

AMENDMENT NO. 2 TO PROGRESSIVE DESIGN-BUILD AGREEMENT
between
BOARD OF WATER COMMISSIONERS OF THE CITY OF SAINT PAUL
and
CH2M HILL ENGINEERS INC.

THIS AMENDMENT NO. 2 TO PROGRESSIVE DESIGN BUILD AGREEMENT (“Amendment”) is entered into by and between the BOARD OF WATER COMMISSIONERS OF THE CITY OF SAINT PAUL (“Board”), a Minnesota Municipal Corporation, d/b/a Saint Paul Regional Water Services (“SPRWS”), and CH2M HILL ENGINEERS INC (“CH2M HILL”), a corporation under the laws of the State of Delaware.

WHEREAS, Board and CH2M HILL are parties to that certain Progressive Design-Build Agreement dated January 1, 2021, (“Agreement”); and

WHEREAS, Board and CH2M HILL are parties to that certain Amendment No. 1 to Progressive Design-Build Agreement effective January 11, 2022; and

WHEREAS, Board and CH2M HILL desire to further amend certain terms of the Agreement;

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties mutually agree to amend the Agreement in the manner described below.

1. Section 7.2b of the Agreement is hereby amended as shown below. New language is indicated by underline.

7.2b Early Work Packages

7.2b.1 The Owner and the Design-Builder have mutually agreed that certain portions of the scope of work should be completed prior to the establishment of a Guaranteed Price for the full scope of Phase 2 work. The work included in each of these early work packages has been described in the following Exhibits, each of which is a binding contractual document.

7.2b.1.1 First Early Work Package. The first early work package is described in “Exhibit L1: First Early Work Package”. By signing this contract amendment, the Owner and the Design-Builder hereby agree to the terms described therein. All work included in the First Early Work Package is also subject to the terms and conditions of the project described in the Agreement and in the General Conditions of Contract.

7.2b.1.2 Second Early Work Package. The second Early Work Package is described in “Exhibit L2: Second Early Work Package.” By signing this contract amendment, the Owner

and the Design-Builder hereby agree to the terms described therein. All work included in the Second Early Work Package is also subject to the terms and conditions of the of the project described in the Agreement and in the General Conditions of Contract.

2. Sections 7.2.5 and 7.2.5.1 of the Agreement are hereby moved to Section 7.3 Guaranteed Maximum Price (GMP) implementation of the Guaranteed Price in their entirety and renamed Section 7.3.6 and 7.3.6.1 respectively.
3. Section 7.4.2.2 is hereby added in its entirety as shown below.

7.4.2.2 Design-Builder's Fee on Contingency Funds. The Design-Builder's fee shall be applied to the full value of the contingency upon which the Owner and the Design-Builder have agreed at the time of the Contract Price Amendment or at the time of other contract amendments. The Design-Builder will be entitled to collect this fee regardless of whether the contingency funds are spent or not.

The Design-Builder's fee is applied to the contingency funds and guaranteed at the time of the Contract Price Amendment or at the time of other contract amendments. The fee will not be re-applied in the event that contingency work is performed. Any contingency work performed will be billed to the owner with no additional Design-Builder's Fee.

7.4.2.2.1 Value of Design Builder's Fee on Contingency Funds. While the Design-Builder's Fee established in Section 7.4.2.1 applies to all other components of the work, the Design-Builder's fee for contingency funds will be handled separately. The Design-Builder's Fee applied to contingency will be equal to nine and a half percent (9.5%).

7.4.2.2.2 First Early Work Package Exempt. As described in Section 7.4.5.1, the First Early Work Package was negotiated and agreed to prior to the establishment of this section 7.4.2.2. As such, this Section 7.4.2.2 does not apply to the contingency agreement for the First Early Work Package. Refer to section 7.4.5.1 and to Exhibit L1 to find the terms which govern contingency payments for the First Early Work Package.

