Diversity in Action
Published by SBE certified
SBE/DBE/MBE

Vol 40, Edition 36

Daily Publication 
July 12, 202

# Environmental opposition to vital Sacramento-area highway project is ridiculous

[ Article originally appeared in www.calmatters.org ]

By Dan Walters, CalMatters

Some things are just so ridiculous that they demand critical attention. One of them is the opposition from environmental groups to widening the Interstate 80 freeway between Sacramento and Davis.

For years, motorists have complained about what has been dubbed the "Davis bottleneck" that often backs up traffic for miles. What should be no more than a 10- or 15-minute drive can often take 45 minutes or more.

The state Department of Transportation wants to convert median strips into new traffic lanes that would require a toll payment to traverse. Environmentalists, who are trying to block the project in court, contend that it would merely encourage more drivers to use the stretch of freeway and therefore relief from congestion would be only temporary.

Opponents also complain that Caltrans and local officials are using the subterfuge of improving pavement to widen the freeway, and that the project runs counter to official state policy of reducing vehicular traffic as a way to reduce greenhouse gasses.

"These projects are being oversold to the public as a way to reduce congestion; they are not," Susan Handy, director of the National Center for

Sustainable Transportation, told the Los Angeles Times. "A court decision is going to be very important."

Ironically, Handy's organization is housed in the UC Davis campus, where the chronic congestion spills over.

The complaints might have some validity if this stretch was merely another local commuter route, but it isn't. Interstate 80 is one of the nation's most important transcontinental arteries, running 2,901 from San Francisco to the New York City metropolitan area with much of its route in western states following 19th-century immigrant trails.

The only other east-west interstates are either hundreds of miles to the north or hundreds to the south. That makes I-80 an extremely important route for interstate cargo, a fact evident to anyone who shares the freeway with an endless stream of large trucks.

Moreover, there are no alternative routes because the eastern portion of the freeway is a causeway over a marshy area that's home to wildlife and is often flooded during winter and spring months. Water is diverted into the "Yolo Bypass" from the Sacramento River as an important element of the Sacramento region's flood protection system.

Simply put, trucks and cars must either use I-80 between Sacramento and the Bay Area or not move at all. The notion that widening will



The Yolo Causeway between Sacramento and Davis on Feb. 23, 2017. Photo by Steve Martarano, U.S. Fish and Wildlife Service

increase traffic is ludicrous: The traffic will be there regardless because it has nowhere else to go.

"We experience some of the most severe congestion in California seven days a week," Autumn Bernstein, executive director of the Yolo Transportation District, told the LA Times. "We have more than five hours of congested traffic in the eastbound direction and (in) Davis every afternoon."

The ultimate fate of the project is not certain. The California Transportation Commission gave its approval in May and allocated money to begin work, but the environmental groups are suing, characterizing it as a showdown over the state's official policy of avoiding

projects that increase carrying capacity and lead to more traffic.

It's unfortunate that Caltrans officials decided they needed to hide expansion of the freeway as a pavement improvement project and make it a joint project with local officials — with some token funding for mass transit — to sidestep a direct confrontation over environmental impacts.

In a more rational world, the need would be obvious and officialdom would be criticized for waiting so long to do something about a bottleneck.

SOURCE: https://calmatters.org/commentary/2024/07/environmental-opposition-interstate-80-project/

# Biden-Harris Administration to Invest Up to \$1.6 Billion to Establish and Accelerate Domestic Capacity Advanced Packaging

[ Article originally appeared in www.commerce.gov ]

As part of President Biden's Investing in America agenda, the U.S. Department of Commerce issued a Notice of Intent (NOI) to open a competition for new research and development (R&D) activities that will establish and accelerate domestic capacity for semiconductor advanced packaging. The CHIPS for America program anticipates up to \$1.6 billion in funding innovation across five R&D areas, as outlined in the vision for the National Advanced Packaging Manufacturing Program (NAPMP). Through potential cooperative agreements, CHIPS for America would make several awards of approximately \$150 million federal funding available per award in each research area. These awards will leverage private sector investments from industry and

"President Biden was clear that we need to build a vibrant domestic semiconductor ecosystem here in the U.S., and advanced packaging is a huge part of that. Now, thanks to the Biden-Harris Administration's commitment to investing in America, the U.S. will have multiple advanced packaging options across the country and push the envelope in new packaging technologies. This announcement is just the most recent example of our commitment to investing in cutting edge R&D that is critical to creating quality jobs in the U.S. and making our country a leader in advanced semiconductor manufacturing." said U.S. Secretary of Commerce Gina Raimondo.

Advanced packaging capacity and R&D has never been in higher demand or more important to advances in semiconductor technology. Emerging artificial intelligence (AI)-driven applications are pushing the boundaries of current technologies like high performance computing and low power electronics, requiring leap-ahead advances in microelectronics capabilities, especially advanced packaging. Advanced packaging allows manufacturers to make improvements in all aspects of system performance and function and to shorten time to market. Additional benefits include a reduced physical footprint, lower power, decreased costs, as well as increased chiplet reuse. Achieving these goals requires coordinated investments to support integrated R&D activities to establish leading-edge domestic capacity for semiconductor advanced packaging

"The National Advanced Packaging Manufacturing Program will enable a packaging sector within the United States that outpaces the world through innovation driven by robust R&D," said Under Secretary of Commerce for Standards and Technology and National Institute of Standards and Technology (NIST) Director Laurie E. Locascio. "Within a decade, through R&D funded by CHIPS for America, we will create a domestic packaging industry where advanced node chips manufactured in the U.S. and abroad can be packaged within the United States and where innovative designs and architectures are enabled through leading-edge packaging capabilities.

"Under President Biden's leadership, we're bringing semiconductor manufacturing back to the United States, teaming with industry to build factories, supply chains, and jobs in communities across the country. That's how we win today, and CHIPS R&D is how we win tomorrow," said Arati Prabhakar, Assistant to the President for Science and Technology and Director of the White House Office of Science and Technology

Policy. "Investing in research to accelerate new advanced semiconductor packaging approaches will help this pivotal and fast-changing industry thrive here at home now and into the future."

Funded activities are expected to be relevant to one or more of five R&D areas:

- 1. Equipment, tools, processes, and process integration;
- Power delivery and thermal management:
- 3. Connector technology, including photonics and radio frequency (RF);
- 4. Chiplets ecosystem;
- 5. and co-design/electronic design automation (EDA).

In addition to the R&D areas, the funding opportunity is expected to include opportunities for prototype developments.

More information about the NOI will be shared in an upcoming webinar. Follow CHIPS.gov for updates.

