AMENDMENT NO. 1 TO THE AGREEMENT BETWEEN THE CITY OF SAN MATEO AND HDR ENGINEERING, INC. FOR WASTEWATER TREATMENT PLANT NUTRIENT REMOVAL AND WET WEATHER FLOW MANAGEMENT UPGRADE AND EXPANSION PROJECT ENGINEERING DESIGN SERVICES DURING CONSTRUCTION ($450,221 [Original Amount] $419,830 [Added Amount])

WHEREAS, the City of San Mateo ("City"), a municipal corporation of the State of California, and HDR ENGINEERING, INC. ("CONSULTANT"), entered into an Agreement for engineering design services during construction ("Agreement") for the Wastewater Treatment Plant Nutrient Removal and Wet Weather Flow Management Upgrade and Expansion Project on June 24, 2019; and

WHEREAS, City and CONSULTANT, wish to amend the Agreement to provide additional engineering design services during construction, extend the term, and increase compensation.

NOW, THEREFORE, the parties agree as follows:

1. Section 1 - Scope of Project of the Agreement is amended to reference "Exhibits A and A1." Exhibit A1 to the Agreement is attached and incorporated by reference.
2. Section 7 – Term, Progress and Completion of the Agreement is amended to reference "Exhibits B and B1". Exhibit B1 to the Agreement is attached and incorporated by reference.
3. Section 8 – Payment of the Agreement is amended to reference "Exhibits C and C1". The fee and rate schedule set forth in Exhibit C1 to the Agreement is attached and incorporated by reference.
4. The remaining terms of the Agreement remain in full force and effect.

CITY OF SAN MATEO	CONSULTANT HDR ENGINEERING, INC.
_____	_____
Brad Underwood Public Works Director	Holly Kennedy Vice President
Date: _____	Date: _____

Exhibit A1

Scope of Services

Exhibit A
Scope of Services

City of San Mateo Clean Water Program
Nutrient Removal and Wet Weather Flow Management Upgrade and Expansion Project

Engineering Services during Construction for Guaranteed Maximum Price (GMP)-2

The following scope of work involves engineering services during construction of GMP-2 (Deep Piles) package for the City of San Mateo (City) Clean Water Program (CWP) Nutrient Removal and Wet Weather Flow Management Upgrade and Expansion Project (Project) located at the San Mateo/Estero Municipal Improvement District (EMID) Wastewater Treatment Plant. The vision of the City is to create a state-of-the-art, reliable wastewater treatment plant that will serve as "The Gem of the Bay."

PROJECT DESCRIPTION

The Nutrient Removal and Wet Weather Flow Management Upgrade and Expansion Project includes the following upgrades and improvements:

- Realignment and extensions of on-site influent sewer force mains with flow metering to a new headworks facility.
- Four new covered rectangular primary clarifiers, with primary sludge pumps, scum pumps, and a primary effluent pumping station.
- Influent flow equalization basin (convert existing aeration basins) for use during peak wet weather flow conditions. Flow to the flow equalization basin will be by gravity and flow returned to the headworks will be pumped.
- BioActiflo® for wet weather treatment, consisting of a biological contact tank and high rate clarification process, along with associated mixers, aeration, blowers and pumps.
- Chemical storage and feed facility.
- Biological nutrient removal (BNR) and membrane bioreactor (MBR) treatment facilities.
- Chlorination and dechlorination facility improvements.
- Below-grade gallery and tunnel system where some process equipment will be located and where process piping between facilities will be located.
- New two-story, 15,170-square-foot administration and treatment plant control building.

- Odor control for the new headworks and primary clarifiers.
- New 4,000-square-foot warehouse.
- Site work.
- Landscaping.

The Project is being delivered using a Construction Manager at Risk (CMAR) delivery method.

HDR's engineering services during construction for GMP-2 are based upon the Contractor's Project Construction Overall Duration schedule dated April 21, 2020, showing an overall pre-mobilization and construction duration of 19 months (April 21, 2020, through November 12, 2021). In summary, the Contractor's schedule can be broken down as follows:

	Start	End	Days	Months
GMP-2 Overall Duration	24-Apr-20	21-Jan-22	637	21
Pre-Mobilization Activities	24-Apr-20	16-Jul-20	83	3
Construction Activities	17-Jul-20	12-Nov-21	483	16
Construction Close-Out Activities	13-Nov-21	21-Jan-22	69	2

SCOPE OF SERVICES

Task 1 – Project Management

To provide a single point of communication representing the entire HDR design team, and to provide continuity from the design team throughout the duration of construction, HDR will provide project management services for the duration of the construction phase. Project management activities include the following:

- Preparing and submitting monthly progress reports that include a narrative of the work completed by task, upcoming work, project issues, budget and schedule status, potential scope or budget changes, and other important information.
- Preparing and submitting monthly invoices that document the man-hours and billing rates for staff for each task in the work breakdown structure (WBS), as well as overhead, profit, and direct costs. The current and previous billing period invoicing, as well as a summary of the budget spent, projected physical percent completed, and remaining cost to complete will be included in the monthly invoices.
- Providing cost accrual (which includes actual cost through the 15th of each month and projected cost through end of month) and progress update (which includes % physical complete by WBS task through the 15th of each month and projected progress through end of month) by the 25th of each month.

This task also includes the regular activities performed by the HDR's project manager, which include:

- Participating in monthly progress meetings with the City and CWP, assuming 75% would be by virtually and 25% would be in person.
- Participating in weekly coordination virtual meetings with the CWP and Contractor.
- Conducting internal weekly coordination meetings with project team.
- Preparing subconsultant contracts and amendments to the contract.

The budget for GMP-2 covers project management time from the anticipated start date for these scope of services (June 1, 2020) through September 1, 2020 when it is anticipated that the notice to proceed (NTP) will be issued for GMP-3 (13 weeks or 3 months). It is assumed that project management beyond September 1, 2020, will be covered under engineering services during construction for GMP-3. The following hours were assumed for GMP-2 project management:

- Project Manager: 20 hours/week for 13 weeks, or 260 hours.
- Accounting including Project Coordinator: 6 hours/week for 13 weeks, or 78 hours.