4. Section 7.4.5 is hereby added in its entirety as shown below.

7.4.5 Contingency Funds in Lump Sum Delivery

7.4.5.1 First Early Work Package Exempt. The First Early Work Package, which is valued at \$22,239,688 and was approved by the Board of Water Commissioners at their January 11th, 2022 meeting, is exempt from all the text of this Section 7.4.5. The First Early Work Package was negotiated prior to the addition of the terms in this section. As described in Exhibit L1, the Design-Builder has been guaranteed the \$1,089,782 of contingency funds which were established at the time of the negotiations for the First Early Work Package. The Design-Builder is not obliged to track the contingency spending for the First Early Work Package. The Owner is not entitled to any unspent contingency funds from the First Early Work Package.

7.4.5.2 Purpose of Contingency. Contingency shall be developed as part of the Guaranteed Price Amendment or at the time of other contract amendments based on identified risks or opportunities related to specific Work scope that cannot be accurately estimated at the time of Guaranteed Price development or at the time of other contract amendments. By way of example, and not as a limitation, such costs may include: (a) trade buy-out differentials; (b) overtime or acceleration; (c) escalation of materials; (d) correction of defective, damaged or nonconforming Work, design errors or omissions, however caused; (e) Subcontractor defaults; or (f) those events under Section 8.2.2 of the General Conditions of Contract that result in an extension of the Contract Time but do not result in an increase in the Contract Price.

7.4.5.3 Cap on Value of Contingency Spending. The Design-Builder agrees that the contingency value set in the Contract Price Amendment or at the time of other contract amendments is a maximum value. Any overruns of the contingency value are the responsibility of the Design-Builder. The Owner's payments for contingency work shall not exceed the maximum value set in the Contract Price Amendment or at the time of other contract amendments.

7.4.5.4 Spending from Contingency Funds. The value of the contingency set in the Contract Price Amendment or at the time of other contract amendments is not treated as a Lump Sum value.

Contingency will be available to the Design-Builder upon approval by the Owner for unanticipated costs it has incurred that are not the basis for a Change Order under the Contract Documents. Without Owner approval, the Design-Builder is not authorized to spend any of the contingency.

7.4.5.5 Cost Tracking for Contingency Spending

If the Design-Builder identifies an area in which contingency spending is required, then they will develop a price proposal for the work associated, including cost buildups consistent with a Guaranteed Price Proposal. Upon mutual agreement between the Owner and the Design-Builder on the price, the value will be treated as a lump sum and guaranteed to the Design-Builder. The Design-Builder will not be responsible for providing receipts, invoices, cost tracking, etc. to validate costs.

Owner recognizes that in some cases, when a risk materializes, the associated costs will begin to accumulate immediately, before the Design-Builder is able to develop a price proposal for the contingency spending. In such events, the Design-Builder will develop a price proposal for the Owner as quickly as possible. Also, the Owner agrees to recognize and compensate the Design-Builder for any costs incurred prior to the price proposal submittal, provided that the Design-Builder can clearly demonstrate that the costs resulted from the associated risk event.

7.4.5.6 Cap on Rework Contingency. Notwithstanding the above, the Design-Builder guarantees that the contingency for the correction of defective, damaged, or nonconforming work shall not exceed 40% of the total contingency.

5. Section 7.6.4 of the Agreement is hereby amended as shown below. New language is indicated by underline and deleted language is indicated by strikethrough

7.6.4 The Allowance Value includes ~~the direct cost of labor, materials, equipment, transportation, taxes, and insurance~~ all costs (including all additional general conditions, bonds, insurance, and Design-Builder's Fee) associated with the applicable Allowance Item. ~~All other costs, including design fees, Design-Builder's overall project management and general conditions costs, overhead and Fee, are deemed to be included in the original Contract Price, and are not subject to adjustment notwithstanding the actual amount of the Allowance Item.~~

6. Section 7.6.5 of the Agreement is hereby amended as shown below. New language is indicated by underline and deleted language is indicated by strikethrough.

