



Request for City Manager Signature

(\$50,000 and higher. Council approval not needed up to \$100,000)

Project Name/Contract Number:	Wallace Addition Offsite Drainage Imps	#219-129.3
Department Contact / Department Name:	Rohit Vij	CIP/Engineering
Date of City Council Approval: (Past or Recent)	November 3, 2021 (Past Approval Date – CIS#2) January 17, 2023 (Past Approval Date – CIS#3) May 7, 2024 (Past Approval Date – CIS#4) May 20, 2025 (Anticipated Approval Date – CIS#5)	
Return Signed Document to:	Rohit Vij	Ext: 8133

Background/Purpose: A change in service is requested to develop planting and irrigation plans for approximately six acres of restored stream channels, wetlands, and uplands, and to develop Cape St design plans.

Funding: *This memo will be updated after City Council approval on May 20th, 2025 and GL account will be provided after this date*

Project Number	Fund	Phase	Loc/Yr Dept	GL Account	Amount
C731	Drainage		13200		\$195,163.00

Reviewed / Approved:

User Department Director:		Date:	
Purchasing / Contracting POC:		Date:	
Finance Director: (CDBG-DR)		Date:	
Purchasing Manager:		Date:	
Other Depts. as needed			

EXHIBIT B
AUTHORIZATION OF CHANGE IN SERVICE

CONTRACT NUMBER / CONTRACT NAME:	219-129.3	Wallace Addition Offsite Drainage		
CITY REPRESENTATIVE/ DEPARTMENT:	Rohit Vij			
CONTRACTOR:	BGE, INC, Inc.			
CONTRACT EFFECTIVE DATE:	December 3, 2019	COUNCIL RES. NO:	2019-243R 2020-238R 2021-214R 2023-13R 2024-71R	
THIS AUTHORIZATION DATE:	May 20, 2025	AUTHORIZATION NO.:	5	

DESCRIPTION OF WORK TO BE ADDED TO OR DELETED FROM SCOPE OF SERVICES:

A change in service is requested to develop planting and irrigation plans for approximately six acres of restored stream channels, wetlands, and uplands, and to develop Cape St design plans.

Previous Change In Services

CIS#1: Design engineering services for Wallace Addition offsite drainage – November 4, 2020

CIS#2: Addendum to the original preliminary engineering report (PER) – November 2, 2021

CIS#3: Drainage plans, cost estimates, and bid documents, Cape's Pond Property – January 17, 2023

CIS#4: SUE and design of the Fish Hatchery Raw Water Line – May 7, 2024

Original Contract Amount:		\$ 165,105.00
Previous Increases/Decreases in Contract Amount:		\$ 1,471,113.00
CURRENT CONTRACT AMOUNT:		\$ 1,636,218.00
This Increase/Decrease in Contract Amount:		\$ 195,163.00
REVISED CONTRACT AMOUNT:		\$ 1,831,381.00

CONTRACTOR:



Signature

04/03/2025

Date

Francisco Arce / Public Works Director

Print Full Name / Title (if not in individual capacity)

CITY:

Signature

Date

Print Name / Title

City Department Use Only Below This Line (PM, POC, etc.).

Account Number(s):	Amount	Date
#	\$	
#	\$	



April 3, 2025

Rohit Vij, PE
Senior Engineer | Capital Improvements/Engineering
630 E Hopkins
San Marcos, TX 78666

**Subject: Wallace Addition Offsite Drainage Improvements Project
 Irrigation and Planting Plans**

Dear Mr. Vij:

BGE, Inc. is pleased to submit a proposal to the City of San Marcos (City) for engineering services for the Wallace Addition Offsite Drainage Improvements Project (Project). This proposal includes additional design services specific to planting and irrigation plans for approximately six acres of restored stream channels, streambanks, floodplain, wetlands, and uplands. This additional design service involves planting plans, vegetation monitoring, irrigation design and associated details necessary to produce a final design for bidding and construction.

The scope of services in Exhibit 1 includes tasks necessary to perform these additional design services. Exhibit 2 includes a breakdown of hours and the associated fee proposal anticipated for the execution of the Project.

The proposed fee for these additional services is \$195,163.

Thank you very much for this opportunity and we look forward to the successful completion of your Project. Please feel free to contact me should you have any questions or would like to discuss in more detail.