Deliverables:

- *Draft and Final monthly invoices and progress reports in PDF format.*
- *Monthly cost accruals.*

Task 2 –Meetings and Site Visits

Subtask 2.1 –Meetings

HDR will attend and participate in the following meetings during the construction period.

Preconstruction Meeting

HDR will attend and participate in the preconstruction meeting with the Contractor, CWP, and City prior to commencement of work at the site. It is assumed that the CWP will lead the meeting, prepare the required materials, and prepare and distribute meeting minutes. One HDR team member will attend the preconstruction meeting.

Deliverables: *None.*

Weekly Coordination Meetings

HDR will participate in weekly coordination meetings with the Owner's Representative during construction via telephone or virtually via computer.

The project manager's and/or project manager's proxy attendance at weekly coordination meetings is budgeted under Task 1.

Follow-up telephone calls with the construction management team may be required to reconcile requests for information (RFIs) and submittals.

The budget for this task is based on attendance at up to 69 weekly coordination meetings based on a 16-month construction duration (from July 17, 2020, through November 12, 2021) when GMP-2 construction will be substantially complete. It is assumed that the

meetings will be attended by telephone by one HDR team member, unless staff is on-site for another reason.

Deliverables: *None.*

Table 1 presents the assumptions used to estimate the hours for meetings for GMP-2.

Table 1 –Meetings Hours Assumptions for GMP-2

Meeting Type	No. of HDR Team Members to Attend Meeting	Meeting Duration	No. of Meetings	Hours Budgeted per Meeting*
Preconstruction Meeting (from Walnut Creek, CA)	2	4 hours	1	8
Weekly Coordination Meetings – By Phone	1	1 hour	69	1

** Includes travel time and meeting follow-up time.*

Expense assumptions for meetings for HDR staff are as follows:

- $150 estimated total cost per trip per person from Walnut Creek, complying with General Services Administration (GSA) rates for San Mateo, CA.
- $100 estimated total cost per trip per person from Oakland, complying with GSA rates for San Mateo, CA.

Subtask 2.2 –Site Visits

The following site visits are anticipated:

Periodic Site Visits from Design Team

HDR's team will provide members of the design team to make periodic site visits covering geotechnical and structural related items related to pile construction. It is assumed that periodic site visits will occur over 8 months during actual pile construction.

For each site visit, HDR will take photographs and will prepare a site visit report that documents the purpose of the site visit, the outcome and results of the site visit.

Deliverables: *Site visit report in PDF format with photos.*

Structural Observations

HDR will perform the structural observations as required by the construction contract documents and applicable codes. HDR will prepare the required structural observation reports. Code-required special inspection will be performed by others, and not provided by HDR. Structural observations may be performed by the original design engineer for specific structures.

Deliverables: *Site visit report in PDF format.*

Geotechnical Observations

It is assumed that another firm will be providing geotechnical observation and testing services related to production pile installation. HDR will observe both the Phase 1 and Phase 2 indicator pile installations, and will make periodic, intermittent site visits to observe production pile installations.

Assume 6 days of site visits at 8 hours each day (including travel time) for Phases 1 and 2 indicator pile installations. Assume 4 days at 8 hours each day (including travel time) for periodic, intermittent site visits during Phases 1 and 2 production pile installations.

Deliverables: *Site visit report in PDF format.*

Substantial Completion Visit

HDR's team will attend a site visit at the substantial completion project milestone identified by the CWP and Contractor. CWP will prepare a list of items to be completed or corrected. HDR's team will review the list for concurrence, including punch lists based on observations during on-site testing.

Deliverables: *Site visit report in PDF format.*

Table 2 presents the assumptions used to estimate the hours for site visits, factory tests, factory acceptance tests, and substantial completion site visits for GMP-2.

Table 2 – Site Visit Hours Assumptions for GMP-2

Site Visit Type	No. of HDR Team Members to Site Visit	Duration	No. of Site Visits	Hours Budgeted per Site Visit*
Periodic Site Visits from Design Team				
Structural Engineer (from Walnut Creek, CA or Berkeley, CA)	1	8 months	4	8
Geotechnical Indicator Pile Observations (from Oakland, CA)	1	8 months	6	8
Geotechnical Production Pile Observations (from Oakland, CA)			4	8
Substantial Completion Visit (from Folsom, Walnut Creek, and Oakland, CA)	2	1 day	1	8

** Includes travel time and site visit follow-up time.*

Expense assumptions for site visits for HDR staff are as follows:

- $300 estimated total cost per trip per person from Folsom, complying with GSA rates for San Mateo, CA.
- $150 estimated total cost per trip per person from Walnut Creek, complying with GSA rates for San Mateo, CA.

- $100 estimated total cost per trip per person from Oakland, complying with GSA rates for San Mateo, CA.

Task 3 – Office Engineering Services for GMP-1

This task is not used for this work.

Task 4 – Office Engineering Services for GMP-2

Subtask 4.1 – Technical Submittals

HDR will review the Contractor's submittals, including shop drawings as required by the technical specifications, for work related to HDR's scope of design services. HDR will review and accept the Contractor's submittals, such as shop drawings, product data, samples, and other data, for the limited purpose of checking for conformance with the design concept and the information expressed in the contract documents. This review will not include review of the accuracy or completeness of details, such as quantities, dimensions, weights or gauges, fabrication process, construction means or methods, coordination of the work with other trades, or construction safety precautions, all of which are the sole responsibility of the Contractor. Review of a specific item will not indicate that HDR has reviewed the entire assembly of which the item is a component. HDR will not be responsible for any deviations from the contract documents not brought to the attention of HDR in writing by the Contractor. HDR will not be required to review partial submissions nor those for which submissions of correlated items have not been received.

The number of submittals was calculated based on 1.3 submittals per design drawing. Up to 8 engineering hours are budgeted for each submittal. A 50 percent resubmission rate and up to 4 engineering hours per resubmittal were also assumed. Deviations from the anticipated schedule or duration of construction, or increased numbers of submittals/resubmittals will materially affect the scope of these services and HDR's compensation and will constitute additional services.

