BOS - Government Audit and Oversight Committee

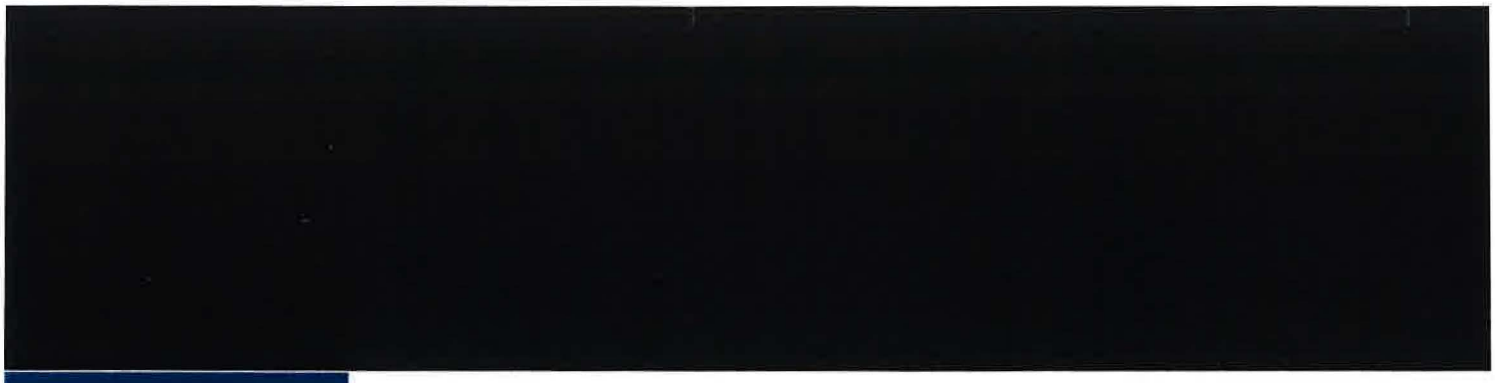
11 ROLL CALL AND ANNOUNCEMENTS

210611 Tourism Improvement District and Moscone Expansion District - Annual Report - FY2019-2020

210883 Japantown Community Benefit District - Annual Report - FY2019-2020

210748 Hearing - De Facto Route Abandonment and Service Restoration for Muni Buses, Trains, and Cable Cars

210954 Hearing - Update on Seismic Retrofit of 301 Mission Street



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City and County of San Francisco

THURSDAY, NOVEMBER 04, 2021

NOVEMBER 4, 2021.

>> good morning welcome to the

NOVEMBER 4, 2021 committee.

I am extending our thanks from

sfgovtv for staffing this meeting.

MR. Clerk, do we have announcements?

>> yes, the minutes will reflect committee minutes are

participating through video conference.

The board recognizes public

access is essential.

Invites public input. One moment.

I have an echo.

Public comment is available on

each item channel 26 or 99 and sfgovtv p.We will stream the call-in number on the screen.

Each speaker is allowed two

minutes to speak.

Comments have available by

dialing 415-655-0001.

Meeting id today 24922118986.

Following that you should dial pound twice to be connected to the meeting.

When you are connected you will

hear discussions. You're

your line will be muted. Dial star followed by 3 to be added to the speaker list. Call from quiet location.

Speak clearly and slowly and

turn down your television or your streaming device.

Alternatively submit in writing.

E-mailing them to me audit

clerk.

John.Carroll at sfgovtv or sent through the post to our office

in city hall.

clerk's office room 244 at 1 DR. Carlson b

at city

hall.

I will add the comments to the

file.

Finally, we are expecting to

appear on NOVEMBER 16, 2021.

>> thank you, please call item

1.

Resolution receiving and

approving the annual report for the tourism improvement district

There MAY be a desire to bring this back one more time

depending on the next rollout. MR. Clerk call the roll on the motion to continue. >> motion offered by chair preston the hearing be continued

to the call of the chair. Vice chair chan. >> aye. >> mandelman. >> aye.

>> chair preston. >> aye.

>> MR. Chair, three ayes. >> thank you. Motion passes. Thank you all again.

Please call the next item. 4. Hearing to receive progress

updates on the seismic retrofit

options for 301 mission.

Based on public documents in our

file that being 160975. Members of the public to comment

on this call in the call-in

number 415-655-0001.

Today's id24922118986.

After you entered the id press pound twice and then star followed by number three if you

wish to enter the queue to speak. >> thank you, MR. Clerk.

i am going to in a minute here hand it off to the sponsor of this item.

Before I do let me thank MR. Peskin and the callers for their patience.

It is a long hearing already.

Let me assure you that these

items are not agendized in

importance of order or order of importance.

We are looking forward to this hearing on this extremely important matter. Thank you for your patience.

I will turn the floor over to supervisor peskin.

>> thank you, chair preston and

supervisor chan and mandelman for the opportunity to bring

this item before you.

I wish that the 301 mission

street mel enemy yum tower --

tower behind us but that is not

the case.

As you know, going back to 2009

when the first unit in that

building were sold the tower had

already begun to sink differentially, to tilt far

beyond what the projections in

the environmental analysis

yielded which is tropical.

So far as this board of supervisors actually recently held a hearing on a different building and were concerned

about the lack of seismic and geotechnical information in that report.

In this instance over the life

of the structure, there was

projected to be four to six inches of uniform.

The building not differential settlement, no tilt. This building like the one we

considered the other day is in

an area of town that was not originally tara

tera fir mabut filled reclaimed lands.

When I started the hearings in

2016 on the sinking and tilting,

the building had already tilted

almost a foot and a half to the northwest and sunk approximately a foot.

There was a lot of litigation

which we are all aware of. That litigation has been settled.

We don't know the terms of that. I am led to believe the

homeowners association receive the range of individual homeowners received benefits.

We do know that the city and

county of san francisco did not

participate monetarily but did

make available at no charge the

portions of the public

right-of-way along mission and

fremont streetses where a

voluntary fix casing and tiling

system that was supposed to stem the continued sinking and tilting of the building and

maybe even restore some of it and sadly, unfortunately, it

would appear that the fix has

exacerbated the sinking and tilting that is now approaching

two feet of tilt at the top.

I realize this has gotten a lot

of media attention and is the issue.

It is not what we are here for today.

We are here, one, to hear why

experts, structural and geotechnical experts think the

fix caused the accelerated differential settlement.

Two, to hear from the department

of building inspection who is

the permit issuing authority and their plans now and in the

future as well as from the edrt,

the design review team that has

been a second be set of eyes for

dpi, what their role has been, what their assessment of what

went wrong in the fix and what their role is going forward. There is good news.

The good news is and we will hear about this shortly. Of

of 52-inch 36-inch much

casings on fremont and mission streets when

work was halted in AUGUST 23rd

there has been one test casing

and it's would appear the

techniques used for sinking that casing did not lead to any additional settlement.

We will hear about that.

Then colleagues we hope to have lessons learned.

I have a series of questions you

should feel free to jump in.

Obviously, this building is unique in san francisco because

it is built out of concrete and not steel. 57% heavier. Load is heavier.

We know that the foundation

system does not go to bedrock.

It has 10-foot matt slabs supported by friction piles.

You will hear about the column

of sands and the substrate

beneath the tower.

With that the project that the

fix is a product of the

millennium homeowners association.

We will start with the hoa as to

what the outcomes of the fix have been, what is going on with the building and what their plans are going forward.

We will hear from the structural engineer of record who works for

the hoa who participated in our

2015 hearings as well as matt who was the project manager for

the hoa overseeing the

construction doing the actual on

the groundwork. >> from this process it was

unanimously endorsed by an

independent third-party panel of

experts after a peer review led

by the university of washington.

Member of the berkeley academy of alumni.

