SG: 06-05-08
Item No. Z-2. Amended.

CASE NO. Z2008085 CD S ERZD

AN ORDINANCE 2008-06-05-0496

AMENDING THE OFFICIAL ZONING MAP OF THE CITY OF SAN ANTONIO BY AMENDING CHAPTER 35, UNIFIED DEVELOPMENT CODE, SECTION 35-304, OFFICIAL ZONING MAP OF THE CITY CODE OF SAN ANTONIO, TEXAS BY CHANGING THE ZONING DISTRICT BOUNDARY OF CERTAIN PROPERTY.

* * * * *

WHEREAS, a public hearing was held regarding this amendment to the Official Zoning Map at which time parties in interest and citizens were given an opportunity to be heard; and

WHEREAS, the Zoning Commission has submitted a final report to the City Council regarding this amendment to the Official Zoning Map of the City of San Antonio; **NOW THEREFORE**,

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SAN ANTONIO:

SECTION 1. Chapter 35, Unified Development Code, Section 35-304, Official Zoning Map, of the City Code of San Antonio, Texas is amended by changing the zoning district boundary of 0.5869 acres out of Parcel 25B, NCB 18218 from "C-1 ERZD" Light Commercial Edwards Recharge Zone District to "C-2 CD S ERZD" [CD-Veterinary Hospital - Small Animals (No Outside Runs, Pens and Paddocks Permitted)] Commercial Edwards Recharge Zone District with a Conditional Use for a Veterinary Hospital - Small Animals (No Outside Runs, Pens and Paddocks Permitted) and a Specific Use Authorization for a Veterinary Hospital - Small Animals (No Outside Runs, Pens and Paddocks Permitted) within the Edwards Recharge Zone.

SECTION 2. A description of the property is attached as Exhibit "A" and made a part hereof and incorporated herein for all purposes.

SECTION 3. The City Council finds as follows:

A. The conditional use will not be contrary to the public interest.
B. The conditional use will not substantially nor permanently injure the appropriate use of adjacent conforming property in the same district.
C. The conditional use will be in harmony with the spirit and purpose for conditional uses as set forth in Section 35-422, Conditional Zoning, of the Unified Development Code.
D. The conditional use will not substantially weaken the general purposes of the regulations as set forth in Section 35-422, Conditional Zoning, of the Unified Development Code.

SECTION 4. The City council approves this Specific Use Authorization so long as the attached site plan is adhered to. A site plan is attached as Exhibit "B" and made a part hereof and incorporated herein for all purposes.

SECTION 5. This change of zoning district boundary is conditioned on the requirement that the impervious cover on the property described by this ordinance shall not exceed 65%. The property is included in the Aquifer Protection Plan for North Pointe Commerical Phase I, attached as Exhibit "C" and made a part hereof and incorporated herein for all purposes.

SECTION 6. The owner or owner's agent shall inform any person leasing this tract or any portion of this tract that storage of chemicals and/or hazardous materials is not permitted. Provisions prohibiting the storage of chemicals and/or hazardous materials shall be included in the lease agreement. The owner or owner's agent shall provide a copy of the of the lease provisions regarding the storage of chemicals and/or hazardous materials to the Aquifer Protection and Evaluation Section of the San Antonio Water System for approval. The Aquifer Protection and Evaluation Section of the San Antonio Water System may randomly inspect, without notice, any or all facilities on the site to ensure compliance with this ordinance.

SECTION 7. All water pollution abatement structures or features approved by the Texas Commission on Environmental Quality shall be properly maintained and kept free of trash and debris. A water quality maintenance plan and schedule agreement signed by the property owner must be submitted to the Resource Protection Division of SAWS. If at any time the ownership of the property changes, the seller must disclose to the buyer all the requirements of the water quality maintenance plan. A water quality maintenance plan signed by the new owner must be submitted to the Resource Protection Division of SAWS.

SECTION 8. Landscaped areas shall be sensitive to minimizing water needs, i.e., use of native plants. Each purchaser of an individual lot or tenant within this development shall be informed by the seller or lessor in writing about Best Management Practices (BMP) for pesticide and fertilizer application. Preventing Groundwater Pollution, A Practical Guide to Pest Control, available from the Edwards Aquifer Authority (210/222-2204), or equivalent information produced by the U.S. Natural Resource Conservation Service, the Texas Department of Agriculture, or the U.S. Department of Agriculture shall be used.

SECTION 9. All other provisions of Chapter 35 except those expressly amended by this ordinance shall remain in full force and effect including the penalties for violations as made and provided for in Section 35-491.

SECTION 10. The Director of Development Services shall change the zoning records and maps in accordance with this ordinance and the same shall be available and open to the public for inspection.

SECTION 11. If a court of competent jurisdiction enters a final judgment on the merits that is no longer subject to appeal and substantially limits or impairs the essential elements of sections one through five of this ordinance, then sections one through five are invalid and have no legal

effect as of the date of entry of such judgment notwithstanding any other ordinance or provision of the City Code of San Antonio.

SECTION 12. This ordinance shall become effective on June 15, 2008.

PASSED AND APPROVED this 5th day of June 2008.

M A Y O R
PHIL HARDBERGER

ATTEST: _____
City Clerk

APPROVED AS TO FORM: _____
City Attorney

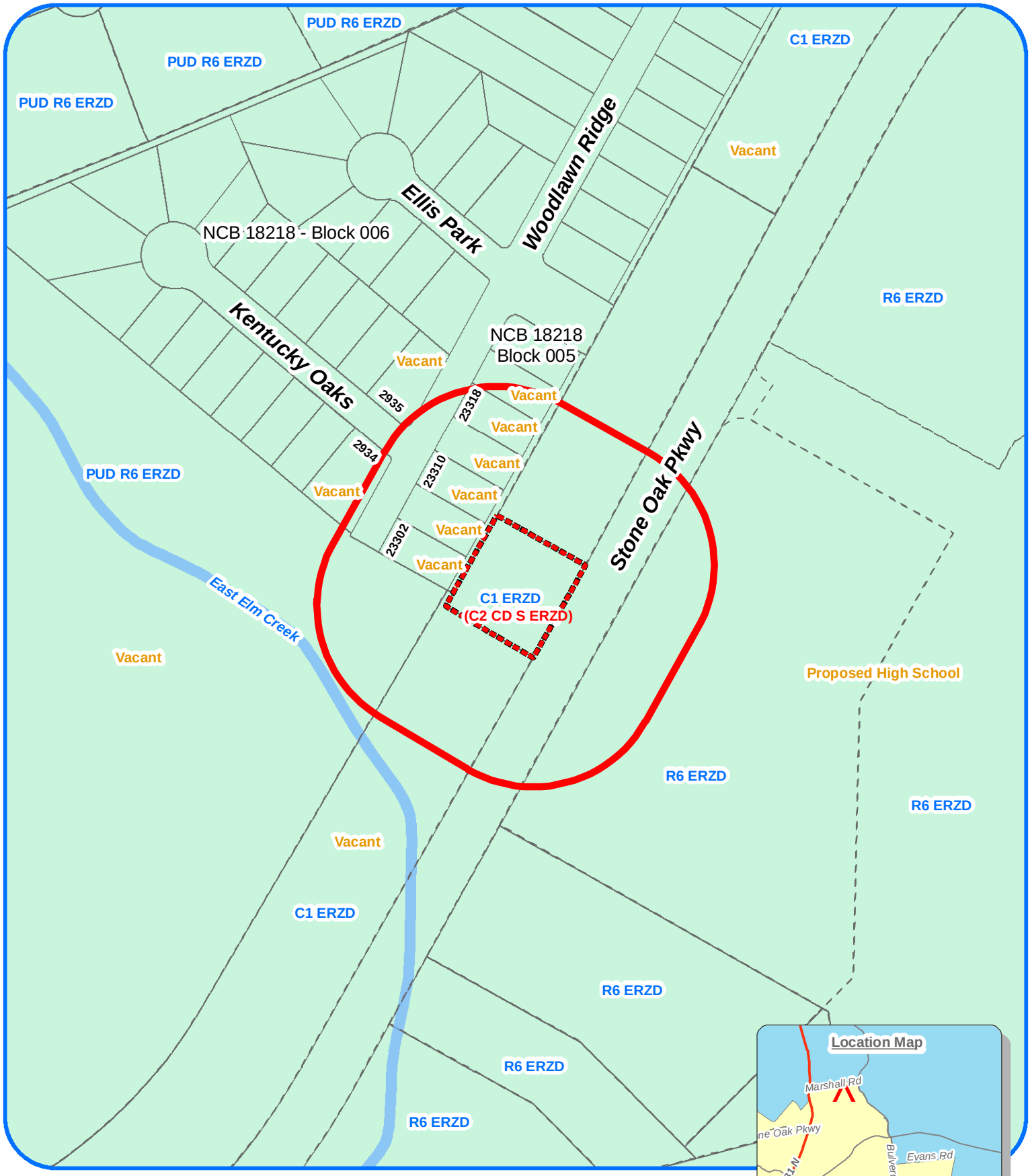
Request for COUNCIL ACTION

City of San Antonio

Agenda Voting Results - Z-2

Name:	Z-2
Date:	06/05/2008
Time:	03:13:08 PM
Vote Type:	Motion to Appr w Cond
Description:	ZONING CASE # Z2008085 CD S ERZD (District 9): An Ordinance changing the zoning district boundary from "C-1 ERZD" Light Commercial Edwards Recharge Zone District to "C-2 CD S ERZD" [CD-Veterinary Hospital - Small Animals (No Outside Runs, Pens and Paddocks Permitted)] Commercial Edwards Recharge Zone District with a Conditional Use for a Veterinary Hospital - Small Animals (No Outside Runs, Pens and Paddocks Permitted) and a Specific Use Authorization for a Veterinary Hospital - Small Animals (No Outside Runs, Pens and Paddocks Permitted) within the Edwards Recharge Zone on 0.5869 acres out of Parcel 25B, NCB 18218 the west side of Stone Oak Parkway between U.S. Highway 281 and Bulverde Road, as requested by RAD Investments, Inc., Applicant for RAD Investments, Inc., Owner. Staff recommends approval. With the exception of no recommendation on the impervious cover limits, Zoning Commission recommends approval.
Result:	Passed

Voter	Group	Not Present	Yea	Nay	Abstain	Motion	Second
Phil Hardberger	Mayor		x				
Mary Alice P. Cisneros	District 1		x				
Sheila D. McNeil	District 2		x				
Jennifer V. Ramos	District 3		x				
Philip A. Cortez	District 4		x				
Lourdes Galvan	District 5		x				
Delicia Herrera	District 6	x					
Justin Rodriguez	District 7	x					
Diane G. Cibrian	District 8		x				
Louis E. Rowe	District 9		x			x	
John G. Clamp	District 10		x				x



Zoning Case Notification Plan

Case Z-2008-085

Council District 9

Scale: 1" approx. = 200'

Subject Property Legal Description(s): Parcel P-25B - NCB 18218 - Block 000

Legend

Subject Property (0.5869 Acres)

200' Notification Buffer

Current Zoning R6

Requested Zoning Change (R6)

100-Year FEMA Floodplain

City of San Antonio - Development Services Dept
(02/27/2008)

Z2008085 CD S ERZD

ZONING CASE NUMBER Z2008085 CD S (Council District 9) – March 18, 2008

The request of RAD Investments, Inc., Applicant, for RAD Investments, Inc., Owner(s), for a change in zoning from "C-1" ERZD Light Commercial Edwards Recharge Zone District to "C-2" CD S ERZD [CD-Veterinary Hospital - Small Animals (No Outside Runs, Pens and Paddocks Permitted)] Commercial Edwards Recharge Zone District with a Conditional Use for a Veterinary Hospital - Small Animals (No Outside Runs, Pens and Paddocks Permitted) and a Specific Use Authorization for a Veterinary Hospital - Small Animals (No Outside Runs, Pens and Paddocks Permitted) within the Edwards Recharge Zone on 0.5869 acres out of Parcel 25B, NCB 18218, Stone Oak Parkway between U.S. Highway 281 and Bulverde Road. Staff recommends approval.

Jamie Fehlis, applicant, proposing a small animal veterinary clinic.

The following citizen(s) appeared to speak:

Elyzabeth Earnley, spoke in opposition.

Staff stated there were 16 notices mailed out to the surrounding property owners, 0 returned in opposition and 1 returned in favor.

COMMISSION ACTION

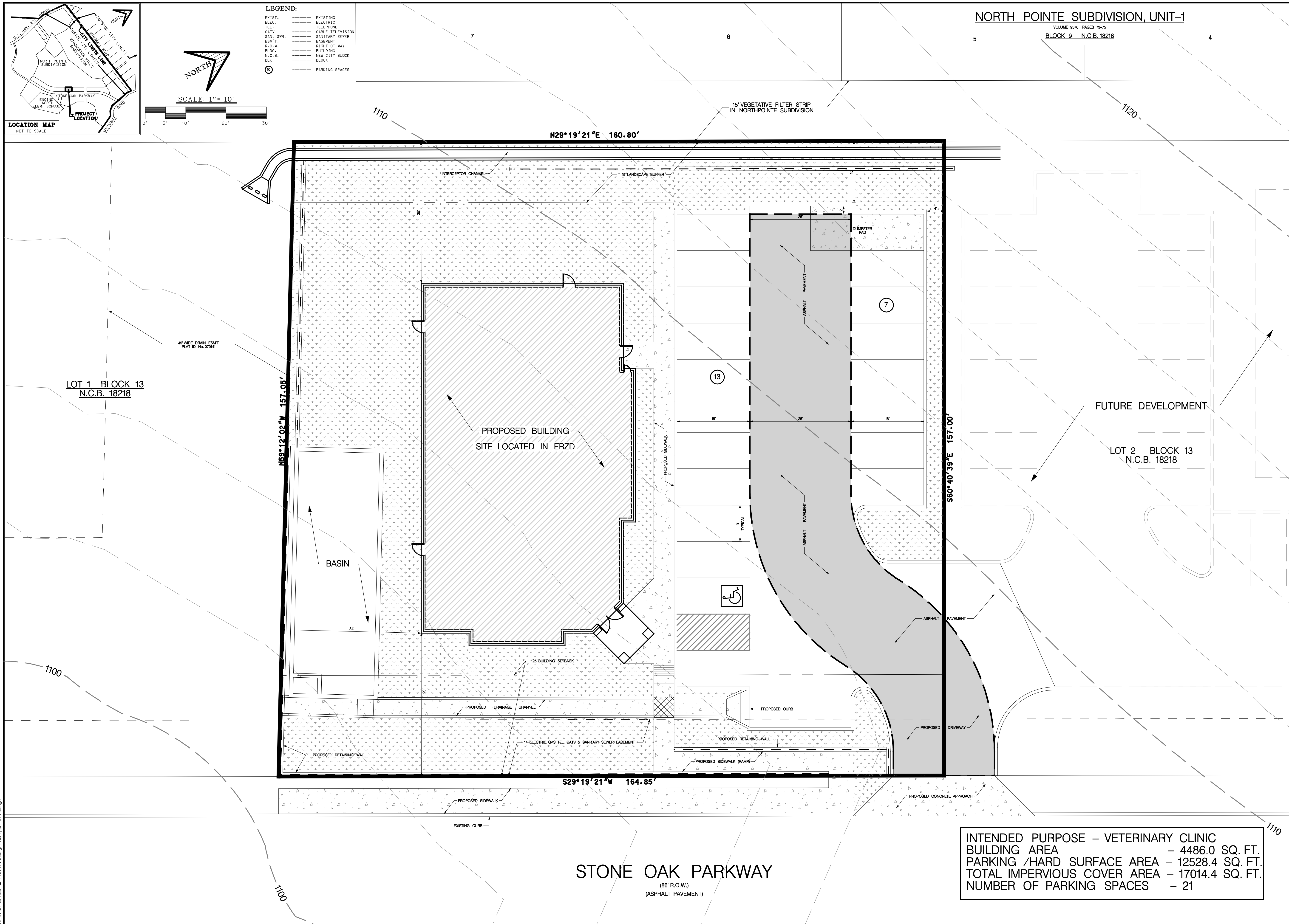
The motion was made by Commissioner Wright and seconded by Commissioner Myers to recommend approval with 67% impervious cover.

Commissioner Gadberry stated he would like to add a friendly amendment to excluded the 67% impervious cover.

Commissioner Wright and Commissioner Myers accepted.

