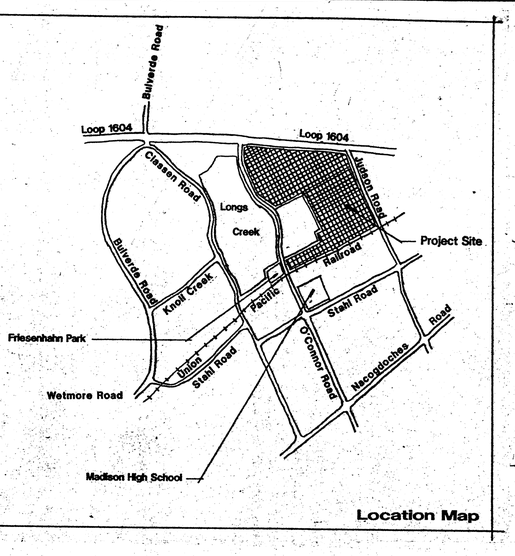
Steubing Estate POADP



Location Map

Proposed Commercial

Loop 1604

Commercial
11.1 Acres

Edwards Aquifer Recharge Zone Boundary

Commercial
17.8 Acres

Undeveloped

Loop 1604 400' R.O.W.

O'Connor Road 86' R.O.W.

Residential
125.9 Acres

100 Year Floodplain

Commercial
20.4 Acres

Commercial
21.7 Acres

Existing Commercial

Longs Creek Residential

Tampke Cemetery

100 Year Floodplain

Longs Creek Residential

Undeveloped Future Residential

Reserve Tract
152.6 Acres
Proposed Extractive Mining Operation

Commercial
27.4 Acres

Judson Road 86' R.O.W.

Existing Residential

Knollcreek

Longs Creek Residential

Extension of Knollcreek

86' R.O.W.

100 Year Floodplain

Special Use

CPS Easement

CPS Easement

34.8 Acres

100 Year Floodplain

Special Use
3.7 Acres

Union Pacific Railroad R.O.W.

Edwards Aquifer Recharge Transition Zone

Land Use Summary

Land Use	Acreage
Residential	125.9
Commercial	98.4
Special Use	38.5
Reserve Tract	152.6
Drainageways	100.9
Total	516.3

Developer
Steubing/Bitterblue Inc.
3330 Oakwell Court, Suite 110
San Antonio Texas 78218

Sewer Service-City of San Antonio
Water Supply by San Antonio Water Systems
Gas and Electric by City Public Service

PLAN HAS BEEN ACCEPTED BY
COSA Rebecca Waldman by WD
Dec 20, 1996 539
(date) (number)

If no plats are filed, plan will
expire on June 21, 1998
1st plat filed on _____

Friesenhahn Park

POADP # 496

November 26, 996
February 27, 1996
December 21, 1995

Dixie Watkins III & Associates
Landscape Architecture
Natural & Cultural Resource Management
Land Planning
3330 Oakwell Court, Suite 110
San Antonio, Texas 78218
(210) 824-7538 Fax 824-0128

#539

020390

SHEET 2 OF 2

ESTABLISHING SUBDIVISION PLAT OF

STUEBING RANCH SUBDIVISION UNIT 3

BEING A 24.054 ACRE TRACT OF LAND.

LOCATION MAP

GRAPHIC SCALE

100 0 50 100 200

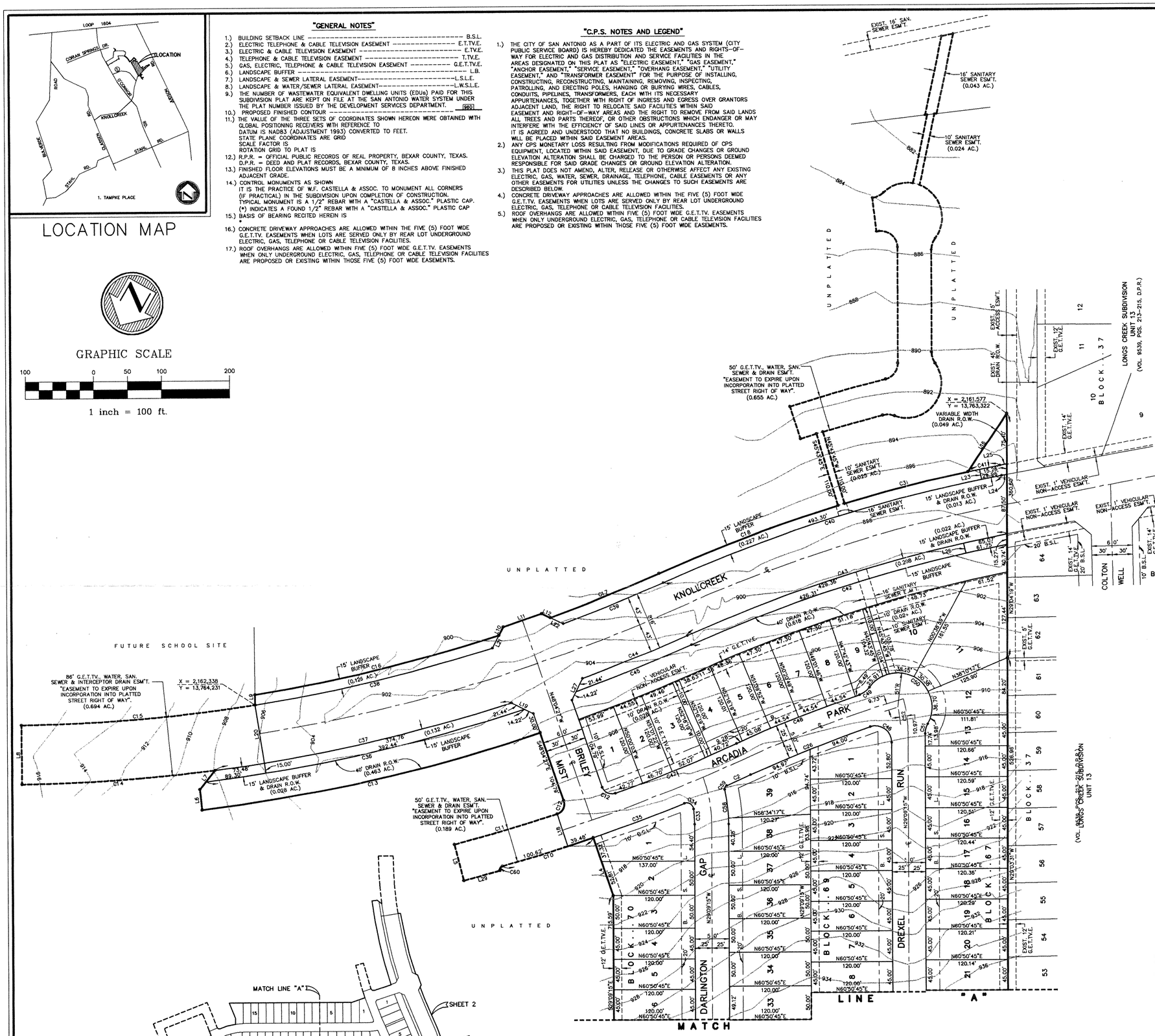
1 inch = 100 ft.

"GENERAL NOTES"

1.) BUILDING SETBACK LINE ---------- B.S.L.
2.) ELECTRIC TELEPHONE & CABLE TELEVISION EASEMENT ---------- E.T.TV.E.
3.) ELECTRIC & CABLE TELEVISION EASEMENT ---------- E.TV.E.
4.) TELEPHONE & CABLE TELEVISION EASEMENT ---------- T.TV.E.
5.) GAS, ELECTRIC, TELEPHONE & CABLE TELEVISION EASEMENT ---------- G.E.T.TV.E.
6.) LANDSCAPE BUFFER ---------- L.B.
7.) LANDSCAPE & SEWER LATERAL EASEMENT ---------- L.S.L.E.
8.) LANDSCAPE & WATER/SEWER LATERAL EASEMENT ---------- L.W.S.L.E.
9.) THE NUMBER OF WASTEWATER EQUIVALENT DWELLING UNITS (EDUs) PAID FOR THIS SUBDIVISION PLAT ARE KEPT ON FILE AT THE SAN ANTONIO WATER SYSTEM UNDER THE PLAT NUMBER ISSUED BY THE DEVELOPMENT SERVICES DEPARTMENT. [990]
10.) PROPOSED FINISHED CONTOUR ----------
11.) THE VALUE OF THE THREE SETS OF COORDINATES SHOWN HEREON WERE OBTAINED WITH GLOBAL POSITIONING RECEIVERS WITH REFERENCE TO
DATUM IS NAD83 (ADJUSTMENT 1993) CONVERTED TO FEET.
STATE PLANE COORDINATES ARE GRID
SCALE FACTOR IS
ROTATION GRID TO PLAT IS
12.) R.P.R. = OFFICIAL PUBLIC RECORDS OF REAL PROPERTY, BEXAR COUNTY, TEXAS.
D.P.R. = DEED AND PLAT RECORDS, BEXAR COUNTY, TEXAS.
13.) FINISHED FLOOR ELEVATIONS MUST BE A MINIMUM OF 8 INCHES ABOVE FINISHED ADJACENT GRADE.
14.) CONTROL MONUMENTS AS SHOWN
IT IS THE PRACTICE OF W.F. CASTELLA & ASSOC. TO MONUMENT ALL CORNERS (IF PRACTICAL) IN THE SUBDIVISION UPON COMPLETION OF CONSTRUCTION.
TYPICAL MONUMENT IS A 1/2" REBAR WITH A "CASTELLA & ASSOC." PLASTIC CAP.
(*) INDICATES A FOUND 1/2" REBAR WITH A "CASTELLA & ASSOC." PLASTIC CAP
15.) BASIS OF BEARING RECITED HEREIN IS
*
16.) CONCRETE DRIVEWAY APPROACHES ARE ALLOWED WITHIN THE FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN LOTS ARE SERVED ONLY BY REAR LOT UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES.
17.) ROOF OVERHANGS ARE ALLOWED WITHIN FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN ONLY UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES ARE PROPOSED OR EXISTING WITHIN THOSE FIVE (5) FOOT WIDE EASEMENTS.

"C.P.S. NOTES AND LEGEND"

1.) THE CITY OF SAN ANTONIO AS A PART OF ITS ELECTRIC AND GAS SYSTEM (CITY PUBLIC SERVICE BOARD) IS HEREBY DEDICATED THE EASEMENTS AND RIGHTS-OF-WAY FOR ELECTRIC AND GAS DISTRIBUTION AND SERVICE FACILITIES IN THE AREAS DESIGNATED ON THIS PLAT AS "ELECTRIC EASEMENT," "GAS EASEMENT," "ANCHOR EASEMENT," "SERVICE EASEMENT," "OVERHANG EASEMENT," "UTILITY EASEMENT," AND "TRANSFORMER EASEMENT" FOR THE PURPOSE OF INSTALLING, CONSTRUCTING, RECONSTRUCTING, MAINTAINING, REMOVING, INSPECTING, PATROLLING, AND ERECTING POLES, HANGING OR BURYING WIRES, CABLES, CONDUITS, PIPELINES, TRANSFORMERS, EACH WITH ITS NECESSARY APPURTENANCES, TOGETHER WITH RIGHT OF INGRESS AND EGRESS OVER GRANTORS ADJACENT LAND, THE RIGHT TO RELOCATE SAID FACILITIES WITHIN SAID EASEMENT AND RIGHT-OF-WAY AREAS AND THE RIGHT TO REMOVE FROM SAID LANDS ALL TREES AND PARTS THEREOF, OR OTHER OBSTRUCTIONS WHICH ENDANGER OR MAY INTERFERE WITH THE EFFICIENCY OF SAID LINES OR APPURTENANCES THERETO. IT IS AGREED AND UNDERSTOOD THAT NO BUILDINGS, CONCRETE SLABS OR WALLS WILL BE PLACED WITHIN SAID EASEMENT AREAS.
2.) ANY CPS MONETARY LOSS RESULTING FROM MODIFICATIONS REQUIRED OF CPS EQUIPMENT, LOCATED WITHIN SAID EASEMENT, DUE TO GRADE CHANGES OR GROUND ELEVATION ALTERATION SHALL BE CHARGED TO THE PERSON OR PERSONS DEEMED RESPONSIBLE FOR SAID GRADE CHANGES OR GROUND ELEVATION ALTERATION.
3.) THIS PLAT DOES NOT AMEND, ALTER, RELEASE OR OTHERWISE AFFECT ANY EXISTING ELECTRIC, GAS, WATER, SEWER, DRAINAGE, TELEPHONE, CABLE EASEMENTS OR ANY OTHER EASEMENTS FOR UTILITIES UNLESS THE CHANGES TO SUCH EASEMENTS ARE DESCRIBED BELOW.
4.) CONCRETE DRIVEWAY APPROACHES ARE ALLOWED WITHIN THE FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN LOTS ARE SERVED ONLY BY REAR LOT UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES.
5.) ROOF OVERHANGS ARE ALLOWED WITHIN FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN ONLY UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES ARE PROPOSED OR EXISTING WITHIN THOSE FIVE (5) FOOT WIDE EASEMENTS.



INDEX MAP

SCALE: 1" = 400'

OWNER/DEVELOPER:
CONTINENTAL HOMES OF TEXAS, L.P.
by CHTEX of TEXAS, INC.
14206 NORTH BROOK
SAN ANTONIO, TEXAS 78232
PHONE: (210) 496-2668

STATE OF TEXAS)
COUNTY OF BEXAR)

THE OWNER OF THE LAND SHOWN ON THIS PLAT, IN PERSON OR THROUGH A DULY AUTHORIZED AGENT, DEDICATES TO THE USE OF THE PUBLIC, EXCEPT AREAS IDENTIFIED AS PRIVATE, FOREVER ALL STREETS, ALLEYS, PARKS, WATERCOURSES, DRAINS, EASEMENTS AND PUBLIC PLACES THEREON SHOWN FOR THE PURPOSE AND CONSIDERATION THEREIN EXPRESSED.

OWNER: CONTINENTAL HOMES OF TEXAS, L.P.
A TEXAS LIMITED PARTNERSHIP
BY: CHTEX OF TEXAS, INC.
A DELAWARE CORPORATION, ITS SOLE GENERAL PARTNER

DULY AUTHORIZED AGENT TIMOTHY D. PRUSKI, ASSISTANT SECRETARY

STATE OF TEXAS)
COUNTY OF BEXAR)

BEFORE ME, THE UNDERSIGNED AUTHORITY ON THIS DAY PERSONALLY APPEARED TIMOTHY D. PRUSKI KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND & SEAL OF OFFICE THIS_____DAY OF_____A.D., 2002.

NOTARY PUBLIC, BEXAR COUNTY, TEXAS

STATE OF TEXAS)
COUNTY OF BEXAR)

I HEREBY CERTIFY THAT PROPER ENGINEERING CONSIDERATION HAS BEEN GIVEN THIS PLAT TO THE MATTERS OF STREETS, LOTS AND DRAINAGE LAYOUT. TO THE BEST OF MY KNOWLEDGE THIS PLAT CONFORMS TO ALL REQUIREMENTS OF THE UNIFIED DEVELOPMENT CODE, EXCEPT FOR THOSE VARIANCES THAT MAY BE GRANTED BY THE SAN ANTONIO PLANNING COMMISSION.

REGISTERED PROFESSIONAL ENGINEER

STATE OF TEXAS)
COUNTY OF BEXAR)

I HEREBY CERTIFY THAT THE ABOVE PLAT CONFORMS TO THE MINIMUM STANDARD SET FORTH BY THE TEXAS BOARD OF PROFESSIONAL LAND SURVEYING ACCORDING TO AN ACTUAL SURVEY MADE ON THE GROUND BY: EMPLOYEES OF W.F. CASTELLA & ASSOCIATES UNDER MY SUPERVISION.

REGISTERED PROFESSIONAL LAND SURVEYOR

A TCB INC. Company

W.F.CASTELLA & ASSOCIATES, INC.
Engineers · Surveyors · Planners
6800 Park Ten Blvd., Suite 180 South – San Antonio, Texas 78213 – (210)734-5351

DRAWN BY: O.T. JOB ORDER NO. 47038.00

THIS PLAT OF STUEBING RANCH SUBDIVISION UNIT 3
HAS BEEN SUBMITTED TO AND CONSIDERED BY THE PLANNING COMMISSION OF THE CITY OF SAN ANTONIO, TEXAS AND IS HEREBY APPROVED BY SUCH COMMISSION.

DATED THIS _____DAY OF _____A.D., 2002.
THE PLANNING COMMISSION OF THE CITY OF SAN ANTONIO, TEXAS

BY: _____
CHAIRMAN

BY: _____
SECRETARY

STATE OF TEXAS)
COUNTY OF BEXAR)

I,_____ COUNTY CLERK OF SAID COUNTY DO HEREBY CERTIFY THAT THIS PLAT WAS FILED FOR RECORD IN MY OFFICE, ON THE

_____ DAY OF _____A.D._____AT_____ M, AND DULY RECORDED THE

_____ DAY OF _____A.D._____AT_____ M, IN THE RECORDS OF

_____OF SAID COUNTY, IN BOOK VOLUME _____

ON PAGE _____
IN TESTIMONY WHEREOF, WITNESS MY HAND AND OFFICIAL SEAL OF OFFICE THIS

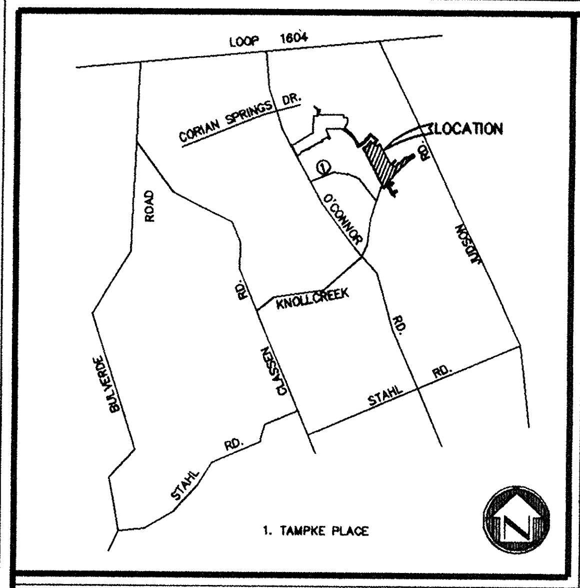
_____DAY OF _____A.D. _____
COUNTY CLERK, BEXAR COUNTY, TEXAS

BY: _____, DEPUTY

H:\DRAW\Land Development\CDC-Stuebing Unit 3\dwg\STUEBING RANCH UNIT 3.dwg, 08/01/02 01:32:44 PM, HananB

#539

020390



LOCATION MAP

"G!AL NOTES"

1.) BUILDING SETBACK LINE -------- B.S.L.
2.) ELECTRIC TELEPHONE & CABLEVISION EASEMENT -------- E.T.TV.E.
3.) ELECTRIC & CABLE TELEVISIGSEMENT -------- E.TV.E.
4.) TELEPHONE & CABLE TELEVIEASEMENT -------- T.TV.E.
5.) GAS, ELECTRIC, TELEPHONE BLE TELEVISION EASEMENT -------- G.E.T.TV.E.
6.) LANDSCAPE BUFFER -------- L.B.
7.) LANDSCAPE & SEWER LATERASEMENT-------- L.S.L.E.
8.) LANDSCAPE & WATER/SEWEIERAL EASEMENT-------- L.W.S.L.E.
9.) THE NUMBER OF WASTEWATRUIVALENT DWELLING UNITS (EDUs) PAID FOR THIS SUBDIVISION PLAT ARE KEP' FILE AT THE SAN ANTONIO WATER SYSTEM UNDER THE PLAT NUMBER ISSUED HE DEVELOPMENT SERVICES DEPARTMENT. 960
10.) PROPOSED FINISHED CONTC--------
11.) THE VALUE OF THE THREE SIF COORDINATES SHOWN HEREON WERE OBTAINED WITH GLOBAL POSITIONING RECEIVEITH REFERENCE TO DATUM IS NAD83 (ADJUSTM1993) CONVERTED TO FEET. STATE PLANE COORDINATES GRID SCALE FACTOR IS ROTATION GRID TO PLAT IS
12.) R.P.R. = OFFICIAL PUBLIC RDS OF REAL PROPERTY, BEXAR COUNTY, TEXAS. D.P.R. = DEED AND PLAT RDS, BEXAR COUNTY, TEXAS.
13.) FINISHED FLOOR ELEVATIONST BE A MINIMUM OF 8 INCHES ABOVE FINISHED ADJACENT GRADE.
14.) CONTROL MONUMENTS AS SN IT IS THE PRACTICE OF W.FSTELLA & ASSOC. TO MONUMENT ALL CORNERS (IF PRACTICAL) IN THE SUBIION UPON COMPLETION OF CONSTRUCTION. TYPICAL MONUMENT IS A 1/REBAR WITH A "CASTELLA & ASSOC." PLASTIC CAP. (*) INDICATES A FOUND 1/2BAR WITH A "CASTELLA & ASSOC." PLASTIC CAP
15.) BASIS OF BEARING RECITEDEIN IS *
16.) CONCRETE DRIVEWAY APPROES ARE ALLOWED WITHIN THE FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN S ARE SERVED ONLY BY REAR LOT UNDERGROUND ELECTRIC, GAS, TELEPHONE CABLE TELEVISION FACILITIES.
17.) ROOF OVERHANGS ARE ALLO WITHIN FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN ONLY UNDERGROUND CTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES ARE PROPOSED OR EXISTINGTHIN THOSE FIVE (5) FOOT WIDE EASEMENTS.

"C.P.S. NOTES AND LEGEND"

1.) THE CITY OF SAN ANTONIO AS A PART OF ITS ELECTRIC AND GAS SYSTEM (CITY PUBLIC SERVICE BOARD) IS HEREBY DEDICATED THE EASEMENTS AND RIGHTS-OF-WAY FOR ELECTRIC AND GAS DISTRIBUTION AND SERVICE FACILITIES IN THE AREAS DESIGNATED ON THIS PLAT AS "ELECTRIC EASEMENT," "GAS EASEMENT," "ANCHOR EASEMENT," "SERVICE EASEMENT," "OVERHANG EASEMENT," "UTILITY EASEMENT," AND "TRANSFORMER EASEMENT" FOR THE PURPOSE OF INSTALLING, CONSTRUCTING, RECONSTRUCTING, MAINTAINING, REMOVING, INSPECTING, PATROLLING, AND ERECTING POLES, HANGING OR BURYING WIRES, CABLES, CONDUITS, PIPELINES, TRANSFORMERS, EACH WITH ITS NECESSARY APPURTENANCES, TOGETHER WITH RIGHT OF INGRESS AND EGRESS OVER GRANTORS ADJACENT LAND, THE RIGHT TO RELOCATE SAID FACILITIES WITHIN SAID EASEMENT AND RIGHT-OF-WAY AREAS AND THE RIGHT TO REMOVE FROM SAID LANDS ALL TREES AND PARTS THEREOF, OR OTHER OBSTRUCTIONS WHICH ENDANGER OR MAY INTERFERE WITH THE EFFICIENCY OF SAID LINES OR APPURTENANCES THERETO. IT IS AGREED AND UNDERSTOOD THAT NO BUILDINGS, CONCRETE SLABS OR WALLS WILL BE PLACED WITHIN SAID EASEMENT AREAS.
2.) ANY CPS MONETARY LOSS RESULTING FROM MODIFICATIONS REQUIRED OF CPS EQUIPMENT, LOCATED WITHIN SAID EASEMENT, DUE TO GRADE CHANGES OR GROUND ELEVATION ALTERATION SHALL BE CHARGED TO THE PERSON OR PERSONS DEEMED RESPONSIBLE FOR SAID GRADE CHANGES OR GROUND ELEVATION ALTERATION.
3.) THIS PLAT DOES NOT AMEND, ALTER, RELEASE OR OTHERWISE AFFECT ANY EXISTING ELECTRIC, GAS, WATER, SEWER, DRAINAGE, TELEPHONE, CABLE EASEMENTS OR ANY OTHER EASEMENTS FOR UTILITIES UNLESS THE CHANGES TO SUCH EASEMENTS ARE DESCRIBED BELOW.
4.) CONCRETE DRIVEWAY APPROACHES ARE ALLOWED WITHIN THE FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN LOTS ARE SERVED ONLY BY REAR LOT UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES.
5.) ROOF OVERHANGS ARE ALLOWED WITHIN FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN ONLY UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES ARE PROPOSED OR EXISTING WITHIN THOSE FIVE (5) FOOT WIDE EASEMENTS.

GRAPHIC SCALE

100 0 50 100 200

1 inch = 100 ft.

OWNER/DEVELOPER:
CONTINENTAL HOMES OF TEXAS, L.P.
by CHTEX of TEXAS, INC.
14206 NORTH BROOK
SAN ANTONIO, TEXAS 78232
PHONE: (210) 496-2668

SHEET 1 OF 2

REPLAT & SUBDIVISION PLAT
OF

STUEBING RANCH SUBDIVISION UNIT 3

BEING A 24.054 ACRE TRACT OF LAND.

STATE OF TEXAS)
COUNTY OF BEXAR)

THE OWNER OF THE LAND SHOWN ON THIS PLAT, IN PERSON OR THROUGH A DULY AUTHORIZED AGENT, DEDICATES TO THE USE OF THE PUBLIC, EXCEPT AREAS IDENTIFIED AS PRIVATE, FOREVER ALL STREETS, ALLEYS, PARKS, WATERCOURSES, DRAINS, EASEMENTS AND PUBLIC PLACES THEREON SHOWN FOR THE PURPOSE AND CONSIDERATION THEREIN EXPRESSED.

OWNER: CONTINENTAL HOMES OF TEXAS, L.P.
A TEXAS LIMITED PARTNERSHIP
BY: CHTEX OF TEXAS, INC.
A DELAWARE CORPORATION, ITS SOLE GENERAL PARTNER

DULY AUTHORIZED AGENT TIMOTHY D. PRUSKI, ASSISTANT SECRETARY

CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING
02 AUG -5 PM 4:59

LAND DEVELOPMENT SERVICES DIVISION
02 AUG ... PM 2:4.

