



BEXAR COUNTY COMMISSIONERS COURT

PUBLIC WORKS DEPARTMENT Capital Improvement Projects

COURT ORDER

ORDER authorizing the discussion and appropriate action regarding approval of an Interlocal Agreement between Bexar County and the City of San Antonio in the amount of \$1,615,257 to assist the City in the continuation of the Bulverde Road Drainage and Roadway Project, Precinct 3.

Consent Agenda Item # 52

PASSED THIS 8TH DAY OF MARCH, 2022



STATE OF TEXAS
COUNTY OF BEXAR

§ INTERLOCAL AGREEMENT FOR THE
§ BULVERDE ROAD DRAINAGE AND
§ ROADWAY PROJECT

THIS INTERLOCAL AGREEMENT FOR THE BULVERDE ROAD DRAINAGE AND ROADWAY PROJECT (hereafter referred to as "Agreement") is effective as of the _____ day of _____, 2022 (hereafter referred to as "Effective Date"), by and between the **CITY OF SAN ANTONIO, TEXAS** (hereafter referred to as "City"), a Texas Home Rule municipality and the **COUNTY OF BEXAR** (hereafter referred to as "County"), a political subdivision of the State of Texas, acting by and through its officers, hereto duly authorized. City and County will collectively be referred to herein as "the Party" or "the Parties."

INTRODUCTION

- A. Included in the 2022-2027 City Bond Program, the Bulverde Road Phase 2 City Project will reconstruct and widen Bulverde Road from Green Spring to Redland Road with curbs, sidewalks, driveway approaches, and drainage improvements, and will also include CPS and San Antonio Water System (SAWS) joint-bid utility improvements.
- B. Bulverde Road is located in the northern part of the County, portions of that roadway being situated within the limits of the City.
- C. Bulverde Road is considered a secondary, arterial roadway in the City's 2021 Major Thoroughfare Plan and is currently configured as a 3-lane roadway asphalt pavement section, with one lane of traffic in each direction with a two-way left turn lane in the center and 2-foot shoulders.
- D. There is an existing drainage structure (i.e., a culvert) which runs underneath Bulverde Road near the intersection of an unnamed tributary and Elm Waterhole Creek (hereinafter called the "Bulverde Road Crossing"), all of which is located in an existing FEMA floodplain.
- E. County previously retained the services of Halff Associates Inc. (the "Design Consultant") to perform and provide engineering design services for County in connection with the proposed reconstruction of Bulverde Road and the Bulverde Road Crossing (collectively, the "Engineering Design Services") at a location situated in north Bexar County, from approximately 0.4 miles north of Green Spring Drive to a point approximately 0.3 miles north of Green Spring Drive (collectively, the "BRD&R Project Area").
- F. Based on the results of those Engineering Design Services, the Design Consultant prepared and submitted to County its "Bulverde Road Draft Drainage Report" dated as of October 8, 2021 (as such may have been updated prior to the Effective Date), a copy of which is attached to this Agreement as Exhibit A and made a part hereof for all purposes (the "Draft Report"), which recommends providing unflooded access throughout the BRD&R Project Area by improving both Bulverde Road and the Bulverde Road Crossing to convey the 1% Annual Chance Exceedance ultimate condition storm event by constructing up to 155 linear feet of channel improvements above the ordinary high water mark in the affected unnamed tributary (collectively, the "County Project").
- G. Under Chapter 561, Texas Local Government Code, the commissioners court of a Texas county may contract with a governmental unit, including a Texas municipality, to jointly construct or maintain improvements for the purpose of providing flood control or drainage as it relates to flood control.



H. County and City have historically worked together to fund and deliver watershed management projects to benefit the citizens of Bexar County which was accomplished through interlocal agreements between the Parties and by contracts with other governmental entities and private sector service providers.

I. County, City, and the San Antonio River Authority entered into an Interlocal Agreement in 2003 for the implementation of Bexar Regional Watershed Management Program for unified and equitable flood control, drainage, and storm water management, as such agreement may have been modified from time to time prior to the Effective Date (collectively, the "BRWMP ILA").

J. County has selected the County Project from the Bexar Regional Watershed Management Program (the "BRWMP").

K. City and County have agreed to incorporate the pending County Project into City's approved 2022 Bond Project, but mainly for the associated drainage design and construction costs (collectively, the "Bulverde Road Drainage and Roadway Project" or "BRD&R Project").

L. Still, County desires to assist with the BRD&R Project in accordance with the BRWMP through County's provision of funding and project management during any remaining design phase, as well as the entire construction phase, of the BRD&R Project by providing funding for a lump sum amount for the drainage design and construction of the BRD&R Project.

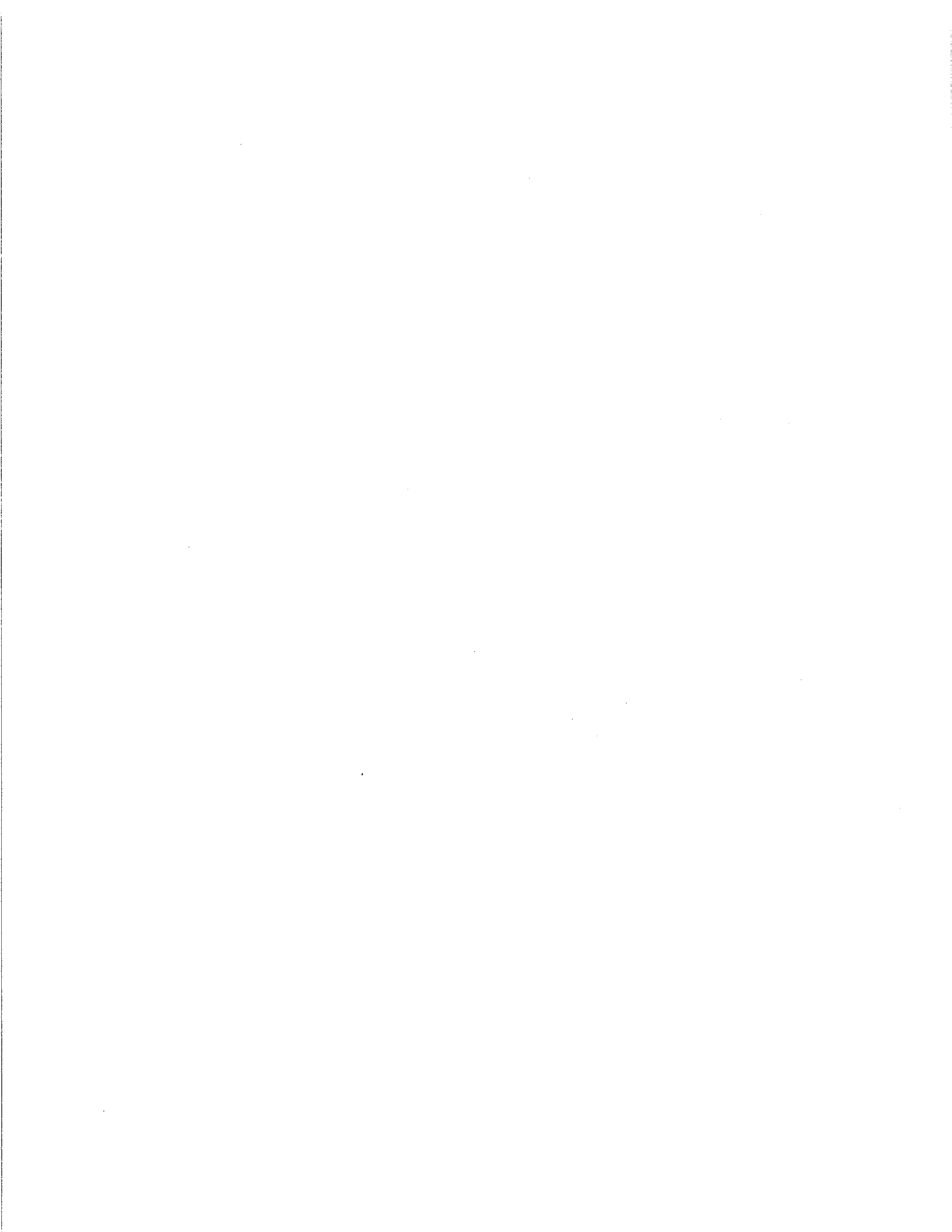
M. Upon such Substantial Completion of the BRD&R Project, City will provide funding for all future maintenance and repair of Bulverde Road and the Bulverde Road Crossing (i.e., post-Substantial Completion of the BRD&R Project) within the BRD&R Project Area.