AYES: Sherrill, Robbins, J. Valadez, Westheimer, Gadberry, Myers, Wright, Martinez, Gray
NAY: None

THE MOTION CARRIED


LOCATION MAP
NOT TO SCALE
OUTSIDE CITY LIMITS
CITY LIMITS LINE
INSIDE CITY LIMITS
WINCHESTER HILLS SUBDIVISION
NORTH POINTE SUBDIVISION
STONE OAK PARKWAY
ENCINO NORTH ELEM. SCHOOL
PROJECT LOCATION
LEGEND:
EXIST. EXISTING
ELEC. ELECTRIC
TEL. TELEPHONE
CATV CABLE TELEVISION
SAN. SWR. SANITARY SEWER
ESM'T. EASEMENT
R.O.W. RIGHT-OF-WAY
BLDG. BUILDING
N.C.B. NEW CITY BLOCK
BLK. BLOCK
PARKING SPACES
NORTH
SCALE: 1" = 10'
0' 5' 10' 20' 30'
NORTH POINTE SUBDIVISION, UNIT-1
VOLUME 9576 PAGES 73-75
BLOCK 9 N.C.B. 18218
15' VEGETATIVE FILTER STRIP IN NORTHPOINTE SUBDIVISION
N29°19'21"E 160.80'
INTERCEPTOR CHANNEL
15' LANDSCAPE BUFFER
DUMPSTER PAD
40' WIDE DRAIN ESM'T PLAT ID No. 070141
LOT 1 BLOCK 13
N.C.B. 18218
N59°12'02"W 157.05'
PROPOSED BUILDING
SITE LOCATED IN ERZD
PROPOSED SIDEWALK
ASPHALT PAVEMENT
TYPICAL
S60°40'39"E 157.00'
FUTURE DEVELOPMENT
LOT 2 BLOCK 13
N.C.B. 18218
BASIN
25' BUILDING SETBACK
PROPOSED DRAINAGE CHANNEL
PROPOSED CURB
PROPOSED DRIVEWAY
14' ELECTRIC, GAS, TEL., CATV & SANITARY SEWER EASEMENT
PROPOSED RETAINING WALL
PROPOSED SIDEWALK (RAMP)
S29°19'21"W 164.85'
PROPOSED SIDEWALK
PROPOSED CONCRETE APPROACH
EXISTING CURB
STONE OAK PARKWAY
(86' R.O.W.)
(ASPHALT PAVEMENT)
1100
1110
1120

INTENDED PURPOSE – VETERINARY CLINIC
BUILDING AREA – 4486.0 SQ. FT.
PARKING /HARD SURFACE AREA – 12528.4 SQ. FT.
TOTAL IMPERVIOUS COVER AREA – 17014.4 SQ. FT.
NUMBER OF PARKING SPACES – 21

MACINA • BOSE • COPELAND & ASSOC., INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
1035 Central Parkway North, San Antonio, Texas 78232
Tel. No. (210) 545-1122 Fax No. (210) 545-9302 www.mbcengineers.com

CIBOLO CANYON VETERINARY HOSPITAL
SPECIFIC USE SITE PLAN

REVISIONS: DATE	NO.	DESCRIPTION	BY

DESIGN R.A.L.
DRAWN L.C.
CHECKED
DATE FEB. 1, 2008
JOB NO. 1-9918
SHT. 1 OF 1

Z2008085

MACINA · BOSE · COPELAND and ASSOCIATES, INC
CONSULTING ENGINEERS AND LAND SURVEYORS

1035 Central Parkway North, San Antonio, Texas 78232
(210) 545-1122 FAX (210) 545-9302
www.mbcengineers.com

ZONING FIELD NOTES
DESCRIPTION OF

A 0.5869 ACRE PARCEL OF LAND BEING OUT OF THAT 20.03 ACRE TRACT CONVEYED TO RAD INVESTMENTS, INC. DESCRIBED IN SPECIAL WARRANTY DEED RECORDED IN VOLUME 8656, PAGES 1595-1602 OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS, OUT OF THE WM. BRISBIN SURVEY NO. 89 ½, ABSTRACT 54 IN NEW CITY BLOCK (N.C.B.) 18218 CITY OF SAN ANTONIO, BEXAR COUNTY, TEXAS.

COMMENCING: At a point for the most southeasterly corner of Lot 102, Block 5, North Pointe Subdivision, Unit 1 as recorded in Volume 9576, Pages 73-75, Deed and Plat Records of Bexar County, Texas and being located on the north right-of-way line of Ellis Park, an existing 90.0 foot wide public right of way;

THENCE: S 29°19'21" W, a distance of 372.78 feet along and with the southern boundary of said North Pointe Subdivision, Unit 1 to the **POINT-OF-BEGINNING** for the herein described tract;

THENCE: S 60°40'39" E, a distance of 157.00 feet to a point on the west right-of-way line of Stone Oak Parkway, an existing 86.0 foot public right-of-way;

THENCE: With the west right-of-way line of Stone Oak Parkway, S 29°19'21" W, a distance of 164.85 feet to a point for the most southwesterly corner of the herein described tract;

THENCE: Departing the west right-of-way line of Stone Oak Parkway, N 59°12'02" W, a distance of 157.05 feet to a point for the most northwesterly corner of the herein described tract and being located on the southern boundary of said North Pointe Subdivision, Unit 1,

THENCE: N 29°19'21" E, 160.80 to the **POINT OF BEGINNING** and encompassing 0.5869 acres of land.

STATE OF TEXAS
REGISTERED
SAMUEL B. BLEDSOE
3112
PROFESSIONAL
LAND SURVEYOR

P:\1478\19740-HartmanRAD\19918-CCV\Letters\0.584 AC-ZONING.doc

EXHIBIT A

Z2008085

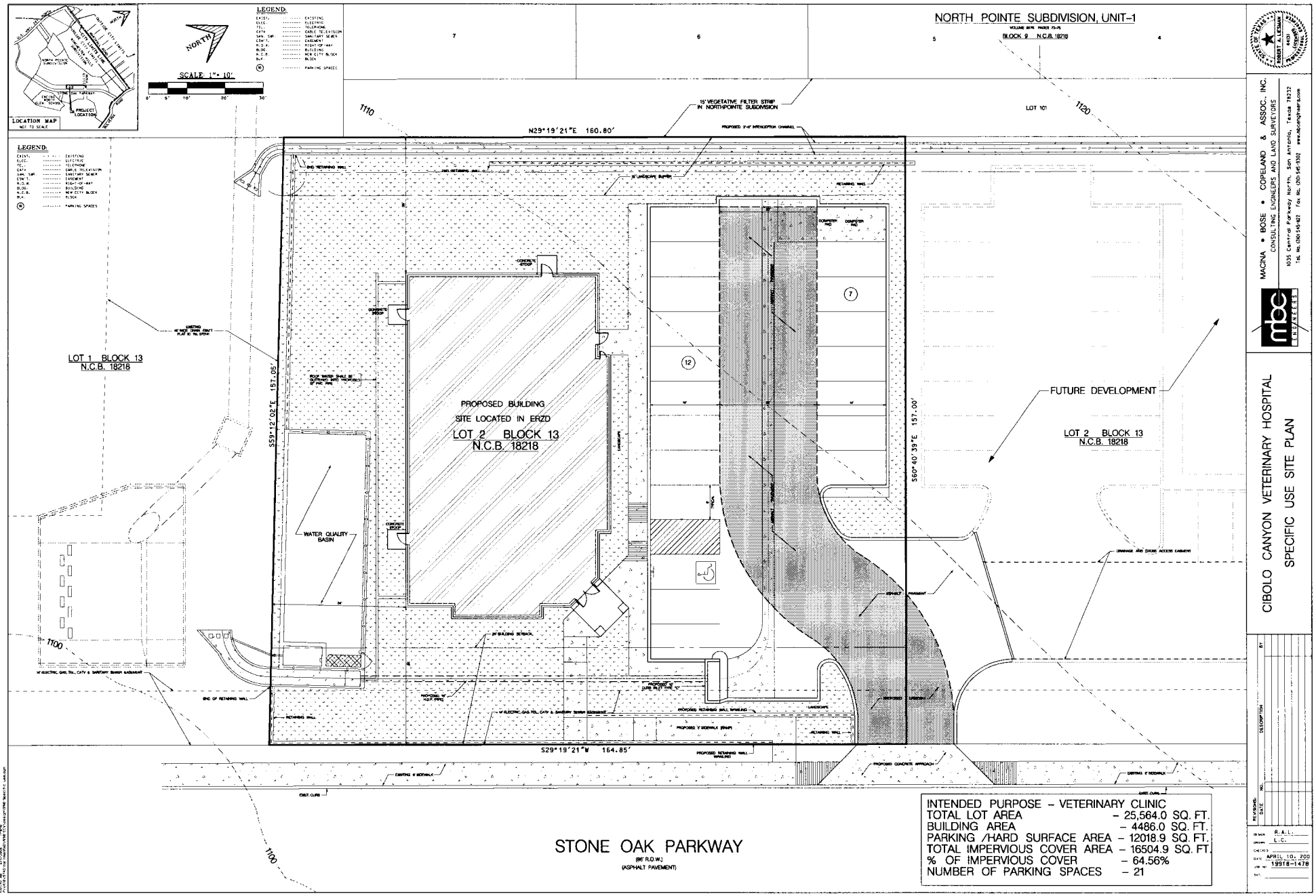


EXHIBIT B

San Antonio Water System

May 28, 2008

Mr. Robert Liesman, P.E.
Macina, Bose, Copeland & Assoc., Inc.
1035 Central Parkway North
San Antonio, Texas 78232

RE: SAWS File No. 171 - Request for review and approval of an Aquifer Protection Plan (Letter of Certification) for **North Pointe Commercial Phase I,** located on Stone Oak Parkway in between Hwy 281 North and Bulverde Road

Dear Mr. Liesman:

On April 24, 2005, the Resource Protection Division of the San Antonio Water System (SAWS) received an Aquifer Protection Plan issued by your office concerning the property referenced above. This letter serves as certification that the requirements of Chapter 34, Article VI, Division 6, Sections 34-910 and 34-911 of the San Antonio City Code have been complied with as they apply to the above-referenced development. North Pointe Commercial Phase I, 2.4 acres, is a Category 2 property as defined by the Aquifer Protection Ordinance (Ordinance No. 81491) of the City of San Antonio Code.

This Letter of Certification does not relieve or reduce the obligation of the recipient of this letter, the land owner, developer, or affiant to fully and completely comply with all of the terms and conditions of the application for a approved Aquifer Protection Plan, the approved Water Pollution Abatement Plan and/or Pollution Prevention Criteria that have been submitted in relation to the referenced development project. The recipient of this letter is authorized to commence development activities as provided for, and subject to all of the terms and conditions of Chapter 34, Article VI, Division 6, of the San Antonio City Code. Pursuant to Section 34-910 of said Code. this Letter of Certification **will expire** if not utilized within **three years** from the date of this document.

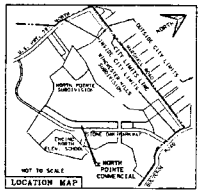
Sincerely,

Kirk M. Nixon
Manager, Resource Protection Division

Approved:

Scott R. Halty
Director, Resource Protection & Compliance Department

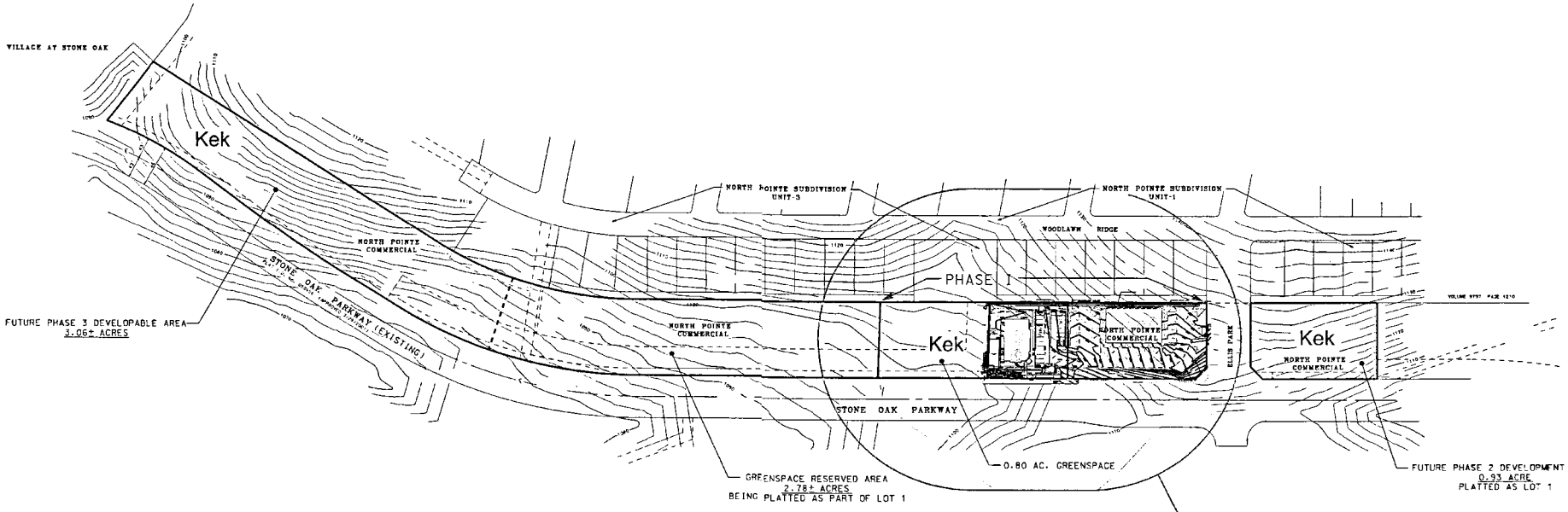
KMN:PMG



NORTH

SCALE: 1"=100'

BEARINGS BASED ON THE SOUTH PROPERTY LINE OF NORTH POINTE SUBD. UNIT-1 AS BEING S29°15'21"W



SEE SHEET C-1 THRU C-5
FOR PHASE 1
2.40 ACRES
PLATTED LOTS 2 & 3 + 0.80 GREENSPACE

LAND USE SUMMARY

PARCEL "2" : NORTHERN CORNER PARCEL	= 0.83 Ac.
PARCEL "1" : SOUTHERN CORNER PARCEL	= 2.40 Ac. *
PARCEL "3" : SOUTHWESTERN PARCEL	= 3.06 AC. DEVELOPABLE AREA
GREENSPACE RESERVE	= 2.78 Ac.
TOTAL AREA	= 9.17 Ac.

*1.01 Ac. LOT + 0.59 Ac. LOT + 0.80 Ac. GREENSPACE & DRAINAGE EASEMENT = 2.40 Ac.

CHART FOR ACCUMULATION OF IMPERVIOUS COVER ON RAD TRACT
(AS DESCRIBED BY PLAT No. 080077)

PROJECT DESCRIPTION	BUILT ON LOT No.	CITY OF SAN ANTONIO BLDG. PERMIT No.	IMPERVIOUS COVER AREA (ACRES) (PER PERMIT PLANS)	PERCENTAGE OF MAX I.C. TOTAL OF 4.85 Ac.

SAN ANTONIO WATER SYSTEM
2008 MAY 21 A 8:32

STATE OF TEXAS
ROBERT A. LIESMAN
44131
LICENSED PROFESSIONAL ENGINEER

REVISIONS:			
DATE	NO.	DESCRIPTION	BY

NORTH POINTE COMMERCIAL
MASTER SITE PLAN

MACINA • BOSE • COPELAND & ASSOC., INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
1035 Central Parkway North, San Antonio, Texas 78232
Tel. No. (210) 545-1122 Fax No. (210) 545-9302 www.mbcengineers.com

DESIGN R.A.L.
DRAWN JRS
CHECKED
DATE FEB. 2008
JOB NO 19740-1478
SHT

Z2008085 CDS ERZD

San Antonio Water System

May 28, 2008

Mr. Robert Liesman, P.E.
Macina, Bose, Copeland & Assoc., Inc.
1035 Central Parkway North
San Antonio, Texas 78232

RE: SAWS File No. 171 - Request for review and approval of an Aquifer Protection Plan (Letter of Certification) for **North Pointe Commercial Phase I,** located on Stone Oak Parkway in between Hwy 281 North and Bulverde Road

Dear Mr. Liesman:

On April 24, 2005, the Resource Protection Division of the San Antonio Water System (SAWS) received an Aquifer Protection Plan issued by your office concerning the property referenced above. This letter serves as certification that the requirements of Chapter 34, Article VI, Division 6, Sections 34-910 and 34-911 of the San Antonio City Code have been complied with as they apply to the above-referenced development. North Pointe Commercial Phase I, 2.4 acres, is a Category 2 property as defined by the Aquifer Protection Ordinance (Ordinance No. 81491) of the City of San Antonio Code.

This Letter of Certification does not relieve or reduce the obligation of the recipient of this letter, the land owner, developer, or affiant to fully and completely comply with all of the terms and conditions of the application for a approved Aquifer Protection Plan, the approved Water Pollution Abatement Plan and/or Pollution Prevention Criteria that have been submitted in relation to the referenced development project. The recipient of this letter is authorized to commence development activities as provided for, and subject to all of the terms and conditions of Chapter 34, Article VI, Division 6, of the San Antonio City Code. Pursuant to Section 34-910 of said Code. this Letter of Certification **will expire** if not utilized within **three years** from the date of this document.

Sincerely,

Kirk M. Nixon
Manager, Resource Protection Division

Approved:

Scott R. Halty
Director, Resource Protection & Compliance Department

KMN:PMG

EXHIBIT C

APPLICATION FOR THE AQUIFER PROTECTION PLAN

For Activities Which Require Pollution Prevention Practices on the Edwards Aquifer Recharge Zone/Drainage Area.

No development shall be undertaken on any land, tract, parcel, or lot which is within the boundaries of the Edwards Aquifer Recharge Zone and which is also subject to regulation by Chapter 34 of the City Code Article VI, Division 6 unless and until a Aquifer Protection Plan is issued by the Source Water & Watershed Protection Department of the San Antonio Water System to the owner, developer of such property or their authorized agent.