STATE OF TEXAS)
COUNTY OF BEXAR)

BEFORE ME, THE UNDERSIGNED AUTHORITY ON THIS DAY PERSONALLY APPEARED TIMOTHY D. PRUSKI KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

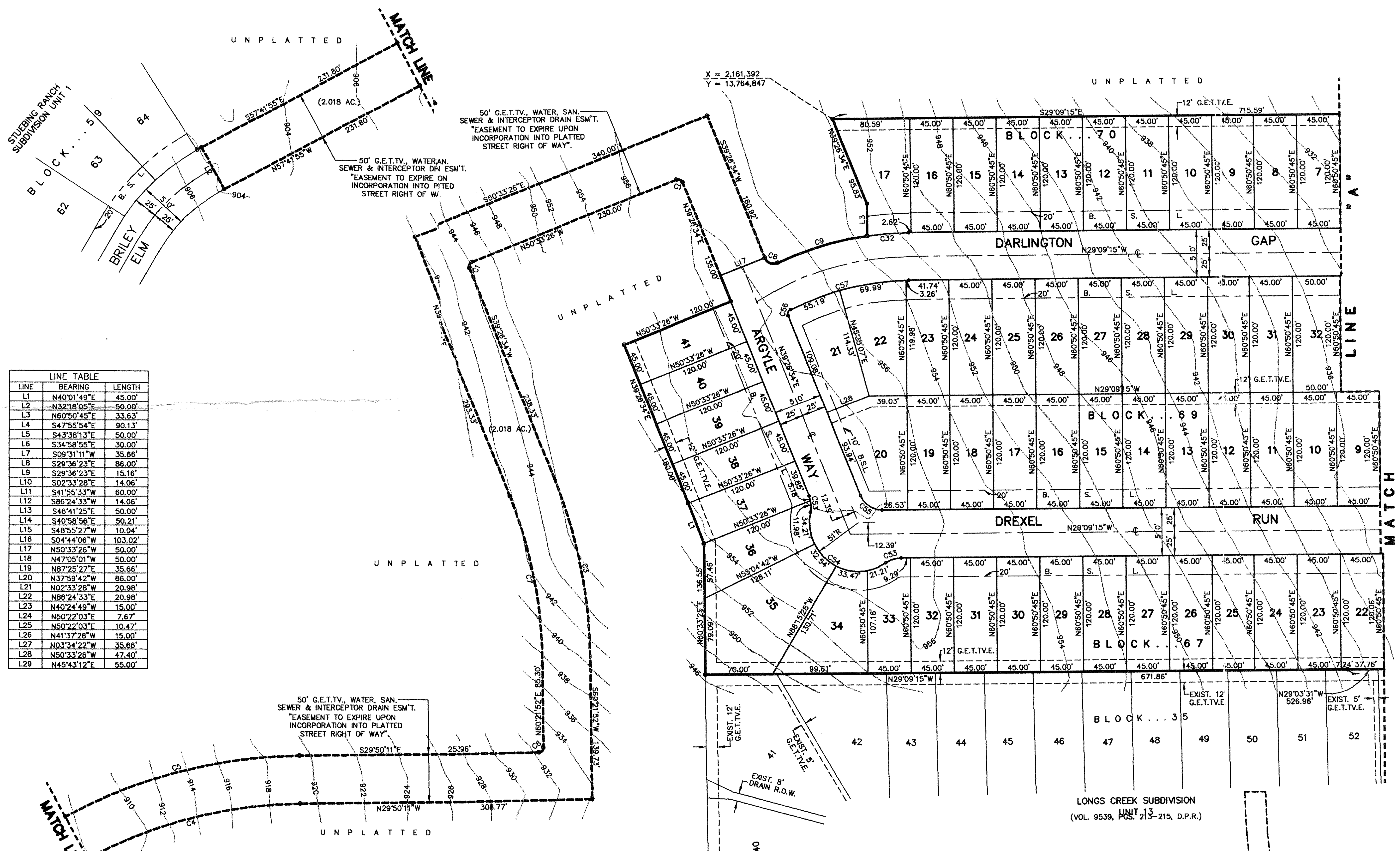
GIVEN UNDER MY HAND & SEAL OF OFFICE THIS____DAY OF__________A.D., 2002.

NOTARY PUBLIC, BEXAR COUNTY, TEXAS

STATE OF TEXAS)
COUNTY OF BEXAR)

I HEREBY CERTIFY THAT PROPER ENGINEERING CONSIDERATION HAS BEEN GIVEN THIS PLAT TO THE MATTERS OF STREETS, LOTS AND DRAINAGE LAYOUT. TO THE BEST OF MY KNOWLEDGE THIS PLAT CONFORMS TO ALL REQUIREMENTS OF THE UNIFIED DEVELOPMENT CODE, EXCEPT FOR THOSE VARIANCES THAT MAY BE GRANTED BY THE SAN ANTONIO PLANNING COMMISSION.

REGISTERED PROFESSIONAL ENGINEER



LINE TABLE		
LINE	BEARING	LENGTH
L1	N40°01'49"E	45.00'
L2	N32°18'05"E	50.00'
L3	N60°50'45"E	33.63'
L4	S47°55'54"E	90.13'
L5	S43°38'13"E	50.00'
L6	S34°58'55"E	30.00'
L7	S09°31'11"W	35.66'
L8	S29°36'23"E	86.00'
L9	S29°36'23"E	15.16'
L10	S02°33'28"E	14.06'
L11	S41°55'33"W	60.00'
L12	S86°24'33"W	14.06'
L13	S46°41'25"E	50.00'
L14	S40°58'56"E	50.21'
L15	S48°55'27"W	10.04'
L16	S04°44'06"W	103.02'
L17	N50°33'26"W	50.00'
L18	N47°05'01"W	50.00'
L19	N87°25'27"E	35.66'
L20	N37°59'42"W	86.00'
L21	N02°33'28"W	20.98'
L22	N86°24'33"E	20.98'
L23	N40°24'49"W	15.00'
L24	N50°22'03"E	7.67'
L25	N50°22'03"E	10.47'
L26	N41°37'28"W	15.00'
L27	N03°34'22"W	35.66'
L28	N50°33'26"W	47.40'
L29	N45°43'12"E	55.00'

STATE OF TEXAS)
COUNTY OF BEXAR)

I HEREBY CERTIFY THAT THE ABOVE PLAT CONFORMS TO THE MINIMUM STANDARD SET FORTH BY THE TEXAS BOARD OF PROFESSIONAL LAND SURVEYING ACCORDING TO AN ACTUAL SURVEY MADE ON THE GROUND BY: EMPLOYEES OF W.F. CASTELLA & ASSOCIATES UNDER MY SUPERVISION.

REGISTERED PROFESSIONAL LAND SURVEYOR

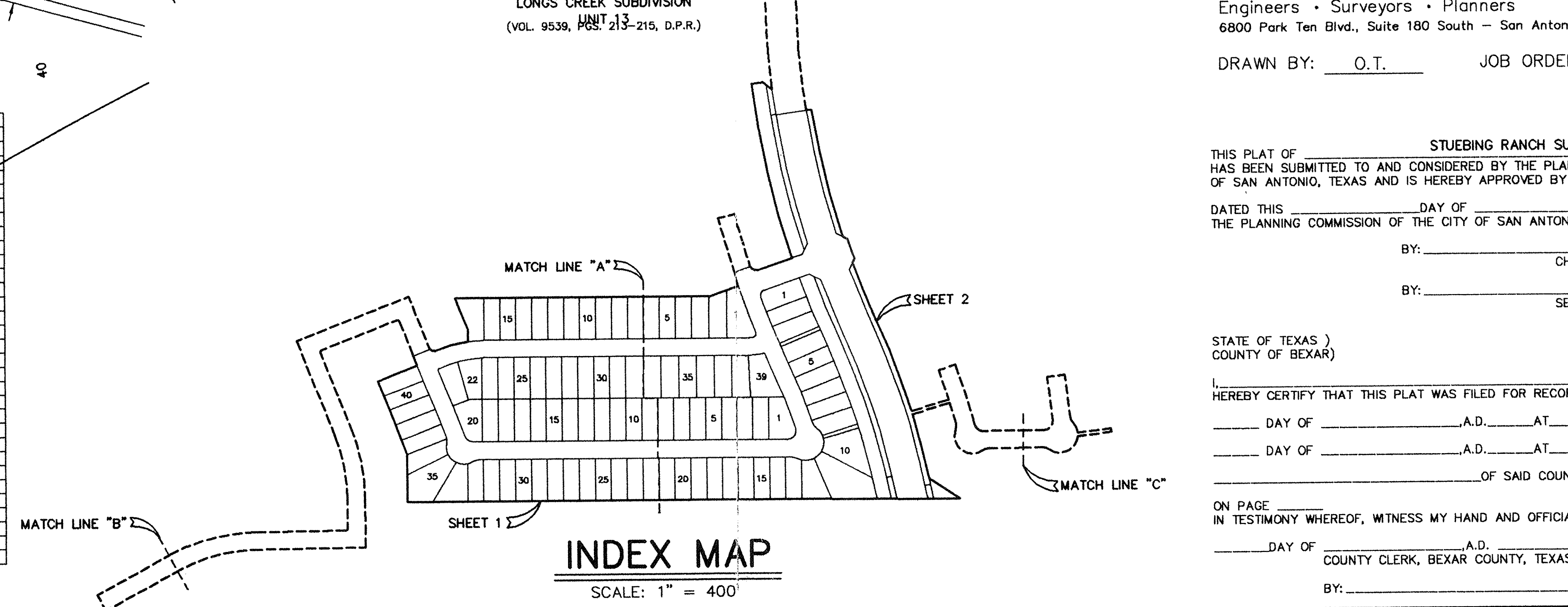
WFC A TCB INC. Company

W.F.CASTELLA & ASSOCIATES, INC.
Engineers · Surveyors · Planners
6800 Park Ten Blvd., Suite 180 South – San Antonio, Texas 78213 – (210)734-5351

DRAWN BY: O.T. JOB ORDER NO. 47038.00

CURVE TABLE					
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD
C1	90°00'00"	5.00'	7.85'	5.00'	7.07'
C2	0°49'37"	2668.00'	38.51'	19.26'	38.51'
C3	21°45'40"	525.00'	199.40'	100.91'	198.20'
C4	27°51'45"	475.00'	230.99'	117.83'	228.72'
C5	27°51'45"	525.00'	255.30'	130.23'	252.80'
C6	89°47'57"	5.00'	7.84'	4.98'	7.06'
C7	21°48'16"	475.00'	180.76'	91.49'	179.68'
C8	93°27'29"	10.00'	16.31'	10.62'	14.56'
C9	17°15'27"	325.00'	97.89'	49.32'	97.52'
C10	3°00'31"	2668.00'	140.10'	70.07'	140.08'
C11	3°26'49"	2618.00'	157.50'	78.77'	157.47'
C12	90°59'26"	15.00'	23.82'	15.26'	21.40'
C13	11°42'58"	2498.00'	510.81'	256.30'	509.92'
C14	6°39'56"	2443.00'	284.20'	142.26'	284.04'
C15	8°23'19"	2357.00'	345.09'	172.85'	344.78'
C16	9°02'45"	2342.00'	369.75'	185.26'	369.37'
C17	4°13'08"	2342.00'	172.45'	86.26'	172.41'
C18	7°17'04"	2213.00'	281.35'	140.87'	281.16'
C19	0°42'52"	2323.00'	28.97'	14.48'	28.97'
C20	2°52'14"	2373.00'	118.88'	59.45'	118.87'
C21	75°47'11"	24.00'	31.75'	18.68'	29.48'
C22	96°11'40"	24.00'	40.29'	26.75'	35.73'
C23	36°50'54"	29.00'	18.65'	9.66'	18.33'
C24	36°50'54"	51.00'	32.80'	16.99'	32.24'
C25	121°44'06"	51.00'	108.36'	91.51'	89.10'
C26	5°44'16"	1887.00'	188.97'	94.56'	188.89'
C27	34°39'50"	29.00'	17.55'	9.05'	17.28'
C28	145°19'51"	51.00'	129.36'	163.39'	97.37'
C29	35°18'05"	29.00'	17.87'	9.23'	17.59'
C30	1°29'18"	2323.00'	60.34'	30.17'	60.34'

CURVE TABLE					
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD
C31	4°51'21"	2213.00'	187.55'	93.83'	187.49'
C32	7°36'12"	325.00'	43.13'	21.60'	43.10'
C33	7°23'16"	175.00'	22.56'	11.30'	22.55'
C34	104°27'24"	10.00'	18.23'	12.91'	15.81'
C35	3°04'01"	2668.00'	142.82'	71.43'	142.80'
C36	11°13'45"	2458.00'	481.73'	241.64'	480.96'
C37	10°30'45"	2443.00'	448.24'	224.75'	447.61'
C38	8°44'32"	2357.00'	359.63'	180.17'	359.29'
C39	3°51'40"	2357.00'	158.84'	79.45'	158.81'
C40	13°38'24"	2198.00'	523.26'	262.87'	522.03'
C41	1°14'28"	2213.00'	47.93'	23.97'	47.93'
C42	13°20'06"	2097.00'	488.06'	245.14'	486.96'
C43	13°24'47"	2112.00'	494.43'	248.35'	493.30'
C44	3°54'30"	2443.00'	166.64'	83.35'	166.61'
C45	4°16'00"	2458.00'	183.04'	91.56'	182.99'
C46	108°22'50"	24.00'	45.40'	33.26'	38.93'
C47	4°12'27"	2618.00'	192.26'	96.17'	192.21'
C48	5°45'09"	1937.00'	194.48'	97.32'	194.40'
C49	36°28'54"	29.00'	18.47'	9.56'	18.15'
C50	174°24'45"	51.00'	155.25'	1045.11'	101.88'
C51	29°33'54"	29.00'	14.96'	7.65'	14.80'
C52	15°41'44"	200.00'	54.79'	27.57'	54.62'
C53	33°54'43"	29.00'	17.16'	8.84'	16.91'
C54	136°25'15"	51.00'	121.43'	127.58'	94.71'
C55	68°35'49"	24.00'	28.73'	16.37'	27.05'
C56	84°38'37"	5.00'	7.39'	4.55'	6.73'
C57	26°45'34"	275.00'	128.44'	65.41'	127.27'
C58	13°00'21"	225.00'	51.07'	25.65'	50.96'
C59	79°42'52"	5.00'	6.96'	4.17'	6.41'
C60	89°21'25"	5.00'	7.80'	4.94'	7.03'



INDEX MAP
SCALE: 1" = 400'

THIS PLAT OF STUEBING RANCH SUBDIVISION UNIT 3 HAS BEEN SUBMITTED TO AND CONSIDERED BY THE PLANNING COMMISSION OF THE CITY OF SAN ANTONIO, TEXAS AND IS HEREBY APPROVED BY SUCH COMMISSION.

DATED THIS ______________DAY OF ______________________A.D., 2002.
THE PLANNING COMMISSION OF THE CITY OF SAN ANTONIO, TEXAS

BY: ______________________
CHAIRMAN

BY: ______________________
SECRETARY

STATE OF TEXAS)
COUNTY OF BEXAR)

I,______________________ COUNTY CLERK OF SAID COUNTY DO HEREBY CERTIFY THAT THIS PLAT WAS FILED FOR RECORD IN MY OFFICE, ON THE

_____ DAY OF _______________,A.D._____AT_______ M, AND DULY RECORDED THE

_____ DAY OF _______________,A.D._____AT_______ M, IN THE RECORDS OF

______________________OF SAID COUNTY, IN BOOK VOLUME __________

ON PAGE _____
IN TESTIMONY WHEREOF, WITNESS MY HAND AND OFFICIAL SEAL OF OFFICE THIS

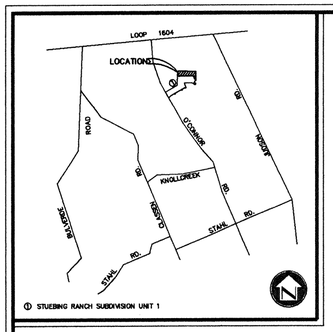
______DAY OF _______________,A.D. _________
COUNTY CLERK, BEXAR COUNTY, TEXAS

BY: ______________________, DEPUTY

H:\DRAW\Land Development\CDC-Stuebing Unit 3\dwg\STUEBING RANCH UNIT 3.dwg, 08/01/02 01:32:25 PM, HananB

#539

020302



LOCATION MAP

"GENERAL NOTES"

1.) BUILDING SETBACK LINE ---------- B.S.L.
2.) ELECTRIC TELEPHONE & CABLE TELEVISION EASEMENT ---------- E.T.T.V.E.
3.) ELECTRIC & CABLE TELEVISION EASEMENT ---------- E.T.V.E.
4.) TELEPHONE & CABLE TELEVISION EASEMENT ---------- T.T.V.E.
5.) GAS, ELECTRIC, TELEPHONE & CABLE TELEVISION EASEMENT ---------- G.E.T.T.V.E.
6.) LANDSCAPE BUFFER ---------- L.B.
7.) LANDSCAPE & SEWER LATERAL EASEMENT ---------- L.S.L.E.
8.) LANDSCAPE & WATER/SEWER LATERAL EASEMENT ---------- L.W.S.L.E.
9.) THE NUMBER OF WASTEWATER EQUIVALENT DWELLING UNITS (EDUs) PAID FOR THIS SUBDIVISION PLAT ARE KEPT ON FILE AT THE SAN ANTONIO WATER SYSTEM UNDER THE PLAT NUMBER ISSUED BY THE DEVELOPMENT SERVICES DEPARTMENT. [960]
10.) PROPOSED FINISHED CONTOUR ----------
11.) THE VALUE OF THE TWO SETS OF COORDINATES SHOWN HEREON WERE OBTAINED WITH GLOBAL POSITIONING RECEIVERS WITH REFERENCE TO SAN ANTONIO R.R.P. P.I.D. # AY2157 DATUM IS NAD83 (ADJUSTMENT 1993) CONVERTED TO FEET.
STATE PLANE COORDINATES ARE GRID
SCALE FACTOR IS 0.999874
ROTATION GRID TO PLAT IS 0°40'00"
12.) R.P.R. = OFFICIAL PUBLIC RECORDS OF REAL PROPERTY, BEXAR COUNTY, TEXAS.
D.P.R. = DEED AND PLAT RECORDS, BEXAR COUNTY, TEXAS.
13.) FINISHED FLOOR ELEVATIONS MUST BE A MINIMUM OF 8 INCHES ABOVE FINISHED ADJACENT GRADE.
14.) CONTROL MONUMENTS AS SHOWN
IT IS THE PRACTICE OF W.F. CASTELLA & ASSOC. TO MONUMENT ALL CORNERS (IF PRACTICAL) IN THE SUBDIVISION UPON COMPLETION OF CONSTRUCTION.
TYPICAL MONUMENT IS A 1/2" REBAR WITH A "CASTELLA & ASSOC." PLASTIC CAP.
(*) INDICATES A FOUND 1/2" REBAR WITH A "CASTELLA & ASSOC." PLASTIC CAP
15.) BASIS OF BEARING RECITED HEREIN IS
*
16.) CONCRETE DRIVEWAY APPROACHES ARE ALLOWED WITHIN THE FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN LOTS ARE SERVED ONLY BY REAR LOT UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES.
17.) ROOF OVERHANGS ARE ALLOWED WITHIN FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN ONLY UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES ARE PROPOSED OR EXISTING WITHIN THOSE FIVE (5) FOOT WIDE EASEMENTS.

"C.P.S. NOTES AND LEGEND"

1.) THE CITY OF SAN ANTONIO AS A PART OF ITS ELECTRIC AND GAS SYSTEM (CITY PUBLIC SERVICE BOARD) IS HEREBY DEDICATED THE EASEMENTS AND RIGHTS-OF-WAY FOR ELECTRIC AND GAS DISTRIBUTION AND SERVICE FACILITIES IN THE AREAS DESIGNATED ON THIS PLAT AS "ELECTRIC EASEMENT," "GAS EASEMENT," "ANCHOR EASEMENT," "SERVICE EASEMENT," "OVERHANG EASEMENT," "UTILITY EASEMENT," AND "TRANSFORMER EASEMENT" FOR THE PURPOSE OF INSTALLING, CONSTRUCTING, RECONSTRUCTING, MAINTAINING, REMOVING, INSPECTING, PATROLLING, AND ERECTING POLES, HANGING OR BURYING WIRES, CABLES, CONDUITS, PIPELINES, TRANSFORMERS, EACH WITH ITS NECESSARY APPURTENANCES, TOGETHER WITH RIGHT OF INGRESS AND EGRESS OVER GRANTORS ADJACENT LAND, THE RIGHT TO RELOCATE SAID FACILITIES WITHIN SAID EASEMENT AND RIGHT-OF-WAY AREAS AND THE RIGHT TO REMOVE FROM SAID LANDS ALL TREES AND PARTS THEREOF, OR OTHER OBSTRUCTIONS WHICH ENDANGER OR MAY INTERFERE WITH THE EFFICIENCY OF SAID LINES OR APPURTENANCES THERETO. IT IS AGREED AND UNDERSTOOD THAT NO BUILDINGS, CONCRETE SLABS OR WALLS WILL BE PLACED WITHIN SAID EASEMENT AREAS.
2.) ANY CPS MONETARY LOSS RESULTING FROM MODIFICATIONS REQUIRED OF CPS EQUIPMENT, LOCATED WITHIN SAID EASEMENT, DUE TO GRADE CHANGES OR GROUND ELEVATION ALTERATION SHALL BE CHARGED TO THE PERSON OR PERSONS DEEMED RESPONSIBLE FOR SAID GRADE CHANGES OR GROUND ELEVATION ALTERATION.
3.) THIS PLAT DOES NOT AMEND, ALTER, RELEASE OR OTHERWISE AFFECT ANY EXISTING ELECTRIC, GAS, WATER, SEWER, DRAINAGE, TELEPHONE, CABLE EASEMENTS OR ANY OTHER EASEMENTS FOR UTILITIES UNLESS THE CHANGES TO SUCH EASEMENTS ARE DESCRIBED BELOW.
4.) CONCRETE DRIVEWAY APPROACHES ARE ALLOWED WITHIN THE FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN LOTS ARE SERVED ONLY BY REAR LOT UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES.
5.) ROOF OVERHANGS ARE ALLOWED WITHIN FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN ONLY UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES ARE PROPOSED OR EXISTING WITHIN THOSE FIVE (5) FOOT WIDE EASEMENTS.

GRAPHIC SCALE

100 0 50 100 200

1 inch = 100 ft.

SUBDIVISION PLAT OF STUEBING RANCH SUBDIVISION UNIT 2

BEING 8.097 ACRES OF LAND OUT OF N.C.B. 17726, SAN ANTONIO, BEXAR COUNTY, TEXAS.

STATE OF TEXAS)
COUNTY OF BEXAR)
THE OWNER OF THE LAND SHOWN ON THIS PLAT, IN PERSON OR THROUGH A DULY AUTHORIZED AGENT, DEDICATES TO THE USE OF THE PUBLIC, EXCEPT AREAS IDENTIFIED AS PRIVATE, FOREVER ALL STREETS, ALLEYS, PARKS, WATERCOURSES, DRAINS, EASEMENTS AND PUBLIC PLACES THEREON SHOWN FOR THE PURPOSE AND CONSIDERATION THEREIN EXPRESSED.

CITY OF SA
02 JUN 10 AM 8:10
PLANNING

OWNER: CONTINENTAL HOMES OF TEXAS, L.P.
A TEXAS LIMITED PARTNERSHIP
BY: CHTEX OF TEXAS, INC.
A DELAWARE CORPORATION, ITS SOLE GENERAL PARTNER

DULY AUTHORIZED AGENT TIMOTHY D. PRUSKI, ASSISTANT SECRETARY

STATE OF TEXAS)
COUNTY OF BEXAR)
BEFORE ME, THE UNDERSIGNED AUTHORITY ON THIS DAY PERSONALLY APPEARED
TIMOTHY D. PRUSKI KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND & SEAL OF OFFICE THIS____DAY OF_____A.D., 2002.

STATE OF TEXAS
PAUL W DENHAM
59456
REGISTERED
PROFESSIONAL ENGINEER

NOTARY PUBLIC, BEXAR COUNTY, TEXAS

NOTARY PUBLIC
ARTHUR LEE WRIGHT
MY COMMISSION EXPIRES
NOVEMBER 19, 2005
STATE OF TEXAS

STATE OF TEXAS)
COUNTY OF BEXAR)
I HEREBY CERTIFY THAT PROPER ENGINEERING CONSIDERATION HAS BEEN GIVEN THIS PLAT TO THE MATTERS OF STREETS, LOTS AND DRAINAGE LAYOUT. TO THE BEST OF MY KNOWLEDGE THIS PLAT CONFORMS TO ALL REQUIREMENTS OF THE UNIFIED DEVELOPMENT CODE, EXCEPT FOR THOSE VARIANCES THAT MAY BE GRANTED BY THE SAN ANTONIO PLANNING COMMISSION.