N. County supports City's assumption of the BRD&R Project and desires to enter into this Agreement with City, in order to establish the rights and obligations of the Parties, with regard to the final design, engineering, construction, operations, and maintenance of, as well as project management for, the BRD&R Project and to establish the procedures for funding the BRD&R Project, all in accordance with the applicable provisions contained in Chapter 791, Texas Government Code.

NOW, THEREFORE, in consideration of the mutual covenants and agreement stated herein, the receipt and sufficiency of which are hereby acknowledged, the Parties separately agree as follows:

ARTICLE 1
PURPOSE; PROJECT SCOPE

1.01 The purpose of this Agreement is to establish the terms and conditions for: (a) managing the construction services associated with the BRD&R Project, including construction disruption; (b) funding the design, and construction costs for the BRD&R Project; and (c) operating and maintaining the BRD&R Project Area upon completion. The scope of the BRD&R Project includes the removal of the existing low water crossing, channel improvements, and the reconstruction and widening of Bulverde Road within the BRD&R Project Area with curbs, sidewalks, driveway approaches, and drainage improvements, from Green Spring to Redland Road and may involve Joint-bid utilities which are situated within the BRD&R Project Area.



ARTICLE 2
TERM

- 2.01 Except as otherwise provided herein, this Agreement will commence upon the execution date of the last signatory party to this document. The performance period for this Agreement will begin no later than fifteen (15) days after the last signatory approves this Agreement and will end upon completion of the Project.
- 2.02 The duty and obligation to maintain the Project and to enforce any applicable representations, warranties, guarantees, and covenants are City's responsibilities and survives the termination of this Agreement.

ARTICLE 3
COUNTY'S FINANCIAL COMMITMENT

- 3.01 County will provide to City a total amount not-to-exceed **ONE MILLION, SIX HUNDRED FIFTEEN THOUSAND TWO HUNDRED FIFTY-SEVEN DOLLARS AND THIRTEEN CENTS (\$1,615,257.13)** in connection with the BRD&R Project (hereafter referred to as the "County's Total Contribution").
- 3.02 The Parties acknowledge that the financial commitments stated in this Agreement are independent of the necessary operating and maintenance expenses that are the City's responsibilities during and after the BRD&R Project.
- 3.03 County funding for the BRD&R Project may only be used for: (a) any remaining amount to be paid to the Design Consultant in connection with Engineering Design Services, and (b) construction-related costs based on the Opinion of Probable Construction Cost for 30% design submittal, associated with the BRD&R Project.
- 3.04 **CITY ACKNOWLEDGES AND UNDERSTANDS THAT NO FUNDS OR OTHER CONSIDERATION OF ANY TYPE OR NATURE OTHER THAN THE COUNTY'S TOTAL CONTRIBUTION WILL BE PROVIDED BY OR ON BEHALF OF COUNTY IN CONNECTION WITH THE BRD&R PROJECT FOR ANY REASON WHATSOEVER.**

ARTICLE 4
OBLIGATIONS OF CITY

- 4.01 Pursuant to this Agreement, City must perform and provide each of the following duties and obligations in connection with BRD&R Project:
- a. Oversee and manage the construction of the BRD&R Project. [NOTE: Final construction documents for the BRD&R Project must be provided to County for its review and written approval. If County does not approve of the BRD&R Project as outlined in the final construction documents, City must refund all of the County's Total Contribution within 30 days after City receives written notice of County's rejection of such documents for any reason.]
 - b. Provide the design professional for the BRD&R Project, whose duties must include providing detailed design documents and construction phase services. All substantial changes in

connection with the BRD&R Project will be designed and signed and sealed by City's design professional. All applicable permit will be developed and submitted to the appropriate agencies for review by City's design professional and all construction phase services associated with the BRD&R Project will be performed or provided by City's design professional.]

- c. Participate in all BRD&R Project design meetings, as needed, either in-person or remotely via audio/video conferencing.
- d. Acquire all necessary real property for the BRD&R Project (includes, without limitation, possible fee ownership, lease, licensure, right-of-way, or a combination thereof of all or a portion of the BRD&R Project Area).
- e. Achieve the BRD&R Project goals to provide access on Bulverde Road for the 1% Annual Chance Exceedance ultimate condition storm event by at the crossing on a tributary of Elm Waterhole Creek. If City requests changes to the proposed drainage improvements design described in County's 30% design submittals, County will require that the same or better flood control benefits are achieved by the change before it approves the plans and specifications.
- f. Include all construction phases of the traffic control design that avoid street closures during construction as possible.
- g. Maintain the BRD&R Project Area, using reasonable efforts in order to keep the area free and clear of trash, construction debris, and other materials, supplies and items (including, without limitation, construction-related vehicles and earth-moving equipment) so as to not unnecessarily impede roadway traffic or pollute, contaminate, trespass upon, or unnecessarily disturb the operation, use, or enjoyment of any tracts of land which are located adjacent to the BRD&R Project Area; City will be solely responsible for the care, maintenance, clean-up, and associated operating expenses for such project area during the BRD&R Project.
- h. Provide County with timely review and approval of final design and construction contract documents for the BRD&R Project.
- i. Procure and submit the Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) to COUNTY and any appropriate federal, Texas, or local governmental, administrative, or regulatory departments, agencies, or bureaus having jurisdiction for the BRD&R Project, if necessary.
- j. Obtain warranties from third parties associated with all work, services, materials, and supplies performed or provided in connection with the BRD&R Project, and promptly enforce each of those warranties on behalf of the Parties, if and when necessary or appropriate.
- k. Provide construction inspectors, material testing services, and any other construction related services required to complete the BRD&R Project per plans and specifications.