Clerical time assumes 2 hours per submittal or resubmittal.

HDR will also review pile driving logs of production piles prepared by the Owner's Representative, and interact with Owner's Representative, Contractor, and City to check that piles are being installed as intended. HDR will provide consultations and comments on the driving logs related to pile installation. The production pile driving log review portion of this subtask assumes 160 geotechnical hours, based on 20 hours per month for 8 months of pile installation.

Deliverables: *Up to 40 submittals and 20 resubmittals (based on 31 drawing count).*

Subtask 4.2 – (RFIs and Clarifications

HDR will review RFIs received from the Contractor, and will evaluate the acceptability of substitute materials and equipment.

HDR will answer questions and provide written interpretations of the requirements of the contract documents. Such clarifications and interpretations will be consistent with the intent of, and reasonably inferable from, the contract drawings and specifications.

The number of RFIs/design clarifications was calculated based on 1.25 RFI/design clarification per design drawing. Up to 4 engineering hours per RFI was assumed. Deviations from the anticipated

schedule or duration of construction, or increased numbers of RFIs/design clarifications will materially affect the scope of these services and HDR's compensation and will constitute additional services.

Clerical time assumes 1 hour per RFI.

Deliverables: *Up to 39 RFIs (based on 31 drawing count).*

Subtask 4.3 – Construction Permit Support

Not required.

Task 5 – Office Engineering Services for GMP-3

This task is not used for this work.

Task 6 – Close-Out Activities

Subtask 6.1 – As-Built/Record Drawings for GMP-1

This task is not used for this work.

Subtask 6.2 – As-Built/Record Drawings for GMP-2

HDR will prepare a set of record drawings showing record information considered significant by HDR and based on the drawings, shop drawings, and other record documents provided by the Contractor, and which were annotated by the Contractor's staff, Contractor's subcontractors, or suppliers to show changes made during construction, relative to the issued for construction drawings. HDR will not be responsible for any errors or omissions in the information provided that is incorporated in the record drawings or other record documents.

This task assumes 1 engineering hour and 2 drafting hours per drawing (based on 31 drawing count).

Deliverables:

- *Full-size (22" x 34") set of drawings in both AutoCAD and PDF formats, after receipt of field markups from the Contractor. No hardcopies required.*
- *One half-size (11" x 17) bound sets of record drawings.*

ASSUMPTIONS

The following overall assumptions support the scope of services for engineering services during construction of the City's Project.

- The Project will be constructed utilizing a single CMAR Contractor and three separate GMP packages.
- Each GMP description and associated duration is defined under the Project Description at the beginning of the Scope of Services.

- The City will contract directly with an owner representative (OR)/construction management (CM) services firm. It is assumed the OR/CM will provide construction management and daily on-site inspection for all construction trades, and monitor compliance with the contract documents and quality assurance of the work on the Project.
- General responsibilities for the OR/CM, HDR, Contractor, and City are as defined in the Responsibility Assignment Matrix dated April 18, 2018.
- HDR will not be responsible for the means or methods of the Contractor, nor shall HDR be responsible for the Contractor's failure to perform in accordance with the contract documents. Management of these activities will be the responsibility of the City and the OR/CM.
- HDR will not be responsible for the monitoring or review of the Contractor's cost and schedule performance during construction.
- HDR will not be responsible for providing construction contract administration, including processing of monthly payment requests from the Contractor, Contractor schedule updates and revisions, providing correspondence to the Contractor, receiving correspondence from the Contractor, and maintaining correspondence files.
- HDR will not be responsible for processing claims and disputes from the Contractor or other third parties.
- Any claims resolution or litigation assistance requested of HDR by the City will constitute additional services.
- HDR will not be responsible for agency or permitting coordination through the construction phase, which may include, but not be limited to, submission of deferred submittals, agency inspections, test reports, notifications, or other follow-up correspondence. HDR shall only provide permitting or agency coordination assistance.
- Stormwater pollution prevention plan monitoring and field work will be provided by others.
- The following items are not included in HDR's scope of services:
    - Review of baseline construction schedule and schedule updates
    - Construction layout and surveying
    - Traffic control
    - Site security
    - Warranty repairs
- HDR will manage the health, safety, and environmental activities of its staff and the staff of its subconsultants to achieve compliance with HDR health and safety requirements.
- HDR is not responsible for health or safety of the Contractor or its employees, the City, OR/CM or CWP, and HDR is not responsible for the Contractor's compliance with the health and safety requirements in the contract documents, or with federal, state, and local occupational safety and health laws and regulations.