Continued on page 4

2 SBE TODAY E-NEWSLETTER JULY 12, 2024



# **CALIFORNIA SUB-BID REQUEST ADS**



INVITATION TO BID
PROJECT: SUNNYDALE BLOCK 9 – EARLY BUYOUT - 1652 Sunnydale Avenue, San Francisco, CA 94134

The Cahill-Guzman Joint Venture team is requesting bids from the trade below

TOWER CRANE ONLY (REMAINING TRADES DELAYED UNTIL 2025)

BIDS DUE: 07/24/24 at 2:00 PM

Labor Requirements: This is a prevailing wage project. All carpenter, laborer, and operating engineer trades must be union. First Source Hiring applies

Sub-Contracting Goal: 20% SBE participation goal

Tentative Construction Schedule: Begin construction in Q2 2025 or Q1 2026. Duration is 21 months

Contact: Cahill Estimating - estimating@cahill-sf.com, (415) 677-0611 for access to documents

Alex Kushner General Inc is requesting sub-bids from qualified MBE/WBE/OBE/SBE/LBE/DVBE subcontra suppliers, manufacturers & truckers for: Contra Costa County Public Works Dept., 255 Glacier Drive, Martine

Project: OAK GROVE CENTER 1034 OAK GROVE ROAD, CONCORD, CA 94518 FOR THE CONTRA COSTA COUNTY HEALTH SERVICES DEPARTMEN'
Authorization No. WH380A/B
Bid Due Date: on or before the 18th day of July, 2024 at 2:00 p.m

For the following (but not limited to) work: demolition, concrete form work, concrete cast in place, metal fabrication, decorative metal railing, wood studs framing and carpentry, drywall, insulation thermal and sound, too roofing, striping, electrical, plumbing, painting, tiling, flooring, glazing, aluminum storefronts, doors and hardware, fire sprinklers, fire alarm, ac paving, pavers, irrigation and landscaping.

If you are interested in bidding on this work or know someone who is, please contact Alex at 415-756-0945 Fax: 415-358-5769 email: amadevelopers@hotmail.com

Plans, Specs, and Requirements for the project are available for review at our office in San Francisco or by email we will email to you upon request and / or at the Contra Costa County Public Works Department's Online Planroom at www.cccounty.us/cpmprojects.

For assistance in obtaining bonds, line of credit, and/or insurance for this project, please contact Alex at the noted phone number

Alex Kushner General Inc. 2364 Funston Ave, San Francisco, CA 94116 Contact: Alex • Phone: 415-756-0945 • Fax: 415-358-5769 Email is very good way to connect to Alex: amadevelopers@hotmail.com

# SKANSKA | FLATIRON

Skanska-Flatiron, A Joint Venture (SFJV) of 1995 Agua Mansa Rd., Riverside, CA is seeking proposals from all interested firms, including certified DBEs, for

PMO Tenant Improvements for the Airfield and Terminal Modernization Program - Roadway Improvements Project. Owner: Los Angeles World Airports (LAWA). Contract No. DA-5609 BP# DA5609-0001.

Proposals due: August 22, 2024 at 1:59pm.

Plans & Specifications can be viewed at our office Monday - Friday 7am to 4pm (call for appointment) or downloaded

Prebid Meeting and site walk July 16, 2024 at 10:30am at 7303 World Way West, Los Angeles, CA 90045, Level 1, World Way Conference Room. This meeting will be immediately followed by a site walk at 9029 Airport Blvd., Los Angeles, CA 90009. Meeting is not mandatory, but is highly encouraged.

Register at: https://forms.office.com/e/YQi9TJjg9G

Should you have any questions or desire to quote on this project, please contact Joe van den Bosch, DBE Compliance Coordinator at (818) 928-9411 or joe.vandenbosch@skanska.com. Assistance in bonding, insurance, lines of credit or obtaining equipment, supplies and materials is available upon request. This advertisement is in response to LAWA's DBE program. SFJV intends to conduct itself in good faith with DBE firms regarding participation on this project. More info about this project is available at <a href="https://www.skanskaflatironatlax.com">www.skanskaflatironatlax.com</a>.

SFJV is an EEO/AA/Vet/Disability Employer.



PROJECT: 1515 SOUTH VAN NESS, SAN FRANCISCO, CA <u>EARLY BUILDING DEMOLISTION</u> 07.02.2024.

Guzman Construction Group, Inc. (GCGI) & Marinship JV team is requesting bids from the trades below only for our design effort on our 1515 S Van Ness ect. Trades/scopes shall be considered Final Hard Bid and are anticipated to be awarded on this round of pricing.

• Early Demolition of the building only.

Project Description: 1515 South Van Ness is a 100% affordable housing project. Demolish Existing Commercial Building and Construct a Building Ct 9 Stories of Type IA Construction. The Ground Floor Will Host Residential Service, Common Spaces, An Early Learning Center, and A Community Servir Retail Space. Floors 2-9 Will Contain Residential Units, Yelding 168 Units. Outdoor Space Include a Large Courtyard on The Ground Floor and A Terrace.

DEMO PHASE 1: Will Consist of Building Demolition Only Under a Separate Permit. Existing Basement Perimeter Wall Along 26th ST And South Va Ave Shall Remain in Place Until Phase 2 Of Demolition. **DEMO PHASE 2:** Will Consist of All Other Items of Demolition Except For Building as Noted In Phase 1 Demolition. Phase 2 Demolition to Be Part Of 1515 South Van Ness Affordable Housing Permit.

Labor Requirements: This is a prevailing wage project. All carpenter and laborer trades must be union.

Sub-Contracting Goal: 25% SBE participation goal and 5% DVBE participation goal. All SBE firms must submit completed SBE Form 2 with the proposa Schedule:

07/03/24 - Start of Advertise 08/01/24 - Bids Due 02:00 PM Wednesday 07/19/24 - RFI Deadline 07/23/24 - Job Walk @ 10:30 AM 09/25/24 - Tentative Construction Start (Refer to Exhibit C)

Contractor Contacts:

Chandu Malladi Hasan Demirkol

Bid Documents: All documents for this bid can be downloaded from the project site on Building Connected, which you have access to via the email invite you received. Also, the project information is available at the following Box link: https://www.dropbox.com/scl/fo/e4j22zvcsm4mid3loi17e/AcxQufuydEpjMgLvfs0A2UE?rlkey=oftsn4mxrft8xkesy1nlzkmtk&dl=0

# BID DATE: July 30, 2024 @ 2:00 PM

# DeSilva 7 Gates CONSTRUCTION 11555 Dublin Boulevard • P.O. Box 2909 • Dublin, CA 94568-2909 Phone: (925) 829-9220 / Fax: (925) 803-4263

Website: www.desilvagates.com ESTIMATOR: PAUL BRIZUELA An Equal Opportunity/ Affirmative Action Employer

DeSilva Gates Construction (DGC) is preparing a bid as a Prime Contractor for the project listed below:

FLORIN ROAD BICYCLE AND PEDESTRIAN IMPROVEMENT PROJECT - Contract No. 4526 Disadvantaged Business Enterprise Goal Assigned is 21% OWNER: COUNTY OF SACRAMENTO – 9660 Ecology Lane, Sacramento, CA 95827 REVISED BID DATE: AUGUST 8, 2024 @ 2:00 P.M.