Once consensus was reached.

The best approach in the foundation and long-term

performance of the tower it was

presented to the city's

engineering design review team. After the review they also improved the design.

In addition to seeking out the best available experts for the

design the tower sought out most

qualified team for construction. The lead design team of

engineers from the mediation

process were chairing over to

the construction project itself.

For construction only one

obvious choice to select a

contractor shimek construction.

They have delivered on local

projects such as bart, caltrains

and performed for the san

francisco transit agencies. They sought out and relied on

best experts and professionals

to address the settlement of the tower.

Lastly, the tower has remained

safe to engineering certainty.

On this point there continues to

be consensus.

In the final declaration it was

evaluated and determined to be structurally sound. That is why this is an upgrade

not repair. After much consideration the millennium tower determined it was best to proceed with construction to improve long-term performance of the building.

This including tilt construction, further

projections over the long-term. On behalf of the tower community

we are grateful for the engineers and construction professionals working with our

team to complete the upgrade.

Now with that backdrop I will

turn it over to our lead

engineer to update the board on the progress.

>> good morning, MR. Hamburger. >> good morning.

I did attend to transmit a powerpoint this morning.

I wonder if the clerk has that available.

>> I did not get such a thing.

I don't know if the clerk got it.

>> through the chair to MR. Hamburger, no, sir, I did not receive the powerpoint from you.

I have a presentation from the department of building and inspection on this topic.

>> I am sorry about that.

If I can share my screen, I will share it.

If not I will talk.

>> we can help you share your

screen.

If you can start with your bona

fide des in this field.

>> the screen is shareable now. I am ron hamburger.

Senior principal with simpson.

I have approximately 47 years of experience in structural engineering.

Education, construction and failure investigation.

I am a member of the national academy of engineering.

Past PRESIDENT Of the structural engineers association of northern california.

california and the national council of structural

engineering associations.

Since 2011 I have chaired the follow veer committee of the

american society of civil

engineers that developed the structural engineering requirements of the engineering code.

If I MAY, I would like to talk briefly. Supervisor peskin has about the

problem and solution. Millennium tire is constructed

at the corner of mission and fremont street. Like most of the financial

district south of the market

area of san francisco,

underlying the city consists of

artificial fill since the gold rush. Young bay muddy possit is from the deposits when the san

francisco bay covered that area.

Deep layer now 70 food down 70-foot down of beach sand did not cover. [Indiscernable]

A very deep layer 150 feet of

material called old lay clay.

Eventually about 230 feet down formation bedrock.

The tower like every building constructed in that part of san

francisco prior to 2010 is a

series of piles that extend down

into the dens sand layer for the foundation support. The reason the building is settling is that under the effect of the building weight as

supervisor peskin said is

significantly larger than buildings constructed prior to

that is causing a process called

consolidation of the old bay clays beneath the building pile. Consolidation is the pressure created by the building and by

the watering of the surrounding

site to allow construction of

the adjacent buildings. Basically squeezing water out of

the old bay clay.

That squeezes the water out it

is like squeezing water out of a sponge causing volume change

that is allowing the site to settle. Tilting beneath the building as

shown in the slide is not uniform.

The layers have different thicknesses on different sides

of the site. Construction add jay sent to the

building including the transit

center immediately to the southed removed the soils

present to the construction and rewas

constructionrelieved pressure on the clay.

The building is tilting to the west.

The goal of the voluntary

upgrade is to arrest that perfected settlement of the

building and to allow recovery

over a period of years.

We accomplished this by new

piles underneath the sidewalk on fremont and mission street at

the side of the building. Jack load off the existing

foundation to new piles of rock

and transfer that load down to the bedrock to stop the

consolidation of the old clays. >> if we can go back a little bit.

I know this is going back I

recall it started on the mission

site before the excavation and

installation of the wall on the

transbay terminal, and that was

initially ascribed to more

de-watering of 301 mission street site than originally predicted in the earlier

calculations and in further

allegedly exacerbated by the

de-watering of the transbay site.

Does that sound right to you? >> that is correct. It is settling since

construction initiated on it.

Effect of de-waters is reducing

the -- when you de-water it

decreases the effect of waste of

soils above or below the water

table to create more pressure

and consolidation.

The building did not tilt until

2009 when it started on the add

jays sent project it settled

straight down. >> my recollection is the same. >> as the structural engineer of record does that mean that you designed the foundation system

or somebody else designed the foundation system? >> I was not the structural engineer of record for the

original construction of the building.

The original structural engineer of record designed the foundation system, they selected

the number of piles to be used,

how deep they would go, designed

the foundation map on those

tiles, it was done on the basis of recommendation made by the geotechnical engineer of record

for the original construction. >> remind he who is the structural engineer of record originally in the foundation system?

>> original structural engineer of record was. [Indiscernable]

>> right, yes.

>> tread will was the geotech?

>> that's correct.

>> going back again to the

original if you will.

>> was this a process in implementation failure?

What do you think the original

failure was in.

>> I am not comfortable on this.

I have not studied that in any detail.

My understanding is that the original geotechnical engineer

for the project did under estimate the weight of one of

the layers of soil.

It was assumed when the project

was originally discussed that

the de-watering for this project was going to be only during the

period of excavation and

construction. . [Please stand by]

>> digging piles 270' deep in the rock.

With 36" diameter.

Once that's done, a 24" diameter steel pipe

approximately 240' down through

the center of those 36" diameter casings to the top of the rock and then they drill

down into the rock and that's

another 30' and that's.

Once the pile is installed,

they would totally be which is

about 15' below grade in a 10' set.

We have attached onto the existing and existing

foundation will be basically

extend that foundation out to

encompass new the contractor's

technique and installing the

36" casings and the 24" casings.

Inadvertently removes soil from

beneath the structure.

And just squeezing the pile and

resulting in volume changes. And piles have been installed

and resulted in volume change

and settlement.

a secondary cause into the sand

and support the existing piles

that have dense fied them and

we think that has some expense

as well.

>> Supervisor Peskin: and just relative to the behavior of the

structure during the insulation

of the casings and the piles, maybe we can just take it from the top.

The design that you propose

that the edrt reviewed and were

otherwise peer reviewed as

MR. Lip said consisted of 52 casings, correct?

And 52 piles that you would in

essence tie back to I assume you started with the casings.

When did you start and how --

when did you start detecting

the accelerated differential settlement?

>> it started in MAY of this year. We began to detect small

amounts of increased settlement almost immediately.

And as additional casings and

piles were installed, the

increase in settlement became more severe.

By the end of JULY, the contractor had installed a

total of 33 of the 52 casings

consisting of call the casings

along fremont street and about

two thirds of the casings on mission street. They had also installed at that

time, six of the 24 -- I'm sorry.

Three of the 24" piles.

At that point in time, I became

concerned and I asked the

contractor some following 36"

casings continuing with the 24s

so they can understand which of

those two operations and.

>> Supervisor Peskin: as of

right now, 6, 24" piles. >> those are located at the

south end of fremont street.

From the driveway north.

>> Supervisor Peskin: and then

you see 36" casings after the

33 up until you did the quote

unquote test recently?

>> is that correct. >> and they permit us to

install some additional 36" cases.

As of today, there are a total of 36 installed.

>> Supervisor Peskin: and, are

you still going for 52 or are

you revising the plans to have

less casings and piles?

>> we did submit a proposal to

the city.

We have not yet seen impact.

>> Supervisor Peskin: and the

quote unquote successful

installation of the test casing and subsequent casings, what

did you -- what was done

differently relative to method?

>> on the 36" casing, we did much more careful control of

where the ends of the casings

would be stopped -- it's

possible that we do 100' length.

