REQUEST FOR BOARD ACTION

HENDERSON COUNTY
BOARD OF COMMISSIONERS

MEETING DATE: **February 7, 2005**

SUBJECT: **Jail Demolition Project**

ATTACHMENTS: **Yes**

SUMMARY OF REQUEST:

The purpose of this agenda item is for the County Manager to discuss the issue of the demolition of the old jail and seek approval from the Board to proceed with seeking bids on the project.

As staff has developed this project, the main issue has been the effect of the demolition of the jail to the annex. On January 30, 2005, Wilson Engineering provided the attached report. It is their opinion that the annex and the jail are not connected. They believe that the annex was built to the existing code at that time and is stable on its own. They believe that the annex will need some stabilization but not as much as once thought. They have proposed that when the wall is built for the annex that a 'wing wall' be constructed. This wall will then be incorporated within the service annex.

COUNTY MANAGER RECOMMENDATION/BOARD ACTION REQUESTED:

I am recommending that the Board authorize staff to develop a bid package for this project. Once bids are received they will be presented to the Board for your consideration.

WILSON ENGINEERING
CIVIL ENGINEERING/SITE DESIGN

7 WOODCREST RD.
ASHEVILLE, NC 28804
(828) 252-5100
(828) 606-0034

January 30, 2005

Mohsen Goreishi
The Kohan Group
702 West Trade Street, Suite H
Charlotte, NC 28202

Re: Henderson County Courthouse Renovations
Hendersonville, NC

Dear Mohsen:

With regards to the existing Courthouse Annex Building and demolition of the adjacent jail building, it is my understanding that the existing jail will be demolished and the Annex building will be retained and renovated. It is apparent that the building was constructed to meet the provisions of the 1967 code with respect to the structural loading. It is my opinion that the building is sufficiently stable to meet the code under which it was constructed.

The new wall that will be constructed along the line (C1) where the existing jail is removed will be constructed of 12" CMU as shown in the previously bid plans. This wall will be built from 12" CMU as was previously indicated with the floor being clipped to a triple course bond beam constructed at the level of the floor and the roof as indicated in detail 8/S1.2. It is my opinion that a 18" deep by 24" wide grade beam along this line is more practical than constructing the footing as shown in details 4,5,6/S1.2 and installing all of the embed anchors shown. To that end it is my suggestion that the existing jail wall be demolished to a level 24" below the existing finished floor of the annex. The area that is the current jail basement shall be backfilled with a poorly graded gravel (crusher run) and compacted prior to constructing the footings for the wall. The grade beam will be reinforced with 3 ea #6 bars continuous.

Along lines 2 and 3 walls will be constructed as shown. The wall along line 2 is a new wall and the wall along line 3 is existing. Each of these walls are connected along the bottom flange of the beams in their respective lines as indicated in details 9 and 10/S1.2 with a concrete beam just under the beams. The footing for the wall at line 2 is new and the footing along line 3 is existing except where the new portion of the infill wall is constructed.

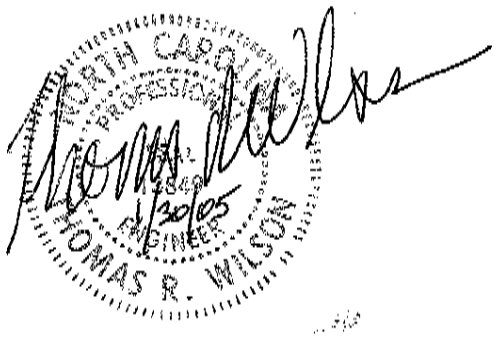
The new shear wall at line 4 will not be constructed. As an alternative, I propose to construct a wing wall to the north at line 4 or at line 5. This wall will be a 12" reinforced concrete wall and will extend to line D (approximately 9'-4" from new CMU). Reinforcing in the wall will consist of #5 bars at 12" on center, each way. This wing wall will be supported on an 18" deep x 24" wide strip footing similar to the grade beam discussed above. The wall will be approximately as tall as the second finish floor elevation. The existing structure will be braced to this wall at the elevation of the structural steel.