7.6.5 Whenever the actual costs for an Allowance Item is more than or less than the stated Allowance Value, the Contract Price shall be adjusted accordingly by Change Order. ~~The amount of the Change Order shall reflect the difference between actual costs incurred by Design-Builder for the particular Allowance Item and the Allowance Value and shall include the appropriate markup fee as defined in Section 7.3.4.~~ The Design-Builder shall be responsible for informing the Owner of any potential exceedances of Allowance Values prior to incurring such expenses, and Owner approval of such additional expenses shall be required prior to performing the work.

7. The attached Exhibit L2 is hereby added in its entirety.
8. The provisions of this amendment shall take effect February 8, 2022.
9. Except as modified herein, the terms of the Agreement as amended shall remain in full force and effect.

[Remainder of page is left intentionally blank.]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed on the dates listed below.

Approved as to form:

**BOARD OF WATER COMMISSIONERS
OF THE CITY OF SAINT PAUL**

By: _____
Patrick Shea, General Manager
Saint Paul Regional Water Services

By: _____
Mara Humphrey, President

Date: _____

Date: _____

By: _____
Lisa Veith, Assistant City Attorney

By: _____
Mollie Gagnelius, Secretary

Date: _____

Date: _____

By: _____
John McCarthy
Interim Director, Office of Financial Services

Date: _____

CH2M HILL ENGINEERS, INC.

By: _____
Printed Name
Title

Date: _____

Exhibit L2: Second Early Work Package

McCarron's Water Treatment Plant Improvements

Scope of Work

The scope of work for this work package consists of:

- The removal of trees from the site
- Removal of a gate and saw-cutting of an opening with the purpose of diverting water directly from the existing recarbonation effluent to the top portion of the “Figure-8”. This work will render the Secondary Settling Basins functionally irrelevant and prepare them for demolition.
- Relocation of the electrical lines feeding Substation A
- The establishment of the Design-Builder construction offices/trailers necessary to support project work
- Purchases of pipes and other significant equipment for which early delivery is required to avoid impacts on the project’s critical path
- Site preparation for the installation of the temporary CO2 trailer
- Rerouting of Storm Sewer lines
- General Conditions for CH2M Hill and Magney construction sufficient to carry forward the planned construction efforts until Sept. 30, 2022
- Engineering Services During Construction for Design-Builder sufficient to carry forward the planned construction efforts until Sept. 30, 2022

Contract Price

The Owner hereby agrees to pay the Design-Builder a Lump Sum Amount of **\$9,189,219** for the scope of work described above.

Additionally, as described in the Agreement, the Owner will pay the Design-Builder for any work covered by contingency spending. The maximum compensation for contingency spending will not exceed **\$1,174,846**.

Finally, the Owner has set aside **\$1,035,935** for allowance items. These funds are available in addition to the two items described above subject to the terms of the Agreement.

The total price for this second early work package is **\$11,400,000**.

Timeline of Work

The Design-Builder will proceed with the work included in the second early work package after Notice to Proceed of Amendment No. 2 to the Progressive Design-Build Agreement dated February 8, 2022.

Document Precedence

The Document Precedence agreements formalized in Exhibit L1 apply to this Exhibit L2 in their entirety as well. Please refer to the “Document Precedence” section of Exhibit L1 to view those terms.

Specifications and drawings developed to support this work package have been developed and included in Appendix 100E *Scope Baseline Documents*.

Sales Tax

The Owner and the Design-Builder are currently investigating opportunities to designate the Design-Builder as a Purchasing Agent for the project. It remains uncertain whether this will be legally possible.

As such, sales taxes have been included as an Allowance item in this Contract Amendment. If SPRWS is able to designate the Design-Builder as a Purchasing Agent, the Design-Builder will not be responsible for paying sales taxes on the process equipment permanently installed in the facility. As such, the funds set aside in the allowance item will be returned to the Owner.

In the event that the Design-Builder cannot be designated as a Purchasing Agent, the Design-Builder will be responsible for paying any sales taxes. As such, the funds set aside in the allowance item will be used to reimburse the Design-Builder for sales tax expenses incurred.