ARTICLE 5
OBLIGATIONS OF COUNTY

- 5.01 Pursuant to this Agreement, County must perform and provide each of the following duties and obligations:
- a. Provide a copy of the 30% design submittals (including, without limitation, the Draft Report) and any available construction documents (i.e., plans and specifications) for the BRD&R Project to City for review.
 - b. Designate the County Engineer, or her designee, as County's contact for City in connection with all matters arising from or relating to this Agreement or the BRD&R Project.
 - c. Provide funding for the BRD&R Project no later than thirty (30) days after the written approval of this Agreement by the Bexar County Manager and City Manager for the City of San Antonio, which date is later.

ARTICLE 6
JOINT OBLIGATIONS OF THE PARTIES

- 6.01 The Parties have agreed upon the design and construction of the drainage improvements to be integrated into the BRD&R Project, as reflected in the preliminary engineering report for County Project.
- 6.02 If substantial changes are requested in connection with the BRD&R Project, City must obtain County's prior written approval that the County's applicable flood control project goals are satisfied. The County will work responsibly and in good faith with the City to approve revised design. If County does not approve of the City's revised design after working responsibly and in good faith with the City, the City will promptly refund all unused portions of the County's Total Contribution.
- 6.03 City will refund the unused, allocable portion of the County's Total Contribution within sixty (60) days after the substantial completion of the BRD&R Project.

ARTICLE 7
DESIGNATION OF REPRESENTATIVES

- 7.01 City hereby appoints the City of San Antonio Public Works Director, or his/her designee, (hereafter referred to as "City Project Manager"), as its designated representative under this Agreement. City's Project Manager will be the primary point of contact for City.
- 7.02 County hereby appoints the Director of the Public Works Department, or his/her designee, (hereafter referred to as "County Project Manager"), as its designated representative under this Agreement. County's Project Manager will be the primary point of contact for County.

ARTICLE 8
COUNTY'S RIGHTS UNDER THIRD PARTY CONTRACTS

- 8.01 County agrees that City will have the authority to contract on behalf of the Parties for all services necessary for the construction of the BRD&R Project.

- 8.02 City will provide County with a fully executed copy of each contract entered into by City for the BRD&R Project.
- 8.03 In all BRD&R Project contracts entered into by City, in which County has a financial obligation, City will include provisions reflecting:
- a. With regard to insurance coverage, City must require all consultants, sub-consultants, contractors, subcontractors and suppliers to maintain the insurance coverage limits set out in the written notice to County's Risk Manager. A summary of BRD&R Project costs and BRD&R Project description also will be required. County must be named as an additional insured on all policies naming City as an additional insured and must be entitled to make claims, to the extent of County's interest in the BRD&R Project, under all insurance coverage. Prior to the commencement of any work by any service provider, vendor or contractor under this Agreement, City shall provide County's Risk Manager with copies of the completed Certificates of Insurance which Certificates completed by an agent authorized to bind the named underwriters and their companies to the coverage limits and termination provisions shown thereon. County shall have no duty to pay for any services or work performed under this Agreement until the Certificates of Insurance relating to the services or work for which payment is being requested have been delivered to County's Risk Manager. County reserves the right to review the insurance requirements during the effective period of this Agreement, any extension or renewal hereof and to modify insurance coverage and their limits when deemed necessary and prudent by County's Risk Manager, based upon changes in statutory law, court decisions or circumstances surrounding this Agreement. City shall not allow any modifications whereupon County may incur increased risks.
 - b. City must require all contractors and service providers including, but not limited to, all sub-consultants and subcontractors, to maintain statutory worker's compensation insurance for all of their employees with a waiver of subrogation in favor of City and County.
 - c. City must require in its contracts for services, construction, and materials that the contracting parties, along with all sub-consultants and subcontractors, be required to indemnify, County and City, their elected officials, employees, and agents for claims by third parties, as allowed by applicable law.
 - d. City must require all consultants, sub-consultants, contractors, and subcontractors to provide all statutorily required payment and performance bonds at no additional cost to the Parties. On services for which performance bonds are not statutorily required, City must determine whether to require performance bonds.
 - e. City must state in all agreements with third-parties that County is a third-party beneficiary to that agreement.

ARTICLE 9
PROJECT MANAGEMENT DURING CONSTRUCTION

- 9.01 City will manage, oversee, administer and carry out all of the activities and services required for construction of the BRD&R Project to ensure that it is constructed, equipped, furnished and completed with new materials in a good and workmanlike manner and in accordance with the terms

of this Agreement and the design and construction documents.

- 9.02 City will enforce substantial compliance with the terms of the agreements with the contractors and subcontractors and require that work continuously and diligently be performed to achieve substantial completion on or before the scheduled completion date set out in the BRD&R Project schedule.
- 9.03 Upon approval of this Agreement by the governing bodies of the Parties, the Parties' respective Directors will schedule a meeting to finalize the team structure and develop the procedures and processes necessary to coordinate design and construction in accordance with the standard business practices of those disciplines.
- 9.04 City's Project Manager must provide written notice to County's Project Manager a minimum of ten (10) business days prior to the issuance of a Notice to Proceed for the start of construction on the BRD&R Project. The City's Project Manager must provide County with written notice a minimum of five (5) business days prior to any street or sidewalk closures.
- 9.05 In addition to the requirements of Article 18, herein, City must promptly furnish County's Project Manager with copies of all legal notices received by City affecting the BRD&R Project including, without limitation, notices from governmental authorities, and notices from any party claiming default in any payment obligation and any other notice not of a routine nature. City must promptly give notice under Article 18 herein of any suit, proceeding, or action that is initiated or threatened in connection with the construction of the BRD&R Project or against City and/or County in connection with construction of the BRD&R Project.
- 9.06 For any environmental event that is caused by or at the direction of either City or County employees at the BRD&R Project Area, the party hiring the event-causing employee(s) will be liable. An "environmental event" means spills, discharge, leakage, pumpage, drainage, pourage, emission, emptying, injecting, dumping, disposing or other release of a hazardous material which may cause a threat or actual injury to human health or the environment.
- 9.07 Within sixty (60) business days following substantial completion of construction of the BRD&R Project, City must:
 - a. notify County, in writing, upon the substantial completion of construction, whereupon County may inspect the completed work to determine if construction has been completed in a satisfactory and workmanlike manner and substantially completed in accordance with the plans and specifications for such work.
 - b. submit all permits and inspection reports and, if applicable, obtain a Final Acceptance Letter and submit a copy of each of these documents to the County.
 - c. submit "record" drawings to County, along with copies of all warranties and operations documents.
- 9.08 Both City and County must participate in a walk through at the point of substantial completion of the BRD&R Project to identify the punch list items. City will supervise and coordinate the completion of punch list items and warranty work. Both Parties must participate in a final walk through to determine whether all punch list items have been resolved.



- 9.09 For information purposes, City must provide County's Project Manager, as and when available, the schedule for permitting, design and construction of the BRD&R Project. County must be furnished said schedule when revised from time to time throughout the duration of the BRD&R Project. The schedule(s) must establish a date for substantial completion of each phase in sufficient detail to allow County to monitor the progress of the construction of the BRD&R Project.
- 9.10 Within one hundred eighty (180) days after final completion of the BRD&R Project, City will deliver to County's Project Manager a final construction report which must set out the total costs incurred in connection with those portions of the BRD&R Project for which both County and City made financial contributions.
- 9.11 City must maintain the books, records, and documents pertaining to those portions of the BRD&R Project for which County and City have joint participation. County representatives must have access to and the right to examine same, upon reasonable notice to City's Project Manager. City's books, records and documents relating to the BRD&R Project must be maintained separately from other City projects so that an examination by County representatives will be limited to the documents for the BRD&R Project.

