



US Army Corps
of Engineers
Fort Worth District

Public Notice

Applicant: Friskey RE II LP

Permit Application No.: SWF-2003-00473

Date: September 19, 2008

The purpose of this public notice is to inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. We hope you will participate in this process.

Regulatory Program

Since its early history, the U.S. Army Corps of Engineers has played an important role in the development of the nation's water resources. Originally, this involved construction of harbor fortifications and coastal defenses. Later duties included the improvement of waterways to provide avenues of commerce. An important part of our mission today is the protection of the nation's waterways through the administration of the U.S. Army Corps of Engineers Regulatory Program.

Section 10

The U.S. Army Corps of Engineers is directed by Congress under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) to regulate *all work or structures in or affecting the course, condition or capacity of navigable waters of the United States*. The intent of this law is to protect the navigable capacity of waters important to interstate commerce.

Section 404

The U.S. Army Corps of Engineers is directed by Congress under Section 404 of the Clean Water Act (33 USC 1344) to regulate the *discharge of dredged and fill material into all waters of the United States, including wetlands*. The intent of the law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical and biological integrity.

Contact

Name: Mr. Elliott Carman

Phone Number: (817) 886-1662

JOINT PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS, FORT WORTH DISTRICT

AND

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUBJECT: Application for a Department of the Army Permit under Section 404 of the Clean Water Act (CWA) and for water quality certification under Section 401 of the CWA to discharge dredged and fill material into waters of the United States associated with the construction of Whiskey Springs Resort Development on an approximately 1,100 acre site located 2,800 feet northeast of the intersection of State Highway 16 and Interstate Highway 10 in Kerrville, Kerr County, Texas.

APPLICANT: Friskey RE II LP
C/O Mr. Ron Berlin
8235 Douglas Avenue, Suite 650
Dallas, TX 75225

APPLICATION NUMBER: SWF-2003-00473

DATE ISSUED: September 19, 2008

LOCATION: The proposed Whiskey Springs Resort Development would be located on an approximately 1,100 acre site located 2,800 feet northeast of the intersection of State Highway 16 and Interstate Highway 10 in Kerrville, Kerr County, Texas (Sheets 1 through 11 of 34). The proposed project would be located approximately at UTM coordinates 491182 East and 3327169 North (Zone 14) on the Legion 7.5-minute USGS quadrangle map in the USGS Hydrologic Unit 12100201.

OTHER AGENCY AUTHORIZATIONS: State Water Quality Certification

PROJECT DESCRIPTION: The applicant proposes to construct an approximately 1,100-acre residential and commercial development that would include a hotel and conference center, residential community, 27-hole golf course, practice facility, clubhouse, pond reconstruction, and associated infrastructures such as road and utility lines (Sheets 3 through 25 of 34). The proposed project's basic purpose is to provide residential housing, public recreation, municipal services, and commercial opportunities in the Kerrville, Texas area.

Waters of the U.S. identified within the project area include 38 streams totaling approximately 42,831 linear feet (8.66 acres), two ponds (10.80 acres), and one emergent wetland (0.03 acre) located along the fringe of Pond 2 (Sheets 2 through 11 of 34). Of the 38 streams, 19 are

intermittent totaling approximately 35,288 linear feet (8.05 acres), and 19 are ephemeral totaling approximately 7,543 linear feet (0.61 acres). The two ponds, Pond 1 and Pond 2, are approximately 10.66 acres and 0.14 acres in size, respectively.

The applicant considered six alternatives to meet the purpose and need of the proposed project.

Alternative 1 – Applicant's Preferred Alternative

This alternative would include construction of a hotel and conference center, residential community, 27-hole golf course, practice facility, and clubhouse, pond reconstruction, and associated infrastructures such as road and utility lines (Sheets 3 through 25 of 34). This alternative would result in adverse impacts to approximately 10.85-acres of waters of the U.S. including 735 linear feet of stream. As part of this alternative, accumulated sediments would be removed from Pond 1 in order to increase the pond's detention capacity for stormwater maintenance as well as improve water quality. In addition, the existing dam would be removed and rebuilt (Sheets 3, 5, 12, and 13 of 34). These activities would result in approximately 10.66 acres of impacts to Pond 1. Pond 2 and its adjacent wetland would be filled to establish an upland area resulting in approximately 0.14 acre and 0.03 acre of impacts to Pond 2 and its adjacent wetland respectively (Sheets 2, 3, 6, 24, and 25 of 34). Approximately 502 linear feet of stream (Tribes 1, 1D, 1B2, and A) would be filled for grading associated with the construction of the golf course. Flows would be conveyed through Tribes 1, 1D, and 1B2 by culverts installed at each location (Sheets 3, 6, 9, and 21-23 of 34). The approximately 212 linear feet of stream associated with Tributary A would be filled without conveyance due to its headwater location. Finally, three road crossings of Quinlan Creek would be reconstructed to allow access to the project area from S.H. 16. Work associated with the main entrance would involve reconstructing and restoring the former access road, Pond 1 spillway, Pond 1 spillway basin, and the stream crossing to address safety concerns and prevent future erosion and degradation (Sheets 3, 5, 12, through 14 of 34). This work would result in adverse impacts to approximately 195 linear feet (0.13-acre) of stream. A secondary entrance would be located north of Pond 1 and would cross Quinlan Creek. The road would be constructed as a bridge above the ordinary high water mark; however, approximately 38 linear feet (0.02-acre) of the stream would be contoured to prevent scour and erosion of the bridge (Sheets 3, 5, 15, through 18 of 34). Finally, the third road crossing would be located in the northern portion of the site and would not result in any discharge into a water of the U.S. (Sheets 3 and 9 of 34). This alternative would result in adverse impacts to a total of 10.80-acre of on-channel ponds, 0.03-acre of emergent wetland, and 735 linear (0.018-acre) feet of streams. This alternative represents the alternative with the least amount of impacts to waters of the U.S. while still meeting the applicant's purpose and need. Therefore, this alternative represents the applicant's preferred alternative.

Alternative 2 – No Loss of Waters of the U.S. ("No Action")

This alternative would consist of developing the project without any impacts to waters of the U.S. The applicant concluded that this alternative would not provide adequate storm water detention. In addition, the applicant indicated the unsafe dam located at Pond 1 would remain in

an unsafe condition and the existing road would not be capable of handling expected traffic. As a result, this alternative would not meet the applicant's purpose and need.

Alternative 3 – Moving the Golf Course to the Ridge Tops.

This alternative would consist of developing the golf course on the ridge top and the residential development in the valley. The applicant indicated that placement of residences in the valley would place the greatest amount of impervious surfaces (rooftops and streets) near the streams, which would increase the potential for adverse stream impacts from stormwater runoff. In addition, the applicant indicated the ridge top lot value is greater than that in the valleys; therefore, the development of residences in the valley would make the proposed project financially unviable and would not meet the applicant's purpose and need.

Alternative 4 – Decreasing the Size of the Project Area

This alternative would consist of reducing the size of the development to avoid most development in the valley. The applicant indicated that, while the environmental impacts would be reduced, the costs of infrastructure and amenities could not be supported due to loss of revenue from the additional lots. Therefore, the proposed project would not be financially viable at a smaller scale and would not be built. This alternative is not considered practicable and would not meet the applicant's purpose and need.

Alternative 5 – Change the Location of the Project Area

This alternative would consist of building the same or similar development at a different location. Because a portion of the proposed project, the hotel conference center, is proposed to serve as the city's convention center, the location would be limited to within a few miles of the city and would need to be near an intersection of major north/south and east/west access corridors. This area was investigated and the applicant indicated that no site of a suitable size and appropriate access was available. Therefore, this alternative does not meet the applicant's purpose and need.

Alternative 6 – Implementing the Project as Originally Designed

Under this alternative, the development would include the same as components as Alternative 1: residential lots; hotel and conference center; 27-hole golf course, practice facility, and clubhouse. As in Alternative 1, work within waters of the U.S. would include pond reconstruction, golf course construction, and road crossings. However, this alternative would also include 46 in-stream ponds to be constructed as amenities. Additionally, relocation or filling of intermittent and ephemeral streams in 12 additional locations would be performed to accommodate the layout of the golf course and practice range. One existing stream crossing (low water crossing on Quinlan Creek) would be replaced and three new crossings would be constructed (new crossing below existing dam on Quinlan Creek, two culverts on Quinlan Creek). Pond 1 would be dredged to remove accumulated sediment and the existing dam reconstructed, and Pond 2 and its associated wetland fringe would be filled. In this alternative, 7,785 linear feet of stream would be impacted, 10.66 acres of open water would be impacted associated with the dredging and dam reconstruction at Pond 1, and 0.14 acres of open water and 0.03-acre of fringe wetland impacted at Pond 2 to establish an upland area. This alternative would meet the applicant's purpose and need; however, it represents the alternative

with the greatest environmental impacts. Therefore, this alternative would not be considered the least environmentally damaging practical alternative.

The applicant believes all practicable measures have been considered to avoid and minimize impacts to waters of the U.S. Examples of avoidance and minimization measures including developing the residential lots on top of the ridges, elimination of the 46 in-stream ponds originally proposed, realignment of the golf course and practice range, orientation of road crossings perpendicular to the creek, and the use of span bridges in several locations to avoid impacts to waters of the U.S.

While the applicant indicated impacts to waters of the U.S. have been avoided and minimized to the maximum extent practicable, complete avoidance of all waters of the U.S. appears to be not practicable. As a result, the proposed project would result in unavoidable adverse impacts to a total of 10.80-acre of on-channel ponds, 735 linear feet of streams (0.18-acre), and 0.03-acre of emergent wetlands. To compensate for unavoidable adverse impacts to waters of the U.S., the applicant is proposing to reconstruct and restore the approximately 10.66-acre pond (Pond 1) with an herbaceous buffer along its perimeter, plant an herbaceous buffer along approximately 2,550 linear feet of impacted stream, and preserve approximately 39,546 linear feet of stream (sheets 26 through 34 of 34). A total of approximately 58.48-acres (including 42,096 linear feet of stream and 10.66-acre of pond) would be protected in perpetuity with a real estate instrument.

PUBLIC INTEREST REVIEW FACTORS: This application will be reviewed in accordance with 33 CFR 320-331, the Regulatory Program of the U. S. Army Corps of Engineers (USACE), and other pertinent laws, regulations, and executive orders. Our evaluation will also follow the guidelines published by the U. S. Environmental Protection Agency pursuant to Section 404(b)(1) of the CWA. The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impact, of the proposed activity on the public interest. That decision will reflect the national concerns for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including its cumulative effects. Among the factors addressed are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The USACE is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the USACE in determining whether to issue, issue with modifications, or conditions, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental

Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

STATE WATER QUALITY CERTIFICATION: This project would result in a direct impact of greater than three acres of waters of the state or 1,500 linear feet of streams (or a combination of the two is above the threshold), and as such would not fulfill Tier I criteria for the project. Therefore, Texas Commission on Environmental Quality (TCEQ) certification is required. Concurrent with USACE processing of this Department of the Army application, the TCEQ is reviewing this application under Section 401 of the Clean Water Act, and Title 30, Texas Administrative Code Section 279.1-13 to determine if the work would comply with State water quality standards. By virtue of an agreement between the USACE and the TCEQ, this public notice is also issued for the purpose of advising all known interested persons that there is pending before the TCEQ a decision on water quality certification under such act. **Any comments concerning this application may be submitted to the Texas Commission on Environmental Quality, 401 Coordinator, MSC-150, P.O. Box 13087, Austin, Texas 78711-3087.** The public comment period extends 30 days from the date of publication of this notice. A copy of the public notice with a description of the work is made available for review in the TCEQ's Austin Office. The complete application may be reviewed in the USACE's office. The TCEQ may conduct a public meeting to consider all comments concerning water quality if requested in writing. A request for a public meeting must contain the following information: the name, mailing address, application number, or other recognizable reference to the application; a brief description of the interest of the requestor, or of persons represented by the requestor; and a brief description of how the application, if granted, would adversely affect such interest.

ENDANGERED AND THREATENED SPECIES: The USACE has reviewed the U.S. Fish and Wildlife Service's latest published version of endangered and threatened species to determine if any may occur in the project area. The proposed project would be located in Kerr County where the black-capped Vireo (*Vireo atricapilla*), golden-cheeked warbler (*Dendroica chrysoparia*), and the Tobusch fishhook cactus (*Ancistrocactus tobuschii*), all federally listed endangered species, are known to occur or may occur as migrants. Our initial review indicates that the proposed work may affect the endangered golden-cheeked warbler.

NATIONAL REGISTER OF HISTORIC PLACES: The USACE has reviewed the latest complete published version of the National Register of Historic Places and found no listed properties to be in the project area. However, presently unknown scientific, archaeological, cultural or architectural data may be lost or destroyed by the proposed work under the requested permit.

FLOODPLAIN MANAGEMENT: The USACE is sending a copy of this public notice to the local floodplain administrator. In accordance with 44 CFR part 60 (Flood Plain Management Regulations Criteria for Land Management and Use), the floodplain administrators of participating communities are required to review all proposed development to determine if a floodplain development permit is required and maintain records of such review.

SOLICITATION OF COMMENTS: The public notice is being distributed to all known interested persons in order to assist in developing fact upon which a decision by the USACE may be based. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition.

PUBLIC HEARING: Prior to the close of the comment period any person may make a written request for a public hearing setting forth the particular reasons for the request. The District Engineer will determine whether the issues raised are substantial and should be considered in his permit decision. If a public hearing is warranted, all known interested persons will be notified of the time, date, and location.

CLOSE OF COMMENT PERIOD: All comments pertaining to this Public Notice must reach this office on or before October 19, 2008, which is the close of the comment period. Extensions of the comment period may be granted for valid reasons provided a written request is received by the limiting date. If no comments are received by that date, it will be considered that there are no objections. Comments and requests for additional information should be submitted to Mr. Elliott Carman; Regulatory Branch, CESWF-PER-R; U. S. Army Corps of Engineers; Post Office Box 17300; Fort Worth, Texas 76102-0300. You may visit the Regulatory Branch in Room 3A37 of the Federal Building at 819 Taylor Street in Fort Worth between 8:00 A.M. and 3:30 P.M., Monday through Friday. Telephone inquiries should be directed to (817) 886-1662. Please note that names and addresses of those who submit comments in response to this public notice may be made publicly available.