REGISTERED PROFESSIONAL ENGINEER

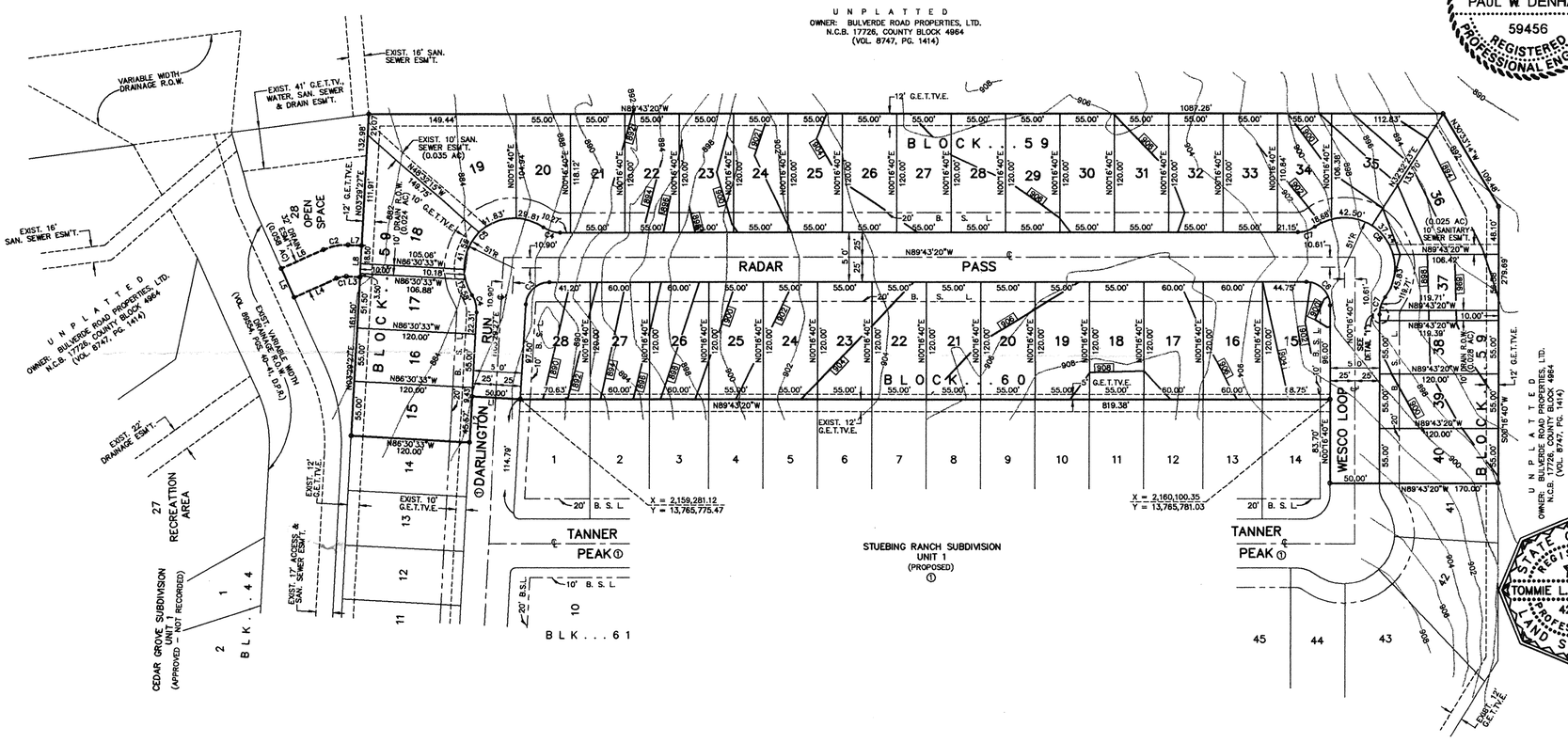
SWORN TO & SUBSCRIBED BEFORE ME THIS THE __ DAY OF _____ A.D., 2002.

STATE OF TEXAS)
COUNTY OF BEXAR)
I HEREBY CERTIFY THAT THE ABOVE PLAT CONFORMS TO THE MINIMUM STANDARD SET FORTH BY THE TEXAS BOARD OF PROFESSIONAL LAND SURVEYING ACCORDING TO AN ACTUAL SURVEY MADE ON THE GROUND BY: EMPLOYEES OF W.F. CASTELLA & ASSOCIATES UNDER MY SUPERVISION.

REGISTERED PROFESSIONAL LAND SURVEYOR

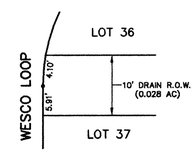
SWORN TO & SUBSCRIBED BEFORE ME THIS THE ___ DAY OF_____ A.D.,2002.

STATE OF TEXAS
TOMMIE L. BATES, JR.
4244
REGISTERED
PROFESSIONAL
LAND SURVEYOR



LINE TABLE		
LINE	BEARING	LENGTH
L1	N86°30'33"W	50.00'
L2	N03°29'27"E	45.57'
L3	N86°30'33"W	13.69'
L4	N65°58'59"E	46.97'
L5	N23°39'40"W	32.00'
L6	N65°58'59"E	46.71'
L7	N86°30'33"W	13.69'
L8	N03°29'27"E	32.00'

CURVE TABLE					
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD
C1	27°30'28"	21.50'	10.32'	5.26'	10.22'
C2	27°34'36"	53.50'	25.75'	13.13'	25.50'
C3	86°47'13"	24.00'	36.35'	22.69'	32.98'
C4	35°46'56"	29.00'	18.11'	9.36'	17.82'
C5	158°21'04"	51.00'	140.95'	266.73'	100.19'
C6	90°00'00"	24.00'	37.70'	24.00'	33.94'
C7	36°08'22"	29.00'	18.29'	9.46'	17.99'
C8	162°16'45"	51.00'	144.45'	327.16'	100.78'



DETAIL "1"

NOT TO SCALE

DEVELOPER:
CONTINENTAL HOMES OF TEXAS, L.P.
by CHTEX of TEXAS, INC.
14206 NORTH BROOK
SAN ANTONIO, TEXAS 78232
PHONE: (210) 496-2668

A TCB INC. Company

W.F.CASTELLA & ASSOCIATES, INC.
Engineers • Surveyors • Planners
6800 Park Ten Blvd., Suite 180 South – San Antonio, Texas 78213 – (210)734-5351

DRAWN BY: O.T. JOB ORDER NO. 47016.00

THIS PLAT OF STUEBING RANCH SUBDIVISION UNIT 2
HAS BEEN SUBMITTED TO AND CONSIDERED BY THE PLANNING COMMISSION OF THE CITY OF SAN ANTONIO, TEXAS AND IS HEREBY APPROVED BY SUCH COMMISSION.

DATED THIS _____DAY OF _____A.D., 2002.
THE PLANNING COMMISSION OF THE CITY OF SAN ANTONIO, TEXAS

BY:_____
CHAIRMAN

BY:_____
SECRETARY

STATE OF TEXAS)
COUNTY OF BEXAR)
I,_____ COUNTY CLERK OF SAID COUNTY DO HEREBY CERTIFY THAT THIS PLAT WAS FILED FOR RECORD IN MY OFFICE, ON THE
_____ DAY OF _____,A.D._____AT_____ M, AND DULY RECORDED THE
_____ DAY OF _____,A.D._____AT_____ M, IN THE RECORDS OF
_____OF SAID COUNTY, IN BOOK VOLUME _____
ON PAGE _____
IN TESTIMONY WHEREOF, WITNESS MY HAND AND OFFICIAL SEAL OF OFFICE THIS
_____DAY OF _____,A.D. _____
COUNTY CLERK, BEXAR COUNTY, TEXAS
BY:_____, DEPUTY

#539

H:\DRAW\Land Development\CDC-Stuebing Unit 2\dwg\STUEBING RANCH UNIT 2.DWG, 06/06/02 03:17:49 PM, 1:100, MARCO GARZA

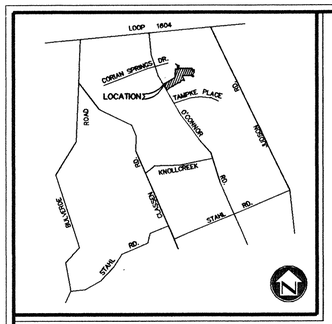
020246

SHEET 3 OF 3

REPLAT & SUBDIVISION PLAT
OF

STUEBING RANCH SUBDIVISION UNIT 1

BEING A REPLAT OF A VARIABLE WIDTH DRAINAGE EASEMENT (0.966 ACRE) AND A SUBDIVISION PLAT OF 23.974 ACRES OUT OF N.C.B. 17726, SAN ANTONIO, BEXAR COUNTY, TEXAS AND CONTAINING A TOTAL OF 24.940 ACRES OF LAND.



LOCATION MAP

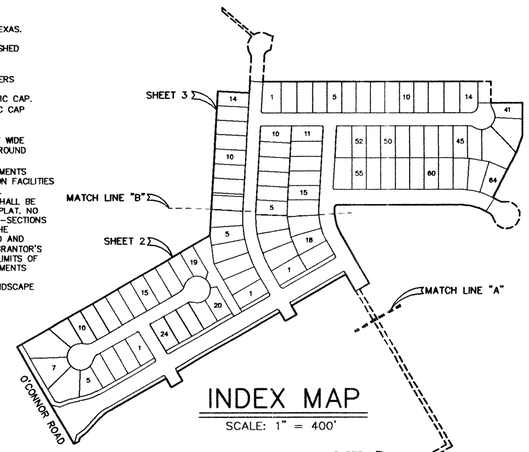
DEVELOPER:
CONTINENTAL HOMES OF TEXAS, L.P.
by CHTEX of TEXAS, INC.
14206 NORTH BROOK
SAN ANTONIO, TEXAS 78232
PHONE: (210) 496-2668

"C.P.S. NOTES AND LEGEND"

1.) THE CITY OF SAN ANTONIO AS A PART OF ITS ELECTRIC AND GAS SYSTEM (CITY PUBLIC SERVICE BOARD) IS HEREBY DEDICATED THE EASEMENTS AND RIGHTS-OF-WAY FOR ELECTRIC AND GAS DISTRIBUTION AND SERVICE FACILITIES IN THE AREAS DESIGNATED ON THIS PLAT AS "ELECTRIC EASEMENT," "GAS EASEMENT," "ANCHOR EASEMENT," "SERVICE EASEMENT," "OVERHANG EASEMENT," "UTILITY EASEMENT," AND "TRANSFORMER EASEMENT" FOR THE PURPOSE OF INSTALLING, CONSTRUCTING, RECONSTRUCTING, MAINTAINING, REMOVING, INSPECTING, PATROLLING, AND ERECTING POLES, HANGING OR BURYING WIRES, CABLES, CONDUITS, PIPELINES, TRANSFORMERS, EACH WITH ITS NECESSARY APPURTENANCES, TOGETHER WITH RIGHT OF INGRESS AND EGRESS OVER GRANTORS ADJACENT LAND, THE RIGHT TO RELOCATE SAID FACILITIES WITHIN SAID EASEMENT AND RIGHT-OF-WAY AREAS AND THE RIGHT TO REMOVE FROM SAID LANDS ALL TREES AND PARTS THEREOF, OR OTHER OBSTRUCTIONS WHICH ENDANGER OR MAY INTERFERE WITH THE EFFICIENCY OF SAID LINES OR APPURTENANCES THERETO. IT IS AGREED AND UNDERSTOOD THAT NO BUILDINGS, CONCRETE SLABS OR WALLS WILL BE PLACED WITHIN SAID EASEMENT AREAS.
2.) ANY CPS MONETARY LOSS RESULTING FROM MODIFICATIONS REQUIRED OF CPS EQUIPMENT, LOCATED WITHIN SAID EASEMENT, DUE TO GRADE CHANGES OR GROUND ELEVATION ALTERATION SHALL BE CHARGED TO THE PERSON OR PERSONS DEEMED RESPONSIBLE FOR SAID GRADE CHANGES OR GROUND ELEVATION ALTERATION.
3.) THIS PLAT DOES NOT AMEND, ALTER, RELEASE OR OTHERWISE AFFECT ANY EXISTING ELECTRIC, GAS, WATER, SEWER, DRAINAGE, TELEPHONE, CABLE EASEMENTS OR ANY OTHER EASEMENTS FOR UTILITIES UNLESS THE CHANGES TO SUCH EASEMENTS ARE DESCRIBED BELOW.
4.) CONCRETE DRIVEWAY APPROACHES ARE ALLOWED WITHIN THE FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN LOTS ARE SERVED ONLY BY REAR LOT UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES.
5.) ROOF OVERHANGS ARE ALLOWED WITHIN FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN ONLY UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES ARE PROPOSED OR EXISTING WITHIN THOSE FIVE (5) FOOT WIDE EASEMENTS.

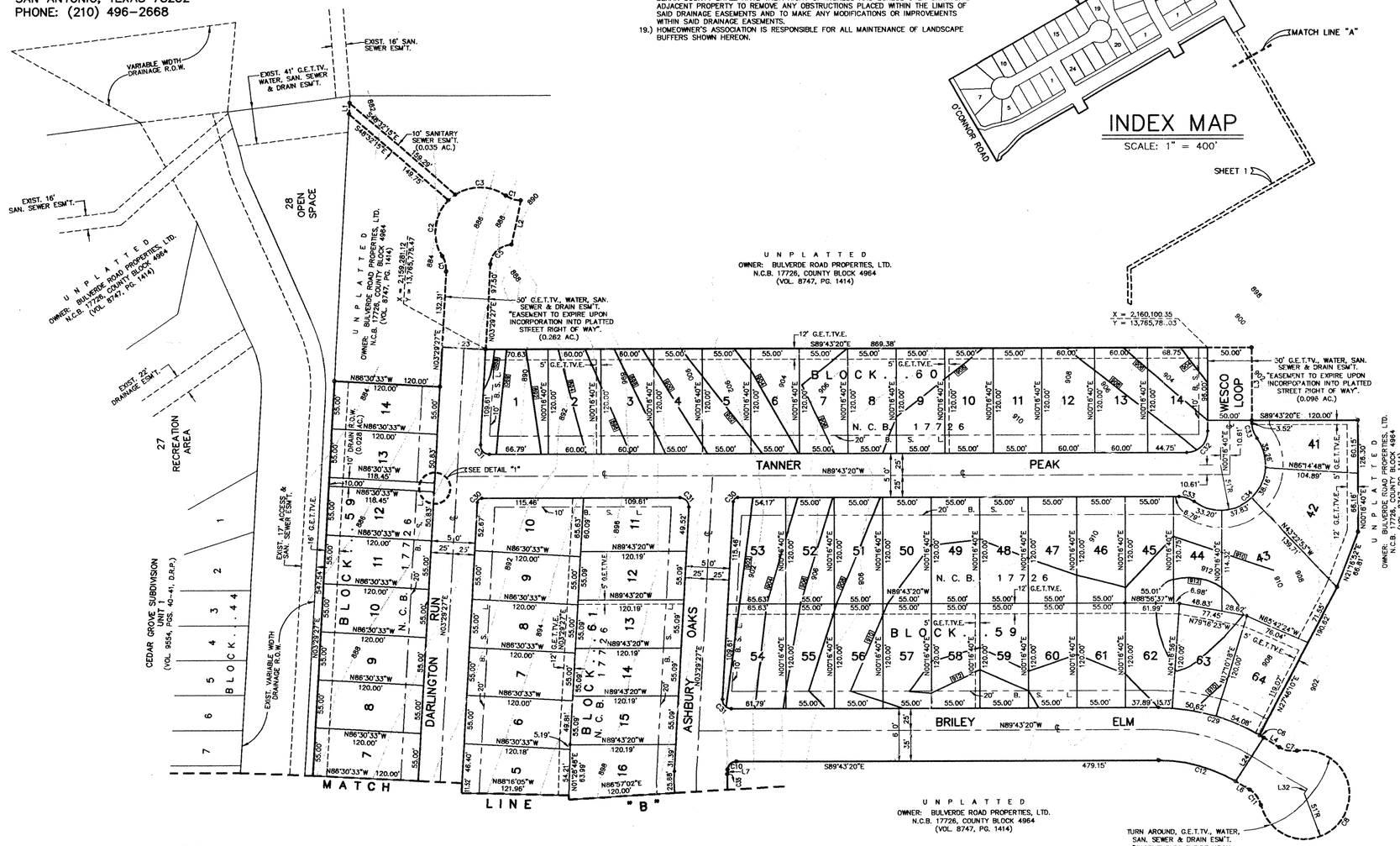
"GENERAL NOTES"

1.) BUILDING SETBACK LINE ---------- B.S.L.
2.) ELECTRIC TELEPHONE & CABLE TELEVISION EASEMENT ---------- E.T.TV.E.
3.) ELECTRIC & CABLE TELEVISION EASEMENT ---------- E.TV.E.
4.) TELEPHONE & CABLE TELEVISION EASEMENT ---------- T.TV.E.
5.) GAS, ELECTRIC, TELEPHONE & CABLE TELEVISION EASEMENT ---------- G.E.T.TV.E.
6.) LANDSCAPE BUFFER ---------- L.B.
7.) LANDSCAPE & SEWER LATERAL EASEMENT ---------- L.S.L.E.
8.) LANDSCAPE & WATER/SEWER LATERAL EASEMENT ---------- L.W.S.L.E.
9.) THE NUMBER OF WASTEWATER EQUIVALENT DWELLING UNITS (EDUs) PAID FOR THIS SUBDIVISION PLAT ARE KEPT ON FILE AT THE SAN ANTONIO WATER SYSTEM UNDER THE PLAT NUMBER ISSUED BY THE DEVELOPMENT SERVICES DEPARTMENT. [960]
10.) PROPOSED FINISHED CONTOUR ---------- [898]
11.) THE VALUE OF THE THREE SETS OF COORDINATES SHOWN HEREON WERE OBTAINED WITH GLOBAL POSITIONING RECEIVERS WITH REFERENCE TO SAN ANTONIO R.R.P. P.I.D. #AY2157 DATUM IS NAD83 (ADJUSTMENT 1993) CONVERTED TO FEET.
STATE PLANE COORDINATES ARE GRID
SCALE FACTOR IS 0.999874
ROTATION GRID TO PLAT IS 0°40'00"
12.) R.P.R. = OFFICIAL PUBLIC RECORDS OF REAL PROPERTY, BEXAR COUNTY, TEXAS.
D.P.R. = DEED AND PLAT RECORDS, BEXAR COUNTY, TEXAS.
13.) FINISHED FLOOR ELEVATIONS MUST BE A MINIMUM OF 8 INCHES ABOVE FINISHED ADJACENT GRADE.
14.) CONTROL MONUMENTS AS SHOWN
IT IS THE PRACTICE OF W.F. CASTELLA & ASSOC. TO MONUMENT ALL CORNERS (IF PRACTICAL) IN THE SUBDIVISION UPON COMPLETION OF CONSTRUCTION.
TYPICAL MONUMENT IS A 1/2" REBAR WITH A "CASTELLA & ASSOC." PLASTIC CAP.
(*) INDICATES A FOUND 1/2" REBAR WITH A "CASTELLA & ASSOC." PLASTIC CAP
15.) BASIS OF BEARING RECITED HEREIN IS
*
16.) CONCRETE DRIVEWAY APPROACHES ARE ALLOWED WITHIN THE FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN LOTS ARE SERVED ONLY BY REAR LOT UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES.
17.) ROOF OVERHANGS ARE ALLOWED WITHIN FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN ONLY UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES ARE PROPOSED OR EXISTING WITHIN THOSE FIVE (5) FOOT WIDE EASEMENTS.
18.) NO STRUCTURES, FENCES, WALLS OR OTHER OBSTRUCTIONS OF ANY KIND SHALL BE PLACED WITHIN THE LIMITS OF THE DRAINAGE EASEMENTS SHOWN ON THIS PLAT. NO LANDSCAPING OR OTHER TYPE OF MODIFICATIONS, WHICH ALTER THE CROSS-SECTIONS OF THE DRAINAGE EASEMENTS, AS PROVIDED, SHALL BE ALLOWED WITHIN THE APPROVAL OF THE DIRECTOR OF PUBLIC WORKS. THE CITY OF SAN ANTONIO AND BEXAR COUNTY SHALL HAVE THEIR RIGHT OF INGRESS AND EGRESS OVER GRANTOR'S ADJACENT PROPERTY TO REMOVE ANY OBSTRUCTIONS PLACED WITHIN THE LIMITS OF SAID DRAINAGE EASEMENTS AND TO MAKE ANY MODIFICATIONS OR IMPROVEMENTS WITHIN SAID DRAINAGE EASEMENTS.
19.) HOMEOWNER'S ASSOCIATION IS RESPONSIBLE FOR ALL MAINTENANCE OF LANDSCAPE BUFFERS SHOWN HEREON.



INDEX MAP

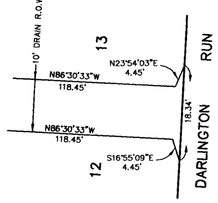
SCALE: 1" = 400'



GRAPHIC SCALE

100 0 50 100 200

1 inch = 100 ft.



DETAIL "1"

NOT TO SCALE

STATE OF TEXAS)
COUNTY OF BEXAR)

THE OWNER OF THE LAND SHOWN ON THIS PLAT, IN PERSON OR THROUGH A DULY AUTHORIZED AGENT, DEDICATES TO THE USE OF THE PUBLIC, EXCEPT AREAS IDENTIFIED AS PRIVATE, FOREVER ALL STREETS, ALLEYS, PARKS, WATERCOURSES, DRAINS, EASEMENTS AND PUBLIC PLACES THEREON SHOWN FOR THE PURPOSE AND CONSIDERATION THEREIN EXPRESSED.

_____
OWNER: CONTINENTAL HOMES OF TEXAS, L.P.
A TEXAS LIMITED PARTNERSHIP
BY: CHTEX OF TEXAS, INC.
A DELAWARE CORPORATION, ITS SOLE GENERAL PARTNER

_____
DULY AUTHORIZED AGENT TIMOTHY D. PRUSKI, ASSISTANT SECRETARY

STATE OF TEXAS)
COUNTY OF BEXAR)

BEFORE ME, THE UNDERSIGNED AUTHORITY ON THIS DAY PERSONALLY APPEARED _____ TIMOTHY D. PRUSKI _____ KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FORECOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND & SEAL OF OFFICE THIS_____DAY OF_____A.D., 2002.

_____
NOTARY PUBLIC, BEXAR COUNTY, TEXAS

STATE OF TEXAS)
COUNTY OF BEXAR)

I HEREBY CERTIFY THAT PROPER ENGINEERING CONSIDERATION HAS BEEN GIVEN THIS PLAT TO THE MATTERS OF STREETS, LOTS AND DRAINAGE LAYOUT. TO THE BEST OF MY KNOWLEDGE THIS PLAT CONFORMS TO ALL REQUIREMENTS OF THE UNIFIED DEVELOPMENT CODE, EXCEPT FOR THOSE VARIANCES THAT MAY BE GRANTED BY THE SAN ANTONIO PLANNING COMMISSION.

_____
REGISTERED PROFESSIONAL ENGINEER

STATE OF TEXAS)
COUNTY OF BEXAR)

I HEREBY CERTIFY THAT THE ABOVE PLAT CONFORMS TO THE MINIMUM STANDARD SET FORTH BY THE TEXAS BOARD OF PROFESSIONAL LAND SURVEYING ACCORDING TO AN ACTUAL SURVEY MADE ON THE GROUND BY: EMPLOYEES OF W.F. CASTELLA & ASSOCIATES UNDER MY SUPERVISION.

_____
REGISTERED PROFESSIONAL LAND SURVEYOR

A TCB INC. Company

W.F.CASTELLA & ASSOCIATES, INC.
Engineers • Surveyors • Planners
6800 Park Ten Blvd., Suite 180 South – San Antonio, Texas 78213 – (210)734-5351

DRAWN BY: O.T. JOB ORDER NO. 46899.00

THIS PLAT OF STUEBING RANCH SUBDIVISION UNIT 1
HAS BEEN SUBMITTED TO AND CONSIDERED BY THE PLANNING COMMISSION OF THE CITY OF SAN ANTONIO, TEXAS AND IS HEREBY APPROVED BY SUCH COMMISSION.

DATED THIS _____DAY OF _____A.D., 2002.
THE PLANNING COMMISSION OF THE CITY OF SAN ANTONIO, TEXAS

BY: _____
CHAIRMAN

BY: _____
SECRETARY

STATE OF TEXAS)
COUNTY OF BEXAR)

I,_____ COUNTY CLERK OF SAID COUNTY DO HEREBY CERTIFY THAT THIS PLAT WAS FILED FOR RECORD IN MY OFFICE, ON THE

_____ DAY OF _____,A.D._____AT_____ M, AND DULY RECORDED THE

_____ DAY OF _____,A.D._____AT_____ M, IN THE RECORDS OF

_____OF SAID COUNTY, IN BOOK VOLUME _____

ON PAGE _____
IN TESTIMONY WHEREOF, WITNESS MY HAND AND OFFICIAL SEAL OF OFFICE THIS

_____DAY OF _____,A.D. _____
COUNTY CLERK, BEXAR COUNTY, TEXAS

BY: _____, DEPUTY

539

H:\DRAW\Land Development\CDC-Stuebing\dwg\STUEBING RANCH UNIT 1.DWG, 10/29/02 11:54:23 AM, 1:100, RANDY RUSSELL

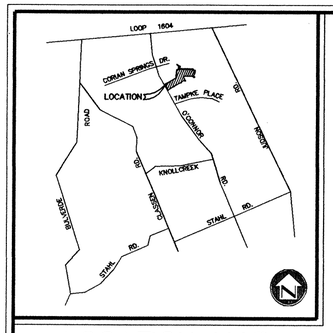
020246

SHEET 2 OF 3

REPLAT & SUBDIVISION PLAT
OF

STUEBING RANCH SUBDIVISION UNIT 1

BEING A REPLAT OF A VARIABLE WIDTH DRAINAGE EASEMENT (0.966 ACRE) AND A SUBDIVISION PLAT OF 23.974 ACRES OUT OF N.C.B. 17726, SAN ANTONIO, BEXAR COUNTY, TEXAS AND CONTAINING A TOTAL OF 24.940 ACRES OF LAND.



