#### **BOARD of SUPERVISORS**



City Hall
1 Dr. Carlton B. Goodlett Place, Room 244
San Francisco 94102-4689
Tel. No. (415) 554-5184
Fax No. (415) 554-5163
TDD/TTY No. (415) 554-5227

DATE: September 2, 2021

TO: Members of the Board of Supervisors

FROM: Angela Calvillo, Clerk of the Board

SUBJECT: 2020-2021 Civil Grand Jury report, entitled

"Van Ness Avenue: What Lies Beneath"

We are in receipt of the following required responses to the San Francisco Civil Grand Jury report released June 28, 2021, entitled: "Van Ness Avenue: What Lies Beneath." Pursuant to California Penal Code, Sections 933 and 933.05, named City Departments shall respond to the report within 60 days of receipt, or no later than August 27, 2021.

For each finding, the Department response shall:

- 1) agree with the finding; or
- 2) disagree with it, wholly or partially, and explain why.

As to each recommendation, the Department shall report that:

- 1) the recommendation has been implemented, with a summary explanation; or
- 2) the recommendation has not been implemented but will be within a set timeframe as provided; or
- 3) the recommendation requires further analysis. The officer or agency head must define what additional study is needed. The Grand Jury expects a progress report within six months; or
- 4) the recommendation will not be implemented because it is not warranted or reasonable, with an explanation.

The Civil Grand Jury Report identified the following City Departments to submit responses (attached):

• Public Utilities Commission:

Received August 27, 2021;

• Public Works:

Received August 27, 2021;

Office of the Mayor:

Received August 27, 2021;

• Municipal Transportation Agency:

Received August 27, 2021;

• Public Utilities Commission General Manager:

Received August 27, 2021; and

• Municipal Transportation Agency Board:

Received August 27, 2021;

Van Ness Avenue: What Lies Beneath Office of the Clerk of the Board, 60-Day Receipt September 2, 2021 Page 2

These department responses are being provided for your information, as received, and may not conform to the parameters stated in California Penal Code, Section 933.05 et seq. The Government Audit and Oversight Committee will consider the subject report, along with the responses, at a hearing in September of 2021.

C:

Sophia Kittler, Office of the Mayor Andres Power, Office of the Mayor Sally Ma, Office of the Mayor Rebecca Peacock, Office of the Mayor Anne Pearson, Office of the City Attorney Ben Rosenfield, City Controller, Office of the Controller Todd Rydstrom, Office of the Controller Peg Stevenson, Office of the Controller Mark de la Rosa, Office of the Controller Michael Carlin, Acting General Manager, Public Utilities Commission Donna Hood, Public Utilities Commission John Scarpulla, Public Utilities Commission Carla Short, Interim Director, Public Works David Steinberg, Public Works Jeremy Spitz, Public Works Jeffrey Tumlin, Executive Director, Municipal Transportation Agency Kate Breen, Municipal Transportation Agency Janet Martinsen, Municipal Transportation Agency Joel Ramos, Municipal Transportation Agency Christine Silva, Municipal Transportation Agency Board Alisa Somera, Office of the Clerk of the Board Severin Campbell, Office of the Budget and Legislative Analyst Reuben Holober, Office of the Budget and Legislative Analyst Ellie Schafer, 2020-2021 Foreperson, San Francisco Civil Grand Jury Simone Manganelli, 2020-2021, Member, San Francisco Civil Grand Jury Michael N. Hofman, 2021-2022, Foreperson, San Francisco Civil Grand Jury



August 27, 2021

Sent via U.S. Mail and email to CGrandJury@sftc.org

The Honorable Samuel K. Feng, Presiding Judge Superior Court of California, County of San Francisco 400 McAllister Street, Room 008 San Francisco, CA 94102-4512

Dear Judge Feng:

In accordance with Penal Code Sections 933 and 933.05, and pursuant to the request of Ms. Ellie Schafer, Foreperson of the City and County of San Francisco 2020-21 Civil Grand Jury, attached please find the response of the San Francisco Public Utilities Commission to the 2020-2021 Civil Grand Jury Report, *Van Ness Avenue: What Lies Beneath*. At its regularly scheduled public meeting of August 24, 2021, the Commission voted to approve the attached responses by Resolution No. 21-0134.

The Commission would like to thank the members of the 2020-2021 Civil Grand Jury for their service and their interest in our vital infrastructure.

Sincerely,

Sophie Maxwell

President

San Francisco Public Utilities Commission

Tophenia majevell

cc: Mayor London Breed

London N. Breed Mayor

Sophie Maxwell President

Anson Moran Vice President

Tim Paulson Commissioner

**Ed Harrington** Commissioner

**Michael Carlin**Acting
General Manager

Services of the San Francisco Public Utilities Commission



### PUBLIC UTILITIES COMMISSION

City and County of San Francisco

RESOLUTION NO. 21-0134

	WHERI	EAS,	On	June	28,	2021,	the.	2020-202	1 Civi	l Grand	l Jury	released	a	report
entitled	"Van	Ness	Αı	enne.	W	nat Lie	s R	eneath" a	conv	of wh	ich is	on file	13/	ith the

Avenue: What Lies Beneath," a copy of which is on file with the Commission Secretary; and

WHEREAS, The Civil Grand Jury requires responses from both the San Francisco Public Utilities Commission (SFPUC) General Manager and this Commission to the report's Findings numbers 1, 2, 3, 4, 6, 8, 9, and 11, and Recommendations numbers 1, 2, 3, 4, and 5; and

WHEREAS, California Penal Code §933(c) requires the Commission's response be submitted to the Presiding Judge no later than August 27, 2021; and

WHEREAS, At its August 24, 2021 public meeting, this Commission reviewed the attached responses of both the General Manager and the Commission to the above stated findings and recommendations in the Civil Grand Jury Report; now, therefore be it

RESOLVED, That this Commission hereby approves the responses attached hereto, as amended by motion of the Commission at its August 24, 2021 meeting, to the relevant findings and recommendations of the June 28, 2021, Civil Grand Jury Report entitled, "Van Ness Avenue: What Lies Beneath," and authorizes and directs the Commission President to submit the amended responses to the Presiding Judge of the Civil Grand Jury by August 27, 2021, as required by California Penal Code §933(c).

I hereby certify that the foregoing resolution was adopted by the Public Utilities Commission at its meeting of August 24, 2021.

Secretary, Public Utilities Commission

Monna Wood

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	SFPUC Finding Response
Van Ness Avenue : What Lies Beneath [June 28, 2021]		The delays in completion of the Van Ness BRT Project were caused primarily by avoidable setbacks in replacement of the water and sewer infrastructure.	San Francisco Public Utilities Commission and GM [August 27, 2021]	Disagree partially	Many of the initial delays on the Project occurred during construction of the underground phase of the Project; however, these delays were both avoidable and unavoidable. The City and the contractor often share responsibility for delays, and some of the delays were due to third parties. Understanding the delay on this project involves looking at the contractor's initial claim for 279 days of delay and its pending claim for 344 delay days. As to the initial claim for 279 days, the parties agreed that 135 were compensable (City's responsibility) and 144 were noncompensable (not the City's sole responsibility). In other words, the contractor acknowledged that it shared responsibility for more than half of the delay days. As to the pending claim for 344 days, the contractor failed to provide the required scheduling analysis; thus, the City has been required to undertake its own analysis of the delay. This
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F2	The potential impact of utility replacement on the cost and duration of the overall project was given insufficient consideration in the initial planning process.	San Francisco Public Utilities Commission and GM [August 27, 2021]	Disagree partially	analysis is currently underway.  The SFMTA gave significant consideration to the potential impacts of utility replacement during the planning process. The underground utility replacement activities and its associated risks were studied and reviewed in design and preconstruction phase based on the information available and the recommendations from consultants and the selected contractor. During the design phase, the City performed some potholing and coordinated with PG&E to relocate gas mains and an electrical ductbank. To minimize major traffic and operational impacts, the City included a standard requirement in the Specifications that the Contractor perform significant amounts of potholing 30 days in advance of any installation. The contract also included specific allowances to cover additional or unforeseen costs related to utility installation. In future contracts, the SFMTA agrees to consider applying more emphasis during the planning stage regarding the impacts of utility replacement.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due	Finding Response (Agree/ Disagree)	SFPUC Finding Response
Van Ness Avenue : What Lies Beneath [June 28, 2021]		replacement was known to City engineers to be a major risk, but was only considered a moderate risk and	San Francisco Public Utilities Commission and GM [August 27, 2021]		The Contractor, City Staff, and an independent consultant cooperated in preparing the risk register and because of the mitigation measures being taken this was classified as a moderate risk. Several mitigation measures were included in the Specifications, such as requiring potholing 30 days in advance of the work, and providing the contractor with copies of deactivated utility drawings as reference documents. The Contractor failed to perform the required potholing in a timely fashion, at times attempting to dig potholes within hours of trenching to install utilities. Contractor's inability to properly anticipate/manage/mitigate utility issues during construction was the primary contributor to added contract costs and duration.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	SFPUC Finding Response
Van Ness Avenue : What Lies Beneath [June 28, 2021]			San Francisco Public Utilities Commission and GM [August 27, 2021]		Project timelines for projects with extensive underground utilities are often difficult to estimate because no matter how extensive the pre-construction investigation, there will always be unknowns. Contractors experienced in such work know that they must often deal with the unexpected. The project timeline prepared during pre-construction was a product of City staff, Contractor, and an independent consulting team based on the best information available. As construction started, the project team realized that some third party utilities, such as PG&E, provided inaccurate or incomplete information on their existing utilities. The contract contained an action plan to instruct the contractor for dealing with unknown utilities, as well as contingency for differing site conditions. However, the Contractor did not take the lead in field investigation and coordination with third party utilities, although they were contractually obligated to do so as a CM/GC. The Contractor failed to perform the required potholing in a timely fashion per contract, at times attempting to dig potholes within hours of trenching to install utilities. Contractor's inability to properly anticipate/manage/mitigate utility issues during construction was the primary contributor to added contract costs and duration. Contractor's initial construction sequencing plan was also unrealistic. All these issues contributed to an inaccurate project timeline projection.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	SFPUC Finding Response
Van Ness Avenue :	F6	Practical work during preconstruction		Disagree partially	The majority of the utility conflicts that resulted in additional
What Lies Beneath			Public Utilities		contract time were at intersections. Potholing within intersections
[June 28, 2021]			Commission and		typically requires the intersection to be closed in order to provide a
		· ·   · · · · · · · · · · · · · · · ·	GM		safe barrier for the workers from traffic. Given that Van Ness
			[August 27, 2021]		Avenue is a State highway, this would have been extremely difficult
					to occur. Typically, this level of potholing is reserved for the
					construction phase when traffic can be effectively closed/diverted.
					Ground-penetrating radar (GPR) during the design phase had
					several issues with accuracy and relability of the data. Recent
					improvements in GPR provide for a more reliable tool for future
					projects.
Van Ness Avenue :	F8	The effectiveness of the CMGC		Disagree partially	While it would have been better to have the contractor on board
What Lies Beneath		contract was greatly reduced because			earlier in the design phase, the Contractor did have a year (during
[June 28, 2021]			Commission and		pre-construction) to review the construction documents, provide
		into the design process too late.	GM		comments, and familiarize itself with the conditions along the
			[August 27, 2021]		corridor. The CMGC construction contract with the Guaranteed
					Maximum Price was issued by SFMTA with the Contractor's
					concerns and input addressed. Since the prime did not involve the
					subcontractors directly with the City in the preconstruction process
					the City may not have received the full benefit of the subs' technical
					expertise and local knowledge. Contractor did not make the best
					use of its subcontractors.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	SFPUC Finding Response
Van Ness Avenue : What Lies Beneath [June 28, 2021]			Public Utilities Commission and		In an effort to continually improve our contract documents, we review the project specifications, in particular with multi-agency projects where various sets of specifications are merged. The Van Ness project also had the challenge of coordinating City specifications with Caltrans requirements. Specifically, in the case of the potholing and pedestrian control specifications, the contractor settled claims on these issues for less than 20% of its costs incurred, illustrating that its claim arising from purported ambiguity in the specifications had little merit. Moreover, Contractor had access to the specifications for many months during the pre-Construction period and did not request any clarification/changes at that time. Contractor raised issues with the technical requirements after the construction started.
Van Ness Avenue : What Lies Beneath [June 28, 2021]		the project, partially as a result of	San Francisco Public Utilities Commission and GM [August 27, 2021]		The City supported the contractor's decision to remove its underground utility contractor, Synergy. The relationship only began to deteriorate when the contractor bid out Synergy's work and received a bid substantially more than Synergy's estimate. Over a year after Synergy was removed, Walsh filed a claim under penalty of perjury for \$11.9M arising from damages it purportedly incurred relating to Synergy's removal. That claim was resolved by the City paying Walsh nothing on this issue. The price difference was not due to poor cost estimating, but to unexpected market conditions.