DISTRICT ENGINEER
FORT WORTH DISTRICT
CORPS OF ENGINEERS

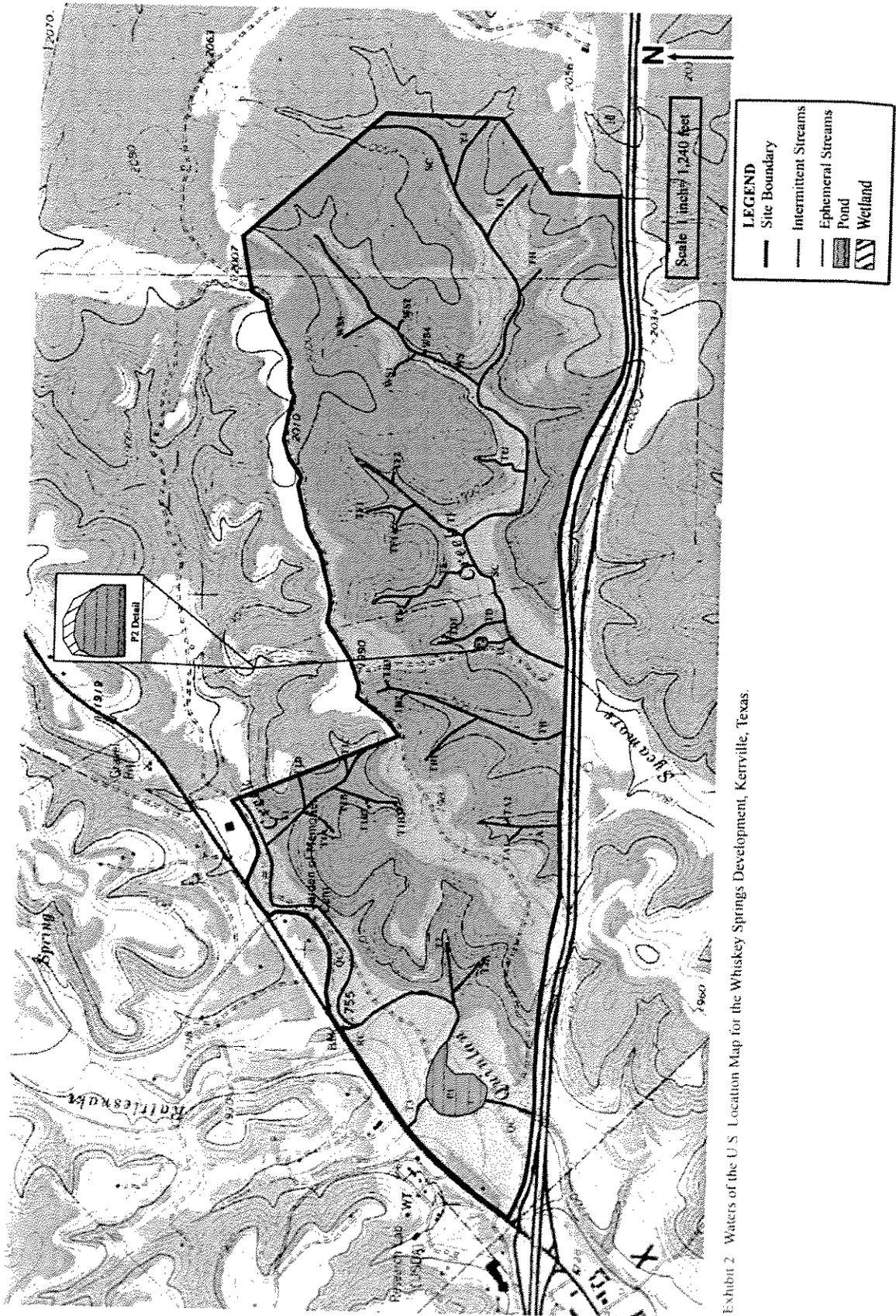
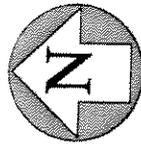
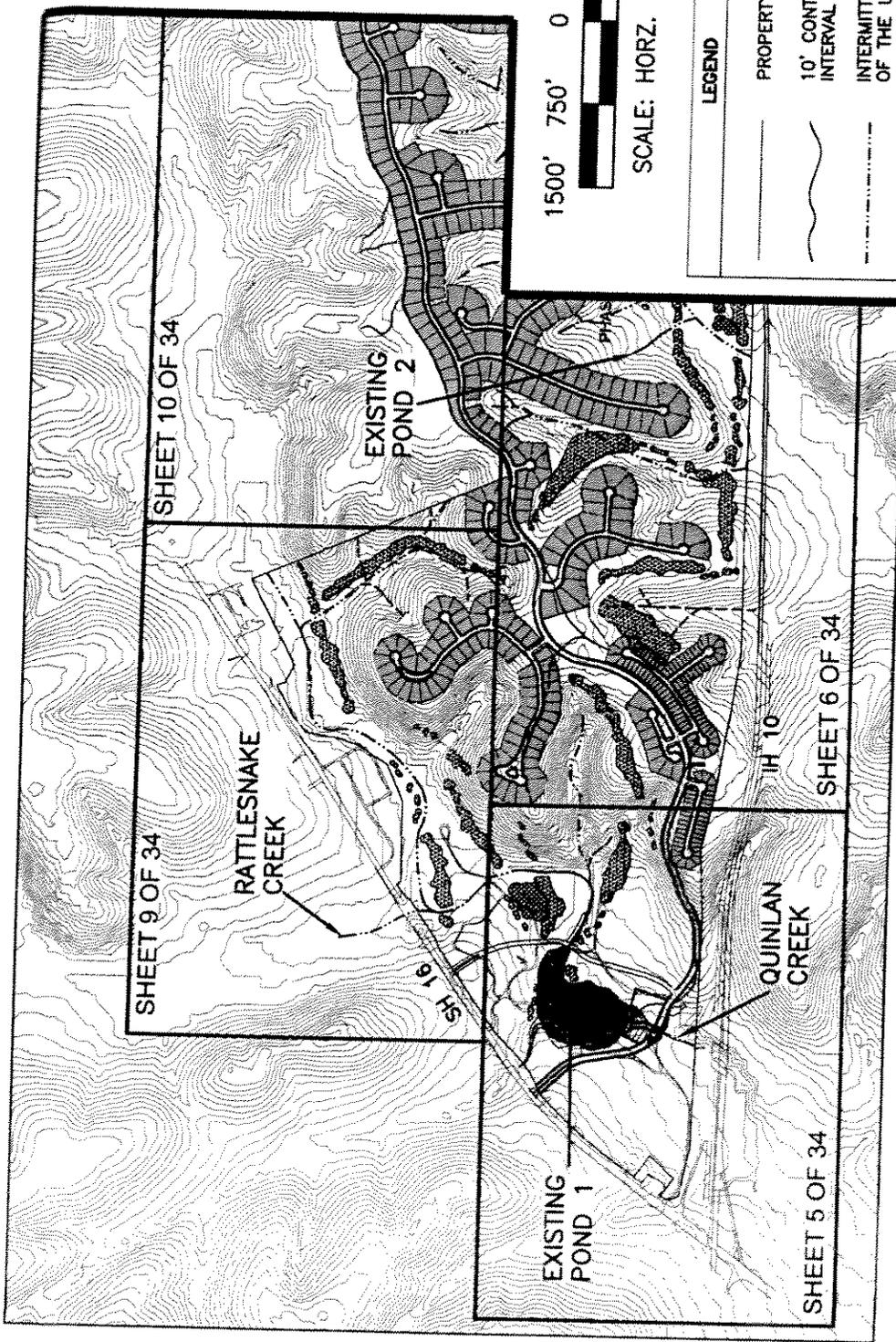


Exhibit 2 Waters of the U.S. Location Map for the Whiskey Springs Development, Kerrville, Texas.



LEGEND	
	PROPERTY LINE
	10' CONTOUR INTERVAL
	INTERMITTENT WATERS OF THE U.S.
	EPHEMERAL WATERS OF THE U.S.
	GOLF COURSE GRADING
	RESIDENTIAL
	EXISTING POND
	PROPOSED POND
	WETLAND



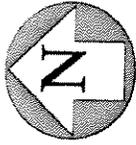
USAGE PROJECT No. 200300473

NO.	DATE	DESCRIPTION	BY

PROJECT: WHISKEY SPRINGS
 SHEET:

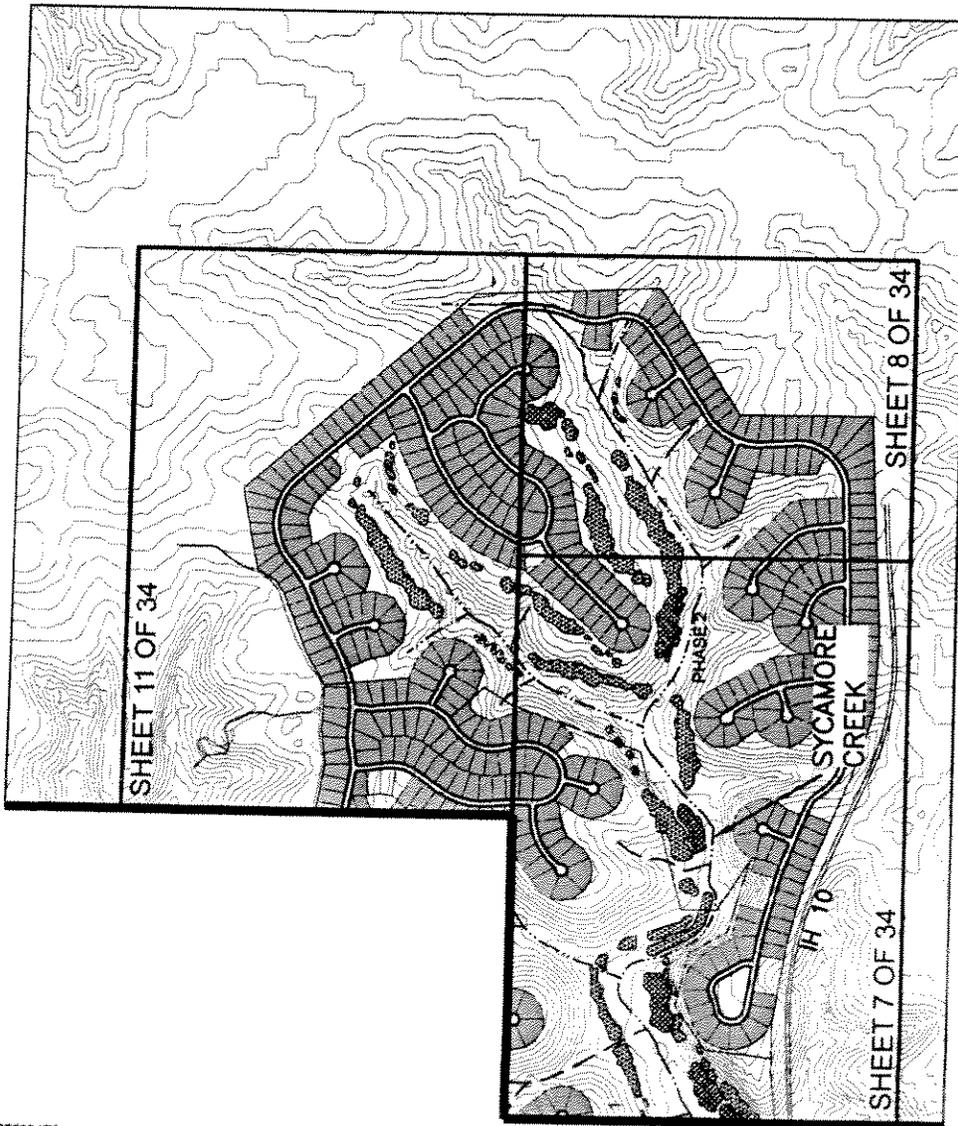
EXHIBIT 3
 USAGE PROJECT NO. 200300473

PATE ENGINEERS
 8200 IH-10 West - Suite 440
 San Antonio, Texas 78230
 OFFICE: (210) 340-8481 FAX: (210) 340-3964



SCALE: HORIZ. 1" = 1500'

LEGEND	
	PROPERTY LINE
	10' CONTOUR INTERVAL
	INTERMITTENT WATERS OF THE U.S.
	EPHEMERAL WATERS OF THE U.S.
	GOLF COURSE GRADING
	RESIDENTIAL
	EXISTING POND
	PROPOSED POND
	WETLAND



USAGE PROJECT No. 200300473

NO.	DATE	DESCRIPTION	BY

PROJECT:

WHISKEY SPRINGS

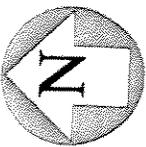
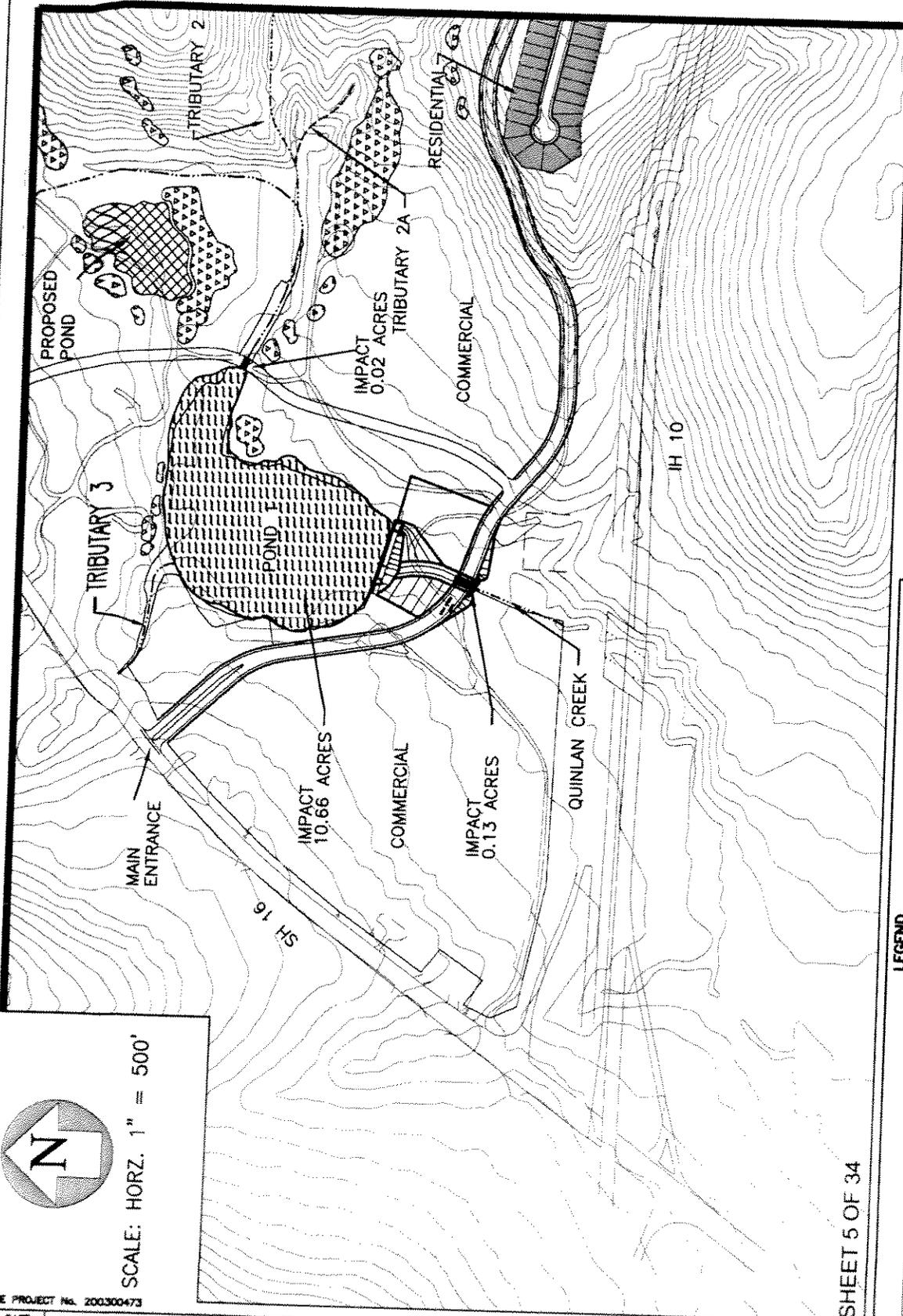
SHEET:

EXHIBIT 3
 USAGE PROJECT NO. 200300473
 Project No. 200300473, Sheet 4 of 34

PATE ENGINEERS

8200 IH-10 West - Suite 440
 San Antonio, Texas 78230

OFFICE: (210) 340-8481 FAX: (210) 340-3964



SCALE: HORZ. 1" = 500'

SHEET 5 OF 34

LEGEND

- PROPERTY LINE
- 10' CONTOUR INTERVAL
- INTERMITTENT WATERS OF THE U.S.
- EPHEMERAL WATERS OF THE U.S.
- GOLF COURSE GRADING
- EXISTING POND
- PROPOSED POND
- WETLAND

