The final funding piece appears to be in place for a new Transbay Terminal in San Francisco after U.S. Transportation Secretary Ray LaHood said Thursday the project will get $400 million in federal stimulus funds.

But local officials are still waiting to work out the details of how and when they’ll get the money before demolition of the old bus station at First and Mission streets begins.

LaHood, during a briefing with congressional leaders, said part of the $2.25 billion stimulus grant for a planned high-speed train system linking Northern and Southern California would go to building a sophisticated transit center in downtown San Francisco.

“There is $400 million for Transbay,” LaHood said.

Coming on the heels of a $171 million federal loan announced this week, local officials said the stimulus grant was the last piece of financing necessary to begin demolition and then construction of a terminal for high-speed and commuter rail, along with regional buses, all under one landscaped roof.

The first phase of construction on the Transbay Transit Center will cost $1.2 billion, according to the Transbay Joint Powers Authority. That agency is in charge of building the terminal and puts total project costs, including extending the Caltrain rail lines and bringing in high-speed trains, at $4 billion. The $400 million would go toward an underground rail station.

Transbay officials said they probably will start demolition this spring and hope to open the terminal in 2015.

Mayor Gavin Newsom applauded the grants, saying the project to replace the Transbay Terminal will generate 48,000 jobs.

The grants provide few details about how the money will be spent and there were still questions Thursday about who would administer the money.

Quentin Kopp, a member of the California High-Speed Rail Authority, said he believes that board decides specifics on the grant spending. Kopp said no funding could go to the Transbay site until a state environmental review considering alternatives is complete. That could take a year and a half, he said.

But Maureen Knightly, a Transportation Department spokeswoman, said money will go toward a new Transbay Terminal.

“This is a major milestone for the project,” Knightly said.

“Secretary LaHood has reserved $400 million to be available for it,” Knightly wrote in an e-mail. “(Federal transportation officials) will work with California authorities to get the project under way as soon as all the proper approvals are final.”