	5.11		Respondent	Recommendation	
Report Title [Publication Date]	R# [for F#]	Recommendation	Assigned by CGJ [Response Due Date]	Response (Implementation)	SFPUC Recommendation Response
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F1, F2, F4, F6, F9]	By June 2022, the City should adopt a policy that all capital project feasibility plans include an itemized assessment of risks to project timelines and costs, which must be accompanied with specific procedures that will be undertaken to mitigate those risks early in the project.	San Francisco Public Utilities Commission and GM [August 27, 2021]	Has been implemented	This has been implemented for all SFPUC major capital projects and projects of particular technical complexity.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F1, F2, F3, F4, F6,	By June 2022, the City should adopt a policy that all capital project sponsors publish, before proceeding to the construction phase, an itemized assessment of derisking activities actually performed.		Requires further analysis	Speaking for the Agency and not the City as a whole, the SFPUC believes that additional analysis is required on this recommendation to determine how to best assess and disclose of derisking activities.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F1, F2, F3, F4, F6,	By June 2022, the Board of Supervisors and SFPUC should review and update policies and regulations to ensure that detailed as-built documentation of both private and public utilities is filed after all underground projects (whether undertaken by SFPUC, another City agency, or a private enterprise), with sufficient resolution and precision to allow accurate design of any future work.	San Francisco Public Utilities Commission and GM [August 27, 2021]	Requires further analysis	Speaking for the Agency, and not the Board of Supervisors, the SFPUC's standard project procedure requires the maintenance of detailed as-built digital documentations on our recent capital projects. However, further analysis is required regarding the implementation of this recommendation for digital as-builts across all underground projects for public and private utilities, such as considering a digital repository.

Report Title [Publication Date]	R# [for F#]	Recommendation	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	SFPUC Recommendation Response
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F1, F4, F6, F7]	The Board of Supervisors should direct all City departments to adopt a policy that all projects that involve underground work in the City's main corridors include, as part of the design process, the use of exploratory potholing, or another equivalent industry best-practice to identify unknown underground obstructions adhering to CI/ASCE 38-02 ("Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data") Quality Level A. This policy should take effect for all contracts signed after January 1, 2022, and the work	San Francisco Public Utilities Commission and GM [August 27, 2021]	Has been implemented	Speaking for the Agency, and not the Board of Supervisors, the SFPUC utilizes best practices on capital projects regarding the use of exploratory potholing. Utility best practices dictate that small capital projects on small streets do not require potholing.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F8, F10, F11, F12,	By June 2022, and before entering into future CMGC relationships, the Board of Supervisors should direct all City departments to adopt, publish, and enforce in all future contracts industry-standard best practices for management of CMGC projects.	San Francisco Public Utilities Commission and GM [August 27, 2021]	Has been implemented	The SFPUC is actively implementing best practices on CM/GC contracts.



### Carla Short, Interim Director | Director's Office

carla.short@sfdpw.org | T. 628.271.3078 | 49 South Van Ness Ave. Suite 1600, San Francisco, CA 94103

August 23, 2021

#### Dear Foreperson Schafer and Grand Jurors:

Thank you for inviting San Francisco Public Works to comment on the Civil Grand Jury report, *Van Ness Avenue: What Lies Beneath* (June 28, 2021). Public Works shares your goal of using lessons learned to improve how we deliver capital projects for public benefit. We appreciate this opportunity to share our insight and experience.

The ultimate goals of the Van Ness Corridor Transit Improvement Project are to improve public transit for passengers and implement bus rapid transit services. How best to move people around San Francisco is wholly within the expertise of our colleagues at SFMTA. What Public Works can share is our expertise in working in, under and on San Francisco streets and sidewalks to deliver infrastructure improvement projects.

### Public Works has a special role in delivering a wide range of building and infrastructure projects

Public Works is responsible for maintaining streets and sidewalks and, by law, being *the* provider of construction services for almost all City agencies. This gives us a unique responsibility and perspective. Our design, construction and project management professionals pride themselves on consistently delivering a diverse portfolio of major capital projects on time and on budget. Working in every part of the City, as well as on properties outside of San Francisco under City jurisdiction, has allowed our staff to develop expertise and institutional knowledge that consistently deliver quality projects.

Our staff of more than 70 architects have planned, designed and built the SFPD Crime Lab, Moscone Center, Zuckerberg San Francisco General Hospital and Trauma Center, public libraries, SFFD fire houses and museums. They are currently managing 177 projects budgeted at greater than \$2.1 billion. The more than 190 engineers on our Infrastructure team have delivered major improvements along such corridors as to Geary Boulevard, Lombard Street, 19th Avenue, Polk Street, Cesar Chavez and Second Street. In 2021 alone, our Infrastructure Division received bids for 28 projects valued at more than \$225 million. Our landscape architects are integral to all of the above projects and have helped improve parks, playgrounds and recreation centers, including recent renovations of Margaret Hayward playground, George Christopher playground, Joe DiMaggio playground and Glen Canyon Park.

<sup>&</sup>lt;sup>1</sup> Under San Francisco Administrative Code Chapter 6, the departments permitted to engage in construction are SFMTA, PUC, SFO, RPD, the Port and Public Works. All other construction is managed by Public Works on behalf of client departments.

### Public Works has a track record of successful project delivery

More than 100 years ago, Public Works built a transformational gravity-based system to get water from Hetch Hetchy to San Francisco and has been delivering capital projects ever since. The department's experience and institutional knowledge include professional design, project management, construction management and maintenance. Having these functions centralized in one department allows for efficient and effective project delivery – from concept to final completion.

What Public Works brings are processes of quality control based on foundations of both technical principles, adoption of best practices, and the institutional knowledge of hundreds of engineers, architects and inspectors.

### Public Works is among the most audited department in the City, and it helps us deliver better projects

Due to the diversity of our project portfolio and our commitment to continuous improvement, San Francisco Public Works welcomes being among the most audited department in the City. Our projects and practices are regularly audited by the Civil Grand Jury, the Budget and Legislative Analyst and the City Services Auditor of the Office of the Controller, which have conducted more than 30 audits of our practices over the last 10 years.

Major construction projects are inherently risky and complicated, especially when they involve multiple agencies, a busy corridor supporting competing interests and underground work in one of the densest cities in the United States. As policymakers consider revisions to how construction departments do business, we recommend that they proceed with these principles in mind:

- Policy should be flexible enough to promote innovation and accountability, but not so
  prescriptive as to slow projects or be inflexible. Industry practices constantly change in
  response to the market and the best policies allow quick adaptation.
- Continue the practice of construction professionals driving revisions to Chapter 6, which
  governs contracting policies and procedures. In partnership with the City Attorney and
  Controller, Chapter 6 is revised regularly, and changes are driven by professional construction
  experts at all of the departments. In updating our code to account for technological innovation
  and provide flexibility and accountability, we incorporate lessons from our own experience,
  industry best practices and changes in state and federal law.
- Continue to invest in collaborative partnering. Construction departments and industry
  associations strive to make San Francisco recognized as an Owner of Choice by the construction
  industry. We do this by identifying process improvements and empowering project teams to
  resolve issues in the field at the lowest possible level before issues can fester and balloon. Small
  investments in partnering for each project result in tangible reductions in cost and schedule
  overruns.
- Invest in and appreciate our professionals. Managing construction projects requires more than
  attempting to use best practices. Public Works combines best practices and mandatory
  minimum trainings hours with staff who already have extensive institutional knowledge.
   Promote adoption of integrated project delivery methods, such as the Construction
  Manager/General Contractor (CM/GC) process. Public Works pioneered the use of CM/GC in San

Francisco in building the California Academy of Sciences and Zuckerberg San Francisco General Hospital and Trauma Center. Based on our experience, we long have practiced the nuances of CM/GC projects, including identifying underground obstructions prior to full excavation to minimize unexpected finds. The procedures of Public Works and the framework of practices within the Building Design and Construction Division illustrate processes of Quality Control and Assurance based on a foundation of technical principles.