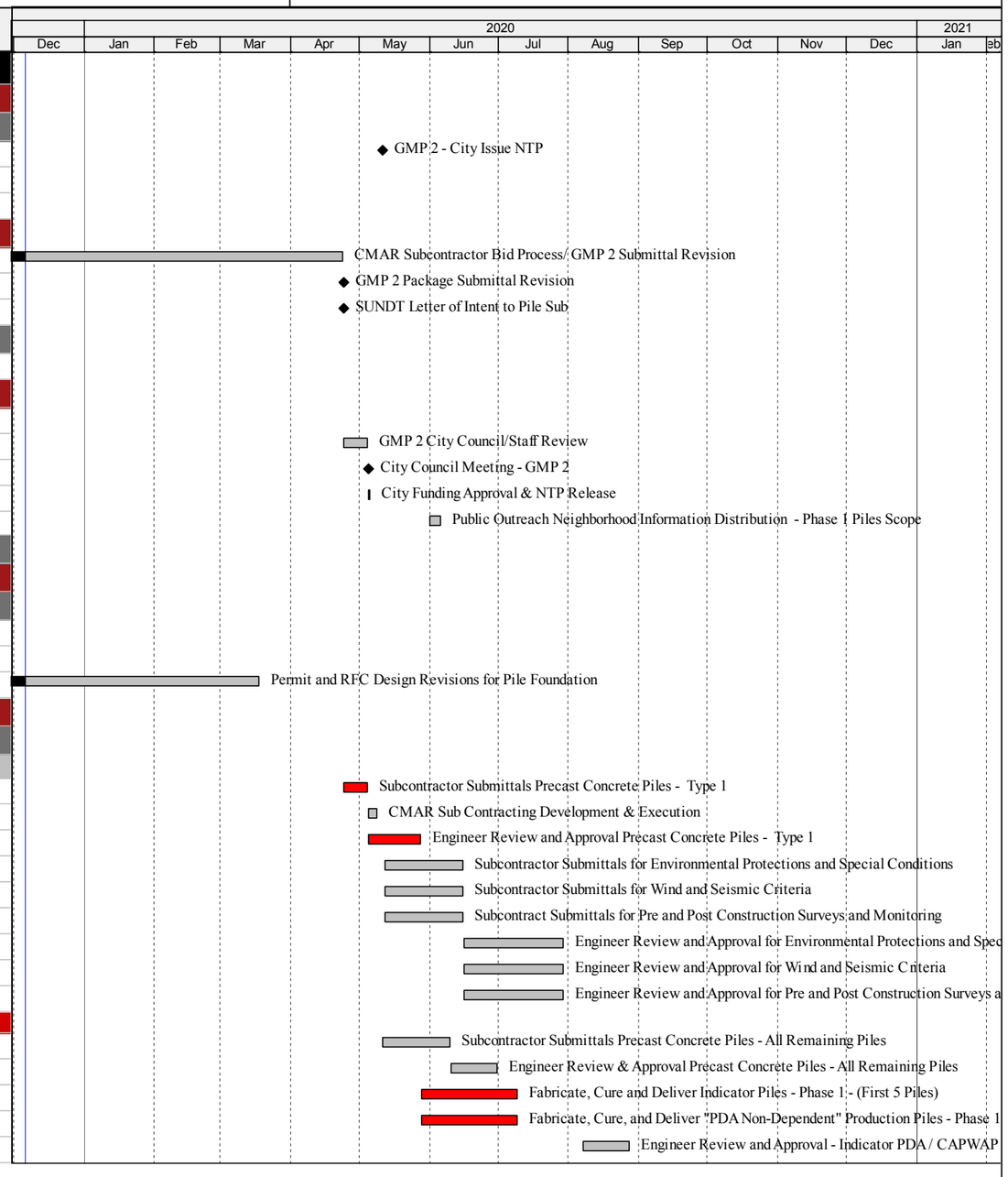
Exhibit B1

Project Schedule

CLEANWATERPROGRAM

PROTECTING THE BAY FOR A SUSTAINABLE FUTURE

Activity ID	Activity Name	OD	AD	Start	Finish
San Mateo WWTP Schedule - GMP 2 Submittal					
CONTRACT MILESTONES					
GMP 2					
CMS001600	GMP 2 - City Issue NTP	0	0	11-May-20*	
CMS001701	GMP 2 - Substantial Completion (Pile Foundation)	0	0		12-Nov-21*
CMS000180	GMP 2 - Final Completion (Pile Foundation)	0	0		21-Jan-22*
PROJECT MILESTONES					
ES000380	CMAR Subcontractor Bid Process/ GMP 2 Submittal Revision	21	23	31-Oct-19 A	23-Apr-20
CMS000005	GMP 2 Package Submittal Revision	0	0	24-Apr-20	
CMS001711	SUNDT Letter of Intent to Pile Sub	0	0		24-Apr-20*
Weather Days					
WD100030	GMP 2 Weather Days (15 day allowance)	15	0	22-Oct-21	12-Nov-21
OWNER ACTIVITIES					
OW001101	City Council Meeting - PLA Approval	0	0		22-Jan-19 A
OW000020	GMP 2 City Council/Staff Review	7	0	24-Apr-20	04-May-20
OW000060	City Council Meeting - GMP 2	0	0	05-May-20	
ES000280	City Funding Approval & NTP Release	1	0	05-May-20	05-May-20
OW001111	Public Outreach Neighborhood Information Distribution - Phase 1 Piles Scope	5	0	01-Jun-20	05-Jun-20
PREVIOUS TEST PILE ACTIVITIES					
DESIGN					
GMP 2					
ES000360	GMP 2 - 90% Design Submitted	0	0	01-Jul-19 A	
ES000370	GMP2 - 90%-RFC Design Drawings	84	84	01-Jul-19 A	30-Oct-19 A
ES000375	Permit and RFC Design Revisions for Pile Foundation	90	23	31-Oct-19 A	17-Mar-20
PRECONSTRUCTION					
GMP 2					
GMP 2 Preconstruction					
A6250	Subcontractor Submittals Precast Concrete Piles - Type 1	7	0	24-Apr-20	04-May-20
ES000400	CMAR Sub Contracting Development & Execution	4	0	05-May-20	08-May-20
A6290	Engineer Review and Approval Precast Concrete Piles - Type 1	15	0	05-May-20	27-May-20
A6230	Subcontractor Submittals for Environmental Protections and Special Conditions	23	0	12-May-20	15-Jun-20
A6240	Subcontractor Submittals for Wind and Seismic Criteria	23	0	12-May-20	15-Jun-20
A6260	Subcontract Submittals for Pre and Post Construction Surveys and Monitoring	23	0	12-May-20	15-Jun-20
A6270	Engineer Review and Approval for Environmental Protections and Special Conditions	31	0	16-Jun-20	29-Jul-20
A6280	Engineer Review and Approval for Wind and Seismic Criteria	31	0	16-Jun-20	29-Jul-20
A6300	Engineer Review and Approval for Pre and Post Construction Surveys and Monitoring	31	0	16-Jun-20	29-Jul-20
Drive Phase 1 Submit/Rev/Fab					
DS270	Subcontractor Submittals Precast Concrete Piles - All Remaining Piles	20	0	11-May-20	09-Jun-20
DS280	Engineer Review & Approval Precast Concrete Piles - All Remaining Piles	15	0	10-Jun-20	30-Jun-20
DS260	Fabricate, Cure and Deliver Indicator Piles - Phase 1 - (First 5 Piles)	30	0	28-May-20	09-Jul-20
DS300	Fabricate, Cure, and Deliver "PDA Non-Dependent" Production Piles - Phase 1	30	0	28-May-20	09-Jul-20
DS240	Engineer Review and Approval - Indicator PDA / CAPWAP Report	15	0	07-Aug-20	27-Aug-20