DGC is soliciting quotations from certified Disadvantaged Business Enterprises, for the following types of work and supplies/ materials including but not limited to:

Adjust Iron, Cold Plane, Electrical, Landscaping, Minor Concrete, Roadside Signs, Sawcutting, Striping, Testing, Traffic Control Systems, Underground, Trucking, Water Trucks and Class 2 Aggregate Base Material

Plans and specifications may be reviewed at our offices located at 11555 Dublin Boulevard, Dublin, CA or 3855 N Freeway Blvd Suite 100, Sacramento, CA 95834, or at your local Builders Exchange, or reviewed and downloaded from the dropbox

site at <a href="https://www.dropbox.com/sh/5rvdc1bwfbasgl9/AABbrd0ba51\_kN3GtAESfBUoa?dl=0">https://www.dropbox.com/sh/5rvdc1bwfbasgl9/AABbrd0ba51\_kN3GtAESfBUoa?dl=0</a> or from the Owner's site at <a href="https://www.dot.ca.gov/hq/esc/oe/weekly\_ads/all\_adv\_projects.php">www.dot.ca.gov/hq/esc/oe/weekly\_ads/all\_adv\_projects.php</a>
Fax your bid to (925) 803-4263 or email to dgcestimating@desilvagates.com to the attention of Estimator Paul Brizuela. If you have questions for the Estimator, call at (925) 829-9220. When submitting any public works bid please include your DUNS number and DIR number. For questions regarding registration for DIR use the link at <a href="https://www.dir.ca.gov/Public-Works/">www.dir.ca.gov/Public-Works/</a> PublicWorks.html

If you need DBE support services and assistance in obtaining bonding, lines of credit, insurance, necessary equipment, materials and/or supplies or related assistance or services, for this project call the Estimator at (925) 829-9220, or contact your local Small Business Development Center Network (<a href="http://californiasbdc.org">http://californiasbdc.org</a>) or contact the California Southwest Transportation Resource Center (<a href="https://www.transportation.gov/osdbu/SBTRCs">www.transportation.gov/osdbu/SBTRCs</a>). DGC is willing to breakout portions of work to increase the expectation of meeting the DBE goal.

At our discretion, 100% Payment and 100% Performance bonds may be required as a subcontract condition. This will be a PREVAILING WAGE JOB. DGC is an Equal Opportunity/Affirmative Action Employer



O. C. Jones & Sons, Inc. 1520 Fourth Street • Berkeley, CA 94710 Phone: 510-526-3424 • FAX: 510-526-0990

REQUEST FOR DBE SUBCONTRACTORS AND SUPPLIERS FOR:

HMA, RHMA, sign structure, camera systems, and FO cable systems Hwy 50 & 80 in Solano & Yolo Counties Caltrans #03-3H9014

We are soliciting quotes for (including but not limited to): Trucking, Temporary and Permanent Hydroseed and Erosion Control Measures, QC/QA Testing, Lead Compliance Plan, Develop Water Supply, Construction Area Signs, Traffic Control System, Stationary Impact Attenuator Vehicle, Type III Barricade, Traffic Drum, Portable Changeable Message Sign, Radar Speed Feedback Sign, Automated Flagger Assistance Device, Stormwater Pollution Prevention Plan, Stormwater Sampling, Analysis, and Annual Report, Temporary Fencing, Sweeping, Treated Wood Waste, Biologist, Natural Resource Protection Plan, Noise Monitoring and Control Plan, Clearing & Grubbing, Structural Concrete, Approach Slab Type R, Storm Drain Systems, Roadway Excavation (Type Z-2 Aerially Deposited Lead Disposal), Shoulder Backing, Biograde Enhancement Geogrid, Irrigation, Tack Coat, Cold Plane AC, AC Dike, CIDH Concrete Pile, Structural Concrete, Minor Concrete (Minor Structure), Clean Expansion Joint, Bonded Joint Seal, Roadside Signs, Reinforced Concrete Pipe, Rock Slope Protection, Minor Concrete, Detectable Warning Surface, Misc., Iron & Steel, Manhole Frame & Gate Cover, Fencing, Concrete Barrier Delineator, Deleineator, Davement Marker, Guardrail Systems, Vegetation Control (Minor Concrete), Single Thrie Beam Barrier, Double Thrie Beam Barrier, Transition Railing, Concrete Barrier, Striping & Marking, Overhead Sign Structures, Access Opening (Bridge), Crash Cushions, Rumble Strip, Toll Collection System, Sign Illumination System, Ramp Metering System, Changeable Message Sign System, Electronic Toll System, Extinguishable Message Sign System, Camera Systems, Wireless Ethernet Bridge, Fiber Optic Cable Systems, Electronic Toll System, Extinguishable Message Sign System, Camera Systems, Wireless Ethernet Bridge, Fiber Optic Cable Systems, Camera Systems, Wireless Ethernet Bridge, Fiber Optic Cable Systems, Camera Systems, Wireless Ethernet Bridge, Fiber Optic Cable Systems, Camera Systems, Wireless Ethernet Bridge, Fiber Optic Cable Systems, Camera Systems, Came tems, Automatic Vehicle Classification Systems, Electrical, and Construction Materials