Sincerely,

A handwritten signature in blue ink, appearing to read "Francisco Arce", written in a cursive style.

Francisco Arce, P.E.
Project Manager
BGE, Inc.

EXHIBIT 1

Scope of Services

PROJECT BACKGROUND

Upon review of the 90% plan set, the City made BGE aware that the submitted set did not have a planting and irrigation plan. The City has requested BGE to resubmit the 90% plans with planting and irrigation sheets included.

After reviewing the previous scoping and contracting documents, BGE determined that previously outlined engineering services did not include tasks and budget associated with planting and irrigation plans. The detailed scope of services is outlined below.

SCOPE OF SERVICES

Task 1 – Project Management

- a. Project coordination: Includes general coordination and correspondence with the project team regarding project scope, schedule, and budget.
- b. Monthly invoices, schedule, budget, and progress updates to the City's project manager.

Task 2 – 90% Final Design Documents

BGE will develop planting and irrigation plans as follows:

- a. Planting Plans: The intent of a planting plan is to provide and install plants and related materials at designated locations as well maintain plants, related materials, and landscaped areas at a specified frequency.

BGE will develop a planting plan following the conceptual design as specified in the Stream Restoration Improvements Vegetation Plan completed by HydroGeo Designs, LLC as part of the 90% plan set. The planting plan will provide a detailed list of plant species to be installed for each of the "Zones" as shown in the conceptual vegetation plan per the landscape planting guidance outlined in the City of San Marcos Land Development Code Article 2: Landscaping and Screening, the Texas Department of Transportation (TxDOT) Landscape Planting Specs, and the Texas Water Development Board (TWDB) Restoration Design Guidelines for Texas Hill Country Riparian Areas.

BGE will provide a list of species and the appropriate seed mixture to be implemented for each Zone included in the Stream Restoration Improvements Vegetation Plan. These Zones are as follows:

- Zone 1: Streambank
- Zone 2: Floodplain
- Zone 3: Depression
- Zone 4: Upland

Following the determination of species included in each Zone, the planting plan will provide the appropriate steps required to install the vegetation. BGE will support the contractor during the landscaping and initial plant installation at the designated locations (up to 12 site visits).

- b. Irrigation Plans: BGE will develop the design of an irrigation system, with both permanent and temporary portions, based on engineering plan conditions, planting plans, and as further coordinated through this design process with the City. The permanent system shall irrigate the trees and shrubs planted as a part of this project, and the temporary system shall irrigate the native grass seeded areas.

The planting and irrigation plans will include:

- Preparation of 90% Final Design Documents including, but may not be limited to:
 - General and category-specific notes;
 - Planting and Irrigation Plan(s) and Details;
 - Technical Specifications based on City of San Marcos standards with recommended supplemental conditions;
- Conduct a QA/QC Review of the planting and irrigation PS&E prior to 90% submittal.
- Update the Opinion of Probable Construction Cost (OPCC).
- Provide periodic review inputs on engineering design layout plans to accommodate the proposed irrigation designs. Identify engineering coordination issues to be resolved in the course of the final design by plan mark-ups at two intervals within this design stage.
- Confirm irrigation water availability for the entirety of the project based on water pressure readings and water line routings. Identify basic irrigation system recommendations for approval by client.
- Coordinate irrigation system design with the project engineering designs, utility routes and proposed site conditions. This will include irrigation crossings, sleeving, mainline routing and usual valve placements. Identify irrigation power source requirements, water meter locations and size requirements for coordination with utility designs. Identify issues requiring client input and feedback.
- Prepare and submit 90% Construction Documents to the City in the form of plans, details, specifications list, and OPCC. Address comments received in next phases of this scope.

Submit unsealed PS&E for the planting and irrigation design at the 90% stage of final design.
Address client review comments in the next design stage.

Effort from exploring uniform slope typical section option as recommended by COSM email on November 21, 2024. After modeling this option, it was determined that the roadway profile would have to be dropped several feet to not block offsite drainage with proposed roadway improvements. This would lead to unnecessary additional utility relocations to construct.

BGE will provide exhibits for possible options to re-align the intersections of Cape and Flores Street along with Cape and Monterrey Street to improve the safety of the intersections. BGE will also provide options for 6' sidewalk and 10' SUP on southeast corner of Flores and Cape Street intersection across the proposed

box culvert. This submittal will also include a revised typical section showing 10' SUP, 5' buffer zone and two 12' lanes.