The contractor has to make splices in the casings and so

we controlleded where those splices would be made so that

the tip of the casing would not

be that could be pushed up into

the casing while -- we also acquired much more careful control on the depth of plug and the end of the casing and

the amount of water fill in the

casing while they're installing it to provide waste at the end

of the casing to prevent material from piping up into

the casing.

>> Supervisor Peskin: so less ground.

>> we also put measures to isolate the installation

equipment -- to isolate the vibration from the installation

equipment from the piles that had already been installed. When we installed the pilot

casing a few weeks ago, we have extensive measurement of operations both at street level

and the casings and at depth within the same layer and we

have determined that we have

successfully mitigated the vibration.

And ground loss measures on the

36s also appear to be successful.

>> Supervisor Peskin: and, the

techniques that are being utilized in this are techniques that have otherwise been

utilized in other situations, is that correct? >> the installation techniques that are being used here have

not been used in the san

francisco bay area previously, but the contractor who is doing

this work has used these

techniques and other sites

around the city.

>> Supervisor Peskin: so is

this good to new any

explanation as to why these techniques that have been used

in other places in the united

states were not implemented

earlier in this between MAY and

when you ceased in late AUGUST

and commence the test recently?

>> I have no way looking at that.

I can tell you the soil at every site even at different

sites within the city vary quite a bit and the techniques

that are used in one place

technically MAY not be as

effective in other locations.

>> Supervisor Peskin: and just

in the placement of the first

30+ casings, what kind of

monitoring regimen was employed

then versus what has been since

implemented in the pilot?

>> there are a series of 38 settlement markers that are surveyed upon.

In the basement of the building

that have been surveyed every week since the construction started.

In addition, there are a series

of prisms mounted on the side

of the building and also at the

top that give digital read-outs

not only of settlements, but also horizontal movements of the buildings at different levels. Those also were being monitored

at a weekly basis.

We are now monitoring a prism

on the side of the building.

>> Supervisor Peskin: so the difference is not that you

installed more prisms or more monitors, but was that you

monitored them more frequently,

is that correct? >> that's correct.

>> Supervisor Peskin: but it's

not the monitoring that decreased the differential

settlement during the test pilot, it is the change, means and methods? >> that is also correct.

>> Supervisor Peskin: okay.

Thank you for all that.

Please proceed.

>> okay: in late AUGUST, when

I put the moratorium on the compilation. The tilt on the plot at the top is tilted to the north.

The plot on the bottom is tilt

of the building to the west towards fremont street. In 2009 with construction

completed, the building was

holding about 4" to the north.

>> in NOVEMBER of 2020, when construction started, the

building was helping about 7"

to the north and 17" to the west.

In AUGUST of this year, when I

instituted the moratorium and

23" to the west and as of

today, it's about can.

>> Supervisor Peskin: MR. MR.

MR. Hamburger, I've heard in

the past where we have a duty

as the department of building inspection and the board of

supervisors to inquire.

At what point, should we

particularly in a seismically

proned region.

At what point do we worry about

structural failure. ? >> it's an excellent question. I've been asked this a number of times.

I started back in 2018 and what

we've done -- what we've done

is we created an analytical model of the building.

This is the same type of model

used the design what the

building code called the maximum considered. 1500 years or so.

It has the magnitude of the

1906 san francisco earthquake, but has an indentation of a

location that reduces more

severe compared to as I said, the building is holding 12" to

the north and 28" to the west.

We had evaluated it previously

and the ezrt reviewed and concurred that the building was

safe at that level of

deflection we lacked at the building as much as almost 3'

to the north and almost 80" to the west. And we've concluded that the

building is still able to

safely resist its maximum considered earthquake shaking not that we expect the building will ever be permitted to go that far.

I will mention that the edrt

has seen those results but has not had the opportunity to review that. [Please stand by]

>> we have successfully tested

the 36-inch much was

casing.

Our next step is testing 24-inch casing in two weeks. Based on the results of the

testing of the 36 and 24, we

will be able to project how much

settlement will occur to the

building and how much sloping.

We will have a conversation with

the homeowners and with the

building department as to how

much additional sloping they

will accept.

We will trim the project to allow the piles not acceding that limit.

I will note the upgrade is voluntary. The piles that we install and attach to the building will improve performance and will

reduce amount of settlement that occurs over the years. At this point we are looking to

see how many piles we, the city,

homeowners can afford without causing excessive tilt in the building so the behavior in the

future will be improved.

>> MR. Hamburger, I thought

there was a chance to find out if it was on a specific slide or wait until the presentation is

done before asking your question?

>> I think it is just a quick question between this slide and

the last slide. Maybe I missed the point here

that was already made.

You mentioned from a technical perspective you consider a tilt

up to 40 inches is acceptable limit. Knowing that right now from what

you indicated the tilt is

9.5 inches north and 23.5 inches west.

In the event from your estimate

or I don't know if this is the right question to ask you.

In the event that -- because the

work has begun and it tilts more and settles more unexpectedly.

In the event what you are about

to do now with the new solution that you are moving forward in

the event it doesn't work again, how fast do you think -- how

much time do we have until it is

no longer acceptable?

>> before the initiative the

building was settling about one

eight inch per year and tilting at one-half inch per year.

When we stopped construction of the piles in AUGUST the building

returned to those rates of settlement.

We are currently at almost 30 inches of tilt.

We have another 10 inches of tilt which could occur at the

rate of a half inch per year.

That could be 20 years if we did nothing. >> thank you.

>> thank you, supervisor chan.

I apologize for cutting you off,

supervisor peskin.

>> none of us are geotechnical

or structural experts so this may sound like a simplistic question. MR. Hamburger, do you think this building would have been better

off without the fix or is it too early to tell?

What is your take on that? >> if we had not done the fix,

the building would have settled and tilted as it currently has

today in about four years.

The building would have been better off today but not better

off four years from now.

>> four or 40? >> four.

>> even with the limited number of piles that we have installed

at the moment, if we put these

piles into the building and off the building to the piles that

will improve the building's future performance beyond what it would otherwise have been to

the extent we can successfully install additional piles that

will improve the building future performance. I would not say the building

would have been better off if we

had not done what we have done.

>> all things being equal, the

fix was not necessary? >> in our opinion the fix has never been necessary from a

structural perspective, from a safety perspective. >> got it.

You are saying if this thing

does not reach equalibrium and

sees tilting eventually it is

going to get to 40 inches or 28 inches? Is that fair to say?

Did you say that?

>> 28 inches now.

>> I thought you said 23.5. Then you said 28 inches. I am confused.

>> you are correct.

the reason is summing the tilt

to get the tilt quantity in the

north west direction which is

more of the tilt to the north

arwest.

>> got it.

Consolidation causing the tilt

we are not installing piles is self-limiting behavior.

If you think about the sponge someone squeezing water. If you grab a wet sponge and

apply pressure with your hand and you squeeze water out, water

will come out for a while then stop.

Consolidation is a self-limiting behavior.

We expect to happen over time as

the consolidation continues and more and more water is squeeze

the out of the soil, it will self-limit and stop.

I think it will self-limit in about four four

40 inches. >> 40 inches.

You are saying you think it will

get to 40 earlier that 40 is the

acceptable limit? >> yes.

>> then if it goes to 41 or 48,

which the edrt and other peer reviewers haven't looked at that

is the point of no return, in

your estimation? >> I wouldn't call it point of no return.

I would call it a point at which

the building's ability to resist

maximum earthquake. [Indiscernable] >> maybe this is not a question

for you but MR. Eaga in who joined the call.

With all of this and sorry for

the technical termmucking around in the dirt and the existing

load measured in kips, do you or

does the goio tech think there

is any defamation of the

substrate?

Are different layers sheering

within the subsurface?

>> no, I don't think there is sheering.