Jean Sicard (510-809-3411 jsicard@ocjones.com) and Bill Jensen (510-809-3432 bjensen@ocjones.com) are the estimators on this project and are available to provide assistance or answer questions regarding the project scope of work including bid requirements, break out of bid items, plan or spec interpretation, bonding or insurance requirements, and other bid assistance. Plans and specs are available to review at our Berkeley office or can be sent out via Building Connected. Plans are also available under the Advertised Projects tab at the Caltrans website at: <a href="http://ppmoe.dot.ca.gov/des/oe/contract-awards-services.html">http://ppmoe.dot.ca.gov/des/oe/contract-awards-services.html</a>. PDF format quotes should be emailed to the estimator or faxed to 510-526-0990 prior to 12:00 PM on the date of the bid. Quotes from DBE Subcontractors, Suppliers and Truckers are highly encouraged. OCJ is willing to breakout any portion of work to encourage DBE participation. Subcontractors must possess a current DIR, Contractors License, and insurance and workers compensation coverage including waiver of subrogation. OCJ may require Performance and Payment bonds on subcontracts. OCJ will pay the bond premium up to 2% of the contract value. Please contact OCJ for any assistance required by your firm in obtaining bonding or insurance. The US Small Business Administration may also assist you in obtaining bonding - please see the following site for information: <a href="http://www.sba.gov/content/contractors">http://www.sba.gov/content/contractors</a>. Visit the California Access to Capital Program Financing Solutions website for additional resources for your small business - http://www.calbizfinance.org/cal\_cert\_biz\_program.html. OCJ is available to help obtain necessary equipment, material and/or supplies. All subcontractors are required to execute OC Jones' standard subcontract agreement, comply with all insurance requirements, and name OCJ as additional insured. Copies of our agreement and insurance requirements are available upon request. OCJ is a Union contractor, and we are signatory to the Operating Engineers, Laborers, Teamsters, and Carpenters. OCJ is an Equal Opportunity Employer.

# SBE OUTREACH SERVICES

With 1.5 million businesses in our database, SBE is California's #1 source for diversity outreach.

Advertisements - Placed in the Small Business Exchange newspaper, SBE Today newsletter, and online at www.sbeinc.com

Faxed and Eblast Solicitations - Targeted mailings sent to businesses per your criteria.

Telemarketing - Telephone follow-up calls that follow a script of 5 questions you create.

Computer Generated Reports - Will fit right into your proposal, along with a list of interested firms to contact.

# **Contact Info:**

1160 Battery Street East, Suites #100, San Francisco, CA 94111 Email: sbe@sbeinc.com · Website: www.sbeinc.com Phone: (415) 778-6250, (800) 800-8534 Fax: (415) 778-6255

Publisher of Small Business Exchange weekly newspaper

JULY 12, 2024 SBE TODAY E-NEWSLETTER 3



# **CALIFORNIA SUB-BID REQUEST ADS**

### PLANT



### TO ALL POTENTIAL LBE/SBE/MBE/WBE/OBE/DVBE SUBCONTRACTORS

Plant Construction Company, L.P. is requesting budgets from qualified subs that are certified as Local Business Enterprise (LBE), Small Business Enterprise (SBE), Minority Business Enterprise (MBE), Woman Business Enterprise (MBE), ness Enterprise (WBE), Other Business Enterprises (OBE) and Disabled Veteran's Business Enterprise (DVBE) for Oak Grove Center project. There is a mandatory subcontractor participation of 25% of the total contract.

### Oak Grove Center

Plant Project Number: 2024093 Owner: Contra Costa County

Project Description: The project includes the remodel of two buildings with a total of 10,215 SF to create a new crisis call center, drop-in clinic, and an outpatient treatment center. The Tenant Improvement includes all aspects of a fully functional tenant improvement including but not limited to interior partitions, MEP, doors & windows, fire alarm modifications, fire sprinkler modifications, casework and security alterations. In addition, the project includes exterior landscaping and a new irrigation system.

The work includes selective demolition, cast-in-place concrete, polished concrete flooring, metal fabrications, pipe and decorative metal railings, rough carpentry, plastic-laminate-clad architectural cabinets, solid surface countertops, fiberglass reinforced paneling, TPO roofing, joint sealants, aluminum frames, flush wood doors. access doors and frames, gypsum board, ceramic tiling, acoustical panel ceilings, carpet, resilient flooring and base, wall coverings, painting, signage, toilet, shower and custodial accessories, fire sprinklers, plumbing, HVAC-Mechanical, electrical, lighting, fire detection, earthwork, site demo, clearing, trenching and backfilling, asphalt paving, site concrete for civil and landscaping work, permeable interlocking concrete pavement, pavement marking/striping, playground event marking. fibrous resilient paving, welded concrete pavement, pavement marking/striping, playground event marking, fibrous resilient paving, welded wire fence systems and gates (Ameristar), metal fences and gates, site furnishings, irrigation systems, soil preparation, sodding, planting and site utilities.

### Plant is seeking qualified subs for the following trade packages, but not limited to the following:

 $Final\ building\ cleaning,\ surveying,\ non-structural\ demolition,\ moisture\ remediation\ in\ concrete\ slabs\ ,\ structural\ demolition\ demolities\ demoliti$ tural concrete, polished concrete, metal fabrications, pipe railings, decorative metals, rough carpentry, finished carpentry & solid surface countertops, plastic fabrications, doors & frames & hardware, entrances, storefronts, and windows, drywall & framing, tiling, acoustical ceilings, carpet & resilient flooring, painting & wall coverings, signage, toilet partitions & custodial accessories, fire protection, plumbing, HVAC, electrical, earthwork, paving (unit paving, fibrous resilient paving), playground event marking, site concrete, fencing & gates, pavement markings & striping, site furnishings, landscaping, and site utilities

# Link to the Bid Documents:

Bid documents are on building connected. Please send an email or call Richard Mak below. Bids are due on 7/17 at 12pm.

To be added to our Subcontractor List for this and other project opportunities subcontractors are  $requested \ to \ contact \ Plant \ Construction \ Company, \ L.P.'s \ Workforce \ Development \ \& \ LBE \ Liaison:$ Richard Mak at (415) 550-5952 or by email at Richardmo

Plant Construction Company, L.P. is an equal opportunity employer.



1 Harbor Center, Suite 200 • Suisun City, CA 94585 Phone (707) 410-5070 An Equal Opportunity Employer

Disadvantaged Business Firms (DBE), Minority Business Enterprise (MBE), and Woman Business Enterprise (WBE) ctor/Supplier Bids Requested For:

> San Francisco Bay Area Rapid Transit District (BART) Installation of Fare Gates Contract No. BART
>
> BID DATE: Tuesday, July 23rd, 2024 at 2pm
>
> DBE Goal: 12%

MBE Participation: 25.6%\*; WBE Participation\*: 6.9%\*
Email quotes to jmiranda@shimmick.com

Shimmick Construction Company, Inc. is requesting quotes from certified DBE, MBE, and WBE subcontractors and suppliers in the following scopes of work

# Tile & Masonry Work, Saw Cutting, Recycling Old Fare Gates, Transportation of Old and New Fare Gates

Plans are available to download after registration on the BART portal suppliers.bart.gov. You may also contact Jamie Miranda at <a href="mailto:jmiranda@shimmick.com">jmiranda@shimmick.com</a> for a download link to view plans and specifications or to schedule an appointment via Teams to discuss the documents. Meetings are held during regular business hours.