The Owner is separately pursuing a state sales tax exemption that may be more favorable. Should the State approve that exemption request, the Owner will be eligible to receive reimbursement for sales taxes paid on the project. In this event, the allowance item may be utilized to pay sales taxes on all goods, and the Owner will be responsible for seeking reimbursement from the State.

In either case, it is likely that Use Tax will be due on the installed process equipment. That amount due (currently estimated at 0.5% of the purchase value for Ramsey County) will be paid out of the Allowance.

Cost Breakdown

Costs have been itemized in the full GP workbook submittal (Final GP2 Proposal dated January 27, 2022 and submitted by Design-Builder on the same date via email to Will Menkhaus). For more detailed information, please consult that submittal.

The following table summarizes the costs for this work package:

Description	Cost
Design-Builder General Conditions	\$3,830,638
Design-Builder Engineering Services During Construction	\$715,371
Design-Builder Procurement Costs	\$43,363
Construction Subcontracts	\$3,469,002
Commissioning and Startup	\$0
Instrumentation and Controls	\$0
Allowances	\$1,035,935
Contingency	\$1,174,846
Design-Builder Fee	\$797,140

Bonds, Insurance, and Taxes on Above	\$333,705
Total Cost	\$11,400,000

Terms of Payment

The Design-Builder will develop a complete schedule of values and payment schedule within 30 days of the signing of Amendment No. 2 to the Progressive Design-Build Agreement dated February 8, 2022. The schedule of values and payment schedule is subject to review and approval by SPRWS. In general, unless otherwise specified, costs will not be passed on to the Owner until they have been incurred by the Design-Builder.

Upon agreement between the Owner and the Design-Builder, the schedule of values will be used to govern payments for the work covered in this package.

“Off-Ramp” Scenario

In the event that the Owner elects to take the “Off-Ramp” described in Section 2.3.2.4(iii) of the Agreement, the Design-Builder and the Owner hereby agree that:

- The Owner will be responsible for paying the Design-Builder in accordance with the terms provided in Sections 9.1.1, 9.1.2, and 9.1.3 of the Agreement.
- General Conditions and Engineering Services During Construction have been included in this contract to cover work up to September 30, 2022. If the “Off-Ramp” is taken prior to this date, value of the General Conditions and Engineering Services During Construction associated with the unperformed work will not be construed as a “proven loss, cost, or expense in connection with the services and Work” as described in Section 9.1.1 of the Agreement.
- The Design-Builder will be responsible for removing all equipment, trailers, and other such items from the site in a timely manner. The cost of such removal fits the definition of “reasonable costs and expenses attributable to such termination” as described in Section 9.1.2 of the Agreement.

Further, the terms set in the “Off-Ramp” Scenario section of Exhibit L1 apply also to the purchases of piping and other such materials associated with the scope of Work Package 2. All rights reserved for the Owner in that section apply to this Exhibit L2 as well.

Escalation

Funds have been set aside for potential escalations to costs for piping materials. At the time of this amendment, the Design-Builder has obtained quotes for the anticipated piping materials required for the project. The quotes obtained and provided as supporting documents in the Work Package 2 submittal will be compared to final prices for the materials to determine the appropriate amount of escalation cost.

Cost increases resulting from changes in designs will not be treated as escalation costs. Cost increases resulting from design changes are most appropriately handled by using contingency funds since the contingency has been built using assumptions about design evolution, design changes, and design risks.

In order to receive funds from the escalation allowance, the Design-Builder must be able to demonstrate a change in the price of materials and items which were included on the original quote for the materials.

As a general rule, changes in the unit price of materials would be considered an escalation. Changes in the quantity or nature of the materials would be considered a design change.