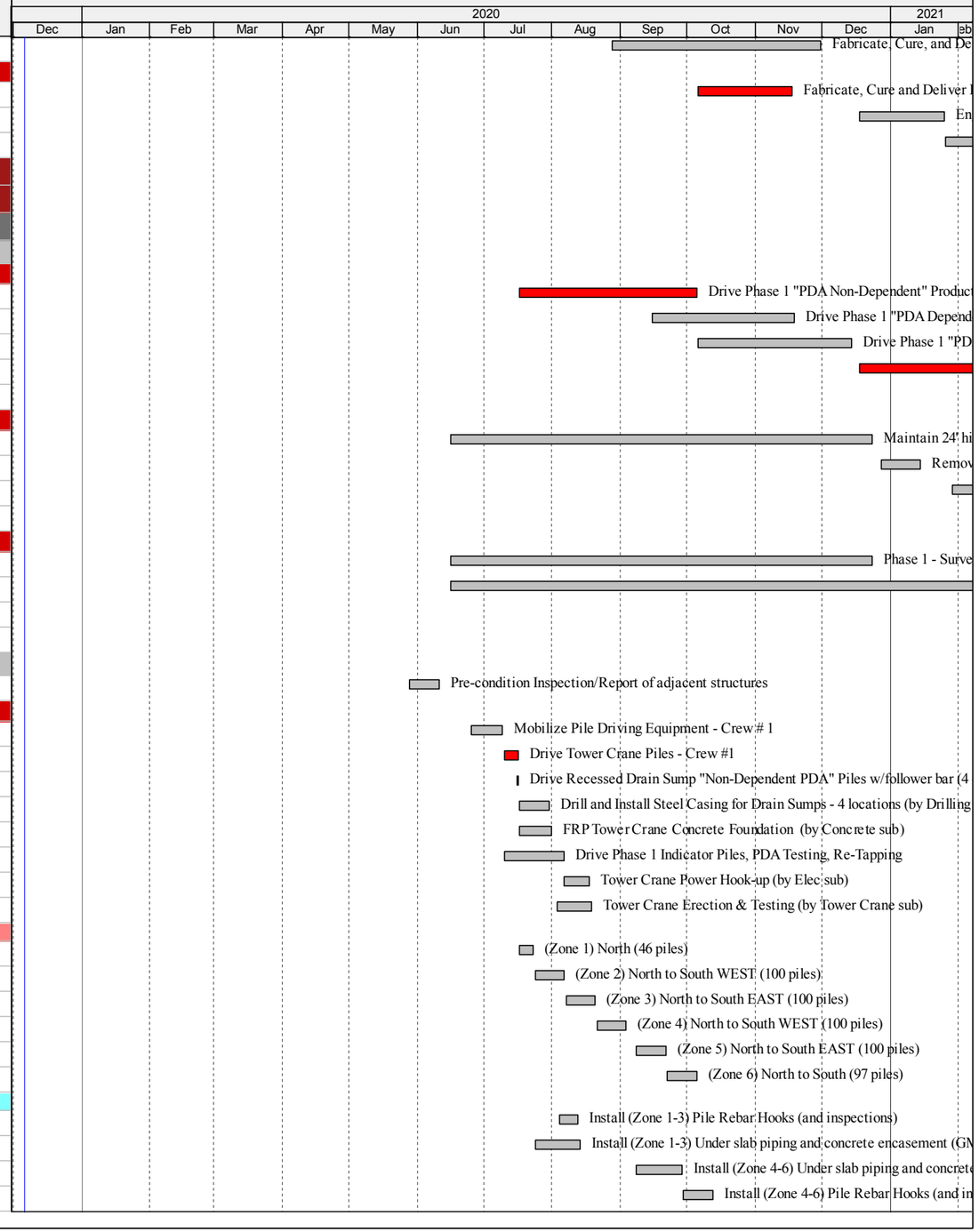
Sundt Construction, Inc.
2620 South 55th Street, Tempe, AZ 85282
Office: (480) 293-3000

GMP 2 Schedule

Run Date 21-Apr-20

Actual Work
Critical Remaining Work
Remaining Work
Milestone
Remaining Level of Effort