IMPACT	LOCATION
0.13 ACRES - 195 IF	QUINLAN CREEK
0.07 ACRES - 100 IF	QUINLAN CREEK
10.66 ACRES	POND 1

NO.	DATE	DESCRIPTION	BY

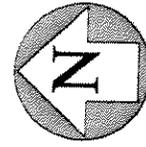
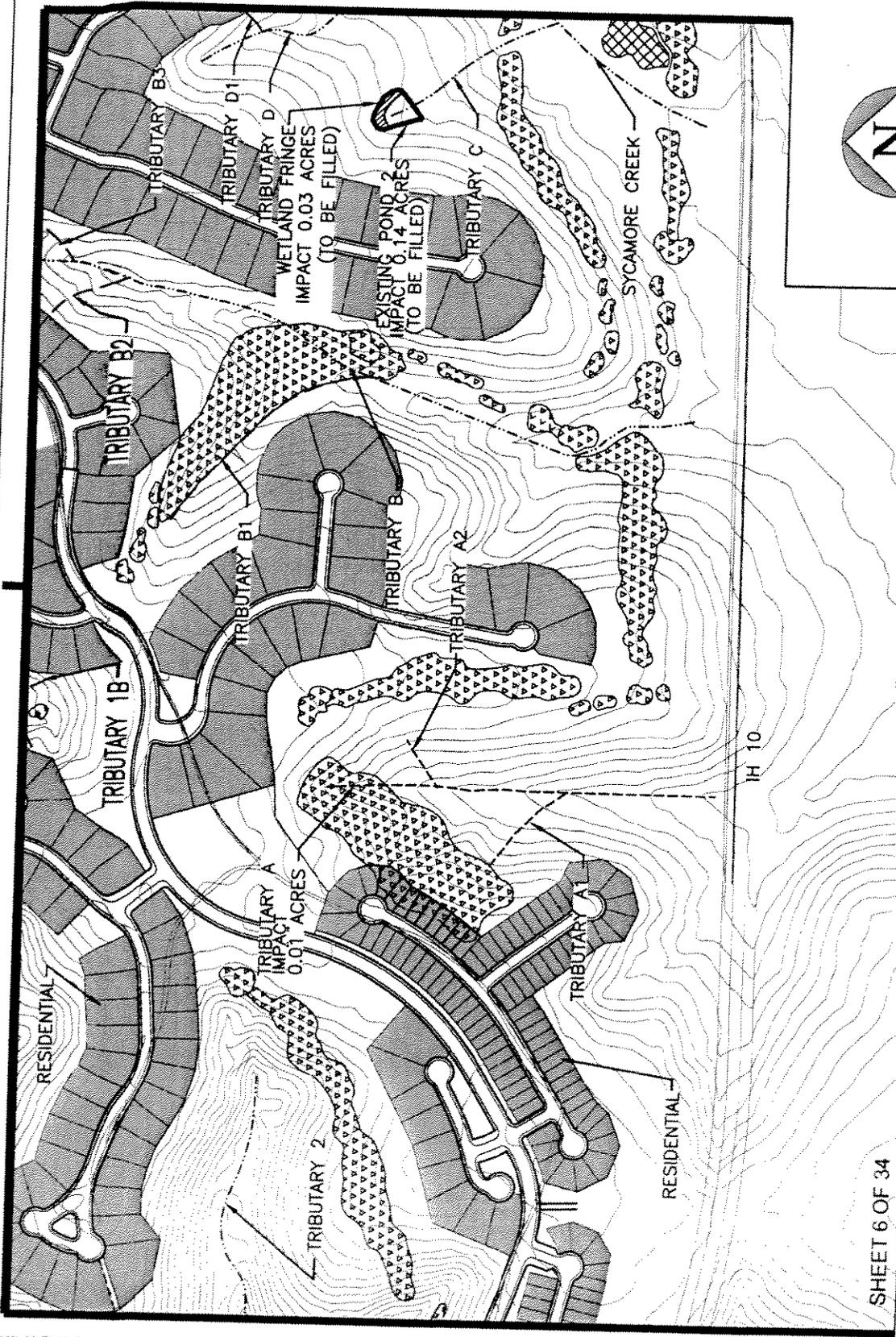
PROJECT: WHISKEY SPRINGS
 SHEET:

EXHIBIT 3
 USACE PROJECT NO. 200300473

PATE ENGINEERS

8200 IH-10 West - Suite 440
 San Antonio, Texas 78230

OFFICE: (210) 340-8481 FAX: (210) 340-3964



SCALE: HORIZ. 1" = 500'

IMPACT	LOCATION
0.01 ACRES - 212.00 lf	TRIBUTARY A
0.14 ACRES	EXISTING POND 2
0.03 ACRES	POND 2 WETLAND FRINGE

LEGEND

	PROPERTY LINE		GOLF COURSE GRADING
	10' CONTOUR INTERVAL		EXISTING POND
	INTERMITTENT WATERS OF THE U.S.		PROPOSED POND
	EPHEMERAL WATERS OF THE U.S.		WETLAND

SHEET 6 OF 34

USAGE PROJECT No. 200300473

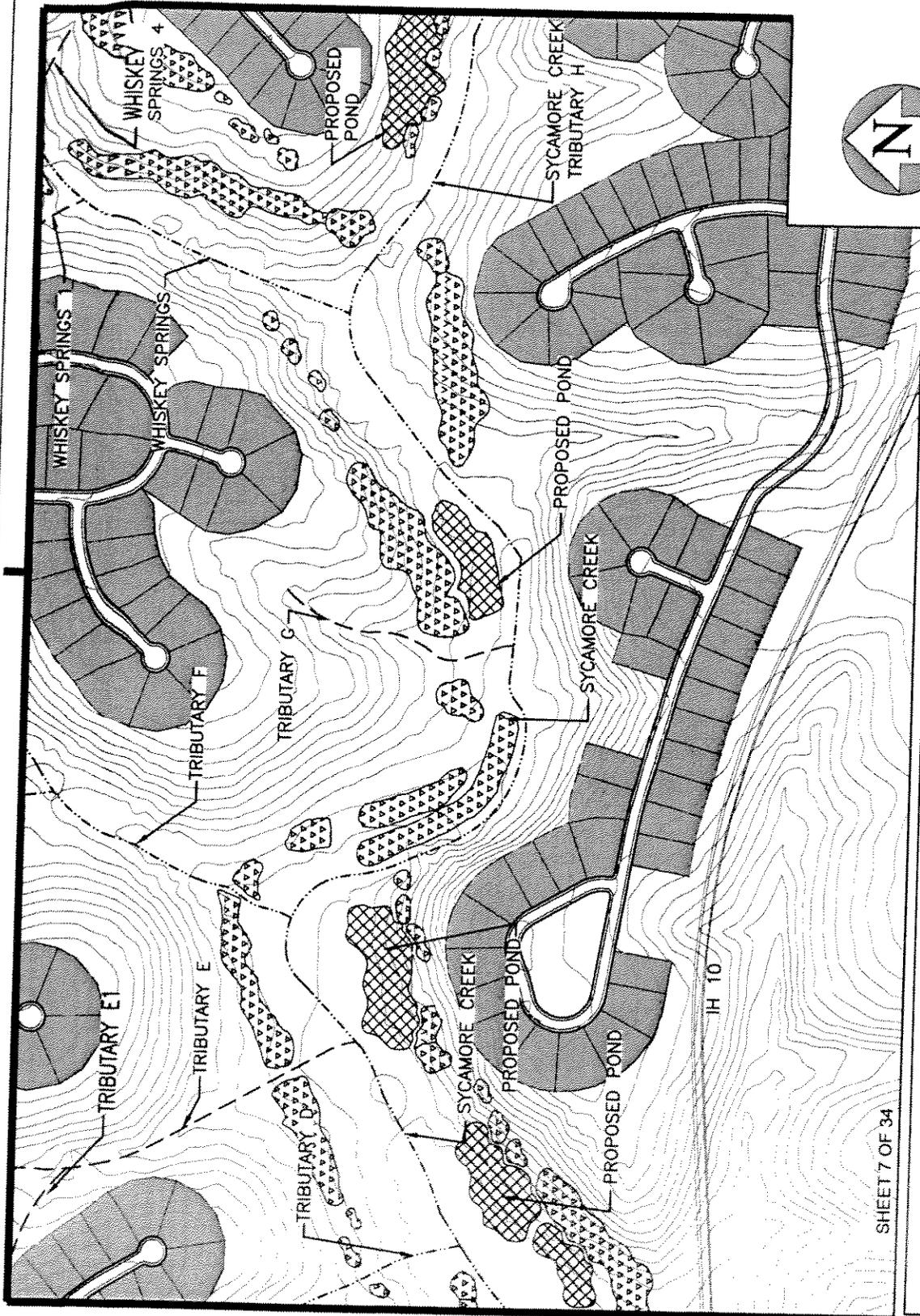
NO.	DATE	DESCRIPTION	BY

PROJECT: WHISKEY SPRINGS

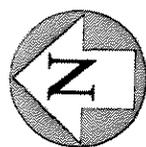
SHEET: EXHIBIT 3
 USAGE PROJECT NO. 200300473

Project No. 200300473, Sheet 6 of 34

PATE ENGINEERS
 8200 IH-10 West - Suite 440
 San Antonio, Texas 78230
 OFFICE: (210) 340-8481 FAX: (210) 340-3964



SCALE: HORZ. 1" = 500'



LOCATION

IMPACT
NONE

LEGEND

	PROPERTY LINE		GOLF COURSE GRADING
	10' CONTOUR INTERVAL		EXISTING POND
	INTERMITTENT WATERS OF THE U.S.		PROPOSED POND
	EPHEMERAL WATERS OF THE U.S.		WETLAND

SHEET 7 OF 34

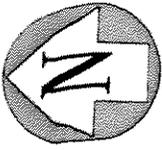
USAGE PROJECT No. 200300473

NO.	DATE	DESCRIPTION	BY

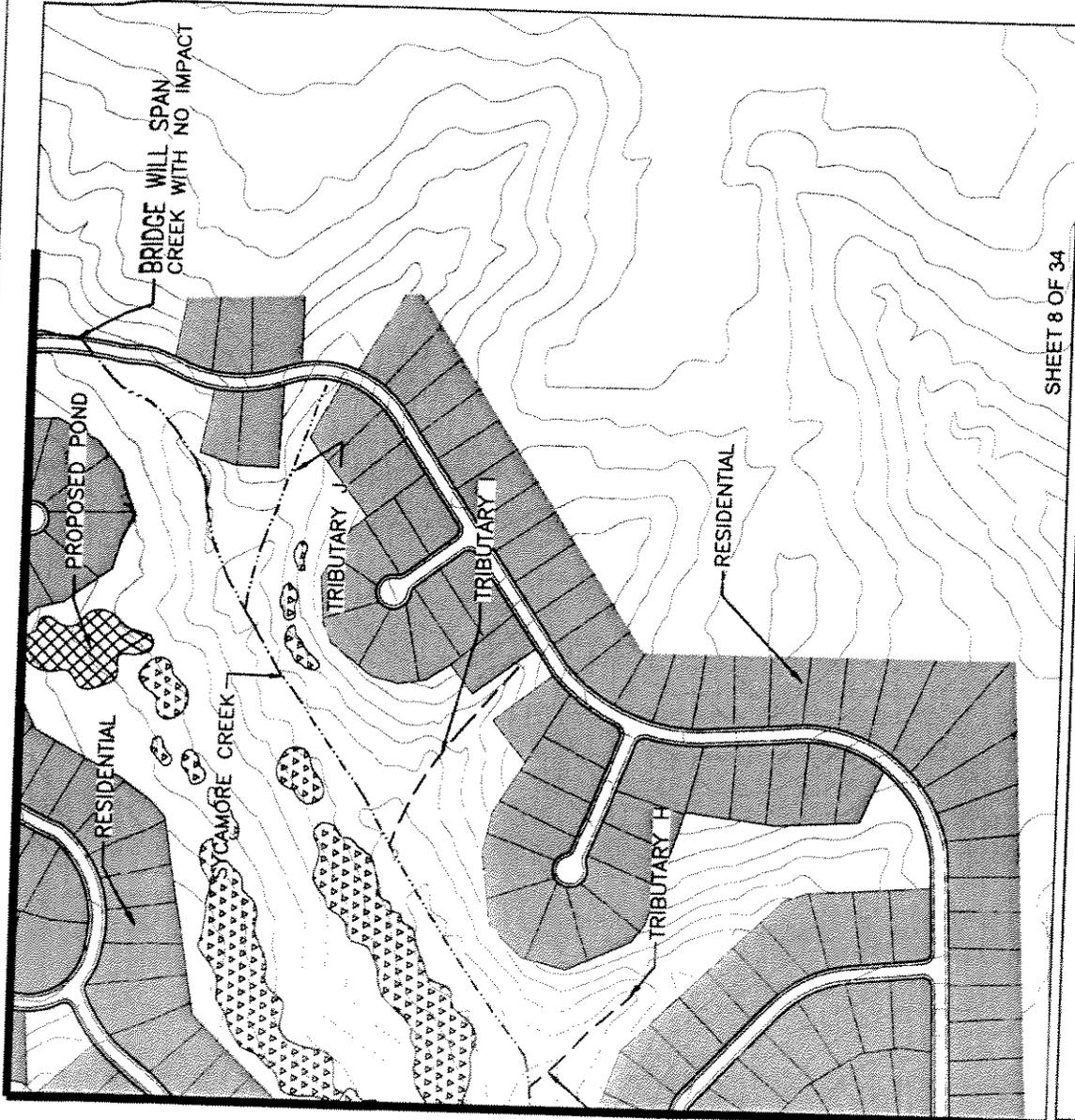
PROJECT: WHISKEY SPRINGS
 SHEET: EXHIBIT 3

USAGE PROJECT NO. 200300473

PATE ENGINEERS
 8200 IH-10 West - Suite 440
 San Antonio, Texas 78230
 OFFICE: (210) 340-8481 FAX: (210) 340-3964



SCALE: HORIZ. 1" = 500'



SHEET 8 OF 34

LEGEND

	PROPERTY LINE		GOLF COURSE GRADING
	10' CONTOUR INTERVAL		EXISTING POND
	INTERMITTENT WATERS OF THE U.S.		PROPOSED POND
	EPHEMERAL WATERS OF THE U.S.		WETLAND

IMPACT	LOCATION
NONE	

USAGE PROJECT No. 200300473

NO.	DATE	DESCRIPTION	BY

PROJECT: WHISKEY SPRINGS

SHEET:

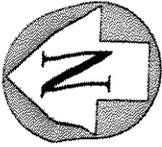
EXHIBIT 3
 USAGE PROJECT NO. 200300473

PATE ENGINEERS

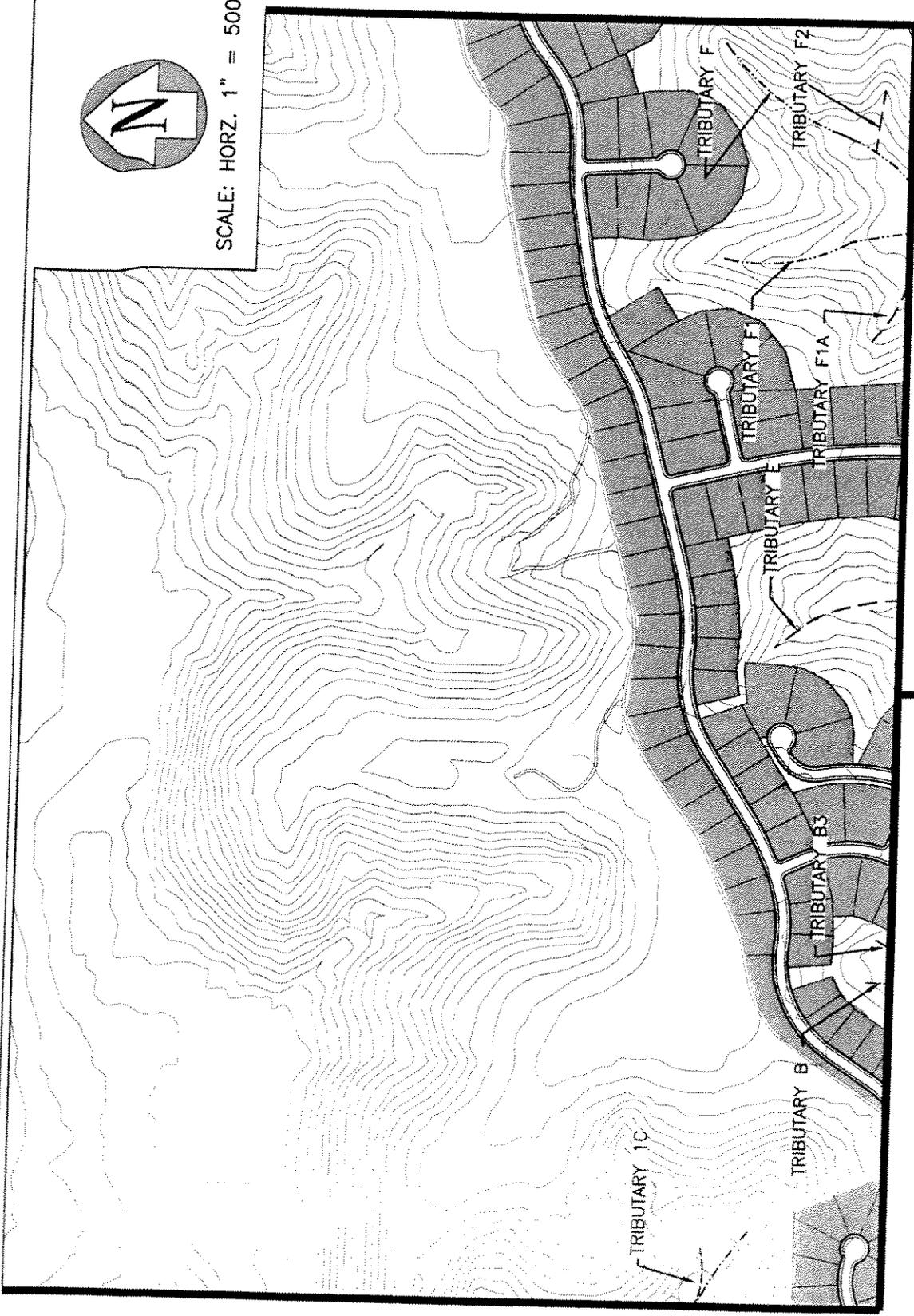
8200 IH-10 West - Suite 440

San Antonio, Texas 78230

OFFICE: (210) 340-8481 FAX: (210) 340-3964



SCALE: HORZ. 1" = 500'