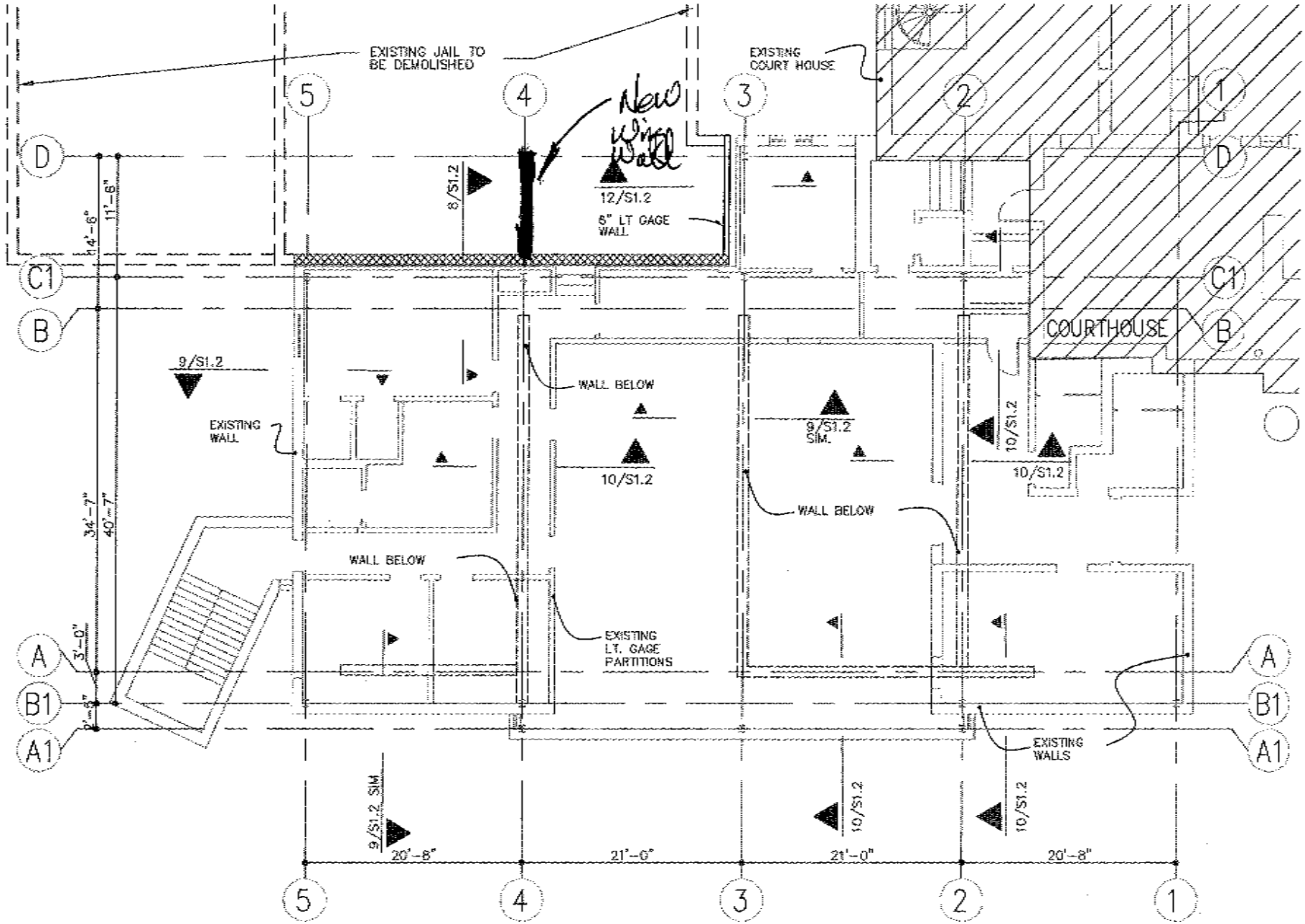
This should alleviate all concerns with the lateral bracing for the building as well as eliminate the need to install the bracing inside the building at lines 3, 4 and 5 and at line A. Additionally this should eliminate all necessity to perform construction within the office space except as is necessary to construct the new wall at line C1.

I am working on the construction documents for this scheme and expect to have the pertinent detailing finished this week. The information included should give your contractor information enough to give a budget estimate for the repairs. If he has any questions please feel free to have him call me regarding these items.