ARTICLE 10
DEFAULT

- 10.01 In the event of a material breach of this Agreement, the non-breaching Party must give the breaching Party written notice of such breach which must detail the nature of the breach. The Party receiving the notice of breach will be given thirty (30) days to cure the breach. If the breach is not corrected to the reasonable satisfaction of the non-breaching Party by the end of the thirty (30) day period, the non-breaching Party may give written notice of termination of this Agreement to the breaching Party and seek to recover damages not to exceed the amount paid by the non-breaching Party for the BRD&R Project.

ARTICLE 11
TERMINATION FOR CONVENIENCE

- 11.01 Whenever either Party, in its sole discretion, deems it to be in that Party's best interest, it may terminate this Agreement for convenience. Such termination shall be effective thirty (30) days after the terminating Party delivers written notice of termination of convenience to the other Party. If the Agreement is terminated by a Party prior to completion of the construction of the BRD&R Project, after payment of any unpaid obligations for completed work, City must refund to County any remaining portion of County's Contribution. The Parties will have no additional liability to one another for termination under this Article 11.

ARTICLE 12
PRIOR AGREEMENTS SUPERSEDED

- 12.01 This Agreement, including the exhibits, attachments, and schedules which are either attached hereto or incorporated herein by reference, constitute the entire Agreement of the Parties regarding the subject matter of this Agreement and supersede all previous agreements and understandings, whether written or oral, relating to such subject matter.

ARTICLE 13
ASSIGNMENT OR TRANSFER OF INTEREST

13.01 Neither Party may assign its rights, privileges and obligations under this Agreement, in whole or in part, without the prior written consent of the other Party. Any attempt to assign without such approval will be void.

ARTICLE 14
LEGAL CONSTRUCTION

14.01 In case any one or more of the provisions contained in this Agreement will, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalid, illegal or unenforceable provision will not affect any other provision hereof and this Agreement will be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

ARTICLE 15
COMPLIANCE WITH LAWS AND ORDINANCES

15.01 Both Parties will comply with all applicable federal, state, and local laws and ordinances in connection with the work and services performed under this Agreement.

ARTICLE 16
TEXAS LAW TO APPLY

16.01 This Agreement will be construed under and in accordance with the applicable laws of the State of Texas and all obligations of the Parties created hereunder are performable in Bexar County, Texas.

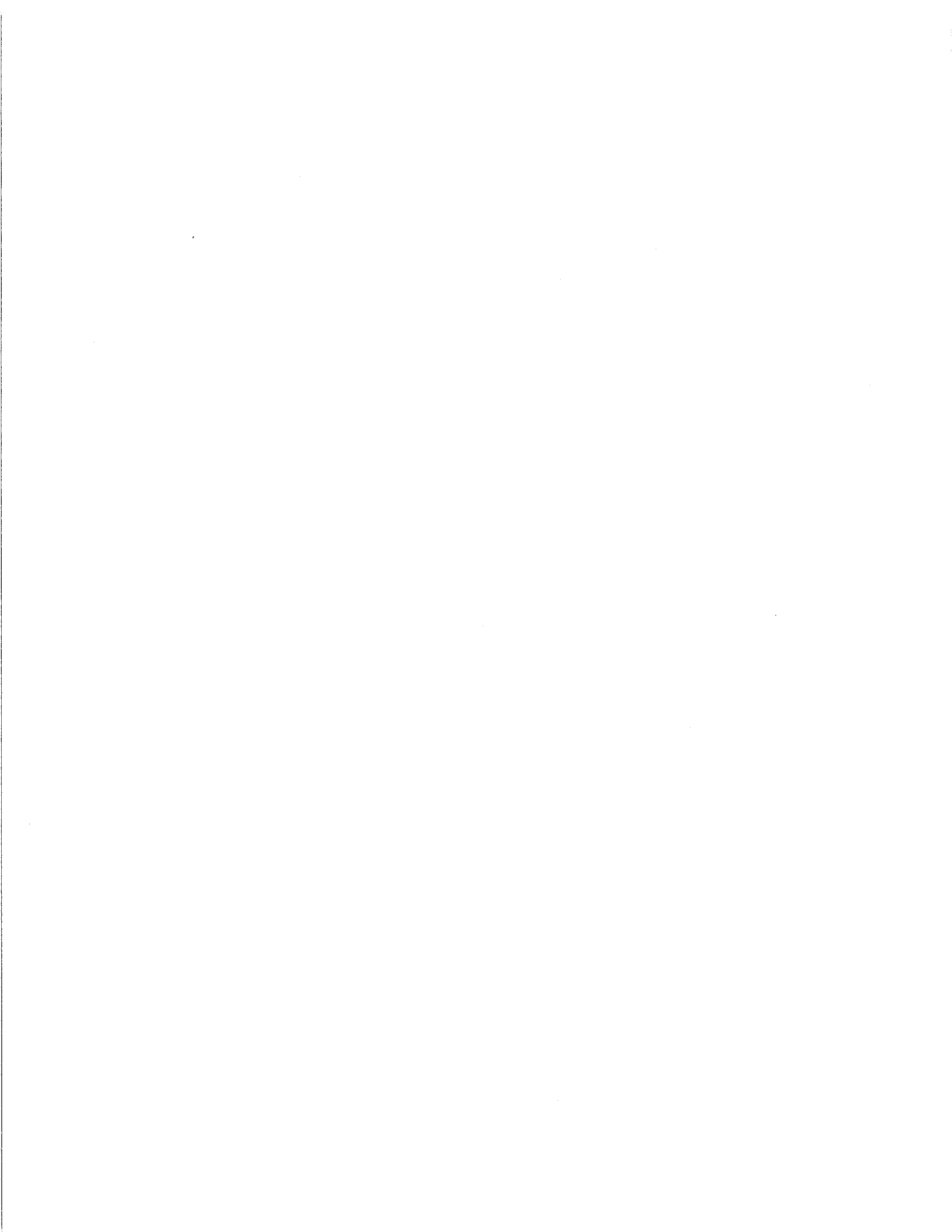
ARTICLE 17
AMENDMENT

17.01 No amendment, modification or alteration of the terms hereof will be binding unless the same be in writing, dated subsequent to the date hereof and be duly executed by the Parties hereto.

ARTICLE 18
NOTICES

18.01 All notices required to be given under this Agreement will be in writing and either will be personally served against a written receipt therefore or given by certified mail or registered mail, return receipt requested, postage prepaid and addressed to the proper Party at the address which appears below, or at such other address as the Parties hereto may hereafter designate in accordance herewith, unless a provision of this Agreement designates another party and provides a different address. All notices given by mail will be deemed to have been given at the time of deposit in the United States mail and will be effective from such date.