LEGEND

	PROPERTY LINE		GOLF COURSE GRADING
	10' CONTOUR INTERVAL		EXISTING POND
	INTERMITTENT WATERS OF THE U.S.		PROPOSED POND
	EPHEMERAL WATERS OF THE U.S.		WETLAND

IMPACT	LOCATION
NONE	

NO.	DATE	DESCRIPTION	BY

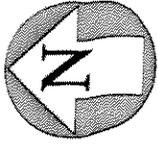
USAGE PROJECT No. 200300473

PROJECT: WHISKEY SPRINGS

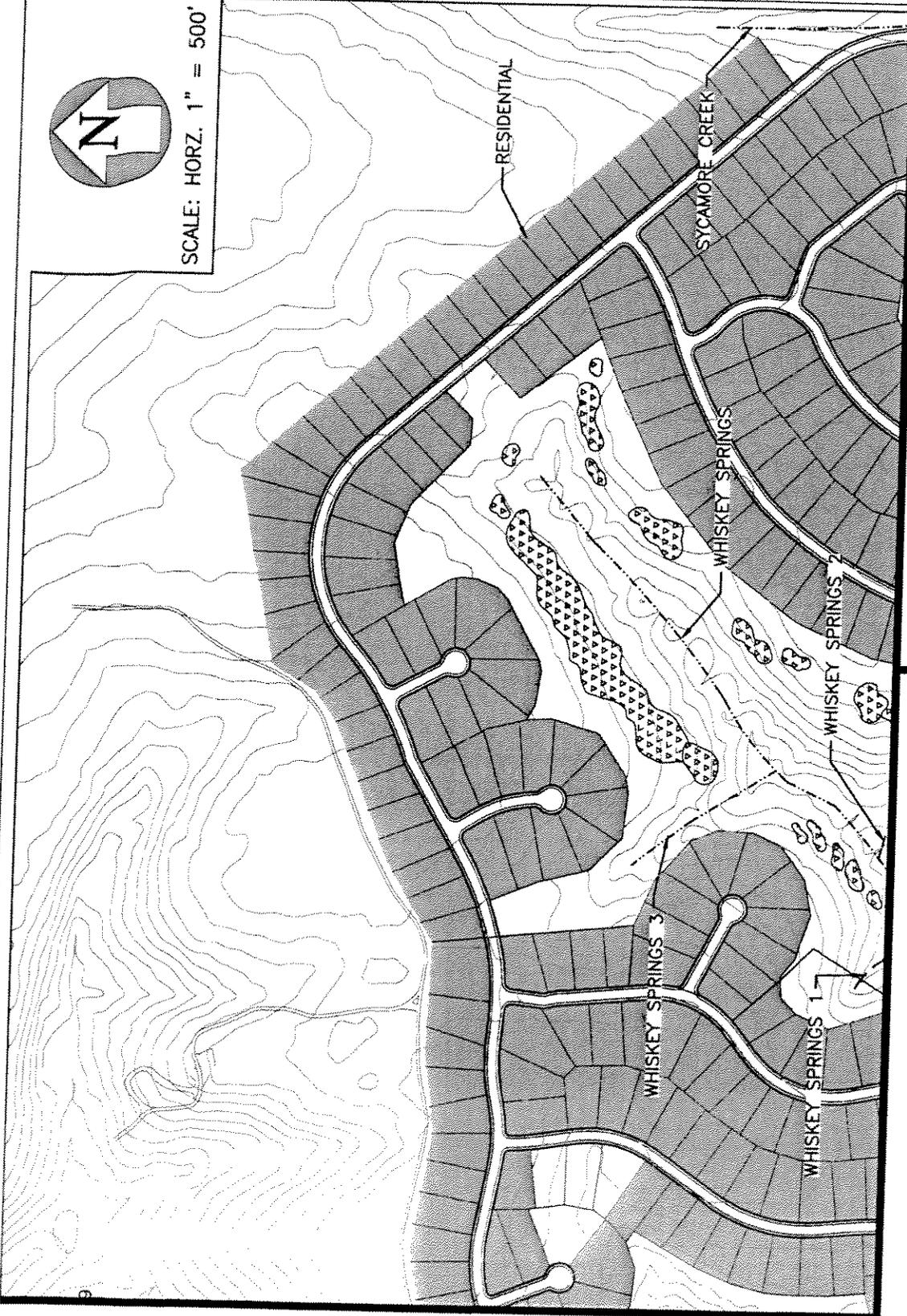
SHEET:

EXHIBIT 3
 USAGE PROJECT NO. 200300473

PATE ENGINEERS
 8200 IH-10 West - Suite 440
 San Antonio, Texas 78230
 OFFICE: (210) 340-8481 FAX: (210) 340-3964



SCALE: HORZ. 1" = 500'



LEGEND

	GOLF COURSE GRADING
	EXISTING POND
	PROPOSED POND
	WETLAND
	PROPERTY LINE
	10' CONTOUR INTERVAL
	INTERMITTENT WATERS OF THE U.S.
	EPHEMERAL WATERS OF THE U.S.

IMPACT	LOCATION
NONE	

NO.	DATE	DESCRIPTION	BY

USAGE PROJECT No. 200300473

PROJECT: WHISKEY SPRINGS

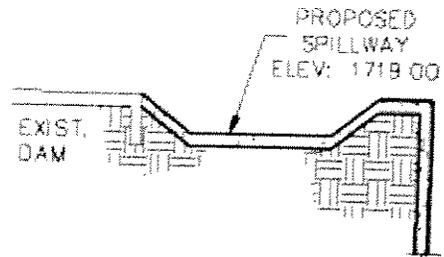
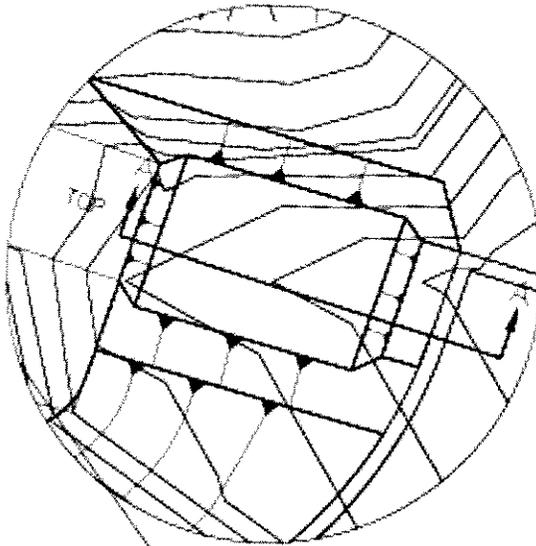
SHEET:

EXHIBIT 3
 USAGE PROJECT NO. 200300473

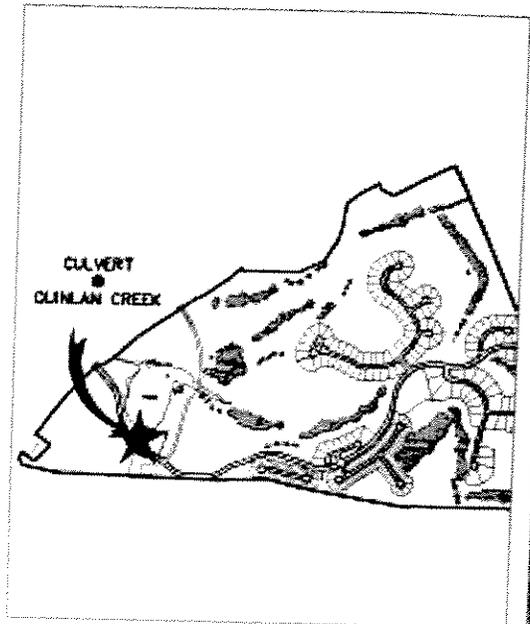
PATE ENGINEERS
 8200 IH-10 West - Suite 440
 San Antonio, Texas 78230
 OFFICE: (210) 340-8481 FAX: (210) 340-3964



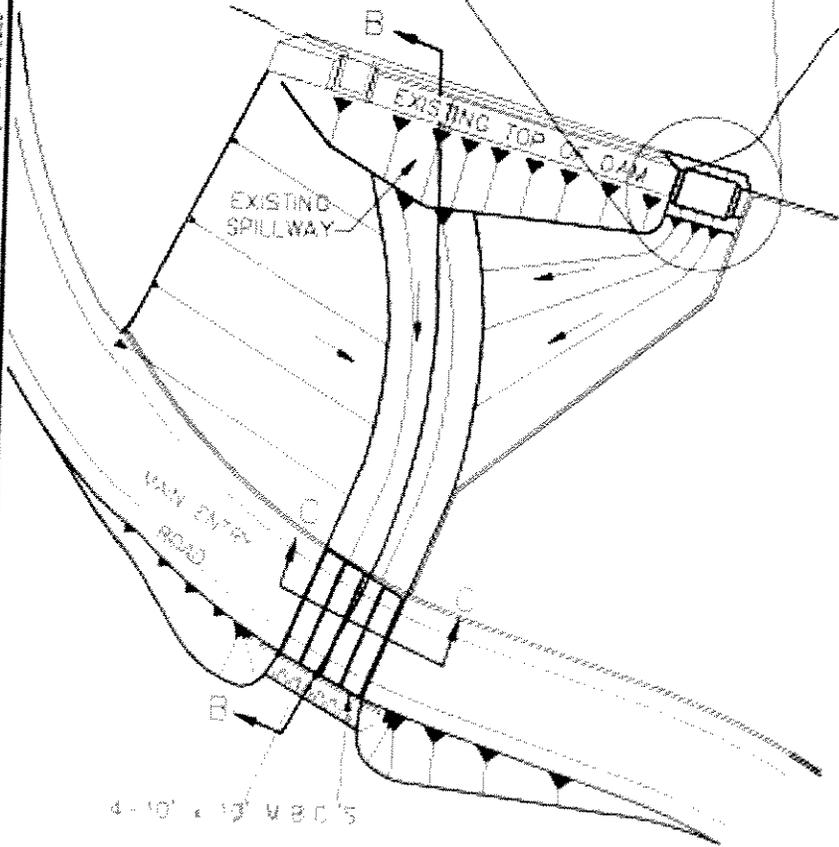
SCALE: 1" = 100'



SECTION 'A-A'
N.T.S.



LOCATION MAP
N.T.S.



4'-10" x 13" M.B.C.'S

PATE ENGINEERS

HOUSTON • DALLAS • AUSTIN • FORT WORTH • SAN ANTONIO
12208 HWY-19 WEST P.O. (210) 340-8488
SUITE 400 F.A.R. (210) 348-3994
SAN ANTONIO, TEXAS 78230 WWW.PATEENG.COM

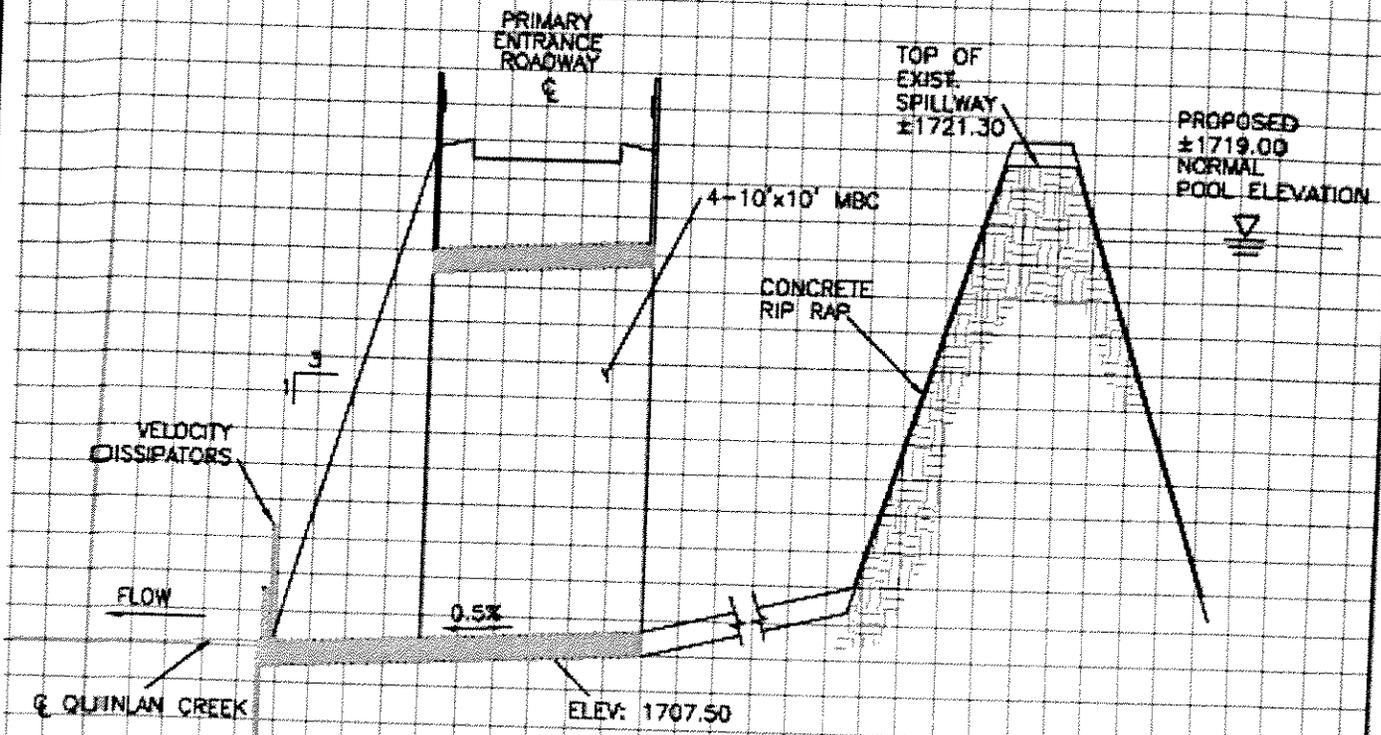
WHISKEY SPRINGS
DEVELOPMENT

PLAN VIEW OF
MAIN ENTRY ROAD
CULVERT AT QUINLAN CREEK

USACE PROJECT NUMBER 200300473

Whiskey Springs, Austin, Water at 10:11:12 AM on 11/11/11. User: j... 11/11/11 10:11:12 AM. File: 2003-10-13.dwg. Plot: 2003-10-13.dwg. Plot: 2003-10-13.dwg. Plot: 2003-10-13.dwg.

SCALE: HORIZ. 1" = 50'
 VERT. 1" = 5'



SECTION 'B-B'
 N.T.S.