PART A GENERAL INFORMATION

PROJECT NAME: NORTH POINTE COMM. (Phase 1)

ACREAGE: 2.40 ACRES INCLUDING DEDICATED GREENSPACE

Do Not Write in this box For SAWS use only	
Received by SAWS (Day 1)	
Inspection Date: 05/08/08	
Judged Administratively X Complete X Incomplete	DATE 05/22/08 05/08/08
Water Pollution Abatement Plan Y Submitted Y Approved by SAWS	DATE 4/30/08
Has a Variance been requested?	___ Yes X No
___ Approved ___ Incomplete and Returned ___ Disapproved	

San Antonio Water System
Aquifer Protection Plan

PART A

COMPLETELY FILL OUT THE FOLLOWING INFORMATION

1 Person making inquiry:

Contact Person: Ronald Hagauer
Entity: RAD Investments, INC.
Mailing Address: 1602 N loop 1604 W Suite ll-102
City, State: San Antonio, Texas Zip:78248
Telephone: 210-479-3231 FAX: 210-497-3232

2. Agent (If any):

Contact Person: Robert A. Liesman P.E.
Entity: Macina, Bose, Copeland & Assoc., Inc.
Mailing Address: 1035 Central Parkway North
City, State: San Antonio, Texas Zip 78232
Telephone: (210) 545-1122 Fax: (210) 545-9302

3 Enter Site Address (if assigned):

Street (If assigned): N/A
City, Zip: SAN ANTONIO, TX

(Check appropriate box)

Relationship To Recharge Zone	GOVERNMENTAL JURISDICTION			
	Inside San Antonio City Limits	Within City of San Antonio ETJ	In Bexar County and outside San Antonio ETJ	Acreage Subtotal
Acreage within **Contributing Zone w/ Trans.**				
Acreage within Recharge Zone	✓			2 40
Acreace within Drainage Area				
TOTAL PROJECT ACREAGE				2 40

4. The location of the project site is generally described below (Example "NE corner of Bitters & Heimer Roads", "On east side of Heimer Road, 1/4 mile north of Bitters Road").

The proposed site is located on the northwest side of Stone Oak Parkway west of the Ellis Park intersection

5. ✓ A copy of the official 7 1/2 minute USGS quadrangle map (s) of the Edwards Recharge Zone is attached behind this sheet. Maps are available from:

   Edwards Aquifer Authority (Edwards Underground Water District) (210) 222-2204
   Ferguson Map Company (210) 829-7629

   The map (s) should clearly show:

   1. Project Site.
   2. USGS Quadrangle Name(s).
   3. Boundaries of the Recharge Zone.

6. The locations of **all known wells** (oil, water, unplugged, capped and/or abandoned, test holes, etc.). Mark all that apply.

   6A. ✓ There are no wells or test holes of any kind known to exist on this project site:

   6B. ____ # ____ well(s) will be drilled and used for _____;

   6C. ____ ____ well(s) are **present** on the project site and their locations are labeled on the Site Plan.

   (1) ____ The well(s) **have been** properly abandoned. **(SEE ATTACHMENT)**

   (2) ____ The well(s) are not in use and will be properly abandoned.

   (3) ____ The wells are in use and comply with Chapter 34 of the San Antonio City Code, Article VI, Division 2, entitled Wells containing Sections 34-566 thru Sections 34-590. The well(s) will be used for _____.

7. The **type of project** is:

7. The **type of project** is:
(Check all that apply)

	# of Lots	# of Living Unit Equivalents	Projected Population
Residential		NA	NA
Multi-Family		NA	NA
Commercial	1	2	NA
Utility		NA	NA
Recharge Structure/Dam		NA	NA
Other			

8. A narrative description of the proposed project is included below:

The proposed "site area" considered in this plan is "Phase 1" of North Pointe Commercial. Phase 1 consists of approximately 2.40 acres of land out of the overall North Pointe Commercial development. The North Pointe Commercial development is approximately 9.17 acres overall. Due to the rezoning of this property an impervious cover limitation of 50% has been affixed to the entire North Pointe Commercial development by the City. This limitation will be fulfilled by densely developing three particular building areas (which we are calling "Phases"), leaving a large green space area at 0% impervious cover.

Note on the Master Development Site Plan included in this WPAP that we have delineated a 3.58-acre portion of the overall 9.17 acres as greenspace reserve. With the greenspace having virtually no impervious cover and imposing a reasonable limit on I.C. over the developable areas (i.e. Phase 1, 2, & 3 areas), we can accomplish the City-mandated (net) I.C. Ratio limit of 50%. 50% impervious cover over the 9.17-acre development would result in a total of 4.85 area of I.C.

In order to control this, we are imposing on ourselves a maximum I.C. ratio of 75% for each of the first two developable areas. Thus, the maximum I.C. area for Phase I could be 1.20 acres; the maximum I.C. area for Phase 2 could be 0.70 acres; and the maximum I.C. area for Phase 3 will be (50% of 9.17) – (1.20 + 0.70) = 2.68 acres. We expect to be permitted to confer with SAWS representatives at the time of processing a WPAP for "Phase 3" and determine if the actual I.C. areas of Phase 1 & 2 might allow an increase in the I.C. area of Phase 3.

Impervious Cover limitations are only relevant to SAWS; our calculations (for filtration basin design for this Phase 1 and subsequent Phases) will be based upon the actual I.C. ratio for each individual Phase. That is, this WPAP is a stand-alone submittal as far as the TCEQ review is concerned.

Phase 1 will include approximately 12,200 sf of office space, parking, sidewalks, and a water quality basin. Impervious cover calculations show that the buildable area will probably consist of approximately 67% impervious cover. That being said, the Phase 1 basin and the attendant, dedicated greenspace will be conservatively designed to accommodate a maximum allowable impervious cover of 75% over the buildable 1.60 acres. The math will be: 75% x 1.60 Ac. = 1.20 Ac. I.C. So design I.C. ratio is 1.20 ÷ 2.40 = 50%, but actual I.C. ratio will probably be: (67% x 1.60) ÷ 2.40 = 44.6%.

13. Wastewater to be generated by proposed project.

Wastewater to be generated by proposed project:	
Character	Volume
100 % Domestic	1800 gallons/day
____ % Industrial	_____ gallons/day
____ % Commingled	_____ gallons/day
TOTAL	1800 gallons/day

14. The Method of Wastewater Disposal is:

SALADO CREEK WATER RECYCLING AS MAINTAINED BY SAN ANTONIO WATER SYSTEM WILL RECEIVED THE WASTE WATER FOR DISPOSAL AND TREATMENT.

14A. N/A On-Site Sewage Treatment (Septic Tank):

On-site septic tanks will be used to treat and dispose of wastewater. **The appropriate licensing authority's letter is attached directly behind this page.** It states that the land is suitable for the use of a septic tank or identifies areas that are not suitable.

Furthermore, I am aware that the minimum lot size in Bexar County for an on-site sewage treatment facility on the Recharge Zone is one (1) acre. Each lot in this project / development is at least one (1) acre in size and the on-site treatment facility will be designed and installed by a Texas licensed sanitarian or engineer. A copy of the letter from the County or City approving the use of on-site sewage treatment designed in accordance with County and City requirements is attached.

_____ _____
Signature Date

14B. NA On-Site Sewage Collection System (Sewer Lines):

An organized **public or private** (circle one) sewage collection system (SCS) will convey wastewater from this project off of the Recharge Zone for treatment and disposal at the **EXISTING** / PROPOSED (circle one) SALADO CREEK RECYCLING CENTER Sewage Treatment Plant (S.T.P.).

14C. For sewer lines, all private service laterals will be inspected by:

Entity Name: CITY OF SAN ANTONIO PLUMBING INSPECTOR

Address: 1901 S. ALAMO ST.

City, State, Zip: SAN ANTONIO TEXAS 78204

Telephone: (210) 207-1111

San Antonio Water System
Aquifer Protection Plan

PART B

CATEGORY 3

All property located within the Edwards Aquifer Recharge Zone which is within the extraterritorial jurisdiction (ETJ) of the City of San Antonio, and which does not meet the requirements of Category 1 or Category 2.

1. Pollution Prevention Criteria is based on the Category which applies to the property.
   CAT. 2 What Category (s) apply (s) to the property?
   (SEE ATTACHED CATEGORY LETTER)

2. **Completely fill out the table pertaining to the Category (s) which apply to the property.** Include information relating to Categories in multi-Category development.

	CATEGORY 1	CATEGORY 2	CATEGORY 3
Acreage (in acres)		2.4	
Proposed Impervious Cover Acreage		Design-1.20 ac. Actual-1.07 ac	
Projected Impervious Cover (%)		Design-75% Actual-67%	
Within San Antonio City Limits (yes/no/ acreage)		Yes/1.6	
Within the ETJ of the City of San Antonio (yes/no/acreage)		N/A	
Multi-category Development (acres for each)		N/A	
Single Family Residential (acres)		N/A	
Multi-Family Residential (acres)		N/A	
Commercial (acres)		1.6	
Other		N/A	
Intersection Nodes: Property within 2,500 feet of an intersection of two (2) Highways?		No	
Intersection Nodes: Property within 1,000 feet of an intersection between a Highway and an arterial?		No	

***Note that the North Pointe Comm. development is limited to 65% impervious cover by its category 2 status and that it has been furthermore limited to less than 50% impervious cover due to rezoning. This will be accomplished by reserving a large green space near the center of the North Pointe Comm. Development. 0.80 of an acre of this greenspace is included within the defined area of this "Phase 1" Plan.**

San Antonio Water System
Aquifer Protection Plan

Recharge Features Table
For Parts D & E

Attach a copy of the Geologic Assessment from the Water Pollution Abatement Plan submitted to the Texas Natural Resource Conservation Commission (TNRCC).

1. Potential on-site recharge features with a Significance of "low", "moderate" or "high" identified in the Geologic Assessment for this project. List each feature, and the "significance" of each feature in the following TABLE D/E. Include the pollution abatement measures to be used **during** and **after** construction in TABLE D/E below.

   * If no potential recharge features were identified on the project site place a "0" in the blank space under "Type".

   * If a geologic assessment was not required place a "#" symbol in the blank space under "Type".

   * Attach at the end of this form the as-built plans for any Permanent Pollution Abatement Measures.

TABLE D/E

Recharge Features
Identified on the Project Site

#	Type	Significance	Temporary Pollution Abatement	Permanent Pollution Abatement
1	0			
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

TABLE D/E

Recharge Features
Identified on the Project Site

#	Type	Significance	Temporary Pollution Abatement	Permanent Pollution Abatement

2. TEMPORARY EROSION & SEDIMENTATION BEST MANAGEMENT PRACTICES FOR OPERATION & MAINTANENCE: Describe the maintenance plan and schedule for each temporary stormwater pollution abatement measure listed in TABLE D/E

SEE ATTACHED DETAILED TEMP. STORMWATER SECTION SUBMITTED TO T.C.E.Q.

2A. Identify applicant's representative responsible for maintenance of temporary stormwater controls for this project during construction:

Contact Person:	Ronald Hagauer
Entity:	RAD Investments, INC.
Mailing Address:	1602 N loop 1604 W Suite ll-102
City, State:	San Antonio, Texas Zip:78248
Telephone:	210-479-3231 FAX: 210-497-3232

3. Individual responsible for operation and maintenance of all **PERMANENT** pollution abatement measures:

Contact Person:	Ronald Hagauer
Entity:	RAD Investments, INC.
Mailing Address:	1602 N loop 1604 W Suite ll-102
City, State:	San Antonio, Texas Zip:78248
Telephone:	210-479-3231 FAX: 210-497-3232

4. The PERMANENT Stormwater section was prepared by:

ROBERT LIESMAN, P.E.
Printed Name

Signature

4-23-08
Date

PART D CONSTRUCTION SEQUENCING AND EROSION CONTROL

SECTION 34-975

A comprehensive and detailed erosion and sedimentation control plan and report must be submitted with each application. The report shall specify maintenance of controls.

1. The report shall include the following items:

    a. Construction sequencing as it relates to placement, maintenance, removal of temporary erosion controls, and restoration measures. The sequencing plan schedules these items in the overall scheme of development.

    b. A list of such erosion controls and maintenance thereof.

    c. Slope stabilization techniques to be employed.

    d. Restoration plans including vegetative types.

2. The erosion control and construction sequencing plan shall include the following items:

    a. Location of temporary erosion controls with maintenance note. The plan shall show the physical details of the controls.

    b. A construction sequencing list, including the timing of the use of various controls in relation to steps in the construction.

    c. Restoration techniques and acceptability note.

No clearing and/or rough-cutting shall be permitted prior to the issuance of the Aquifer Protection Plan approval by the Watershed Protection and Management Department except for limited clearing and/or rough-cutting for soil testing and surveying.

San Antonio Water System
Aquifer Protection Plan

PART D

DURING CONSTRUCTION

1. ✓ A site plan, labeled Temporary Pollution Abatement Site Plan, is attached. All erosion and sedimentation control measures, and measures to protect recharge features during the construction phase of this project must be **clearly** labeled.

1A. Describe character of stormwaters **originating upgradient** of the site and potentially flowing across the site during construction.

____ Commercial
____ Ranch/Farm
____ Residential - Multi-family
✓ Residential - Single-family
____ Road
____ Undeveloped
____ Others describe below:

YES NO NA

1B. ✓ ___ ___ Will stormwater runoff from upgradient be directed around the site?

SEE ATTACHED DRAINAGE AREA MAP

1B(1) If no, has proper approval been obtained from the appropriate regulating authority? Identify below:

Agency: N/A
Person: _____
Telephone: _____

____ NO

1B(2). If no, describe the measures that will be taken to prevent pollution of stormwaters **originating upgradient** of the site and potentially flowing across the site.

____ Stormwater flow from upgradient will be directed around the project site with diversion berms/channels/swales labeled on the site plan.

____ Other measures are described below and **labeled on the site plan.**

2. Below is a list of some potential pollutants and some measures that may be taken to abate pollution of stormwaters **originating on** the project site and potentially flowing across and off the site. Select appropriate measures and add any others not listed.

2A. For SOIL EROSION the following measures will be used to prevent contaminated stormwater from leaving the site.

✓ Silt fences are clearly labeled on the site plan.
(SEE TEMP. ABATEMENT PLAN)

✓ Silt fences within rock berms are clearly labeled on the site plan.

___ Sedimentation basins are clearly labeled on the site plan.

___ Other measures describe below:

2B. For ASPHALT RELATED WORK: If asphalt is to be used for paving, roofing, etc. describe measures that will be taken during construction to prevent "seal coat", emulsion, or other asphaltic products from washing off the project site.

___ No asphalt products will be used on this project (within the Recharge Zone)

✓ Contractor will be instructed to not place asphalt products within 48 hours of forecasted rain. After placement of asphalt, emulsion or coatings, the applicant will maintain, for the duration of the asphalt product curing time, standby emergency personnel and equipment to contain any asphalt wash off should an unexpected rain occur.

___ Other measures describe below:

_____

2C. For TEMPORARY FUEL STORAGE:

✓ The use of temporary fuel storage will not be allowed on the project site. Construction equipment will be fueled by off-site based service trucks on an as-needed basis.

___ Temporary aboveground fuel tanks will be stored on the project site for less than one (1) year. It will be contained within a bermed area sized to control any spillage from the tank, and labeled on the Temporary Pollution Abatement Site Plan.

___ Other measures describe below:

_____

2D. For VEHICLE MAINTENANCE:

✓ There will be no routine vehicle maintenance or servicing, such as oil changes, on the project site.

____ Other measures describe below:

_____

2E. For VEHICLE/EQUIPMENT FLUIDS:

✓ Purposeful release of vehicle or equipment fluids onto the ground will not be allowed. Contaminated soil resulting from accidental spills will be removed and disposed of properly.

____ Other measures describe below:

_____

2F. For CONSTRUCTION STAGING AREA:

YES NO

____ ✓ The area(s) for temporary field offices, construction equipment, construction material, repair and maintenance of construction equipment will be established and is **clearly labeled** on the site plan.

2G. For CONSTRUCTION MATERIAL:

✓ All construction waste material/debris will be placed in an on-site container and disposed of properly at an authorized landfill. The building contractor shall be notified of this requirement in writing. A copy shall be kept on file at the applicant's field office.

2H. For POINTS OF ACCESS TO CONSTRUCTION SITES:

YES NO

✓ ____ A Stabilized Construction EXIT shall be provided at each intended EXIT and clearly labeled on the Site Plan Sheet. A design detail for the EXIT is **included** on the Site Plan Sheet/Detail Sheet.

2I. For CONSTRUCTION EQUIPMENT/VEHICLES:

YES NO

✓ ___ Construction equipment/vehicles will be limited, where possible, to traveling within the limits of the project site.

✓ Rinse-off Pits:

Vehicle tire rinse-off pits will be located in the construction staging area and/or near the project exit points which are not subject to flooding. **Rinse-off will not be allowed outside the project construction limits.**

Concrete truck rinse-off pits will be established within the construction site.

2J. For WASTEWATER:

✓ During construction, portable toilets will be available for construction workers. Toilets will be located at the construction staging area, and not within the 100-year floodplain.

2K. For SOIL SPOILS/STOCKPILES:

(1) ✓ All soil, sand, gravel, rock and excavated materials stockpiled on-site will have appropriately sized erosion and sedimentation controls placed upgradient and downgradient.

(2) ___ Temporary **stockpile** areas are **clearly labeled** on the Temporary Pollution Abatement Site Plan. Appropriate erosion & sedimentation controls are labeled.

✓ Location of temporary **stockpile** areas are unknown at this time. Appropriate erosion & sedimentation controls will be provided.