uld you require assistance with your bid, please contact our lead estimator Craig Orr at corr@shi

All items of work listed above are made available, even items of work normally performed by Shimmick. Please contact the lead estimator listed above for assistance with breaking down items of work into economically feasible units, with assistance obtaining equipment, supplies, materials, bonding, insurance, estimating, or related assistance. 100% Performance and Payment bonds with a surety company subject to approval of Shimmick Construction Company, Inc. are required of subcontractors for this project. Shimmick Construction will pay bond premium up to 1.5%. Subcontractors will be required to abide by terms and conditions of the AGC Master Labor Agreements and to execute an agreement utilizing the latest SCCI Long Form Standard Subcontract incorporating prime contract terms and conditions, including payment provisions. Shimmick Construction's listing of a Subcontractor is not to be construed as an acceptance of all of the Subcontractor's conditions or exceptions included with the Subcontractor's price quote. Shimmick Construction requires that Subcontractors and Suppliers price quotes be provided at a reasonable time prior to the bid deadline to enable a complete evaluation. For assistance with bonding, insurance or lines of it contact Amanda Mobley at <u>amanda.mobley@sh</u>i

\*MBE and WBE participation is expressed in percentage terms for the Contractor's aggregate workforce in each trade on all



**Mountain Cascade Inc** 555 Exchange Court, Livermore, CA 94550 (925) 373-8370, Fax (925) 373-0940

Project: Lafayette Reservoir Recreation Area Wastewater Collection System Improvements Spec. No. 2166

Owner: EBMUD
Revised Bid Date: July 24th, 2024 @ 1:30 p.m.

We are requesting quotes from all qualified DBE/MBE/WBE/ Subcontractors and Suppliers but not limited to:

Aggregates, Asphalt, Concrete Material, Low Density Cellular Grout, Pipe Suppliers, Precast Materials, Concrete Flatwork/Structures, Directional Drilling, Electrical-Street lights/Traffic Signals/Loops, Fencing-Cable Rail, Handrailing- Cable Rail, K-rail, Pile Driving, Reinforcing Steel, Sawcutting, Striping, Structural Steel, SWPPP, Tree Removal/Arborist, Trucking, Pumping Plant Electrical Equipment, Painting/Coating, Tanks-Propane, Waterproofing.

Project Description: The work includes but not limited to: furnish and replace approx. 600' of sanitary sewer gravity collection mains; furnish and install 1300' of 4" HDPE force main; replace the underground sanitary sewer lift station with an aboveground lift station; furnish and install 25K W backup generator.

Engineers Estimate: \$2.2 mill

Project information, including plans & specifications can be found by contacting:

http://www.ebmud.com/current-construction-bids or: estimating@mountaincascade.com

Please feel free to contact Mountain Cascade, Inc. at 925.373.8370 with any questions concerning bonding, insurance, lines of credit, and job overview. We look forward to your respon

Mountain Cascade Inc. is an Equal Opportunity Employer California License # 422496

This is Part of a Good Faith Outreach. Your response is greatly appreciated



**Mountain Cascade Inc.** 555 Exchange Court, Livermore, CA 94550 (925) 373-8370, Fax (925) 373-0940

Project: Carter Reservoir Rehabilitation, Arroyo Pumping Plant Improvement, And Arroyo Reservoir Replacement Spec. No. 2185

Owner: EBMUD

Revised Bid Date: July 17th, 2024 @ 1:30 p.m.

We are requesting quotes from all qualified DBE/MBE/WBE/ Subcontractors and Suppliers but not limited to: Aggregates, Asphalt, Pipe Suppliers, Steel Tanks, Misc. Metals, Concrete Pumping/Structures, Demolition, Electrical-Building, Fencing, Landscaping/Irrigation/Hydroseeding, Reinforcing Steel, Welded steel pipe, Trucking, Pumping plant electrical equipment, HVAC/Mechanical, paintings/coatings, Valves/water main/temp facilities,

Project Description: The work includes but not limited to: at Carter Reservoir: blasting & coating of the interior and replacement of existing roof: at Arroyo Pumping Plant: demolish and replace existing meter: at Arroyo Reservoir: demo & removal of existing 1.0 MG steel tank and construction of two steel tanks (0.29 MG)

Engineers Estimate between: \$14M and \$17M

Project information, including plans & specifications can be found by contacting:

http://www.ebmud.com/current-construction-bids or: estimating@mountaincascade.com

Please feel free to contact Mountain Cascade, Inc. at 925.373.8370 with any questions concerning bonding, insurance, lines of credit, and job overview. We look forward to your respons

Mountain Cascade Inc. is an Equal Opportunity Employer California License # 422496

This is Part of a Good Faith Outreach. Your response is greatly appreciated



Mountain Cascade Inc. 555 Exchange Court, Livermore, CA 94550 (925) 373-8370, Fax (925) 373-0940

Project: 2024 Recycled Water System Upgrades Phase 1 City Project no. 2024-001 Owner: City of Colusa

Bid Date: August 6th, 2024 @ 3 p.m.

We are requesting quotes from all qualified Subcontractors and Suppliers but not limited to:
PRECAST MATERIALS, MISC. METALS, ELECTRICAL-BUILDING, STEEL PIPE, PIPE SUPPORTS, STRUCTUR-AL STEEL, REINFORCED CONCRETE SEWER PIPE, DOORS-ROLL UP DOORS, PUMPING PLANT ELECTRICAL EQUIPMENT, GENERATORS/SWITHCGEAR, DRAINAGE PUMPING EQUIPMENT, PAINTINGS/COATINGS, PRE-

**Project Description:** The work includes but not limited to: upgrades to the City of Colusa WWTP including installation of recycled booster pump station, chlorination system and connection to the farm field irrigation system

Engineers Estimate: \$5.6 mill

ENG. METAL BUILDINGS.

Project information, including plans & specifications can be found by contacting

estimating@mountaincascade.com

Please feel free to contact Mountain Cascade, Inc. at 925.373.8370 with any questions concerning bonding, insurance, lines of credit, and job overview. We look forward to your respon

Mountain Cascade Inc. is an Equal Opportunity Employer California License # 422496

This is Part of a Good Faith Outreach. Your response is greatly appreciated

# **Diversity Equity Inclusion**

SBE's nationwide 1,000,000+ database of certified businesses provides the basis for targeted outreach utilizing a powerful IBM Power9 platform for completedated and timed reporting, customized to match client needs.