• There would be benefits to project delivery if one experienced City department had control and management of undergrounding activities in the right of way – one city, one entity and one system of managing it. One entity should collect and maintain a record of everything that is put in the road and everything that is taken out, especially by corporations (e.g., PG&E, Comcast, AT&T), but also government entities, including the SFPUC and the Department of Technology. Establishing under one entity a well-documented central clearing point for everyone who puts something into the ground or takes it out of the road would minimize risk and confusion.

We look forward to applying the lessons of the SFMTA's Van Ness Corridor Transit Improvement Project to advance how we as a city do business.

Sincerely,

Carla Short

Interim Director, San Francisco Public Works

<sup>&</sup>lt;sup>2</sup> As a long-standing practice, Public Works coordinates with public and private utility agencies for all projects in the public right of way, requiring that they submit drawings of all of their surface and subsurface facilities within the project footprint. Drawings include active, inactive and abandoned facilities. Then, utility composite drawings are prepared and compared against the proposed scope of work to identify potential conflicts and to coordinate the appropriate agencies for resolution of conflicts. The Public Works project team also works closely with private utilities during the design phase of major projects to account for utilities, whether active, deactivated or abandoned. Additional risk assessment tools, such as exploratory potholing, slot trenching and field measurements, may be utilized on a project-by-project basis to identify underground obstructions.

# Office of the Mayor San Francisco



LONDON N. BREED MAYOR

August 27, 2021

The Honorable Samuel K. Feng Presiding Judge, Superior Court of California, County of San Francisco 400 McAllister Street, Room 008 San Francisco, CA 94102-4512

Dear Judge Feng,

In accordance with Penal Code 933 and 933.05, the following is in response to the 2020-2021 Civil Grand Jury Report, *Van Ness Avenue: What Lies Beneath* (Report). We would like to thank the members of the 2020-2021 Civil Grand Jury for their interest in and feedback on the planning, design, construction, and project management of the Van Ness Improvement Project (Project).

We take this report seriously and recognize that both the City and the project contractor could have applied better project controls and handled the project delivery issues more effectively. While we have implemented several lessons learned from the Project with good success in recent capital projects, more work and effort are needed to improve project delivery, especially on major capital projects.

We recognize that the Project delays have been frustrating, and we are taking action to fully analyze the delays and understand what occurred so that we do not experience similar challenges in the future. We know that this Project is behind schedule—causing challenges for our transportation system, residents, commuters, and business owners along the route, and adding unexpected costs to an already significant capital investment. We also acknowledge that many of the significant project delays were due to underground infrastructure replacement needs and challenges with existing infrastructure. Our analysis has shown that these delays were both avoidable and unavoidable, but with the full perspective we now have, we recognize that due to existing infrastructure underground and other factors, the potential impact of utility replacement was higher than initially assessed.

As we work to deliver more transportation and utility projects in the City, we need to ensure that they do not experience similar delays. As such, we have separately conducted our own internal reviews of the Project and have incorporated key lessons learned into successful projects throughout the City. We strive to make our City government more efficient and we are committed to improving delivery of future major capital projects. For example, as a City, we have taken steps to ensure that all projects that involve underground work in the City's main corridors include, as part of the design process, the use of exploratory potholing, or another equivalent industry best-practice.

We support and agree with the Report's recommendations to have better contractor evaluation and selection criteria in the future to improve this important partnership and to better achieve the desired project outcomes. Over the last few years, local legislation has been passed which has enabled departments to use alternative project delivery including best-value contracting methods. This helps departments place more of an emphasis on certain priority components of projects such as timeline goals or technical expertise. However, we recognize that additional steps may be needed

to ensure technical expertise is sufficiently prioritized in large capital projects. It is also critical that projects like this one have a designated point of contact in the field, which is why all of our projects assign a Resident Engineer whose primary duty is to serve as the liaison on the ground with the contractor and the rest of the project team.

Our responses explain some areas where we disagree either partially or wholly with the Jury's findings. In particular, we believe the Report does not fully reflect the roles and responsibilities of a construction manager/general contractor (CM/GC) on a capital construction project as complex as the Van Ness Improvement Project.

We agree that a benefit of using the CM/GC model is to provide the contractor with the ability to work directly with the designers and have additional time to familiarize itself with the project and its challenges prior to the start of construction, and this was a primary reason the City utilized a CM/GC model on this project. The San Francisco Municipal Transportation Agency (SFMTA) and the San Francisco Public Utilities Commission (SFPUC) follow industry-standard best practices in the management of their CM/GC projects. With this Project, the City anticipated that use of the CM/GC model would provide the contractor with a sufficient time period to be involved in the preconstruction phase and prepare adequately for the construction phase. However, throughout the project, a variety of significant challenges arose with the contractor and subcontractors, and we believe the contractor may not have adequately prepared itself for construction during the year-long preconstruction period.

We agree with the Civil Grand Jury's goal to deliver capital projects on time and within budget. The agencies are pursuing remedies to most of the findings, in some cases by implementing the Civil Grand Jury's specific recommendations, in other cases using alternate, industry-standard best practices to improve project delivery. For example, various lessons learned involving utility coordination are already being applied to projects, including the first segment of the L Taraval project. Also, risk assessments are being conducted at various phases of major capital projects, and I am directing that both the SFMTA and PUC conduct further analysis to determine how to best assess and disclose derisking activities.

The City appreciates the time the Civil Grand Jury spent looking into this Project, and the efforts of the Jury to ensure that projects like Van Ness are delivered on time and on budget moving forward.



### Detailed responses from the Mayor's Office, the SFMTA and the SFPUC are attached.

Each signatory prepared its own responses and is able to respond to questions related to its respective response.

Sincerely,

London N. Breed Mayor

Mul OP. Cali

Michael Carlin Acting General Manager, Public Utilities Commission Jeffrey P. Tumlin
Director of Transportation
San Francisco Municipal Transportation
Agency

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]		The delays in completion of the Van Ness BRT Project were caused primarily by avoidable setbacks in replacement of the water and sewer infrastructure.	Mayor [August 27, 2021]	Disagree partially	We acknowledge that there were significant project delays due to underground infrastructure replacement needs and challenges with existing infrastructure; however, these delays were both avoidable and unavoidable. Many of the initial delays on the Project occurred during construction of the underground phase of the Project. The City and the contractor often share responsibility for delays, and some of the delays were due to third parties. Understanding the delay on this project involves looking at the contractor's initial claim for 279 days of delay and its pending claim for 344 delay days. As to the initial claim for 279 days, the parties agreed that 135 were compensable (City's responsibility) and 144 were noncompensable (not the City's sole responsibility). As to the pending claim for 344 days, the contractor failed to provide the required scheduling analysis; thus, the City has been required to undertake its own analysis of the delay. This analysis is currently underway.
Van Ness Avenue : What Lies Beneath [June 28, 2021]		The potential impact of utility replacement on the cost and duration of the overall project was given insufficient consideration in the initial planning process.	Mayor [August 27, 2021]	Disagree partially	The potential impacts of utility replacement on the cost and duration of the project were considered in pre-construction. During the design phase, the City performed potholing and required PG&E to relocate gas mains and an electrical ductbank. Also, the City included a standard requirement in the Specifications that the Contractor perform significant amounts of potholing 30 days in advance of any installation. In addition, the contract included specific allowances to cover additional or unforeseen costs related to utility installation. That said, we acknowledge that this project had significant delays due to these challenges, which were unfortunately very disruptive due to the scale of the project.
Van Ness Avenue : What Lies Beneath [June 28, 2021]		The potential impact of utility replacement was known to City engineers to be a major risk, but was only considered a moderate risk and assigned no effective mitigation in the official risk register.	Mayor [August 27, 2021]	Disagree partially	The Contractor, City Staff, and an independent consultant cooperated in preparing the risk register and because of the mitigation measures being taken this was classified as a moderate risk. Several mitigation measures were included in the Specifications, such as requiring potholing 30 days in advance of the work, and providing the contractor with copies of deactivated utility drawings as reference documents. Ultimately, and with the full perspective we now have, we recognize that due to the challenges encountered, existing infrastructure underground, and other factors, the potential impact of utility replacement was higher than initially assessed. The Contractor failed to perform the