Sincerely

Thomas R Wilson, PE

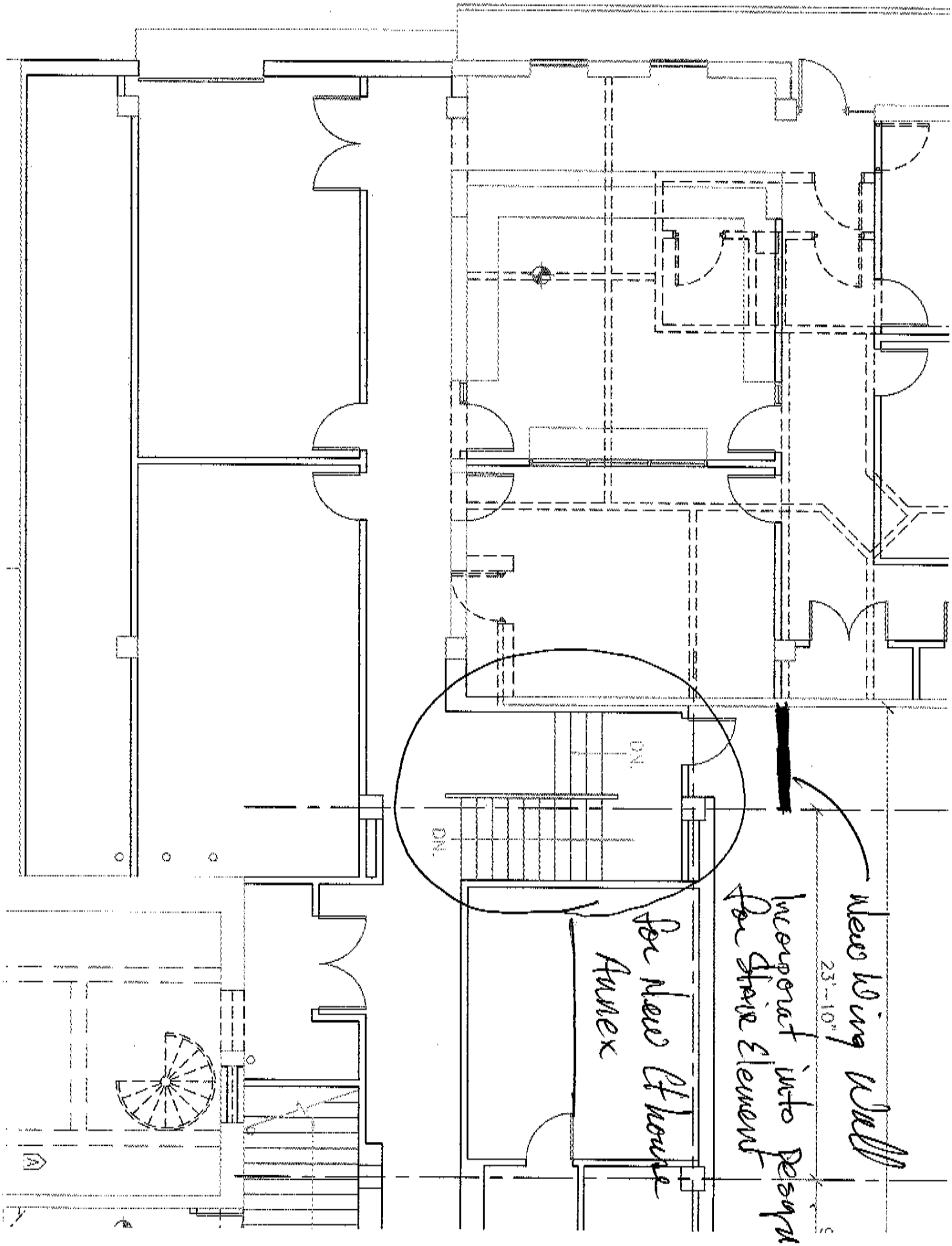




2 SECOND FLOOR

NO SCALE

1. FIN. FLOOR @ 15'-0".


New Wing Wall
Incorporate into Design
for Stair Element
for New Elevator
Annex
23'-10"
DN
UP