LOCATION MAP

DEVELOPER:
CONTINENTAL HOMES OF TEXAS, L.P.
by CHTEX of TEXAS, INC.
14206 NORTH BROOK
SAN ANTONIO, TEXAS 78232
PHONE: (210) 496-2668

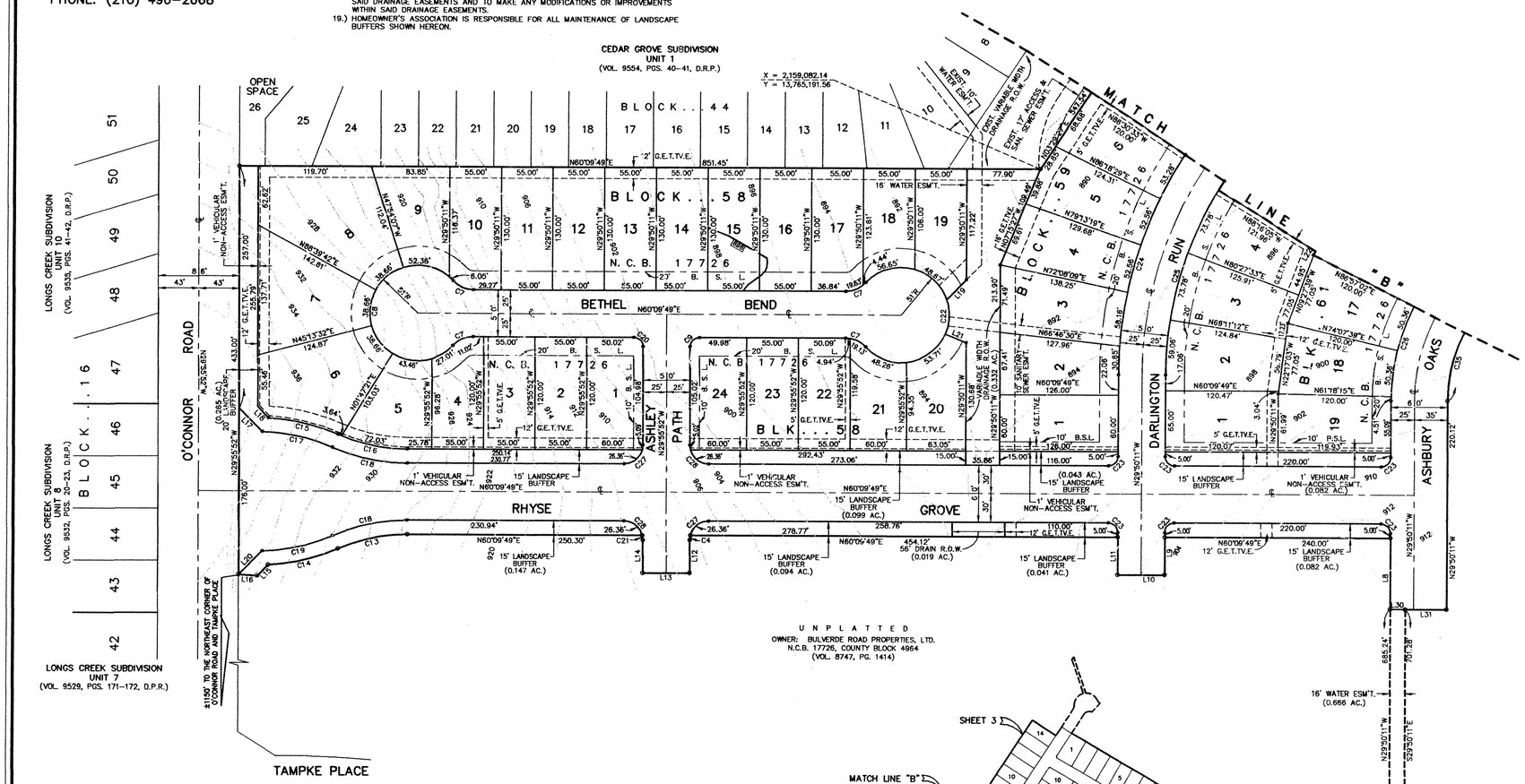
"GENERAL NOTES"

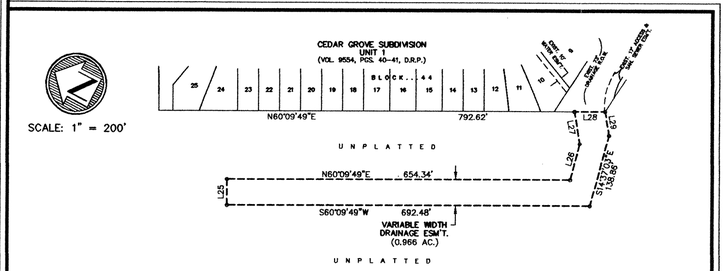
1.) BUILDING SETBACK LINE ---------- B.S.L.
2.) ELECTRIC TELEPHONE & CABLE TELEVISION EASEMENT ---------- E.T.TV.E.
3.) ELECTRIC & CABLE TELEVISION EASEMENT ---------- E.TV.E.
4.) TELEPHONE & CABLE TELEVISION EASEMENT ---------- T.TV.E.
5.) GAS, ELECTRIC, TELEPHONE & CABLE TELEVISION EASEMENT ---------- G.E.T.TV.E.
6.) LANDSCAPE BUFFER ---------- L.B.
7.) LANDSCAPE & SEWER LATERAL EASEMENT ---------- L.S.L.E.
8.) LANDSCAPE & WATER/SEWER LATERAL EASEMENT ---------- L.W.S.L.E.
9.) THE NUMBER OF WASTEWATER EQUIVALENT DWELLING UNITS (EDUs) PAID FOR THIS SUBDIVISION PLAT ARE KEPT ON FILE AT THE SAN ANTONIO WATER SYSTEM UNDER THE PLAT NUMBER ISSUED BY THE DEVELOPMENT SERVICES DEPARTMENT. [960]
10.) PROPOSED FINISHED CONTOUR ----------
11.) THE VALUE OF THE THREE SETS OF COORDINATES SHOWN HEREON WERE OBTAINED WITH GLOBAL POSITIONING RECEIVERS WITH REFERENCE TO SAN ANTONIO R.R.P. P.I.D. #AY2157 DATUM IS NAD83 (ADJUSTMENT 1993) CONVERTED TO FEET.
STATE PLANE COORDINATES ARE GRID
SCALE FACTOR IS 0.999874
ROTATION GRID TO PLAT IS 0°40'00"
12.) R.P.R. = OFFICIAL PUBLIC RECORDS OF REAL PROPERTY, BEXAR COUNTY, TEXAS.
D.P.R. = DEED AND PLAT RECORDS, BEXAR COUNTY, TEXAS.
13.) FINISHED FLOOR ELEVATIONS MUST BE A MINIMUM OF 8 INCHES ABOVE FINISHED ADJACENT GRADE.
14.) CONTROL MONUMENTS AS SHOWN
IT IS THE PRACTICE OF W.F. CASTELLA & ASSOC. TO MONUMENT ALL CORNERS (IF PRACTICAL) IN THE SUBDIVISION UPON COMPLETION OF CONSTRUCTION.
TYPICAL MONUMENT IS A 1/2" REBAR WITH A "CASTELLA & ASSOC." PLASTIC CAP.
(*) INDICATES A FOUND 1/2" REBAR WITH A "CASTELLA & ASSOC." PLASTIC CAP
15.) BASIS OF BEARING RECITED HEREIN IS
*
16.) CONCRETE DRIVEWAY APPROACHES ARE ALLOWED WITHIN THE FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN LOTS ARE SERVED ONLY BY REAR LOT UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES.
17.) ROOF OVERHANGS ARE ALLOWED WITHIN FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN ONLY UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES ARE PROPOSED OR EXISTING WITHIN THOSE FIVE (5) FOOT WIDE EASEMENTS.
18.) NO STRUCTURES, FENCES, WALLS OR OTHER OBSTRUCTIONS OF ANY KIND SHALL BE PLACED WITHIN THE LIMITS OF THE DRAINAGE EASEMENTS SHOWN ON THIS PLAT. NO LANDSCAPING OR OTHER TYPE OF MODIFICATIONS, WHICH ALTER THE CROSS-SECTIONS OF THE DRAINAGE EASEMENTS, AS PROVIDED, SHALL BE ALLOWED WITHIN THE APPROVAL OF THE DIRECTOR OF PUBLIC WORKS. THE CITY OF SAN ANTONIO AND BEXAR COUNTY SHALL HAVE THEIR RIGHT OF INGRESS AND EGRESS OVER GRANTOR'S ADJACENT PROPERTY TO REMOVE ANY OBSTRUCTIONS PLACED WITHIN THE LIMITS OF SAID DRAINAGE EASEMENTS AND TO MAKE ANY MODIFICATIONS OR IMPROVEMENTS WITHIN SAID DRAINAGE EASEMENTS.
19.) HOMEOWNER'S ASSOCIATION IS RESPONSIBLE FOR ALL MAINTENANCE OF LANDSCAPE BUFFERS SHOWN HEREON.

"C.P.S. NOTES AND LEGEND"

1.) THE CITY OF SAN ANTONIO AS A PART OF ITS ELECTRIC AND GAS SYSTEM (CITY PUBLIC SERVICE BOARD) IS HEREBY DEDICATED THE EASEMENTS AND RIGHTS-OF-WAY FOR ELECTRIC AND GAS DISTRIBUTION AND SERVICE FACILITIES IN THE AREAS DESIGNATED ON THIS PLAT AS "ELECTRIC EASEMENT," "GAS EASEMENT," "ANCHOR EASEMENT," "SERVICE EASEMENT," "OVERHANG EASEMENT," "UTILITY EASEMENT," AND "TRANSFORMER EASEMENT" FOR THE PURPOSE OF INSTALLING, CONSTRUCTING, RECONSTRUCTING, MAINTAINING, REMOVING, INSPECTING, PATROLLING, AND ERECTING POLES, HANGING OR BURYING WIRES, CABLES, CONDUITS, PIPELINES, TRANSFORMERS, EACH WITH ITS NECESSARY APPURTENANCES, TOGETHER WITH RIGHT OF INGRESS AND EGRESS OVER GRANTORS ADJACENT LAND, THE RIGHT TO RELOCATE SAID FACILITIES WITHIN SAID EASEMENT AND RIGHT-OF-WAY AREAS AND THE RIGHT TO REMOVE FROM SAID LANDS ALL TREES AND PARTS THEREOF, OR OTHER OBSTRUCTIONS WHICH ENDANGER OR MAY INTERFERE WITH THE EFFICIENCY OF SAID LINES OR APPURTENANCES THERETO. IT IS AGREED AND UNDERSTOOD THAT NO BUILDINGS, CONCRETE SLABS OR WALLS WILL BE PLACED WITHIN SAID EASEMENT AREAS.
2.) ANY CPS MONETARY LOSS RESULTING FROM MODIFICATIONS REQUIRED OF CPS EQUIPMENT, LOCATED WITHIN SAID EASEMENT, DUE TO GRADE CHANGES OR GROUND ELEVATION ALTERATION SHALL BE CHARGED TO THE PERSON OR PERSONS DEEMED RESPONSIBLE FOR SAID GRADE CHANGES OR GROUND ELEVATION ALTERATION.
3.) THIS PLAT DOES NOT AMEND, ALTER, RELEASE OR OTHERWISE AFFECT ANY EXISTING ELECTRIC, GAS, WATER, SEWER, DRAINAGE, TELEPHONE, CABLE EASEMENTS OR ANY OTHER EASEMENTS FOR UTILITIES UNLESS THE CHANGES TO SUCH EASEMENTS ARE DESCRIBED BELOW.
4.) CONCRETE DRIVEWAY APPROACHES ARE ALLOWED WITHIN THE FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN LOTS ARE SERVED ONLY BY REAR LOT UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES.
5.) ROOF OVERHANGS ARE ALLOWED WITHIN FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN ONLY UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES ARE PROPOSED OR EXISTING WITHIN THOSE FIVE (5) FOOT WIDE EASEMENTS.

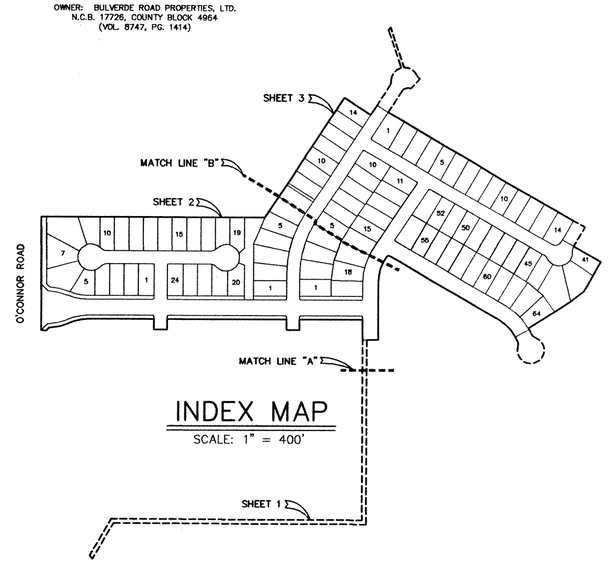
GRAPHIC SCALE
100 0 50 100 200
1 inch = 100 ft.





AREA BEING REPLATTED

THE AREA BEING REPLATTED HAD BEEN PREVIOUSLY PLATTED ON A PLAT KNOWN AS CEDAR GROVE SUBDIVISION UNIT 1, RECORDED IN VOLUME 9554, PAGES 40 & 41, BEXAR COUNTY DEED AND PLAT RECORDS,



INDEX MAP

SCALE: 1" = 400'

STATE OF TEXAS)
COUNTY OF BEXAR)

THE OWNER OF THE LAND SHOWN ON THIS PLAT, IN PERSON OR THROUGH A DULY AUTHORIZED AGENT, DEDICATES TO THE USE OF THE PUBLIC, EXCEPT AREAS IDENTIFIED AS PRIVATE, FOREVER ALL STREETS, ALLEYS, PARKS, WATERCOURSES, DRAINS, EASEMENTS AND PUBLIC PLACES THEREON SHOWN FOR THE PURPOSE AND CONSIDERATION THEREIN EXPRESSED.

OWNER: CONTINENTAL HOMES OF TEXAS, L.P.
A TEXAS LIMITED PARTNERSHIP
BY: CHTEX OF TEXAS, INC.
A DELAWARE CORPORATION, ITS SOLE GENERAL PARTNER

DULY AUTHORIZED AGENT TIMOTHY D. PRUSKI, ASSISTANT SECRETARY

STATE OF TEXAS)
COUNTY OF BEXAR)

BEFORE ME, THE UNDERSIGNED AUTHORITY ON THIS DAY PERSONALLY APPEARED TIMOTHY D. PRUSKI KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND & SEAL OF OFFICE THIS_____DAY OF_____A.D., 2002.

NOTARY PUBLIC, BEXAR COUNTY, TEXAS

STATE OF TEXAS)
COUNTY OF BEXAR)

I HEREBY CERTIFY THAT PROPER ENGINEERING CONSIDERATION HAS BEEN GIVEN THIS PLAT TO THE MATTERS OF STREETS, LOTS AND DRAINAGE LAYOUT. TO THE BEST OF MY KNOWLEDGE THIS PLAT CONFORMS TO ALL REQUIREMENTS OF THE UNIFIED DEVELOPMENT CODE, EXCEPT FOR THOSE VARIANCES THAT MAY BE GRANTED BY THE SAN ANTONIO PLANNING COMMISSION.

REGISTERED PROFESSIONAL ENGINEER

STATE OF TEXAS)
COUNTY OF BEXAR)

I HEREBY CERTIFY THAT THE ABOVE PLAT CONFORMS TO THE MINIMUM STANDARD SET FORTH BY THE TEXAS BOARD OF PROFESSIONAL LAND SURVEYING ACCORDING TO AN ACTUAL SURVEY MADE ON THE GROUND BY: EMPLOYEES OF W.F. CASTELLA & ASSOCIATES UNDER MY SUPERVISION.

REGISTERED PROFESSIONAL LAND SURVEYOR

A TCB INC. Company
W.F.CASTELLA & ASSOCIATES, INC.
Engineers · Surveyors · Planners
6800 Park Ten Blvd., Suite 180 South – San Antonio, Texas 78213 – (210)734-5351

DRAWN BY: O.T. JOB ORDER NO. 46899.00

THIS PLAT OF STUEBING RANCH SUBDIVISION UNIT 1
HAS BEEN SUBMITTED TO AND CONSIDERED BY THE PLANNING COMMISSION OF THE CITY OF SAN ANTONIO, TEXAS AND IS HEREBY APPROVED BY SUCH COMMISSION.

DATED THIS _____DAY OF _____A.D., 2002.
THE PLANNING COMMISSION OF THE CITY OF SAN ANTONIO, TEXAS

BY:_____
CHAIRMAN

BY:_____
SECRETARY

STATE OF TEXAS)
COUNTY OF BEXAR)

I,_____ COUNTY CLERK OF SAID COUNTY DO HEREBY CERTIFY THAT THIS PLAT WAS FILED FOR RECORD IN MY OFFICE, ON THE

_____ DAY OF _____A.D._____AT_____ M, AND DULY RECORDED THE

_____ DAY OF _____A.D._____AT_____ M, IN THE RECORDS OF

_____OF SAID COUNTY, IN BOOK VOLUME _____

ON PAGE _____
IN TESTIMONY WHEREOF, WITNESS MY HAND AND OFFICIAL SEAL OF OFFICE THIS

_____DAY OF _____A.D. _____
COUNTY CLERK, BEXAR COUNTY, TEXAS

BY:_____, DEPUTY

539

H:\DRAW\Land Development\CDC-Stuebing\dwg\STUEBING RANCH UNIT 1.DWG, 10/29/02 11:55:08 AM, 1:100, RANDY RUSSELL

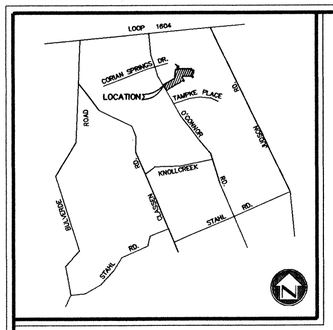
020246

SHEET 1 OF 3

REPLAT & SUBDIVISION PLAT
OF

STUEBING RANCH SUBDIVISION UNIT 1

BEING A REPLAT OF A VARIABLE WIDTH DRAINAGE EASEMENT (0.966 ACRE) AND A SUBDIVISION PLAT OF 23.974 ACRES OUT OF N.C.B. 17726, SAN ANTONIO, BEXAR COUNTY, TEXAS AND CONTAINING A TOTAL OF 24.940 ACRES OF LAND.



LOCATION MAP

DEVELOPER:
CONTINENTAL HOMES OF TEXAS, L.P.
by CHTEX of TEXAS, INC.
14206 NORTH BROOK
SAN ANTONIO, TEXAS 78232
PHONE: (210) 496-2668

"GENERAL NOTES"

1.) BUILDING SETBACK LINE ---------- B.S.L.
2.) ELECTRIC TELEPHONE & CABLE TELEVISION EASEMENT ---------- E.T.T.V.E.
3.) ELECTRIC & CABLE TELEVISION EASEMENT ---------- E.T.V.E.
4.) TELEPHONE & CABLE TELEVISION EASEMENT ---------- T.T.V.E.
5.) GAS, ELECTRIC, TELEPHONE & CABLE TELEVISION EASEMENT ---------- G.E.T.T.V.E.
6.) LANDSCAPE BUFFER ---------- L.B.
7.) LANDSCAPE & SEWER LATERAL EASEMENT ---------- L.S.L.E.
8.) LANDSCAPE & WATER/SEWER LATERAL EASEMENT ---------- L.W.S.L.E.
9.) THE NUMBER OF WASTEWATER EQUIVALENT DWELLING UNITS (EDUs) PAID FOR THIS SUBDIVISION PLAT ARE KEPT ON FILE AT THE SAN ANTONIO WATER SYSTEM UNDER THE PLAT NUMBER ISSUED BY THE DEVELOPMENT SERVICES DEPARTMENT. (950)
10.) PROPOSED FINISHED CONTOUR ---------- (950)
11.) THE VALUE OF THE THREE SETS OF COORDINATES SHOWN HEREON WERE OBTAINED WITH GLOBAL POSITIONING RECEIVERS WITH REFERENCE TO SAN ANTONIO R.R.P. P.I.D. #AY2157 DATUM IS NAD83 (ADJUSTMENT 1993) CONVERTED TO FEET. STATE PLANE COORDINATES ARE GRID SCALE FACTOR IS 0.999874 ROTATION GRID TO PLAT IS 0°40'00"
12.) R.P.R. = OFFICIAL PUBLIC RECORDS OF REAL PROPERTY, BEXAR COUNTY, TEXAS. D.P.R. = DEED AND PLAT RECORDS, BEXAR COUNTY, TEXAS.
13.) FINISHED FLOOR ELEVATIONS MUST BE A MINIMUM OF 8 INCHES ABOVE FINISHED ADJACENT GRADE.
14.) CONTROL MONUMENTS AS SHOWN
IT IS THE PRACTICE OF W.F. CASTELLA & ASSOC. TO MONUMENT ALL CORNERS (IF PRACTICAL) IN THE SUBDIVISION UPON COMPLETION OF CONSTRUCTION. TYPICAL MONUMENT IS A 1/2" REBAR WITH A "CASTELLA & ASSOC." PLASTIC CAP. (•) INDICATES A FOUND 1/2" REBAR WITH A "CASTELLA & ASSOC." PLASTIC CAP
15.) BASIS OF BEARING RECITED HEREIN IS
16.) CONCRETE DRIVEWAY APPROACHES ARE ALLOWED WITHIN THE FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN LOTS ARE SERVED ONLY BY REAR LOT UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES.
17.) ROOF OVERHANGS ARE ALLOWED WITHIN FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN ONLY UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES ARE PROPOSED OR EXISTING WITHIN THOSE FIVE (5) FOOT WIDE EASEMENTS.
18.) NO STRUCTURES, FENCES, WALLS OR OTHER OBSTRUCTIONS OF ANY KIND SHALL BE PLACED WITHIN THE LIMITS OF THE DRAINAGE EASEMENTS SHOWN ON THIS PLAT. NO LANDSCAPING OR OTHER TYPE OF MODIFICATIONS, WHICH ALTER THE CROSS-SECTIONS OF THE DRAINAGE EASEMENTS, AS PROVIDED, SHALL BE ALLOWED WITHIN THE APPROVAL OF THE DIRECTOR OF PUBLIC WORKS. THE CITY OF SAN ANTONIO AND BEXAR COUNTY SHALL HAVE THEIR RIGHT OF INGRESS AND EGRESS OVER GRANTOR'S ADJACENT PROPERTY TO REMOVE ANY OBSTRUCTIONS PLACED WITHIN THE LIMITS OF SAID DRAINAGE EASEMENTS AND TO MAKE ANY MODIFICATIONS OR IMPROVEMENTS WITHIN SAID DRAINAGE EASEMENTS.
19.) HOMEOWNER'S ASSOCIATION IS RESPONSIBLE FOR ALL MAINTENANCE OF LANDSCAPE BUFFERS SHOWN HEREON.

"C.P.S. NOTES AND LEGEND"

1.) THE CITY OF SAN ANTONIO AS A PART OF ITS ELECTRIC AND GAS SYSTEM (CITY PUBLIC SERVICE BOARD) IS HEREBY DEDICATED THE EASEMENTS AND RIGHTS-OF-WAY FOR ELECTRIC AND GAS DISTRIBUTION AND SERVICE FACILITIES IN THE AREAS DESIGNATED ON THIS PLAT AS "ELECTRIC EASEMENT," "GAS EASEMENT," "ANCHOR EASEMENT," "SERVICE EASEMENT," "OVERHANG EASEMENT," "UTILITY EASEMENT," AND "TRANSFORMER EASEMENT" FOR THE PURPOSE OF INSTALLING, CONSTRUCTING, RECONSTRUCTING, MAINTAINING, REMOVING, INSPECTING, PATROLLING, AND ERECTING POLES, HANGING OR BURYING WIRES, CABLES, CONDUITS, PIPELINES, TRANSFORMERS, EACH WITH ITS NECESSARY APPURTENANCES, TOGETHER WITH RIGHT OF INGRESS AND EGRESS OVER GRANTOR'S ADJACENT LAND, THE RIGHT TO RELOCATE SAID FACILITIES WITHIN SAID EASEMENT AND RIGHT-OF-WAY AREAS AND THE RIGHT TO REMOVE FROM SAID LANDS ALL TREES AND PARTS THEREOF, OR OTHER OBSTRUCTIONS WHICH ENDANGER OR MAY INTERFERE WITH THE EFFICIENCY OF SAID LINES OR APPURTENANCES THERETO. IT IS AGREED AND UNDERSTOOD THAT NO BUILDINGS, CONCRETE SLABS OR WALLS WILL BE PLACED WITHIN SAID EASEMENT AREAS.
2.) ANY CPS MONETARY LOSS RESULTING FROM MODIFICATIONS REQUIRED OF CPS EQUIPMENT, LOCATED WITHIN SAID EASEMENT, DUE TO GRADE CHANGES OR GROUND ELEVATION ALTERATION SHALL BE CHARGED TO THE PERSON OR PERSONS DEEMED RESPONSIBLE FOR SAID GRADE CHANGES OR GROUND ELEVATION ALTERATION.
3.) THIS PLAT DOES NOT AMEND, ALTER, RELEASE OR OTHERWISE AFFECT ANY EXISTING ELECTRIC, GAS, WATER, SEWER, DRAINAGE, TELEPHONE, CABLE EASEMENTS OR ANY OTHER EASEMENTS FOR UTILITIES UNLESS THE CHANGES TO SUCH EASEMENTS ARE DESCRIBED BELOW.
4.) CONCRETE DRIVEWAY APPROACHES ARE ALLOWED WITHIN THE FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN LOTS ARE SERVED ONLY BY REAR LOT UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES.
5.) ROOF OVERHANGS ARE ALLOWED WITHIN FIVE (5) FOOT WIDE G.E.T.TV. EASEMENTS WHEN ONLY UNDERGROUND ELECTRIC, GAS, TELEPHONE OR CABLE TELEVISION FACILITIES ARE PROPOSED OR EXISTING WITHIN THOSE FIVE (5) FOOT WIDE EASEMENTS.