If to County: Bexar County Judge
 Bexar County Commissioners Court
 101 W. Nueva, 10th Floor
 San Antonio, Texas 78205



With a copy to: Director of Public Works
Bexar County Public Works Department
1948 Probandt Street
San Antonio, Texas 78214

If to City: City Clerk
City of San Antonio
P.O. Box 839966
San Antonio, Texas 78283-3966

With a copy to: Razi Hosseini, P.E., R.P.L.S.
Director/City Engineer
Public Works Department Improvements
City of San Antonio
P.O. Box 839966
San Antonio, Texas 78283-3966

ARTICLE 19
FORCE MAJEURE

19.01 Neither Party will be responsible for delays or lack of performance by such entity or its officials, agents or employees which result from acts beyond that entity's reasonable control, but not otherwise resulting from, arising out of, or caused by such entity's own negligence or willful misconduct including, without limitation, acts of God, fire, storm, flood, strikes or other labor disturbances or delays by federal or state officials in issuing necessary regulatory approvals and/or licenses, or any epidemic or pandemic which have been declared by the federal, state, or local authority having jurisdiction. In the event of any delay or failure excused by this Article 19, the time of delivery or of performance will be extended for a reasonable time period to compensate for delay. Either Party must provide the other with prompt, written notice of any force majeure event which prohibits or restricts its ability to perform under this Agreement. Such notice, at a minimum, must state the known or suspected cause of the force majeure event, the known or suspected date such event began, and its known or estimated duration.

ARTICLE 20
MULTIPLE COUNTERPARTS

20.01 This Agreement may be executed in separate identical counterparts by the Parties hereto and each counterpart, when so executed and delivered, shall constitute an original instrument and all such separate identical counterparts shall constitute but one and the same instrument.

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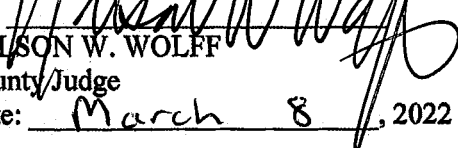


EXECUTED IN DUPLICATE ORIGINALS, EACH OF WHICH SHALL HAVE THE FULL FORCE AND EFFECT OF AN ORIGINAL, ON THIS 8 DAY OF March, 2022.

CITY OF SAN ANTONIO

COUNTY OF BEXAR

By: _____
ERIC WALSH
City Manager
Date: _____, 2022

By: 
NELSON W. WOLFF
County Judge
Date: March 8, 2022


APPROVED AS TO LEGAL FORM:

APPROVED AS TO LEGAL FORM:

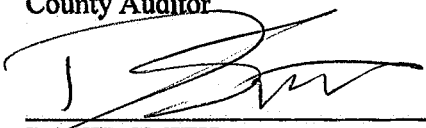
ANDREW SEGOVIA
City Attorney

Isi Larry Roberson
For PAUL JACKSON
Asst. Criminal District Attorney—Civil Division

APPROVED AS TO FINANCIAL CONTENT ONLY:



LEO CALDERA, CIA CGAP
County Auditor



DAVID SMITH
County Manager

APPROVED AS TO GENERAL CONTENT ONLY:

Renee D. Green
RENEE D. GREEN, P.E.
Director of Public Works/County Engineer

Exhibit “A”