Activity ID	Activity Name	OD	AD	Start	Finish
DS460	Fabricate, Cure, and Deliver "PDA Dependent" Production Piles - Phase 1	62	0	28-Aug-20	30-Nov-20
Drive Phase 2 Submit/Rev/Fab					
DS380	Fabricate, Cure and Deliver Indicator Piles - Phase 2	30	0	06-Oct-20	17-Nov-20
DS420	Engineer Review & Approval - Indicator PDA Report	22	0	18-Dec-20	25-Jan-21
DS390	Fabricate, Cure and Deliver Production Piles - Phase 2	84	0	26-Jan-21	25-May-21
TEST PILES					
CONSTRUCTION					
GMP 2					
GMP 2 Summary Activities					
Piles Summary					
DS490	Drive Phase 1 "PDA Non-Dependent" Production Piles - Pile Rig #1	55	0	17-Jul-20	05-Oct-20
DS310	Drive Phase 1 "PDA Dependent" Production Piles - Pile Rig #2	46	0	15-Sep-20	18-Nov-20
DS250	Drive Phase 1 "PDA Dependent" Production Piles - Pile Rig #1	47	0	06-Oct-20	14-Dec-20
DS100	No Site Pile Driving	127	0	18-Dec-20	25-Jun-21
DS405	Drive Phase 2 "PDA Dependent" Production Piles - Pile Rig #1	54	0	28-Jun-21	14-Sep-21
Sound Wall Summary					
DS690	Maintain 24' high temporary sound wall	131	0	16-Jun-20	23-Dec-20
DS691	Remove 24' Temporary high sound wall	12	0	28-Dec-20	14-Jan-21
DS692	Setup and Maintain 16' high temporary sound wall	103	0	29-Jan-21	28-Jun-21
DS693	Remove 16' Temporary high sound wall	12	0	29-Jun-21	15-Jul-21
Monitoring Summary					
DS670	Phase 1 - Survey of established monitoring points around perimeter of the site	131	0	16-Jun-20	23-Dec-20
DS680	Setup and maintain Vibration Monitoring Points	257	0	16-Jun-20	30-Jun-21
DS700	Phase 2 - Survey of established monitoring points around perimeter of the site	63	0	28-Jun-21	27-Sep-21
4C3201210	GMP 2 - Substantial Completion NA	0	0		27-Sep-21
Phase 1 - Pile Driving (Lower Elevation Piles)					
DS660	Pre-condition Inspection/Report of adjacent structures	10	0	28-May-20	10-Jun-20
Drive Phase 1 Production Piles - Crew # 1					
DS290	Mobilize Pile Driving Equipment - Crew # 1	10	0	25-Jun-20	09-Jul-20
DS470	Drive Tower Crane Piles - Crew #1	5	0	10-Jul-20	16-Jul-20
DS480	Drive Recessed Drain Sump "Non-Dependent PDA" Piles w/follower bar (4 -Piles)	1	0	16-Jul-20	16-Jul-20
DS500	Drill and Install Steel Casing for Drain Sumps - 4 locations (by Drilling Sub)	10	0	17-Jul-20	30-Jul-20
DS570	FRP Tower Crane Concrete Foundation (by Concrete sub)	11	0	17-Jul-20	31-Jul-20
DS230	Drive Phase 1 Indicator Piles, PDA Testing, Re-Tapping	20	0	10-Jul-20	06-Aug-20
DS590	Tower Crane Power Hook-up (by Elec sub)	8	0	06-Aug-20	17-Aug-20
DS580	Tower Crane Erection & Testing (by Tower Crane sub)	12	0	03-Aug-20	18-Aug-20
Drive Phase 1 "PDA Non-Dependent" Production Piles - Pile Rig #1 - SEQUENCE					
DS490-ND01	(Zone 1) North (46 piles)	5	0	17-Jul-20	23-Jul-20
DS490-ND02	(Zone 2) North to South WEST (100 piles)	10	0	24-Jul-20	06-Aug-20
DS490-ND03	(Zone 3) North to South EAST (100 piles)	10	0	07-Aug-20	20-Aug-20
DS490-ND04	(Zone 4) North to South WEST (100 piles)	10	0	21-Aug-20	03-Sep-20
DS490-ND05	(Zone 5) North to South EAST (100 piles)	10	0	08-Sep-20	21-Sep-20
DS490-ND06	(Zone 6) North to South (97 piles)	10	0	22-Sep-20	05-Oct-20
Phase 1 work part 1					
DS360-R01	Install (Zone 1-3) Pile Rebar Hooks (and inspections)	7	0	04-Aug-20	12-Aug-20
DS370-U01	Install (Zone 1-3) Under slab piping and concrete encasement (GMP-3 scope)	15	0	24-Jul-20	13-Aug-20
DS370-U02	Install (Zone 4-6) Under slab piping and concrete encasement (GMP-3 scope)	15	0	08-Sep-20	28-Sep-20
DS360-R02	Install (Zone 4-6) Pile Rebar Hooks (and inspections)	10	0	29-Sep-20	12-Oct-20