WHISKEY SPRINGS, Austin, Pate Engineers, 11000 N. Loop West, Suite 1000, P.O. Box 1000, Austin, TX 78768-1000, Tel: (512) 340-8400, Fax: (512) 340-8800, www.pateeng.com

PATE ENGINEERS

HOUSTON • DALLAS • AUSTIN • FORT WORTH • SAN ANTONIO

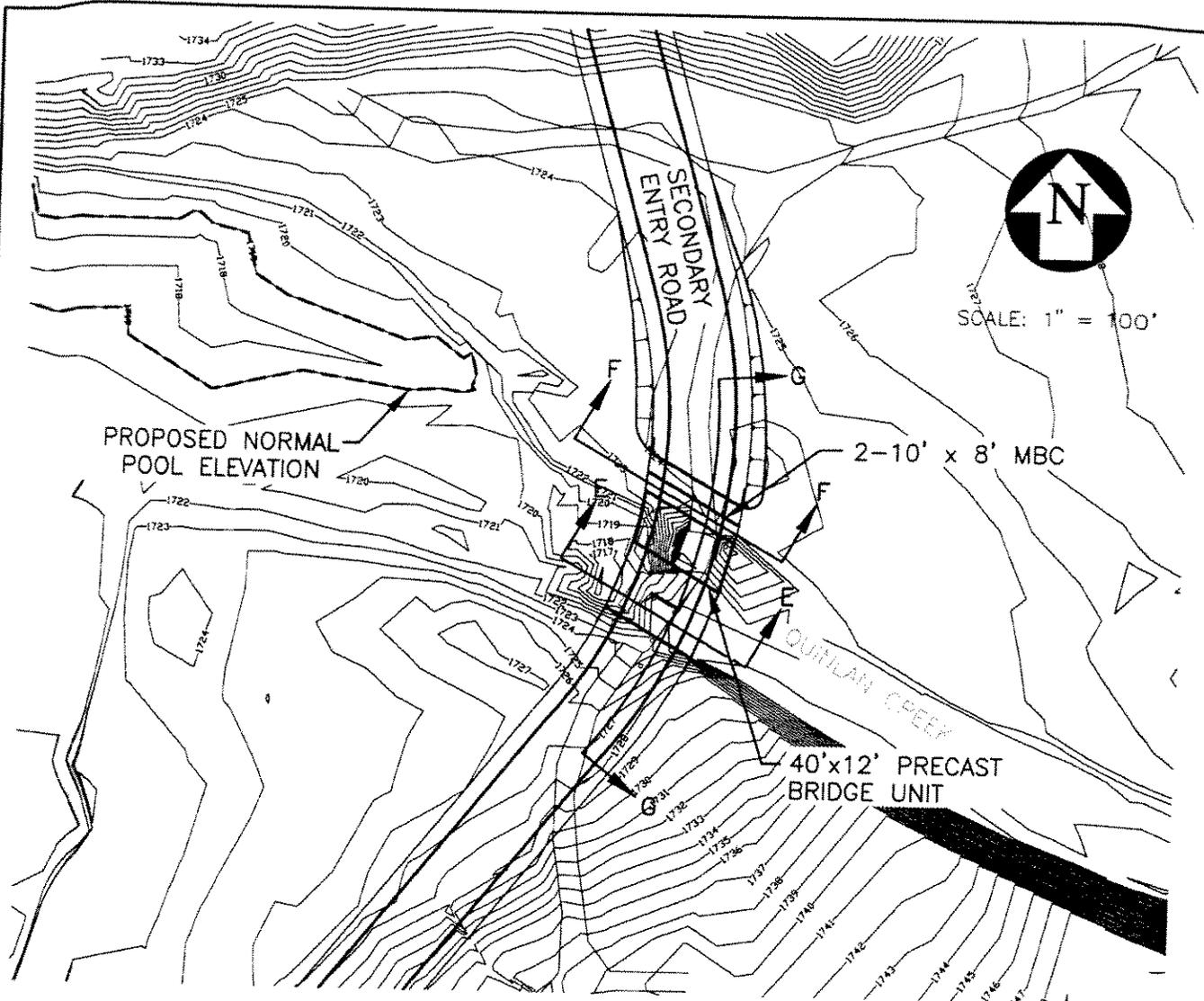
11000 N. LOOP WEST
 SUITE 1000
 SAN ANTONIO, TEXAS 78228

PH: (512) 340-8400
 FAX: (512) 340-8800
 WWW.PATEENG.COM

**WHISKEY SPRINGS
 DEVELOPMENT**

SECTION 'B-B'
 MAIN ENTRY ROAD
 CULVERT AT QUINLAN CREEK

USACE PROJECT NUMBER 200300473



SCALE: 1" = 100'

PROPOSED NORMAL POOL ELEVATION

2-10' x 8' MBC

40'x12' PRECAST BRIDGE UNIT

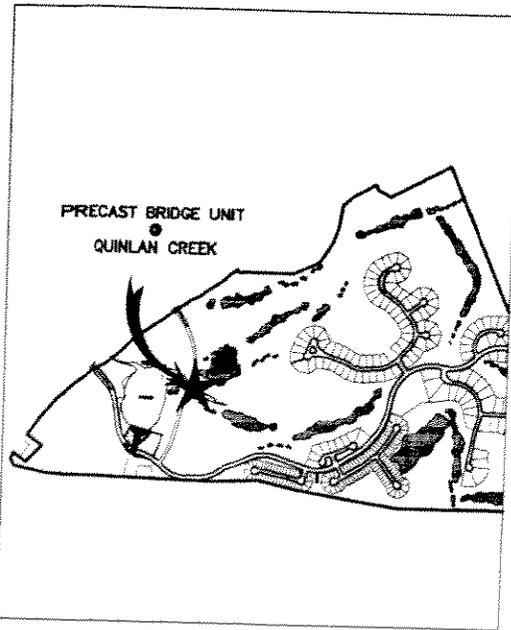
PATE ENGINEERS

HOUSTON • DALLAS • AUSTIN • FORT WORTH • SAN ANTONIO
 8200 N-10 WEST SUITE 440 SAN ANTONIO, TEXAS 78230
 PH: (210) 340-8481 FAX: (210) 340-3004 WWW.PATEENG.COM

WHISKEY SPRINGS DEVELOPMENT

EXHIBIT 4

PLAN VIEW
 SECONDARY ENTRY ROAD
 CROSSING AT QUINLAN CREEK

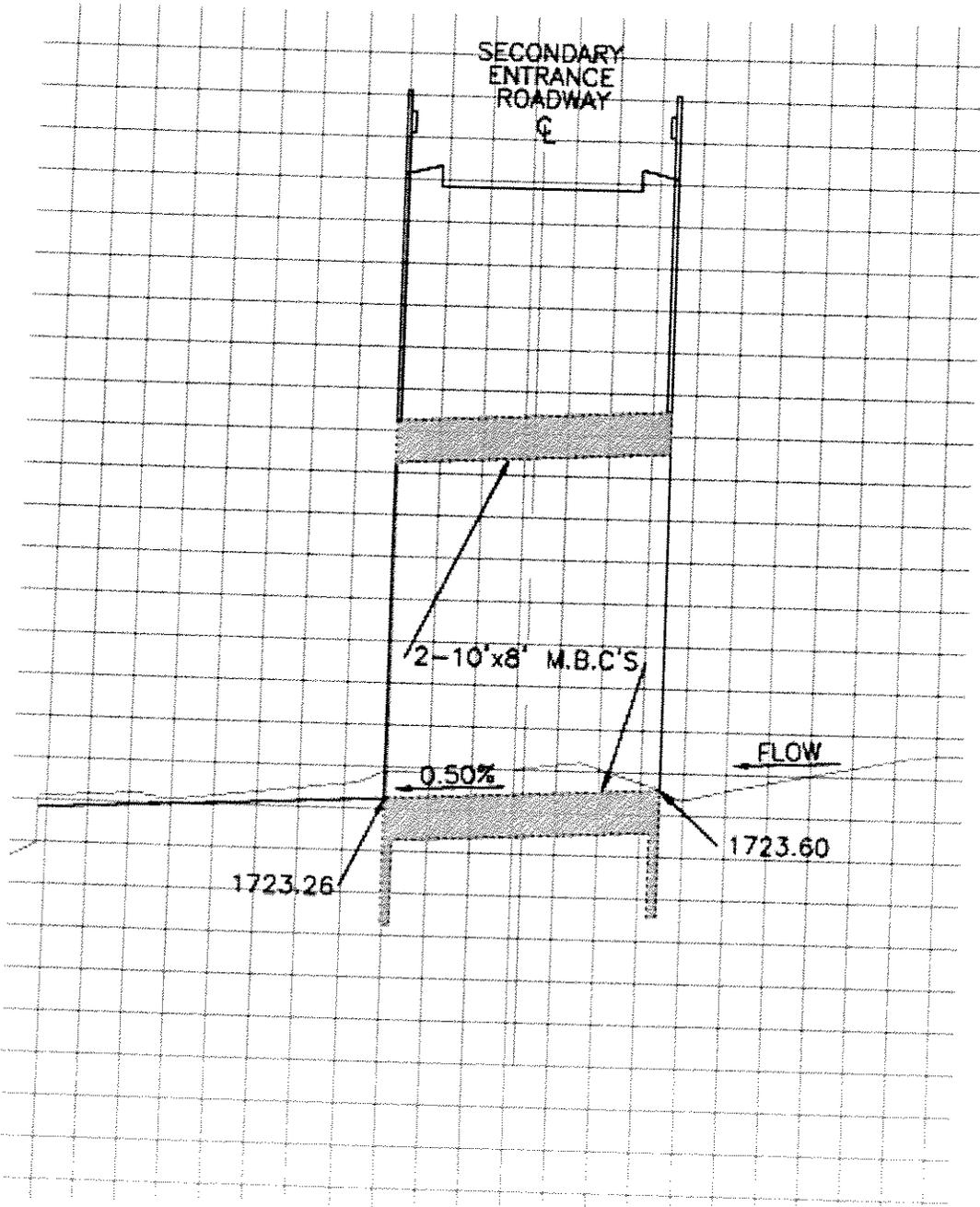


LOCATION MAP
 N.T.S.

USACE PROJECT NUMBER 200300473

J:\Whiskey_Springs\Auto\References\1503100-KERRVILLE\dwg\EXHIBITS\CREEKS_3-16-06\Exhibit 4 1-Z.dwg Feb 07, 2008-1:19pm DE:squid

SCALE: HORZ. 1" = 40'
VERT. 1" = 4'



W:\Projects\2003\00473\Drawings\200300473-17.dwg Plot Date: 07/20/03 11:21:00 AM

PATE ENGINEERS

HOUSTON • DALLAS • AUSTIN • FORT WORTH • SAN ANTONIO

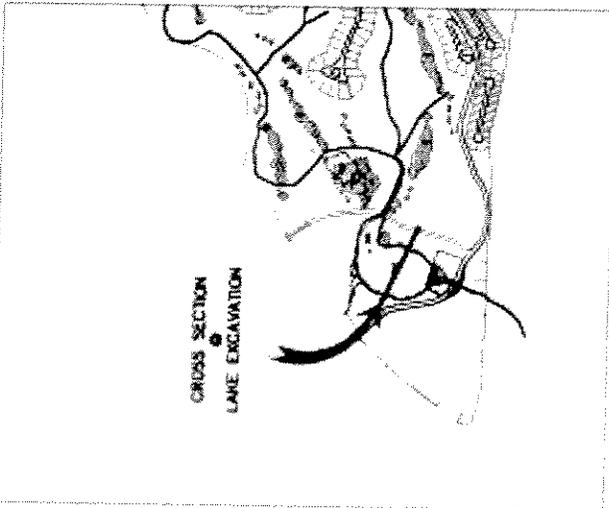
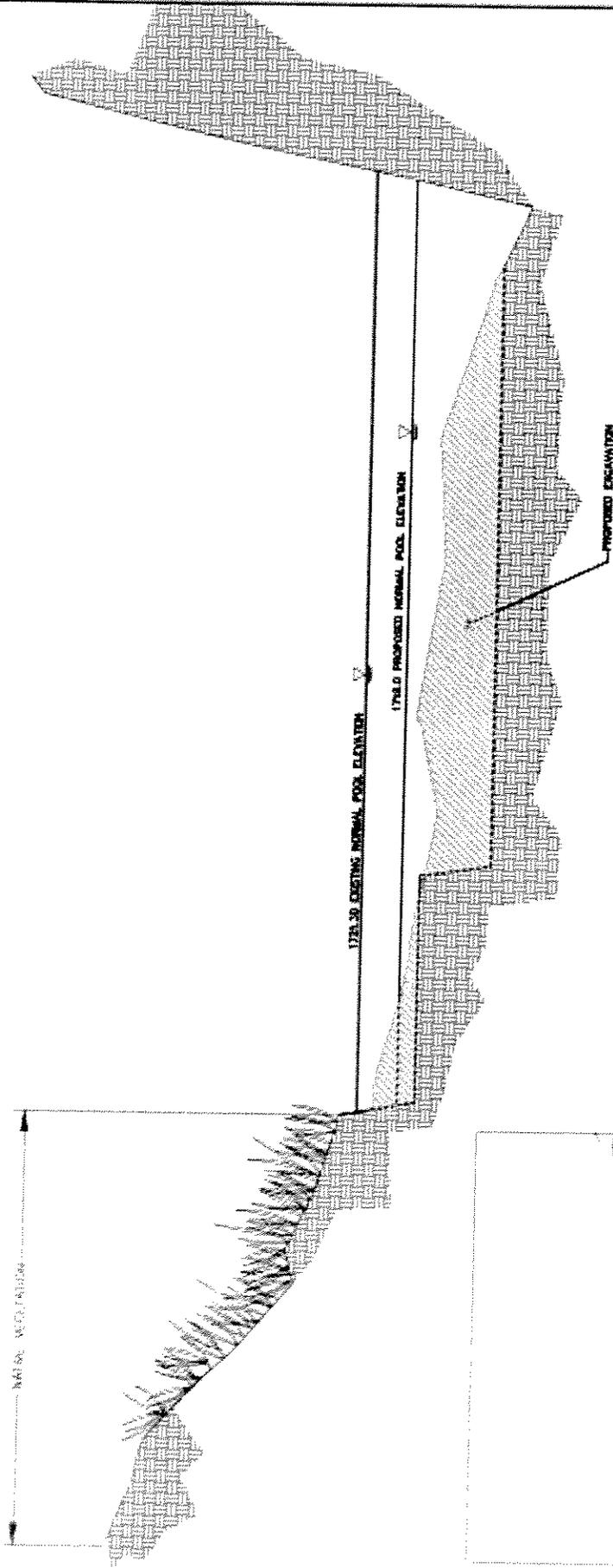
2200 W-10 WEST
SUITE 400
SAN ANTONIO, TEXAS 78208