Bulverde Road Draft Drainage Report

{The first page of the Drainage Report begins on the following page.}





BULVERDE ROAD DRAINAGE ANALYSIS

KEY TO FEATURES

- LIMITS OF CONSTRUCTION
- STREAM CENTERLINES

EXHIBIT 1: LOCATION MAP

1 inch = 2,000 feet







BULVERDE ROAD DRAINAGE ANALYSIS

KEY TO FEATURES

- PROJECT LOCATION
- BULVERDE RD
- STREAM CENTERLINES
- ZONE A
- ZONE AE
- 5' CONTOUR

EXHIBIT 3: EXISTING LOW WATER CROSSING

1 inch = 1,000 feet

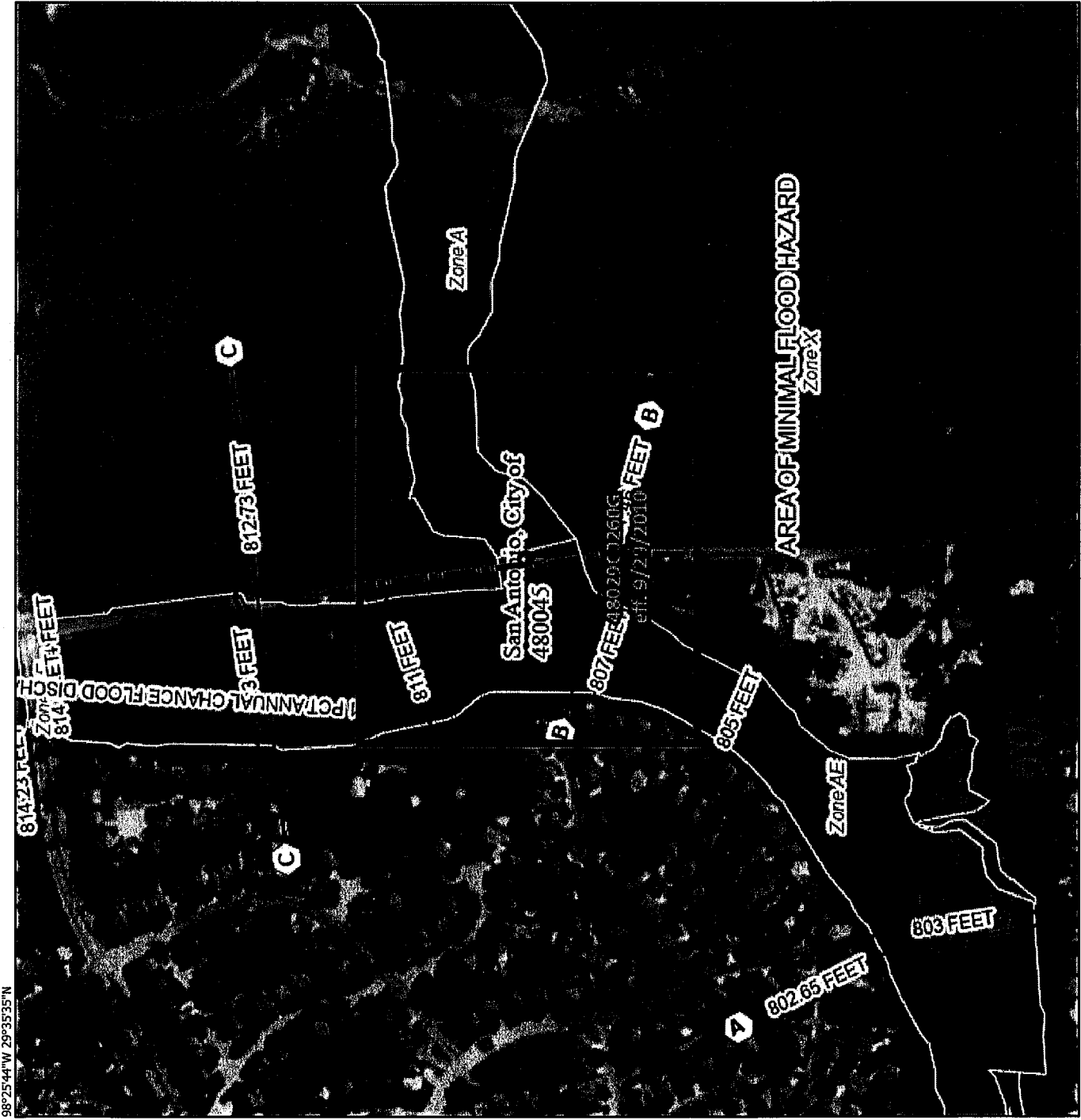




National Flood Hazard Layer FIRMette



98°25'44"W 29°35'35"N



98°25'6"W 29°35'4"N

1:6,000

Feet

2,000

1,500

1,000

500

0

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

Without Base Flood Elevation (BFE)
Zone A, V, A99

With BFE or Depth Zone AE, AO, AH, VE, AR
Regulatory Floodway

SPECIAL FLOOD HAZARD AREAS

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X

Future Conditions 1% Annual Chance Flood Hazard Zone X

Area with Reduced Flood Risk due to Levees. See Notes. Zone X

Area with Flood Risk due to Levees Zone D

OTHER AREAS OF FLOOD HAZARD

NO SCREEN Area of Minimal Flood Hazard Zone X

Effective LOMIRs

Area of Undetermined Flood Hazard Zone D

OTHER AREAS

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

GENERAL STRUCTURES

Cross Sections with 1% Annual Chance

Water Surface Elevation

Coastal Transect

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

OTHER FEATURES

Digital Data Available

No Digital Data Available

Unmapped

MAP PANELS



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/6/2021 at 3:08 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

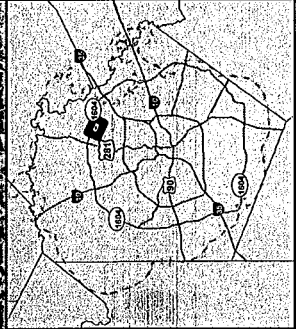


BULVERDE ROAD DRAINAGE ANALYSIS

KEY TO FEATURES

- ▲ Subbasins
- Junctions
- Reach
- BULVERDE RD
- - - SUBBASINS
- ▭ Salado Creek Subbasins
- ▬ STREAM CENTERLINES
- ▨ ZONE A
- ▩ ZONE AE
- 5' CONTOUR

EXHIBIT 5: DRAINAGE AREA MAP







BULVERDE ROAD DRAINAGE ANALYSIS

KEY TO FEATURES

Bulverde LFP

Type

- Channel
- Shallow
- Sheet

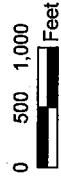
- BULVERDE RD
- SUBBASINS
- 5' CONTOUR

Land Cover

- Open Space
- Residential
- STREAM CENTERLINES

EXHIBIT 6: LAND COVER MAP

1 inch = 1,000 feet





BULVERDE ROAD DRAINAGE ANALYSIS

KEY TO FEATURES

Bulverde LFP

Type

- Channel
- Shallow
- Sheet

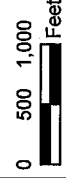
- BULVERDE RD
- SUBBASINS
- 5' CONTOUR

Land Use Type

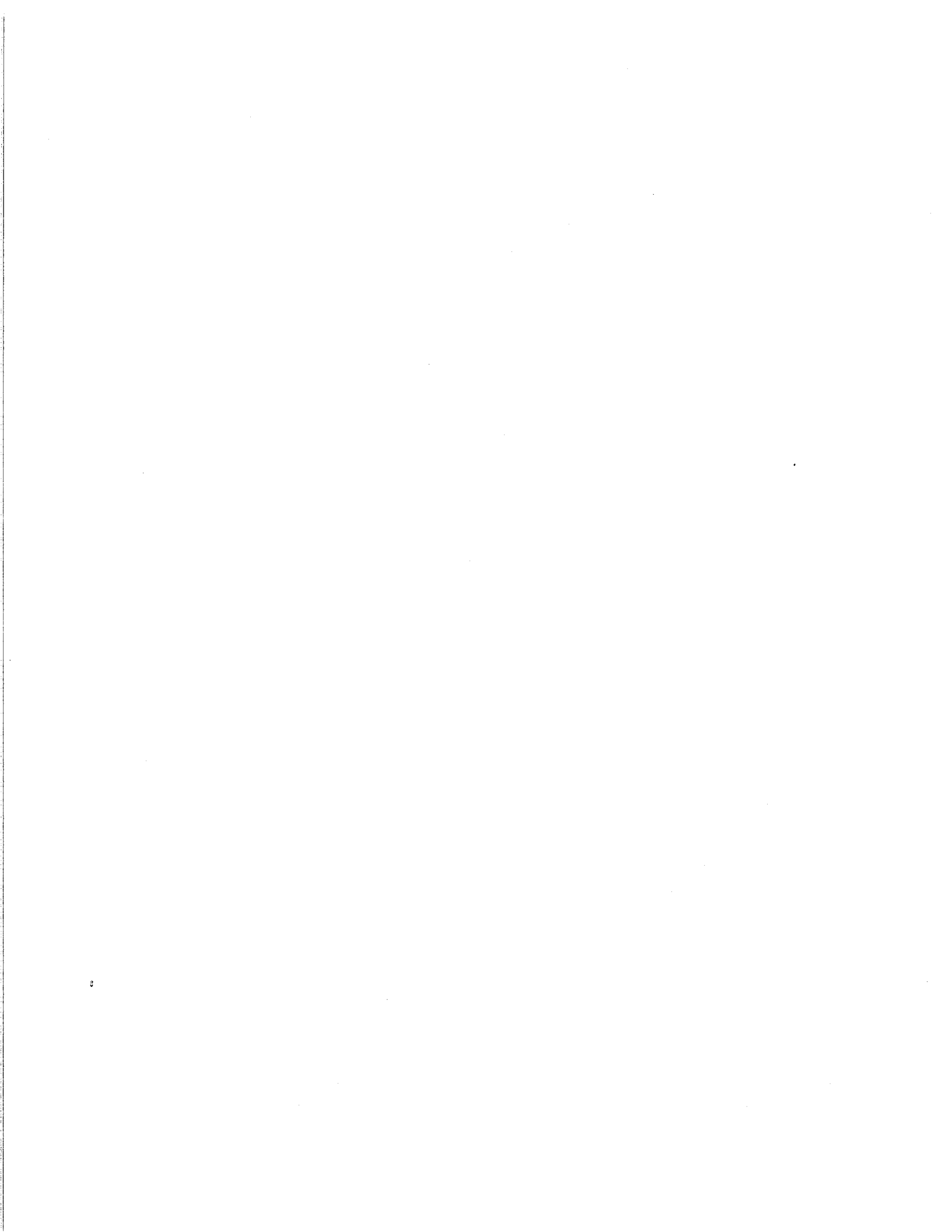
- Residential
- Commercial
- Open Space
- STREAM CENTERLINES

EXHIBIT 7: FULLY DEVELOPED LAND COVER MAP

1 inch = 1,000 feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNR/EAS/DAAC/USDA





