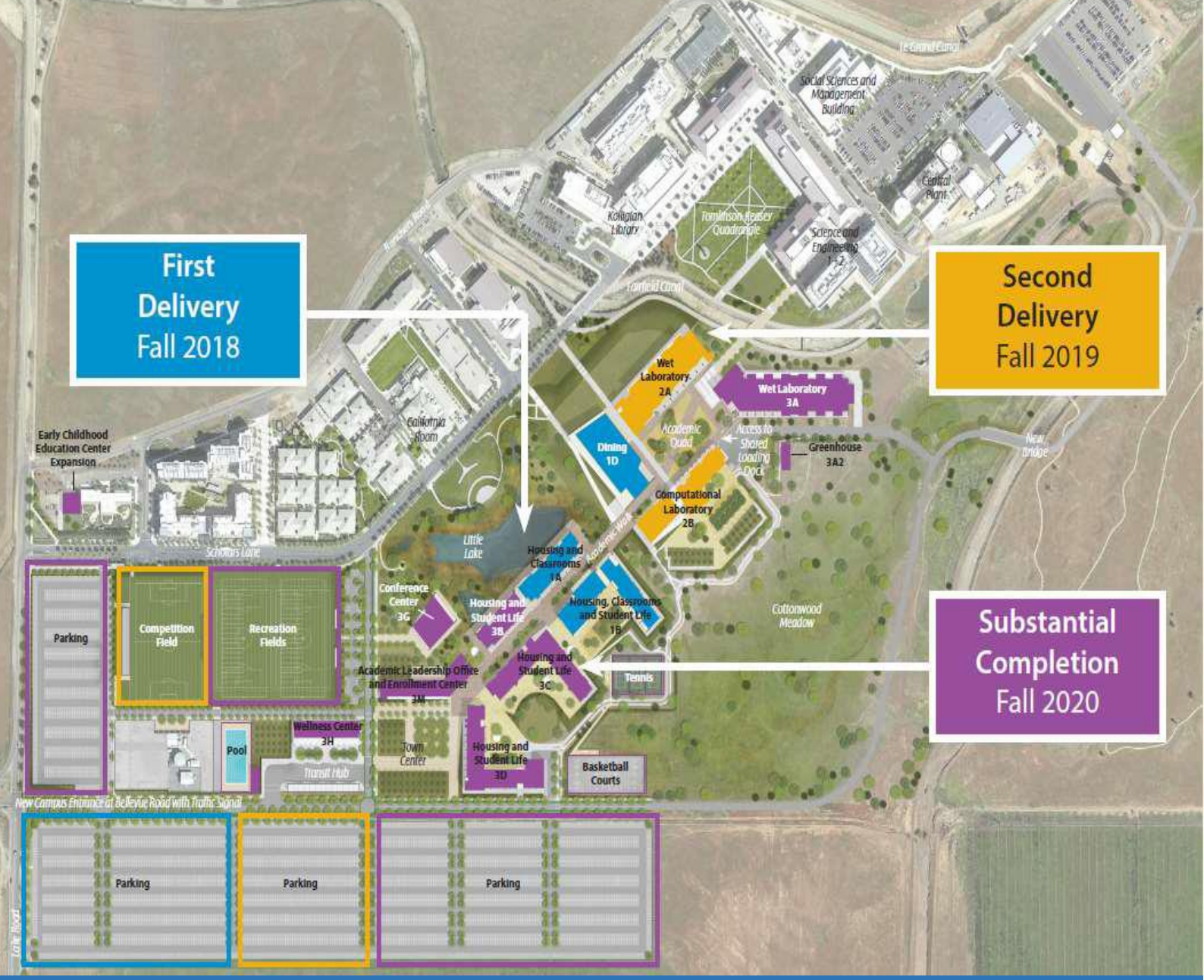
UNIVERSITY OF CALIFORNIA | MERCED 2020 PROJECT

PROJECT PERFORMANCE MONTHLY REPORT 18.0

PERIOD ENDING: 31 DECEMBER 2017



Team

Owner's Authorized Representative & Project Executive
- AVC Michael McLeod (POPD)