PH: (214) 340-8448
FAX: (214) 340-3084
WWW.PATEENGINEERS.COM

WHISKEY SPRINGS
DEVELOPMENT

SPACE PROJECT NUMBER 200300473

SECTION 'F-F' OF
SECONDARY ENTRY ROAD
CULVERT AT QUINLAN CREEK



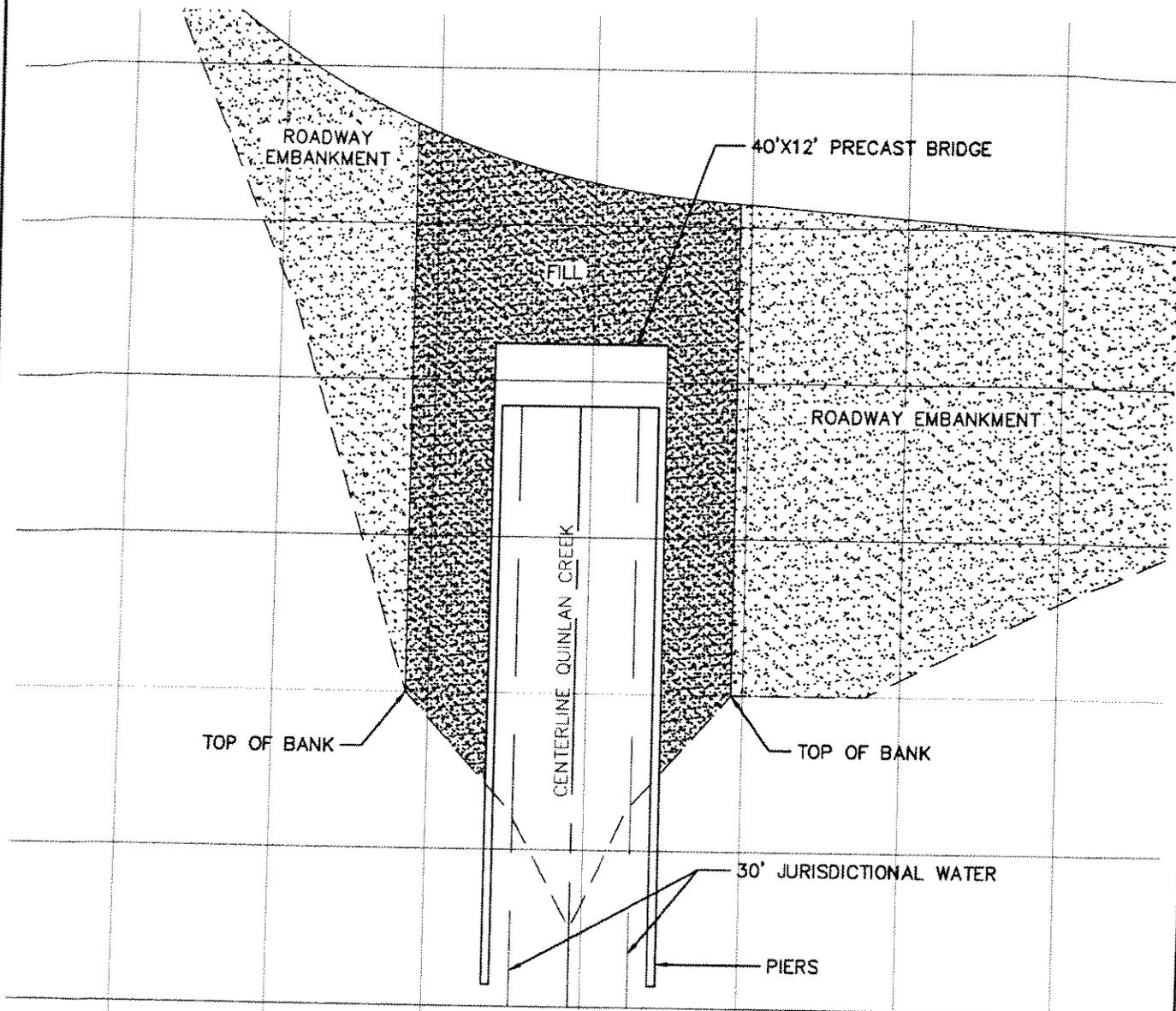
SCALE
1" = 50'
1H: 10V

PATE ENGINEERS
HOUSTON ■ DALLAS ■ AUSTIN ■ FORT WORTH ■ SAN ANTONIO
NEW SMITH CAPITAL OF TEXAS (BROWNS)
SUITE 200
ASTORIA, TEXAS 75737
PH: (512) 248-0888
FAX: (512) 248-0884
WWW.PATEENR.COM

WHISKEY SPRINGS
DEVELOPMENT
TYPICAL CROSS-SECTION OF
LAKE EXCAVATION ACTIVITIES

USACE PROJECT NUMBER 200300473

SCALE: HORZ. 1" = 40'
VERT. 1" = 4'

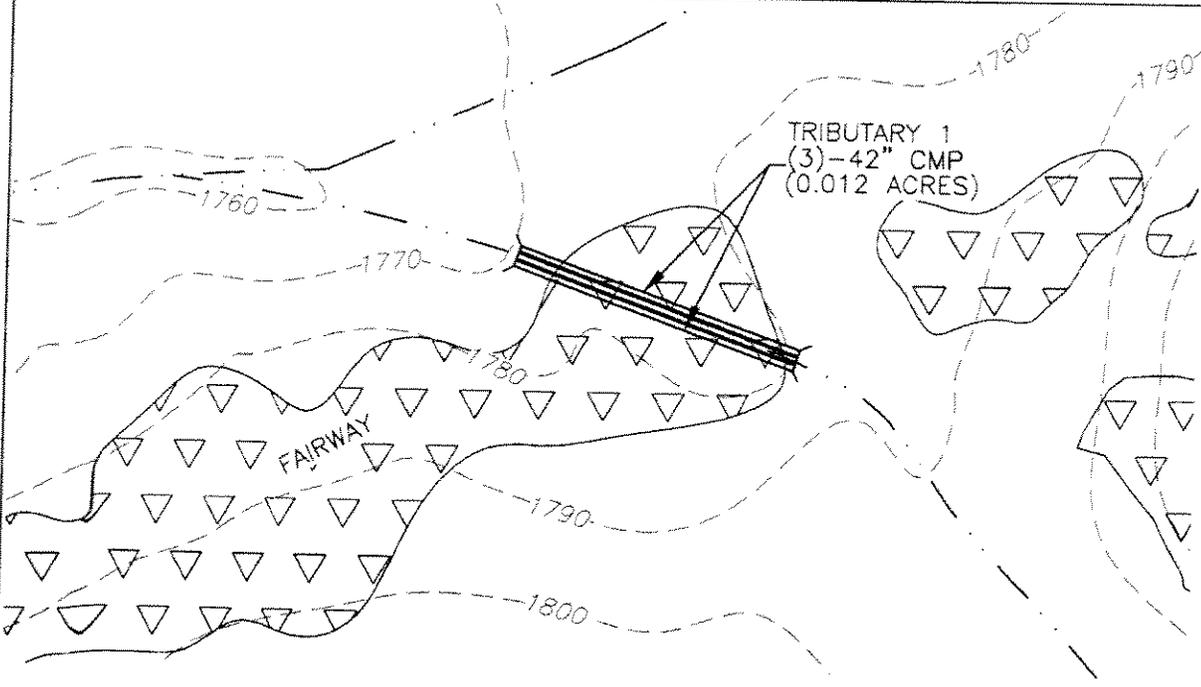


Z:\Whiskey Springs\Austin References\Permit and Mitigation Exhibits\080115\Permit Set\QUINLAN CREEK CROSSING.dwg Feb 07, 2008 - 1:15pm DEsqulvel

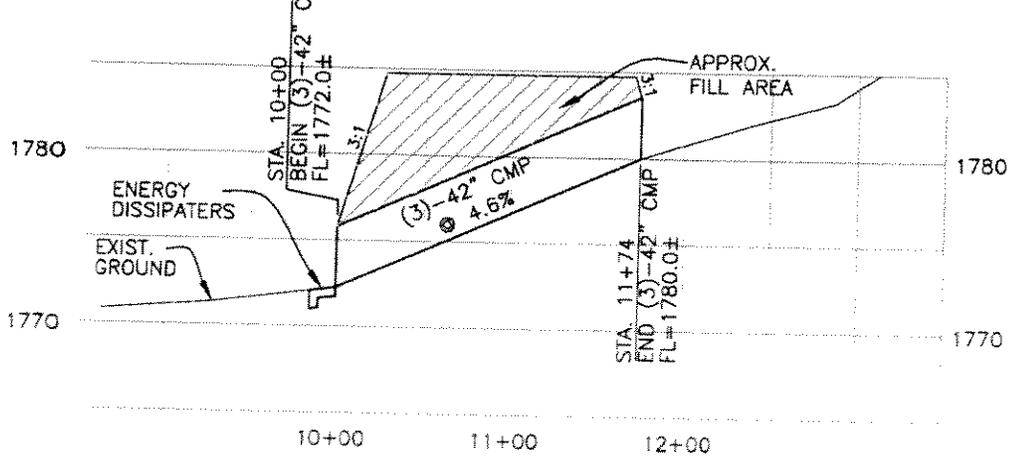
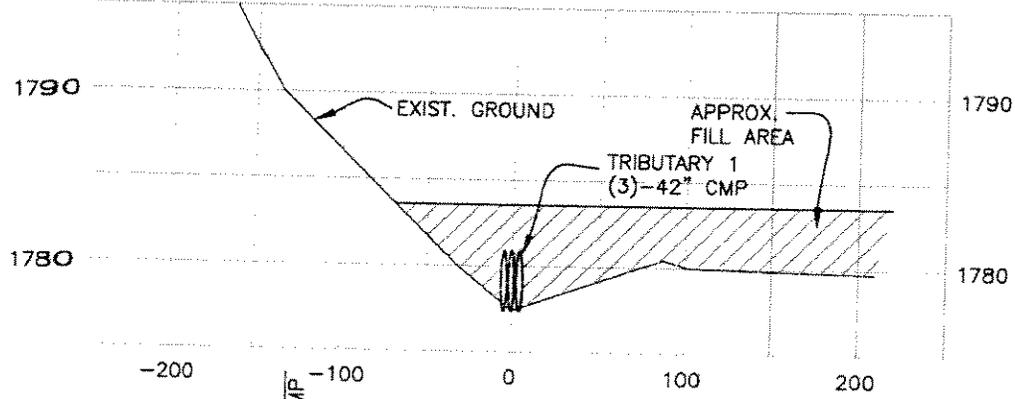
PATE ENGINEERS
HOUSTON • DALLAS • AUSTIN • FORT WORTH • SAN ANTONIO
8200 H-10 WEST SUITE 440 SAN ANTONIO, TEXAS 78230
PH: (210) 340-8481 FAX: (210) 340-3884 WWW.PATEENG.COM

WHISKEY SPRINGS DEVELOPMENT
EXHIBIT 4
TYPICAL SECTION OF FUTURE ROAD CROSSING & BRIDGE AT QUINLAN & SYCAMORE CREEKS

USACE PROJECT NUMBER 200300473



SCALE: 1" = 100' HORIZ.
 1" = 10' VERT.



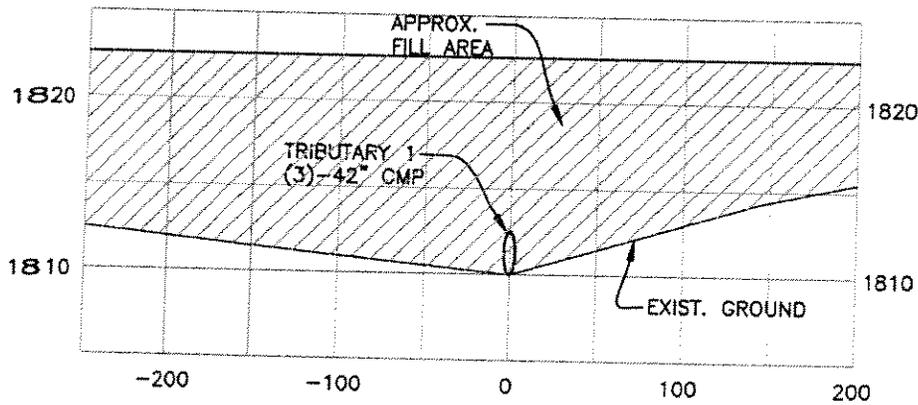
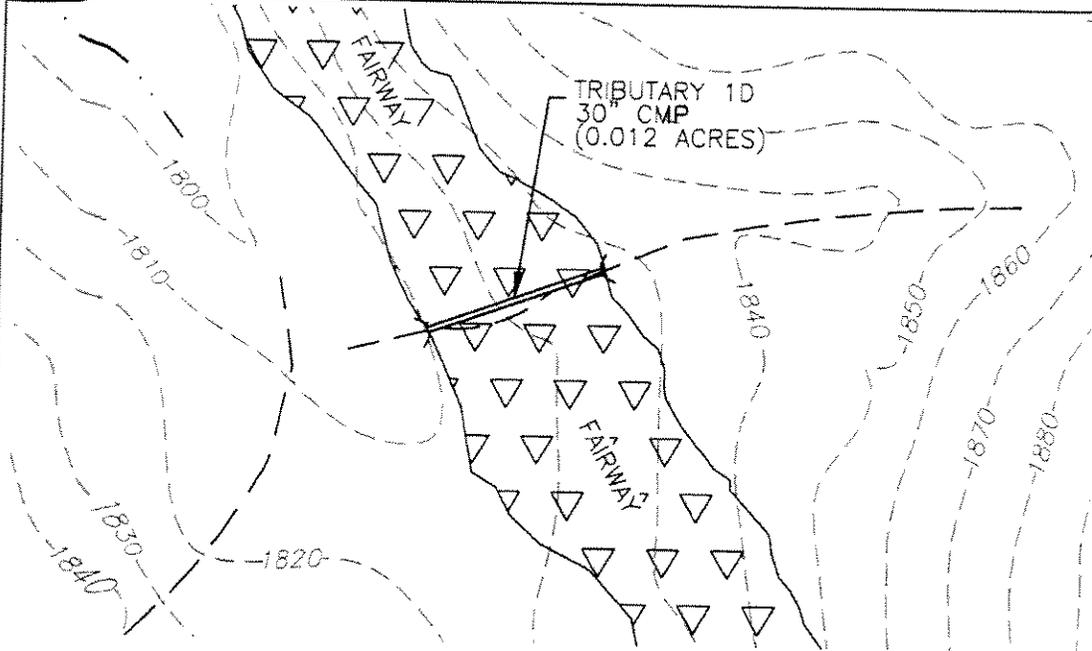
USAGE PROJECT No. 200300473

NO.	DATE	DESCRIPTION	BY

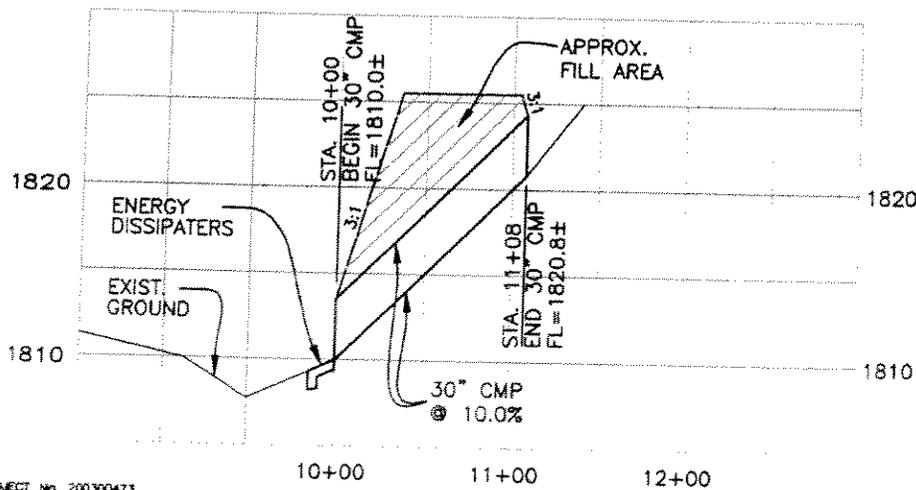
PROJECT: **WHISKEY SPRINGS**

SHEET: **TRIBUTARY 1
 CULVERT CROSSING**

PATE ENGINEERS
 8200 IH-10 West - Suite 440
 San Antonio, Texas 78230
 OFFICE: (210) 340-8481 FAX: (210) 340-3964



SCALE: 1" = 100' HORIZ.
 1" = 10' VERT.