Activity ID	Activity Name	OD	AD	Start	Finish
DS370-C01	Install (Zone 1-3) Slab Concrete (GMP-3 scope)	80	0	01-Dec-20	30-Mar-21
DS370-C02	Install (Zone 4-6) Slab Concrete (GMP-3 scope)	90	0	31-Mar-21	09-Aug-21
Drive Phase 1 "PDA Dependent" Production Piles - Pile Rig #1 - SEQUENCE					
DS250-D01	(Zone 6) North to South (east side) (100 piles)	10	0	06-Oct-20	19-Oct-20
DS250-D02	(Zone 7) North to South (east side) (100 piles)	10	0	20-Oct-20	02-Nov-20
DS250-D03	(Zone 8) North to South (east side) (100 piles)	10	0	03-Nov-20	17-Nov-20
DS250-D04	(Zone 9) North to South (east side) (120 piles)	12	0	18-Nov-20	07-Dec-20
Phase 1 work part 2					
DS370-U03	Install (Zone 6-9) Under slab piping and concrete encasement (GMP-3 scope)	15	0	18-Nov-20	10-Dec-20
DS360-R03	Install (Zone 6-9) Pile Rebar Hooks (and inspections)	20	0	11-Dec-20	13-Jan-21
DS370-C03	Install (Zone 6-9) Slab Concrete (GMP-3 scope)	140	0	14-Jan-21	05-Aug-21
Drive Phase 1 Production Piles Crew # 2					
DS600	Mobilize Pile Driving Equipment - Crew #2	12	0	19-Aug-20	03-Sep-20
DS530	Excavate Actiflo Process Area to lower FFE level (by Earthwork sub)	8	0	07-Oct-20	16-Oct-20
DS560	Excavate Elevator Shaft area to lower FFE level - (by Earthwork sub)	4	0	13-Oct-20	16-Oct-20
DS320	Demobilize Pile Driving Equipment - Crew #2	12	0	15-Dec-20	05-Jan-21
Drive Phase 1 "PDA Dependent" Production Piles - Pile Rig #2- SEQUENCE					
DS510	(Zone 10) Drive Recessed Actiflo "PDA Dependent" Piles w/follower bar (52 -Piles)	8	0	15-Sep-20	24-Sep-20
DS520	(Zone 11) Drive/Vibrate Actiflo Process Area Elevator Shaft Perimeter Sheet Piles	8	0	25-Sep-20	06-Oct-20
DS540	(Zone 12) Drive Elevator Shaft Recessed "PDA Dependent" Piles w/follower bar (15 -Piles)	4	0	07-Oct-20	12-Oct-20
DS310-D04	(Zone 13) (100 piles)	10	0	13-Oct-20	26-Oct-20
DS310-D4	(Zone 14) (100 piles)	10	0	27-Oct-20	09-Nov-20
DS310-D14	(Zone 15) (60 piles)	6	0	10-Nov-20	18-Nov-20
DS310-D15	(Zone 16)	10	0	19-Nov-20	04-Dec-20
Phase 1 work Rig 2 part 3					
DS370-U4	Install (Zone 10-12) Under slab piping and concrete encasement (GMP-3 scope)	10	0	13-Oct-20	26-Oct-20
DS360-R5	Install (Zone 10-12 Pile Rebar Hooks (and inspections)	10	0	27-Oct-20	09-Nov-20
DS370-U14	Install (Zone 13-15) Under slab piping and concrete encasement (GMP-3 scope)	10	0	07-Dec-20	18-Dec-20
DS370-C4	Install (Zone 10-12) Slab Concrete (GMP-3 scope)	35	0	10-Nov-20	06-Jan-21
DS360-R15	Install (Zone 13-15) Pile Rebar Hooks (and inspections)	12	0	21-Dec-20	11-Jan-21
DS370-C14	Install (Zone 13-15) Slab Concrete (GMP-3 scope)	80	0	12-Jan-21	06-May-21
Phase 2 - Pile Driving (Higher Elevation Piles)					
Drive Phase 2 Production Piles - Crew # 1					
DS410	Drive Phase 2 Indicator Piles, PDA Testing, Re-tapping, CAPWAP Report	20	0	18-Nov-20	17-Dec-20
DS450	Demobilize Pile Driving Equipment - Pile Rig #1	9	0	15-Sep-21	27-Sep-21
DS640	Post condition Inspection/Report of adjacent structures	9	0	15-Sep-21	27-Sep-21
Drive Phase 2 "PDA Dependent" Production Piles - Pile Rig #1- SEQUENCE					
DS400	Drive Phase 2 "PDA Dependent" Production Piles - Area 51/64 Headworks/Odor	16	0	28-Jun-21	20-Jul-21
DS610	Drive Phase 2 "PDA Dependent" Production Piles - Area 56/70 MBR/Chem	20	0	21-Jul-21	17-Aug-21
DS620	Drive Phase 2 "PDA Dependent" Production Piles - Area 56 Electrical	7	0	18-Aug-21	26-Aug-21
DS630	Drive Yard Piping Piles - (15 Piles)	2	0	27-Aug-21	30-Aug-21
DS430	Drive Phase 2 "PDA Dependent" Production Piles - Area 80 Admin	9	0	31-Aug-21	14-Sep-21
Phase 2 work					
DS360-R25	Install (Phase 2) Pile Rebar Hooks (and inspections)	15	0	01-Oct-21	21-Oct-21
DS370-U24	Install (Phase 2) Under slab piping and concrete encasement (GMP-3 scope)	27	0	15-Sep-21	21-Oct-21
DS370-C24	Install (Phase 2) Slab Concrete (GMP-3 scope)	150	0	22-Oct-21	06-Jun-22
02 - Pile Foundation					
4C3162110	Area 1 - No of Piles: 131 - Influent Head Works	15	0	06-Oct-20	26-Oct-20
4C3162120	Area 2 - No of Piles: 60 - Influent Head Works	7	0	27-Oct-20	04-Nov-20

Activity ID	Activity Name	OD	AD	Start	Finish
4C3162130	Area 3 - No of Piles: 171 - Primary Treatment Area 1	19	0	05-Nov-20	04-Dec-20
4C3162140	Area 4 - No of Piles: 172 - - Primary Treatment Area 2	19	0	07-Dec-20	06-Jan-21
3123 - 0	Exterior Walls (GMP3)	41	0	07-Jan-21	08-Mar-21
4C3162150	Area 5 - No of Pile: 68 - Bioactiflo Area 1	7	0	09-Mar-21	17-Mar-21
4C3162160	Area 6 - No of Pile: 80 - Bioactiflo Area 2	9	0	18-Mar-21	30-Mar-21
3141	Tower Crane Foundation Pile and Base	30	0	09-Mar-21	20-Apr-21
4C3162170	Area 7 - No of Piles: 236 - Biological Nutrient Removal - Area 1	24	0	31-Mar-21	04-May-21
4C3162180	Area 8 - No of Piles: 276 - Biological Nutrient Removal - Area 2	28	0	05-May-21	15-Jun-21
4C3162190	Area 9 - No of Piles: 37 - Membrane Filtration Area 1	8	0	16-Jun-21	25-Jun-21
4C3162200	Area 10 - No of Piles: 140 - Membrane Filtration Area 2	14	0	28-Jun-21	16-Jul-21
4C3201150	Area 11 - No of Piles: 42 - Membrane Filtration Area 3	5	0	19-Jul-21	23-Jul-21
3123 - 1	Exterior Walls (GMP3)	38	0	26-Jul-21	17-Sep-21
4C3201160	Area 12 - No of Piles: 79 - Membrane Filtration Area 4	8	0	20-Sep-21	29-Sep-21
4C3201170	Area 13 - No of Piles: 50 - Odor Control	5	0	30-Sep-21	06-Oct-21
4C3201180	Area 14 - No of Piles: 97 - Chemicals	10	0	07-Oct-21	20-Oct-21
4C3201190	Area 15 - No of Piles: 60 - Administrative Building	5	0	21-Oct-21	27-Oct-21
3123 - 2	Exterior Walls and Backfill (GMP3) & Pile Rebar Hooks	60	0	28-Oct-21	31-Jan-22
C: Site Works					
4C3201230	SWPPP	15	0	26-Jun-20	17-Jul-20
4C3201220	Dust Control	20	0	25-Jun-20	23-Jul-20
4C3201240	Traffic Control - Sub	8	0	20-Jul-20	29-Jul-20
4C3201250	Survey - Pile Layout	14	0	30-Jul-20	18-Aug-20
4C3201270	Earthwork	40	0	25-Jun-20	20-Aug-20
4C3201260	Mobilization	5	0	19-Aug-20	25-Aug-20
4C3201280	Dewatering System	200	0	25-Jun-20	19-Apr-21