GRAPHIC SCALE

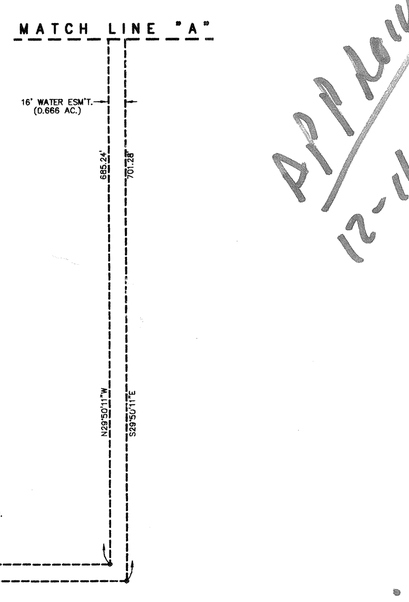
100 0 50 100 200

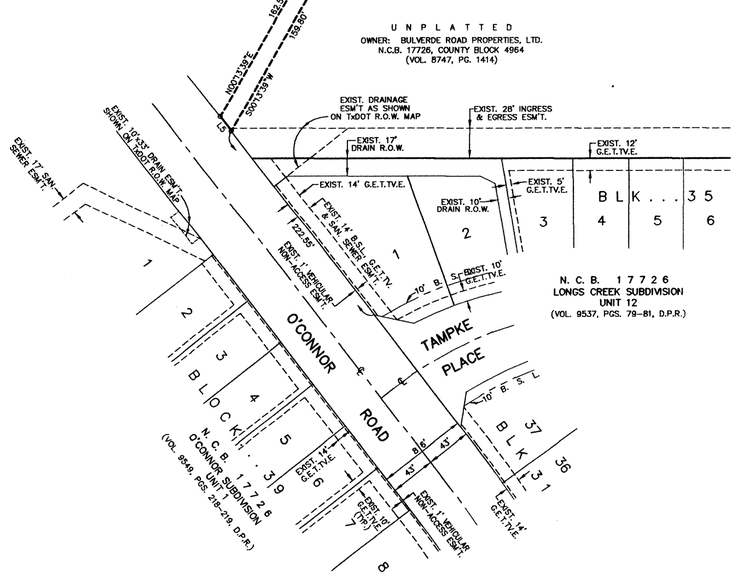
1 inch = 100 ft.

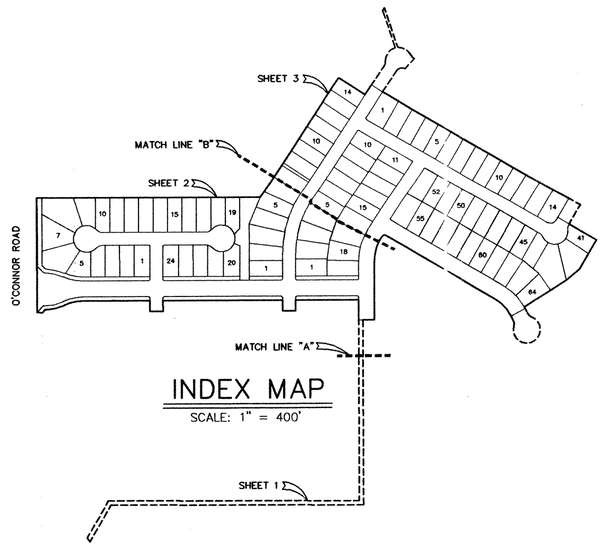
CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING
02 DEC -2 AM 7:49

LINE TABLE		
LINE	BEARING	LENGTH
L1	N03°29'27"E	12.69'
L2	N12°28'02"E	51.14'
L3	N00°16'40"E	83.70'
L4	S57°41'55"E	20.77'
L5	N67°33'53"W	17.28'
L6	S57°41'55"E	18.95'
L7	N03°29'27"E	5.27'
L8	N29°50'11"W	75.00'
L9	N28°50'11"W	40.00'
L10	N60°09'49"E	50.00'
L11	N29°50'11"W	40.00'
L12	N28°55'52"W	34.88'
L13	N60°04'08"E	50.00'
L14	N29°55'52"W	35.03'
L15	S15°02'35"W	16.20'
L16	S63°30'58"W	20.04'
L17	N74°48'59"W	35.43'
L18	N74°48'59"W	16.27'
L19	N15°09'49"E	29.68'
L20	N15°02'35"E	35.37'
L21	S83°08'47"W	24.10'
L22	N01°28'48"E	4.59'
L23	N86°30'33"W	50.00'
L24	N32°38'38"E	60.00'
L25	N29°55'52"W	50.00'
L26	N14°37'03"W	70.58'
L27	N39°25'27"W	62.77'
L28	N60°09'49"E	58.82'
L29	S39°25'27"E	46.67'
L30	N60°09'49"E	16.00'
L31	N60°09'49"E	44.00'
L32	N32°18'05"E	6.00'

CURVE TABLE					
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD
C1	35°46'55"	29.00'	18.11'	9.36'	17.82'
C2	77°52'19"	51.00'	69.32'	41.20'	64.10'
C3	69°03'30"	51.00'	61.47'	35.09'	57.82'
C4	14°34'20"	20.00'	5.09'	2.56'	5.07'
C5	86°47'15"	24.00'	36.35'	22.69'	32.98'
C6	1°21'33"	225.00'	5.34'	2.67'	5.34'
C7	41°24'35"	29.00'	20.96'	10.96'	20.51'
C8	264°56'27"	51.00'	235.83'	55.71'	75.24'
C9	90°05'41"	10.00'	15.72'	10.02'	14.15'
C10	86°47'13"	10.00'	15.15'	9.45'	13.74'
C11	43°31'52"	29.00'	22.03'	11.58'	21.51'
C12	31°53'56"	165.00'	91.86'	47.16'	90.68'
C13	23°26'12"	185.00'	75.67'	38.37'	75.15'
C14	20°21'45"	215.00'	76.41'	38.61'	76.01'
C15	20°25'26"	215.00'	76.64'	38.73'	76.23'
C16	23°26'12"	185.00'	75.67'	38.37'	75.15'
C17	22°02'54"	200.00'	76.96'	38.96'	76.49'
C18	23°26'12"	200.00'	81.81'	41.48'	81.24'
C19	21°59'19"	200.00'	76.75'	38.86'	76.28'
C20	89°54'19"	10.00'	15.69'	9.98'	14.13'
C21	14°22'58"	20.00'	5.02'	2.52'	5.01'
C22	275°05'31"	51.00'	244.86'	46.66'	68.85'
C23	90°00'00"	10.00'	15.71'	10.00'	14.14'
C24	33°19'38"	425.00'	247.21'	127.21'	243.74'
C25	33°19'46"	375.00'	218.14'	112.25'	215.08'
C26	33°20'06"	225.00'	130.91'	67.36'	129.07'
C27	90°05'41"	20.00'	31.45'	20.03'	28.31'
C28	89°54'19"	20.00'	31.38'	19.97'	28.26'
C29	30°39'52"	225.00'	120.42'	61.69'	118.99'
C30	86°47'13"	5.00'	7.57'	4.73'	6.87'
C31	93°12'47"	10.00'	16.27'	10.58'	14.53'
C32	90°00'00"	24.00'	37.70'	24.00'	33.94'
C33	36°08'23"	29.00'	18.29'	9.46'	17.99'
C34	162°16'45"	51.00'	144.45'	327.16'	100.78'
C35	33°19'38"	165.00'	95.98'	49.39'	94.63'







INDEX MAP
SCALE: 1" = 400'

STATE OF TEXAS)
COUNTY OF BEXAR)

THE OWNER OF THE LAND SHOWN ON THIS PLAT, IN PERSON OR THROUGH A DULY AUTHORIZED AGENT, DEDICATES TO THE USE OF THE PUBLIC, EXCEPT AREAS IDENTIFIED AS PRIVATE, FOREVER ALL STREETS, ALLEYS, PARKS, WATERCOURSES, DRAINS, EASEMENTS AND PUBLIC PLACES THEREON SHOWN FOR THE PURPOSE AND CONSIDERATION THEREIN EXPRESSED.

OWNER: CONTINENTAL HOMES OF TEXAS, L.P.
A TEXAS LIMITED PARTNERSHIP
BY: CHTEX OF TEXAS, INC.
A DELAWARE CORPORATION, ITS SOLE GENERAL PARTNER

DULY AUTHORIZED AGENT TIMOTHY D. PRUSKI, ASSISTANT SECRETARY

PP Revised 12-11-02

STATE OF TEXAS)
COUNTY OF BEXAR)

BEFORE ME, THE UNDERSIGNED AUTHORITY ON THIS DAY PERSONALLY APPEARED TIMOTHY D. PRUSKI KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND & SEAL OF OFFICE THIS_____DAY OF_____A.D., 2002.

NOTARY PUBLIC, BEXAR COUNTY, TEXAS

STATE OF TEXAS)
COUNTY OF BEXAR)

I HEREBY CERTIFY THAT PROPER ENGINEERING CONSIDERATION HAS BEEN GIVEN THIS PLAT TO THE MATTERS OF STREETS, LOTS AND DRAINAGE LAYOUT. TO THE BEST OF MY KNOWLEDGE THIS PLAT CONFORMS TO ALL REQUIREMENTS OF THE UNIFIED DEVELOPMENT CODE, EXCEPT FOR THOSE VARIANCES THAT MAY BE GRANTED BY THE SAN ANTONIO PLANNING COMMISSION.

REGISTERED PROFESSIONAL ENGINEER

STATE OF TEXAS)
COUNTY OF BEXAR)

I HEREBY CERTIFY THAT THE ABOVE PLAT CONFORMS TO THE MINIMUM STANDARD SET FORTH BY THE TEXAS BOARD OF PROFESSIONAL LAND SURVEYING ACCORDING TO AN ACTUAL SURVEY MADE ON THE GROUND BY: EMPLOYEES OF W.F. CASTELLA & ASSOCIATES UNDER MY SUPERVISION.

REGISTERED PROFESSIONAL LAND SURVEYOR

A TCB INC. Company

W.F.CASTELLA & ASSOCIATES, INC.
Engineers · Surveyors · Planners
6800 Park Ten Blvd., Suite 180 South – San Antonio, Texas 78213 – (210)734-5351

DRAWN BY: O.T. JOB ORDER NO. 46899.00

THIS PLAT OF STUEBING RANCH SUBDIVISION UNIT 1
HAS BEEN SUBMITTED TO AND CONSIDERED BY THE PLANNING COMMISSION OF THE CITY OF SAN ANTONIO, TEXAS AND IS HEREBY APPROVED BY SUCH COMMISSION.

DATED THIS _____DAY OF _____A.D., 2002.
THE PLANNING COMMISSION OF THE CITY OF SAN ANTONIO, TEXAS

BY:_____
CHAIRMAN

BY:_____
SECRETARY

STATE OF TEXAS)
COUNTY OF BEXAR)

I,_____ COUNTY CLERK OF SAID COUNTY DO HEREBY CERTIFY THAT THIS PLAT WAS FILED FOR RECORD IN MY OFFICE, ON THE

_____ DAY OF _____A.D._____AT_____ M, AND DULY RECORDED THE

_____ DAY OF _____A.D._____AT_____ M, IN THE RECORDS OF

_____OF SAID COUNTY, IN BOOK VOLUME _____

ON PAGE _____
IN TESTIMONY WHEREOF, WITNESS MY HAND AND OFFICIAL SEAL OF OFFICE THIS

_____DAY OF _____A.D. _____
COUNTY CLERK, BEXAR COUNTY, TEXAS

BY:_____, DEPUTY

539

H:\DRAW\Land Development\CDC-Stuebing\dwg\STUEBING RANCH UNIT 1.DWG, 10/29/02 11:55:57 AM, 1:100, RANDY RUSSELL

98- 0110619

Book 9540 Page 00184

CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING
02 JUN 20 AM 9:26

PLAT NO. 980473

WASTEWATER EDU NOTE

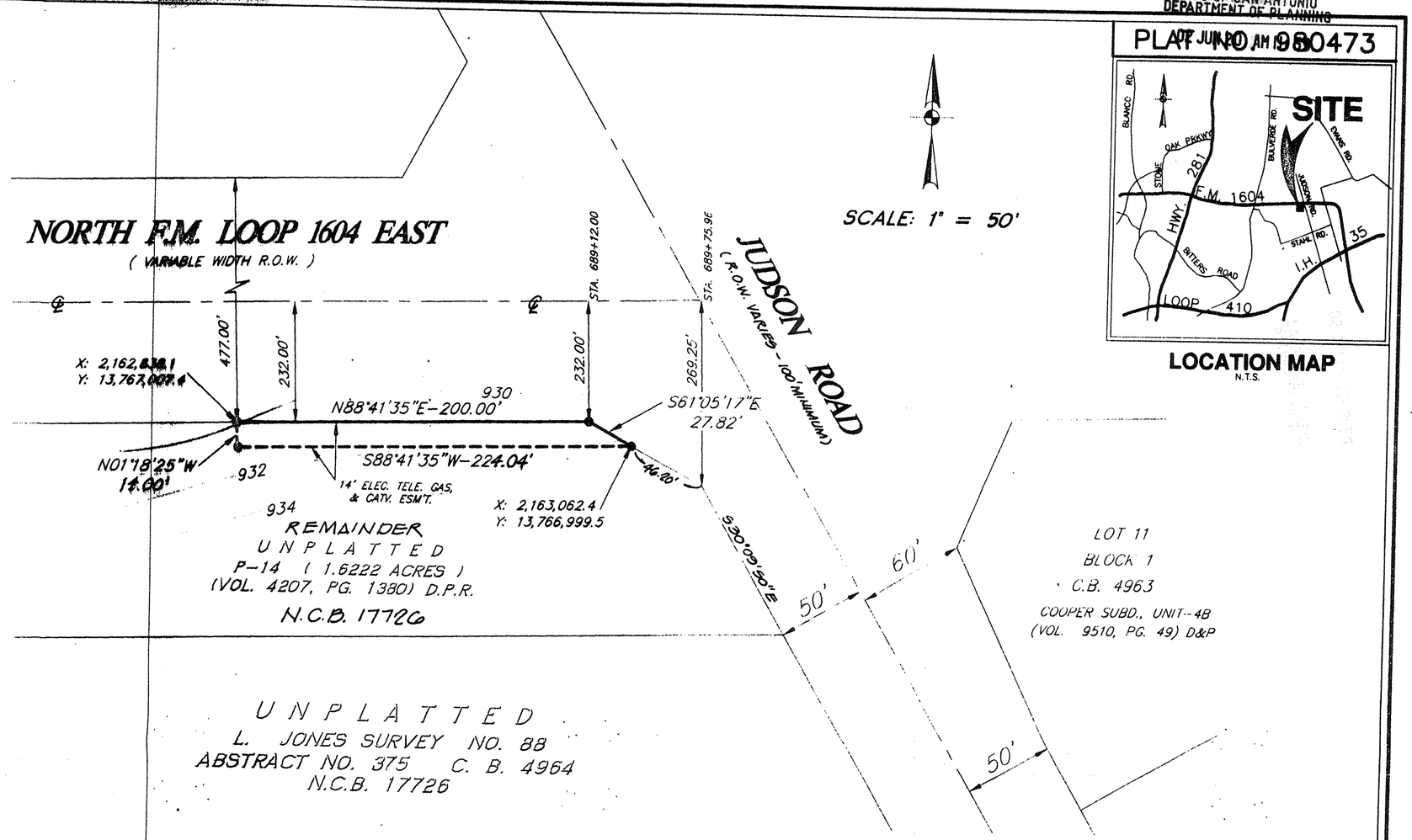
THE NUMBER OF WASTEWATER EQUIVALENT DWELLING UNITS (EDU'S) PAID FOR THIS SUBDIVISION PLAT ARE KEPT ON FILE AT THE SAN ANTONIO WATER SYSTEM UNDER THE PLAT NUMBER ISSUED BY THE PLANNING DEPARTMENT.

NOTES:

1. 1/2" IRON ROD WITH YELLOW CAP MARKED "PAPE-DAWSON" SET AT ALL CORNERS UNLESS OTHERWISE NOTED.
2. THE BASIS OF MONUMENTATION FOR THIS PLAT ARE THOSE SHOWN FOUND.
2. THE BEARINGS FOR THIS SURVEY ARE BASED ON TxDOT R.O.W. MAP FOR LOOP 1604.
4. N.A.D. 83 GRID COORDINATES WERE DERIVED FROM LOCKHILL 2 (P.I.D. #AY0967) N:13750260.5336 E:2099442.4022
5. DIMENSIONS SHOWN ARE SURFACE AND THE COMBINED SCALE FACTOR OBSERVED IS 0.99955996.
6. BEARINGS SHOWN MUST BE ROTATED 00°15'13.3" COUNTERCLOCKWISE TO MATCH N.A.D. 83.

LEGEND

ELEC. = ELECTRIC
TELE. = TELEPHONE
CA.T.V. = CABLE TELEVISION
ESM'T. = EASEMENT
B.S.L. = BUILDING SETBACK LINE
F.I.R. = FOUND 1/2" IRON ROD



LOCATION MAP
N.T.S.

NOTE: The City of San Antonio as part of its electric and gas system (City Public Service Board) is hereby dedicated the easements and rights-of-way for electric and gas distribution and service facilities in the areas designated on this plat as "Electric Easement," "Gas Easement," "Anchor Easement," "Service Easement," "Overhang Easement," "Utility Easement," and "Transformer Easement" for the purpose of installing, constructing, reconstructing, maintaining, removing, inspecting, patrolling, and erecting poles, hanging or burying wires, cables, conduits, pipelines or transformers, each with its necessary appurtenances together with the right of ingress and egress over grantor's adjacent land, the right to relocate said facilities within said easement and right-of-way areas, and the right to remove from said lands all trees or parts thereof, or other obstructions which endanger or may interfere with the efficiency of said lines or appurtenances thereto. It is agreed and understood that no buildings, concrete slabs, or walls will be placed within said easement area.

Any CPS monetary loss resulting from modifications required of CPS equipment, located within said easement, due to grade changes or ground elevation alterations, shall be charged to the person or persons deemed responsible for said grade changes or ground elevation alteration.

This plat does not amend, alter, release or otherwise affect any existing electric, gas, water, sewer, drainage, telephone, cable easements or any other easements for utilities unless the changes to such easements are described below.

STATE OF TEXAS

COUNTY OF BEXAR

I HEREBY CERTIFY THAT PROPER ENGINEERING CONSIDERATION HAS BEEN GIVEN THIS PLAT TO THE MATTERS OF STREETS, LOTS AND DRAINAGE LAYOUT, AND TO THE BEST OF MY KNOWLEDGE THIS PLAT CONFORMS TO ALL REQUIREMENTS OF THE SUBDIVISION ORDINANCE, EXCEPT FOR THOSE VARIANCES THAT MAY HAVE BEEN GRANTED BY THE PLANNING COMMISSION OF THE CITY.

Rick Wood
REGISTERED PROFESSIONAL ENGINEER

SWORN TO AND SUBSCRIBED BEFORE ME THIS THE 11th DAY OF June A.D. 19 98

Karen J. Del Toro
NOTARY PUBLIC
BEXAR COUNTY, TEXAS

STATE OF TEXAS

COUNTY OF BEXAR

THE OWNER OF THE LAND SHOWN ON THIS PLAT IN PERSON OR THROUGH A DULY AUTHORIZED AGENT, DEDICATES TO THE USE OF THE PUBLIC FOREVER ALL STREETS, ALLEYS, PARKS, WATER-COURSES, DRAINS, EASEMENTS AND PUBLIC PLACES THEREON SHOWN FOR THE PURPOSE AND CONSIDERATION THEREIN EXPRESSED.

OWNER

DULY AUTHORIZED AGENT

STATE OF TEXAS

COUNTY OF BEXAR

BEFORE ME, THE UNDERSIGNED AUTHORITY ON THIS DAY PERSONALLY APPEARED Lloyd A. Deckon, Jr. , KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.
GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS 11th DAY OF June A.D. 19 98

Barbara Kaute
NOTARY PUBLIC
BEXAR COUNTY, TEXAS

BARBARANN KANUTE
MY COMMISSION EXPIRES
September 8, 1999

TXDOT NOTES:

1) FOR COMMERCIAL DEVELOPMENT DIRECTLY ADJACENT TO STATE RIGHT-OF-WAY, THE DEVELOPER SHALL BE RESPONSIBLE FOR ADEQUATE SET-BACK AND/OR SOUND ABATEMENT MEASURES FOR FUTURE NOISE MITIGATION.
2) OWNER/DEVELOPER IS RESPONSIBLE FOR PREVENTING ANY ADVERSE IMPACT TO THE EXISTING DRAINAGE SYSTEM WITHIN THE HIGHWAY RIGHT-OF-WAY.
3) MAXIMUM ACCESS POINTS TO STATE HIGHWAY FROM THIS PROPERTY BEING PLATTED WILL BE REGULATED AS DIRECTED BY "REGULATIONS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS."
4) ANY SIDEWALKS TO BE CONSTRUCTED WITHIN STATE RIGHT-OF-WAY ALONG FREEWAY FRONTAGE ROADS WILL BE LOCATED DIRECTLY ADJACENT TO THE RIGHT-OF-WAY LINE
5) STATE RIGHT-OF-WAY WILL NOT BE UTILIZED FOR THE PURPOSES OF TREATING STORM WATER RUNOFF FROM ADJACENT PROPERTY.

SUBDIVISION PLAT OF

STEUBING ESTATES, UNIT-1

BEING 0.0681 ACRE OF LAND OUT OF A 1.6222 ACRE TRACT DESCRIBED IN AN INSTRUMENT RECORDED IN VOLUME 4207, PAGE 1380 OF THE OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF BEXAR COUNTY, TEXAS AND OUT OF THE L. JONES SURVEY NO. 88, ABSTRACT NO. 375, COUNTY BLOCK 4964, BEXAR COUNTY, TEXAS.

THIS PLAT OF STEUBING ESTATES, UNIT-1 HAS BEEN SUBMITTED TO THE CITY OF SAN ANTONIO, TEXAS, AND IS HEREBY APPROVED BY THE DIRECTOR OF PLANNING IN ACCORDANCE WITH V.T.C.A., LOCAL GOVERNMENT CODE SECTION 212.0065.

DATED THIS 24 DAY OF June A.D. 19 98

BY: _____
DIRECTOR OF PLANNING

CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING
02 FEB 28 PM 3:27

PAPE-DAWSON ENGINEERS
CIVIL & ENVIRONMENTAL
555 EAST RAMSEY, SAN ANTONIO, TEXAS 78216 210-375-9000

STATE OF TEXAS

COUNTY OF BEXAR

I HEREBY CERTIFY THAT THIS PLAT IS TRUE AND CORRECT AND WAS PREPARED FROM AN ACTUAL SURVEY OF THE PROPERTY MADE UNDER MY SUPERVISION ON THE GROUND.

REGISTERED PROFESSIONAL LAND SURVEYOR

SWORN TO AND SUBSCRIBED BEFORE ME THIS THE 12th DAY OF June A.D. 19 98

Karen J. Del Toro
NOTARY PUBLIC
BEXAR COUNTY, TEXAS

STATE OF TEXAS

COUNTY OF BEXAR

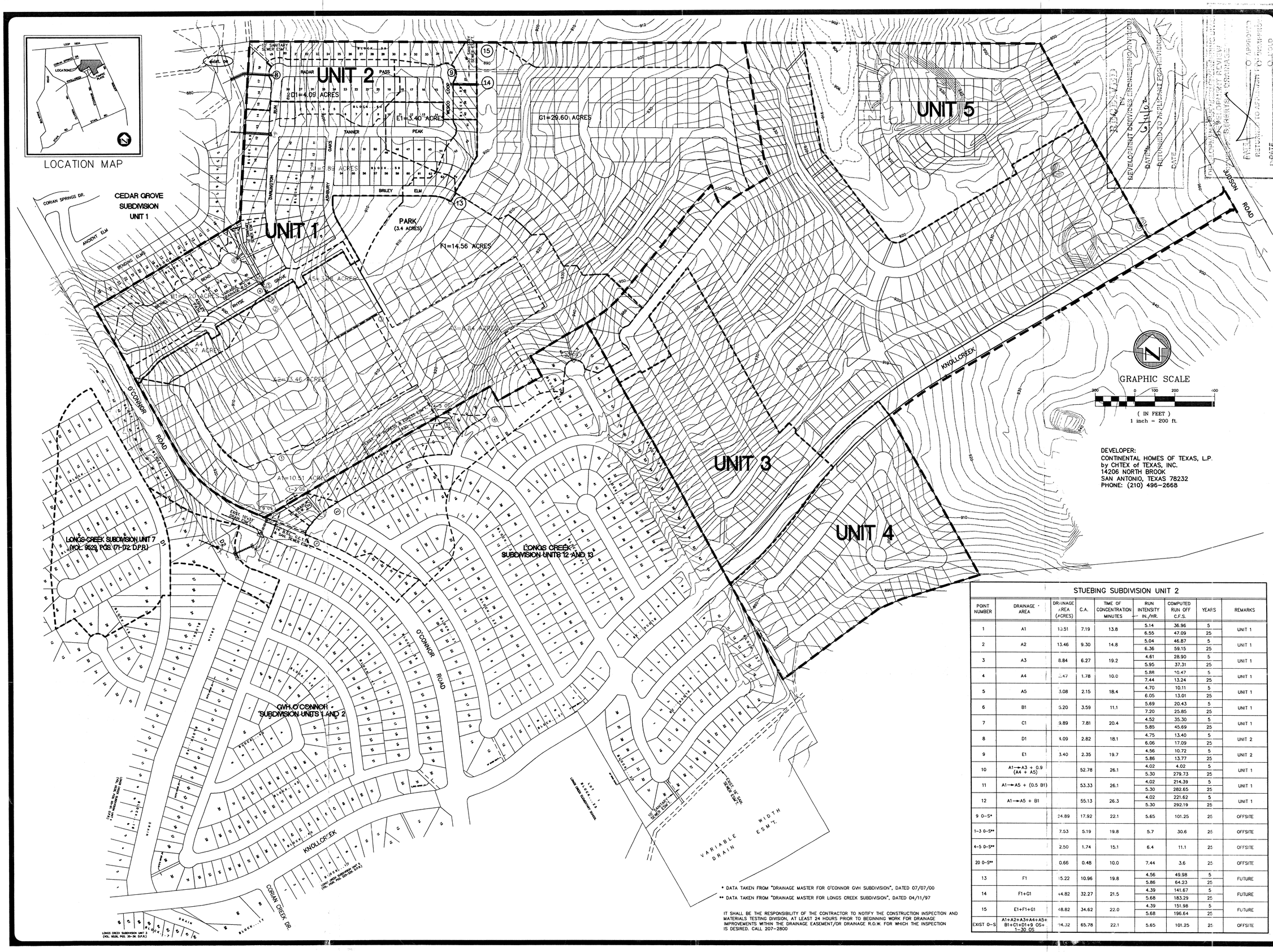
GERRY RICKHOFF COUNTY CLERK OF SAID COUNTY, DO HEREBY CERTIFY THAT THIS PLAT WAS FILED FOR RECORD IN MY OFFICE, ON THE 2nd DAY OF June A.D. 1998 AT 1:39 P. M. AND DULY RECORDED THE 1st DAY OF July A.D. 1998 AT 9:26 A. M. IN THE RECORDS OF DEEDS & PLATS OF SAID COUNTY, IN BOOK VOLUME 9540 ON PAGE 184