Lead Project Manager
- Paul Mackintosh (WT Partnership)

Developer/Project Co:
- Plenary Properties Merced ("PPM")

Equity:
- Plenary Group ("Plenary")

Design-Builder:
- Webcor Builders ("Webcor")

Operator:
- Johnson Controls ("JCI")

Commercial

Agreement:
- Availability Payment based P3 incl DBFOM
- 3 phase operational ramp-up

Term:
- 39 Years (incl 4 yr. construction)

Contract Value:
- $1,340,839,588

DB Contract Value:
- $1,166,631,875 (DB)

Annual O&M Cost (Real):
- $4.1m

Total Real Lifecycle Cost Model (over term)
- $101M

Security (equivalent cash value):
- DB Performance bond: $1,166m (100%)
- DB Payment Bond: $1,166m (100%)
- DB Limit of Liability: $583m ($50%)
- OM Limit of Liability: (200% annual cost)
- DB Parent Company Guarantee $583m ($50%)

Schedule

Financial Close
- August 12, 2016

First Delivery Occupancy Readiness Date
- July 1, 2018

Second Delivery Occupancy Readiness Date
- June 1, 2019

Substantial Completion
- June 1, 2020

Final Acceptance
- September 29, 2020

PA Long Stop Date
- June 1, 2021

Construction Schedule
- Circa 46 Months

Operating Period:
35 – 37 Years

merced2020.ucmerced.edu

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Purpose of Report

This report is provided for the benefit of the Leadership Team, executive-level reporting, and historical record, in the on-going management of the University of California, Merced 2020 Project. It includes observations about project activities, project health, Developer performance, risk, and process improvement opportunities.

[Parenthesis] - Square brackets are utilized within the document to illustrate an opinion founded on information available at the time of writing. It affords the author and the Project Team the opportunity to review the conclusion following discussion and liaison, where relevant, revising following initial issue for finalization.

Document Control

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1. EXECUTIVE SUMMARY

PROJECT EXECUTIVE'S SUMMARY

During December 2017 completion of design phases and progress on site focused on the turnover of Parking Lot P4 and the summer 2018 turnover of the First Delivery. Work on Parking Lot P5 and the Competition Field also began, along with initial stages of the 2D Research Server Building.

GOVERNANCE & OVERSIGHT

The Project Team continues to liaise with the Governance Board and Office of General Council (OGC) on project issues. One Governance Board meetings was held via teleconference during the period where a variety of Change Orders and project issues were reviewed and discussed.

DESIGN & CONSTRUCTION

Coordination activities with City and County of Merced, Merced Irrigation District, and State Agencies are ongoing. Design is in varying stages with all First Delivery buildings primarily completing the construction documentation stage. At present, two-hundred and thirty-four (234) design submittals have been received (223 completed and 11 in progress). One-hundred & ninety-eight (198) stakeholder meetings have been held to date, to solicit input into the design process

Site Activities

First Delivery

- First Delivery utility work (electrical/telecom) – Electrical and ITC ducts are complete from Academic Walk over the Mineral King Bridge. These tie-ins are complete in preparation for the power cutovers this Winter season. The shoefly will be partially removed next month.
- First Delivery utility work (water/reclaimed water utilities) – Water is complete from Academic Walk over the Mineral King Bridge. Water line along Evolution Valley Road has also been completed except for tie-ins to the Buildings.
- First Delivery utility work (storm drainage) – Installation of rain water leaders at all first delivery buildings. Storm drain between 3C & 3D re-worked to accommodate Building 3C design changes. • First Delivery utility work (fuel distribution) – Gas installation is complete from Academic Walk over the Mineral King Bridge.
- First Delivery earthwork - Grading remaining at first delivery buildings are ongoing.
- First Delivery landscape – No new irrigation work was installed for the month of December. Irrigation work to continue in January. Landscaping north of Bellevue has been complete.
- First Delivery roads & bridges – Signal light operation has been postponed until January.
- First Delivery special construction (loading dock) – The loading dock stripping of formwork is ongoing.
- 1F Generator pads – Pads are poured. Generators will be ready to be installed in January.