I think that what the

installation of piles has done

has -- obviously if you get

settlement, you are causing additional consolidation

settlement or second dairy compression settlement during this process.

I don't think it has caused

sheering of concern within the sub soil strata.

>> relative to the condition of

the matt, the 10-foot slab matt. I will ask this question. I never did get answers or good

enough answers to this question a half step years ago when we

were holding the hearings.

Was that done in one pour or multiple pours? Do you know?

>> I do know that was done in one continuous pour that lasted

more than a day.

Hundreds of trucks would come and

and depossit is the concrete.

>> it gets hot. Did you cool it. >> I was not the structural engineer.

It is typical in large

foundation pours of big

buildings like this to aye

ice the concrete.

I assume that was done here.

>> this is a separate question.

I will start trying to turn it

over to the next speakers, but I

mean again, none of us here are

remotely experts in this field.

I did start out as an earth sign

measure in the math kicked my behind.

I have not spoken to most of

these folks, but I have the same

access to the internet and the television that everybody else

does.

I see this parade of credentialed experts and I can

look them up on the internet.

They are structural or

geotechnical engineers in good standing, licensed in the state of california. We all know their names. Some of them have taken upon

themselves to e-mail me and

robert pike is in the record and

date williams we saw on tv and

somebody from uc berkeley and

larry carp and the list goes on.

One was concerned about dishing of the matt.

Any thoughts for MR. Eagan or

MR. Hamburger if there is

defamation of the mat. >> it has dished.

When detailed measurements of the elevation started to be

taken in 2009 with the survey

markers, it cuts off the addition of the matt.

We are continuing to monitor

those with the survey.

The mat has not improved at all since 2009.

The building has been settling and tilting at the rigid bottom

as you see on the slide here

with no additional dishing of the mat.

I would like to note my analysis

of the building included a detailed model of the building map.

Before we apply an earthquake load to the structure we apply

that dishing to the model to

stimulate the effect of what has occurred.

the analysis indicate we have

reviewed it and that dishing has

not compromised the mat. >> I have been in the basement

of the building and seen the cracks.

There is obviously water in truce

intrusion.Does the modeling take into account any of the corrosive

activities occurring in the basement? >> the water leakage that you

are referring to as well as the

cracking of the basement walls which are not in this building. It was constructed together

with adjacent mid-rise building. The garage for both buildings is

in the five level of basement of

the mid-rise knowledge.

All -- mid-rise building.

All of that damage is in the mid-rise building.

I have not evaluated the safety

of the mid-rise.

It has not compromised the tower ability. >> okay.

MR. Eagan, do you agree with that? >> yes.

>> thank you.

I I assume all of you in this

relatively small tight admitted expert community know one another. Do you talk to each other? Are these people looking to be

on tv or what is your take about

the skepticism we are seeing

from other industry experts on television set?

>> I don't really care to speculate as to the motive of

these individuals.

I will say in the san francisco

bay area there are at least 2000 structural engineers.

I assume several hundred geotechnical engineers all

members of the structural engineers association of northern california.

I was once part of that.

The fact that a half dozen

engineers think there is a big problem. I wouldn't suggest that is

representative of the engineering communititive in the bay area.

I will also say the engineers

who have been vocal and in the press could not possibly have

done the level of analysis I have done over the seven years I

have been involved with this building.

>> thank you, MR. Hamburger.

You are not speculating that is a good thing.

I have not spoken to most of them.

I do always read their

submissions with interest.

Would you like to wrap up?

We can go to briefly in charge of overseeing construction for

the homeowner's association.

Any last slides, MR. Hamburger. >> one last slide on the project schedule.

There is a detailed schedule

developed by the contractor 22

month construction period.

At the time construction halted

in AUGUST at my direction about

10 of those 22 months had elapsed.

The project was on schedule at that time.

Assuming we get permission to restart construction, I am saying in DECEMBER of this year, it will take about another year

to complete the project.

That would be DECEMBER of next year.

Steps will be permitted and will

have arrested and stopped

further settlement of the

building upon submission and

allow gradual settling on the

south and east side with the effect of recovering the tilt that has occurred over time. Thank you for your attention.

>> thank you very much, MR. Hamburger. Congratulations on the new means

and methods that have proved at

least initially successful.

I wish they had been implemented earlier in this fix.

We are where we are.

MR. Dutro, good afternoon.

>> good afternoon, supervisor peskin. Thank you for giving us time for discuss this project. I will be very brief.

My role is to oversee the

project for the homeowners, taking into account the budget

and the schedule. We have at the same time engaged

a mechanical engineer to review

the interior of the building to

ensure that the interior of the

building remains functional for

the homeowners. Then in regard to the intrusion

that you mentioned, supervisor

peskin as MR. Hamburger

indicated in the parking garage underneath the mid-rise building.

We have a design team designing

a fix to water proof that

section of the building to keep the residents safe.

There is no currently no life

safety issues associated with the interior functions. We will continue to monitor

those for the homeowners. >> thank you.

One quick question.

Relative to the integrity of the mat slab.

Do you know whether or not that thing was ayed

iced when they did it in one pour? >> no, I was notes involved in

the original construction.

>> have you undertaken any

ground penetrating radar investigation of the mat?

>> no, we haven't dubanything

done anything

to that extent. We relied on professional

engineers, hamburger, eagan to

guide us to the activities and further investigation would be needed to ensure the safety of

the building.

>> they have not recommendedded

using ground penetrating radar

technology? >> no.

>> if I MAY. As part of the original

investigation performed back in 2014-2015-2016.

Gpr would not be use full

because of the depth of the

matter it could not penetrate. [Indiscernable] Through the depth of the mat and

removed from the mat and examined. There was no significant be cracking in the cores.

We are confident that concrete is in good shape.

>> thank you, MR. Hamburger.

If there are no questions, MR. CHAIRMAN, I want to thank

the hoa and their three representatives, four representatives for their

presentation and answering of questions.

I will move to our department of building inspection.

I don't know if all of you are

familiar before patrick is with

us to ask questions.

MR. Ferrara has a powerpoint and

is an engineer so with that. If you can walk us through the

role of D.B.I. In the permitting

process that would be greatly

appreciated. >> good afternoon, supervisor peskin and the rest of the committee.

As MR. Peskin has said I am new to the department.

I am the deputy director for permit services.

I have studied in late SEPTEMBER

working for 40 years in the industry in design construction

and previously served in building departments throughout

the state and in private sector.

In the past few weeks I

acquainted with the project and

the department has control

oversight and is actively participating for the review of

the proceedings during construction.

You have heard quite a bit of

technical information about the project from MR. Hamburger.

My focus here is to underscore

the D.B.I. Role regarding this project. Current and future oversight as

you said at the beginning of the presentation and the current status of the project.

I will then hand be it over to

professor dear line of the

engineering design review team

and DR. Ben turner who we have

since retained from dan brown and associates a national

drilling expert in the field.

>> the role of D.B.I. As most building as any building

department is that to ensure

that the building code is being

enforced to the maximum extent possible.

the building codes offer clear and state guidelines.

They are acceptable and what we

are here to ensure that

construction appears to those

boundaries.

I think, john, you need to mute your microphone.

Essentially we are driven by

design proposals and constraints.

We don't tell the design professional, project sponsors

what to do.

We ensure the proposal is code compliant.

That gives us a stronger position to guide and enforce the code without directing the design or construction.

This is how all building

departments work up and down the state and across the nation as well.

If the project varies from code compliant we ask them to correct it. If necessary to shut down operations.

Public safety is always our first intent. Department uses construction

proposals, complaints and observations as a prime resource

of input to ensure the building

codes is commyatt.

We -- compliant.

This allows us to review the scope of work.

We have a highly educated team

in my career.

San francisco plan check engineers are probably the most qualified that I have seen in

the building departments that I have administered.