4 SBE TODAY E-NEWSLETTER JULY 12, 2024



# **CALIFORNIA SUB-BID REQUEST ADS**



Is requesting quotes from certified and qualified DVBE and Small Business Subcontractors, Suppliers, and Service Providers for the following (but not limited to) work:

### SUBS/SERVICE PROVIDERS

SUBS/SERVICE PROVIDERS

Air-Blown Mortar, Asphalt Concrete, Concrete Barrier (Permanent), Concrete Pumping, Construction Area Signs, Develop/Test/
Drill/Maintain Wells, Erosion Control, Fencing, Furnish and Drive Piling, Furnish Precast Concrete Member, Highway Planting,
Hydroseeding, Irrigation System, Joint Seal – Water Stop, Mobile Barrier System, Metal Beam Guard Railing, Metal Railing,
Movable Barrier System, Paving Asphalt, Painted Traffic Striping & Marking, Pavement Marker, Reinforcing Steel, Remove
Pavement Marking & Traffic Stripes, Roadside Sign, Saw Cutting, Signal & Lighting, SWPPP, Temporary Erosion Control, mporary Fencing, Temporary Railing (K), Thermoplastic Traffic Striping & Marking, Traffic Control System, Traffic Flagger, Welding

halt, Concrete and Cement, Drainage Systems, Lumber, Petro m/Oil/Lubricants, Pipe, Sand and Gravel, Safety Equipmen

EMERGENCY RELEASE FACILITY LAKE PERRIS STATE WATER FACILITIES CALIFORNIA AQUEDUCT **EAST BRANCH SANTA ANA DIVISION** RIVERSIDE COUNTY, CALIFORNIA

> Specification No. 22-09 Contract No. C51632

**SMALL BUSINESS GOAL 25%** 

BID DATE August 7, 2024 at 11:00 a.m.

All Quotes Due Prior

**Sukut Construction, LLC** 4010 W. Chandler Avenue. Santa Ana. CA 92704 Contact: Nathan Rodriguez

Phone: (714) 540-5351 • Fax: (714) 545-2003 • Email: estimating@sukut.com

Plans/specs are available for viewing at our office by appointment, by Sukut FTP, or from Owner. Subcontractors must be prepared to furnish 100% performance and payment bonds and possess current insurance and workers' comp coverage. Sukut will assist qualified subcontractors in obtaining bonds, insurance, and/or lines of credit. Subcontractors/Vendors will be required to sign Sukut's Standard Subcontract/Purchase Order, Copies are available for examination, Please contact Nathan Rodriguez at Suku Construction for assistance in responding to this solicitation

Sukut Construction's listing of a Subcontractor in its bid to the agency is not to be construed as an acceptance of all the Subcontractor's conditions or exceptions included with Subcontractor's price quotes. Quotations must be valid for the same duration as specified by Owner for contract award

Sukut Construction, LLC • An Equal Opportunity Employer

# Skanska-Coffman, a Joint Venture

Subcontractor/Supplier Bids/Proposals Requested

Skanska-Coffman, a Joint Venture is interested in soliciting in Good Faith all subcontractors and suppliers as well as CUCP certified DBE subcontractors and suppliers related to the scopes of work below for the

> I-15 Corridor Freight & Express Lanes Project - Contract Owner: San Bernardino County Transportation Authority (SBCTA) IFB No. 23-1003032, <u>24% DBE Goal</u> \*\* New \*\*\* Bid Due Date: July 16, 2024- 2:00 PM (Quotes not received by 7/16/24 may not be reviewed/evaluated)

SBCTA online portal at: https://vendors.planetbids.com/portal/20136/bo/bo-detail/116081# Plans & Specs - Skanska-Coffman Plan Room; https://bit.lv/SCJV I-15ExpressLnsPlanF The plans and specifications for this project may only be obtained by signing the "SSI Document Release Form" included in the solicitation as Attachment D. Please email bids.socal@skanska.com to request the SSI form. Please submit your bids to Estimating: bids.socal@skanska.com

General Work Description: The project proposes to construct express lanes with price-managed/tolled facilities for both directions of I-15 (Ontario Freeway) from approximately 0.3 miles south of Cantu-Galleano Ranch Road to approximately Baseline Road/Avenue, encompassing the cities of Eastvale, Jurupa Valley, Ontario, Rancho Cucamonga, and Fontana. Requested scopes include, but are not limited to the following and should be based on the Contract and its amendments: Construction area signs, Traffic Control systems, Type II Barricade, Asbestos Compliance Plan, Clearing and Grubbing, Roadway excavation, Structure excavation, Rock Blanket, Landscape and Irrigation, Hydroseed, Asphalt Paving, Concrete Grinding, Concrete Paving, Steel Casing, CIDH Piling, Concrete Barrier, Approach Slabs, Structural Concrete, Minor Concrete, Curb and Gutter, Joint seal, Reinforcing Steel, Structural Shotcrete, Roadside Signs, Overhead Signs, Masonry Walls, Retaining Walls, Ground Monitoring, Bridge Removal, Bridge Monitoring, RCP, Drain Outlet, Box Culverts, Geocomposite Drain, Corrugated Steel Pipe, Rock Slope Protection, Miscellaneous Metals, Steel, PC/PS Bridge Girders, Ground Anchors, Driven Pile, Prestressing, Polyester Bridge Deck Treatment, Chain Link Fence, Guard Railing, Pavement Markings, Striping, Rumble Strip, Electrical Systems, Ramp Metering Systems, Street Sweeping, Trucking, Construction Materials Supply, dowel baskets supply, and Petroleum, Oil Supply.

Requirements: Skanska-Coffman JV (SCJV) is an Equal Opportunity Employer and is requesting quotes from all qualified subcontractors and suppliers. SCJV will assist qualified subcontractors and suppliers in obtaining bonding, lines of credit, insurance, necessary equipment, materials and/or supplies. To assist DBE subcontractors and suppliers, we will divide total requirements into smaller packages, tasks or quantities and establish delivery and construction schedules which will permit maximum participation when feasible. If you are a DBE Company, please provide your certification letter with your proposal. If you are a non-DBE, please indicate all lower-tier participation in your quotation as it will be evaluated with your proposal. If you are a non-DBC, please indicate an lower-tier participation in your quotation as it will be evaluated with your price. Subcontracting Requirements: SCJV's insurance requirements are Commercial General Liability (GL): \$1M ea. occ., \$1M personal injury, \$2M products and completed operations agg. and general agg.; \$1M Auto Liability; \$5M Excess/Umbrella and \$1M Workers Comp. Endorsements and waivers required are the Additional Insured End., Primary Wording End., and a Waiver of Subrogation (GL & WC). Other insurance requirements may be necessary per the scope or RFP requirement. Subcontractors may be required to furnish performance and payment bonds in the full amount of their subcontract by an admitted surety and subject to approved by SC IV. Quotations must be valid for the same duration as specified by the Owner for contract ject to approval by SCJV. Quotations must be valid for the same duration as specified by the Owner for contract award. Conditions or exceptions in Subcontractor's quote are expressly rejected unless accepted in writing. SCJV is signatory to the Operating Engineers, Laborers, Cement Masons, and Carpenters Unions. Subcontractors must provide weekly, one original and one copy of all certified payrolls, including non-performance and fringe benefit state ments if required by law or by the Prime Contract. All Contractors and Subcontractors must be registered with the DIR (Department of Industrial Relations). Include CSLB License Number and DIR Number on All Quotes Submitted. This was bid previously advertised under Skanska USA Civil.