___ There are **no stockpile** areas anticipated for this project. However, any unanticipated temporary stockpile areas shall have erosion and sedimentation controls placed appropriately.

(3) N/A Spoil materials will be disposed of **on** the Recharge Zone.

2L. For SOIL SPOILS/STOCKPILES @ UST/AST SITES:

N/A Temporary **stockpile** areas are **clearly labeled** on the site plan and erosion & sedimentation will be controlled by:

____ Soil, backfill, etc. will be placed on plastic sheeting.

____ Soil, backfill, etc. will be covered by plastic sheeting.

____ Erosion & sedimentation controls are labeled on the site plan.

2M. List any OTHER sources of contamination and measures that will be taken to prevent pollution of storm waters **originating on** the project site not identified in Items 2A through 2M. If there will be no potential sources of contamination state so here.

✓ There are no other known potential sources of contamination associated with this project.

____ Other sources of potential contamination are describe below:

_____

3. OTHER RECHARGE FEATURES: Describe measures that will be taken during construction to prevent pollutants from entering any recharge feature(s) identified during excavation, blasting, or other construction operations while maintaining or enhancing the quality of water entering the feature(s).

_____

_____

✓ If any potential recharge features, such as caves, faults, sinkholes, etc., are discovered during construction, all regulated activities near the feature will be immediately suspended. The holder of the approved plan shall notify SAWS's Watershed Protection and Management Department of any potential recharge features encountered before continuing construction. Construction shall not continue until the SAWS has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.

____ Other Information describe below:

_____

4. For ALL CONSTRUCTION EMPLOYEES:

✓ All employees involved in construction activities on the project site will be informed of the provisions of the Water Pollution Abatement Plan, the Aquifer Protection Plan and the requirements for controlling employee generated wastes and proper disposal of waste building materials.

PART E

POLLUTION PREVENTION STRATEGIES AND BEST MANAGEMENT PRACTICES

Pollution Prevention will be assured by requiring best management practices and abatement measures for point and non-point sources, including an emphasis on passive measures, supplemented by the use of structural controls, where appropriate.

AFTER CONSTRUCTION

1. List any potential sources of contamination associated with this project after construction is complete. If there will be no potential sources of contamination, state so here.

   A. RELATIVELY LOW LEVEL OF PETROLEUM PRODUCTS PRIMARILY FROM VEHICLES IN THE PARKING LOT.

   B. SMALL CONCENTRATION OF FERTIZER AND PESTICIDES.

   C. _____

   D. _____

   E. _____

2. Describe the character of stormwaters leaving the site after construction is complete:

   ___ Residential
   ___ Mult-Family
   ✓ Commercial
   ___ Other: _____

3. Information labeled on the "Permanent" site plan:

Labeled on the "Permanent" site plan	YES	NO	Not Applicable
Layout of development (buildings, streets, etc)?	✓		
Vegetated filter areas associated with this project?		✓	
Berms, channels, etc. showing velocity controls ?	✓		
Sedimentation/filtration basins?	✓		
Recharge features ?			✓

YES NO NA

4. ___ ✓ ___ Are there any other potential sources of contamination after construction not previously identified? If yes, please describe below:

_____

5. ✓ For potential sources of contamination after construction not previously identified, what are the abatement measures to be taken?

THE FILTRATION BASIN WILL BE OPERATIONAL AND WILL CATCH ANY POTENTIAL CONTAMINATION.

6. For **Residential Developments**, the following Best Management Practices (BMPs) for fertilizer & pesticide use will be provided to each prospective homeowner:

___ "What's Bugging You?" guide to pest control (Edwards Underground Water District, 1994)

___ "Protection of Groundwater from Fertilizers & Pesticides", (Texas Agricultural Extension Service)

___ Other Information. Identify below:

✓ This project is not a single-family residential subdivision.

7. For **multi-family residential** and **commercial** projects, permanent stormwater pollution controls will be:

7A. ✓ SEDIMENTATION / FILTRATION basins shall be designed to capture the first ½" of stormwater runoff. The criteria used for design of the permanent stormwater controls is from:

____ City of Austin Environmental Criteria Manual FULL sedimentation / filtration basin system.
____ City of Austin Environmental Criteria Manual PARTIAL sedimentation / filtration basin system.
____ Lower Colorado River Authority Lake Travis Nonpoint Source Pollution Control Ordinance Technical Manual.
✓ Other. Describe below:
TCEQ TECHNICAL GUIDANCE JULY 2005 PARTIAL SEDIMENTATION/ FILTRATION

	YES	NO	NA	
(1)	✓	____	____	Will all subsequent runoff in excess of the design capacity of the basin (s) remain segregated from the contained runoff waters?

	YES	NO	NA	
7B.	____	✓	____	Vegetated filter strips (Buffer Zone) designed to treat stormwater runoff.

(1) If yes, is the vegetation newly planted or is existing vegetation to be used?

____ Newly planted vegetation
____ Existing vegetation

(2) If yes, is the buffer zone being used in addition to or as a substitute to other control strategies? Explain, in necessary.

____ In addition to
____ Substitute

(3)The criteria used for design of the vegetated filter strips is from:

____ City of Austin Environmental Criteria Manual
____ Lower Colorado River Authority Lake Travis Nonpoint Source Pollution Control Ordinance Technical Manual
____ Other Information. Describe below:

_____

7C.____ This is a single-family residential subdivision and does not require permanent structural pollution abatement measures.

7D.____ There are no permanent structural pollution abatement measures for this project.

	YES	NO	NA	
8.	✓	____	____	Scaled plans are included that illustrate the proposed treatment system is sized appropriately.

9. Operation and Maintenance information for POLLUTION ABATEMENT MEASURES for Multi-family and commercial projects:

9A. ✓ Attach the maintenance plan and schedule for each permanent pollution abatement structure or measure required for multi-family and commercial projects.
SEE ATTACHED DETAILED PEMANENT POLLUTION ABATEMENT PLAN SUBMITTED TO TCEQ.

9B. _____ There are no permanent pollution abatement measures for this project.

10. Attach the calculations for determining annual pollutant loading, sizing of pollution abatement measures, and performance standards. Indicate source of performance standards being used.
SEE ATTACHED DETAILED PEMANENT POLLUTION ABATEMENT PLAN SUBMITTED TO TCEQ.

Section 34-920 RECHARGE FEATURE PROTECTION AND BUFFER ZONE

The applicant shall identify potential recharge features on the development plan. The potential recharge features will be evaluated using the assessment form developed by TNRCC and SAWS. "Significant" features are those defined as "high concern features" by present TNRCC and SAWS regulations and a buffer area surrounding the "significant" recharge feature is required. **Sealing of significant recharge features shall be prohibited.**

Attached is a copy of the Geological Assessment that was included in the Water Pollution Abatement Plan submitted to TNRCC.
SEE ATTACHED GEOLOGICAL ASSESSMENT

11.	____	NA ____	How many **significant** recharge features are located on the property?
12.	____	NA ____	What width was used to determine the average % slope for the significant recharge feature?
13.	____	NA ____	What is the average % slope which was determined for the significant recharge feature?
14.	____	NA ____	What is the buffer width as determined using the chart in Section 34-913?

SAWS shall require the identification of significant recharge features and shall prescribe protective measures deemed reasonable and necessary to eliminate the entry of pollutants into subsurface water through such recharge features. Whether on or off-site, protective measures include but are not limited to: 1) additional buffer zones covered with grass or other appropriate vegetation, 2) installation of diversion methods or structures outside the buffer zone, 3) termination of the point source activity which creates the pollution hazard, and 4) removal of substances and objects from the recharge feature. The protective measures prescribed together with the date by which such measures must be completed shall be set forth in writing and sent to the landowner (s) involved by certified mail, return receipt requested. The landowner shall take the corrective and protective actions prescribed by SAWS.

Sec. 34-970 BEST MANAGEMENT PRACTICES

(b) WATER CONSERVATION PLAN

San Antonio Ordinance No. 81491 requires that a Water Conservation Plan be submitted for new developments. Many elements of efficient water use such as installation of plumbing fixtures, landscaping, and so on are determined by the builder; however, certain elements of conservation can be determined by the developer. To the extent that **deed restriction, subdivision design** or **other mechanisms are available,** please respond to the following:

Identify all Water Users:

San Antonio Water System
Aquifer Protection Plan

PART E

15. Category of Uses:

____ Domestic	____ Commercial Landscape
✓ Commercial	____ Multi-Family

15A. Identify anticipated water uses (domestic, commercial, commercial landscape, multi-family, industrial, agricultural) on the property and water demand. Describe measures (e.g. density) which are anticipated to be required to reduce water demand on this site.

N/A

15B. Describe planned site contouring, subdivision configuration, infrastructure improvements such as dual water distribution system for potable and nonpotable water, or other features which will reduce water demand from the subdivided property.

N/A

15C. Describe planned deed restrictions which encourage or require installation and/or preservation of native vegetation or water saving landscaping. List any deed restrictions which will be an impediment to water savings (e.g. requirement for installation of St. Augustine or other turf grasses).

N/A

15D. List any requirements for rain harvesting, on-site grey water systems, on-site retention of first 1/2" of rainfall (e.g. berming, irrigation ponds) which will be included in the proposed subdivision.

N/A

AFFIDAVIT

STATE OF TEXAS §
COUNTY OF BEXAR §

ON THIS DAY CAME BEFORE ME THE UNDERSIGNED INDIVIDUAL ACTING IN THE CAPACITY STATED HEREIN, AND BEFORE ME, AFTER FIRST BEING DULY SWORN, DID ATTEST AND AFFIRM TO THE FOLLOWING STATEMENTS AND UNDERTOOK THE FOLLOWING OBLIGATIONS TO-WIT:

"I, Ronald Hagauer, the undersigned, in my capacity as President of RAD Investments Inc. in compliance with Chapter 34, Section 34-911 of the City Code of the City of San Antonio, and acting thereunder as an "affiant" as that term is defined in Section 34-908 of the Code, have made and executed this document on behalf of RAD Investments Inc., in association with the filing of an application for the Aquifer Protection Plan on the 28 day of April, 2008, with the San Antonio Water System, relating to the following development project: North Pointe Commercial (Phase 1).

In the above described capacity I, the undersigned, hereby certify and affirm that, in relation to the development identified above, I assume financial and legal responsibility for the maintenance, operation, and effectiveness of structural controls, the performance of remediation (if required), and the performance of all required monitoring of surface water, as those duties are set out in Chapter 34, Article VI, Division 6 of the City Code of the City of San Antonio, Texas. I further affirm that I am over the age of 18 years, am of sound mind, am authorized to act on behalf of and to bind the individuals or entities identified above to this obligation in the capacity under which I am executing this document."

FURTHER AFFIANT SAYETH NOT.

Ronald Hagauer
Signature

Ronald Hagauer
Printed Name

President
Title

RAD Investments, Inc.
Entity

1602 N Loop 1604 W Suite II-102
Address

SUBSCRIBED AND SWORN TO BEFORE ME THIS 10th DAY OF March, 2008.

Notary Public

BEVERLY ANN RESENDEZ
Notary Public, State of Texas
My Commission Expires
December 02, 2011

Geologic Assessment
For Regulated Activities
on The Edwards Aquifer Recharge/transition Zones
and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

REGULATED ENTITY NAME: **North Point Commercial**

TYPE OF PROJECT: X WPAP __ AST __ SCS __ UST

LOCATION OF PROJECT: X Recharge Zone __ Transition Zone __ Contributing Zone within the Transition Zone

PROJECT INFORMATION

1. X Geologic or manmade features are described and evaluated using the attached **GEOLOGIC ASSESSMENT TABLE.**

2. Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (*Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A*, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Soil Units, Infiltration Characteristics & Thickness		
Soil Name	Group*	Thickness (feet)
Tarrant Association hilly	**C**	**0 - 1**

* Soil Group Definitions (Abbreviated)

A. Soils having a high infiltration rate when thoroughly wetted.

B. Soils having a moderate infiltration rate when thoroughly wetted.

C. Soils having a slow infiltration rate when thoroughly wetted.

D. Soils having a very slow infiltration rate when thoroughly wetted.

3. X A **STRATIGRAPHIC COLUMN** is attached at the end of this form that shows formations, members, and thicknesses. The outcropping unit should be at the top of the stratigraphic column.

4. X A **NARRATIVE DESCRIPTION OF SITE SPECIFIC GEOLOGY** is attached at the end of this form. The description must include a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure, and karst characteristics of the site.

5. X Appropriate **SITE GEOLOGIC MAP(S)** are attached:

The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1" : 400'

Applicant's Site Plan Scale 1" = **100** '
Site Geologic Map Scale 1" = **100** '
Site Soils Map Scale (if more than 1 soil type) 1" = _____ '

6. Method of collecting positional data:
X Global Positioning System (GPS) technology.
__ Other method(s).

7. X The project site is shown and labeled on the Site Geologic Map.

8. X Surface geologic units are shown and labeled on the Site Geologic Map.

9. ___ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.
   X Geologic or manmade features were not discovered on the project site during the field investigation.

10. X The Recharge Zone boundary is shown and labeled, if appropriate.

11. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.):

   ___ There are ___(#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
   ___ The wells are not in use and have been properly abandoned.
   ___ The wells are not in use and will be properly abandoned.
   ___ The wells are in use and comply with 16 TAC Chapter 76.
   X There are no wells or test holes of any kind known to exist on the project site.

ADMINISTRATIVE INFORMATION

12. X One (1) original and three (3) copies of the completed assessment has been provided.

Date(s) Geologic Assessment was performed: **02/12/08**
Date(s)

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Jeffrey S. Neathery, P.G. C.P.G.
Print Name of Geologist

(210) 541-9871
Telephone

(210) 541-9837
Fax

STATE OF TEXAS
Jeffrey S. Neathery
Geology
40
PROFESSIONAL GEOLOGIST

Signature of Geologist

February 13, 2008
Date

Representing: **DBA Geosciences, Inc.**
(Name of Company)

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: North Point Commercial

LOCATION							FEATURE CHARACTERISTICS											EVALUATION			PHYSICAL SETTING		
1A	1B*			1C*			2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE			LONGITUDE			FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DIP	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
	D	M	S	D	M	S				X	Y	Z		10						<40	>40	<1.6	>1.6	

* DATUM: NAD83

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood and have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented was compiled for that document and is a true representation of the conditions observed in the field.

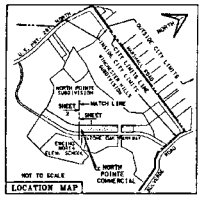
My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

STATE OF TEXAS
Jeffrey S. Mahaffey
Geology
40
LICENSED
PROFESSIONAL GEOSCIENTIST

Date: February 13, 2008

Sheet 1 of 1

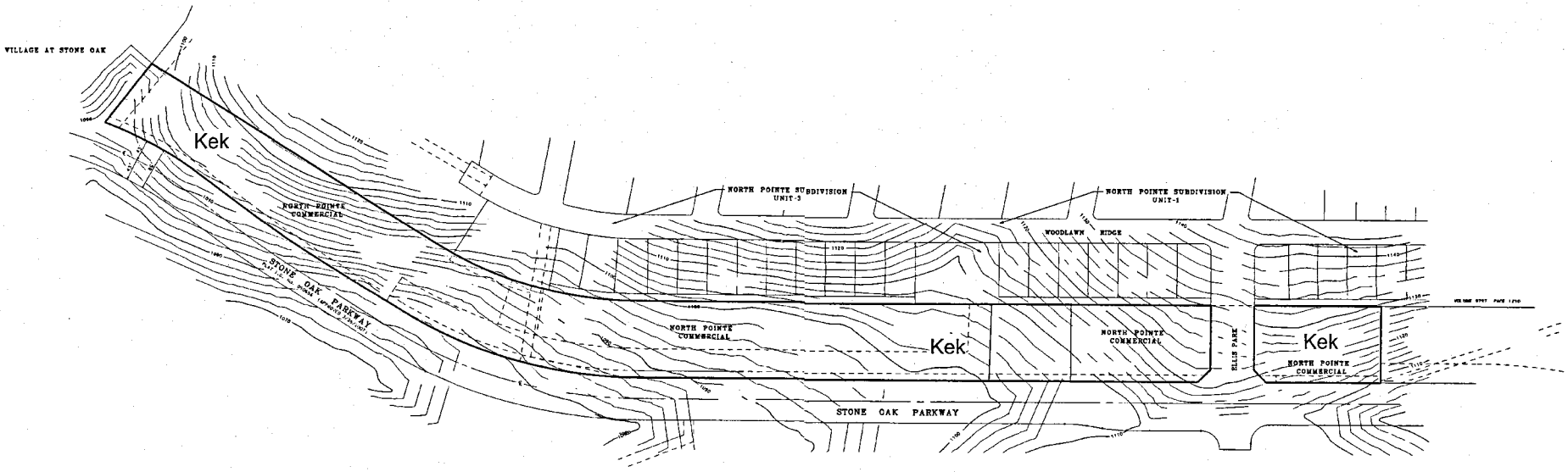
TCEQ-0585-Table (Rev. 10-01-04)



NORTH

SCALE: 1"=100'

BEARINGS BASED ON THE SOUTH PROPERTY LINE OF NORTH POINTE SUBD., UNIT-1 AS BEING S29°19'21"W



REVISIONS:			
DATE	NO.	DESCRIPTION	BY

NORTH POINTE COMMERCIAL GEOLOGIC MAP

DESIGN
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Site Specific Soils

The site can be divided into two areas. The area along Stone Oak Parkway is a modified drainage. It has soil and grass lined surfaces. In this area soils have been brought in to form the channel.