USAGE PROJECT No. 200300473

NO.	DATE	DESCRIPTION	BY

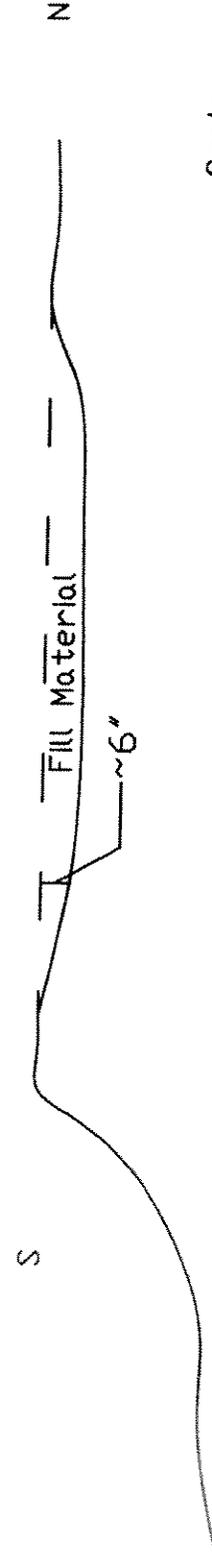
PROJECT: **WHISKEY SPRINGS**
 SHEET: **TRIBUTARY 1D
 CULVERT CROSSING**

PATE ENGINEERS
 8200 IH-10 West - Suite 440
 San Antonio, Texas 78230
 OFFICE: (210) 340-8481 FAX: (210) 340-3964

B



A



Scale:
1/4"=1'

KBA Enviroscience, Ltd	
Whiskey Springs Development	
Pond P2 Detail, Plan and Cross-Section	
Kerrville, Texas	
Berfin Interests, Inc.	
Prepared by:	Project #:
K. Boothard	05.035.1
	Date: 04/13/04



Wetland Fringe

To be Filled

B

Pond

Dam

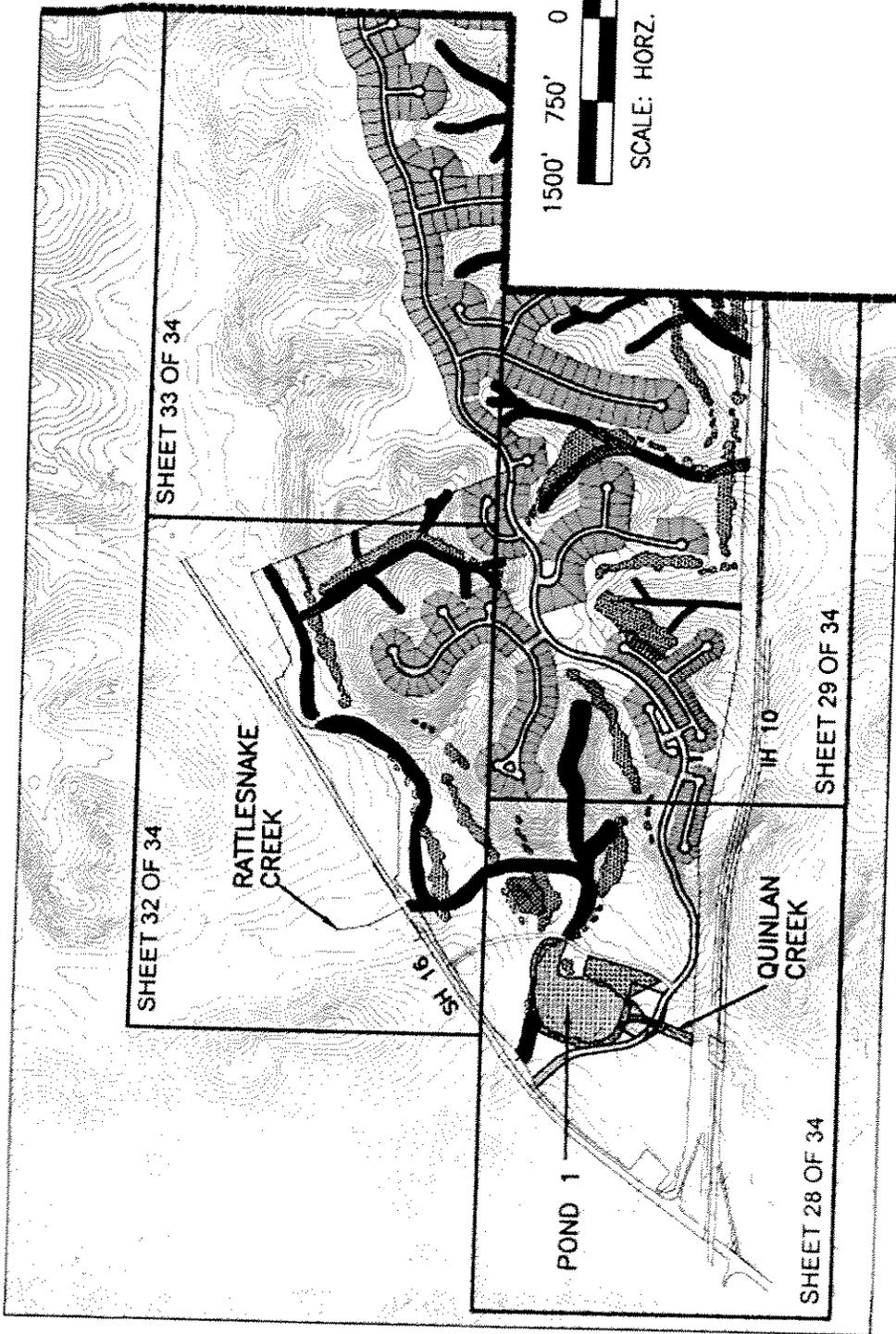
Ephemeral Stream

A

Road

Scale:
1/4"=1'

KBA Enviroscience, Ltd	
Whiskey Springs Development	
Pond P2 Detail, Profile	
Kerrville, Texas	
Berlin Interests, Inc.	
Prepared by: K. Stoddard	Project #: 05.035.1
	Date: 08/18/2008



LEGEND

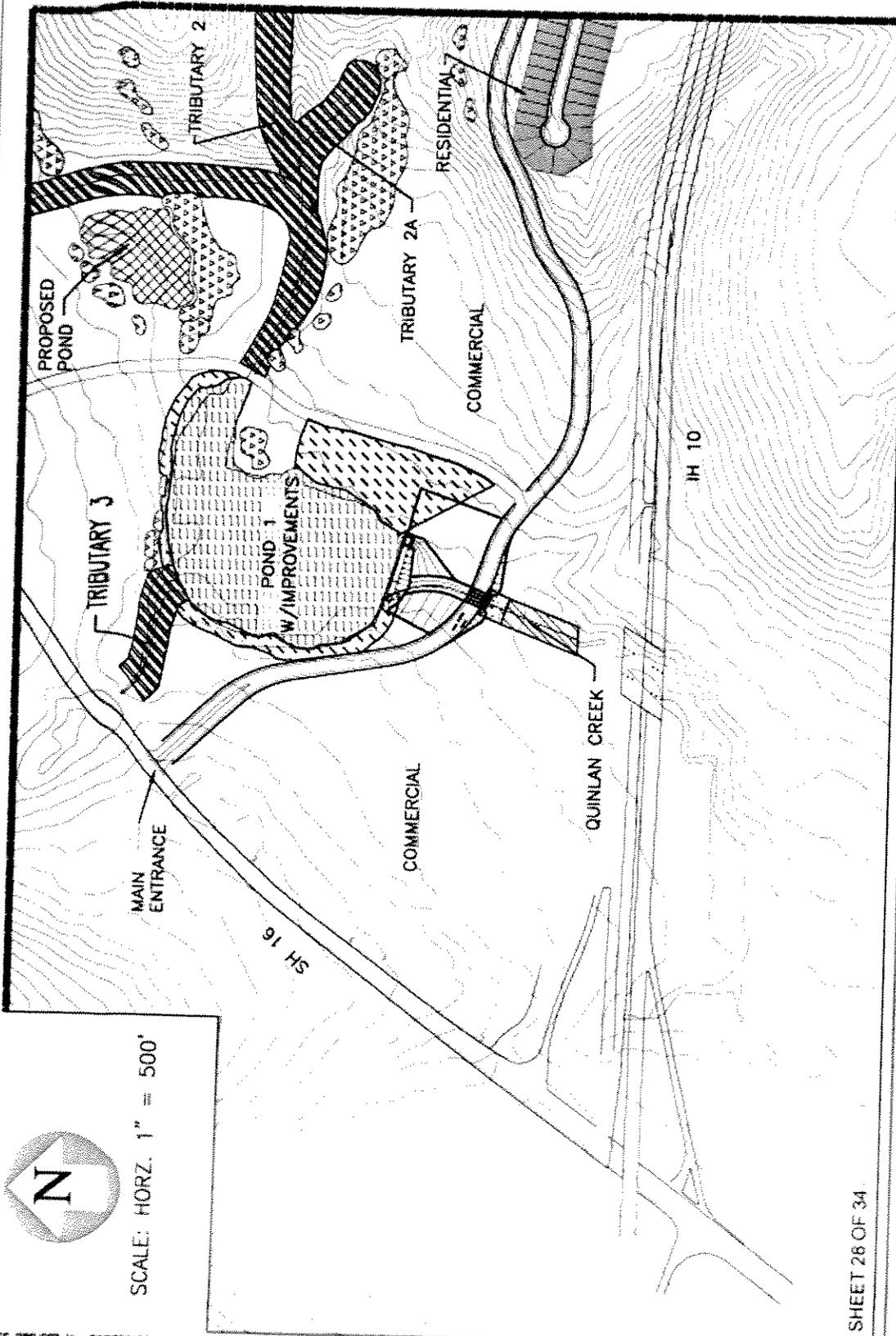
	PROPERTY LINE		STREAM CREATION		MITIGATION BUFFER A
	10' CONTOUR INTERVAL		GOLF COURSE GRADING		MITIGATION BUFFER B
	INTERMITTENT WATERS OF THE U.S.		EXISTING POND		PRESERVATION
	EPHEMERAL WATERS OF THE U.S.		PROPOSED POND		

NO.	DATE	DESCRIPTION	BY

USACE PROJECT No. 200300473
 PROJECT: WHISKEY SPRINGS
 SHEET:

USACE PROJECT NO. 200300473

PATE ENGINEERS
 8200 IH-10 West - Suite 440
 San Antonio, Texas 78230
 OFFICE: (210) 340-8481 FAX: (210) 340-3964



LEGEND

	PROPERTY LINE		STREAM CREATION		MITIGATION BUFFER A
	10' CONTOUR INTERVAL		GOLF COURSE GRADING		MITIGATION BUFFER B
	INTERMITTENT WATERS OF THE U.S.		EXISTING POND		PRESERVATION
	EPHEMERAL WATERS OF THE U.S.		PROPOSED POND		

SHEET 26 OF 34

SCALE: HORZ. 1" = 500'

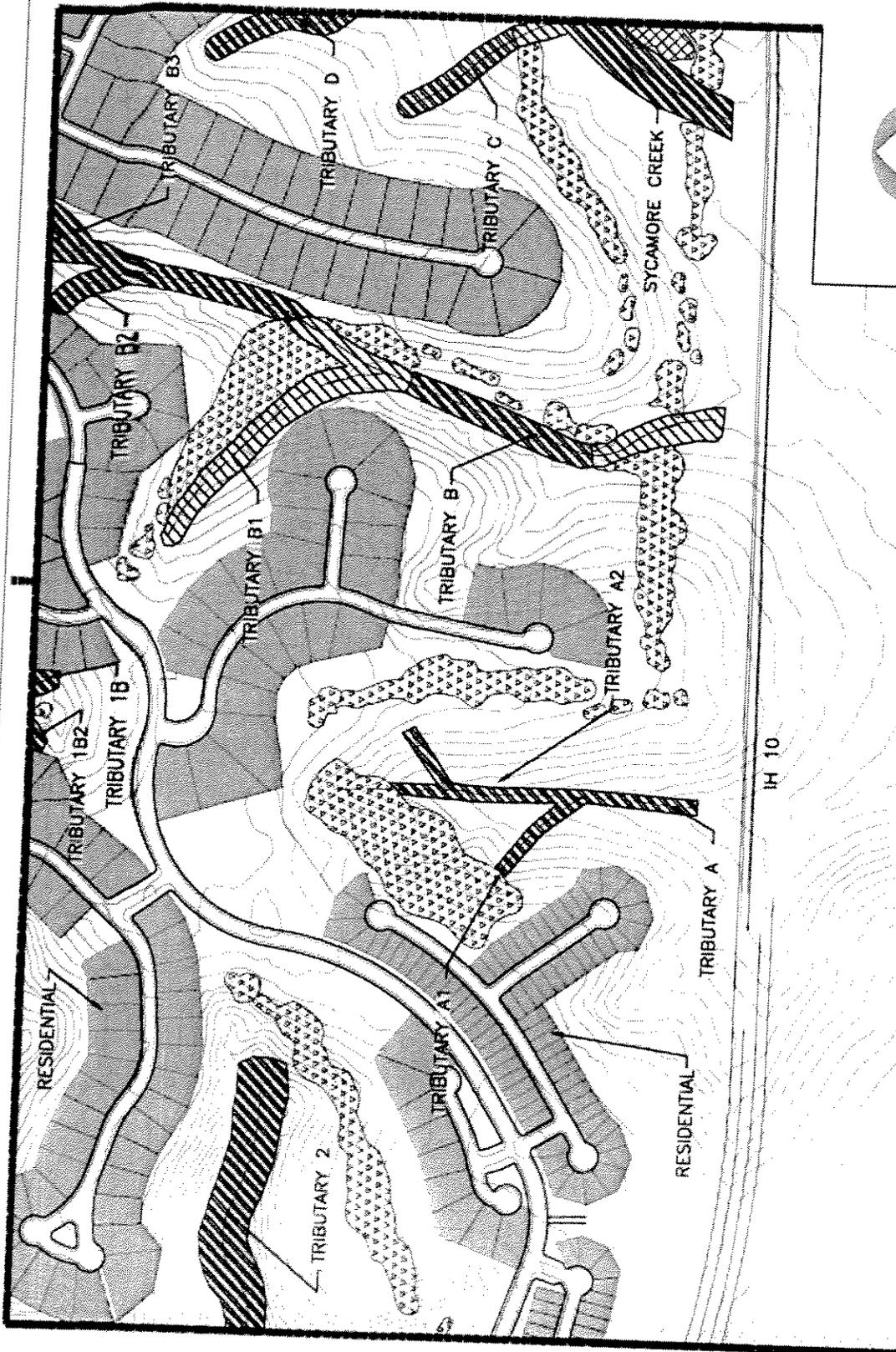
USACE PROJECT No. 200300473

NO.	DATE	DESCRIPTION	BY

PROJECT: WHISKEY SPRINGS
 SHEET: _____

USACE PROJECT NO. 200300473

PATE ENGINEERS
 8200 IH-10 West - Suite 440
 San Antonio, Texas 78230
 OFFICE: (210) 340-8481 FAX: (210) 340-3964



SCALE: HORZ. 1" = 500'

LEGEND

	PROPERTY LINE		INTERMITTENT WATERS OF THE U.S.		MITIGATION BUFFER A
	10' CONTOUR INTERVAL		EPHEMERAL WATERS OF THE U.S.		MITIGATION BUFFER B
	STREAM CREATION		PROPOSED POND		PRESERVATION
	GOLF COURSE GRADING		EXISTING POND		

USAGE PROJECT No. 200300473

NO.	DATE	DESCRIPTION	BY

PROJECT: WHISKEY SPRINGS
 SHEET: _____

USAGE PROJECT NO. 200300473

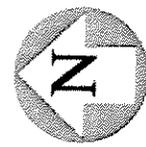
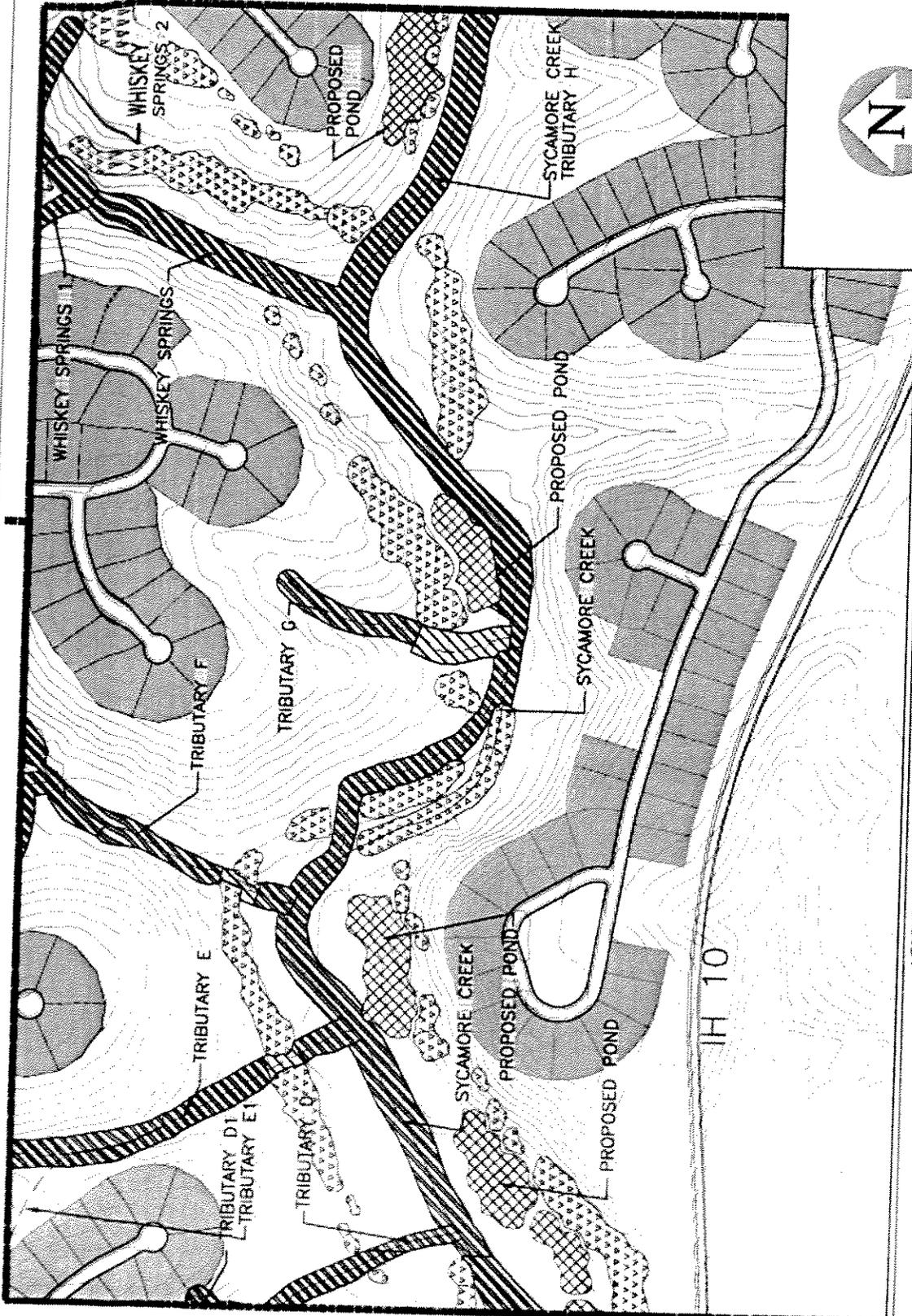
Project No. 200300473, Sheet 29 of 34