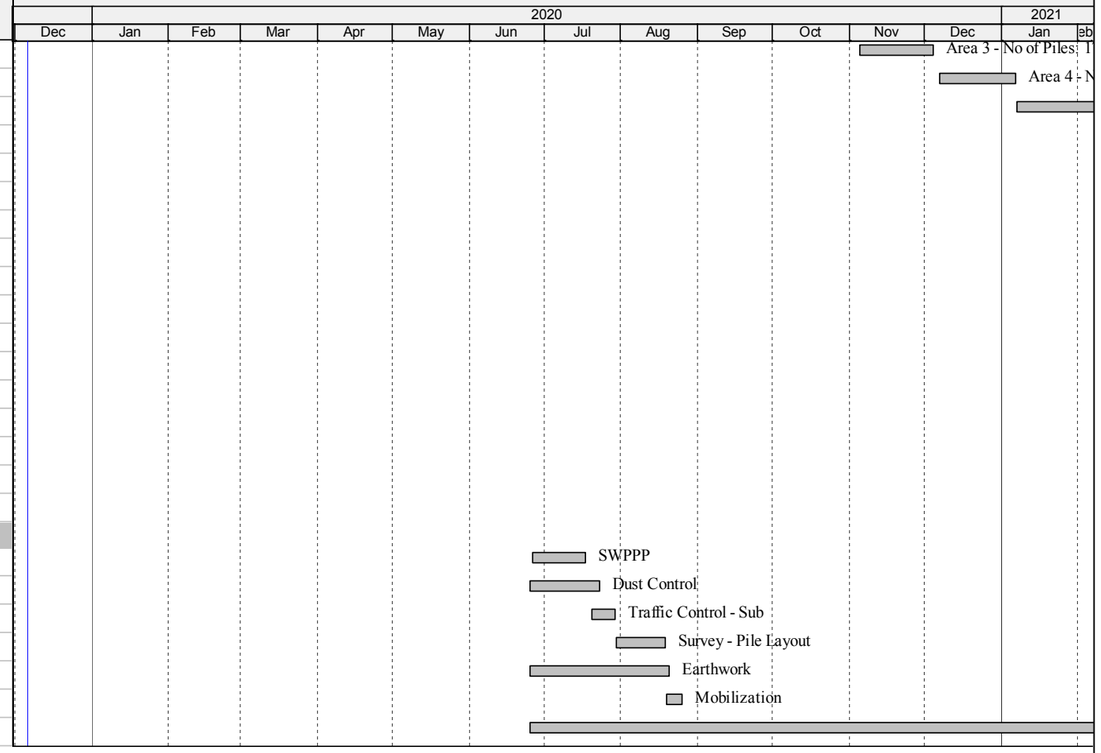


Exhibit C1

Fee and Rate Schedule

CLEANWATERPROGRAM

PROTECTING THE BAY FOR A SUSTAINABLE FUTURE

Table 1 - Estimated Work Effort and Cost

City of San Mateo Clean Water Program

Nutrient Removal and Wet Weather Flow Management Upgrade and Expansion - Engineering Services During Construction for GMP-2

Task No.	Task Description	PJM.PJM300. Project Manager General Sr	FIN.FIN210. Project Accountant 1	EST.EST200. Engineer Structural	EGT.EGE200. Engineer Geotechnical	BIM.BIM730. BIM Specialist Structural 3	BIM.BIM430. BIM Specialist General 3	ADM.ADM400. Administrative Project Coordinator	Total HDR Hours	Total HDR Labor ($)	Subs Cost ($)	Sub Markup	Total Expenses ($)	Total Cost ($)
Task 1 - Project Management														
1.1	Project Management (13 weeks)	260	78						**338**	**$118,148**			**$5,907**	**$124,056**
	Task 1 Total	**260**	**78**	**0**	**0**	**0**	**0**	**0**	**338**	**$118,148**	**$0**	**$0**	**$5,907**	**$124,056**
Task 2 - Meetings and Site Visits														
2.1.1	Preconstruction Meeting			8	8			1	**17**	**$4,868**			**$250**	**$5,118**
2.1.2	Weekly Coordination Meetings (up to 69)			35	35			4	**73**	**$20,963**			**$210**	**$21,173**
2.2.2	Structural Observations (up to 4)			32				6	**38**	**$9,282**			**$600**	**$9,882**
2.2.3	Geotechnical Observations (up to 10)				80			10	**90**	**$27,010**			**$1,000**	**$28,010**
2.2.4	Substantial Completion Visit			8	8			1	**17**	**$4,868**			**$550**	**$5,418**
	Task 2 Total	**0**	**0**	**83**	**131**	**0**	**0**	**22**	**235**	**$66,992**	**$0**	**$0**	**$2,610**	**$69,601**
Task 4 - Office Engineering Services for GMP-2														
4.1	Technical Submittals (up to 40 submittals and 20 resubmittals) plus Pile Driving Log Review			243	160			121	**524**	**$130,152**	**$8,925**	**$446**	**$6,508**	**$146,031**
4.2	RFIs and Clarifications (up to 39)			156	30			39	**225**	**$55,990**			**$2,800**	**$58,790**
	Task 4 Total	**0**	**0**	**399**	**190**	**0**	**0**	**160**	**749**	**$186,142**	**$8,925**	**$446**	**$9,307**	**$204,820**
Task 6 - Close-out Activities														
6.2	As-Built/Record Drawings for GMP-2 (31 drawings)			31		50	12		**93**	**$19,412**			**$1,941**	**$21,353**
	Task 4 Total	**0**	**0**	**31**	**0**	**50**	**12**	**0**	**93**	**$19,412**	**$0**	**$0**	**$1,941**	**$21,353**
GMP-2 TOTAL		**260**	**78**	**513**	**321**	**50**	**12**	**182**	**1,415**	**$390,694**	**$8,925**	**$446**	**$19,765**	**$419,830**
	2020 Labor Rates	*$408.00*	*$136.00*	*$269.00*	*$321.50*	*$166.50*	*$212.75*	*$101.00*						