Applicability of Contract Documents

The following table lists which Contract Document exhibits apply and do not apply to this second early work package:

Exhibit	Description	Applicability to this GP Proposal
Exhibit A	Preliminary Owner's Project Criteria	As described in the "Document Precedence" section of this Exhibit L2
Exhibit B	Preliminary Scope of Phase 1 Services	No relevant content
Exhibit C	Permitting and Regulatory Approvals Responsibilities	Yes. Jacobs responsible for ensuring that work included in this work package meets conditions of permits
Exhibit D	MN PFA Contract Packet (Project Funding Requirements)	Yes
Exhibit E	Labor Standards	Yes
Exhibit F	Key Firms and Key Personnel	Yes
Exhibit G	Exhibit G – Phase 1 Milestone Schedule	No relevant content
Exhibit H	Insurance Requirements	Yes
Exhibit I	Billing Rates, Phase 1 Costs, and Phase 2 Markups	Yes
Exhibit J	Cost Model	The Jacobs' Cost Model has been developed in accordance with Exhibit J and approved by SPRWS.
Exhibit K	Parent Guaranty Agreement	Yes
Exhibit L	Scope Basis	No relevant content
Exhibit L1	First Early Work Package	Only as referenced above
Exhibit L2	Second Early Work Package	Yes
Exhibit M	Site Security Requirements	This exhibit is not yet completed. Upon completion, the exhibit will apply.
Exhibit N	Performance Incentive Arrangements	No
Exhibit O	Index of Reference Documents	No relevant content

Additional Assumptions and Clarifications of the Proposal

The following table includes additional assumptions and clarifications noted in the GP proposal:

1	<p>This proposal is based on the assumption that the current GP1 - 4 (possibly 5) packages are awarded based on the schedule communicated. Changes to these award dates may delay the overall schedule (i.e. GP2 work needs to be complete for GP3 work and, in turn, GP4 work starting on time is dependent on GP2 and GP3 work).</p>
2	<p>This proposal assumes that SPRWS will be paying for consumption / usage costs for all electricity used on the project. Therefore, we have not included any of these costs in this GP proposal.</p> <p>SPRWS and Jacobs will work together to ensure that all temporary and revised permanent electrical loads are within all appropriate limits and do not limit the operation of SPRWS facilities. Additionally, SPRWS and Jacobs will work together to plan outages and plant interruptions to avoid any unplanned outages to the operating facility.</p>
3	<p>This proposal assumes that SPRWS will be paying for consumption / usage costs for all potable water used on the project. Therefore, we have not included any of these costs in this GP proposal.</p> <p>Jacobs will inform SPRWS of planned water use and SPRWS will approve water usage; Jacobs and SPRWS will work together to ensure construction activities do not impact regular service to customers.</p>
4	<p>This proposal assumes that SPRWS will be paying for consumption / usage costs for all sanitary sewer used on the project for the temporary facilities. Therefore, we have not included any of these costs in this GP proposal.</p> <p>Jacobs will not dispose of any hazardous or problematic waste into a SPRWS-owned sanitary sewer. Given the small amount of additional flows from the construction office trailers, Jacobs assumes that sewer fees will not increase and capacities will not be impacted. If that is incorrect, Jacobs will remedy the issue.</p>
5	<p>This proposal assumes that SPRWS will be paying for consumption / usage costs for all chemicals associated with the operating plant. Therefore, we have not included any of these costs in this GP proposal.</p> <p>Jacobs has the responsibility to coordinate and schedule the commissioning and startup chemicals so that they are onsite at the appropriate time. Jacobs will work with SPRWS to ensure the appropriate accounts are set up and available.</p>
6	<p>This proposal assumes that SPRWS will be paying for consumption / usage costs for all stormwater associated with the plant. Therefore, we have not included any of these costs in this GP proposal.</p> <p>Jacobs is responsible for complying with all stormwater requirements and for any fees / fines that result from inadequate stormwater provisions or protections.</p>
7	<p>This proposal assumes that SPRWS will be paying for consumption / usage costs for all sludge handling associated with the plant. Therefore, we have not included any of these costs in this GP proposal.</p> <p>All sludge from the new facilities will be piped to the existing storage tanks, GVTs, and filter presses.</p>
8	<p>Recently passed legislation includes a Build America Buy America provision that may modify the requirements of American Iron and Steel. We have not included pricing for this provision as impacts are currently unknown.</p> <p>If / once adopted, the regulations will constitute a change in funding requirements per Section 2.6.3 and the legal requirements per Section 2.4 of the General Conditions.</p>
9	<p>This GP has been prepared using the GMP Design-Builder fees. If a Lump Sum is agreed to, that fee will need to be reduced. Approximate savings on the fee rate is included on Tab 00 F.</p>
10	<p>Given volatility in the markets, we have discussed the best ways to handle escalation. For this package, the major concern is steel pipe. We suggest that an Allowance be established, similar to GP1, to manage escalation costs.</p> <p>If the calculated escalation is less than the Allowance amount indicated, the contract between Jacobs and SPRWS will be decreased by the corresponding amount plus the associated Design-Builder Fee. If the calculated escalation is greater than the Allowance amount, the contract will be increased by the corresponding amount plus the associated Design-Builder Fee.</p>
11	<p>Please note that design was not complete during this procurement and that eventual 100% Drawing and Specifications will differ from those presented with the GP. Furthermore, provisions in the subcontract and equipment proposals differ from the requirements of these preliminary Specifications. This is a normal part of the Design-Build process. SPRWS will be involved in reviews as the design progresses. In general, for this GP, the provisions of the subcontractor and vendors proposal, as long as they do not impede performance (water quality, schedule, longevity, architectural, etc.) will govern. Please reference Exhibit L1 and L2 to the Prime Agreement for further comment on document prioritization.</p>