We have several advance dee

dee's and structural technical engineering here.

They are involved in the retrofit.

We once the building permit is issued. It will be to inspect the

project to make sure it com

ports to the plan we were approved.

We oversee special inspections

and materials, tickets delivered

to the site.

Last we respond to complaints of unsafe conditions.

That is what we are doing at the millennium tower.

In this case we have gone beyond

our original scope in several areas.

One of which is that we have scheduled biannual inspections

to go through and ensure safety of the structure.

Any minor code violations that

come along with those

inspections are rectified along

the way.

The homeowners association have

contracted with several other

inspectors or teams to go through and do an analysis of the building.

We review those and comment on

those as necessary. Of course,

we have been instrumental in

compiling the engineering design

review team and this additional

layer of expert oversight helps supplement the internal

expertise we have. This continuous monitoring off

the project and the construction

that actually led to the

discovery of the accelerated

tilt that we experienced this

last summer.

>> MR. Hamburger made a point

saying that he on behalf of the

project sponsor of the homeowners association halted

the work in late AUGUST.

What role did D.B.I. Play?

can you give us background on that.

Clearly D.B.I. Even though you

knew there was accelerated

settlement did not invoke powers

to halt installation of the

36-inch much casings and 26-inch piles.

Tell us behind-the-scenes considerations?

>> from what I understand the

monitoring of the settlement was essentially started around the

same time as the 36-inch casings were beginning.

It wasn't until JUNE 23rd that we receive the data from the

design team and the field.

At the same time we were

involved in the changing of the

scope from the 52 piles to 42

piles MR. Hamburger talked about.

Essentially we began reviewing

settlement data as soon as we

got it, and you heard

MR. Hamburger talk about halting

the 36-inch casings and continuing on the 24.

This was kind of methodology to

make sure that it was, you know,

what was responsible for the settlement.

The 36 or 24. Halt one to continue on the other one.

This process of deduction and

communication back and forth between the engineering design

review team and the design

engineer took some time.

Eventually we requested that they halt the continuation.

MR. Hamburger was the ultimate

decision-maker to do that.

>> aren't you guys the ultimate decision-maker? You can issue stop work on

construction of any kind

anywhere in the square files of the town, can't you? >> we can do that. This

this is a consensus of review. The conversation that happens

between the design engineer,

edrt and D.B.I. Is one of

general agreement.

It takes all three of us to make that decision. Yes, you are right.

We do have that ability to do that. In this case it was just

suggested that they stop.

>> so they stopped at your suggestion. Please proceed.

I know that my three colleagues

are about to mute me.

Let's go on.

>> I can go through this slide quickly.

I did say earlier we oversee and

don't determine the means and methods for the contract.

That is up to design professional and contractor to

come up with that.

We will talk about the timeline quickly.

I touched on this a moment ago.

This is just a rough visual for

the ongoing proceedings starting

in MAY when the 36-inch much casings began.

Then we went into the 24-inch casings.

It was discovered the accelerated settlement was going on.

There was a period of discussion

before the proceedings were actually halted.

Then a discussion again to

restart with the pilot you

talked about in early OCTOBER.

During that process also it was

decided to get in additional oversight.

because it is means and methods

we found dan brown and

associates a nationally recognized drilling expert to

join the team to evaluate the

means and methods for the installlation.

I wanted to start this by saying

that conditions at 301 mission are stable. The building is structurally sound by all of the information

that I have reviewed and the eert has had.

We know the building is

habitable and serviceable through various inspections and

we monitor with the help of the homeowners association and their

team of experts that come in and

address matters as are needed.

The current tilt is at 22.5 northwest of the building.

That is holding steady.

We had successful installations

of the pilot piles.

We proved it's on pile number 34 as well.

The elevator. >> 34 of 42?

>> that the 34 of 42, that's correct.

>> the 42 as opposed to 52

permanent casings and piles?

D.B.I. Signed off on the revised

lester number of casings and piles?

>> I have to defer to my team on that.

I believe that. Patrick. >> thank you, supervisor peskin

and chair preston for holding this hearing.

We have not signed off on the

reduction from 52 to 42.

It is currently being reviewed. >> MR. Reardon, while I you on here.

It is not fair to ask mr. Ferrara.

Can you tell us how the members

of the engineering design review

team were selected?

And who they work for? >> yes, supervisor.

I wasn't in that department at

the time either. I believe it included the city

administrator at the time and

decision was made in consensus

with D.B.I. Along with the city administrator to select this

team of professionals. >> do you know how it worked?

>> I am not aware exactly how that happened at the time, supervisor.

I can get back to you with that information.

>> so they were originally hired and paid for and worked under

then city administrator naomi kelly and that function was transferred to D.B.I. They are

now consultants to the department of building inspection, is that correct?

>> that is my understanding, yes.

>> supervisor peskin, I want to

go to supervisor chan with a comment. >> thank you.

My question is earlier

MR. Hamburger said the limit for

this tilt is about 40 inches

from acceptable design standpoint.

Do you agree to that?

>> supervisor chan, we actually

just started those discussions this morning in a meeting.

The information is relatively young.

In front of the edrt.

There was about two hours of very technical discussion this morning.

We are in the process of

reviewing that. >> what will happen?

I am curious in the case that

you have a difference of opinion

about what is an acceptable limit?

What is the process to resolve that difference of opinion?

Meaning, you know, whether you find it too much or how would you do that?

How would you resolve that if

you don't agree that 40 inches

is acceptable limit?

>> that is a great discussion.

It is very -- it is a series of. It is a discussion among all design professionals.

As well as the members of the edrt.

We go back and forth.

I have seen greg dear line and

marco on the team request additional information from the

design professional and they are to prove that theory for the

engineering design review team

and come back and prove it or refute it.

It is that process of back and forth.

Eventual consensus of everyone

that we can move forward that

results in the decision or the

way to go.

>> in my line of questioning was

to MR. Hamburger.

The attitude of supervisor

peskin asked. Without the face, you know, we

are seeing, you know, the

challenges of that the tower would face in terms of tilting would have significantly

impacted without the fix within

four years. With the fix maybe we have like 20 years. Would you agree to that or do

you agree with his assessment?

>> my experience with this type

of building and -- I'm sorry.

My experience in fact I was asked by internal executive team

about that same thing. >> their visual cues to what is going on at the building.

If we come out of an earthquake

and the building has suffered trauma of some sort.

It is not necessarily

catastrophic effect.

It is not brittle. You will see beams and that sort

of thing. These official cues are fuses

that are designed to alert us

ahead of time as to remediate

building or evacuate the

building and demollish it if needed. >> okay.

Thank you for that.

I personally have not been into the building.

Sounds to me there seems to be some visual cues from what supervisor peskin had talked

about earlier in terms of the cracks that he was seeing.

Thank you so much.

I am done with my questions for now. I MAY have more later. Thank you. >> thank you.

Supervisor peskin.

>> let's keep going.

>> next slide please.

What D.B.I. Is doing.

During actual installation is

that we have set a threshold. Design team and engineering

design review team has agreed a quarter inch maximum settlement is what is acceptable.

If it were to pass this we would

pause construction evaluate and

react accordingly.

During the installation, dan brown and associates monitored

the last two casings to make

sure that the program for installation is being followed

and that it is proving out and

the results have proved that minimal settlement occurred

using these procedures. The department sends out a senior building inspector every

single day to make sure that the monitoring is going on and that

we are recording thepertty net

data to submit to the edrt for

review after reinstallation.

The daily measurements are

taken. MR. Hamburger told you during

installation these are hourly measurements and the measurements continue to happen

daily basis. >> two quick questions.

I assume that the stepped up

monitoring would be applied to

all future installations not

just the test casing and the test pilot? >> that's correct, yes.