PATE ENGINEERS

8200 IH-10 West - Suite 440

San Antonio, Texas 78230

OFFICE: (210) 340-8481 FAX: (210) 340-3964



SCALE: HORZ. 1" = 500'

LEGEND

PROPERTY LINE	STREAM CREATION	MITIGATION BUFFER A
10' CONTOUR INTERVAL	GOLF COURSE GRADING	MITIGATION BUFFER B
INTERMITTENT WATERS OF THE U.S.	EXISTING POND	PRESERVATION
EPHEMERAL WATERS OF THE U.S.	PROPOSED POND	

USAGE PROJECT No. 200300473

NO.	DATE	DESCRIPTION	BY

PROJECT: WHISKEY SPRINGS
 SHEET:

USAGE PROJECT NO. 200300473

Project No. 200300473, Sheet 30 of 34

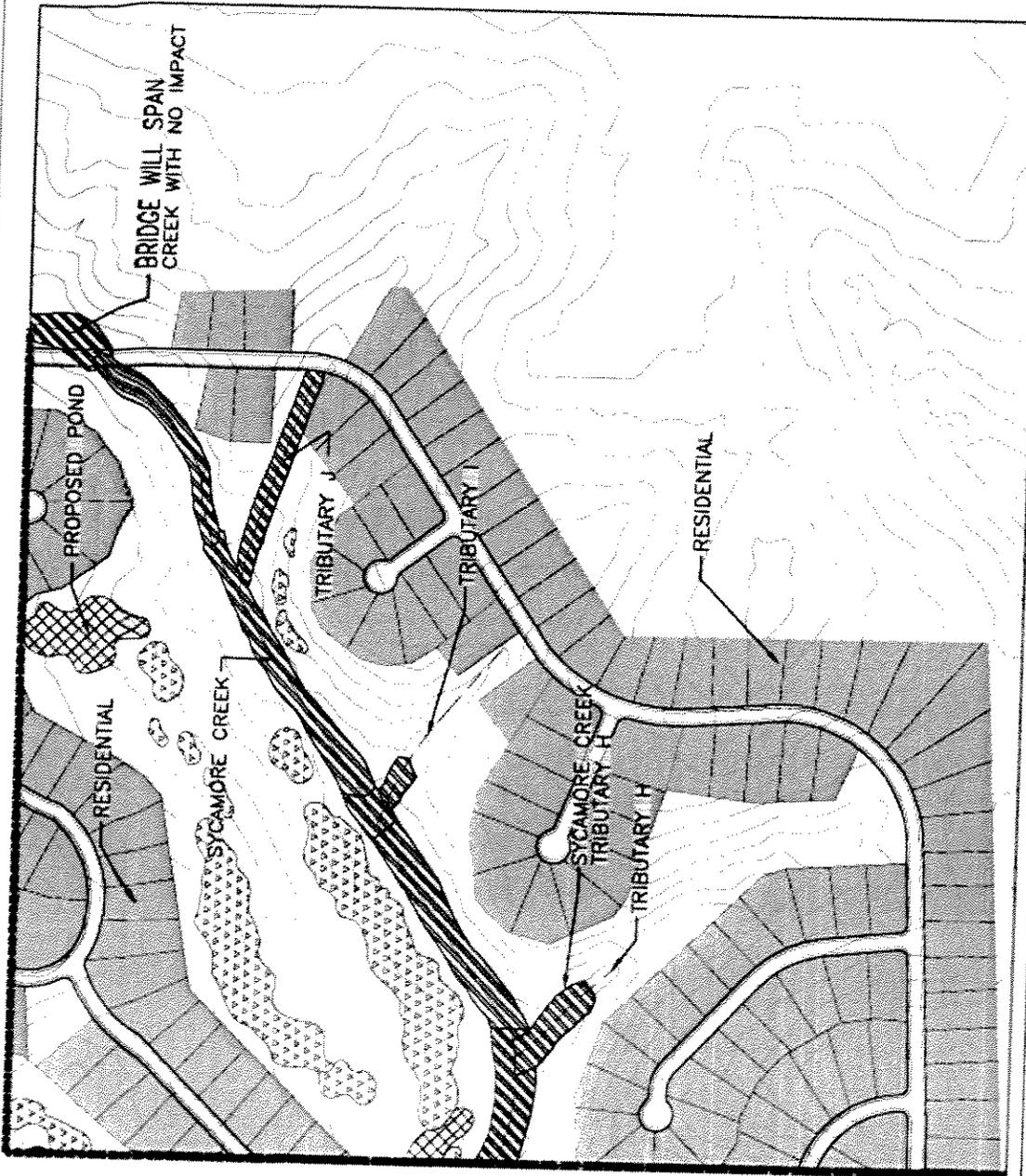
PATE ENGINEERS

8200 IH-10 West - Suite 440
 San Antonio, Texas 78230

OFFICE: (210) 340-8481 FAX: (210) 340-3964



SCALE: HORZ. 1" = 500'



LEGEND

	PROPERTY LINE		INTERMITTENT WATERS OF THE U.S.		MITIGATION BUFFER A
	10' CONTOUR INTERVAL		EPHEMERAL WATERS OF THE U.S.		MITIGATION BUFFER B
	STREAM CREATION		PROPOSED POND		PRESERVATION
	GOLF COURSE GRADING		EXISTING POND		

USAGE PROJECT No. 200300473

NO.	DATE	DESCRIPTION	BY

PROJECT: WHISKEY SPRINGS

SHEET:

USAGE PROJECT NO. 200300473

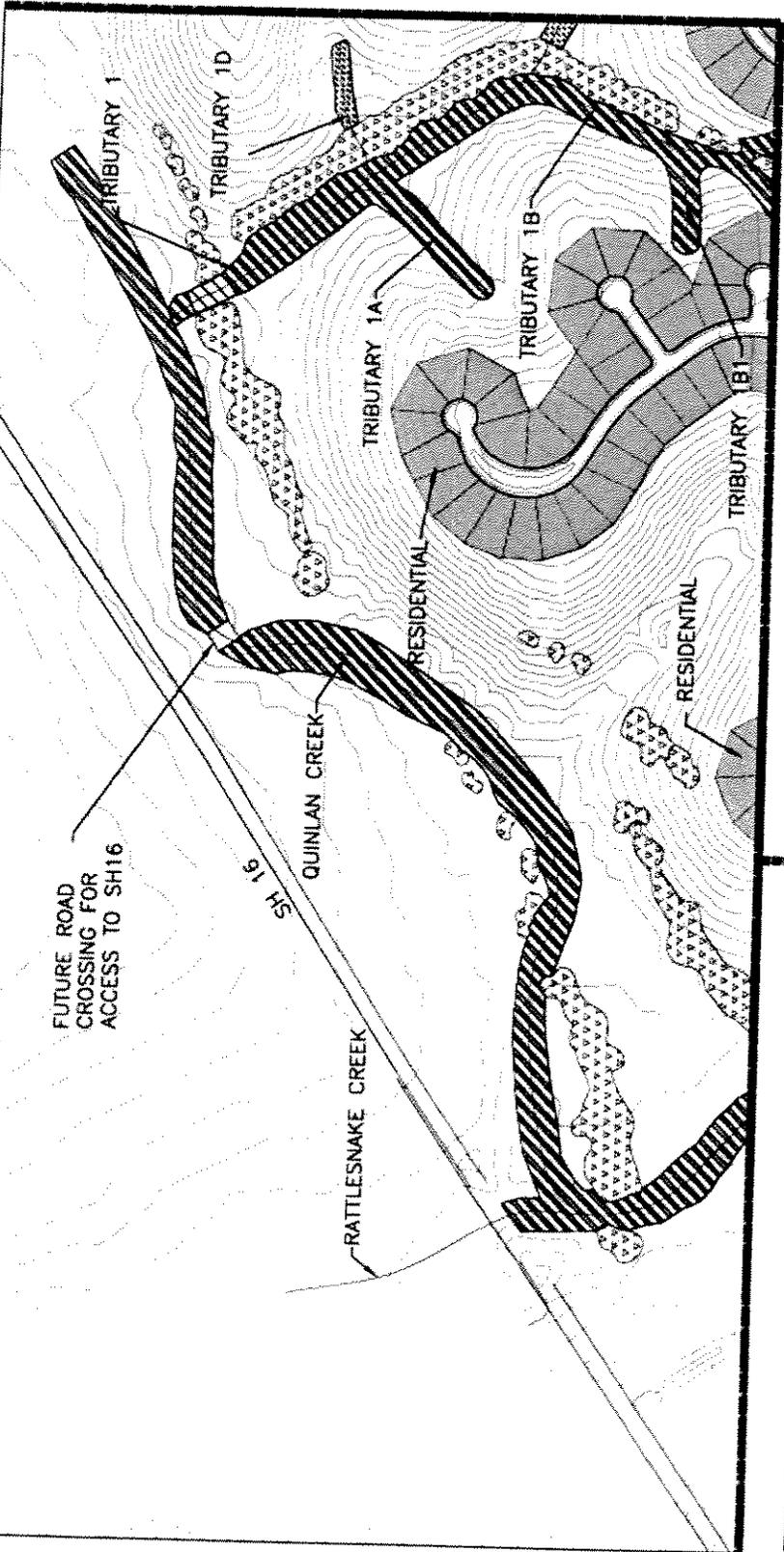
PATE & ENGINEERS

8200 IH-10 West - Suite 440
 San Antonio, Texas 78230

OFFICE: (210) 340-8481 FAX: (210) 340-3964



SCALE: HORZ. 1" = 500'



LEGEND

PROPERTY LINE	STREAM CREATION	MITIGATION BUFFER A
10' CONTOUR INTERVAL	GOLF COURSE GRADING	MITIGATION BUFFER B
INTERMITTENT WATERS OF THE U.S.	EXISTING POND	PRESERVATION
EPHEMERAL WATERS OF THE U.S.	PROPOSED POND	

NO.	DATE	DESCRIPTION	BY

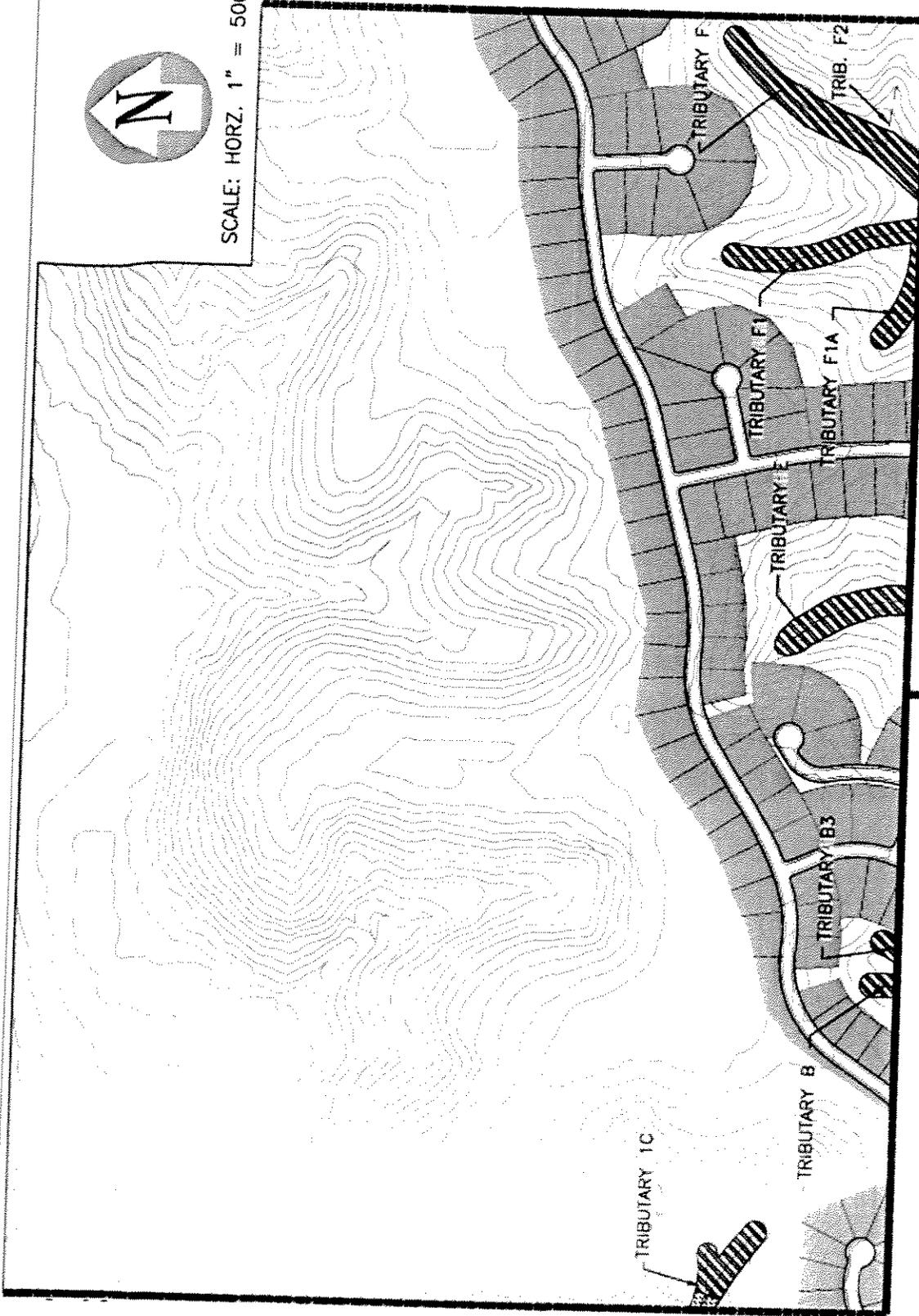
PROJECT: WHISKEY SPRINGS
 SHEET:

USACE PROJECT NO. 200300473

PATE ENGINEERS
 8200 IH-10 West - Suite 440
 San Antonio, Texas 78230
 OFFICE: (210) 340-8481 FAX: (210) 340-3964



SCALE: HORZ. 1" = 500'



LEGEND

PROPERTY LINE	STREAM CREATION	MITIGATION BUFFER A
10' CONTOUR INTERVAL	GOLF COURSE GRADING	MITIGATION BUFFER B
INTERMITTENT WATERS OF THE U.S.	EXISTING POND	PRESERVATION
EPHEMERAL WATERS OF THE U.S.	PROPOSED POND	

USAGE PROJECT No. 200300473

NO.	DATE	DESCRIPTION	BY

PROJECT: WHISKEY SPRINGS

SHEET:

USAGE PROJECT NO. 200300473

PATE ENGINEERS

8200 IH-10 West - Suite 440

San Antonio, Texas 78230

OFFICE: (210) 340-8481 FAX: (210) 340-3964