12	<p>Sales taxes were calculated at 7.375% based on the 1900 Rice Street address for the Plant from the following website: https://www.revenue.state.mn.us/sales-tax-rate-calculator.</p> <p>Upon award of GP2, Jacobs, Magney, and Premier will maintain receipts for material purchases that are permanently incorporated into the Work so that paid taxes can be eventually reimbursed.</p> <p>Jacobs, Magney, and Premier will endeavor to gather all appropriate receipts for sales tax reimbursement with particular attention to receipts with values over \$10,000.</p> <p>It is our current understanding that Ramsey County Use Taxes will be due even if the Sales Tax exemption is utilized.</p>
13	<p>This proposal assumes that Comcast will install the fiber and panel necessary for Jacob's use at the trailer area. Comcast has committed to complete this work for a \$200 installation fee as long as it is completed concurrently with SPRWS fiber work. Comcast has provided pricing for independent service (not associated with SPRWS or the City networks) and that pricing is reflected in Tab 01 (service is taxable).</p>
14	<p>Design-Builder assumes that SPRWS will assist with locating enough parking on site for the duration of the project. Costs for busing and/or transportation from another parking location is not included.</p>
15	<p>Design-Builder General Conditions estimate is based on a GP2 Notice of Award date around February 15, 2022, and a GP4 award date around August 1, 2022.</p>
16	<p>Design-Builder Services During Construction estimate is based on a GP2 Notice of Award date around February 15, 2022, and a GP4 award date around August 1, 2022.</p>
17	<p>Programming time for the temporary CO2 system has been included in this pricing.</p>
18	<p>We have assumed that Jacobs will have one (1) security staff to operate the Roselawn gate and temporary construction gate during construction hours only. SPRWS agrees to accommodate for gate opening needs during non-construction hours to operate the Roselawn and temporary construction gate. In other words, SPRWS sometimes has truck deliveries outside of construction work hours where the operators may need to open the construction gate.</p>
19	<p>We have assumed that the potential sound wall between the old park property and the adjacent neighbors will not be needed during GP2 work (tree removal). We intended to include this as an allowance in GP3. Please let us know if SPRWS thinks this might be required prior to May 1, 2022 (in which case we'd need to include in GP2).</p>
20	<p>We are intending on access for tree removal to be through the plant gate on Sylvan. The new access off Roselawn will not be available until GP3 (May 2022).</p>
21	<p>We have assumed that tree removal can be complete prior to the onset of nesting period.</p>
22	<p>We have assumed that all existing facilities in the old park area (garage, old bathroom) will be vacated and ready for demolition by approximately March 1, 2022.</p>
23	<p>Please reference the Risk Register (on SmartSheet or Tab 10.4 in this workbook) for concerns about the possible means and methods for sealing the existing gates between the Figure 8 and SSB.</p>
24	<p>Security fence will be installed during this GP2 project schedule. There will be a period where crews will be on site and working prior to full security separation between SPRWS and Jacobs.</p>
25	<p>GP2 construction includes initial set up of Jacobs office trailer facilities. These trailers will remain at the location shown on the site map for the duration of the project.</p>
26	<p>GP2 construction will impose minimal impacts to the SPRWS plant operations regarding traffic flow around the plant. Lime deliveries will take priority over Jacobs activities.</p>
27	<p>Jacobs assumes a sewer connection can be made to the manhole as shown on the drawing mark ups provided (existing sanitary MH northwest of the corner of the (e) Lime Building).</p>
28	<p>Jacobs assumes connection to a potable water line within (200) LF of the office trailer location (there are several options).</p>