Skanska-Coffman a JV is an Equal Opportunity/Affirmative Action Employer EEO/AA/Vet/Disability Employer Estimating Department: 1995 Agua Mansa Rd, Riverside, CA 92509 Phone: (951) 684-5360 · Lead Estimator: Dan Hirsh · Email: bids.socal@skanska.com

Turner Construction Company (Turner) is seeking qualified Subcontractors for the following project:

Moffitt Library – University of California, Berkeley UCB Project No. 12738A

Turner has been awarded the UCB Moffitt Library project designed by BNIM Architects and MEP by Introba, located at the UC Berkeley Campus along University Drive, with Memorial Glade and Doe Library to the east, California Hall to the south, and Valley Life Sciences Building to the west. This is a renovation of 3 full floors and upgrades to an additional 2 floors totaling 102,000 square feet within the existing Moffitt Library. These renovations will bring upgrades to the currently underutilized floors of the library, expanding the student's study and collaboration spaces. This project is seeking LEED certification and is subject to Buy Clean California regulation.

Trade Subcontractors who do not submit the pre-qualification information and are not pre-qualified will not be allowed to propose

Turner is currently seeking RFQs for the following Trade Packages:

| Bid Package # | Trade Package                   | Approximate Value |
|---------------|---------------------------------|-------------------|
| BP-02         | FINAL CLEANING                  | \$99,000          |
| BP-02         | DEMOLITION                      | \$900,000         |
| BP-02         | CONCRETE                        | \$338,000         |
| BP-02         | MASONRY                         | \$24,000          |
| BP-02         | MISC METAL                      | \$136,000         |
| BP-02         | MILLWORK                        | \$938,000         |
| BP-02         | WATERPROOFING                   | \$20,000          |
| BP-02         | DOORS, FRAMES, HARDWARE         | \$365,000         |
| BP-02         | GLAZING                         | \$418,000         |
| BP-02         | DRYWALL / PLASTER               | \$1,400,000       |
| BP-02         | TILE                            | \$250,000         |
| BP-02         | ACOUSTICAL CEILING TILE         | \$1,800,000       |
| BP-02         | FLOORING                        | \$538,000         |
| BP-02         | PAINTING                        | \$284,000         |
| BP-02         | SPECIALTIES                     | \$130,000         |
| BP-02         | SIGNAGE                         | \$46,000          |
| BP-02         | TOILET PARTITIONS / ACCESSORIES | \$150,000         |
| BP-02         | FOOD SERVICE EQUIPMENT          | \$73,000          |
| BP-02         | WINDOW TREATMENTS               | \$51,000          |
| BP-02         | CONVEYING                       | \$69,000          |
| BP-02         | FIRE PROTECTION                 | \$1,300,000       |
| BP-02         | PLUMBING                        | \$667,000         |
| BP-02         | HVAC                            | \$2,700,000       |
| BP-02         | LANDSCAPING                     | \$47,000          |
| BP-02         | SITEWORK                        | \$243,000         |

Turner has a 20% UBE [MBE/WBE/DVBE/LGBTQ+] goal for this project.

University Project Reference: https://www.lib.berkeley.edu/about/news/moffitt-fall-2022

For information on how to Pre-Qualify with Turner, please contact Crystal Chang – Subject: UCB Moffitt at the following e address: <a href="mailto:cchang@tcco.com">cchang@tcco.com</a>

# \$1.6 Billion to Establish and Accelerate Domestic **Capacity Advanced Packaging**

# Continued from page 1 **About CHIPS for America**

CHIPS for America is part of President Biden's economic plan to invest in America, stimulate private sector investment, create good-paying jobs. make more in the United States, and revitalize communities left behind. CHIPS for America includes the CHIPS Program Office, responsible for manufacturing incentives, and the CHIPS Research and Development (R&D) Office, responsible for R&D programs. Both offices sit within the National Institute of Standards and Technology (NIST) at the Department of Commerce. NIST promotes U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life. NIST is uniquely positioned to successfully administer the CHIPS for America program because of the bureau's strong relationships with U.S. industries, its deep understanding of the semiconductor ecosystem, and its reputation as fair and trusted.

CHIPS R&D released the first funding opportunity for the National Advanced Packaging Manufacturing Program (NAPMP) in February 2024.

That funding opportunity requested applications for R&D activities that will establish and accelerate domestic capacity for advanced packaging substrates and substrate materials, a key technology for manufacturing semiconductors.

Applicants submitted over 100 concept papers representing 28 states, and on May 22, 2024, the Department of Commerce announced that eight teams have been selected to submit full applications for the NAPMP funding opportunity for materials and substrate materials.

Final projects will play a vital role in helping to ensure that American innovation drives cuttingedge developments in semiconductor R&D and manufacturing. The CHIPS for America program anticipates awarding approximately \$300 million in amounts up to approximately \$100 million over up to 5 years per award. Program awards may be leveraged by voluntary co-investment. Full applications for the first NAPMP funding opportunity were due on July 3, 2024.

Visit https://www.chips.gov to learn more.

www.commerce.gov/news/pressreleases/2024/07/biden-harris-administrationinvest-16-billion-establish-and-accelerate

JULY 12, 2024 SBE TODAY E-NEWSLETTER 5



# **PUBLIC LEGAL NOTICE ADVERTISEMENTS**

UNIVERSITY OF CALIFORNIA, IRVINE

REQUEST FOR QUALIFICATIONS FOR EXECUTIVE ARCHITECT ARCHITECTURAL SERVICES FOR THE UCIH YL, GOTTSCHALK & OUTPATIENT CLINIC

PROJECTS

Under the guidelines of CA Public Contract Code 10510.4-10510.9, the University is seeking two best qualified firms to

provide <u>Architectural Services</u> in support of the Yorba Linda Clinics, Gottschalk Plaza Tenant Improvements, and the upcoming clinics in the Orange County.