Second Delivery

- Second Delivery utility work (electrical/telecom) – Installation of duct banks at 2A and 2B continued this month.
- Second Delivery utility work (water/reclaimed water utilities) - Installation of domestic water and chilled water to Buildings 2A and 2B is complete.

- Second Delivery earthwork – Building 2A beam & lagging/secant wall continues. Tie-backs install has started with an estimated completion by end of January. The majority of subgrade for Evolution Valley Road has been completed.
- Second Delivery 2D Server – Earthwork continues with retaining wall construction starting in January. Utility work has started & is currently ongoing

Substantial Completion

- Substantial Completion utility work (electrical/telecom) – Electrical & telecom installation is substantially complete for first delivery.
- Substantial Completion utility work (water/reclaimed water utilities) – Water & reclaimed water installation is substantially complete for first delivery.
- Substantial Completion utility work (fuel distribution) – Gas installation is substantially complete for first delivery.
- Substantial Completion utility work (sewer) – Sewer installation is substantially complete for first delivery.
- Substantial Completion earthwork – No areas were substantially completed this month for earthwork.
- Substantial Completion roads & bridges - Mineral King Bridge work is on standby for work to be concurrent with Loop Road Bridge Deck.

Building Activities

First Delivery

- Building 1A/3B –Lath and plaster has begun on 3B, 1A roofing in Progress, Interior Production drywall commencing in 3B, Kone Elevator mobilized to start, Site Utilities tied in to building
- Building 1B – South tower roof mostly complete. Continue lathing exterior 1st floor north tower and also continue lathing South tower West, South and East elevations. Started stucco activities. Mock up bathroom #281 underway. Completed scaffolding South Tower East elevation, proceeding with shrink wrap on South tower. Rigid insulation and window installation on East elevation of South tower. Bathroom rough ins. Elevator installation in progress. Set AHU's in both roof tops.
- Building 1D – Complete building waterproofing and start plaster. Complete interior priority wall framing and top down drywall. Complete basement drywall. Start MEP overhead.

Second Delivery

- Building 2A – Level 2 slab placement was completed; Level 3 Area 1 placement will take place on 12/17/17. Layout and framing as begun in the basement, work for the utility house-keeping pads have begun, MEP inserts and in-slab conduit continue to be placed prior to concrete placement.
- Building 2B – completed mat foundation rebar and concrete. Lime treat L1 subgrade, begin vertical reinforcement

Substantial Completion

- Building 3A - Shoring and secant walls continue along the east elevation of the building adjacent to the MID road. Tie backs started on the north end of the building adjacent to academic walk. The building pad has been cut to Sub grade +/- .5' from approximately 3.5 line to 6 line and D line to Y line. An unforeseen soil condition was discovered (mixture of clay and sand). Langan is reviewing the existing conditions and will finalize the Geo Tech report with recommendations for mitigating this condition. BIM coordination has started for the underground/ under slab utilities. The tower crane selection has been made and the foundation design will be done in the next several weeks. Structural concrete and rebar detailing has begun for the keyways and mat slab.

