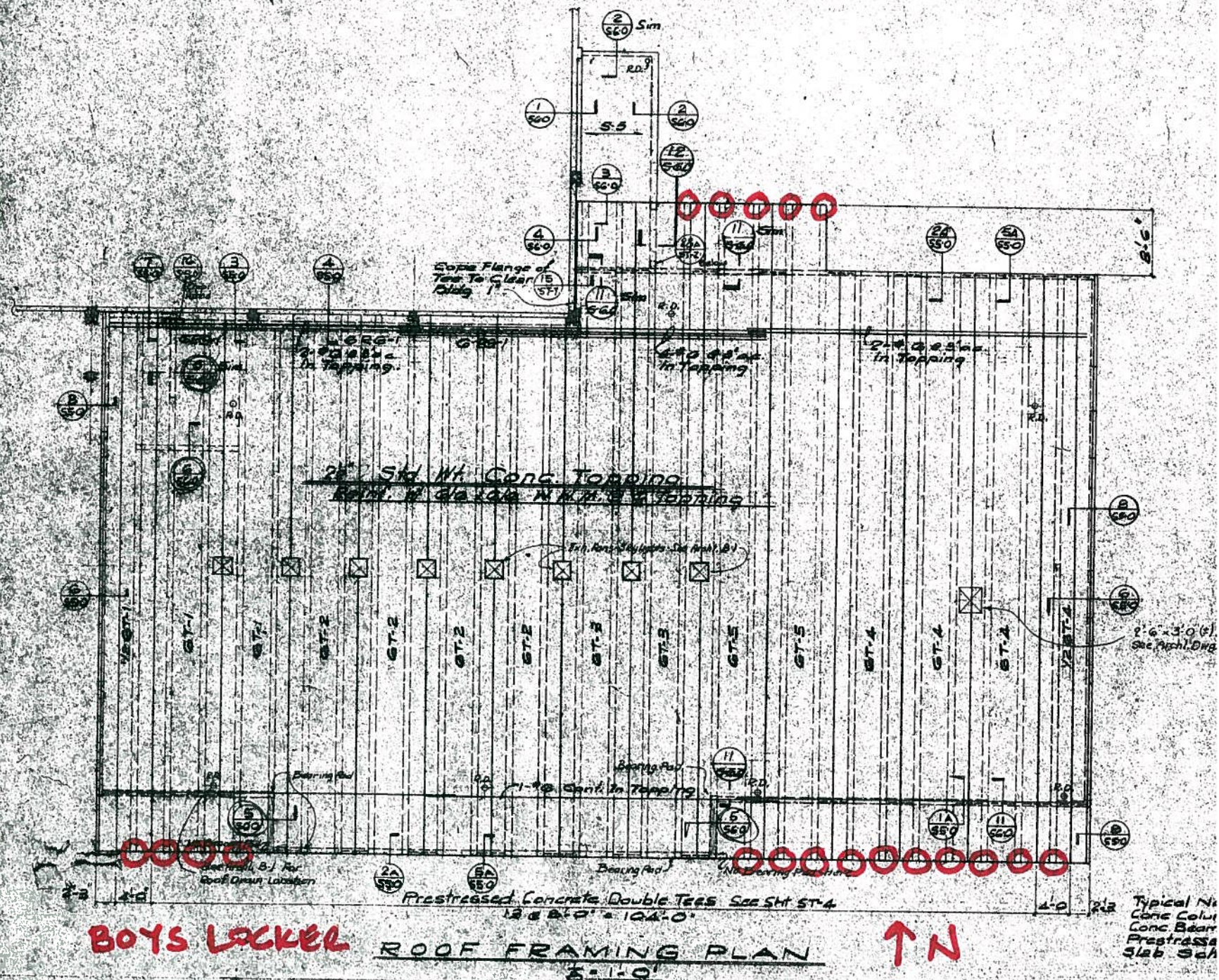
Sincerely,

KNA STRUCTURAL ENGINEERS, INC.



Josh Randall, S.E.
Principal





BOYS LOCKER

ROOF FRAMING PLAN
5'-1'-0"

↑ N

Typical No.
Conc Colu
Conc Bearr
Prestress
Slab Sch

1'-0" x 8" Nail
4 @ Col