The other portion of the site is hilly and very rocky. The rock is mostly large boulders of float rock that had fallen off in boulders from the intact bedrock. In this area the soils are very thin and only occur in between the larger pieces of float tock.

The natural soils at the site were similar in nature. They are generally dark brown to brown calcareous clay. The clay includes rock fragments ranging in size to pebbles. Although the clay content of the soils would tend to impede the downward flow of water, in areas where the rock fragments are more abundant, the water mobility would increase.

According to the U.S. Soil Conservation Service, the soils beneath the site are classified as Tarrant Association.

The Tarrant soils consist of well-drained, very dark grayish-brown, calcareous, clayey lithosols that developed over hard limestone of the Glen Rose and Edwards Formations. These soils are extensive in Bexar County and occur throughout the limestone prairies in the northern part of the county. They are gently undulating to moderately steep and often contain limestone fragments. Tarrant soils have rapid surface drainage and good internal drainage. The capacity to hold water is low and erosion is a hazard. The slope ranges from 3 to 30 percent.

Stratigraphic Column

Group	Formation	Member	Thickness (ft)
Del Rio Clay			40-50
Edwards Limestone	Person	Cyclic and Marine	80-90
		Leached and Collapsed	70-90
		Regional Dense	20-24
	Kainer	Grainstone	50-60
		Kirschberg Evaporite	50-60
		Dolomitic	110-130
		Basil Nodular	50-60
Glen Rose Limestone	Upper Glen Rose		350-500

(From U.S.G.S., 1996)

Site Specific Geology

According to the official Recharge Zone maps, the entire site lies within the Edwards Aquifer Recharge Zone. According to the literature (USGS, 1996), the site lies within the Dolomitic member of the Kainer Formation.

The site can be divided into two areas. The area along Stone Oak Parkway is a modified drainage. It has soil and grass lined surfaces. In this area soils have been brought in to form the channel. There were no rock outcrops seen in this area.

The other portion of the site is hilly and very rocky. The rock is mostly large boulders of float rock that had fallen off in boulders from the intact bedrock. In this area there are numerous rock ledges caused by rock breaking off and rolling down the hill. The rock scarps remaining are mostly intact and non-remarkable.

Some of the float rock shows signs of solutioning. Some rocks have vugs up to a couple of inches in diameter, while others appear pitted. The further east on the property, the larger the boulders and the more rugged the terrain becomes.

According to the literature (USGS, 1996), there is a large fault running to the south and east of the site. At first, I thought some of the rock ledges ma be the result of fracturing associated with the fault. However, upon further inspection, these ledges run parallel with the topography and curve around the hillside. They appear to be th result of erosion and not faulting.

No portion of the site lies within the 100-year floodplain.

References

Bureau of Economic Geology (1982) *Geologic Atlas of Texas, San Antonio Sheet*

City of San Antonio (2005), GIS Mapping Application, 100-Year Floodplain

Soil Conservation Service (1991), *Soil Survey of Bexar County Texas*, US Department of Agriculture

Texas Administrative Code (1999), *Official Edwards Aquifer Recharge Zone Map*, 30 TAC, Chapter 313, Subchapter A, San Antonio Region, Bulverde Quadrangle

Texas Natural Resource Conservation Commission (2002), *Instructions to Geologists*

U.S. Geological Survey (1992), *Bulverde, Texas* 7.5-Minute Series (Topographic)

U.S. Geological Survey (1996), *Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Outcrop, Bexar County, Texas*, Water Resources Investigations Report 95-4030

Temporary Stormwater Section
for Regulated Activities
on the Edwards Aquifer Recharge Zone
and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

REGULATED ENTITY NAME: North Point Commercial (Phase 1)

POTENTIAL SOURCES OF CONTAMINATION
Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

   ___ Aboveground storage tanks with a cumulative storage capacity of less that 250 gallons will be stored on the site for less than one (1) year.
   ___ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.
   ___ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An **Aboveground Storage Tank Facility Plan** application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
   _X_ Fuels and hazardous substances will not be stored on-site.

2. _X_ **ATTACHMENT A - Spill Response Actions**. A description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is provided at the end of this form.

3. _N/A_ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

4. _X_ **ATTACHMENT B - Potential Sources of Contamination.** Describe in an attachment at the end of this form any other activities or processes which may be a potential source of contamination.
   ___ The are no other potential sources of contamination.

SEQUENCE OF CONSTRUCTION

5. _X_ **ATTACHMENT C - Sequence of Major Activities.** A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is provided at the end of this form. For each activity described, an estimate of the total area of the site to be disturbed by each activity is given.

6. _X_ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: **Elm Creek**

TEMPORARY BEST MANAGEMENT PRACTICES (TBMPs)
Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. **All structural BMPs must be shown on the site plan.**

7. _X_ **ATTACHMENT D - Temporary Best Management Practices and Measures.** A description of the TBMPs and measures that will be used during and after construction are provided at the end of this form. For each activity listed in the sequence of construction, include appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

_X_ TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information has been provided in the attachment at the end of this form

a. A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.

b. A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.

c. A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

d. A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

8. The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

_ **ATTACHMENT E - Request to Temporarily Seal a Feature.** A request to temporarily seal a feature is provided at the end of this form. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

_X_ There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. _X_ **ATTACHMENT F - Structural Practices.** Describe the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site. Placement of structural practices in floodplains has been avoided.

10. _X_ **ATTACHMENT G - Drainage Area Map.** A drainage area map is provided at the end of this form to support the following requirements.

_ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

__ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

__ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

_X_ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

11. _X_ **ATTACHMENT H - Temporary Sediment Pond(s) Plans and Calculations.** Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure has been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are provided as at the end of this form.

12. _X_ **ATTACHMENT I - Inspection and Maintenance for BMPs.** A plan for the inspection of temporary BMPs and measures and for their timely maintenance, repair, and, if necessary, retrofit is provided at the end of this form. A description of documentation procedures and recordkeeping practices is included in the plan.

13. _X_ All control measures must be properly selected, installed, and maintained in accordance with the manufacturers specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicates a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.

14. _X_ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

15. _X_ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.

16. _X_ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

SOIL STABILIZATION PRACTICES

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. _X_ **ATTACHMENT J - Schedule of Interim and Permanent Soil Stabilization Practices.** A schedule of the interim and permanent soil stabilization practices for the site is attached at the end of this form.

18. X Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

19. X Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

ADMINISTRATIVE INFORMATION

20. X All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.

21. X If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.

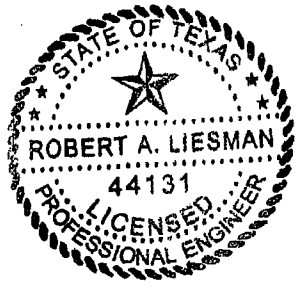
22. X Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **TEMPORARY STORMWATER SECTION** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Robert A. Liesman, P.E.
Print Name of Customer/Agent

Signature of Customer/Agent

2/20/08
Date



ATTACHMENT "A" - SPILL RESPONSE

The objective of this attachment is to describe measures to prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees. The following steps will help reduce the storm water impacts of leaks and spills:

Education

(1) Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spill must be reported to the TCEQ. Information available in 30 TAC 327.4 and 40 CFR 302.4.

(2) Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.

(3) Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).

(4) Establish a continuing education program to indoctrinate new employees.

(5) Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

(1) To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.

(2) Store hazardous materials and wastes in covered containers and protect from vandalism.

(3) Place a stockpile of spill cleanup materials where it will be readily accessible.

(4) Train employees in spill prevention and cleanup.

(5) Designate responsible individuals to oversee and enforce control measures.

(6) Spills should be covered and protected from stormwater runoff during rainfall to the extent that it doesn't compromise clean up activities.

(7) Do not bury or wash spills with water.

(8) Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.

(9) Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.

(10) Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.

(11) Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.

(12) Keep waste storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

(1) Clean up leaks and spills immediately.

(2) Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.

(3) Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

(1) Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.

(2) Use absorbent materials on small spills rather than hosing down or burying the spill.

(3) Absorbent materials should be promptly removed and disposed of properly.

(4) Follow the practice below for a minor spill:

(5) Contain the spread of the spill.

(6) Recover spilled materials.

(7) Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.
Spills should be cleaned up immediately:

(1) Contain spread of the spill.

(2) Notify the project foreman immediately.

(3) If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.

(4) If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.

(5) If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

(1) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM.
After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.

(2) For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.

(3) Notification should first be made by telephone and followed up with a written report.

(4) The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.

(5) Other agencies which may need to be consulted includ e, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

More information on spill rules and appropriate responses is available on the TCEQ website at: http://www.tnrcc.state.tx.us/enforcement/emergency_response.html

Vehicle and Equipment Maintenance

(1) If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.

(2) Regularly inspect onsite vehicles and equipment for leaks and repair immediately

(3) Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.

(4) Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.

(5) Place drip pans or absorbent materials under paving equipment when not in use.

(6) Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.

(7) Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.

(8) Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.

(9) Store cracked batteries in a non- leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

(1) If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.

(2) Discourage "topping off" of fuel tanks.

(3) Always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

ATTACHMENT "B" – POTENTIAL SOURCES OF CONTAMINATION

Other potential sources are:

1. Minor leakage or spillage of paints, lacquers, solvents, etc. used in conjunction with building construction.
2. Oil and gas leaks from construction equipment.
3. Vehicles trucking in and out of the project.
4. Leakage from self contained toilet facilities.
5. Trash not being disposed of properly.

ATTACHMENT "C" – SEQUENCE OF MAJOR ACTIVITIES

1. Install TBMP's as required by this plan (0 acres disturbed)
2. Mass grade the site (1.6 acres disturbed)
3. Construct the building pads (1.6 acres disturbed)
4. Install the required Utilities (1.6 acres disturbed)
5. Construct paved surfaces (0.81 acres disturbed)
6. Construct the water quality basin (0.81 acres disturbed)
7. Permanently soil stabilize the entire site with a TCEQ approved soil stabilization practice. (0 acres disturbed)
8. Clean the site (0 acres disturbed)
9. Remove the TBMPs (0 acres disturbed)

ATTACHMENT "D" - Temporary Best Management Practices

A) The interceptor channel will be constructed up gradient in order to route storm water around the site and away from the disturbed soil. A modest amount of up gradient storm water will naturally flow be thru, and be treated by the sites onsite TBMP's until such time the interceptor channel can be constructed.

B) All contractors, subcontractors, and builders shall endeavor to avoid the pollution of runoff water by using "best management practices" and reasonable foresight to avoid contact between runoff water and polluting materials.

Some best management practices to which all parties are expected to conform are as follows:

(1) Prior to the beginning of the work listed in "Attachment C", the contractor will install the sediment control barriers as specified on the separate "Temporary Pollution Abatement Plan" which is attached in the back of the report. These barriers (silt fences, etc.) will be maintained during the entire time construction is

in progress. Thus erodable material and pollution that might be generated during construction will be intercepted by these same barriers.

(2) The silt fences specified on the "Temporary Pollution Abatement Plan" were positioned to be down-gradient of all construction zones. Thus, with proper installation and maintenance these barriers should be reasonably effective.

(3) The general contractor shall develop a written plan to control the generation of dust during construction phase and submit it to the developer.

(4) Builders and their contractors shall clean equipment only onto areas protected by their silt fences or dikes. Set forth in the TBMP's plan is a location where a "Concrete Truck Washout Pit" will be constructed. The builder shall inform his concrete supplier that this Washout Pit is the only point in the project where washout and waste concrete mix may be discharged.

(5) Stockpiles of erodible material (topsoil, sand, etc.) shall be placed in areas only protected by silt fences or other erosion barriers.

(6) All contractors shall provide self-contained toilet facilities for their employees.

(7) Chemicals, solvents, paints, and other potentially toxic materials must be stored in such a manner that they are protected from rainfall and surface runoff water.

(8) All contractors shall provide waste receptacles at locations convenient to their construction area; to protect from leaching by rainfall; and provide regular collection.

C) See "B" of Attachment "D" above

D) No sensitive features were located in the geological assessment.

ATTACHMENT "E" – Request to Temporary Seal a Feature

N/A

ATTACHMENT "F" – Structural Practices

No structural practices will be used on this site for temporary pollution control. The proposed erosion control devices on the TBMP plan will be sufficient to control sediment on this small site.

ATTACHMENT "G" – Drainage Area

Please see the attached Drainage Area Map which demonstrates that the drainage area is much less than 10 acres.

ATTACHMENT "H"- Temporary Sediment Pond Plans and Calculations

The proposed disturbed area is only 1.6 acres; therefore a temporary sediment pond has not been proposed for this site. The erosion control devises shown on the TBMP plan shall be sufficient erosion control for the site.

ATTACHMENT "I" – Inspection and Maintenance

All TBMP'S shall be inspected by the contractor on a weekly basis and after all rain events. The contractor shall keep records of all inspections that were made. Also, the contractor shall repair or replace any damaged or dysfunctional TBMP's. The contactor shall insure that all TBMP's are maintained and inspected according to TCEQ's Technical Guidance Manual.

Inspection and Maintenance shall include but is not limited to:

Silt Fence

- The contractor shall inspect all silt fencing weekly, and after any rainfall for sediment accumulation, torn fabric and crushed or collapsed sections throughout the duration of construction.
- Sediment shall be removed when sediment buildup reaches 6 inches.
- Torn fabric shall be replaced by the contractor or a second line of fencing shall be erected parallel to the torn section if replacement is not feasible.
- Contractor shall replace or repair any fence sections crushed or collapsed during the course of construction.

Rock Gabion

- Contractor shall inspect all rock gabion weekly and after any rainfall for sediment accumulation or collapsed sections throughout the duration of construction.
- Sediment shall be removed from gabion when sediment buildup reaches 6 inches.
- Contractor shall replace or repair any gabion sections crushed or collapsed during the course of construction.
- During inspection loose wire on the rock gabion shall be repaired and the gabion shall be reshaped as required.

Construction Entrance

- The contractor shall inspect the construction entrance weekly and after any rainfall to ensure that the entrance is preventing vehicular tracking of sediment or sediment flow off-site. The construction entrance shall be top coated with additional rock as conditions demand in order to retain effectiveness.
- All sediment spilled, dropped, washed or tracked off-site shall be removed immediately.

Triangular Filter Dikes

- The contractor shall inspect all triangular filter dikes weekly and after any rainfall.
- Accumulated silt shall be removed after each rainfall.
- Dikes shall be kept aligned to prevent gaps between sections.

Concrete Washout Pit

- The contractor shall inspect all concrete washout pits weekly and after any rainfall.
- Contractor shall ensure that all excess concrete is being washed out into the designated washout pits only.
- The hardened concrete shall be disposed of when the pit is no longer required and when it becomes full.

General

- Records will be kept with the construction site superintendent of all inspections and maintenance actions. See the attached maintenance record chart.
- Litter, construction debris, and construction chemicals exposed to storm water shall be prevented from becoming a pollutant source for storm water discharges (e.g., screening outfalls, picked up daily).
- If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

<u>Temporary Stormwater Section Attachment "I" continued</u>

ITEM #	DATE	DESCRIPTION OF ACTION(S) TAKEN	INITIALS

ATTACHMENT "J" – Interim and Permanent Soil Stabilization

All disturbed permeable areas shall be stabilized. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is prevented by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of a site is temporarily ceased, and the earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of the site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after the construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

The site shall be stabilized with sod and/or seed upon the completion of construction. If construction is to temporary cease and temporary stabilization is required as noted above, the exposed soil shall be stabilized by mulch until construction resumes.

Permanent Stormwater Section
for Regulated Activities
on the Edwards Aquifer Recharge Zone
and Relating to 30 TAC §213.5(b)(4)(C), (D)(li), (E), and (5), Effective June 1, 1999

REGULATED ENTITY NAME: North Pointe Commercial (Phase 1)

Permanent best management practices (BMPs) and measures that will be used during and after construction is completed.

1. X Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

2. X These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.

   X The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

   __ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is provided below

   _____

   _____

   _____

3. X Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

4. X Where a site is used for low density single-family residential development and has 20% or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   __ This site will be used for low density single-family residential development and has 20% or less impervious cover.

   __ This site will be used for low density single-family residential development but has more than 20% impervious cover.

   X This site will not be used for low density single-family residential development.

5. N/A The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application

Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

__ **ATTACHMENT A - 20% or Less Impervious Cover Waiver.** This site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is found at the end of this form.

__ This site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.

_X_ This site will not be used for multi-family residential developments, schools, or small business sites.

6. **ATTACHMENT B - BMPs for Upgradient Stormwater.**

_x_ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is identified as **ATTACHMENT B** at the end of this form.

__ If no surface water, groundwater or stormwater originates upgradient from the site and flows across the site, an explanation is provided as **ATTACHMENT B** at the end of this form.

__ If permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, an explanation is provided as **ATTACHMENT B** at the end of this form .

7. **ATTACHMENT C - BMPs for On-site Stormwater.**

_X_ A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is identified as **ATTACHMENT C** at the end of this form.

__ If permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, an explanation is provided as **ATTACHMENT C** at the end of this form.

8. _X_ **ATTACHMENT D - BMPs for Surface Streams.** A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is provided at the end of this form. Each feature identified in the Geologic Assessment as "sensitive" or "possibly sensitive" has been addressed.

9. _X_ The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.

_X_ The permanent sealing of or diversion of flow from a naturally-occurring "sensitive" or "possibly sensitive" feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed for any naturally-occurring "sensitive" or "possibly sensitive" features on this site.