We have seen that we get better

or more telling results from the

exterior prisms the reflectors on the surface of the building

as it reacts to the work going on.

The higher the prism the more movement to be reflected on

what is going on at the

foundation.

>> it is not a show stopper.

Is the project sponsor paying

for D.B.I. Staff time on all of this? >> MR. Reardon, I will ask you.

>> not as of right now, supervisor peskin.

We are looking at the resources

we are pouring into this project

and continue to and we are evaluating that right now.

>> you do have the legal ability to charge for your time, I assume?

>> I will have to check with our

city attorney on that in

relation to what we can and cannot charge for.

We have charged a fairly sizable

amount of money at the issuance of the permit.

I can check on that to see what

it is we can do.

>> MR. Ferrara or other reardon,

it sounds like the hourly prism measurements and ground vibration monitoring for the

test casings and new means and

methods are being provided to

D.B.I. In realtime or close to realtime, but it sounds like that did not happen between MAY

when this project started and

JUNE the 23rd.

Why not?

>> so the plans issued required monitoring.

It stated that if the monitoring

exceeded specific numbers that

the design professional

responsible for the project was to stop the work.

That is what is drawings indicate

ed. Prior to JUNE 23rd we requested

those numbers to review.

[Please stand by]

And then we review it and once a week we get together as a

team.

The design professional and

D.B.I. And D.R.T. Members and we review that and discuss it and see what we learned, if

anything.

Decide to act on it, slow things

down or analyze it a little bit more or move forward.

Next slide, please.

I've covered this already, daily inspections by the building

inspector to go out there,

weekly coordination occurs. As well as we've asked MR.

Hamburger to come up with that threshold, right?

What we consider a structural

safety issue with the building

and that's currently being reviewed.

Every complaint that is -- that

arises out of the building we

actively engage in to review it and to get compliance.

And ultimately, we're making sure that the building continues

to be habitable for the occupants and serviceable for the building maintenance. You know, make sure the sewage is running the right direction

and the elevators and so on and

so forth are working correctly. If the soil settlement reaches

more than a quarter inch, we ask that the retrofit stop and we

caucus how to move forward.

>> when you say for casing, installation, does that mean casings and piles? >> correct.

So there is a casing that is run

down for the 24 as well, but,

yeah, people tend to use piles

for the 24-inch as well, but

there is casing that is run down for the 24 inches as well.

>> I'm saying is the tolerance

for shutdown a quarter inch per casing and per pile?

>> no, it's per installation, so

it's -- well, actually, I'd have

to ask MR. Hamburger about that.

>> Supervisor Peskin: okay. Remember that through the

process of elimination, what we

realized was that the casings are causing differential

settlement and the piles are causing differential settlement.

that is what the sinking of the six piles showed us, it wasn't

just a casing problem, it was a casing and pile problem.

My problem is, if it's 42 or 52

and you've done six of them, and you're doing a little less than

a quarter inch of settlement per

and that does not lead to a

shutdown, the cumulative is many inches.

And I think that you guys

started with soil sediment in

excess of an 8 inch per casing and per pile.

I just want to get some clarity

on that.

>> these limits were per casing,

so if a 36 inch casing installation was to exceed a

quarter inch, we can stop it.

If a 24 inch were to exceed a quarter inch, we would stop it.

I will point out that the settlement that has occurred throughout construction, I said

it before, is only an inch and a quarter. The maximum amount of settlement

that any one has caused is a

little bit more than an eighth of an inch.

So we're not looking at many inches and we will not allow

many inches of sediment to occur.

>> Supervisor Peskin: but even

if you did the math -- if you

did 52 -- I mean I appreciate

there is a little more than an

eighth of an inch, but every remaining pile, assuming you

have 46 to go, 36 to go -- but

if you've got 46 to go even at

an eighth of a inch, that's

another half a foot of settlement, right?

>> I haven't done that math.

We would not install that many piles.

in fact, once we install a 24-inch test pile we are

required to come back to dbi and project how many settlement will occur if we complete based on

the results of that test, then

we -- [Indiscernible]

If it's not, work in such a way to prevent that from happening.

>> Supervisor Peskin: thank you. >> okay. Next slide.

I think I'm done.

So with that, I'd like to

introduce the engineering and

design team, which is chaired by

professor greg deerline.

Marco shah, who another

structural engineer on the team.

Greg shields who is geotechnical

engineer and DR. Donnie who is

also of a geotechnical specialty as well.

So I'll hand it over to greg.

>> just to jump in.

In terms of just a little time check. I see a long list of folks and I want to --

>> yeah, we can continue this to another hearing because there is obviously we have to wait for

the 24-inch test, but the thing that you said earlier and maybe

I fell asleep for a minute, had

a slide, t technical aspects.

Did you just show us that slide?

>> that was one of the slides I prepared on the edrt. >> perfect. I want to talk about that slide.

MR. CHAIRMAN, what is your will? >> it's fine to proceed.

I just wanted to make sure and maybe get an estimate of how much time if we're moving into a

new presentation.

-- by the design review team, what the time estimate and we also, of course, need to allow

time for public comment as well. >> I think in terms of the

slides I have prepared, there

are just four or five of them. Definitely less than 10 minutes.

>> okay.

Three of the four edrt members

have been enlisted by the city managers office to perform all of the retrofit as proposed to review studies of the safety of the building and supervisor peskin, if you remember, the

hearing in AUGUST 2017, we

reported on that on behalf of our committee.

Since we've been looking at the

foundation retrofit, working

with the department of building

inspection, that's when va danny

was added to this.

We meet with the dbi and the design team, the proposals for the design team, the drawings,

the calculations, the analysises

and the assumptions behind those things. Then we put them with additional

questions and then when it's resolved, it's the consensus of the group.

Not one of us has more clout than the other. We discuss all these things

together.

Just wanted to point out that

our review team works under the san francisco administrative

bulletin 82.

And that's to provide the independent objectives we have technical review of aspects of the design and reporting that back to the building inspection.

And also what we do and what dbi

doesn't replace the quality

assurance measures that are

ordinarily expected of the structural engineer of record

for the design.

The two things ways we've been enlisted back from 2018 to

AUGUST 2019, that was the time

in which we reviewed the permit

request for the foundation upgrades.

These were drawings and

calculations to substantiate issuance of a permit. And then more recently in

DECEMBER 2020, we were enlisted to continue in our review capacity during construction.

I want to emphasize that our role during construction is

really still focused on design issues. That is some pile tests that are

done in the course of

construction that provides

geotechnical parameters to finalize some of the design values. There is changes in the design, so we're there to review those.

And in the case of the monetary

and the excessive settlement, we

look at implications of those

and we're here to review those. You've heard previously about as

ron hamburger described the

objectives of the retrofit. The key part of our role is to ensure that the requirements

that the san francisco existing

building code for voluntary

seismic improvements, which is dealing with the structural

safety of the building under the gravity load and earthquake loading. The key focus is paying

attention to that in addition to

the other objectives.

And that the design team is following the perform-based guidelines that are permitted under the san francisco

administrative bulletin 83 and

further that referenced guidelines for performance-based design of new tall buildings. Ron hamburger mentioned that

previously. Next slide.

So I have two slides to talk

about, supervisor peskin, the

key technical aspects you were alluding to. The first is during a permit review, the initial stages we

worked on over a year ago.

What is identified here is a key technical aspects of that.

I just wanted to touch briefly on.

You heard details of this from

ron hamburger earlier, I won't repeat that. But the perimeter piles, these

are steel piles that go down to

rock, through the clay layers

and then settlement on the

mission and fremont streets. It was an intentional part of

the design in the geotechnical

engineers would agree to

minimize any disturbance to the

soil, any of the so-called ground loss. Obviously there are effects that

were larger than expected, but the basic design principles, the

solution or the proposal to minimize those effects.