Schedule Activities for December 2017

- Design and permitting activities will continue to progress.
- Central Plant site infrastructure will continue to progress.
- Underground utilities will continue to progress site wide.
- Earthwork, stub-ups, and concrete for T2 and T3 transformer pads.
- P5 Parking Lot- demolition, earthwork, utilities will continue to progress.
- Competition Field - demolition, earthwork, utilities will continue to progress.
- Flatwork for 1st Delivery will continue to progress.
- Loop Road Bridge construction will commence.
- Scholars Lane utility tie-in points east and west of Competition Field will continue to progress.
- Building 1A / 3B – Plaster will complete on 3B. Level 1 3B Painting and finishes will commence. Production drywall started in 1A.
- Building 1B – Continue with scratch and brown coat and finish coat on South tower. Start painting North tower exterior after 30-day cure time. Finish lathing South tower. MEP's roughed-in for all bathrooms and start closing up walls, mud and tape. Continue drywall production along with taping and texture and also start priming and painting. Continue with elevator installation. Start scaffold dismantling North tower towards the end of the month. Work on finishing mock-up bathroom.
- Building 1D – Complete punch window install. Complete plaster work. Start exterior metal panel install. Start standing seam metal roof install. Hang kitchen hoods. Start tape and finish all walls and ceilings. Complete concrete polish and protection. Start 4-line curtain wall install.
- Building 2A – Complete the placement of concrete on Level 3 and begin placement on Level 4. MEP overhead in the basement will begin and priority room framing will be in progress. Switchgear will be set in January.
- Building 2B – Vertical concrete placement. Begin waterproofing and backfill, begin footing work below auditorium and slab on grade at L1, begin formwork of the first elevated deck.
- Building 2D - Earthwork continues along with the retaining wall construction.
- Building 3A - Shoring and secant walls continue along the east elevation of the building adjacent to the MID road. Tie back installation will continue on the north end of the building adjacent to academic walk. Continue grading the building pad pending Geotechnical recommendations for existing soils conditions. Continue BIM coordination for the underground/ under slab utilities. Foundation design will be done in the next several weeks. Structural concrete and rebar detailing continues for the keyways and mat slab.

PROJECT CONTROLS

Schedule

The Developer's Schedule Update was received for December 2017 and is currently under review. At present, 21% of activities have been completed, with 27% of the overall time expended. Of this work, 69% of activities were completed on or before schedule, which is down 1% compared to the prior month.

Budget

The Campus Budget is retained as approved at a total of $148.13 million comprising: Owner Operating Budget ($79.38 million) and Campus Contingency ($68.75 million). Adequate cost control measures continue to be implemented to ensure suitable funds are retained to close out the Project. Expenditure is currently at $15.7 million (10.37%) of total forecast. Careful measures continue to be enacted in the consideration of Change Requests to mitigate impacts and avoid budget overspends.

Scope

There continues to be a series of collaborative design review meetings with the Developer and with feedback from the Stakeholders. Reviews during the December 2017 period included:

50% CD	7c Landscape	Design Development
90% CD	2D Research Server	Design Development
Admin 111	Gateway Signage	Design Development
90% CD	4D Site Utilities	Design Development Back Check 2

CONTRACT MANAGEMENT

The Developer continued to delivery both Administrative and Design Submittals during the December period. The following change management items were also delivered to the Developer during the month: three (3) Change Orders and five (5) Unilateral Change Orders. No Preliminary Change Orders, no new Developer Change Proposals and no Relief Notices were issued or received this month.

OPERATIONS

The primary focus for Project Operations in the period continues to be budgeting and forecasting each of the key contracts to enable proactive budget management of the constrained Project funds. December focused on a review of the project schedule and associated milestones in conjunction with the Developer. Additional interface meetings continued with Johnson Controls (JCI).