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]		Project timelines could not be estimated accurately because documents did not reflect the extent and location of underground utilities accurately.	Mayor [August 27, 2021]	Disagree partially	Project timelines for projects with extensive underground utilities are often difficult to estimate because no matter how extensive the pre-construction investigation, there will always be unknowns. Contractors experienced in such work know that they must often deal with the unexpected. The project timeline prepared during pre-construction was a product of City staff, Contractor, and an independent consulting team based on the best information available. As construction started, the project team realized that some third-party utilities, such as PG&E, provided inaccurate or incomplete information on their existing utilities. The contract contained an action plan to instruct the contractor for dealing with unknown utilities, as well as contingency for differing site conditions. However, the Contractor did not take the lead in field investigation and coordination with third party utilities, although they were contractually obligated to do so as a CM/GC. The Contractor failed to perform the required potholing in a timely fashion per contract, at times attempting to dig potholes within hours of trenching to install utilities. Contractor's inability to properly anticipate, manage, and mitigate utility issues during construction was the primary contributor to added contract costs and duration. Contractor's initial construction sequencing plan was also unrealistic. All these issues contributed to an inaccurate project timeline projection.
Van Ness Avenue : What Lies Beneath [June 28, 2021]		The evaluation rubric for preconstruction contract bids weighted cost too heavily, as compared to technical expertise, even after project-specific legislation allowed for a lower weight to be assigned to cost.	Mayor [August 27, 2021]	Agree	Such contracts should be evaluated using a best value rubric, with technical expertise weighted high. At the time, the Agency was unable to lower the points given to cost in the legislation submitted to the Board of Supervisors. Over the last few years local legislation has been passed which has enabled departments to use alternative project delivery including best-value contracting methods.  In 2015 legislation authorized departments to select CM/GCs based on qualification and cost, as long as the cost criteria is at least 40% of the overall selection, a decrease from the previous requirement that it be 65%. Additionally, in 2016 legislation enabled departments to use best-value contracting methods; this helped departments place more of an emphasis on certain priority components of projects such as timeline goals or technical expertise. However, we recognize that additional steps may be needed to ensure technical expertise is sufficiently prioritized in large capital projects.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F6	Practical work during preconstruction that could have derisked the subsequent construction phase of the project was insufficient.	Mayor [August 27, 2021]	Disagree partially	Preliminary investigation undertaken such as potholing and collecting as-built drawings were performed by SFMTA and the project team during the design phase. Ground-penetrating radar (GPR) during the design phase had several issues with accuracy and reliability of the data. Additional potholing by private utilities could have been beneficial. But the majority of the utility conflicts that resulted in additional contract time were at intersections. Potholing within intersections typically requires the intersection to be closed in order to provide a safe barrier for the workers from traffic. This would result in disruptions in both traffic flow and public transit services. Given that Van Ness Avenue is a State highway, this would have been extremely difficult to implement during preconstruction. Typically, this level of potholing is reserved for the construction phase when traffic can be effectively closed/diverted. With the benefit of hindsight, we recognize that increased practical work during preconstruction on this particular project may have mitigated some of the ultimate project delays, though it would have resulted in longer periods of traffic flow and transit service interruption due to needed closures of intersections.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F7	Review of preconstruction deliverables did not sufficiently measure the contractor's preparedness for construction, which resulted in both inaccurate cost estimates and timelines.	Mayor [August 27, 2021]	Disagree partially	We agree that a benefit of using the CM/GC model is to provide the contractor with the ability to work directly with the designers and have additional time to familiarize itself with the project and its challenges prior to the start of construction, and this was a primary reason the City utilized a CM/GC model on this project. Unfortunately, in this case the contractor did not adequately prepare itself for construction during the year-long preconstruction period. For example, a careful review of the Storm Water Pollution Prevention Plan (SWPPP) and the construction sequencing plan for sewer work would have shown that the contractor was not prepared to begin work. The timeline for underground work provided by the contractor's subcontractor during preconstruction did not align with the timeline provided by the subcontractor who eventually performed the work. It is unclear to what extent better preparedness by the contractor would have resulted in more accurate cost estimates and timelines. In addition, other key issues listed in F4 contributed to the challenge to forecast accurate cost estimates and timelines.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F8	The effectiveness of the CMGC contract was greatly reduced because the general contractor was brought into the design process too late.	Mayor [August 27, 2021]	Disagree partially	We agree it would have been better to have the contractor on board earlier in the design phase. That said, the Contractor did have a year (during pre-construction) to review the construction documents, provide comments, and familiarize itself with the conditions along the corridor. The City anticipated this was a sufficient time period for the Contractor to be involved in the pre-construction phase and prepare adequately for the construction phase. The CMGC construction contract with the Guaranteed Maximum Price was issued by SFMTA with the Contractor's concerns and input addressed. Since the primary contractor did not involve the subcontractors directly with the City in the preconstruction process, the City may not have received the full benefit of the subs' technical expertise and local knowledge. The contractor did not make the best use of its subcontractors.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F9	Underspecification in technical requirements led to additional costs for work that could have been predicted and included in the original contract.	Mayor [August 27, 2021]	Disagree partially	In an effort to continually improve our contract documents, we review the project specifications, in particular with multi-agency projects where various sets of specifications are merged. The Van Ness project also had the challenge of coordinating City specifications with Caltrans requirements. Specifically, in the case of the potholing and pedestrian control specifications, the contractor settled claims on these issues for less than 20% of its costs incurred, illustrating that its claim arising from purported ambiguity in the specifications had little merit. Moreover, Contractor had access to the specifications for many months during the pre-Construction period and did not request any clarification/changes at that time. Contractor raised issues with the technical requirements after the construction started.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F10	Contention over underspecified or unclear contract terms and technical requirements led to a deterioration in the relationship between the City and Walsh, the general contractor.	Mayor [August 27, 2021]	Disagree wholly	Language that was used in the contract was standard to all City contracts. The City worked diligently to enforce the contract in a fair and reasonable manner. The contractor did not raise any concerns about ambiguity or confusion during the year of pre-construction services or during negotiations. The CM/GC has the responsibility to raise and resolve such concerns during pre-construction. What actually led to deterioration in the relationship, in the City's view, was the contractor's concerns about the bid for the utility work.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F11	The removal of Synergy, the underground subcontractor, from the project, partially as a result of poor cost estimates, contributed to the deterioration of the relationship between Walsh, the general contractor, and the City.	Mayor [August 27, 2021]	Disagree wholly	The City supported the contractor's decision to remove its underground utility contractor, Synergy. The relationship only began to deteriorate when the contractor bid out Synergy's work and received a bid substantially more than Synergy's estimate. Over a year after Synergy was removed, Walsh filed a claim under penalty of perjury for \$11.9M arising from damages it purportedly incurred relating to Synergy's removal. That claim was resolved by the City paying the Walsh nothing on this issue. The price difference was not due to poor cost estimating, but to unexpected market conditions.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F12	The contentious relationship between Walsh, the general contractor, and the City made it difficult to resolve problems as they arose, despite close collaboration being one of the potential advantages of the CMGC contract.	Mayor [August 27, 2021]	Disagree partially	Once the contractor realized that its guaranteed maximum price would not cover the cost of the utility work, the relationship became strained and the contractor became uncooperative. It appeared that the contractor was more focused on recovering the potential loss from the increased utility costs than performing a collaborative and successful project. To illustrate this, the contractor hired additional personnel to focus on claims, and used field staff to assist with the claims process rather than devoting resources to the project. The contractor's lack of experienced field staff required the City to hire a utility coordinator and other staff to facilitate the contractor's coordination with third party utilities and to resolve basic field issues. As a CM/GC, it was the contractor's responsibility to coordinate day-to-day activities with third party utilities. In spite of the challenging situation, field staff maintained a professional relationship.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F13	Lack of an in-the-field point of contact between Walsh and the City during early stages of construction led to delays and increased costs on the project.	Mayor [August 27, 2021]		There is one specific Resident Engineer (RE) for each project, including the Van Ness Project. The City's RE was (and is) the point of contact with the contractor. During construction, all flows through resident engineer for a single point of contact to avoid confusion. In addition to the RE, this project had a complete team of City staff who were dedicated to this project only. The RE, who has been on the Project from the beginning, along with the owner's construction management team, have always been co-located with the contractor's team. Notably, the high turnover of the contractor's management team made it difficult to coordinate with the contractor, and necessitated the City bringing the contractor up to speed at various times (and likely contributed to the delay and increased costs on the Project). The contractor's unwillingness to pothole and perform other advance investigation in a timely fashion contributed more to delays in resolving field challenges than any lack of City staff. The CM/GC should lead the field fact-finding and discovery with very little owner assistance to resolve basic field issues and coordination matters. During the construction, City staff had to supplement the contractor's team directly, performing contractor work in support of the overall effort and mitigate potential delays.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F14	Confusion related to the contractual requirements for pedestrian monitoring contributed to the deterioration of the relationship between Walsh, the general contractor, and the City.	Mayor [August 27, 2021]		The City does not believe that the contractual requirements for pedestrian monitoring and flaggers are confusing. In the interest of public safety, the City agreed to reimburse Walsh for pedestrian monitors if (1) the contractor provided the flaggers required under the contract for pedestrian control and (2) the contractor provided advance notice to the City of the need for pedestrian monitors to support the flaggers at a particular location.

Report Title [Publication Date]	R# [for F#]	Recommendation	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F1, F2, F4, F6, F9]	By June 2022, the City should adopt a policy that all capital project feasibility plans include an itemized assessment of risks to project timelines and costs, which must be accompanied with specific procedures that will be undertaken to mitigate those risks early in the project.	Mayor [August 27, 2021]	Has been implemented	This process is implemented for all SFMTA and SFPUC major capital projects and projects of particular technical complexity, and is in Section 4 (Detailed Design Phase) of the MTA's Project Operations Manual.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F1, F2, F3, F4, F6, F9]	By June 2022, the City should adopt a policy that all capital project sponsors publish, before proceeding to the construction phase, an itemized assessment of derisking activities actually performed.		Requires further analysis	Additional analysis is required on this recommendation to determine how to best assess and disclose of derisking activities. This analysis will be conducted within the next year.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F4]	By June 2022, the Board of Supervisors and SFPUC should review and update policies and regulations to ensure that detailed as-built documentation of both private and public utilities is filed after all underground projects (whether undertaken by SFPUC, another City agency, or a private enterprise), with sufficient resolution and precision to allow accurate design of any future work.	Mayor [August 27, 2021]	Requires further analysis	The SFPUC's standard project procedure requires the maintenance of detailed as-built digital documentations on their recent capital projects. However, further analysis is required regarding the implementation of this recommendation for digital as-builts across all underground projects for public and private utilities, such as considering a digital repository.

Report Title [Publication Date]			Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F1, F4, F6, F7]	The Board of Supervisors should direct all City departments to adopt a policy that all projects that involve underground work in the City's main corridors include, as part of the design process, the use of exploratory potholing, or another equivalent industry best-practice to identify unknown underground obstructions adhering to CI/ASCE 38-02 ("Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data") Quality Level A. This policy should take effect for all contracts signed after January 1, 2022, and the work should be required to be performed before final construction terms or prices are agreed to.		implemented because it is not warranted or is not	As a City, we already take steps to ensure that all projects that involve underground work include as part of the design process the use of exploratory potholing, or another equivalent industry best-practice. However, one policy for all projects is impractical and each department must make a determination on a project-by-project basis based on the risk assessment.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F8, F10, F11, F12,	By June 2022, and before entering into future CMGC relationships, the Board of Supervisors should direct all City departments to adopt, publish, and enforce in all future contracts industry-standard best practices for management of CMGC projects.	Mayor [August 27, 2021]	implemented	SFMTA will review recommended best practices for future CM/GC projects and apply them, as applicable and as appropriate. It is up to the individual department to determine the applicability of "best practices" to their projects. For example, SFPUC already implements industry-standard best practices in management of their CMGC projects.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F8]	,	Mayor [August 27, 2021]	because it is not	While it is optimal to bring in a CMGC contractor on or before 30%, it is equally important to have a qualified, experienced contractor who is able to provide the required services. In the case of a horizontal CMGC project, the technical capability and local experience of the contractor are also important.