BULVERDE ROAD DRAINAGE ANALYSIS

KEY TO FEATURES

- BULVERDE RD
- SUBBASINS
- 5' CONTOUR
- HSG: B
- HSG: C
- HSG: D
- WATER
- STREAM CENTERLINES

EXHIBIT 8: SOILS MAP

1 inch = 1,000 feet



Source: Est. DeJongh, Geotek, Embarras Geographics, ONESTAR GIS, USDA





BULVERDE ROAD DRAINAGE ANALYSIS

KEY TO FEATURES

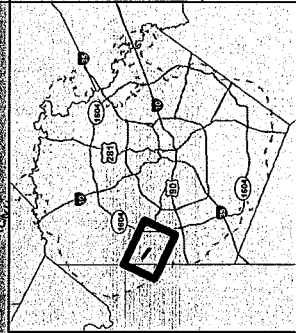
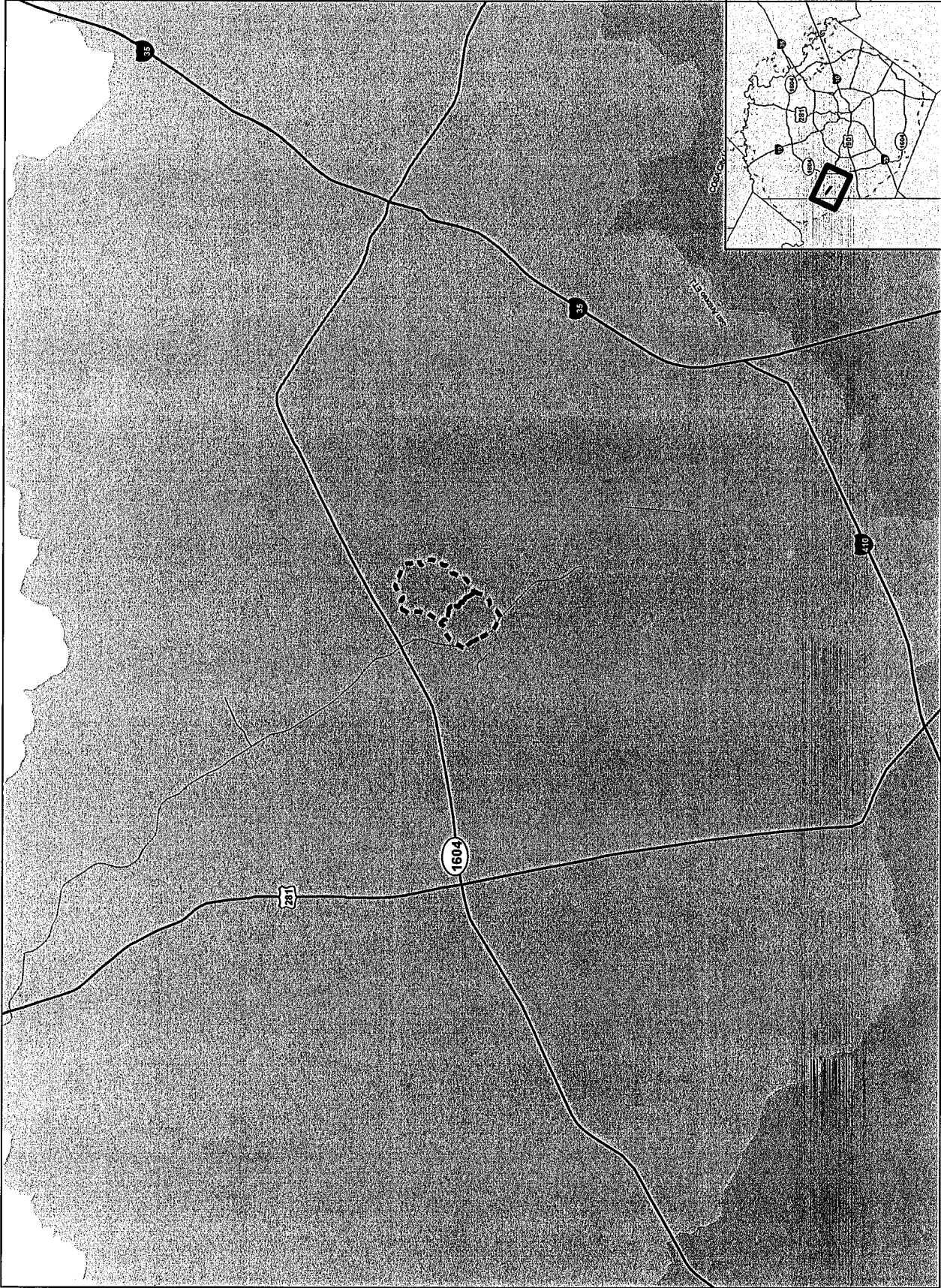
- LIMITS OF CONSTRUCTION
- - - SUBBASIN OUTER BOUNDARY
- Major Highways
- PA-2
- PA-3
- PA-4