BGE will develop a revised roadway design for Cape Street that provides a 10' SUP, 5' buffer zone and two 12' lanes. The proposed profile will be similar to existing condition to avoid utility conflicts with water and sanitary sewer. BGE will provide typical sections, roadway plan and profile sheets, and roadway cross sections. This option shifts the centerline of the roadway north an additional 5' which will require rebuilding the roadway model in Open Roads Designer and cutting new plan sheets.

The proposed roadway improvements are closing in roadside ditch on north side, incorporating curb and gutter and blocks off site drainage which necessitates a proposed storm drain system. BGE will develop drainage areas and hydrological calculations for the internal and external drainage areas along Cape Street. BGE will design a storm drain system to drain the north half of the proposed Cape Street travel lanes as well as capture off site drainage flow.

BGE will update the roadway design to include the proposed intersection re-alignments into the 90% PS&E documents. Additionally, BGE will modify the location of Flores Street cross culvert, adjust natural channel design for new culvert alignment, update ICM model and adjust utility relocation designs.

BGE will attend 4 virtual stakeholder meetings for the coordination of re-alignment of the intersections of Cape and Flores Street along with Cape and Monterrey Street to improve the safety of the intersections. The stakeholder coordination is anticipated to be with TxDOT sidewalk project, Hays County

Task 3 – 100% Construction Documents

This task will include addressing comments and markups from the City and other applicable agencies on the previous phase of work.

Complete the construction documents to create a full set of PS&E documents for bidding and construction of the proposed planting plan and irrigation system.

- Coordinate the planting plan and irrigation system design with the other design disciplines.
- Conduct a QA/QC review in advance of the 100% submittal.
- Submit signed and sealed PS&E to the City.

Task 4 – Bid Services

This task will prepare bid documents for irrigation work to be performed on the project. Bidding Services will include the following:

- Compile bid documents relevant to irrigation improvements.
- Attend pre-bid conferences.
- Respond to prospective bidders inquiries and questions regarding the bid documents to assist in the acquisition of bids.
- Issue addendums to plans and/or specifications, if required.
- Assist with the review of qualifications for selection of irrigation related sub-contractors.
- Prepare a bid tabulation summary and review comments for Client consideration.

- Participate in an online bid review meeting with client.

ASSUMPTIONS: The following assumptions were made in preparation of this scope proposal. If a specific service is determined to be necessary for the project, BGE will provide a separate scope and fee proposal for the City's approval.

- The entire Tract is accessible, and landowner permission has been secured for field team entry.
- Scope is based on preparation of plans one time only. If design conditions change, or if the City driven changes are requested, redesign will be considered as additional services. BGE will prepare a supplemental agreement for these services to be performed at BGE's standard hourly rates.
- Existing as-built, record plans and proposed construction plan information provided by the governing agencies and as previously prepared by BGE will be utilized and relied upon for the preparation of BGE PS&E. Client acknowledges that BGE is not responsible for the accuracy of plans provided by the City, any other governing agency or entity.
- This proposal shall be valid for 60 days from this date and may be extended upon approval by this office.
- Current water pressure tests shall be provided to BGE by client at multiple locations along the project corridor for use in irrigation design.
- Any private landscape, irrigation or hardscape improvements within or along the proposed rights of ways will be demolished, capped or abandoned. No design of private improvements is included.

EXCLUSIONS

- Additional agency coordination or permitting, including, but not limited to Texas Commission on Environmental Quality, Texas Historical Commission, Texas Parks and Wildlife Department, or U.S. Fish and Wildlife Service.
- Surveys including, but not limited to protected karst species, other threatened and endangered species (presence/absence), and/or tree
- Vegetation maintenance and management as outlined in the recommendations from the quarterly Plant Monitoring Reports
- Electrical Engineering and MEP design.
- Design of irrigation water supply and power services.
- Irrigation pumping plant analysis and/or design. This proposal assumes irrigation systems to be fed from municipal sources, and not from ponds or wells.
- Landscape Design Guidelines and/or corridor development plans/guidelines.
- Monitor and maintain wetland and planting zone locations when the installation is completed and approved. Will be performed in a future phase.