IN TESTIMONY WHEREOF, WITNESS MY HAND AND OFFICIAL SEAL OF OFFICE THIS 1st DAY OF July A.D. 1998

COUNTY CLERK, BEXAR COUNTY, TEXAS
BY: _____, DEPUTY

Filed for Record in:
BEXAR COUNTY, TX
GERRY RICKHOFF, COUNTY CLERK
On Jun 29 1998
At 1:39pm
Receipt #: 13945I
Recording: 25.00
Doc/Mgmt: 6.00
Doc/Num : 98- 0110619
Deputy -Catherine Revilla

#539



STUEBING SUBDIVISION UNIT 2								
POINT NUMBER	DRAINAGE AREA	DRAINAGE AREA (ACRES)	C.A.	TIME OF CONCENTRATION MINUTES	RUN INTENSITY IN./HR.	COMPUTED RUN OFF C.F.S.	YEARS	REMARKS
1	A1	10.51	7.19	13.8	5.14	36.96	5	UNIT 1
					6.55	47.09	25	
2	A2	13.46	9.30	14.8	5.04	46.87	5	UNIT 1
					6.36	59.15	25	
3	A3	8.84	6.27	19.2	4.61	28.90	5	UNIT 1
					5.95	37.31	25	
4	A4	5.47	1.78	10.0	5.88	10.47	5	UNIT 1
					7.44	13.24	25	
5	A5	3.08	2.15	18.4	4.70	10.11	5	UNIT 1
					6.05	13.01	25	
6	B1	5.20	3.59	11.1	5.69	20.43	5	UNIT 1
					7.20	25.85	25	
7	C1	9.89	7.81	20.4	4.52	35.30	5	UNIT 1
					5.85	45.69	25	
8	D1	4.09	2.82	18.1	4.75	13.40	5	UNIT 2
					6.06	17.09	25	
9	E1	3.40	2.35	19.7	4.56	10.72	5	UNIT 2
					5.86	13.77	25	
10	A1→A3 + 0.9 (A4 + A5)		52.78	26.1	4.02	4.02	5	UNIT 1
					5.30	279.73	25	
11	A1→A5 + (0.5 B1)		53.33	26.1	4.02	214.39	5	UNIT 1
					5.30	282.65	25	
12	A1→A5 + B1		55.13	26.3	4.02	221.62	5	UNIT 1
					5.30	292.19	25	
9 O-S*		24.89	17.92	22.1	5.65	101.25	25	OFFSITE
1-3 O-S**		7.53	5.19	19.8	5.7	30.6	25	OFFSITE
4-5 O-S**		2.50	1.74	15.1	6.4	11.1	25	OFFSITE
20 O-S**		0.66	0.48	10.0	7.44	3.6	25	OFFSITE
13	F1	15.22	10.96	19.8	4.56	49.98	5	FUTURE
					5.86	64.23	25	
14	F1+G1	44.82	32.27	21.5	4.39	141.67	5	FUTURE
					5.68	183.29	25	
15	E1+F1+G1	48.82	34.62	22.0	4.39	151.98	5	FUTURE
					5.68	196.64	25	
EXIST O-S	A1+A2+A3+A4+A5+ B1+C1+D1+9 OS+ 1-30 OS	94.32	65.78	22.1	5.65	101.25	25	OFFSITE

* DATA TAKEN FROM "DRAINAGE MASTER FOR O'CONNOR GVH SUBDIVISION", DATED 07/07/00

** DATA TAKEN FROM "DRAINAGE MASTER FOR LONGS CREEK SUBDIVISION", DATED 04/11/97

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE CONSTRUCTION INSPECTION AND MATERIALS TESTING DIVISION, AT LEAST 24 HOURS PRIOR TO BEGINNING WORK FOR DRAINAGE IMPROVEMENTS WITHIN THE DRAINAGE EASEMENT/OR DRAINAGE R.O.W. FOR WHICH THE INSPECTION IS DESIRED. CALL 207-2800

DRAINAGE MASTER PLAN for STUEBING RANCH SUBDIVISION

6/6/02
STATE OF TEXAS
GEORGE W. PECK
82054
REGISTERED PROFESSIONAL ENGINEER

A TCB INC. Company
W.F. CASTELLA & ASSOCIATES, INC.
Engineers – Surveyors – Planners
5800 Park Ten Blvd., Suite 180 South – San Antonio, Texas 78213 – (210)734-5351

REVISIONS:

JOB NO. 46899.00
FILE: ~
DATE: 6/5/02
DESIGN: H.E.O'G.
DRAWN: R.R.A.
CHECKED: G.W.P.
SHEET 1 OF 1

RECEIVED JUN 7 2002 ENGINEERING

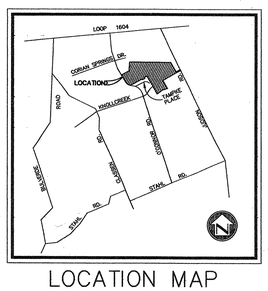
H:\DRAW\Land Development\CDC-Stuebing Unit 2\dwg\U2 DRAINAGE MASTER.dwg, 06/07/02 09:14:32 AM, 1:200, MARCO GARZA

#539

GRAPHIC SCALE

200 0 100 200 400

(IN FEET)
1 inch = 200 ft.



LOCATION MAP

NOTES: 1. INFORMATION PROVIDED ON THIS MAP IS BASED ON PRELIMINARY LAND PLANNING ETC. AND IS SUBJECT TO CHANGE.

TRIP DISTRIBUTION
WEEKDAY, 24 HOURS

45' LOTS
46' LOTS
55' LOTS
65' LOTS

496.2668
<275.0491

UNIT	45' LOTS	46' LOTS	55' LOTS	65' LOTS	TOTAL LOTS
1			95		95
2			40		40
3	97				97
4	100				100
5		72			72
6	11		61		72
7	–	–	–	–	–
8			89		89
9	63				63
10	39				39
11	73				73
12	73				73
FUTURE				145	145
TOTAL	456	72	285	145	958

539

MASTER PLAN
for
STEUBING RANCH
SUBDIVISION

A TCB INC. Company
W.F.CASTELLA & ASSOCIATES, INC.
Engineers – Surveyors – Planners
6800 Park Ten Blvd., Suite 180 South – San Antonio, Texas 78213 – (210)734-5351

REVISIONS:

JOB NO. 052247224.03 052247224.02
FILE: ~
DATE: 01/06/03
DESIGN: A.R.
DRAWN: B.D.L.
CHECKED:
SHEET 1 OF 1

SUPPLEMENT TO THE STEUBING ESTATE P.O.A.D.P. #539 SHOWING THE PROPOSED CIRCULATION SYSTEM FOR STEUBING RANCH SUBDIVISION

LOOP 1604 (400' R.O.W.)

RECHARGE ZONE
TRANSITION ZONE

PROPOSED COMERCIAL

11.1 ACRES COMMERCIAL

61.6 ACRES COMMERCIAL

100 YEAR FLOODPLAIN

21.3 ACRES COMMERCIAL

GRAPHIC SCALE

1 inch = 300 ft.

8.0 ACRES RESIDENTIAL (55' x 120', TYP.)

18.6 ACRES RESIDENTIAL (55' x 120', TYP.)

20.9 ACRES RESIDENTIAL (46' x 110', TYP.)

11.2 ACRES COMMERCIAL

26.9 ACRES RESIDENTIAL
DEVELOPER: K.B. HOME

23.7 ACRES RESIDENTIAL (55' x 120', TYP.)

18.1 ACRES RESIDENTIAL (55' x 120', TYP.) (45' x 120', MIN.)

LOCAL "B" (60' R.O.W. MIN.)

3.0 ACRES PARK

11.8 ACRES RESIDENTIAL (45' x 120', TYP.)

6.5 ACRES RESIDENTIAL (45' x 120', TYP.)

12.0 ACRES RESIDENTIAL (45' x 120', TYP.)

4.8 ACRES

SECONDARY ARTERIAL

JUDSON ROAD (100' R.O.W.)

O'CONNOR ROAD (86' R.O.W.)

LONGS CREEK RESIDENTIAL (EXISTING)

39.3 ACRES RESIDENTIAL (55' x 120', TYP.)

13.3 ACRES RESIDENTIAL (45' x 120', TYP.)

COLLECTOR STREET (SECTION AS APPROVED WITH UNIT 1)

TAMPKE CEMETERY

20.7 ACRES RESIDENTIAL (45' x 120', TYP.)

LOCAL "B" (60' R.O.W. MIN.)

COLLECTOR STREET (SECTION AS APPROVED WITH UNIT 1)

60.3 ACRES SCHOOL SITE

LONGS CREEK SUBDIVISION UNITS 12 & 13 (EXISTING RESIDENTIAL)

17.0 ACRES RESIDENTIAL (45.5' x 110', TYP.)

(86' R.O.W.)

100 YEAR FLOODPLAIN

C.P.S. EASEMENT

47.9 ACRES SPECIAL USE (CITY OF SAN ANTONIO)

KNOLLCREEK

LONGS CREEK RESIDENTIAL (EXISTING)

EDWARDS AQUIFER TRANSITION ZONE

FLOODPLAIN DELINEATION FROM FLOOD INSURANCE RATE MAPS 48029C0282 E DATED FEBRUARY 15, 1996, AND 48029C0284 F DATED JANUARY 4, 2002.

LONGS CREEK ELEMENTARY SCHOOL (EXISTING)

NOTE:
THIS SUPPLEMENTAL PLAN IS THE RESULT OF THE CHANGE FROM A RESERVE TRACT (PROPOSED EXTRACTIVE MINING OPERATION) ON THE ORIGINAL P.O.A.D.P. TO A SINGLE FAMILY RESIDENTIAL DEVELOPMENT.

100 YEAR FLOODPLAIN

14.1 ACRES SPECIAL USE (CITY OF SAN ANTONIO)

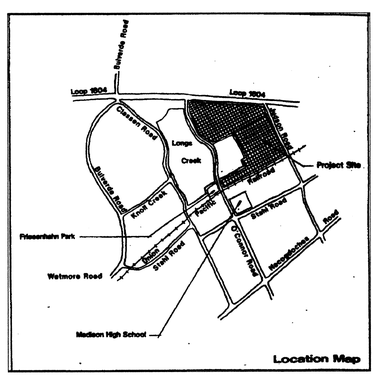
LONGS CREEK RESIDENTIAL (EXISTING)

UNION PACIFIC RAILROAD R.O.W.

O'CONNOR ROAD (86' R.O.W.)

APPROVED Date: 4-4-03

CITY OF SAN ANTONIO DEPARTMENT OF PLANNING 03 APR -4 PM 2:24



UTILITIES:
SEWER SERVICE – SAN ANTONIO WATER SYSTEM
WATER SERVICE – SAN ANTONIO WATER SYSTEM
GAS AND ELECTRIC SERVICE – CITY PUBLIC SERVICE

LEGEND

LOCAL "B" STREET (60' R.O.W. MIN.)

STEUBING RANCH SUBDIVISION
DEVELOPER:
CONTINENTAL HOMES OF TEXAS, L.P.
by CHTEX of TEXAS, INC.
14206 NORTH BROOK
SAN ANTONIO, TEXAS 78232

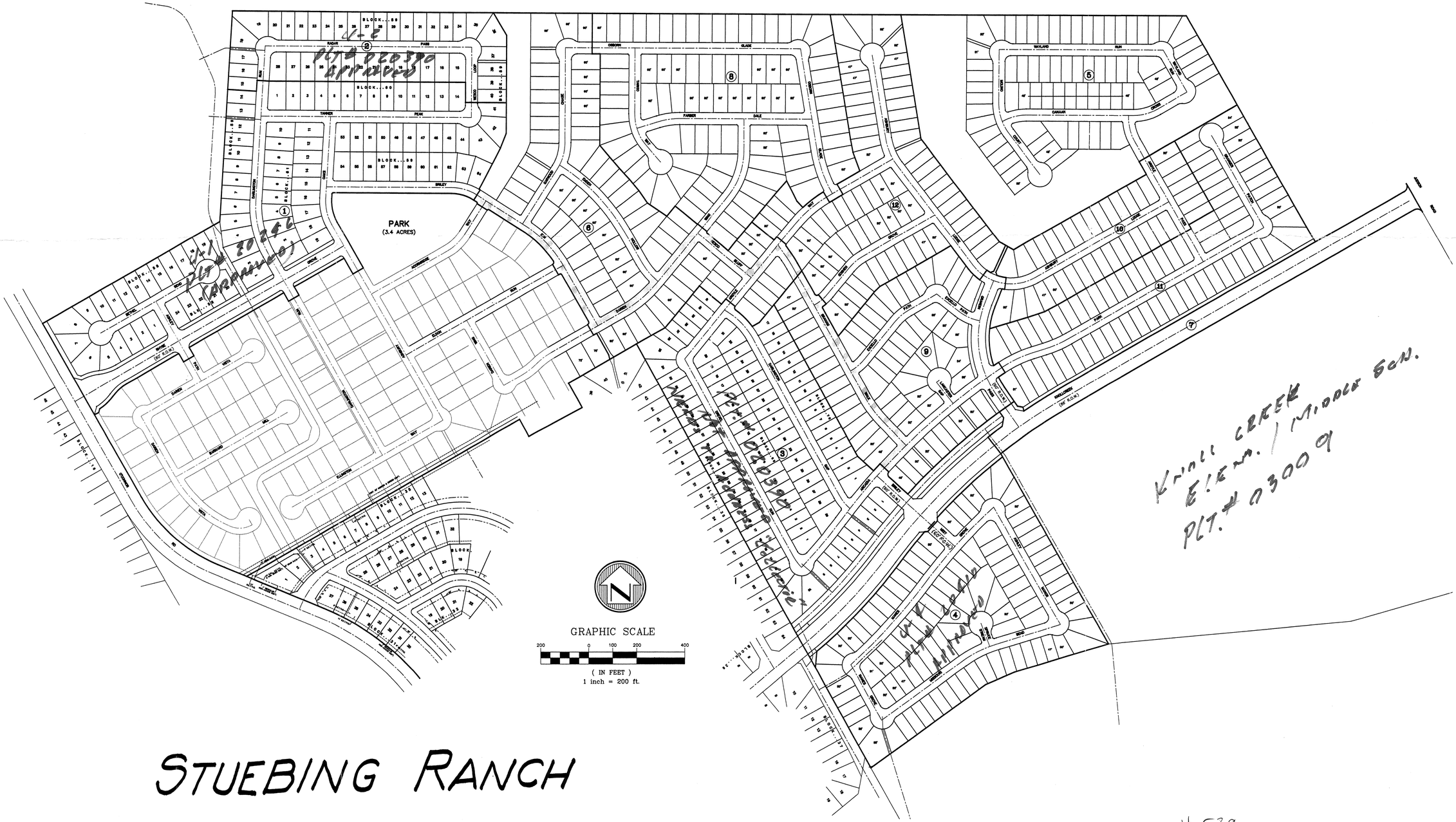
A TCB INC. Company
W.F. CASTELLA & ASSOCIATES, INC.
Engineers – Surveyors – Planners
6800 Park Ten Blvd., Suite 180 South – San Antonio, Texas 78213 – (210)734-5351

REVISIONS:
04/05/03 REVISE LOCAL "B"

JOB NO.	052247038
FILE:	~
DATE:	12/30/02
DESIGN:	B.H.
DRAWN:	B.H.
CHECKED:	
SHEET	1 OF 1

H:\DRAWLAND DEVELOPMENT\CEIC-Stuebing\dwg\steub-poadp-03-27-03.dwg, 04/04/2003 10:54:21 AM, trevinoo, 1:300

#539



STUEBING RANCH

#539

Denton Communities
...developing a difference.

CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING
02 JUL 25 PM 2:10

MEMORANDUM

TO: Mr. Chester Slimp
Architect, City Public Works, COSA
Via Facsimile 207-4418

FROM: Laddie Denton

DATE: July 23, 2002

RE: Longhorn POADP, et al

Can you please send a copy of the Northeast Service Center Plat to Mike Herrera? I need this to get my POADP reinstated. Also, I am getting the golf course grading plan so we can talk to you and Rocky; we're gonna attempt the TIF with Carpenter's blessing.

Thank you for routing the plat. Please call me if that's a problem.

LAD:ss

Cc: Mr. Mike Herrera *(Via Facsimile 207-4441)*
Mr. Allen Walsh *(Via Facsimile 208-1881)*

Including this cover sheet, this fax is comprised of 2 page(s).

CONFIDENTIALITY NOTICE
THE PAGES OF THIS FAX TRANSMISSION CONTAIN CONFIDENTIAL INFORMATION INTENDED ONLY FOR USE OF THE INDIVIDUAL OR ENTITY NAMED. IF YOU ARE NOT THE INTENDED RECIPIENT, ANY REVIEW, DISTRIBUTION, DISSEMINATION, COPYING OR OTHER USE OF THIS TRANSMISSION IS PROHIBITED. IF YOU HAVE RECEIVED THIS TRANSMISSION IN ERROR, PLEASE NOTIFY US AT ONCE AT THE NUMBER SHOWN BELOW SO WE CAN ARRANGE TO RETRIEVE THE TRANSMISSION AT OUR COST.

11 LYNN BATTS LANE, SUITE 100 ☐ SAN ANTONIO, TEXAS 78218
TELEPHONE 210-828-6131 ☐ FACSIMILE 210-828-6137
www.dentoncommunities.com
A DIVISION OF BITTERBLUE, INC.

Land Development Services Division, City of San Antonio, Texas, 1995

PRELIMINARY OVERALL AREA DEVELOPMENT PLAN (POADP) APPLICATION

Date Submitted: NOVEMBER 26, 1996

Name of POADP: STEUBING ESTATE (previous #496)

Owner/Agent: STEUBING/POERNER LTD. PARTNERSHIP **Phone:** 824-7836

Address: 3330 OAKWELL CT. STE. 110 **Zip code:** 78218

~~Engineer~~ PLANNER/Surveyor: DIXIE WATKINS III & ASSOCIATES **Phone:** 824-7836

Address: 3330 OAKWELL CT. STE. 110 **Zip code:** 78218

Existing zoning: UA **Proposed zoning:** R-1, R-3, B-2, B-3R

Texas State Plane Coordinates: X 2189100 Y 643300
(at major street entrance/main entrance)

Plat is over/within/includes: San Antonio City Limits Yes ☑ No ☐
Edwards Aquifer Recharge Zone? Yes ☑ No ☐

Land Area Being Platted:	**Lots**	**Acres**
Single-Family (SF)	±500	125.9
Non-Single Family (NSF)	±6	292.0
Commercial & other	±5	98.4
TOTAL =	511	516.3

Print Name: DIXIE WATKINS **Signature:**

Date: NOVEMBER 26, 1996 **Tel:** 824-7836 **Fax:** 824-0128

Last block at bottom of page is for the person actually submitting the application. Anyone may submit an application. However, this is the person staff wil contact regarding this application for clarification or additional information. Therefore, this should be your POC (point of contact).

*** Note: This application must he completed fully, and typed or printed legibly, for acceptance.**

CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING
03 JAN 17 PM 3:32

City of San Antonio
New
Vested Rights Permit
APPLICATION

Permit File: #03-01-022 **Date:** 1-17-03
Assigned by city staff

1. All applicable information on application must be legibly printed or typed for processing. *If application is completed on behalf of the property owner please attach power of attorney or letter of agent.*

2. *Please complete this application and attach 2 maps of the property and 2 sets of all supporting documents.*

Note: All Applications must have a Site Map showing the Area Boundary (Attached).

Owner/Agent: Earl + Brown, P.C on behalf of Continental Homes of Texas, L.P. **Phone:** 210-222-1500 **Fax:** 210-222-9100

Address: 111 Soledad, Suite 1111, San Antonio, TX **Zip code:** 78205

Engineer/Surveyor: W.F. Castella + Assoc. **Phone:** 210-734-5351 **Fax:** 210-734-5363

Address: 6800 Park Ten Blvd., #100 South, San Antonio, TX **Zip code:** 78213

1. **Name of Project:** Steubing Ranch
2. **Site location or address of Project:** Approximately 152.6 acres of property located South of Loop 1604 between O'Connor Rd + Jackson Rd.
3. **Council District** 10 **ETJ** _____ **Over Edward's Aquifer Recharge?** (✓) yes ( ) no
4. **What is the specific purpose of this Project and the expected use(s) to be created by this Project (type of development, number of buildings, type of building(s), specific use(s) of those buildings, etc.)?** *Please be aware that the city must understand exactly what this Project is expected to accomplish in order to evaluate this application.*

   Single Family Residential Development

5. **What is the date the applicant claims rights vested for this Project?** August 14, 1997
6. **What, if any, construction or related actions have taken place on the property since that date?** Infrastructure Construction has been completed on associated units

Permit File #_____

of the project

7. By what means does the applicant claim rights vested for this Project? *Please specify all that may be applicable.*

- **PERMIT**

Type of Permit: Zoning Ordinance Date of Application: August 14, 1997

Permit Number: 86429 Date Issued: August 14, 1997

Expiration Date: N/A Acreage: 196.17

- **MASTER DEVELOPMENT PLAN (MDP)** (Formerly POADP)*

accepted *prior to September 1, 1997* are subject to permit right conditions within 18 months from the effective date of the development rights ordinance (9/25/97) and projects submitted *after September 1, 1997* are subject to 18 months for the POADP acceptance date.

Name: _____ #_____

Date accepted:_____ Expiration Date:_____ MDP Size:_____ acres

- **P.U.D. PLAN**

Name: _____ #_____

Date accepted:_____

- **Plat Application**

Plat Name: _____ Plat # _____ Acreage:_____

Date submitted:_____ Expiration Date:_____

(Note: Plat must be approved within 18 months of application submittal date).

- **Approved Plat**

Plat Name: _____ Plat #_____ Acreage:_____ Approval

Date: _____ Plat recording Date:_____ Expiration Date:_____ Vol./Pg._____

(Note: If plat is not recorded within 3 years of plat approval permit rights will expire).

- **Other**

_____

_____

NOTE: Filing a knowingly false statement on this document, or any attached document, is a crime under §37.02 and §37.10 of the Texas Penal Code, punishable as a state jail felony by up to two years in jail and fine of up to $10,000.

I hereby certify that all information this Application and the attached documents is true and correct and that it is my belief the property owner is entitled to Vested Rights for this Project.

Print name: Habib H. Erkan, Jr. Signature: _____ Date: 1-17-03

Permit File #_____

Sworn to and subscribed before me by Habib H. Erkan, Jr. on this 17th day of JANUARY in the year 2003, to certify which witness my hand and seal of office.

EVELYN M. AGUILAR
Notary Public, State of Texas
My Commission Expires
April 28, 2005

Evelyn M. Aguilar
Notary Public, State of Texas

City of San Antonio use

Permit File: #_____ **Date:**_____
Assigned by city staff

X **Approved** As of Aug 14, 1997 o **Disapproved**

Review By: _____ Date: Jan 30, 2003
Assistant City Attorney

Comments:_____

END

CITY OF SAN ANTONIO

December 20, 1996

Mr. Dixie Watkins
Dixie Watkins and Associates
3330 Oakwell Court, Suite 110
San Antonio, Texas, 78218

Re: Steubing Estate POADP # 539

Mr. Watkins:

The City Staff Development Review Committee has reviewed Steubing Estate Preliminary Overall Area Development Plan # 539. Please find enclosed a signed copy for your files. You may now submit individual subdivision plat units at your convenience. Although your plan was accepted, please note the following:

- Access issues along State facilities will need to be resolved with the Texas Department of Transportation (TXDOT). For additional information about these requirements you can contact TXDOT at 615-5814.
- Based on the topography, a Flood Plain Study will probably be required.
- This development will probably need to conform to requirements associated with development over the Edwards Aquifer. For additional information about these requirements you can contact SAWS at 704-7305.

Please note that this action by the committee does not establish any commitment for the provision of utilities, services or zoning of any type now or in the future by the City of San Antonio. Additionally, this action does not confer any vested rights to plat under the existing Subdivision regulations. Any platting will have to comply with the Unified Development Code at the time of plat submittal.

If you have any additional questions or comments regarding this matter, please contact Elizabeth Carol. She may be reached at (210) 207-7900.

Sincerely,

Rebecca Waldman by EJD

Rebecca Waldman
Acting Director of Planning

DWP/EAC

cc: Andrew J. Ballard, P.E., Traffic Planning Engineer

PLANNING DEPARTMENT • P. O. BOX 839966 • SAN ANTONIO, TEXAS 78283-3966
TEL: (210) 207-7900 TDD: (210) 207-7911 FAX: (210) 207-4441

CITY OF SAN ANTONIO

June 13, 2002

Mr. Watkins

Dixie Watkins III & Associates
3330 Oakwell Court #110
San Antonio, TX, 78218

Re: Steubing Estate POADP # 539

Dear Mr. Watkins:

Your Preliminary Overall Area Development Plan, Steubing Estate, has failed to comply with **Sec. 35-2072 Scope and Sec. 35-2076 Terms of validity** of the **U.D.C. 35**:

Sec. 35-2072 Scope
The POADP shall be required in all instances when a tract of land within the city or the extraterritorial jurisdiction is platted or intended to be platted ***into two (2)*** **or more units.**

Sec. 35-2076 Terms of validity
"The POADP shall become ***invalid*** *if a plat is not filed within eighteen (18) months from the date the POADP is accepted."*

This POADP has been purged from our system, please note that you can always submit a new POADP application, fee and plan for our consideration.

If you have any questions regarding this matter, please contact Mr. Michael O. Herrera at (210) 207-7873.