Here is focusing on the earthquake safety, looking carefully at the detailed analysis of the structure and the foundation.

But both the existing case, if

we're thinking about that, and going through construction until

the retrofit is completed. And then beyond that, the safety of the retrofitting structure,

considering the pile configurations.

During the course of the permit,

the design team has looked at the safety of the existing building under the tilt. As ron hamburger mentioned previously, they also looked at tilt of twice that amount

anticipating that there would be some settlement.

Some did occur just naturally between JULY and last JANUARY,

up to 17 inches, but through cubs, crushings -- construction.

So that is a key part of the retrofit.

Once these piles are in, they're connected back to the building

through this 10-foot mat.

So a key of the review is

looking at the details of that.

There is a ductal fuse that is the way the new piles are

connected to the mat to ensure that this mat extension and the

mat that it's attached to don't get overloaded. We also looked at estimates of long-term settlement.

I think one point I would like

to emphasize here that I don't

think was conveyed earlier.

Once this retrofit is installed

as it is designed along the

mission and fremont street, that will rest the settlement of those spots. And the long-term settlement that will continue to occur on

the other sides of the building

will, in fact, recover tilt. So once this is tilting to the northwest now, once this

retrofit is in place, the original design anticipates that there will be continued settlement of the building but, in fact, that's going to recover

some of the tilt over the life of the building.

>> can you hang on a second?

i appreciate this.

But just going back to the first

thing, perimeter piles.

I mean in this process did the

edrt predict or model or analyze hamburger/eagan's predictions as

to what increased amount of settlement and differential

settlement this fix would bring about?

>> well, we reviewed all of

their reports in detail.

And as part of their study, they

did not look at what would be to

try to estimate the settlement that occurred during construction due to the pile installation method, but they did look carefully at once the piles -- new piles were in place, what would be the

continued settlement of the building and looking at the

properties and the soil and n.

Their study included a

sensitivity study to look at how the estimates of future

settlement would vary based on

the range of the parameters.

>> Commissioner Peskin: that

seems a little weird that you wouldn't analyze -- far be it

for me, again, maybe I'm not an

expert, but you would think that you would try to analyze what

the fix was going to be with increased settlement.

But separate and apart from

that, is it your belief that it

wasn't the design, but the means

and method, ie, the excess

ground loss that led to the

accelerated tilt?

>> well, yeah, because the design itself is not causing the excess tilt.

It's the installation of these piles. Now the question of whether the installation of the piles is a

design feature or part of the means and methods. The point I'm trying to make

here is that the design shows chose the type of piles that was

to minimize disturbance to the ground. Sometimes piles are put in with drilled shafts that don't have the steel lining.

But those ones will tend to cause more ground loss.

So that type of solution was dismissed on this project in

favor of the steel piles.

But the settlement estimates that were made during the developing the design and part of the permit review, again,

we're looking at the settlements

kind of post construction.

>> Commissioner Peskin: so relative to future tilt,

professor deerline, if we can do

apples to apples, which is

hamburger is using a northwest

tilt combined number of currently 28 inches and

apparently historically said

that the red alert number was

29, but now is saying it's 40 to 47?

How does this westward tilt

number of 29, which is twice the

14.3 that was JULY of '19, which

is now well north of 14.3, how

does this number relate to that number? And what do you think is where this city should get nervous?

I mean, I did hear MR. Pereira say eventually demolish if

needed. >> okay. Well, the tilt numbers that we're talking about are roughly proportional.

So the ones that are quoted on this slide, which is where -- there is more tilt to the west than there is to the north.

And as the piles and casings

have been put up fremont street,

they caused more tilt to the west.

If I could just focus on these

numbers, with again are

proportional if you look at the

ratios to the ones to ron

hamburger was talking about.

In 2019, it was tilting to the

west 14 inches.

We did analyses to see if the

building were safe if it were to tilt to the west 29 inches.

The current is 22.35, or 23 inches we'll see.

What ron reported, which the

first we saw of that was in a conference call this morning.

So we've not reviewed it.

Is the westward tilt could increase to 79 inches and it would still be safe.

Now we've not reviewed that yet,

so we're not going to make a judgment on that.

Now the 40 inches is something

much less than that, which is

more of a practical or a

serviceable limit on tilt.

But the casing and another point

that ron made is that -- ron

hamburger made, is that once the

next indicator pile of the 24-inch pile is put in and they

can make a better estimate if

they proceed with the original retrofit plan how much

settlement do they expect to occur through construction?

Then the key thing is to be to look at that amount of settlement and make sure it's

far less than any of these thresholds that would impact the structural safety of the

building.

Okay.

So the last bullet point here

really that leads into the next slide is that one part of the

permit review -- and this was mentioned before -- is that a requirement that monitoring

occurred to the building weekly.

There was also some holes put in with down hall monitoring for water tabling and so forth.

If you go to the last slide.

So then during construction, for the first few months of this

year, JANUARY through MARCH, we were busy reviewing information

from additional soil testing and

a couple of test piles that were

put in to help finalize the geotechnical parameters to establish the capacity of these piles.

The load they could take into the rock. We also then starting about APRIL were reviewing modifications to design.

And you heard mention already of

major modification is a proposal

to scale back from 52 to 42 piles.

So we have been looking at those

and, in fact, we did issue a

letter back in JULY, the review

team had gone through that 42

proposal and made comments on

that fact which was basically to support that design decision

back to dbi.

Then since that time, the

casings have been installed, we

are meeting frequently with the

design team and the contractor

to evaluate the causes of that settlement and how they might mitigate it through these modified installation procedures. Again, you've heard that the

modifications made to the

36-inch casing so far have been successful. pending though is what is going

to happen with the 24-inch piles. And the last thing that we've

been focusing on, ron hamburger mentioned, the design team is already looking at contingency

plans in the event that

continued piles with lead to an unacceptable amount of

settlement under ways that they

could scale back the retrofit

and achieve the piles.

We brought in dan brown and associates who are experts in deep foundation construction, to

help us review and help advise what the design team and the

contractor are proposing for the mitigation procedures.

So I'd like to, if I could turn

it over to DR. Ben turner from

dan brown and associates who has been, along with dan brown, part

of these discussions looking at the causes and mitigation

methods and also ben has been on

site for these two 36-inch

casings that were installed.

He has a couple of slides and can be available to answer questions.

>> Commissioner Peskin: before we do that, and thank you, colleagues for your indulgence. A couple quick things.

Professor, I neglected to do

what we did half a decade ago

was to give your findings --

>> most of my time in life is a professor at stanford university.

I've been a structure engineer

for 40 years, but academia for

35 or 10 of those years.

Doing research and teaching and structural and earthquake engineering. Part of our faculty appointment

allows us to spend a certain amount of time on doing outside activities that are related to our research and teaching. And it's through that, that I've

been involved in kind of reviewing this project and also

worked on other reviews for the department of building inspection.

>> Commissioner Peskin: thank you for that and sorry for

failing to ask that in the beginning.

But relative to geotechnical expertise, that's not your specialty?

>> no, that's not my specialty.

>> Commissioner Peskin: and I do

want to hear more and I would

like to hear about a similarly situated project, foundation

system, virtually identical, but

we'll get to that on another occasion, because I think we

should do this again in JANUARY.

But do you, MR. Deerline, want

to speculate why we're people, experts in the profession, who I mentioned, are sending us letters with different analyses

than that of the edrt and the engineer of record?

>> well, a couple of things on that.

As ron indicated, I don't want

to speculate on people who are sending the comments forward.

Some comments came in during the

review of the permit back in

2019 time frame. And at that time they were sent

to D.B.I., D.B.I. Forwarded them

to us and we considered those in our review.