PROJECT PROGRESS PHOTOS

Site Panorama 12/7/2017

1D Dining 12/7/2017

1D Dining Ductwork 12/21/2017

1A Northeastern End 12/21/2017

Lab 2A 12/21/2017

Lab 2A Southeast Side 12/7/2017

Lab 2A South End 12/7/2017

1H Loading Dock 12/14/2017

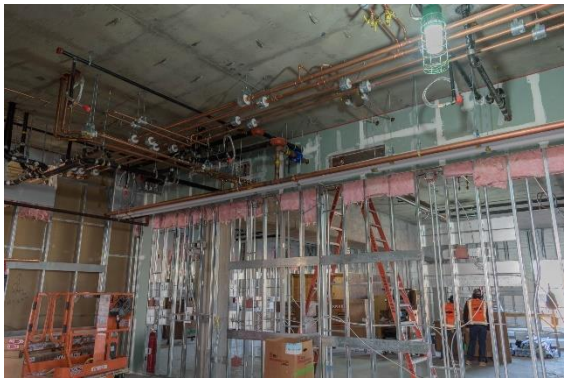
1H Loading Dock 12/14/2017

Lab 2B Slab 12/7/2017

Lab 2B Slab 12/21/2017

1A/3B Housing Boardwalk 12/7/2017

Lab 3A Grading and Shoring 12/20/2017



1A Housing Pipework 12/7/2017

Mineral King Bridge Utilities 12/21/2017

3B Housing Window Installation

12/14/2017

1A Housing Northeast End 12/21/2017

2. PROJECT HEALTH DASHBOARD

No concerns Unable to comment Monitoring required Immediate action required

Schedule	At present, 21% of activities have been completed, with 27% of the overall time expended. Of this work, 69% of activities were completed on or before schedule, which is down 1% compared to the prior month.

	Start	Contractual Finish	Potential Finish	Slippage	Status
First Delivery	20 Jun 2016	1 July 2018	6 Aug 2018	36 - Days	Potential delay
Second Delivery	15 Aug 2016	1 Jun 2019	1 June 19	None	On-target
Final Delivery	3 Jan 2017	1 Jun 2020	1 June 19	None	On-target

Cost	The Project Budget continues to be further developed by the Project Team and Financial Analyst. To date, fifty – five (55) Preliminary Change Orders (PCO) have been issued to date of which thirteen (13) have been cancelled and three (3) placed on hold, still pending alternate design solutions. Thirty-six (36) Change Orders, thirty-three (33) Unilateral Change Orders (UCO) have also been issued to date. No new Developer Change Proposals (DCP) have been approved. The cumulative potential impact of all authorized changes (also known as Unilateral Change Orders) is in the order of $8.67m. Amounts shown in table are in millions ($MM).

	Regents Approval	Transfers	Adjusted Budget	Expenditure to Date	Pending Committed Costs	Remaining Budget
(A)Project Operations	$90.22	(-$2.15)	$88.07	$11.19	$0.00	$76.87
(B) Campus Integration	$22.00	$2.15	$24.15	$4.52	$0.00	$19.63
(C) Construction Contingency	$35.91	$0.00	$35.90	$0.00	$10.76	$25.14
(D) Construction Credits	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
(E) Total	**$148.13**	**$0.00**	**$148.13**	**$15.71**	**$10.76**	**$121.65**

Scope	December saw the issuance of three (3) items to final agreed Change Orders. The Owner is currently analysing and reconciling costs with the Developer on the remaining open items. Stakeholder requests for changes in scope were minimal during December, however these are expected to increase when 100% SD submittals are received for Third Delivery buildings in January2018. It is the Project Team's continued opinion that the change process is working effectively to filter scope creep. Any Change Orders that are being implemented, continue to undergo rigorous and substantive business case analysis and Governance approval.

	Total Executed Change Orders	Total Unilateral Change Orders	Total Preliminary Change Orders
Quantity (No.)	36	33	55
Aggregate Cost ($k)	EST $2.08	EST $8.67m	$TBD
Time Impact (days)	Nil	Nil	Nil

Developer Compliance	NEW NON-CONFORMANCE ISSUES No new non-conformance issues were raised for the month of December 2017.
Contract Notices	None from the Developer in the period.
Labor Compliance	No issues to report.
Health & Safety	In the period: No recordable Injuries. First Aid – 4 No Lost Time Injuries (LTI) to date. Webcor continue to have a full-time paramedic on site assisting the safety team and is also available to provide help in cases of emergency.
Community Engagement	Concerns were raised by faculty in reaction to the effective operation of traffic signalling at the Lake and Bellevue Rd intersection. These were addressed by email and telephone.
Communication	Communication between the Project 2020 team, external authorities, the Developer, and Stakeholders continues to work positively.
Stakeholder Engagement	Stakeholders are actively engaged in design review and shared governance. Their concerns focus largely on campus logistics and operational use of the buildings. Each case has been addressed and will be brought to a close imminently. There were eight (8) stakeholder meetings held during the December 2017 period.
Risk	The Team continues to systematically evaluate areas of risk with mitigation plans for each. Presently the Developer remains on schedule to achieve First Delivery, however Campus continues to proactively undertake contingency planning should schedule slippages occur.