Sincerely,

Emil R. Moncivais AIA, AICP
Director of Planning

EM/MH.Jr.

cc: Bob Opitz, P. E., Development Services
Robert De La Cruz, P.E., Development Services
Arturo Villarreal Jr., P.E. Strom Water Engineering

City of San Antonio
Planning Department

Letter of Certification

FOR

NOT APPROVED

Date: 3/14/03

ITEM NAME: STEUBING RANCH SUBDIVISION UNIT 3 **FILE #** 020390

DOES NOT SATISFY SEC. 35-2075, INFORMATION REQUIRED PARAGRAPH (E) AND

SEC. 35-2076 TERMS OF VALIDITY

Master Development Plan (M.D.P.) (Formerly POADP)	**Plan Unit Development (P.U.D.)**
Number: 539	Number: N/A
Date: 12/20/96	Date:
STEUBING ESTATE	

Neighborhood Association to Notify: N/A

The City of San Antonio Planning Department has reviewed the above referenced Plat or Plan for conformity with the provisions as stated in the City of San Antonio Unified Development Code (UDC). This Letter of Certification (LOC) attests to the following areas **ONLY**, Master Development Plan, Major Thoroughfare Plan, Neighborhoods and Historic Preservation. Any changes to the plat or plan affecting these areas will require a resubmittal for review to the department and the issuance of a new LOC.

Please attach this letter of certification with your complete final package to Land Development Services, Subdivision Section.

By:	SPECIAL PROJ. COORD.	3/14/03
Signature	**Title**	**Date**

December 3, 2001

A memo from the

CITY of SAN ANTONIO

Planning Department

Master Development

TO: David Beals, P.E.

DATE: April 4, 2003

Address: 6800 Park Ten Blvd., Suite 180
San Antonio, Texas 78213

FROM: Michael O. Herrera, Special Projects Coordinator

COPIES TO: File

SUBJECT: Steubing Estate POADP # 539(Supplement)

The proposed traffic circulation plan referenced above was heard by the

☐ Planning Commission

☒ Director of Planning COSA

on the date shown.

The following action was taken:

☒ APPROVED
☐ DISAPPROVED

A plat will not be recorded pending site improvements, the required guarantee is posted or payment of impact fees are paid (or filed).

If you have any questions regarding please call Mr. Michael O. Herrera @ 207-7873

City of San Antonio
Development Services
Subdivision Section

CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING
03 MAR 19 AM 10: 17

REQUEST FOR REVIEW

TO: Planning Date 3/19/03

FROM: Luz

PHONE NUMBER: 207-7900 FAX NUMBER # 207-4441

ITEM NAME: Stenbing Ranch, V-3 FILE # 020390

RE: Variance Request.

SUBJECT: The attached item has been submitted for your review, recommendation, and or comment to the Planning Commission or Director. Please review and forward your response to the **CONSULTANT OF RECORD.** Return response as soon as possible, but no later than the date shown below. Response time will commence from the date of receipt of this request or receipt of all the items your agency requires for this review. "Days" represents calendar days.

Please Return By:_____, 200_____

- ☐ **Minor Plat-10 days**
- ☐ **Major Plat-50 days**
- ☐ **Amending Plats – 10 days**
- ☐ **Plat deferral-30 days**
- ☐ **Variance-15 days**
- ☐ **Other-15 days**

☐ **I recommend approval** ☐ **I do not recommend approval**

On _____, **I notified** _____, **the engineer/ subdivider/agent, of the corrections needed to remove this objection. Tel #**_____

Comments:_____

Signature	Title	Date

October 10, 2002

CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING
03 MAR 19 AM 10: 16

A TCB INC. Company

W.F. CASTELLA & ASSOCIATES, INC.
Engineers • Surveyors • Planners

March 17, 2003

Roderick Sanchez
Assistant Director of Development Services
P.O. Box 839966
San Antonio, Texas 78283

Re: STEUBING RANCH SUBDIVISION UNIT 3, I.D. No. 020390

Dear Mr. Sanchez:

On behalf of the owner/developer of STEUBING RANCH SUBDIVISION UNIT 3, we respectfully request a variance to Sections 35-2075 (e) and 35-2076 of the Unified Development Code (UDC). The Planning Department cited this subdivision as not complying with same. Both of these sections deal with Preliminary Overall Development Plans (POADPs). Section 35-2075 (e) relates – in part - to "proposed circulation system of collector, arterial, and local type B (clearly identified), and their relationship to any adjacent major thoroughfares". Section 35-2076 relates to "terms of validity".

- Subject POADP was titled "Steubing Estates". It was assigned POADP # 539 and was approved by the City of San Antonio on December 20, 1996.
- A Vested Rights Permit (VPR 02-02-071) was approved by the City on March 8, 2002 based on subject POADP.
- Based on same, whatever issues Planning has with the POADP appear to be irrelevant.

UDC was approved as per criteria of UDC — HW

- The applicant has taken all practical measures to minimize any adverse impacts on the public health, safety and welfare within this development.
- Denial of this variance will result in a hardship for the developer. The use of the land will be limited by restrictions that were not required by the original POADP. The developer has proceeded with project engineering in good faith based on the approved POADP.
- We trust that this hardship is unique because it is specific to the limiting boundaries of the approved POADP.
- The hardship is not the result of the applicant's own actions. — NOT TRUE

we not questioning

Hardship is create by applicant reluctancy to comply with the rules of UDC as it apply to his plat.

See Attachment Time line

6800 Park Ten Blvd., Suite 180-S San Antonio, TX 78213 (210) 734-5351 FAX (210) 734-5363

CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING
03 MAR 19 AM 10: 16

- The granting of the variance will not be injurious to other property and will not prevent the orderly subdivision of other property in the area in accordance with the approved POADP.

Therefore, we respectfully request a variance to Sections 35-2075 (e) and 35-2076 of the UDC.

Sincerely,
W.F. CASTELLA & ASSOCIATES, INC.

David P. Beales

David P. Beales, P.E.
Project Manager

- need to 2 [illegible] change from quarter letter base on change of condition

PLANNING COMMISSION
REVISED
REPLAT& SUBDIVISION

AGENDA ITEM NO: _____ March 26, 2003

STUEBING RANCH, UNIT 3 — MAJOR PLAT — 020390
SUBDIVISION NAME — **PLAT #**

COUNCIL DISTRICT: 10
FERGUSON MAP GRID: 518 F-4
OWNER: Continental Homes, by Timothy D. Pruski
ENGINEER: W.F. Castella and Assoc., Inc., by David G. Brown

Date filed with Planning Commission: March 26, 2003

Location: Near the intersection of Knollcreek and Colton Well.

Services Available: SAWS Water and Sewer

Zoning: R-5 Residential Single Family District

Plat is in accordance with:
P.O.A.D.P. # 529, Stuebing Estate was approved on 12/20/96.

Proposed Use: Residential

Major Thoroughfare: **Knollcreek** is a secondary arterial, Type A, minimum R.O.W. **86** feet.

APPLICANT'S PROPOSAL:

To plat **97** single family lots with **4.280** linear feet of public streets consisting of **24.492** acres.

DISCUSSION:

The Planning Department has cited: Section 35-2075 (e) of the UDC regarding information required and Section 35-2076 regarding Terms of Validity. The applicant's engineer has submitted a request for variances to the requirements. The Planning Department ~~has~~ does object to the granting of the variance as indicated in their attached report.

STAFF RECOMMENDATION:

Staff has reviewed the proposed plat and found it in conformance with the Unified Development Code with exception to the above-mentioned variances. With regards to these variances, staff does not concur with the applicant's justification, therefore the Director of Development Services recommends **DISAPPROVAL** of the variances and plat.

W.F. CASTELLA & ASSOCIATES, INC.
Engineers • Surveyors • Planners

CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING
A TCB INC. COMPANY 03 MAR 20 PM 2:55

March 19, 2003

Roderick Sanchez
Assistant Director of Development Services
P.O. Box 839966
San Antonio, Texas 78283

Re: STEUBING RANCH SUBDIVISION UNIT 3, I.D. No. 020390

Dear Mr. Sanchez:

On behalf of the owner/developer of STEUBING RANCH SUBDIVISION UNIT 3, we respectfully request a variance to Sections 35-2075 (e) and 35-2076 of the Unified Development Code (UDC). The Planning Department cited this subdivision as not complying with same. Both of these sections deal with Preliminary Overall Development Plans (POADPs). Section 35-2075 (e) relates – in part - to "proposed circulation system of collector, arterial, and local type B (clearly identified), and their relationship to any adjacent major thoroughfares". Section 35-2076 relates to "terms of validity".

- Subject POADP was titled "Steubing Estates". It was assigned POADP # 539 and was approved by the City of San Antonio on December 20, 1996.
- A Vested Rights Permit (VPR 02-02-071) was approved by the City on March 8, 2002 based on subject POADP.
- Based on same, whatever issues Planning has with the POADP appear to be irrelevant.

The applicant has taken all practical measures to minimize any adverse impacts on the public health, safety and welfare within this development.

The following requirements must be specifically addressed according to the UDC:

1. If the applicant complies strictly with the provisions of these regulations, he/she can make no reasonable use of his/her property.

The applicant established a reasonable use for his property based on the approved POADP and Vested Rights Permits. The use of the land will be limited by restrictions that were not required by the original POADP. The developer has proceeded with project engineering based on the approved POADP.

Establishing new, and significantly more restrictive, criteria for land use in this development will prevent the applicant from making reasonable use of his property.

2. The hardship relates to the applicant's land, rather that personal circumstance.

The hardship is specific to the use of the applicant's land and his capability to develop according to the approved POADP and Vested Rights Permits.

3. The hardship is unique, or nearly so, rather than one shared by many surrounding properties.

The applicant believes that this hardship is unique because it is specific to the limiting boundaries of the approved POADP and Vested Rights Permits.

4. The hardship is not the result of the applicant's own actions.

The applicant believes he is in compliance with the appropriate regulations in the development of this property based on the approved POADP and Vested Rights Permits. The hardship is not the result of the applicant's own actions but rather by the imposition of new restrictions on the development by the City Planning Department.

5. The granting of the variance will not be injurious to other property and will not prevent the orderly subdivision of other property in the area in accordance with these regulations.

The granting of the variance will not be injurious to other property and will not prevent the orderly subdivision of other property in the area since it is in compliance with the approved POADP.

Therefore, we respectfully request a variance to Sections 35-2075 (e) and 35-2076 of the UDC.

Sincerely,
W.F. CASTELLA & ASSOCIATES, INC.

David P. Beales, P.E.
Project Manager

CITY OF SAN ANTONIO
PLANNING DEPARTMENT

Interdepartmental Correspondence

TO: Emil Moncivais, AICP, AIA – Director of Planning and
Jesus Garza, AICP – Planning Manager

FROM: Ernest Brown – Planner II

COPY: Mike Herrera, Special Project Coordinator

SUBJECT: Plat #020390, Steubing Ranch Subdivision Unit 3
Variance Request.

DATE: March 25, 2003

The Comprehensive Division of the Planning Department has received and reviewed the March 17, 2003 letter of request for a variance to the Unified Development Code (UDC) section 35-2075 (e), Information required and 35-2076, Terms of Validity, submitted March 19, 2003.

FINDINGS:

The propose subdivision plat is associated with the approved Preliminary Overall Development Plan (POADP) # 539. Four thoroughfares bound this development: Loop 1604 (Freeway) on the north, O'Connor road (Secondary Arterial Type A) on the west, Judson road (Secondary Arterial Type A) on the east, and Union Pacific Railroad R.O.W. on the south. The above referenced plat #020390, Steubing Ranch Subdivision Unit 3 is located within the Reserve Tract as identified by POADP # 539 and has frontage on the north side of Knollcreek thoroughfare (Secondary Arterial Type A) as identified by the Major Thoroughfare Plan.

Applicant cites the following reasons for variance:

A. Subject POADP was titled "Steubing Estates". It was assigned POADP # 539 and was approved by the City of San Antonio on December 20, 1996.

B. A Vested Rights Permit (VPR 02-02-071) was approved by the City on March 8, 2002 based on subject POADP. Based on same, whatever issues Planning has with the POADP appear to be irrelevant.

C. The applicant has taken all practical measures to minimize any adverse impacts on the public health, safety and welfare within this development.

D. Denial of this variance will result in a hardship for the developer. The use of the land will be limited by restrictions that were not required by the original POADP. The developer has proceeded with project engineering in good faith based on the approved POADP.

E. We trust that this hardship is unique because it is specific to the limiting boundaries of the approved POADP.

F. The hardship is not result of the applicant's own actions.

G. The granting of the variance will not be injurious to other property and will not prevent the orderly subdivision of other property in the area in accordance with the approved POADP.

Staff's review of the applicant's request cites UDC section 35-2075 (e) Information required and 35-2076 Terms of Validation and the following:

A. A conditional letter of approval for POADP #539 date December 20, 1996, cited "any platting will have to comply with UDC at time of plat submittal". This was a contingency clause in the event any landuse change occurred other than the one identified on the approved POADP #539.

B. Vested Rights Permit VPR 02-02-071 approved by the City March 8, 2002, establish vesting on approved landuse as identified by POADP #539.

C. Applicant has claimed vesting from his Traffic Impact Analysis (TIA) requirements, therefore, the Engineering Section of the Land Development Service Department provided a TIA for the propose landuse change of POADP #539. Please reference exhibit A.

D. Approved POADP #539 met the UDC criteria as identified by its landuse and per the conditional letter. However, the applicant's change in landuse (which differs from the approved POADP # 539 landuse) now requires that the plat comply with the UDC criteria as cited. All items under UDC section 35-2075 shall be addressed at the time of final plat as stated in the conditional letter dated December 20, 1996. All platting will comply with the UDC.

E. Hardship is not unique but simply a requirement of the UDC.

F. The applicant's hardship is a result of his actions through zoning case # 86429, approved August 14, 1997, which changed the landuse, identifying a total of 196.17 acres.

G. Granting the variance would not provide a review for an adequate traffic circulation system throughout the development. Thus risking the affects of the quality of life, safety and public welfare.

NOTE: As per UDC section 35-1022, Violations defined, prohibits any act of commission or omission contrary to the commands or directives of this chapter.

Recommendation:

Staff ***does not support*** the variance request as submitted.

Stuebing Ranch:

Knollcreek TIA 1012 DU's
The numbers I received showed 858 DU's, I eliminated Unit 4.

Knollcreek TIA Trip Rates - 9,685 ADT'S for Stuebing Ranch
Elem School Trip Rates - 1,872 ADT's
Middle School Trip Rates - 2,925 ADT's

For my analysis and to simplify the process I multiplied the number of DU's * 10 - 8580 ADT's

ADT Trip distribution:

Stuebing Ranch:
Rhyse Grove - 36% 50/50 (enter/exit) - 1544/1544 (Total of 3088 ADT's)
Grandin Pass - 50% 50/50 (enter/exit) - 2145/2145 (Total of **4290 ADT's**)
Briley - 14% 50/50 (enter/exit) - 600/600 (Total of 1200 ADT's)

Elem School:
Rhyse Grove - 36% 50/50 (enter/exit) - 337/337 (Total of 6748 ADT's)
Grandin Pass - 50% 50/50 (enter/exit) - 468/468 (Total of 936 ADT's)
Briley - 14% 50/50 (enter/exit) - 131/131 (Total of 262 ADT's)

Middle School:
Rhyse Grove - 36% 50/50 (enter/exit) - 527/527 (Total of 1054 ADT's)
Grandin Pass - 50% 50/50 (enter/exit) - 731/731 (Total of 1462 ADT's)
Briley - 14% 50/50 (enter/exit) - 205/205 (Total of 410 ADT's)

TOTAL ADT's for Grandin Pass:
Stuebing Ranch, Elem and Middle School - **6688 ADT's**

Residential Collector Streets (In the words of John Friebele):
These streets serve to collect and distribute traffic between the residential and arterial street system. Collectors serve a greater purpose of thru movement than residential streets but still have a greater access function of adjacent residential property. These collector streets are usually two lanes and allow on street parking. Daily volumes range from **1,500 to 5,000** vehicles per day. **The higher volume collectors should minimize "front - on" residential development and use "side on".** These streets should be connected to the arterial street system so as to discourage thru movement of traffic not accessing property in the immediate area. Discontinuous streets (tee intersections), curvilear alignment, roundabouts, etc. are design features that may be used. These streets are typically 36 to 40 feet wide in width on 60 feet of ROW. Usual spacing of collectors 1/2 mile.

In my professional opinion and looking at the numbers I believe that a Residential Collector Street is required for this development. Planning and Development Service has pointed out to the developer several times on how this Collector can be placed within the subdivision. The Knollcreek Elem and Middle School TIA has recommended that a traffic signal be place at Grandin Pass and I have made modifications to the plans. The modification will improve traffic flow in and out of the site and improve the safety of pedestrians.

Knollcreek - Secondary Arterial Type B
O'Connor - Secondary Arterial Type B
Judson - Secondary Arterial Type B
Loop 1604 Frontage Road

TIA - Traffic Impact Analysis

DU's - Dwelling Units
ADT's - Average Daily Trips
ROW - Right of Way

EXHIBIT "A"

Michael Herrera EXHIBIT "A"

From: Richard De La Cruz
Sent: Wednesday, March 12, 2003 9:53 AM
To: Robert Opitz; Michael Herrera
Cc: Emil Moncivais
Subject: revisions

Stuebing Ranch:

For my analysis and to simplify the process I multiplied the number of DU's * 10 - 8580 ADT's

ADT Trip distribution:

Stuebing Ranch:
Rhyse Grove - 36% 50/50 (enter/exit) - 1544/1544 (Total of 3088 ADT's)
Grandin Pass - 50% 50/50 (enter/exit) - 2145/2145 (Total of **4290 ADT's**)
Briley - 14% 50/50 (enter/exit) - 600/600 (Total of 1200 ADT's)

Total ADT's on Grandin Pass for the Stuebing Ranch Subdivision - **4290 ADT's**

Residential Collector Streets (In the words of John Friebele):
These streets serve to collect and distribute traffic between the residential and arterial street system. Collectors serve a greater purpose of thru movement than residential streets but still have a greater access function of adjacent residential property. These collector streets are usually two lanes and allow on street parking. Daily volumes range from **1,500 to 5,000** vehicles per day. **The higher volume collectors should minimize "front - on" residential development and use "side on".** These streets should be connected to the arterial street system so as to discourage thru movement of traffic not accessing property in the immediate area. Discontinuous streets (tee intersections), curvilear alignment, roundabouts, etc. are design features that may be used. These streets are typically 36 to 40 feet wide in width on 60 feet of ROW. Usual spacing of collectors 1/2 mile.

In my professional opinion and looking at the numbers I believe that a Residential Collector Street is required for this development. Planning and Development Services has pointed out to the developer several times on how this collector can be placed within the subdivision. To accomodate the developer it was agreed that some portions of the collector street could be classified as a Local B Street. The Knollcreek Elem and Middle School TIA has recommended that a traffic signal (traffic signal shall be warranted and approved by Traffic Engineering PW's) be place at Grandin Pass and I have made modifications to the plans. The modification will improve traffic flow in and out of the site and improve the safety of pedestrians.

Modification to Plans:
1 - Close Arcadia Park at Gradin Pass (This will allow more queuing and reduce the amount of conflict points).
2 - No houses fronting on Argyle Way at Wesco Bluff (This is the only N-S connection of this subdivision).

A Traffic Impact Analysis was not completed for the Stuebing Ranch Development.

Future Traffic with the addition of the Elementary and Middle School (2005)

Elem School:
Rhyse Grove - 36% 50/50 (enter/exit) - 337/337 (Total of 6748 ADT's)
Grandin Pass - 50% 50/50 (enter/exit) - 468/468 (Total of 936 ADT's)
Briley - 14% 50/50 (enter/exit) - 131/131 (Total of 262 ADT's)

Middle School:
Rhyse Grove - 36% 50/50 (enter/exit) - 527/527 (Total of 1054 ADT's)
Grandin Pass - 50% 50/50 (enter/exit) - 731/731 (Total of 1462 ADT's)
Briley - 14% 50/50 (enter/exit) - 205/205 (Total of 410 ADT's)

Richard L. De La Cruz, P.E.
Senior Engineer
Development Services Department
(210) 207-2855 (Office)
(210) 759-1215 (Pager)
rdelacruz@sanantonio.gov

Time Line
for
Steubing Estates POADP # 539

1. POADP #539 was approved December 20, 1996

2. April 25, 2002 Steubing Estates, U-1 was submitted to Planning Department for Approval.
   Note: During the review for Unit- 1 it was determined that POADP # 539 had failed to comply with Sec. 35-2072 SCOPE and Section 35-2076 Terms of Validity as per (OLD) U.D.C. Chapter 35.

3. May, 2002 contacted Engineer (Lee Wright @ W.F. Castella) and informed of findings.
   Engineer was told he would be receiving letter regarding status of POADP.

4. June 13,2002 Letter addressed to Mr. Dixie Watkins informing him that POADP #539 had been PURGED from the Master Plan System.

5. June 20, 2002 Engineer Submitted copy of UDC Sec 35-2076 Terms of Validity and Sec 35-4215 Filing Date contesting the Disapproval letter.(see copy of UDC sections 35-2076 & 35-4215

6. July 01,2002 forwarded legal opinion From Tom Shute city attorney on Terms of Validity to Lee Wright.

7. August, 2002 Habib and Tom met to discuss documentation that would Validate Steubing Estates POADP # 539.

8. August 26,2002 meeting with Habib Erkan, George Peck, Lee Wright, Ernest Brown, Richard De La Cruz, Michael Herrera, Todd Sang, Tim Pruski, Chris M. Martinez. (see copy of signing sheet)

- Michael Herrera acknowledged for the record that POADP # 539 was valid as per Tom Shute's meeting with Habib.
- Mr. Pruski was informed that even though his POADP was valid it lacked the internal collector street system required by Section 35-2074 Information required, " The POADP, as a minimum, **shall** include the following information:" This is something we would be looking for at the time of platting as stated in the Conditional Letter of approval dated **December 20, 1996:**
  " Any platting will have to comply with the Unified Development Code at the time of plat submittal"
  The proposed land use change from a Mining Operation to Single Family Residential warrants compliance.

CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING
02 JUN 20 AM 11:59
RECEIVED
02 JUN 18 PM 3:56
LAND DEVELOPMENT SERVICES DIVISION

Sec. 35-2072. Scope.

The POADP shall be required in all instances when a tract of land within the city or its extraterritorial jurisdiction is platted or intended to be platted into two (2) or more units. In lieu of a POADP, the applicant may submit a preliminary PUD plan which includes all of the area to be platted into two (2) or more units.
(Ord. No. 65513, § 2(f), 8-13-87; Ord. No. 74489, § 1(Att. A), 10-3-91)

Sec. 35-2073. Filing.

Six (6) prints of the POADP shall be filed with the planning department for review by city agencies and departments at the earliest possible date but no later than the application date for the letters of certification required by Article IV. Within twenty (20) work days of submittal, the director of planning shall provide a written response indicating whether or not the POADP complies with current regulations, the city master plan, and parts thereof. If the POADP is not in compliance, the applicant may work with staff to reach a mutually satisfactory resolution or appeal to the planning commission for a final decision.
(Ord. No. 65513, § 2(f), 8-13-87)

Sec. 35-2074. Review and acknowledgment.

No plat shall be considered filed until review and acceptance of the POADP is completed.
(Ord. No. 65513, § 2(f), 8-13-87)

Sec. 35-2075. Information required.

The POADP, as a minimum, shall include the following information:

(a) Perimeter property lines.

(b) Name of the plan and the subdivisions.

(c) Scale of map.

(d) Proposed land uses by location, type, and acreage.

(e) Existing and proposed circulation system of collector, arterial, and local type B streets (clearly identified), and their relationship to any adjacent major thoroughfares; and any proposed alternative pedestrian circulation system.

(f) Contour lines at intervals no greater than ten (10) feet.

(g) Ownership from title and/or city or county roads for adjacent properties and, if known, proposed development of such land.

(h) Existing adjacent or perimeter streets (including right-of-way widths), intersections, and developments.

(i) One hundred-year floodplain limits as identified from the most current Flood Insurance Rate Maps published by the Federal Emergency Management Agency for the City of San Antonio and/or the applicable county. In cases where the one hundred-year floodplain for a particular watercourse is not shown on the published FIRM, a professional engineer shall develop a preliminary one hundred-year floodplain for each watercourse serving a watershed in excess of one hundred (100) acres.

(j) Location map indicating the location and distance of the POADP in relation to adjacent streets and at least two (2) major thoroughfares.

(k) Name and address of the developer.
(Ord. No. 65513, § 2(f), 8-13-87; Ord. No. 86711, § 6, 9-25-97)

Sec. 35-2076. Terms of validity.

The POADP shall be maintained in the permanent files of the director of planning and shall be conformed to in processing subsequent unit plats. The POADP shall remain valid until all units contained in the POADP are completed or upon receipt of a proposal to modify the POADP filed by the developer. The POADP shall become invalid if a plat is not filed within eighteen (18) months from the date the POADP is accepted.
(Ord. No. 65513, § 2(f), 8-13-87)

Sec. 35-2077. Revisions.

Revisions to a POADP may be made at any time by submission of a new POADP to the director of planning. Within fifteen (15) working days after filing of the proposed revisions, the

CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING
02 JUN 20 AM 11:59

shall indicate the section and specific requirement of the regulations and the respect in which the proposed plat does not comply. The applicant may then revise the plat or may request the proposed plat he filed with the planning commission provided he/she submits a letter requesting a variance as specified in section 35-4009.

(c) *Validation period.* Letters of certification shall remain valid for six (6) months from the date of issuance by the certifying department/agency. After that time period, new or updated letters of certification shall be required to file a proposed plat with the planning commission.
(Ord. No. 65513, § 2(f), 8-13-87; Ord. No. 68978, § 1, 3-9-89)

Sec. 35-4215. Filing date.

For the purpose of the time limits established by Vernon's Local Government Code, Section 212.009, no plat shall be deemed filed with the planning commission until the plat, performance agreement as applicable, tax certificates, letters of certification and, if applicable, a request for a variance as specified in section 35-4006 have been submitted to the planning commission as required by section 35-4211.
(Ord. No. 65513, § 2(fl, 8-13-87; Ord. No. 65853, Att. 4(4), 10-7-87)

Sec. 35-4216. Reviewing agencies.