Report Title [Publication Date]	R# [for F#]	Recommendation	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F5]	By June 2022, the Board of Supervisors should amend Section 6.68 of the Administrative Code to remove the mandatory cost criterion in awarding CMGC contracts.	Mayor [August 27, 2021]		We agree with this recommendation, but implementation of the recommendation resides with the Board of Supervisors.  In 2015, legislation authorized departments to select CM/GCs based on qualification and cost, as long as the cost criteria is at least 40% of the overall selection, a decrease from the previous requirement that it be 65%. Additionally, in 2016 legislation enabled departments to use best-value contracting methods; this helped departments place more of an emphasis on certain priority components of projects such as timeline goals or technical expertise. However, we recognize that additional steps may be needed to ensure technical expertise is sufficiently prioritized in large capital projects.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F7, F9,	SFMTA should establish a policy for review of technical quality of preconstruction and design deliverables, to be used in all CMGC or design contracts signed after January 2022, including in-the-field validation of key assumptions of site conditions by City engineers.	Mayor [August 27, 2021]	Has not yet been implemented but will be implemented in the future	A more formalized process of reviewing and commenting on preconstruction deliverables would be beneficial in the future. The SFMTA will establish the policy for all future CMGC-type projects.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F12,	Beginning January 1, 2022, SFMTA should assign to every CMGC project a dedicated in-the-field contractor liaison to facilitate collaborative problem resolution, and sufficient support staff to monitor actual progress and site conditions.	Mayor [August 27, 2021]		It is a long-standing practice in the City that a Resident Engineer is assigned prior to the start of construction on every capital project as the single point of contact with the contractor in the field, and that this is their primary job responsibility during the scope of the project. The Van Ness project includes a complete support staff of City employees (SFMTA, SFPUC, DPW and consultants) to monitor actual progress and site conditions. Future CMGC projects will continue this practice.

Report Title [Publication Date]	R# [for F#]	Recommendation	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Van Ness Avenue :	R10	By June 2022, the City should adopt a	Mayor	Will not be	A majority of SFMTA projects are funded by the FTA, which requires
What Lies Beneath [June 28, 2021]	F2, F6, F9]	policy that any public communication about a planned or in-progress capital project that includes disruption of public services or right-of-way should include itemized assessments of risk to projected costs and duration.		because it is not	the project to assess and monitor project risks in construction on a periodic basis. The department can provide a general list of project risks in public communications, to inform the public of the project status and projected substantial completion. Publishing itemized costs association with changes risk or project duration could negatively impact the bidding or negotiation process.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F14]	Beginning immediately, and in all future capital or maintenance projects that require pedestrian monitors, the City should ensure that associated costs are either specifically included in the primary construction contract, or explicitly planned for and funded by the City, before construction begins.		Has been implemented	This recommendation has been implemented in the Van Ness BRT Project, and will continue to be implemented in the future for all contracts that require pedestrian monitors.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F1	The delays in completion of the Van Ness BRT Project were caused primarily by avoidable setbacks in replacement of the water and sewer infrastructure.	General Manager, San Francisco Public Utilities Commission [August 27, 2021]	Disagree partially	Many of the initial delays on the Project occurred during construction of the underground phase of the Project; however, these delays were both avoidable and unavoidable. The City and the contractor often share responsibility for delays, and some of the delays were due to third parties. Understanding the delay on this project involves looking at the contractor's initial claim for 279 days of delay and its pending claim for 344 delay days. As to the initial claim for 279 days, the parties agreed that 135 were compensable (City's responsibility) and 144 were noncompensable (not the City's sole responsibility). In other words, the contractor acknowledged that it shared responsibility for more than half of the delay days. As to the pending claim for 344 days, the contractor failed to provide the required scheduling analysis; thus, the City has been required to undertake its own analysis of the delay. This analysis is currently underway.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F2	The potential impact of utility replacement on the cost and duration of the overall project was given insufficient consideration in the initial planning process.	General Manager, San Francisco Public Utilities Commission [August 27, 2021]	Disagree partially	The potential impacts of utility replacement on the cost and duration of the project were considered in pre-construction. During the design phase, the City performed potholing and required PG&E to relocate gas mains and an electrical ductbank. Also, the City included a standard requirement in the Specifications that the Contractor perform significant amounts of potholing 30 days in advance of any installation. In addition, the contract included specific allowances to cover additional or unforeseen costs related to utility installation.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F3	The potential impact of utility replacement was known to City engineers to be a major risk, but was only considered a moderate risk and assigned no effective mitigation in the official risk register.	General Manager, San Francisco Public Utilities Commission [August 27, 2021]		The Contractor, City Staff, and an independent consultant cooperated in preparing the risk register and because of the mitigation measures being taken this was classified as a moderate risk. Several mitigation measures were included in the Specifications, such as requiring potholing 30 days in advance of the work, and providing the contractor with copies of deactivated utility drawings as reference documents. The Contractor failed to perform the required potholing in a timely fashion, at times attempting to dig potholes within hours of trenching to install utilities. Contractor's inability to properly anticipate/manage/mitigate utility issues during construction was the primary contributor
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F4	Project timelines could not be estimated accurately because documents did not reflect the extent and location of underground utilities accurately.	General Manager, San Francisco Public Utilities Commission [August 27, 2021]		Project timelines for projects with extensive underground utilities are often difficult to estimate because no matter how extensive the pre-construction investigation, there will always be unknowns. Contractors experienced in such work know that they must often deal with the unexpected. The project timeline prepared during pre-construction was a product of City staff, Contractor, and an independent consulting team based on the best information available. As construction started, the project team realized that some third-party utilities, such as PG&E, provided inaccurate or incomplete information on their existing utilities. The contract contained an action plan to instruct the contractor for dealing with unknown utilities, as well as contingency for differing site conditions. However, the Contractor did not take the lead in field investigation and coordination with third party utilities, although they were contractually obligated to do so as a CM/GC. The Contractor failed to perform the required potholing in a timely fashion per contract, at times attempting to dig potholes within hours of trenching to install utilities. Contractor's inability to properly anticipate/manage/mitigate utility issues during construction was the primary contributor to added contract costs and duration. Contractor's initial construction sequencing plan was also unrealistic. All these issues contributed to an inaccurate project timeline projection.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F6	Practical work during preconstruction that could have derisked the subsequent construction phase of the project was insufficient.	San Francisco	Disagree partially	Preliminary investigation undertaken such as potholing and collecting as-built drawings were performed by SFMTA and the project team during the design phase. Ground-penetrating radar (GPR) during the design phase had several issues with accuracy and reliability of the data. Additional potholing by private utilities could have been beneficial. But the majority of the utility conflicts that resulted in additional contract time were at intersections. Potholing within intersections typically requires the intersection to be closed in order to provide a safe barrier for the workers from traffic. This would result in disruptions in both traffic flow and public transit services. Given that Van Ness Avenue is a State highway, this would have been extremely difficult to implement during preconstruction. Typically, this level of potholing is reserved for the construction phase when traffic can be effectively closed/diverted.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F8	The effectiveness of the CMGC contract was greatly reduced because the general contractor was brought into the design process too late.	General Manager, San Francisco Public Utilities Commission [August 27, 2021]	Disagree partially	While it would have been better to have the contractor on board earlier in the design phase, the Contractor did have a year (during pre-construction) to review the construction documents, provide comments, and familiarize itself with the conditions along the corridor. The CMGC construction contract with the Guaranteed Maximum Price was issued by SFMTA with the Contractor's concerns and input addressed. Since the prime did not involve the subcontractors directly with the City in the preconstruction process the City may not have received the full benefit of the subs' technical expertise and local knowledge. Contractor did not make the best use of its subcontractors.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F9	Underspecification in technical requirements led to additional costs for work that could have been predicted and included in the original contract.	General Manager, San Francisco Public Utilities Commission [August 27, 2021]	Disagree partially	In an effort to continually improve our contract documents, we review the project specifications, in particular with multi-agency projects where various sets of specifications are merged. The Van Ness project also had the challenge of coordinating City specifications with Caltrans requirements. Specifically, in the case of the potholing and pedestrian control specifications, the contractor settled claims on these issues for less than 20% of its costs incurred, illustrating that its claim arising from purported ambiguity in the specifications had little merit. Moreover, Contractor had access to the specifications for many months during the pre-Construction period and did not request any clarification/changes at that time. Contractor raised issues with the technical requirements after the construction started.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F11	The removal of Synergy, the underground subcontractor, from the project, partially as a result of poor cost estimates, contributed to the deterioration of the relationship between Walsh, the general contractor, and the City.	General Manager, San Francisco Public Utilities Commission [August 27, 2021]	Disagree wholly	The City supported the contractor's decision to remove its underground utility contractor, Synergy. The relationship only began to deteriorate when the contractor bid out Synergy's work and received a bid substantially more than Synergy's estimate. Over a year after Synergy was removed, Walsh filed a claim under penalty of perjury for \$11.9M arising from damages it purportedly incurred relating to Synergy's removal. That claim was resolved by the City paying the Walsh nothing on this issue. The price difference was not due to poor cost estimating, but to unexpected market conditions.

Report Title [Publication Date]	R# [for F#]	Recommendation	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F1, F2, F4, F6, F9]	feasibility plans include an itemized assessment of risks to project	General Manager, San Francisco Public Utilities Commission [August 27, 2021]	Has been implemented	This has been implemented for all SFPUC major capital projects and project of particular technical complexity. (PUC)
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F1, F2, F3, F4, F6, F9]	construction phase, an itemized		analysis	Speaking for the Agency and not the City as a whole, the SFPUC believes that additional analysis is required on this recommendation to determine how to best assess and disclose of derisking activities.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F4]	Supervisors and SFPUC should review and update policies and regulations to ensure that detailed as-built	General Manager, San Francisco Public Utilities Commission [August 27, 2021]	analysis	Speaking for the Agency, and not the Board of Supervisors, the SFPUC's standard project procedure requires the maintenance of detailed as-built digital documentations on our recent capital projects. However, further analysis is required regarding the implementation of this recommendation for digital as-builts across all underground projects for public and private utilities, such as considering a digital repository.

Report Title [Publication Date]	R# [for F#]	Recommendation	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Van Ness Avenue :		The Board of Supervisors should	0 /	Has been	Speaking for the Agency, and not the Board of Supervisors, the
What Lies Beneath	[for F1,	direct all City departments to adopt a	San Francisco	implemented	SFPUC utilizes best practices on capital projects regarding the use of
[June 28, 2021]	F4, F6]	. , , ,	Public Utilities		exploratory potholing. Utility best practices dictate that small
		,	Commission		capital projects on small streets do not require potholing.
		corridors include, as part of the	[August 27, 2021]		
		design process, the use of			
		exploratory potholing, or another			
		equivalent industry best-practice to			
		identify unknown underground			
		obstructions adhering to CI/ASCE 38-			
		02 ("Standard Guideline for the			
		Collection and Depiction of Existing			
		Subsurface Utility Data") Quality			
		Level A. This policy should take effect			
		for all contracts signed after January			
		1, 2022, and the work should be			
		required to be performed before final			
		construction terms or prices are			
		agreed to.			
Van Ness Avenue :	R5	By June 2022, and before entering	General Manager,	Has been	The SFPUC is actively implementing best practices on CM/GC
What Lies Beneath		•	San Francisco		projects.
[June 28, 2021]	-	•	Public Utilities	·	
	_	-	Commission		
		and enforce in all future contracts	[August 27, 2021]		
		industry-standard best practices for			
		management of CMGC projects.			