We thought about those questions

and if we I greed it should be

-- agreed it should be answered,

we reviewed it with the team.

So now in terms of the -- well, those comments maybe what came

up more recently, one comment

would be many of those

criticisms are based on incomplete information.

Because there is a lot of

background information and some of that becomes available through sunshine laws, but there

is an awful lot of understanding that comes about through the many meetings we have with both

the design team and even amongst

the edrt debating the issues, delving into these things.

The analyses need to be

integrated with a lot of judgment.

We have two geotechnical

engineers working with marcus and myself collectively looking at the issues.

>> Commissioner Peskin: I appreciate that.

And by the way -- and I'm in no

way -- going to be very clear -- casting any professional doubt on those two gentlemen, but

insofar as MR. Hamburger

indicated early on in today's

hearing that part of the

original problem was if I MAY,

you know, be pointed, was the geotechnical analysis or

problems in the geotechnical

analysis done by treadwell and

rolo now a decade and a half ago

and the structural guy is only

as good as the geo tech guy.

And half the edrt comes from treadwell and rolo.

I'm going to leave it there. [Please stand by]

[Please stand by]

>> I do want to get to public comment, I know that folks have been waiting. >> sure, thank you for the opportunity to speak here.

My name is ben turner and I'm a geotechnical engineer and I work for the firm dan brown and associates.

Our company specializes in all aspects of deep foundations.

We primarily do engineering design of deep foundations that are going to be built but a large part of our business is

also supporting contractors and owners and other engineering professionals through a construction-related aspects of deep foundation. And how that affects design and

the ground around deep foundations, etc. So right in the ballpark of what we're talking about here today.

The photo that you see on the right shows installation of 36-inch casing, number 33. And that was the first one that

I was on site to observe.

If you will advance the slide, jen.

So since we have been brought on

board, the pilot program that is

called to implement procedures has been in effect and two facings have been completed and a third they understand is being installed and it will be completed today.

And so the numbers listed there

are actually just the number and

schemes where each is assigned a

number, not the sequential order in which they are installed.

And those are close to each other by coincidence.

I first observed 36-inch casing number 33. And then after successful

installation of that casing and

when I say success, the parameter was the settlement, the settlement that occurred

during installation as

MR. Hamburger noted was negligible.

so we adopted those in a

additional set of specifications called supplemental is specifications and they were in

effect when casing number 32 was installed at the end of last week. The things implemented on site

that I was there to observe include tracking of both the water levels inside of the casing and also what we call the soil plug thickness.

So that's how much soil remains inside of the bottom of the pipe

as it is moved down to minimize ground loss.

And you can see some photos of these things on the right, the water levels being measured with a weighted tape measure which is also used to measure the soil thickness. So that was done between every

pass of the drilling tool in and out of the hole and those measurements were recorded so that everyone involved knew what they were at all times.

They also welded the bolts on the joint. You can see a bolted casing joint there, which was intended to minimize the time that it took for the total installation.

And then the bottom photo kind

of gives you an overview, seeing

the casing going in the right

and see some workers on an aerial left taking the measurement. And then you see a number of people observing, which was the case for these last two.

Overall, it has been successful

as has been recorded with these modified procedures.

And so now our next job here is to see what happens when the

next 24 --

>> 10 minutes on the clock. >> thank you very much.

And supervisor peskin, I think we should go ahead and go to public comment and I imagine that you MAY have some questions

of me and we can decide after

public comment if you want to

pose those now or in a follow-up hearing.

So, MR. Clerk, open up the public comment.

>> Clerk: see if MR. Chin has something? >> it's not really a comment but more of a quick question. Chair, thank you.

And I don't know who can answer this question.

The question is what is

currently the occupancy rate or

just a number of occupants in

the tower at this moment, if we

know that.

Is that an hoa question? >> perhaps for dbi.

>> probably matt from the hoa.

>> supervisor chin, I can answer that question.

There are 419 residences in millennium tower and the total occupancy of the community is about 1,000 residents. >> great, thank you.

>> you're welcome. >> thank you, supervisor chin and let's go ahead and open up to public comment line, MR. Clerk.

>> Clerk: thank you, MR. Chair. We'll working with the department of technology who is

checking to see if we have any callers in the queue.

For those watching on the cable

or through sfgov-tv.Org or elsewhere, if you wish to speak

on this item call in now.

415: -655-0001.

And today's meeting 2492118986.

following that you should press the pound symbol twice and then

press star, followed by 3 if you want to be entered into the queue to speak.

For those already on hold in the

queue wait until you're prompted to begin and you will hear that

you are unmuted and that begins

your time to -- to give your comments to the committee. Excuse me.

Could you please connect us to

our one caller in the queue.

>> Clerk: hello, caller, if you are there, you want to mute your

television or radio.

I'm hearing myself.

>> Caller: hello.

>> Clerk: yes, please begin.

>> Caller: say again?

>> Clerk: please begin your comments.

>> Caller: oh, good afternoon.

My name is david williams and I'd like to request an extra minute if possible.

>> Clerk: not possible.

>> Caller: it is possible?

>> Clerk: it is not possible.

All speakers enjoy the same two

minutes' time and I will start the clock.

>> Caller: recognizing the reports that were reviewed over

four years, and with what I have heard today, I believe that

implementation of the ongoing voluntary ppu should be put on hold to confirm two critical issues with the upgrade and

future performance of the task.

And once they have installed and the found

foundation is extended it involves redistribution of foundation load.

Given the consequences of poor assumptions, the current foundation structure condition

should be thoroughly reassessed.

Many detailed investigations, including further non-destructive testing.

And any cracks on the underside and durability issues. And even if successfully

implemented without incident,

resulting in upgraded structure with a say

symmetrical stiffness

will result in a less desirable seismic response.

Tall buildings on soils sway and

rocking. And the slant of the buildings on deep foundations such as M.T., rocking is the most likely

response, and reasonably uniform

foundation, rocking is smooth, seismic and acceptable.

For a building on stiff piles

and in bedrock on two adjacent

sides and on soft piles elsewhere, the seismic response

is unlikely to be smooth, typically biased in one direction with little recovery.

And this can cause problems.

That is why the guidance and the

voluntary upgrades warns against

adding any a symmetry to the construction. And many designers would have concerns about the performance of any slender or high rise

building with a symmetric foundations and avoid them.

>> Clerk: time is concluded. Thank you for sharing your comments with the committee.

MR. Chair, I received word just

now that we have no further callers er in the cue.

>> Supervisor Peskin: with no callers in queue, public comment

on this item is closed.

Supervisor peskin, do you have

any -- did imcial additional comments or questions at this time?

>> Supervisor Peskin: thank you for your indulgence and I know

that it's a long hearing, chair PRESIDENT, and committee members. I said what I have to say for now. I would respectfully request

that you continue this item to

the call of the chair and that

we find a time to continue this hearing in JANUARY.

>> chair: thank you, supervisor peskin, and I'm happy to make that chair and I do just want to

say that I know that we've got a

lot of inquiries, you know, in

the recent months around these issues, and we very much

appreciate how your office has

been and you have been on top of this issue and working with the departments and making sure that -- that everything possible is

being done and I appreciate you calling this oversight hearing and we'll look forward to

continuing the conversation at a future hearing date.

So, MR. Clerk, can you call the

roll on the motion to continue

to the call of the chair.

>> Clerk: [Roll call vote] MR. Chair, there are two ayes

and member mandelman is noted absent.

>> Supervisor Preston: the motion passes and thank you supervisor peskin for your leadership on this.

And, MR. Clerk, do we have any further business before the

committee?

>> Clerk: there is no further business.

>> Supervisor Preston: thank you, we are adjourned.