29	<p>It is assumed acceptance of the temporary storm system will be accepted by Maplewood Public Works and CRWSD.</p> <p>SPRWS needs to be aware that the temporary storm water system may operate somewhat differently than the current system as the new system includes larger conveyance pipe.</p>
30	<p>Jacobs and SPRWS will work together to define the details and durations of the shutdowns necessary to complete the Figure 8 reconfiguration work.</p>
31	<p>We have assumed that Figure 8 construction can begin on or about March 1, 2022 (first shutdown) and that the final shutdown will occur on or about April 15, 2022. We anticipate no less that (3) and no more than (4) shutdowns to complete all work.</p>
32	<p>All crack repair costs are carried in an Allowance. Please see the Risk Register regarding crack repairs that cannot be fixed using an epoxy injection approach.</p>
33	<p>It is important to the project schedule that the GP3 contractor start work in the existing CO2 area around May 1 - May 15, 2022. To this end, Jacobs is diligently working to procure the temporary CO2 trailer and complete the mechanical, electrical, instrumentation, controls, and programming work for the temporary CO2 system around April 15, 2022.</p> <p>If we can achieve these goals, there will be a 2 - 4 week period of time where the new temporary CO2 system will be operating (all construction work complete, all instrumentation and controls work complete, and all programming work complete) prior to there being a need to demolish the old one.</p> <p>If the transition goes smoothly, we would like to demolish the existing CO2 system as soon as SPRWS is comfortable with the new temporary system.</p>
34	<p>For either a LS or GMP delivery, scope and schedules for GP2, 3, and 4 overlap in time and space through the end of 2022. We will set up a system for tracking costs and invoicing correctly that we will review with SPRWS.</p>
35	<p>GP2 assumes that SPRWS has no issues operating the plant on the existing 480V feeds to the existing Lime Building. After the GP2 Substation "A" work, there will be no feed to the (e) Lime Building from Substation "A".</p>
36	<p>Jacobs has investigated Substation "A" to confirm that there is adequate capacity for the temporary loads. This assumption rests on the previous one - there is NOT sufficient capacity in Substation "A" to run the (e) Lime Building AND the temporary loads.</p>
37	<p>The existing documentation for Substation "A" indicates a 300A fuse (required for (e) Lime Building). This same fuse size is required for the temporary feeds. It is not possible to verify this fuse size prior to the shutdown.</p>
38	<p>Given the constraints of the existing Substation "A" geometry, the new permanent feed into Substation "A" may include exposed above ground conduit from a junction box to the southeast corner of the Substation (core drilling into the Substation "A" may not be feasible). If possible, we will pursue the core drill / underground routing.</p>
39	<p>Please reference the Risk Register. Until the shutdown, it is unclear how the existing transformer and Substation "A" are connected. It may require additional work (covered in a risk item) to make the new interface.</p>
40	<p>We have assumed that the existing Sludge Handling building will be on generator power for (11) days while the existing ductbank, new ductbank, recabling, and splicing work is being completed.</p>
41	<p>We had not planned on reconnecting Substation "A" to the (e) Lime Building at the end of the project as there will be no loads in the existing Lime Building at that point. If this is not correct, we can add that scope into GP4.</p>