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F1		Director, San Francisco Municipal Transportation Agency [August 27, 2021]		Many of the initial delays on the Project occurred during construction of the underground phase of the Project; however, these delays were both avoidable and unavoidable. The City and the contractor often share responsibility for delays, and some of the delays were due to third parties. Understanding the delay on this project involves looking at the contractor's initial claim for 279 days of delay and its pending claim for 344 delay days. As to the initial claim for 279 days, the parties agreed that 135 were compensable (City's responsibility) and 144 were noncompensable (not the City's sole responsibility). In other words, the contractor acknowledged that it shared responsibility for more than half of the delay days. As to the pending claim for 344 days, the contractor failed to provide the required scheduling analysis; thus, the City has been required to undertake its own analysis of the delay. This analysis is currently underway.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F2	The potential impact of utility replacement on the cost and duration of the overall project was given insufficient consideration in the initial planning process.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]		The potential impacts of utility replacement on the cost and duration of the project were considered in pre-construction. During the design phase, the City performed potholing and required PG&E to relocate gas mains and an electrical ductbank. Also, the City included a standard requirement in the Specifications that the Contractor perform significant amounts of potholing 30 days in advance of any installation. In addition, the contract included specific allowances to cover additional or unforeseen costs related to utility installation.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F3	engineers to be a major risk, but was only considered a moderate risk and	Director, San Francisco Municipal Transportation Agency [August 27, 2021]		The Contractor, City Staff, and an independent consultant cooperated in preparing the risk register and because of the mitigation measures being taken this was classified as a moderate risk. Several mitigation measures were included in the Specifications, such as requiring potholing 30 days in advance of the work, and providing the contractor with copies of deactivated utility drawings as reference documents. The Contractor failed to perform the required potholing in a timely fashion, at times attempting to dig potholes within hours of trenching to install utilities. Contractor's inability to properly anticipate/manage/mitigate utility issues during construction was the primary contributor to added contract costs and duration.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F4	Project timelines could not be estimated accurately because documents did not reflect the extent and location of underground utilities accurately.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Disagree partially	Project timelines for projects with extensive underground utilities are often difficult to estimate because no matter how extensive the pre-construction investigation, there will always be unknowns. Contractors experienced in such work know that they must often deal with the unexpected. The project timeline prepared during pre-construction was a product of City staff, Contractor, and an independent consulting team based on the best information available. As construction started, the project team realized that some third-party utilities, such as PG&E, provided inaccurate or incomplete information on their existing utilities. The contract contained an action plan to instruct the contractor for dealing with unknown utilities, as well as contingency for differing site conditions. However, the Contractor did not take the lead in field investigation and coordination with third party utilities, although they were contractually obligated to do so as a CM/GC. The Contractor failed to perform the required potholing in a timely fashion per contract, at times attempting to dig potholes within hours of trenching to install utilities. Contractor's inability to properly anticipate/manage/mitigate utility issues during construction was the primary contributor to added contract costs and duration. Contractor's initial construction sequencing plan was also unrealistic. All these issues contributed to an inaccurate project timeline projection.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F5	The evaluation rubric for preconstruction contract bids weighted cost too heavily, as compared to technical expertise, even after project-specific legislation allowed for a lower weight to be assigned to cost.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Agree	Such contracts should be evaluated using a best value rubric, with technical expertise weighted high. At the time, the Agency was unable to lower the points given to cost in the legislation submitted to the Board of Supervisors.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F6	Practical work during preconstruction that could have derisked the subsequent construction phase of the project was insufficient.	Francisco	Disagree partially	The majority of the utility conflicts that resulted in additional contract time were at intersections. Potholing within intersections typically requires the intersection to be closed in order to provide a safe barrier for the workers from traffic. Given that Van Ness Avenue is a State highway, this would have been extremely difficult to occur. Typically, this level of potholing is reserved for the construction phase when traffic can be effectively closed/diverted. Ground-penetrating radar (GPR) during the design phase had several issues with accuracy and reliability of the data. Recent improvements in GPR provide for a more reliable tool for future projects.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F7	Review of preconstruction deliverables did not sufficiently measure the contractor's preparedness for construction, which resulted in both inaccurate cost estimates and timelines.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Disagree partially	It is correct that the contractor may not have adequately prepared itself for construction during the year-long preconstruction period. For example, a careful review of the Storm Water Pollution Prevention Plan (SWPPP) and the construction sequencing plan for sewer work would have shown that the contractor was not prepared to begin work. The timeline for underground work provided by the contractor's subcontractor during preconstruction did not align with the timeline provided by the subcontractor who eventually performed the work. It is unclear to what extent better preparedness by the contractor would have resulted in more accurate cost estimates and timelines. In addition, other key issues listed in F4 contributed to the challenge to forecast accurate cost estimates and timelines.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F8	The effectiveness of the CMGC contract was greatly reduced because the general contractor was brought into the design process too late.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Disagree partially	While it would have been better to have the contractor on board earlier in the design phase, the Contractor did have a year (during pre-construction) to review the construction documents, provide comments, and familiarize itself with the conditions along the corridor. The CMGC construction contract with the Guaranteed Maximum Price was issued by SFMTA with the Contractor's concerns and input addressed. Since the prime did not involve the subcontractors directly with the City in the preconstruction process the City may not have received the full benefit of the subs' technical expertise and local knowledge. Contractor did not make the best use of its subcontractors.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F9	Underspecification in technical requirements led to additional costs for work that could have been predicted and included in the original contract.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Disagree partially	In an effort to continually improve our contract documents, we review the project specifications, in particular with multi-agency projects where various sets of specifications are merged. The Van Ness project also had the challenge of coordinating City specifications with Caltrans requirements. Specifically, in the case of the potholing and pedestrian control specifications, the contractor settled claims on these issues for less than 20% of its costs incurred, illustrating that its claim arising from purported ambiguity in the specifications had little merit. Moreover, Contractor had access to the specifications for many months during the pre-Construction period and did not request any clarification/changes at that time. Contractor raised issues with the technical requirements after the construction started.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F10	unclear contract terms and technical requirements led to a deterioration in		Disagree wholly	Language that was used in the contract was standard to all City contracts. The City worked diligently to enforce the contract in a fair and reasonable manner. The contractor did not raise any concerns about ambiguity or confusion during the year of pre-construction services or during negotiations. The CM/GC has the responsibility to raise and resolve such concerns during pre-construction. What actually led to deterioration in the relationship, in the City's view, was the contractor's concerns about the bid for the utility work.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F11	underground subcontractor, from the project, partially as a result of poor cost estimates, contributed to the	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Disagree wholly	The City supported the contractor's decision to remove its underground utility contractor, Synergy. The relationship only began to deteriorate when the contractor bid out Synergy's work and received a bid substantially more than Synergy's estimate. Over a year after Synergy was removed, Walsh filed a claim under penalty of perjury for \$11.9M arising from damages it purportedly incurred relating to Synergy's removal. That claim was resolved by the City paying the Walsh nothing on this issue. The price difference was not due to poor cost estimating, but to unexpected market conditions.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F12	The contentious relationship between Walsh, the general contractor, and the City made it difficult to resolve problems as they arose, despite close collaboration being one of the potential advantages of the CMGC contract.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Disagree partially	Once the contractor realized that its guaranteed maximum price would not cover the cost of the utility work, the relationship became strained and the contractor became uncooperative. It appeared that the contractor was more focused on recovering the potential loss from the increased utility costs than performing a collaborative and successful project. To illustrate this, the contractor hired additional personnel to focus on claims, and used field staff to assist with the claims process rather than devoting resources to the project. The contractor's lack of experienced field staff required the City to hire a utility coordinator and other staff to facilitate the contractor's coordination with third party utilities and to resolve basic field issues. As a CM/GC, it was the contractor's responsibility to coordinate day-to-day activities with third party utilities. In spite of the challenging situation, field staff maintained a professional relationship.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F13	Lack of an in-the-field point of contact between Walsh and the City during early stages of construction led to delays and increased costs on the project.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Disagree wholly	The City's Resident Engineer (RE) was (and is) the point of contact with the contractor. The RE, who has been on the Project from the beginning, along with the owner's construction management team, have always been co-located with the contractor's team. Notably, the high turnover of the contractor's management team made it difficult to coordinate with the contractor, and necessitated the City bringing the contractor up to speed at various times (and likely contributed to the delay and increased costs on the Project). The contractor's unwillingness to pothole and perform other advance investigation in a timely fashion contributed more to delays in resolving field challenges than any lack of City staff. The CM/GC should lead the field fact-finding and discovery with very little owner assistance to resolve basic field issues and coordination matters. During the construction, City staff had to supplement the contractor's team directly, performing contractor work in support of the overall effort and mitigate potential delays.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F14	Confusion related to the contractual requirements for pedestrian monitoring contributed to the deterioration of the relationship between Walsh, the general contractor, and the City.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Disagree partially	The City does not believe that the contractual requirements for pedestrian monitoring and flaggers are confusing. In the interest of public safety, the City agreed to reimburse Walsh for pedestrian monitors if (1) the contractor provided the flaggers required under the contract for pedestrian control and (2) the contractor provided advance notice to the City of the need for pedestrian monitors to support the flaggers at a particular location.

Report Title [Publication Date]	R# [for F#]	Recommendation	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F1, F2, F4,	feasibility plans include an itemized assessment of risks to project timelines and costs, which must be	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Has been implemented	This process is implemented for all major capital projects and projects of particular technical complexity, and is in Section 4 (Detailed Design Phase) of the MTA's Project Operations Manual.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F1, F2, F3,	construction phase, an itemized assessment of derisking activities		Will not be implemented because it is not warranted or is not reasonable	The SFMTA believes that such information may allow bidders to take advantage of the bid process.
Van Ness Avenue : What Lies Beneath [June 28, 2021]		underground work in the City's main corridors include, as part of the	Municipal Transportation Agency [August 27, 2021]	Will not be implemented because it is not warranted or is not reasonable	One policy for all projects is impractical. Each department must make a determination on a project-by-project basis based on the risk assessment. Currently, all major City projects that involve underground work in main corridors do incorporate potholing, or other equivalent appropriate industry practices, to identify unknown underground obstructions. The City is also working more closely with private utilities (e.g., PG&E, Comcast, ATT) during design phase of major projects to account for their utilities, whether active, deactivated, or abandoned.