__ **ATTACHMENT E - Request to Seal Features.** A request to seal a naturally-occurring "sensitive" or "possibly sensitive" feature, that includes a justification as to why no reasonable and practicable alternative exists, is found at the end of this form. A request and justification has been provided for each feature.

10. X **ATTACHMENT F - Construction Plans.** Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information have been signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed permanent BMPs and measures are provided at the end of this form. Design Calculations, TCEQ Construction Notes, all man-made or naturally occurring geologic features, all proposed structural measures, and appropriate details must be shown on the construction plans.

11. X **ATTACHMENT G - Inspection, Maintenance, Repair and Retrofit Plan.** A plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is provided at the end of this form. The plan has been prepared and certified by the engineer designing the permanent BMPs and measures. The plan has been signed by the owner or responsible party. The plan includes procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofits as well as a discussion of record keeping procedures.

12. X The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

— Pilot-scale field testing (including water quality monitoring) may be required for BMPs that are not contained in technical guidance recognized by or prepared by the executive director.

— **ATTACHMENT H - Pilot-Scale Field Testing Plan.** A plan for pilot-scale field testing is provided at the end of this form.

13. X **ATTACHMENT I -Measures for Minimizing Surface Stream Contamination.** A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is provided at the end of this form. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity which increase erosion that results in water quality degradation.

Responsibility for maintenance of permanent BMPs and measures after construction is complete.

14. X The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

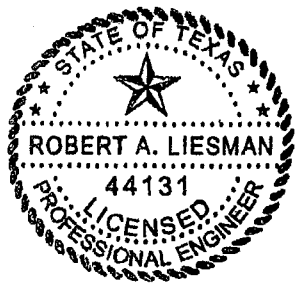
15. X A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **PERMANENT STORMWATER SECTION** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Robert A. Liesman, P.E.
Print Name of Customer/Agent

Signature of Customer/Agent

2/20/08
Date



ATTACHMENT "A" – 20% Impervious Cover Waiver

N/A

ATTACHMENT "B" – BMP For Upgradient Storm Water

All up gradient storm water to the northwest will be intercepted by a proposed interceptor channel and routed around the site.

ATTACHMENT "C" – BMPs for On-site Storm Water

The proposed site will have a water quality basin designed to remove a minimum of 80% of the "TSS" from the stormwater runoff.

ATTACHMENT "D" – BMPs for Surface Streams

The proposed water quality basin will remove pollutants from the storm water runoff before it leaves the project. No sensitive geologic features were found on-site.

ATTACHMENT "E"- Request to Seal Features

N/A

ATTACHMENT "F"- Construction Plans and Design Calculations

See attached plans and calculations.

Texas Commission on Environmental Quality

TSS Removal Calculations 02-20-2008

Project Name: North Pointe
Date Prepared: 2/27/2008

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	bexar	
Total project area included in plan * =	1.60	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	1.20	acres
Total post-development impervious cover fraction * =	0.75	
P =	30	inches
$L_{M\ TOTAL\ PROJECT}$ =	979	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 1

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	1.23	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	1.13	acres
Post-development impervious fraction within drainage basin/outfall area =	0.92	
$L_{M\ THIS\ BASIN}$ =	922	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP =	aq	abbreviation
Removal efficiency =	95	percent

BMP Code:	BMP Type:
AQ	Aqualogic™ Cartridge Filter
BR	Bioretention
CS	Contech StormFilter
CW	Constructed Wetland
ED	Extended Detention
GS	Grassy Swale
RI	Retention / Irrigation
SF	Sand Filter
VF	Vegetative Filter Strip
WB	Wet Basin
WV	Wet Vault

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: $L_R = (\text{BMP efficiency}) \times P \times (A_I \times 34.6 + A_P \times 0.54)$

where:

A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	1.23	acres
A_I =	1.13	acres
A_P =	0.10	acres
L_R =	1116	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = 979 lbs.

F = 0.88

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	1.50	inches
Post Development Runoff Coefficient =	0.75	
On-site Water Quality Volume =	5024	cubic feet

Calculations from RG-348 Pages 3-36 to 3-37

Off-site area draining to BMP =	0.00	acres
Off-site impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	1005	
Total Capture Volume (required water quality volume(s) x 1.20) =	6028	cubic feet

The following sections are used to calculate the required water quality volume(s) for the selected BMP.
The values for BMP Types not selected in cell C53 will show NA.

13. AquaLogic™ Cartridge System Designed as Required in RG-348 Pages 3-74 to 3-78

13A. AquaLogic™ Cartridge System with maintenance contract **

Required Sedimentation chamber capacity =	5024	cubic feet	
Filter canisters (FCs) to treat WQV =	11.56	cartridges	Revised Equation per Addendum
Filter basin area (RIA_F) =	23.12	square feet	Aug. 22, 2007 — 1.25 to 1.05

** 2005 Technical Guidance Manual (RG-348) does not exempt the required 20% increase if proof of maintenance contract with AquaLogic™ is provided.

13B. AquaLogic™ Cartridge System without maintenance contract

Required Sedimentation chamber capacity =	6028	cubic feet
Filter canisters (FCs) to treat WQV =	16.51	cartridges
Filter basin area (RIA_F) =	33.03	square feet

MACINA · BOSE · COPELAND and ASSOCIATES, INC
CONSULTING ENGINEERS AND LAND SURVEYORS
1035 Central Parkway North, San Antonio, Texas 78232
(210) 545-1122 FAX (210) 545-9302
www.mbcengineers.com

PROJ. NO.		PREPARED BY
SUBJECT Basin volume calculation for North Pointe Commercial, Phase 1		DATE / SHEET OF

Avg bottom elev = 103.63

WSEL = 108.80

Avg depth = 108.80 - 103.63 = 5.17'

Subtract 3" depth Required for silt deposits

$\therefore$ depth = $5.17' - \frac{3''}{12''} \cdot (1') = 4.92'$

Area of Basin = 1,134 SF

Volume = 1,134 (4.92') = 5,579 CF

Required volume = 5,024 CF

Provided Volume > Required Volume

ATTACHMENT "G" Maintenance Plan and Schedule For The Aqualogic Basin

PROJECT NAME North Pointe Commercial (Phase 1)
LOCATION Located on the northwest side of Stone Oak Parkway at the Ellis Park intersection

Maintenance Task Item[1]	Description of Maintenance/Repairs to be Performed[2]	Typical Frequency [3]
Basin and Inlet	Visually inspect and note items which need repair of maintenance performed (pipes, concrete drainage structures, retaining walls, cracks, voids or undermining, etc.). Check for erosion areas inside and outside the basin.[4] Insure the inlet and bypass are not clogged.	Each site visit
Trash Removal	Remove trash from the sedimentation and the filtration chambers. Properly dispose all removed material. [5]	Each site visit
Sediment Removal	Remove sediment from the sedimentation and the filtration chambers. Properly dispose of all removed material by sweeping the basin, bagging the waste and removing the bagged waste by hand up the access ladders. [5]	When sediment is greater than 2 inches in depth
Bladder Valve	Check for proper operation in "auto" and "manual" mode: repair or replace damage valve.	Each site visit
Canisters	Clean filter canisters as needed; repair or replace damaged canisters.	Each site visit
Cartridges	Remove and dispose of spent cartridges per manufacturer's recommendations. [5]	As need to insure proper drawdown within 72 hours
Geotextile Wrapping	Inspect geotextile wrapping and repair or replace as needed	At time of filter replacement
Controls	Visually inspect equipment and controls; verify proper function and repair or replace inoperative components.	Each site visit
Concrete Channel Bypass Weir & Outfall	Visually inspect outfall and verify that discharge is leaving the filter by gravity. [4]	Each site visit
Site	Visually inspect site for detrimental debris or spillage that may result in damage to the AquaLogic system.	Each site visit
Facility Operations	Observe the complete facility to evaluate the operation. Review watershed status and determine if any modifications to the facility are warranted.[4] [6]	Each site visit
Wet Well/Sump Pump	If utilitized, visually inspect wet well and sump pump to verify proper evacuation and discharge of stormwater.[4]	Each site visit
Underdrain Piping	Periodically clean underdrain piping using clean-out access ports to insure unimpeded discharge of filtered stormwater.	Two year Intervals
Security Fencing	Observe that the BMP site fence is closed with locked gates at all times, and fence is undamaged. [4]	Each site visit
Documentation	Prepare site visit report noting all items of maintenance, repair, or replacement performed during each site visit.	Each site visit

Cont. on next page.

Notes:

(1) Maintenance of installed AuaLogic™ systems is carried out by AquaLogic™ personnel.
(2) All maintenance activities, including entering confined space, will be performed in accordance with applicable OSHA regulations.
(3) Site visits are carried out once a month or after each significant rainfall event, whichever occurs more often.
(4) Owner will be notified of repair or maintenance items, and facility concerns.
(5) Properly dispose of trash, sediment and cartridges in accordance with applicable regulations.
(6) At least two inspections per year shall be done during or immediately following wet weather.
(7) Documentation to be maintained at AquaLogic™ offices for a minimum time of 5 years to be reviewed by the owner or regulatory agency during normal business hours.

Responsible Party for Maintenance:	RAD Investments, Inc.
Address	1602 N. Loop 1604 W., Suite ll-102
City, State Zip	San Antonio, Texas 78248
Telephone Number	210-479-3231 ext. 3802
Signature of Responsible Party	Ronald Hagauer
Print name of Responsible Party	Ronald W. Hagauer

Permanent Stormwater Section Attachment "G" continued
Sample Maintenance Table

ITEM #	DATE	DESCRIPTION OF ACTION(S) TAKEN	INITIALS

ATTACHMENT "H" – Not Applicable

ATTACHMENT "I" – Measure for minimizing surface stream contamination.

Additional runoff from this project will have no appreciable effect on down gradient "surface streams". Stream flow calculations by others have accounted for expected development by this property. The discharge velocities are within the City of San Antonio UDC criteria.

9. Source of Potable Water.

- ✓ San Antonio Water System
- ____ Water Purveyor: _____
- ____ Other: _____
- ____ Private on-site water well (s). Source of water (formation)(if known)_____
- ____ No potable water will be needed for this project.

10. Source of Non-Potable water.

- ✓ Non Applicable
- ____ Private on-site water well (s). Source of water (formation)(if known) _____
- ____ Other: _____

11. The existing conditions on the project site are noted below.
The project site is:

- ____ Existing commercial site
- ____ Existing industrial site
- ____ Existing residential site
- ____ Existing paved and/or unpaved roads
- ✓ Undeveloped (Clear)
- ____ Undeveloped (with woods and meadows)
- ____ Partially Developed.
- ____ Other _____

12. Municipal Solid waste, and/or hazardous waste:

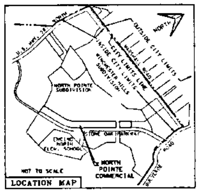
____ There are areas of trash, debris or other municipal solid waste or hazardous waste on this property which will be disposed of properly at an authorized landfill prior to commencing construction.

✓ There are no areas of trash, debris or other municipal solid waste or hazardous waste existing on this property.

____ Other comments describe below:

_____

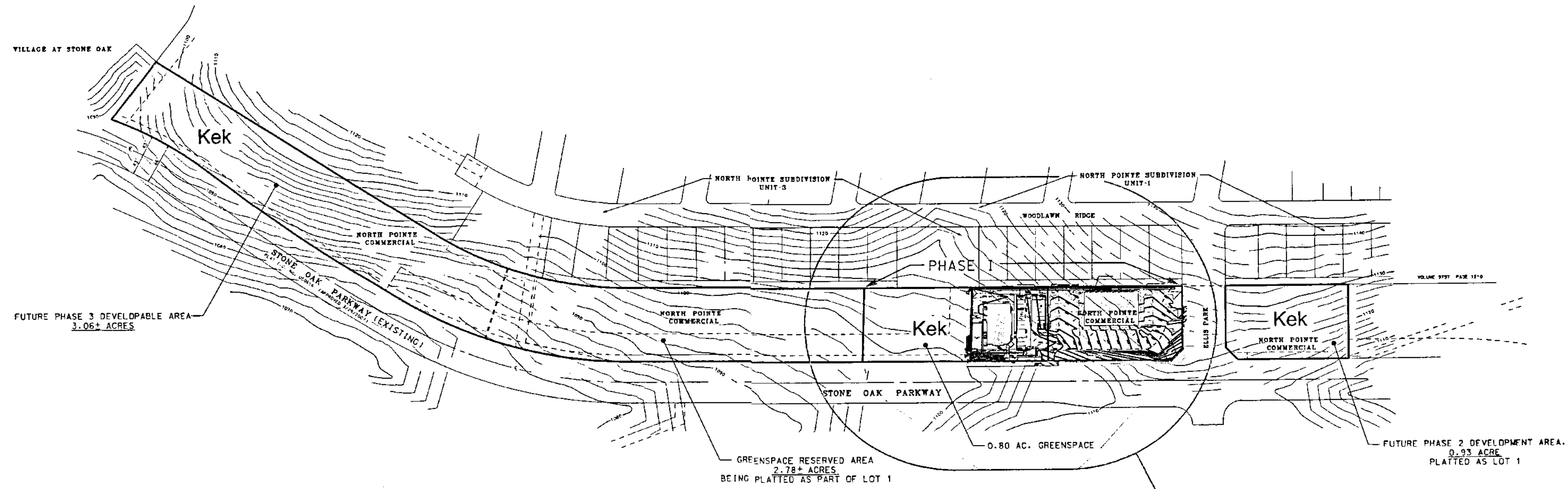
_____



NORTH

SCALE: 1" = 100'

BEARINGS BASED ON THE SOUTH PROPERTY LINE OF NORTH POINTE SUBD. UNIT-1 AS BEING S29°13'21"W



SEE SHEET C-1 THRU C-5
FOR PHASE 1
2.40 ACRES
PLATTED LOTS 2 & 3 + 0.80 GREENSPACE

LAND USE SUMMARY

PARCEL "2" : NORTHERN CORNER PARCEL = 0.93 Ac.
PARCEL "1" : SOUTHERN CORNER PARCEL = 2.40 Ac.*
PARCEL "3" : SOUTHWESTERN PARCEL = 3.06 AC. DEVELOPABLE AREA
GREENSPACE RESERVE = 2.78 Ac.
TOTAL AREA = 9.17 Ac.

*1.01 Ac. LOT + 0.59 Ac. LOT + 0.80 Ac. GREENSPACE & DRAINAGE EASEMENT = 2.40 Ac.

SAN ANTONIO WATER SYSTEM AQUIFER STUDIES
2009 MAY 21 A 10 32

CHART FOR ACCUMULATION OF IMPERVIOUS COVER ON RAD TRACT
(AS DESCRIBED BY PLAT No. 080077)

PROJECT DESCRIPTION	BUILT ON LOT No.	CITY OF SAN ANTONIO BLDG. PERMIT No.	IMPERVIOUS COVER AREA (ACRES) (PER PERMIT PLANS)	PERCENTAGE OF MAX I.C. TOTAL OF 4.85 Ac.