EXHIBIT 2
City of San Marcos - Engineering & Capital Improvements Department
FEE PROPOSAL BREAKDOWN

Project: **Wallace Addition Drainage Improvements Final Design Update**
Prime Consultant: **BGE, Inc.**
Proposal Date: **4/3/2025**
Prepared By: **Francisco Arce, PE**

	Principal (QA/QC) \$271.00	Sr. Environmental Scientist \$240.00	Sr. Project Manager \$234.00	RPLS \$212.00	Sr. Project Engineer \$219.00	Project Engineer \$177.00	EIT II \$130.00	Survey Crew \$165.00	Environmental Scientist II \$88.00	CADD Tech III / Eng Tech III (GIS) \$135.00	Admin/Clerical \$105.00		
TASK CODE AND DESCRIPTION	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	TASK HOURS	TASK / PHASE FEE
Task 1 - Project Control/Management	7	0	0	0	12	52	20	0	0	0	0	91	\$16,329.00
a. Project Coordination	5				12	44	20					81	\$14,371.00
b. Progress Updates	2					8						10	\$1,958.00
Task 2 - 90% Final Design Documents	36	10	34	0	58	161	365	0	80	244	0	988	\$148,741.00
a. Planting and Irrigation Plan Sheets and Technical Specs	10					20	50		80	40		200	\$25,190.00
b. Develop uniform slope option from COSM email 11/21/2024	4		8		12	20	60			20		124	\$19,624.00
c. Develop exhibits to realign intersection Cape / Flores & Cape / Monterrey	1	2	2		4		12			8		29	\$4,735.00
d. Develop roadway design SUP w/ 5' buffer, no on-street parking	6		4		6	24	60			40		140	\$21,324.00
e. Design storm drain for Cape Street	4		4		8	40	80			40		176	\$26,652.00
f. Incorporate intersection realignments into 90% PS&E documents	2	4	4		8	32	60			60		170	\$25,754.00
g. Redesign adjacent drainage for intersection realignments			4		8	8	24			36		80	\$12,084.00
h. Coordination with stakeholders for intersection realignment (4 virtual meetings)	4	4	8		4	4	4					28	\$6,020.00
i. QA/QC Review					8	8						16	\$3,168.00
j. Respond to City Comments	5					5	15					25	\$4,190.00
Task 3 - 100% Final Design Documents	6	0	3	0	12	26	39	0	48	36	0	170	\$23,712.00
a. Planting and Irrigation Plan Sheets and Technical Specs	5					10	15		48	24		102	\$12,539.00
b. Intersection realignments address stakeholder comments	1		3		4	8	24			12		52	\$8,005.00
c. QA/QC Review					8	8						16	\$3,168.00
Task 4 - Bid Services	5	0	0	0	0	10	10	0	0	0	0	25	\$4,425.00
a. Bid phase tasks in relation to Irrigation Plan	5					10	10					25	\$4,425.00
Reimburseable Expenses (Mileage) - 2 Round Trips at 150 miles each													\$300.00
Subconsultant: HydroGeo Design, LLC - Natural Channel Design													\$1,656.00
TOTAL BASE FEE WITH HOUR BREAKDOWN	54	10	37	0	82	249	434	0	128	280	0	1274	\$195,163.00

HydroGeo Designs Inc. (HGD)

448 West 19th Street

#415

Houston, TX 77008

December 18, 2024

Ms. Jenna Gardner PE

Brown and Gay Engineers (BGE)

Hello Jenna,

At your request I have prepared the enclosed scope of work for design elements related to the Revegetation Planning and Natural Channel Design Components for the Cape's Pond Park near San Marcos, TX. HydroGeo Designs Inc. (HGD) has a specialized business focus concentrating on stream restoration, geotechnical stability and fluvial geomorphology projects of this nature. We have the capabilities, equipment and knowledge to complete the design documentation for your project. Our firm is licensed to practice professional engineering in the state of Texas, and we are fully insured with professional liability, general liability and workmen's compensation policies. We believe you will find our proposal clear and complete, but if you have any questions please don't hesitate to call or email me. I can be reached at (832) 226-7075 or via email at brett@hydrogeodesigns.com.

Best Regards,

A handwritten signature in black ink that reads "Brett Jordan". The signature is written in a cursive, flowing style.

Brett Jordan PhD, PE

Principal/ Hydraulic Engineer

HydroGeo Designs Inc.