Report Title [Publication Date]	R# [for F#]	Recommendation	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F8, F10, F11, F12,	By June 2022, and before entering into future CMGC relationships, the Board of Supervisors should direct all City departments to adopt, publish, and enforce in all future contracts industry-standard best practices for management of CMGC projects.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	reasonable	SFMTA will review recommended best practices for future CM/GC projects and apply them, as applicable and as appropriate. It is up to the individual department to determine the applicability of "best practices" to their projects.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F8]	The adopted CMGC management policy should specifically include the industry best practice of awarding the contract before project design continues past 30% completion.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	reasonable	While it is optimal to bring in a CM/GC contractor on or before 30%, it is equally important to have a qualified, experienced contractor who is able to provide the required services. In the case of a horizontal CM/GC project, the technical capability and local experience of the contractor are also important.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F5]	By June 2022, the Board of Supervisors should amend Section 6.68 of the Administrative Code to remove the mandatory cost criterion in awarding CMGC contracts.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Requires further analysis	The SFMTA agrees with this recommendation, but implementation of the recommendation resides with the Board of Supervisors.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F7, F9, F10]	SFMTA should establish a policy for review of technical quality of preconstruction and design deliverables, to be used in all CMGC or design contracts signed after January 2022, including in-the-field validation of key assumptions of site conditions by City engineers.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Has not yet been implemented but will be implemented in the future	A more formalized process of reviewing and commenting on preconstruction deliverables would be beneficial in the future. The SFMTA will establish the policy for all future CMGC-type projects.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F12, F13]		Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Has been implemented	It is a long-standing practice in the City that a Resident Engineer is assigned prior to the start of construction on every capital project as the single point of contact with the contractor in the field. The Van Ness project includes a complete support staff of City employees (SFMTA, SFPUC, DPW and consultants) to monitor actual progress and site conditions. Future CMGC projects will continue this practice.

Report Title [Publication Date]	R# [for F#]	Recommendation	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Van Ness Avenue :	R10	By June 2022, the City should adopt a	Director, San	Will not be	A majority of SFMTA projects are funded by the FTA, which requires
What Lies Beneath	[for F1,	policy that any public communication	Francisco	-	the project to assess and monitor project risks in construction on a
[June 28, 2021]	F9]	capital project that includes	Municipal Transportation Agency [August 27, 2021]	warranted or is not reasonable	periodic basis. The department can provide a general list of project risks in public communications, to inform the public of the project status and projected substantial completion. Publishing itemized costs association with changes risk or project duration could negatively impact the bidding or negotiation process.
Van Ness Avenue :	R11	Beginning immediately, and in all	Director, San	Has been	This recommendation has been implemented in the Van Ness BRT
What Lies Beneath	[for	future capital or maintenance	Francisco	implemented	Project, and will continue to be implemented in the future for all
[June 28, 2021]	-	projects that require pedestrian monitors, the City should ensure that associated costs are either specifically included in the primary	Municipal Transportation Agency [August 27, 2021]		contracts that require pedestrian monitors.
		construction contract, or explicitly planned for and funded by the City, before construction begins.			



London Breed, Mayor

**Gwyneth Borden**, Chair **Amanda Eaken**, Vice Chair **Steve Heminger**, Director

**Fiona Hinze**, Director **Sharon Lai**, Director **Manny Yekutiel**, Director

Jeffrey Tumlin, Director of Transportation

August 24, 2021

The Honorable Samuel K. Feng Presiding Judge, Superior Court of California, County of San Francisco 400 McAllister Street, Room 008 San Francisco, CA 94102-4512

Dear Judge Feng,

In accordance with Penal Code 933 and 933.05, the Board of Directors of the San Francisco Municipal Transportation Agency (SFMTA) responds to the 2020-2021 Civil Grand Jury Report, Van Ness Avenue: What Lies Beneath (Report). We would like to thank the members of the 2020-2021 Civil Grand Jury for their constructive feedback in the planning, design, construction, and project management of the Van Ness Improvement Project (Project).

The SFMTA Board of Directors appreciates the time the Civil Grand Jury spent looking into this Project and issuing the Report. We acknowledge the concerns about project delay and increased costs and their effect on our transportation system, residents, and business owners along the corridor, and on commuters. The Board takes this report seriously and recognizes that the City, including the agency and our contractor, could have applied better project controls and handled the project delivery issues more effectively. While the agency has implemented several lessons learned from the Project with good success in recent capital projects, we acknowledge that more work and effort are needed to improve project delivery, especially on major capital projects.

The SFMTA Board is committed to support the SFMTA staff to make necessary improvements in project delivery. We support and agree with the Report's recommendations to have better contractor evaluation and selection criteria in the future to improve this important partnership and to better achieve the desired project outcomes. To this end, at the August 17 Board Meeting, the Board approved the attached response to the Findings and Recommendations and gave direction to staff that there is an urgency for the SFMTA to take steps to make improvements in our project delivery process. The Board is looking forward to working with its staff to apply the lessons learned from this and other recent projects to improve its capital project delivery going forward.

Sincerely,

Gwyneth Borden

Chair, SFMTA Board of Directors

CC: SFMTA Board of Directors

Jeffrey Tumlin, Director of Transportation

San Francisco Municipal Transportation Agency

1 South Van Ness Avenue, 7<sup>th</sup> Floor

San Francisco, CA 94103

SFMTA.com

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F1	Ness BRT Project were caused primarily by avoidable setbacks in	Director, San Francisco Municipal Transportation Agency [August 27, 2021]		Many of the initial delays on the Project occurred during construction of the underground phase of the Project; however, some of these delays were avoidable and some were unavoidable. The City and the contractor often share responsibility for delays, and some of the delays were due to third parties. Understanding the delay on this project involves looking at the contractor's initial claim for 279 days of delay and its pending claim for 344 delay days. As to the initial claim for 279 days, the parties agreed that 135 were compensable (City's responsibility) and 144 were noncompensable (not the City's sole responsibility). In other words, the contractor acknowledged that it shared responsibility for more than half of the delay days. As to the pending claim for 344 days, the contractor failed to provide the required scheduling
					analysis; thus, the City has been required to undertake its own analysis of the delay. This analysis is currently underway.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F2	duration of the overall project was given insufficient consideration in the	Director, San Francisco Municipal	Disagree partially	The SFMTA gave significant consideration to the potential impacts of utility replacement during the planning process. The underground utility replacement activities and its associated risks were studied and reviewed in design and preconstruction phase based on the information available and the recommendations from consultants and the selected contractor. During the design phase, the City performed some potholing and coordinated with PG&E to relocate gas mains and an electrical ductbank. To minimize major traffic and operational impacts, the City included a standard requirement in the Specifications that the Contractor perform significant amounts of potholing 30 days in advance of any installation. The contract also included specific allowances to cover additional or unforeseen costs related to utility installation. In future contracts, the SFMTA agrees to consider applying more emphasis during the planning stage regarding the impacts of utility replacement.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F3	replacement was known to City engineers to be a major risk, but was only considered a moderate risk and assigned no effective mitigation in	Francisco	Disagree partially	The Contractor, City Staff, and an independent consultant cooperated in preparing the risk register and because of the mitigation measures being taken this was classified as a moderate risk. Several mitigation measures were included in the Specifications, such as requiring potholing 30 days in advance of the work, and providing the contractor with copies of deactivated utility drawings as reference documents. The Contractor failed to perform the required potholing in a timely fashion, at times attempting to dig potholes within hours of trenching to install utilities. Contractor's inability to properly anticipate/manage/mitigate utility issues during construction was the primary contributor to added contract costs and duration.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F4	Project timelines could not be estimated accurately because documents did not reflect the extent and location of underground utilities accurately.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Disagree partially	Project timelines for projects with extensive underground utilities are often difficult to estimate because no matter how extensive the pre-construction investigation, there will always be unknowns. Contractors experienced in such work know that they must often deal with the unexpected. The project timeline prepared during preconstruction was a product of City staff, Contractor, and an independent consulting team based on the best information available. As construction started, the project team realized that some third party utilities, such as PG&E, provided inaccurate or incomplete information on their existing utilities. The contract contained an action plan to instruct the contractor for dealing with unknown utilities, as well as contingency for differing site conditions. However, the Contractor did not take the lead in field investigation and coordination with third party utilities, although they were contractually obligated to do so as a CM/GC. The Contractor failed to perform the required potholing in a timely fashion per contract, at times attempting to dig potholes within hours of trenching to install utilities. Contractor's inability to properly anticipate/manage/mitigate utility issues during construction was the primary contributor to added contract costs and duration. Contractor's initial construction sequencing plan was also unrealistic. All these issues contributed to an inaccurate project timeline projection.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F5	The evaluation rubric for preconstruction contract bids weighted cost too heavily, as compared to technical expertise, even after project-specific legislation allowed for a lower weight to be assigned to cost.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Agree	Such contracts should be evaluated using a best value rubric, with technical expertise weighted high. At the time, the Agency was unable to lower the points given to cost in the legislation submitted to the Board of Supervisors