STATE OF TEXAS
ROBERT A. LIESMAN
44131
LICENSED
PROFESSIONAL ENGINEER

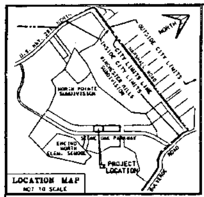
REVISIONS:

DATE	NO.	DESCRIPTION	BY

NORTH POINTE COMMERCIAL
MASTER SITE PLAN

MACINA • BOSE • COPELAND & ASSOC., INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
1035 Central Parkway North, San Antonio, Texas 78232
Tel. No. (210) 545-1122 Fax No. (210) 545-9302 www.mbcengineers.com

DESIGN R.A.L.
DRAWN JRS
CHECKED
DATE FEB. 2008
JOB NO 19740-1478
SHT



NORTH

SCALE: 1" = 20'

GRADING/DRAINAGE NOTES:

1. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATION. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.
2. MINIMUM ASPHALT SLOPE SHALL BE 1% UNLESS OTHERWISE SHOWN.
3. CONTRACTOR SHALL GRADE SMOOTHLY BETWEEN PROPOSED SPOT ELEVATIONS AND BETWEEN FINISHED CONTOURS.
4. CONTRACTOR IS RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL.
5. REMOVE AND DISPOSE OF ALL LOOSE OR ORGANIC MATERIAL FROM AREA TO RECEIVE PAVING OR FILL.
6. SCARIFY EXISTING SUBGRADE BENEATH PARKING LOT AND RECOMPACT TO 95% OF THE MAXIMUM DRY DENSITY. REF: GEOTECH. REPORT FOR ADDITIONAL PROCEDURES & REQUIREMENTS.
7. THIS PLAN IS TO BE USED FOR SITE GRADING ONLY.
8. LOCATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS IS BASED ON A COMBINATION OF FIELD SURVEYING AND AVAILABLE UTILITY MAPS. CONTRACTOR TO DETERMINE VERTICAL AND HORIZONTAL LOCATIONS OF ALL UTILITIES (WHETHER SHOWN ON PLANS OR NOT) BY COORDINATING WITH THE RESPECTIVE UTILITY AGENCIES PRIOR TO CONSTRUCTION. THE FOLLOWING ARE NUMBERS OF THE RESPECTIVE AGENCIES:

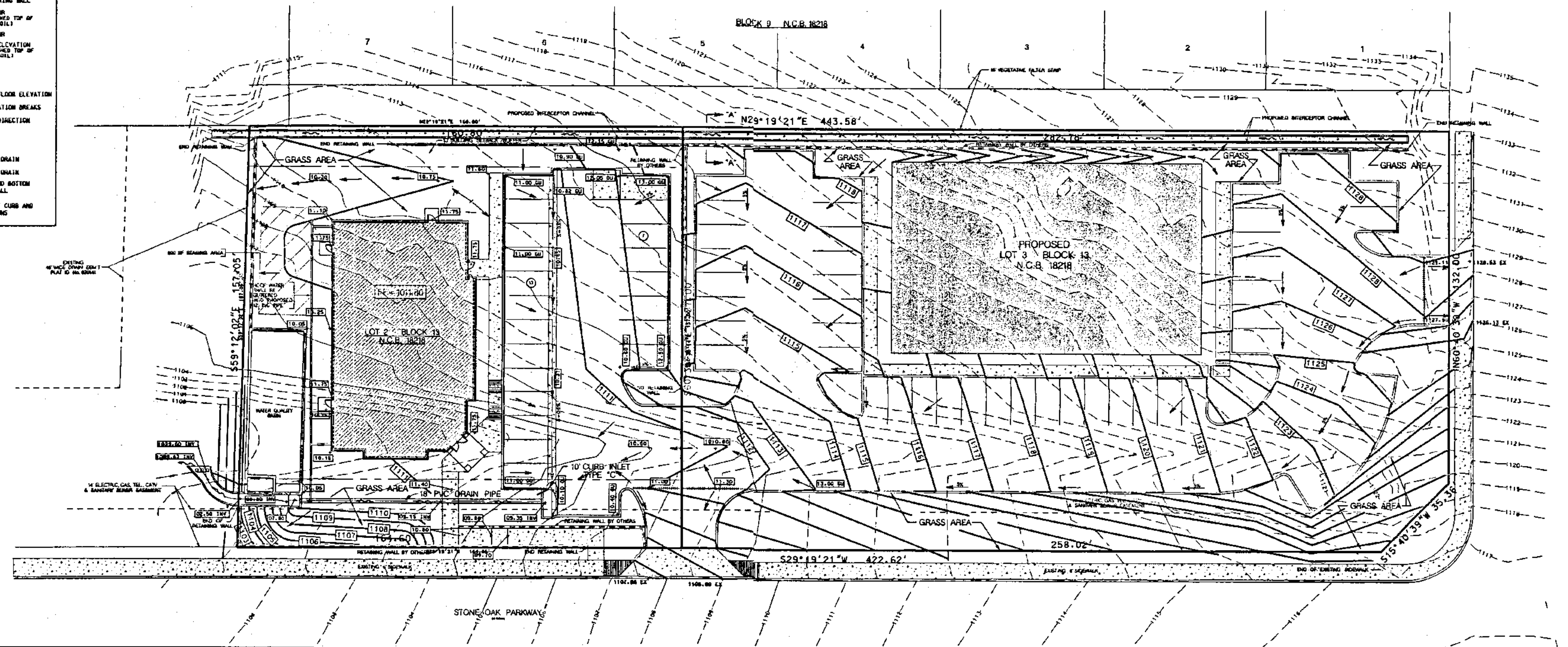
SAN ANTONIO WATER SYSTEM (SEWER)	233-2009
SAN ANTONIO WATER SYSTEM (WATER)	233-2009
CPS ENERGY (GAS & ELECTRIC)	978-3500
AT&T (TELEPHONE)	820-6229
TIME WARNER CABLE (CABLE TELEVISION)	675-4560
VALERO ENERGY CORP.	246-2394
BEXAR METROPOLITAN WATER DISTRICT	982-1221
TESS-STATEWIDE ONE CALL DAMAGE PREVENTION SYSTEM FOR BURIED UTILITIES.	1-800-DIG-TESS

IF ANY NUMBERS HAVE CHANGED OR ARE INCORRECT, THE CONTRACTOR IS STILL RESPONSIBLE FOR CONTACTING THE AGENCIES.
9. FINISHED EARTH SLOPES SHALL BE AT 1% MINIMUM AND SHALL NOT EXCEED 3:1.
10. ALL GRASSED AREAS AFFECTED BY THIS CONSTRUCTION SHALL BE RESODDED BY THE CONTRACTOR WITH A GRASS SIMILAR TO THE EXISTING.
11. PRIOR TO BIDDING, THE CONTRACTOR SHALL THOROUGHLY INVESTIGATE THE SITE AND FAMILIARIZE HIMSELF WITH ALL ASPECTS OF THE SITE WHICH MAY AFFECT HIS WORK. THIS INCLUDES ACCOUNTING FOR ALL VISIBLE FEATURES WHICH MAY IMPACT THE BID OR THE WORK.
12. REMOVE AND PROPERLY DISPOSE OF EXCESS EXCAVATION AND DEBRIS.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL EXISTING GRATES, VALVES, CLEANOUTS, MANHOLES, VAULT TOPS, ETC. TO THE FINISHED GRADES AS SHOWN ON THE PLANS.
14. REFERENCE GEOTECHNICAL REPORT FOR ADDITIONAL REQUIREMENTS CONCERNING FILL PLACEMENT AND PAD PREPARATION. REFERENCE SOILS REPORT FOR PAVING SECTION AND SUBGRADE PREPARATION
15. ALL EXCAVATION SHALL BE UNCLASSIFIED.
16. ALL STORM DRAINS TO BE R.C.P., CONTECH A-2000, OR SPIRAL RIBBED CORRUGATED METAL PIPE, UNLESS NOTED OTHERWISE. ANY PORTION OF PIPE LOCATED IN PUBLIC RIGHT OF WAY SHALL BE R.C.P. OR CITY APPROVED EQUAL.
17. ALL STORM DRAINAGE STRUCTURES TO BE BY OLDCASTLE CO. OR APPROVED EQUAL.
18. CONTRACTOR SHALL EXPOSE ALL EXISTING UTILITIES CROSSING PROPOSED GRAVITY LINES AND INSURE THERE WILL BE NO CONFLICTS PRIOR TO BEGINNING CONSTRUCTION. ADDITIONALLY, CONTRACTOR TO PLAN UTILITY LINE INSTALLATIONS IN A MANNER TO AVOID CONFLICTS WITH PROPOSED GRAVITY LINES.
19. ON ALL GRAVITY LINES, CONTRACTOR MUST START AT DOWNSTREAM END AND PROCEED UPSTREAM TAKING CARE TO EXPOSE ALL EXISTING UTILITIES AND STRUCTURES WHICH MAY CONFLICT WITH THE PROPOSED LINE. ANY OTHER SEQUENCE OF CONSTRUCTION
20. THIS PROJECT LIES WITHIN THE EDWARDS AQUIFER RECHARGE ZONE. CONTRACTOR MUST FAMILIARIZE HIMSELF WITH THE VARIOUS REQUIREMENTS INVOLVING CONSTRUCTION WITHIN THE RECHARGE ZONE. A WATER POLLUTION ABATEMENT PLAN AND SEWAGE ABATEMENT PLAN ARE IN EXISTENCE FOR THE PROJECT AND MUST BE CONSIDERED DURING ALL PHASES OF THE SITE WORK. THE PROJECT WILL BE UNDER THE REVIEW OF THE TEXAS NATURAL RESOURCES CONSERVATION COMMISSION (TCEQ) AND THE CONTRACTOR SHALL TAKE MINUTES OF MEETINGS BETWEEN HIMSELF AND THE TNRCC. THERE MINUTES SHOULD BE TRANSMITTED TO THE ENGINEER AND THE OWNER AS SOON AS POSSIBLE.
21. IN CASES WHERE HYDROMULCH HAS BEEN PROPERLY APPLIED, CONTRACTOR TO PROVIDE WATER AS REQUIRED TO ACHIEVE A MINIMUM OF 75% GERMINATION TOWARDS SUBSTANTIAL GROWTH.
22. CONTRACTOR TO COORDINATE LOCATION AND PROPOSED ELEVATION OF CONCRETE APRON, SIDEWALKS AND ACCESSIBLE RAMPS WITHIN PUBLIC RIGHT-OF-WAY WITH INSPECTOR PRIOR TO BEGINNING CONSTRUCTION.
23. PROPOSED SPOT ELEVATIONS AND CONTOURS REPRESENT FINISHED TOP OF PAVEMENT OR TOPSOIL.
24. ALL FILL SHALL BE PLACED IN 8" LOOSE LIFTS AND COMPACTED TO 95% DENSITY UNLESS OTHERWISE NOTED.
25. ALL SIDEWALK SLOPES SHALL NOT EXCEED 2% CROSS-SLOPE, AND 5% IN DIRECTION OF TRAVEL, UNLESS OTHERWISE SPECIFIED.

LEGEND

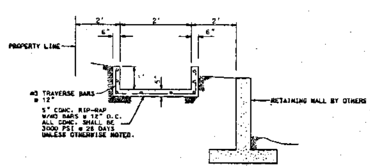
- EXISTING TOP OF CURB AND GUTTER ELEVATIONS
- EXISTING SPOT ELEVATION
- PROPOSED RETAINING WALL
- PROPOSED CONTOUR (REPRESENT FINISHED TOP OF PAVEMENT OR TOPSOIL)
- EXISTING CONTOUR
- PROPOSED SPOT ELEVATION (REPRESENT FINISHED TOP OF PAVEMENT OR TOPSOIL)
- PROPOSED RIDGE
- DEFINED SWALE
- PROPOSED FIN. FLOOR ELEVATION
- PROPOSED FOUNDATION BREAKS
- OVERLAND FLOW DIRECTION
- BENCHMARK
- GRATE
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- PROPOSED TOP AND BOTTOM OF RETAINING WALL
- PROPOSED TOP OF CURB AND GUTTER ELEVATIONS

NORTH POINTE SUBDIVISION, UNIT-1



Note: All disturbed permeable areas shall be stabilized. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is prevented by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of a site is temporarily ceased, and the earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of the site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after the construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

The site shall be stabilized with sod and/or seed upon the completion of construction. If construction is to temporary cease and temporary stabilization is required as noted above, the exposed soil shall be stabilized by mulch until construction resumes.



SECTION "A"-"A"

N.T.S.

IN ORDER TO PRECLUDE A DETRIMENTAL ACCUMULATION OR CONCENTRATION OF RUNOFF PRIOR TO THE DESIGNED DRAINAGE CONVEYANCES BEING COMPLETED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY PLAN AND CONSIDER EXISTING AND PROPOSED DRAINAGE PATTERNS DURING THE CONSTRUCTION OF THE PROJECT. IN ORDER TO ACCOMPLISH THIS, IT MAY BE NECESSARY TO PHASE THE GRADING, CONSTRUCT TEMPORARY BERMS AND SWALES WHILE FACTORING IN SURROUNDING CONDITIONS TO PROPERLY DIRECT AND CONTROL SURFACE RUNOFF. ADDITIONALLY, THE CONTRACTOR SHOULD TAKE INTO ACCOUNT THE TIMING OF CONSTRUCTING PONDS, CHANNELS AND STORM DRAINAGE SYSTEMS.

LADY BIRD JOHNSON HIGH SCHOOL

STATE OF TEXAS — ROBERT A. LESMAN — 44131 — LICENSED PROFESSIONAL ENGINEER

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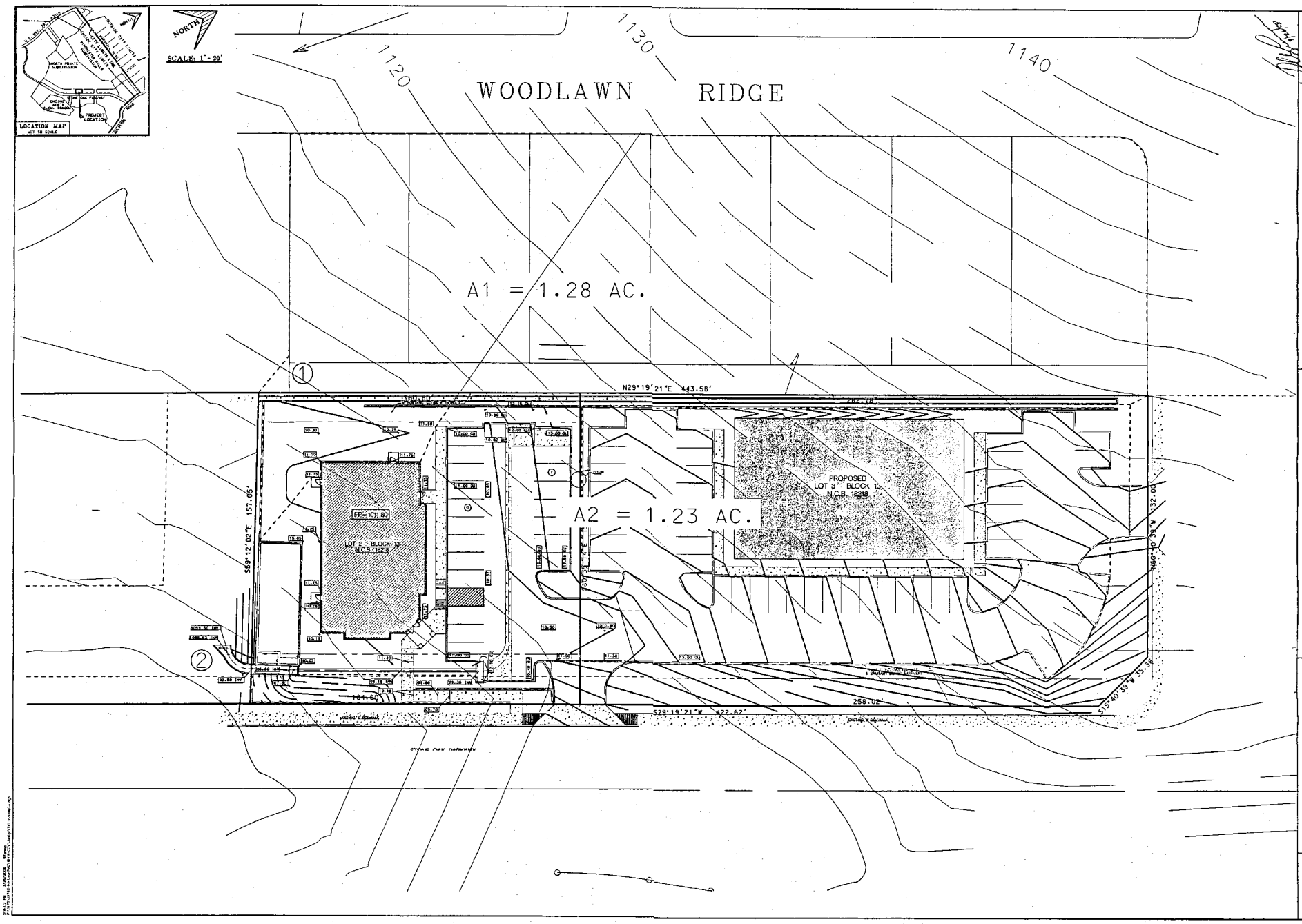
CONSULTING ENGINEERS AND LAND SURVEYORS
1035 Central Parkway North, San Antonio, Texas 78232
Tel. No. (210) 545-1122 Fax No. (210) 545-9302 www.mbcengineers.com

NORTH POINTE COMMERCIAL, PHASE I
SITE GRADING PLAN

REVISIONS: DATE | NO. | DESCRIPTION | BY

DESIGN: R.A.L.
DRAWN: JRS/LC
CHECKED:
DATE: FEB. 2008
JOB NO. 19740-1478
SHT. C-1



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NORTH POINTE COMMERCIAL (PHASE 1)
DRAINAGE AREA MAP

REVISIONS			
NO.	DESCRIPTION	BY	
DATE			

DESIGN R.A.L.
DRAWN J.R.S.
CHECKED
DATE FEB. 2008
JOB NO. 19740-1478
SHT.

STANDARD INSTALLATION MATRIX

ITEM -- PROVIDED AND INSTALLED BY

SEDIMENTATION BASIN
ALL CONSTRUCTION -- BY SITE CONTRACTOR

FILTRATION BASIN
WALLS -- SITE CONTRACTOR
SUBFLOOR -- SITE CONTRACTOR
TOP -- SITE CONTRACTOR
ACCESS LADDER -- SITE CONTRACTOR
ACCESS DOOR FOR COVERED CHAMBERS -- SITE CONTRACTOR

INFLOW PIPING
PVC WALL STUB -- SITE CONTRACTOR
CONTROL VALVE -- AQUALOGIC
PROTECTIVE GRATE * -- SITE CONTRACTOR
GRAVEL PACK * -- SITE CONTRACTOR
*AT UPSTREAM END OF INFLOW PIPE IN THE SEDIMENTATION CHAMBER

UNDERDRAIN SYSTEM
PVC MANIFOLD -- AQUALOGIC
MANIFOLD HEADER -- AQUALOGIC
THREADED REDUCERS -- AQUALOGIC
FINISHED FLOOR GROUT -- SITE CONTRACTOR
DISCHARGE TO OUTFALL -- SITE CONTRACTOR

FILTER CANISTERS
HOUSING AND CARTRIDGES -- AQUALOGIC
GEOTEXTILE WRAP -- AQUALOGIC
FLOATING SEPARATOR RINGS -- AQUALOGIC

CONTROLS
RACK OR POLE SUPPORT -- BY AQUALOGIC
CONTROL PANEL WIRING AND ALL CONTROL SYSTEM COMPONENTS -- AQUALOGIC

NOTE: NON-STANDARD INSTALLATIONS CAN BE ACCOMPLISHED BY SPECIFIC AGREEMENT WITH AQUALOGIC

AQUALOGIC DESIGN GUIDELINES

1. EACH FILTER CANISTER SHALL BE APPROXIMATELY EQUALLY SPACED WITHIN THE AVAILABLE FILTRATION AREA AND WILL BE CONNECTED TO A 4" SCH 40 PVC MANIFOLD. AQUALOGIC WILL DESIGN AND INSTALL THE FILTER MANIFOLD AND THE MANIFOLD HEADER WHICH WILL UTILIZE STANDARD PVC FITTINGS WITH SOLVENT WELD JOINTS AND WILL COLLECT THE FILTERED EFFLUENT TO A SINGLE DISCHARGE PIPE. THE MANIFOLD WILL INCLUDE A STANDARD FEMALE THREADED ADAPTER AT EACH POINT OF FILTER CANISTER CONNECTION. THE ADAPTER AT EACH POINT OF CONNECTION IS SET SO THAT THE VERTICAL MOUNTED CANISTER WILL BE STRAIGHT AND PLUMB.