The two selected consultants would provide consulting design and construction administration services to provide a program scope, schedule and budget assessment, design/contract documents and construction administration services.

Design services will be authorized on an "as-needed" basis and are contingent upon project approvals, funding and the quality of services delivered by the design professional.

Est. Contract Value: \$2,000,000 or greater

RFQ DOCUMENTS AVAILABLE 07/12/24. TO OBTAIN RFQ PACKET (REQUIRED FORMS)

Call Kim Kerwin at (714) 456-5735, khau@hs.uci.edu or Maryann Gonzales @ 714-456-8842, maryacg1@hs.uci.edu

Address (1) original, (2) copies of the qualification submittal to Kim Kerwin, UCIMC Planning, Design & Construction, 101 The City Drive South, Bldg. 27, Rte. 131; Orange, CA 92868. Deadline for RFQ submittal is 8/2/24 @ 2:00 PM.

Every effort will be made to ensure that all persons shall have equal access to contracts and other business opportunities with the University, regardless of: race; color; religion; sex; age; ancestry; national origin; sexual orientation; physical or mental disability; veteran's status; medical condition; genetic information; marital status; gender identity; pregnancy; service in the uniforme services; or citizenship within the limits imposed by law or University's policy. The selected consulting firm will be required to show evidence of their Equal Employment Opportunity policy.

For other opportunities, <a href="http://www.healthaffairs.uci.edu/planning-administration/">http://www.healthaffairs.uci.edu/planning-administration/</a>

# Why Construction Projects Always Cost More Than Estimated

[ Article originally appeared in www.governing.com ]

### **By Jared Brey**

Even before the recent phase of inflation, public construction projects often far surpassed their budgets. Why are cost overruns so common?

Problems with estimating infrastructure costs start at the very beginning, due to the often-complicated process of running cost estimates. The political pressure to keep costs low can result in unrealistic projections. More frequently, the agencies starting new projects, such as roads, train lines or school facilities, fail to account for

all the variables in construction. Construction projects are unpredictable even in the best of circumstances — much more so when they involve large-scale excavation or butt up against homes and businesses.

Delays are also a major source of cost increases. Underground digging, for example, is notoriously unpredictable. But delays can also result from common factors including multilayered permitting, public engagement processes and lawsuits. There's also often a gap between the time a budget is set — say, when voters approve a bond for school facility improvements — and when construction actually begins.

Cutting projects into phases to save costs often ends up achieving the opposite. With material and labor costs rising all the time, it's often cheaper to build a project all at once than to stretch it out across years. Agencies' desire to minimize disruptions to the public also leads to cost increases. Doing all the work on a road or train line at night stretches out the timeline and requires overtime pay for workers. And unnecessary customization adds to the expense. Why design two train stations when you could reuse the same design?

Agencies with more experience tend to have better luck keeping projects within their bud-

gets. Growing school districts carrying out a 10-year improvement program often know what they're doing by the third or fourth year, says Robert Chomiak, a vice president at Turner & Townsend, a project management firm that works with public agencies.

Some things, like pandemics, are impossible to plan for. But being careful about project planning and design can help agencies anticipate and account for growing costs. "A lot of overruns," Chomiak says, "are somewhat self-imposed."

SOURCE: https://www.governing.com/magazine/why-construction-projects-always-costmore-than-estimated

# Is the Construction Industry Actually a Technology Hotbed?

[ Article originally appeared in www.constructionexec.com ]

# **By Andrew Silver**

Technology has always been a driving force behind progress, and the construction industry is no exception. Over the years, technological advancements have revolutionized the way companies design, plan and build structures, leading to increased efficiency, safety and sustainability. From virtual-reality simulations to drones and 3D printing, technology has transformed every aspect of the construction process. However, the construction trades still lag behind other sectors in adoption of digital technologies. With a lack of skilled labor continuing to be an impediment to growth and profitability in the construction industry, technological developments could have significant implications for successful adopters.

Already, the industry is seeing a huge difference in valuation between traditional engineering and construction firms and construction software companies. As labor shortages continue to hinder growth in the industry, consolidation is likely, as is the probability that companies with the greatest tech capabilities will be the most highly valued. There are sev-

eral areas of technology that are of the greatest interest in the current marketplace.

# BIM

Building information modeling with computer-aided design software now allows architects and engineers to create detailed and accurate 3D models of buildings and infrastructure projects, integrating data about every aspect of the building, from materials and costs to energy efficiency and maintenance schedules. These models not only help in visualizing the final product; they also enable better communication and collaboration among project stakeholders.

# VR/AR

Virtual and augmented-reality technologies are also playing an increasingly important role in the construction industry. VR simulations allow architects, engineers and clients to walk through virtual versions of buildings before they are even constructed, while AR enables onsite workers to visualize hidden infrastructure, such as electrical wiring or plumbing.

# Drones

Drones have become more commonplace in recent years and are now being used not only to capture images as construction is underway,

but to enable more efficient inventory management by providing real-time data on materials and equipment onsite.

# 3D Printing

In recent years, 3D printing, also known as additive manufacturing, has emerged as a disruptive technology with the potential to revolutionize construction methods. This technology has the potential to drastically reduce construction costs and timelines, as well as minimize material waste and environmental impact. Already, 3D printing is being used to construct everything from houses and bridges to office buildings and even entire communities.

Other materials technology seen on the market includes new uses for plastics and alternatives to steel, which may provide lower costs, design flexibility and carbon neutrality. For example, a recent start-up company developing a reinforcing material for steel and concrete hopes to introduce a replacement for rebar or fiberglass in a low-cost, environmentally benign manner

Advancements in robotics and automation are also reshaping the construction industry. Robots equipped with advanced sensors and AI algorithms can perform a wide range of tasks, from bricklaying and welding to site inspection and demolition, faster and with greater precision than human workers—a tremendous advantage in a very tight labor market.

# IoT

Moreover, the internet of things is connecting construction equipment, labor, tools and wearable devices to the internet, enabling real-time monitoring and data analysis. Smart sensors embedded in buildings can detect structural flaws, monitor environmental conditions, and optimize energy usage, leading to safer, more sustainable and more comfortable living and working spaces.

In conclusion, technology is revolutionizing the construction industry, driving innovation and transforming traditional practices. From design and planning to execution and maintenance, technological advancements are enabling builders to construct safer, more efficient and more sustainable structures than ever before. Adopters of these new technologies are likely to grow faster, be more profitable and achieve higher valuations when compared with the traditional ways of doing business.

SOURCE: https://www.constructionexec.com/article/is-the-construction-industry-actually-a-technology-hotbed