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]		Practical work during preconstruction that could have derisked the subsequent construction phase of the project was insufficient.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]		The majority of the utility conflicts that resulted in additional contract time were at intersections. Potholing within intersections typically requires the intersection to be closed in order to provide a safe barrier for the workers from traffic. Given that Van Ness Avenue is a State highway, this would have been extremely difficult to occur. Typically, this level of potholing is reserved for the construction phase when traffic can be effectively closed/diverted. Ground-penetrating radar (GPR) during the design phase had several issues with accuracy and relability of the data. Recent improvements in GPR provide for a more reliable tool for future projects.
Van Ness Avenue : What Lies Beneath [June 28, 2021]		preparedness for construction, which	Francisco Municipal	Disagree partially	It is correct that the contractor may not have adequately prepared itself for construction during the year-long preconstruction period. The timeline for underground work provided by the contractor's subcontractor during preconstruction did not align with the timeline provided by the subcontractor who eventually performed the work. It is unclear to what extent better preparedness by the contractor would have resulted in more accurate cost estimates and timelines. In addition, other key issues listed in F4 contributed to the challenge to forecast accurate cost estimates and timelines.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F8	contract was greatly reduced because the general contractor was brought into the design process too late.	Director, San	Disagree partially	While it would have been better to have the contractor on board earlier in the design phase, the Contractor did have a year (during pre-construction) to review the construction documents, provide comments, and familiarize itself with the conditions along the corridor. The CMGC construction contract with the Guaranteed Maximum Price was issued by SFMTA with the Contractor's concerns and input addressed. Since the prime did not involve the subcontractors directly with the City in the preconstruction process the City may not have received the full benefit of the subs' technical expertise and local knowledge. Contractor did not make the best use of its subcontractors.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F9	requirements led to additional costs for work that could have been predicted and included in the original	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Disagree partially	In an effort to continually improve our contract documents, we review the project specifications, in particular with multi-agency projects where various sets of specifications are merged. The Van Ness project also had the challenge of coordinating City specifications with Caltrans requirements. Specifically, in the case of the potholing and pedestrian control specifications, the contractor settled claims on these issues for less than 20% of its costs incurred, illustrating that its claim arising from purported ambiguity in the specifications had little merit. Moreover, Contractor had access to the specifications for many months during the pre-Construction period and did not request any clarification/changes at that time. Contractor raised issues with the technical requirements after the construction started.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F10		Director, San Francisco Municipal Transportation Agency [August 27, 2021]		Language that was used in the contract was standard to all City contracts. The City worked diligently to enforce the contract in a fair and reasonable manner. The contractor did not raise any concerns about ambiguity or confusion during the year of preconstruction services or during negotiations. The CM/GC has the responsibility to raise and resolve such concerns during preconstruction. What actually led to deterioration in the relationship was the contractor's concerns about the bid for the utility work being substantially higher than originally estimated and thereby reducing its profit margin.
Van Ness Avenue : What Lies Beneath [June 28, 2021]		The removal of Synergy, the underground subcontractor, from the project, partially as a result of poor cost estimates, contributed to the deterioration of the relationship between Walsh, the general contractor, and the City.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]		The City supported the contractor's decision to remove its underground utility contractor, Synergy. The relationship only began to deteriorate when the contractor bid out Synergy's work and received a bid substantially more than Synergy's estimate. Over a year after Synergy was removed, Walsh filed a claim under penalty of perjury for \$11.9M arising from damages it purportedly incurred relating to Synergy's removal. That claim was resolved by the City paying Walsh nothing on this issue. The price difference was not due to poor cost estimating, but to unexpected market conditions.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : F1 What Lies Beneath [June 28, 2021]		difficult to resolve problems as they	Director, San Francisco Municipal Transportation Agency [August 27, 2021]		Once the contractor realized that its guaranteed maximum price would not cover the cost of the utility work, the relationship became strained and the contractor became uncooperative. It appeared that the contractor was more focused on recovering the potential loss from the increased utility costs than performing a collaborative and successful project. To illustrate this, the contractor hired additional personnel to focus on claims, and used field staff to assist with the claims process rather than devoting resources to the project. The contractor's lack of experienced field staff required the City to hire a utility coordinator and other staff to facilitate the contractor's coordination with third party utilities and to resolve basic field issues. As a CM/GC, it was the contractor's responsibility to coordinate day-to-day activities with third party utilities. In spite of the challenging situation, field staff maintained a professional relationship.

Report Title [Publication Date]	F#	Finding	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/ Disagree)	Finding Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F13	Lack of an in-the-field point of contact between Walsh and the City during early stages of construction led to delays and increased costs on the project.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Disagree wholly	The City's Resident Engineer (RE) was (and is) the point of contact with the contractor. The RE, who has been on the Project from the beginning, along with the owner's construction management team, have always been co-located with the contractor's team. Notably, the high turnover of the contractor's management team made it difficult to coordinate with the contractor, and necessitated the City bringing the contractor up to speed at various times (and likely contributed to the delay and increased costs on the Project). The contractor's unwillingness to pothole and perform other advance investigation in a timely fashion contributed more to delays in resolving field challenges than any lack of City staff. The CM/GC should lead the field fact-finding and discovery with very little owner assistance to resolve basic field issues and coordination matters. During the construction, City staff had to supplement the contractor's team directly, performing contractor work in support of the overall effort and mitigate potential delays.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	F14	Confusion related to the contractual requirements for pedestrian monitoring contributed to the deterioration of the relationship between Walsh, the general contractor, and the City.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	Disagree partially	The City does not believe that the contractual requirements for pedestrian monitoring and flaggers are confusing. In the interest of public safety, the City agreed to reimburse Walsh for pedestrian monitors if (1) the contractor provided the flaggers required under the contract for pedestrian control and (2) the contractor provided advance notice to the City of the need for pedestrian monitors to support the flaggers at a particular location.

Report Title [Publication Date]	R# [for F#]	Recommendation	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Van Ness Avenue:	R1	By June 2022, the City should adopt a	Director, San	Has been	Project risk assessment and mitigation are long-standing practices
What Lies Beneath	[for F1,	policy that all capital project	Francisco	implemented	that are implemented for major capital projects and projects of
[June 28, 2021]	F2, F4,	feasibility plans include an itemized	Municipal		particular technical complexity as listed in Section 4 (Detailed
	F6, F9]	assessment of risks to project	Transportation		Design Phase) of the MTA's Project Operations Manual (POM).
		timelines and costs, which must be	Agency		
		accompanied with specific	[August 27, 2021]		
		procedures that will be undertaken			
		to mitigate those risks early in the			
		project.			
Van Ness Avenue :	R2	By June 2022, the City should adopt a	Director, San	Will not be	Speaking for the Agency and not the City as a whole, the SFMTA
What Lies Beneath	[for F1,	policy that all capital project sponsors	Francisco	implemented	believes that such information may allow bidders to take advantage
[June 28, 2021]	F2, F3,	publish, before proceeding to the	Municipal	because it is not	of the bid process, as it could allow contractors to unbalance bids
	F4, F6,	construction phase, an itemized	Transportation	warranted or is not	or give them an unfair advantage in negotiations.
	F9]	assessment of derisking activities	Agency	reasonable	
		actually performed.	[August 27, 2021]		

Report Title [Publication Date]	R# [for F#]		Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Van Ness Avenue :		The Board of Supervisors should	Director, San	Will not be	Speaking for the Agency, and not the Board of Supervisors, the
What Lies Beneath	_	direct all City departments to adopt a		implemented	SFMTA believes that one policy for all projects, across all
[June 28, 2021]			Municipal	because it is not	departments, is impractical. Each department must make a
	F7]	_	Transportation		determination on a project-by-project basis based on the risk
		corridors include, as part of the design process, the use of	Agency [August 27, 2021]	reasonable	assessment. Currently, all major City projects that involve underground work in main corridors do incorporate potholing, or
		exploratory potholing, or another	[August 27, 2021]		other equivalent appropriate industry practices to identify
		equivalent industry best-practice to			unknown underground obstructions. The City also works closely
		identify unknown underground			with private utilities (e.g., PG&E, Comcast, ATT) during design phase
		obstructions adhering to CI/ASCE 38-			of major projects to account for their utilities, whether active,
		02 ("Standard Guideline for the			deactivated, or abandoned.
		Collection and Depiction of Existing			
		Subsurface Utility Data") Quality			
		Level A. This policy should take effect			
		for all contracts signed after January			
		1, 2022, and the work should be			
		required to be performed before final			
		construction terms or prices are			
		agreed to.			
Van Ness Avenue :			Director, San	Will not be	"Best practices" are a list of general recommendations based on
What Lies Beneath		• *	Francisco	implemented	general industry practices. Speaking for the Agency, and not the
[June 28, 2021]	F10,	•	Municipal	because it is not	Board of Supervisors, the SFMTA will review recommended best
	-	City departments to adopt, publish,	Transportation		practices for future CM/GC projects and apply them, as applicable
	· ·		Agency	reasonable	and as appropriate. It is up to the individual department to
	F13]		[August 27, 2021]		determine the applicability of "best practices" to their projects.
		management of CMGC projects.			

Report Title [Publication Date]	R# [for F#]	Recommendation	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	R6 [for F8]	The adopted CMGC management policy should specifically include the industry best practice of awarding the contract before project design continues past 30% completion.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]		While it is optimal to bring in a CM/GC contractor on or before 30%, it is equally important to have a qualified, experienced contractor who is able to provide the required services. In the case of a horizontal CM/GC project, the technical capability and local experience of the contractor are also important.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	R7 [for F5]	By June 2022, the Board of Supervisors should amend Section 6.68 of the Administrative Code to remove the mandatory cost criterion in awarding CMGC contracts.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	·	The SFMTA agrees with this recommendation, but implementation of the recommendation resides with the Board of Supervisors.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	R8 [for F7, F9, F10]	SFMTA should establish a policy for review of technical quality of preconstruction and design deliverables, to be used in all CMGC or design contracts signed after January 2022, including in-the-field validation of key assumptions of site conditions by City engineers.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	implemented but	A more formalized process of reviewing and commenting on preconstruction deliverables would be beneficial in the future. The SFMTA will establish the policy for all future CMGC-type projects.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	R9 [for F12, F13]	Beginning January 1, 2022, SFMTA should assign to every CMGC project a dedicated in-the-field contractor liaison to facilitate collaborative problem resolution, and sufficient support staff to monitor actual progress and site conditions.	Director, San Francisco Municipal Transportation Agency [August 27, 2021]	implemented	It is a long-standing practice in the City that a Resident Engineer is assigned prior to the start of construction on every capital project as the single point of contact with the contractor in the field. The Van Ness project includes a complete support staff of City employees (SFMTA, SFPUC, PW and consultants) to monitor actual progress and site conditions. Future CMGC projects will continue this practice.

Report Title [Publication Date]	R# [for F#]	Recommendation	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F1, F2, F6, F9]	capital project that includes disruption of public services or right-	Francisco Municipal Transportation Agency [August 27, 2021]	implemented because it is not warranted or is not reasonable	A majority of SFMTA projects are funded by the FTA, which requires the project to assess and monitor project risks in construction on a periodic basis. The department can provide a general list of project risks in public communications, to inform the public of the project status and projected substantial completion. Publishing itemized costs association with changes risk or project duration could negatively impact the bidding or negotiation process.
Van Ness Avenue : What Lies Beneath [June 28, 2021]	[for F14]	future capital or maintenance projects that require pedestrian monitors, the City should ensure that associated costs are either	Municipal	Has been implemented	This recommendation has been implemented in the Van Ness BRT Project, and will continue to be implemented in the future for all contracts that require pedestrian monitors.