EXHIBIT 9: PRECIPITATION AREA MAP

1 inch = 6,000 feet



0 3,000 6,000 Feet





BULVERDE ROAD DRAINAGE ANALYSIS

KEY TO FEATURES

- PROJECT LOCATION
- BULVERDE RD
- STREAM CENTERLINES
- ZONE A
- ZONE AE
- 5' CONTOUR

EXHIBIT 10: PROPOSED STRUCTURE MAP

1 inch = 1,000 feet



0 500 1,000
Feet







BULVERDE ROAD DRAINAGE ANALYSIS

KEY TO FEATURES

- STREAM CENTERLINES
- PROPOSED GRADING
- CE 100-YEAR FP
- ▨ PROJ 100-YEAR FP
- ▩ ZONE A
- ▧ ZONE AE
- 5' CONTOUR

EXHIBIT 11: PROPOSED 100-YR FLOODPLAIN MAP

1 inch = 100 feet

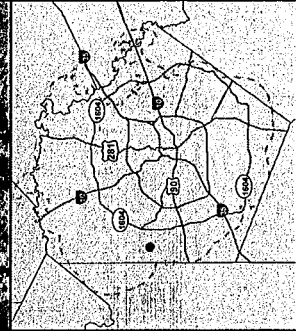
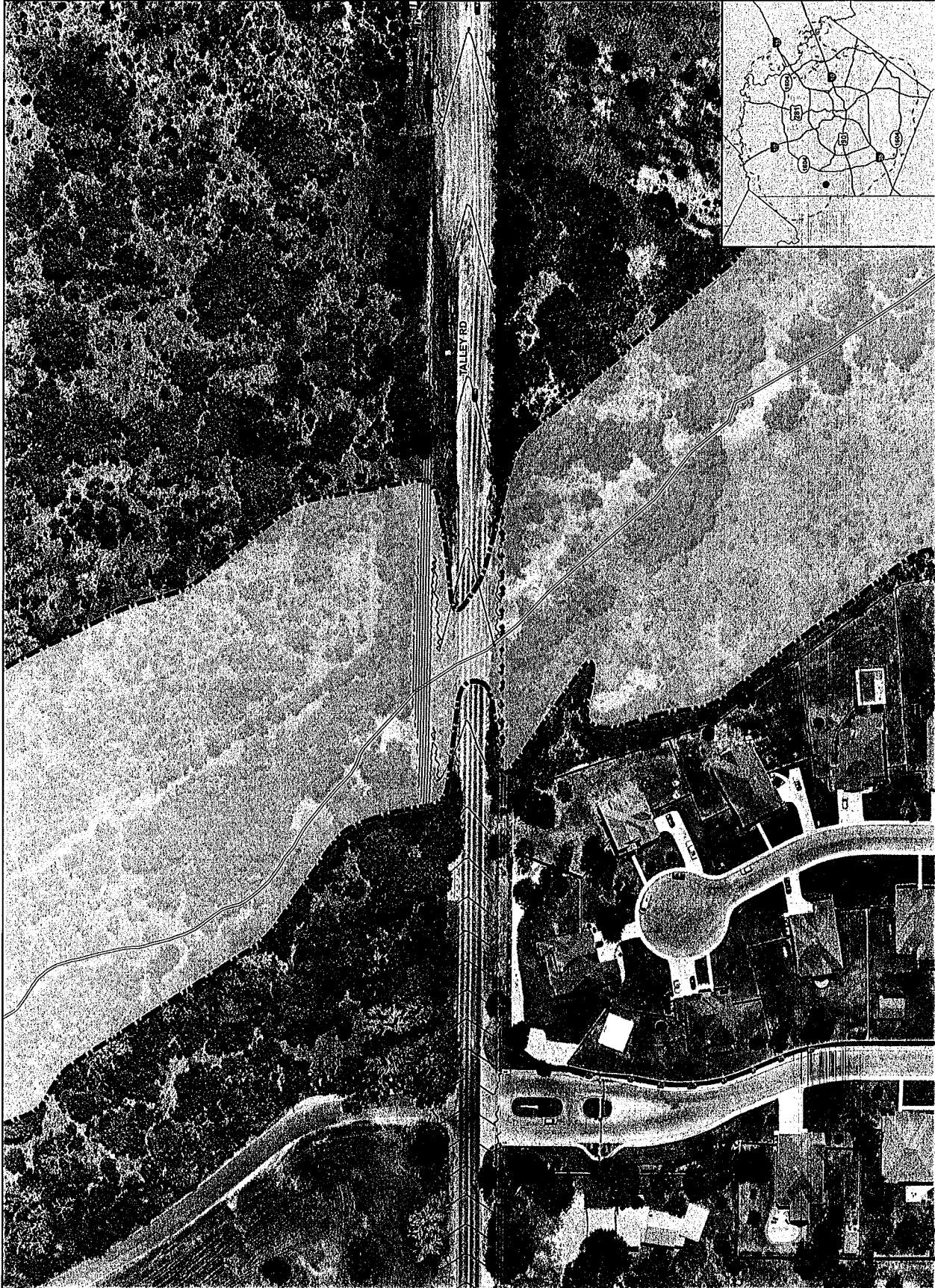




Exhibit "B"

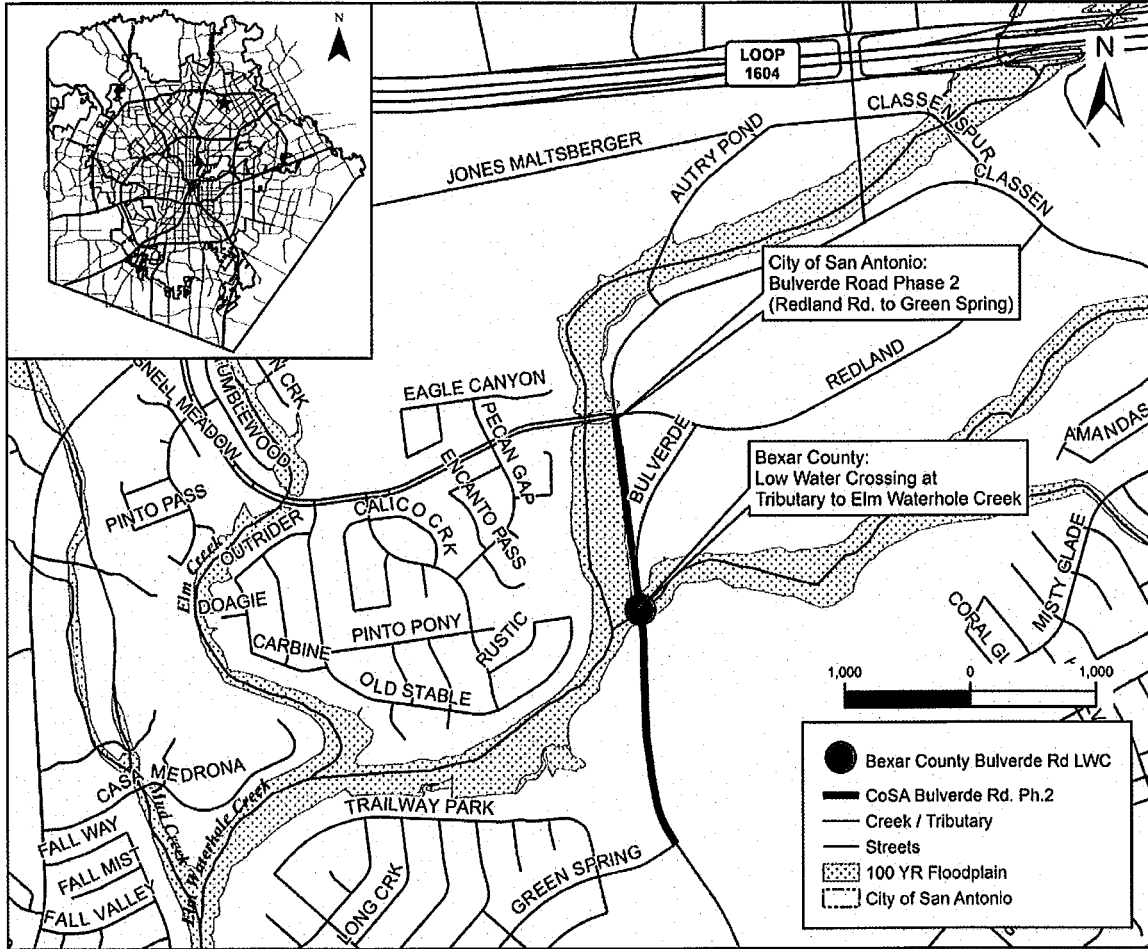
Project Cost Estimate and Funds

Cost Allocation for the Bulverde Road Drainage and Roadway Project			
Cost Category	Bexar County Contribution	City of San Antonio Estimated Project Budget	Total Estimated Project Budget
Design/Environmental	\$ 435,012.13	\$ 1,353,016.00	\$ 1,788,028.13
Real Estate	\$ 0-	\$ 525,000.00	\$ 520,000.00
Construction	\$1,180,245.00	\$ 8,309,175.00	\$ 9,489,420.00
	\$1,615,257.13	\$ 10,187,191.00	\$ 11,797,448.13



Exhibit "C"

BULVERDE ROAD LOCATION MAP



Requester **NAOKO IKUMA**
 Requisition Number **Needs Approval** USD 1615257.13

Total

Header	Miscellaneous	Lines	Template	Drop Ship	PO Bill To	User Fields	Global	Quantity	UOM	Unit Cost	Curr
FC	Line	Item									
	1	DESIGN						1.00	JA	435012.1300	USD
	2	CONSTRUCTION COST						1.00	JA	1180245.0000	USD
										<u>1,615,257.13</u>	

Line Detail Purchasing Classes/Code Miscellaneous Line User Fields Currency Global Back Order

Item Description **Needs Approval**

Vendor Item Mult
 Account Dist Co
 Activity Bill Cat
 Asset Template Item Entry Code Create PO
 Requested Delivery Date Priority
 Cost Opt Use Entered Cost Has comments
 Item Type Alternate Item Amount