2. ALL UNDERDRAIN PIPING SHALL BE EMBEDDED IN A LAYER OF WATERPROOF GROUT WITH A MINIMUM DEPTH OF 12" AT THE FILTER CANISTERS. THE FINISHED SURFACE OF THE GROUT LAYER SHALL BE FLUSH WITH THE BOTTOM OF THE FILTER CANISTERS AND BE SHAPED TO PREVENT PONDING WITH A MINIMUM SLOPE OF 4" PER FOOT. GROUTING SHALL BE INSTALLED BY THE SITE CONTRACTOR AFTER AQUALOGIC INSTALLS THE UNDERDRAIN PIPING.

3. THE AQUALOGIC CONTROL PANEL INCLUDING ALL COMPONENTS FOR AUTOMATIC OPERATION SHALL BE MOUNTED ON A SUITABLE RACK OR POLE EMBEDDED IN CONCRETE OR ATTACHED TO AN ACCESSIBLE LOCATION ON THE FILTRATION CHAMBER SIDEWALL.

CHART "A"

THE AQUALOGIC FILTER CHAMBER MANIFOLD SYSTEM ALLOWS VERSATILITY IN THE DESIGN DIMENSIONS OF THE FILER CHAMBER. BELOW ARE THE MINIMUM INSIDE DIMENSIONS FOR THE FILTER CHAMBER TO PROPERLY ACCOMODATE A MANIFOLD OF SELECTED SIZE ACCORDING TO THE NUMBER OF FILTER CANISTERS. SEVERAL SAMPLES ARE INCLUDED

A MANIFOLD IS MADE UP OF SECTIONS CONSISTING OF 2 FILTER CANISTERS PER SECTION. ADD 9 IN. TO THE LENGTH OF THE FILTER CHAMBER PER EACH ADDITIONAL SECTION OF MANIFOLD.

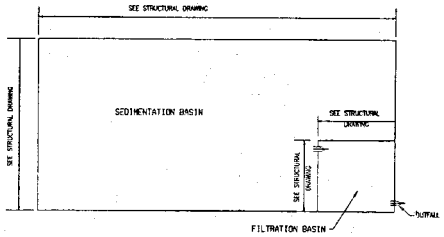
MANIFOLD ROWS	FILTER CHAMBER WIDTH "A"	"B"	"C"	"D"	"E"	"F"	TOTAL	FILTER CHAMBER LENGTH
1	3.0'	--	--	--	--	1.5'	4.5'	5'+[(NO. SECTIONS -1)*0.75']
2	3.0'	2.0'	--	--	--	3.0'	8.0'	MIN. LENGTH = 6' - 6" (1 MANIFOLD, 3 SECTIONS) (6 FILTERS)
3	3.0'	3.5'	2.0'	--	--	3.0'	11.5'	
4	3.0'	2.0'	3.5'	2.0'	--	3.0'	13.5'	ADD 9" PER SECTION
5	3.0'	3.5'	2.0'	3.5'	2.0'	3.0'	17.0'	MAX. 25 SECTIONS PER MANIFOLD = 23' - 0"

EXAMPLE 1: FILTER CHAMBER FOR 10 CANISTERS (5 SECTIONS)
1 MANIFOLD ROW WITH 5 SECTIONS.
FILTER CHAMBER 4' - 6" WIDE BY 6' - 0" LONG

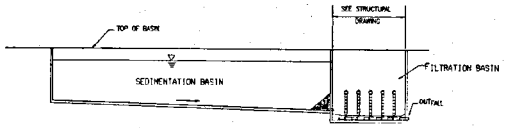
EXAMPLE 2: FILTER CHAMBER FOR 35 CANISTERS (18 SECTIONS)
1 MANIFOLD ROW WITH 18 SECTIONS.
FILTER CHAMBER 4' - 6" WIDE BY 17' - 9" LONG
OR
2 MANIFOLD ROW WITH 9 SECTIONS EACH.
FILTER CHAMBER 8' - 0" WIDE BY 11' - 0" LONG
OR
3 MANIFOLD ROW WITH 6 SECTIONS EACH.
FILTER CHAMBER 11' - 6" WIDE BY 8' - 9" LONG

EXAMPLE 3: FILTER CHAMBER FOR 100 CANISTERS (50 SECTIONS)
2 MANIFOLD ROW WITH 25 SECTIONS EACH.
FILTER CHAMBER 8' - 0" WIDE BY 23' - 0" LONG
OR
3 MANIFOLD ROW WITH 17 SECTIONS IN 2 ROWS AND 16 SECTIONS IN 1 ROW.
FILTER CHAMBER 11' - 6" WIDE BY 17' - 0" LONG
OR
4 MANIFOLD ROW WITH 13 SECTIONS IN 3 ROWS AND 11 SECTIONS IN 1 ROW.
FILTER CHAMBER 13' - 6" WIDE BY 14' - 0" LONG

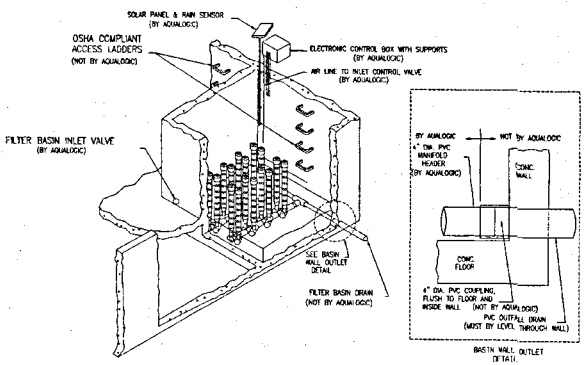
NOTE: FILTERS SHALL BE TYPE DISTRIBUTED BY SWAF OF SAN ANTONIO OR APPROVED EQUIVALENT BY MBC ENGINEERS.



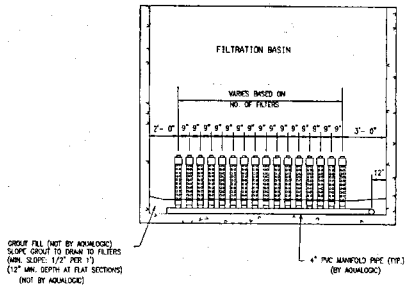
BASIN FLOOR ELEVATION SCHEMATIC
N.T.S.



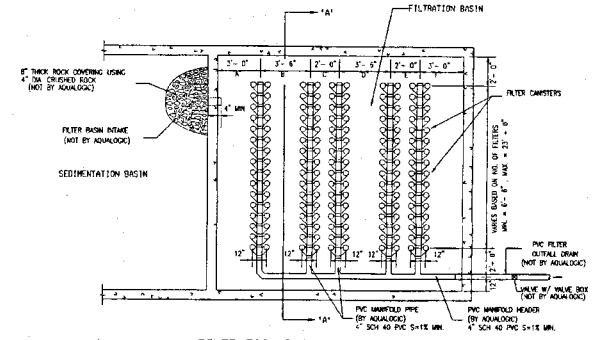
BASIN SECTION PROFILE
N.T.S.



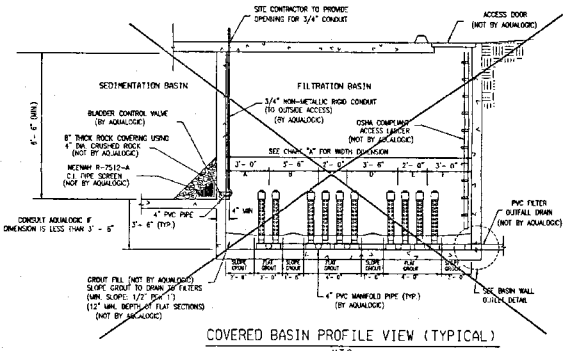
AQUALOGIC SYSTEM (TYPICAL)
N.T.S.



SECTION "A" - "A"
N.T.S.

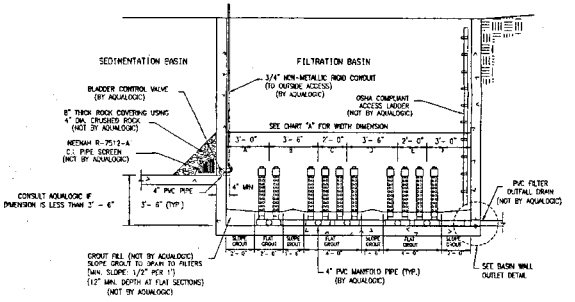


FILTRATION BASIN PLAN VIEW (TYPICAL)
N.T.S.



COVERED BASIN PROFILE VIEW (TYPICAL)
N.T.S.

NOT APPLICABLE



OPEN BASIN PROFILE VIEW (TYPICAL)
N.T.S.

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NORTH POINTE COMMERCIAL, PHASE I

AQUALOGIC STANDARD BASIN DETAILS

REVISIONS: DATE	NO.	DESCRIPTION	BY

DESIGN R.A.L.
DRAWN J.R.S.
CHECKED
DATE FEB. 2008
JOB NO. 19740-1478
SHT. C-5

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
WATER POLLUTION ABATEMENT PLAN
GENERAL CONSTRUCTION NOTES

1. Written construction notification must be given to the appropriate TCEQ regional office no later than 48 hours prior to commencement of the regulated activity. Information must include the date on which the regulated activity will commence, the name of the approved plan for the regulated activity, and the name of the prime contractor and the name and telephone number of the contact person.

2. All contractors conducting regulated activities associated with this project must be provided with complete copies of the approved Water Pollution Abatement Plan and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors are required to keep onsite copies of the approved plan and approval letter.

3. If any sensitive feature is discovered during construction, all regulated activities near the sensitive feature must be suspended immediately. The appropriate TCEQ regional office must be immediately notified of any sensitive features encountered during construction. The regulated activities near the sensitive feature may not proceed until the TCEQ has reviewed and approved the methods proposed to protect the sensitive feature and the Edwards Aquifer from any potentially adverse impacts to water quality.

4. No temporary aboveground hydrocarbon and hazardous substance storage tank system is installed within 150 feet of a domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

5. All temporary erosion and sedimentation (E&S) control measures must be properly selected, installed, and maintained in accordance with the manufacturers specifications and good engineering practices. Controls specified in the temporary storm water section of the approved Edwards Aquifer Protection Plan are required during construction. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. The controls must remain in place until disturbed areas are revegetated and the areas have become permanently stabilized.

6. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

7. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake must be provided that can indicate when the sediment occupies 50% of the basin volume.

8. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

9. All spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.

10. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

11. The following records shall be maintained and made available to the TCEQ upon request: the dates when major grading activities occur; the dates when construction activities temporarily or permanently cease on a portion of the site; and the dates when stabilization measures are initiated.

12. The holder of any approved Edward Aquifer protection plan must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:

a. any physical or operational modification of any water pollution abatement structure(s), including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;

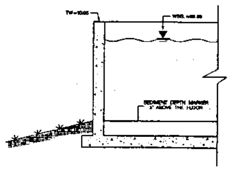
b. any change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;

c. any development of land previously identified as undeveloped in the original water pollution abatement plan.

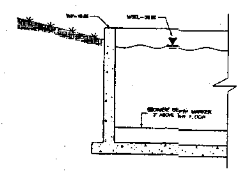
Austin Regional Office 1921
Cedar Bend, Suite 150
Austin, Texas 78758-5336
Phone (512) 339-2929 Fax (512) 339-3795

San Antonio Regional Office
14250 Judson Road
San Antonio, Texas 78233
Phone (210) 490-3096 Fax (210) 545-4329

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS. TNRCC-0592 (Rev. 6/1/99)



SECTION "A-A"
N.T.S.



SECTION "B-B"
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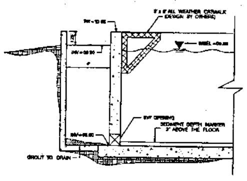

SECTION "C-C"
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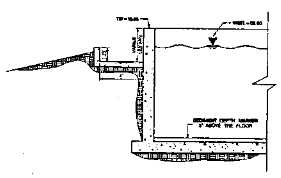

SECTION "D-D"
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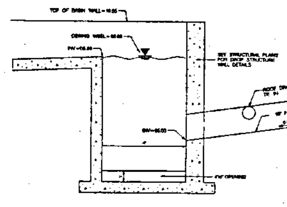

SECTION "E-E"
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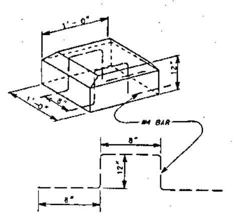
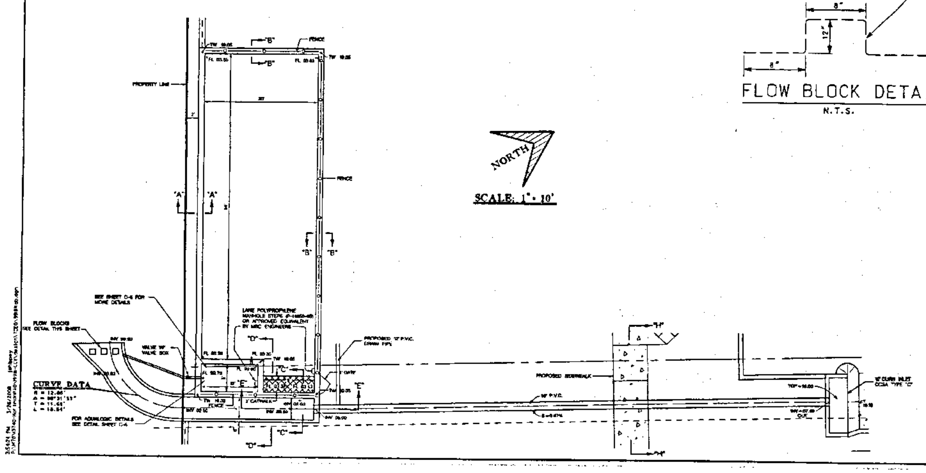


FLOW BLOCK DETAIL
N.T.S.



SCALE: 1" = 10'

NOTE:
- BASIN TO BE FENCED AT ALL EXPOSED TOP OF WALLS WITH GATES PROVIDED FOR MAINTENANCE AT THE LADDERS.
- CONTRACTOR SHALL REFER TO THE STRUCTURAL PLANS FOR BIDDING AND CONSTRUCTION OF THE BASIN. CONTRACTOR SHALL NOTIFY MBC ENGINEERS OF ANY DISCREPANCIES BETWEEN THE STRUCTURAL AND CIVIL PLANS IMMEDIATELY.
- CONTRACTOR TO CONTACT CIVIL ENGINEER AFTER FORMS HAVE BEEN SET & PRIOR TO CONCRETE PLACEMENT AT (210) 545-1122.
- CONTRACTOR TO CONTACT THE SAWS WATERSHED PROTECTION AND MANAGEMENT DEPARTMENT @ 233-3523 PRIOR TO PLACING THE BASIN INTO FULL OPERATION.
- THE ACTUAL ELEVATION IS 1000 PLUS THE ELEVATION SHOWN ON THE PLAN.
- THE SEDIMENT DEPTH MARKER SHALL BE A REBAR EMBEDED IN THE CONCRETE OR OTHER APPROVED SEDIMENT DEPTH MARKER BY MBC ENGINEERS.

LEGEND
TW = TOP OF WALL ELEVATION
FL = TOP OF CONCRETE (FLOOR) ELEVATION
INV= INVERT
GU= GUTTER

ADD 1000 OR 1100 AS APPLICABLE TO ELEVATIONS GIVEN FOR ACTUAL ELEVATIONS.

Texas Commission on Environmental Quality

TSS Removal Calculations 02-20-2008

Project Name: North Pointe
Date Prepared: 2/27/2008

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project — Calculations from RG-348 — Pages 3-27 to 3-30

[illegible]

VOLUME
REQUIRED= 5,024cf + 3" DEPTH
PROVIDED= 5,579cf + 3" DEPTH

FILTER CARTRIDGES
REQUIRED= 11.56
PROVIDED= 12

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NORTH POINTE COMMERCIAL, PHASE 1
BASIN DETAILS

REVISIONS DATE	NO.	DESCRIPTION	BY

DESIGN: R.A.L.
DRAWN: L.C.
CHECKED:
DATE: FEB. 2008
JOB NO.: 19740-1478
SHT.: C-4