In addition to the certifying departments/agencies, copies of the plat shall be distributed to the city tax office, planning department (land development services), Southwestern Bell Telephone, and Cable Television. Copies of the plat shall also be distributed to the following departments/agencies as appropriate: Aviation Department, Building Inspections Department (Historic Preservation), Parks and Recreation Department, San Antonio River Authority, San Antonio Development Agency, Bexar Metropolitan Water District, and Bexar County Public Works Department. Reviewing departments/agencies may request additional information as necessary from the plat applicant; however, they shall provide their comments back to the Planning Department as soon as possible, but no later than thirty (30) days after the filing date.
(Ord. No. 68978, § 1, 3-9-89; Ord. No. 72635, § 1 (Att. I), 11-15-90)

Sec. 35-4217. Plat approval.

(a) *Planning commission approval.* The planning commission shall act on a plat within thirty (30) days after the date the plat is filed. Within those thirty (30) days the commission may postpone such action if it finds that modifications to the plat are necessary in order to comply with this chapter. A plat is considered approved by the planning commission unless it is disapproved within the thirty (30) day period.

(b) *Administrative approval of minor plats.* The director of planning may approve minor plats which do not involve a variance request or a replat public hearing. The director may, for any reason, elect to present a minor plat to the planning commission for consideration. The director of planning shall not disapprove a minor plat and shall refer any plat which the director refuses to approve to the commission within thirty (30) days of the filing date.

(c) *Plat withdrawal.* Once filed with the planning commission, a plat may be withdrawn provided that a written notice of withdrawal stating the reasons for the request is submitted to the director of planning. The thirty (30) day time limitation shall cease on the date that the notice is received by the director; however, the director may elect to present a withdrawal request to the planning commission for consideration.

(d) *Approval expiration.* If a plat is not filed for record in the county deed and plat records within three (3) years from the date of plat approval or upon expiration of any time extension thereto, approval of such plat shall expire. Thereafter, should the applicant desire to record the plat, a new application shall be required in the same manner as for a previously unsubmitted plat. Prior to the three (3) year expiration date the application shall be required in the same manner as for a previously unsubmitted plat. Prior to the

(3) *Collector:* A street which provides some access to abutting property and collects traffic from local streets and connects with the major system of arterial streets and highways.

(4) *Cul-de-sac:* A street with a single common ingress and egress and with a turnaround at the end.

(5) *Dead end:* A street with a single common ingress and egress.

(6) *Elbow:* A turn in a minor street that includes extra pavement adequate for a turnaround.

(7) *Eyebrow:* A paved area placed along the linear portion of a street which allow both unimpeded through and turnaround traffic movements.

(8) *Intersection:* Where two (2) or more streets cross at grade.

(9) *Local:* A street designed to provide vehicular access to abutting property and to discourage through traffic.

(10) *Local "Type A":* A street used for primary and secondary access to single-family detached residential units or duplex residential units where such residential units comprise seventy-five (75) percent of the abutting street frontage on both sides of a particular block.

(11) *Local "Type B":* A street used for primary and secondary access to all residential areas except those specified to be served by a "Type A" local street. Also, this street shall be used for secondary access and circulation to community facilities (schools, parks, etc.), and other traffic generators such as commercial and industrial areas.

(12) *Marginal access:* The type of street which is used to provide direct access to abutting properties and protection from through traffic.

(13) *Private:* Any street not dedicated to the public and to be maintained by a private entity.

(14) *Stub:* A temporary portion of street not greater than one lot's length, allowed as a future connection to an adjacent subdivision or phase.

Structure: A combination of materials to form a construction for use, occupancy, or ornamentation whether installed on, above, or below the surface of land or water.

Subdivider: Any person, or their agent, having an interest in land that is the subject of an application for subdivision.

Subdivision: A division of any tract of land into two (2) or more parts for the purpose of laying out any subdivision of any tract of land or any addition to the city, or for laying out suburban, building, or other lots, or streets, alleys, or parks or other portions intended for public use, or the use of purchasers or owners of lots fronting thereon or adjacent thereto. A subdivision includes a resubdivision (replat).

Substantial improvement means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure either (1) before the improvement or repair is started or (2) if the structure has been damaged and is being restored, before the damage occurred.

Swale: A low lying or depressed stretch of land without a defined channel or tributaries.

Tavern: Any use in which the primary purpose is the sale of alcoholic beverages for on-premises consumption which may or may not include dancing.

Temporary common worker employer: A person or agency that provides common worker employees to a third party user, that maintains a central location where common workers assemble and are dispatched to work, and that is required to obtain a license from the Texas Department of Licensing and Regulation.

Tertiary containment: A method by which a third level of containment is provided for underground storage tanks by means of a wall or barrier installed around a double-walled tank and piping system (or approved alternative) in a manner designed to prevent a release of the regulated substance from migrating beyond the tertiary

DATE: 2-11-03

SIGN IN MASTER DEVELOPMENT PLAN MEETING
STEUBING RANCH

	NAME	ADDRESS/PHONE NO.
1.	Mark Sparrow	211 North Loop 1604 E Suite 130 San Antonio, TX. 78232 496-2668
2.	Bob Opitz	DSD 207-7581
3.	Christi Tanner	DSD 207-5026
4.	Tim Pruski	CONTINENTAL HOMES 496-2668
5.	Emil R. Moncivais	COSA Plan 207-7952
6.	MICHAEL HERRERA	COSA PLANNING 207-7038
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		
21.		
22.		
23.		

quate stormwater conveyance, increased aquifer recharge, water quality, habitat protection, and increased recreational opportunities.
(Ord. No. 86711, § 4, 9-25-97)

Secs. 35-2040—35-2050. Reserved.

Sec. 35-2051. Requirements for conformity with the master plan.

This section coordinates the various citations within the Unified Code of Development Regulations that refer to the master plan. It is anticipated that with additional reference to the city's master plan and requirements for conformity, the city will see a genuine effort toward implementation of the plan and its elements.

(a) Preliminary overall area development plans (POADP) shall conform to the master plan.

(b) Subdivisions shall conform to the master plan and the parts thereof.

(c) The zoning regulations and districts as established in this chapter have been made in accordance with a comprehensive plan.

(d) The zoning commission, in those instances wherein special approval of city council is required, shall consider each such proposed use and make its recommendations to the city council with reference thereto including its recommendation, among other things, as to proper location with respect to the master plan.
(Ord. No. 65513, § 2(f), 8-13-87)

Sec. 35-2052. Impact fees.

(a) Impact fees for water and sanitary sewer capital facilities are established in Article V in accordance with the requirements of V.T.C.A., Local Government Code Chapter 395 which relates to the financing of capital improvements required by new development in political subdivisions. Chapter 395 specifically sets forth the process which political subdivisions must follow in order to impose legally authorized impact fees as a means to fund the costs of capital improvements necessitated by and attributable to new development. The city has followed that process in adopting Article V of this code. Impact fees for capital improvements related to drainage may be implemented on a watershed specific basis in conjunction with city council adoption of individual watershed master drainage plans.

(b) It is the policy of the city to implement impact fees in a manner which is consistent with, and complementary to, other city policy objectives such as advancing economic development, encouraging contiguous growth, and increasing the availability of affordable housing as demonstrated through the creation of the Housing Trust Fund (Ordinance No. 67895) and the Housing Master Plan Task Force (Ordinance No. 70728). Article V provides for lower impact fee rates for the inner part of the city which is consistent with the affordable housing and contiguous development policy objectives. This article also permits the City Council to authorize payment from the city's sewer enterprise fund for part or all of an assessed impact fee for a given development (determined on a case-by-case basis) when it deems full collection of the impact fee would be contrary to established economic development policy objectives.
(Ord. No. 71729, § 1(Att. I, § 1), 6-14-90; Ord. No. 86711, § 5, 9-25-97)

Secs. 35-2053—35-2070. Reserved

DIVISION 2. PRELIMINARY OVERALL AREA DEVELOPMENT PLANS

Sec. 35-2071. Purpose.

The preliminary overall area development plan (POADP) is a mechanism which enables city and developer collaboration to enhance planning and timeliness of plat processing and review. The POADP is intended to be a flexible plan which is an overview of a subdivider's projected land development. In this context, the POADP will be used to determine if the proposed development is in compliance with current regulations and the city master plan, and to ensure adequate traffic circulation within the property to be developed as well as to and from adjoining properties. The POADP will also serve as a source of information for the city to be used in its planning activities.
(Ord. No. 65513, § 2(f), 8-13-87)

Michael Herrera

From: Richard De La Cruz
Sent: Thursday, February 27, 2003 3:34 PM
To: Michael Herrera
Subject: stuebing ranch unit 3

mike - bob approved on 2-25-03 (ice day).

TPLTM415 CERTIFICATIONS & REVIEWS SUMMARY 02/27/03

CMD: 12S PLAT: TART:00390 NAME/KEY: _____ AGENCY: PW____
==========
PLAT: 2002000390 NAME: STEUBING RANCH U-3
APPLICATION DATE: 7 31 2002 REVIEWS COMPLETED
START: 08 24 2002 DUE: 04 10 2003 DAYS LEFT:

AGENCY	CURRENT STATUS	DAY IN	DAY OUT	NOTES
PWTRF_	WRV	12 11 2002	12 26 2002	RETURNED TO ENGINEER_RLL_
PWTRF_	APR	1_ 21 2003	1_ 31 2003	OK RLL_____
TIA___	APR	2_ 25 2003	2_ 25 2003	OK AS PER RWO_

Richard L. De La Cruz, P.E.
Senior Engineer
Development Services Department
(210) 207-2855 (Office)
(210) 759-1215 (Pager)
rdelacruz@sanantonio.gov

A TCB INC. Company

W.F. CASTELLA & ASSOCIATES, INC.
Engineers • Surveyors • Planners

Our Reference #: _____

Date: 2/7/03

To: MIKE HERRERA At Fax #: 207 7891

From: LEE WRIGHT

Reference: STEUBING RANCH VPP

Number of pages to follow our NEC/NEFAX 3 EX facsimile machine:
Dial 1 - 210 - 734-5363 3

Unit 2 3 collect

IF YOU HAVE ANY PROBLEMS RECEIVING THIS TRANSMISSION,
Dial 1 - 210 - 734-5351

ADDITIONAL MESSAGE/INSTRUCTIONS:

MIKE,

ARE WE NOW ALLOWED TO CONTINUE WITH STEUBING RANCH DEVELOPMENT? PLEASE GIVE ME A CALL.

Thank You,

296 2139

CC: TIM PRUSKI

G:\WPWIN\DOC\WFC\FORM.FAX

Permit File #_____

Sworn to and subscribed before me by Habib H. Erkan, Jr. on this 17th day of January in the year 2003, to certify which witness my hand and seal of office.

EVELYN M. AGUILAR
Notary Public, State of Texas
My Commission Expires
April 28, 2005

Notary Public, State of Texas

City of San Antonio use

Permit File: #_____ **Date:**_____
Assigned by city staff

X **Approved** As of Aug 14, 1997 o **Disapproved**

Review By: _____ Date: Jan 30, 2003
Assistant City Attorney

Comments:_____

DATE: 9-26-02

SIGN IN MASTER DEVELOPMENT PLAN MEETING
STEUBINS ESTATES #539 (P.D.D.)

	NAME	ADDRESS/PHONE NO.
1.	HABIB ERKAN JR	Earl & Brown
2.	GEORGE PECK	W.F. CASTELLA
3.	Lee Wright	W.F. Castella
4.	ERNEST BROWN	CSA PLANNING
5.	Richard L. DeLa Cruz	DSD – TIA Reviews
6.	MICHAEL O. HERRERA	C.S.A. PLANNING.
7.	TODD SANG	C.O.S.A DSD / 207-7741
8.	Tim Pruski	CONTINENTAL HOMES.
9.	CHRIS M. MARTINEZ	CONTINENTAL HOMES
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		
21.		
22.		
23.		

A TCB INC. Company

W.F. CASTELLA & ASSOCIATES, INC.
Engineers • Surveyors • Planners

WFC Job No. 052247039.0001.000302808

To:
City of San Antonio
Planning Department

November 4, 2002

Attn:
Mike Herrera

Re: Stuebing Ranch Subdivision Unit 4, I.D. # 020410

Mr. Herrera,

On behalf of the Developer, Continental Homes of Texas L.P., we hereby state that Stuebing Ranch Subdivision Unit 4, I.D. # 020410 receives access by and through the street extension of Knollcreek being platted with Stuebing Ranch Subdivision Unit 3, I.D. # 020390, therefore it is agreed that Unit 3 must be recorded prior to Unit 4. Please grant approval to referenced Stuebing Ranch Subdivision Unit 4, I.D. # 020410 based on this agreement.

Your help is appreciated,

W.F. Castella & Associates

Lee Wright
Senior Engineering Technician

RECEIVED
02 NOV -5 PM 3:33
LAND DEVELOPMENT SERVICES DIVISION

CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING
02 NOV 12 PM 3:39

6800 Park Ten Blvd., Suite 180-S San Antonio, TX 78213 (210) 734-5351 FAX (210) 734-5363

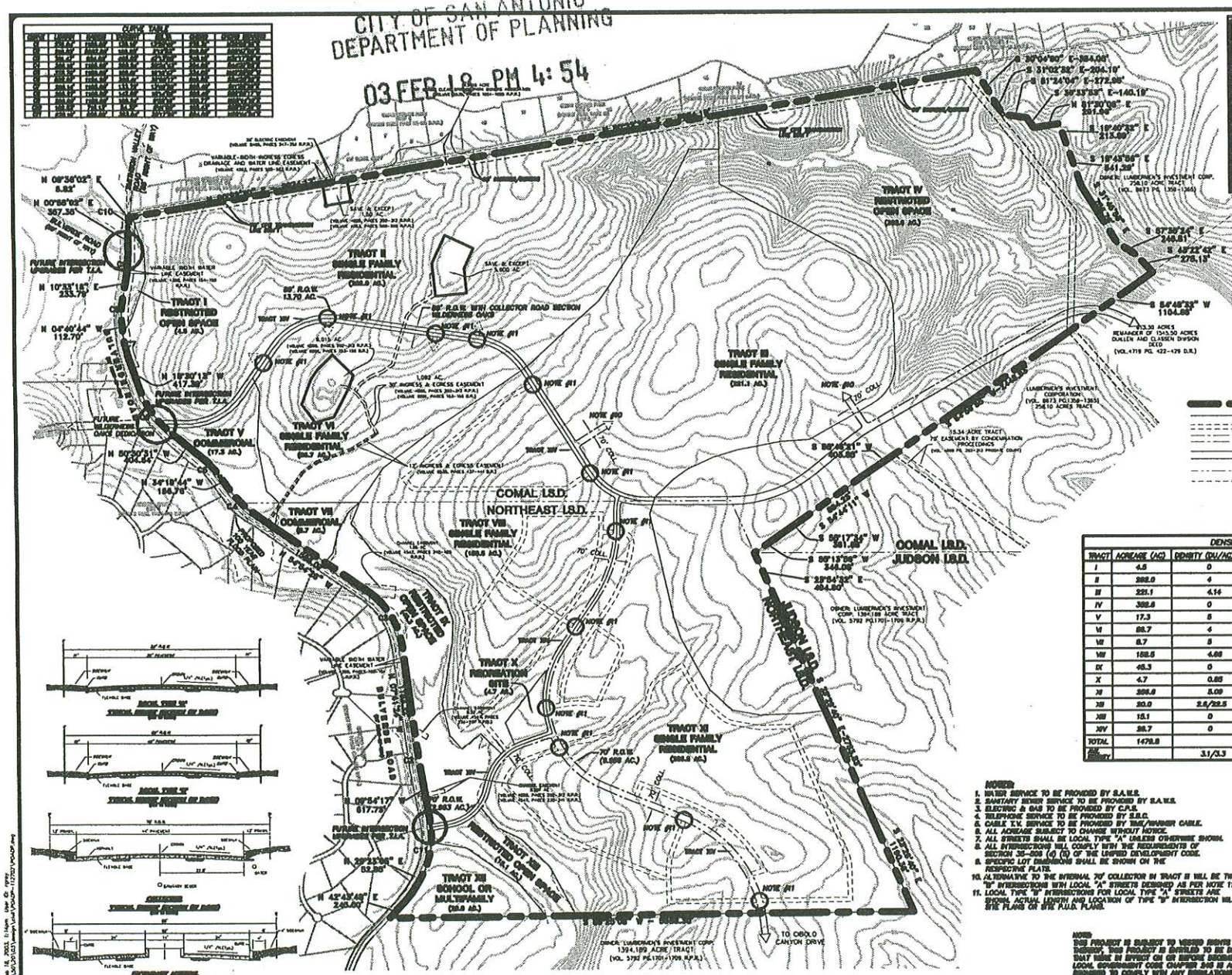
DATE: 2-11-03

SIGN IN MASTER DEVELOPMENT PLAN MEETING
STEUBING RANCH

	NAME	ADDRESS/PHONE NO.
1.	Mark Sparrow	211 North Loop 1604 E Suite 135 San Antonio, TX. 78232 496-2668
2.	Bob Ortiz	DSD 207-7581
3.	Christi Tanner	DSD 207-5026
4.	Tim Pruski	CONTINENTAL HOMES 496-2668
5.	Emil R. Moncivais	COSA Plan 207-7952
6.	MICHAEL HERRERA	COSA PLANNING 207-7938
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		
21.		
22.		
23.		

CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING

03 FEB 18 PM 4:54



DENSITY TABLE				
TRACT	ACREAGE (AC)	DENSITY (DU/AC)	TRACT UNITS	LAND USAGE
I	4.5	0	0	Restricted Open Space
II	388.0	4	1048	Single Family Residential
III	221.1	4.14	915	Single Family Residential
IV	388.8	0	0	Restricted Open Space
V	17.3	5	87	Commercial
VI	88.7	4	347	Single Family Residential
VII	8.7	5	43	Commercial
VIII	168.5	4.08	739	Single Family Residential
IX	48.3	0	0	Restricted Open Space
X	4.7	0.85	4	Recreation Center
XI	388.8	3.09	1309	Single Family Residential
XII	20.0	2.5/22.5	50/450	School/Multi-Family
XIII	15.1	0	0	Restricted Open Space
XIV	28.7	0	0	Roads
TOTAL	1479.8		4541/4539	
GROSS DENSITY		3.1/3.3		

NOTES:
1. WATER SERVICE TO BE PROVIDED BY S.A.W.S.
2. SANITARY SEWER SERVICE TO BE PROVIDED BY S.A.W.S.
3. ELECTRIC & GAS TO BE PROVIDED BY C.P.S.
4. TELEPHONE SERVICE TO BE PROVIDED BY S.B.C.
5. CABLE T.V. SERVICE TO BE PROVIDED BY TWC/BRIGHER CABLE.
6. ALL ACREAGE SUBJECT TO CHANGE WITHOUT NOTICE.
7. ALL STREETS SHALL BE LOCAL TYPE "A" UNLESS OTHERWISE SHOWN.
8. ALL INTERSECTIONS WILL COMPLY WITH THE REQUIREMENTS OF SECTION 35-506 (d) (3) OF THE UNIFIED DEVELOPMENT CODE.
9. SPECIFIC LOT DIMENSIONS SHALL BE SHOWN ON THE RESPECTIVE PLATS.
10. ALTERNATIVE TO THE INTERNAL 70' COLLECTOR IN TRACT II WILL BE TWO (2) LOCAL "B" INTERSECTIONS WITH LOCAL "A" STREETS DESIGNED AS PER NOTE 11.
11. LOCAL TYPE "B" INTERSECTIONS FOR LOCAL TYPE "A" STREETS ARE SHOWN. ACTUAL LENGTH AND LOCATION OF TYPE "B" INTERSECTION WILL BE DETERMINED WITH THE SITE PLANS OR SITE P.U.D. PLANS.

Developer: INDIAN SPRINGS, LTD.
Agent: LLOYD A. DENTON III.
11 LYNN BATES LANE, SUITE 200
SAN ANTONIO, TEXAS 78218
PHONE: 210-828-6131
FAX: 210-828-6317

NOTE:
THIS PROJECT IS SUBJECT TO VESTED RIGHTS PERMIT NO. 01-3-005. AS A CONSEQUENCE THEREOF, THIS PROJECT IS ENTITLED TO BE DEVELOPED UNDER THE DEVELOPMENT REGULATIONS THAT WERE IN EFFECT ON OR BEFORE DECEMBER 20, 1994. UNLESS AN EXCEPTION TO TEXAS LOCAL GOVERNMENT CODE CHAPTER 245 IS APPLICABLE, THIS DEVELOPMENT SHALL NOT BE REQUIRED TO COMPLY WITH ANY REGULATIONS, ORDINANCE, RULE OR POLICY OF THE CITY OF SAN ANTONIO THAT WAS ADOPTED AFTER DECEMBER 20, 1994.

PAPE-DAWSON ENGINEERS

INDIAN SPRINGS
PRELIMINARY OVERALL AREA DEVELOPMENT PLAN

JOB NO. 2002-01
DATE JULY 2002
DRAWN RG
CHECKED -
SHEET 1 OF 1

Recommended Guidelines for Subdivision Streets

A Recommended Practice

Institute of Transportation Engineers
525 School St., S.W., Suite 410
Washington, D.C. 20024-2729 USA

1.00 Traffic Considerations in Subdivision Planning and Layout

1.01 Objectives in Subdivision Planning

The primary objective of subdivision design is to provide maximum livability. This requires a safe and efficient access and circulation system, connecting homes, schools, playgrounds, shops, and other subdivision activities for people living there.

Transportation considerations in subdivision design may be classified in two general areas: (a) the actual layout of the streets and pedestrian systems as related to land use, and (b) the engineering dimensions for vehicular, pedestrian, and any bicycle facilities. But neither the street system nor the individual design element should be analyzed separately. They must both be considered in order to design a safe and efficient transportation system.

1.02 Application

There are four broad functional classifications of streets within urban areas, as reviewed below:

Local streets represent the lowest category. Their primary function is to serve abutting land use. Typical residential Average Daily Traffic (ADT) ranges from 100 to 1,500, with A.M. peak-hour traffic about 7 to 8 percent and P.M. peak-hour traffic about 10 percent of ADT.[15]

Collector streets have the primary purpose of intercepting traffic from intersecting local streets and handling this movement to the nearest major streets. A secondary function is service to abutting land use. Collector streets also may carry bus lines within a residential subdivision. ADTs are typically 1,500 to 3,500 in residential areas, with similar proportions of peak-hour traffic as for the local streets.

Major streets have the primary purpose of carrying through traffic and the secondary purpose of providing access to abutting property. ADTs are typically in excess of 3,500.

Limited access roads have the sole purpose of carrying through traffic and provide no direct access to abutting properties.

The ranges in ADT may, of course, overlap, and the above figures are not intended as design criteria.

These guidelines are limited to design characteristics of local and collector type streets in *residential* subdivisions. The street needs to service other types of denser uses, such as retail, office, or industrial, vary widely in operational requirements. Their design should be based upon detailed traffic analysis, which more closely approximates design procedures for major streets except for lower speeds and strong emphasis on access to abutting properties.

Special subdivisions exist for which these guidelines may only partially apply. These include mobile home parks, recreational developments, airplane landing runway or waterway-oriented developments, and cluster housing. By their nature, such subdivisions do not necessarily fit into the planning framework of the customary residential areas. The need for special design criteria, on a case-by-case basis, is recognized in most jurisdictions by the planned unit development concept.

1.03 Principles of Systems Layout

Basic principles exist that should be recognized and used in designing circulation and access systems in new residential subdivisions of conventional layout. These principles concern the design of entire street systems rather than individual elements of the system, and so express concepts rather than specific dimensions. In applying them, however, specific guidelines for pavement widths, intersection design, and related design features are desirable.

The design of local transportation systems must recognize the factors of: (a) *safety*—for both vehicular and pedestrian traffic, (b) *efficiency of service*—for all users, (c) *livability or amenities*—especially as affected by traffic elements in the circulation system, and (d) *economy*—of land use, construction, and maintenance, again as affected by or related to the circulation system.

Each of the following principles is an elaboration on one or more of these four factors. These principles are not intended as absolute criteria, since instances may occur where certain principles conflict. The principles should, therefore, be used as concepts for proper systems layout, as illustrated in Figure 1.

1. *Adequate Vehicular and Pedestrian Access Should Be Provided to All Parcels.*

   The primary function of local streets is service to abutting properties. Street widths, placement of sidewalks, pattern of streets, and number of intersections are related

NORTHEAST ISD
KNOLLCREEK
ELEMENTARY SCHOOL

RECEIVED
JAN 31 2003
ENGINEERING

Level 2
Traffic Impact Analysis

STATE OF TEXAS
GILMER D. GASTON
80472
REGISTERED
PROFESSIONAL ENGINEER
1/6/03

January 2003

PAPE-DAWSON ENGINEERS, INC.

EXECUTIVE SUMMARY

Pape-Dawson Engineers, Inc., (PD) was retained by North East Independent School District to prepare a Traffic Impact Analysis for the development of a middle and elementary school in northern Bexar County, Texas. The new school's are located on the southwest corner of Judson Road and the proposed extension of Knollcreek (Ferguson MAPSCO® Map 519, Grid A4). Judson Road provides regional and direct access to the site. The study area encompasses intersections located within the study area. The key intersection within this boundary was identified as:

1) Knollcreek and Judson Rd.

The proposed development plan includes the construction of a middle and elementary school. The proposed site is located within San Antonio City Limits on property in Bexar County and consists of parcels that are zoned R5 and C2. Residential single family lots zoned R5 are characterized as medium-to high-density single family residential uses. Commercial Districts, zoned C2, are characterized as general commercial activities designed to serve the community such as repair shops, wholesale businesses, warehousing and limited retail sales. In addition, a residential neighborhood is proposed on the north and south side of Knollcreek Road adjacent to and across from the elementary school.

The purpose of this analysis is to fulfill the requirements of City of San Antonio in assessing the project's impact on the adjacent street network with specific evaluation of the intersection noted above. To meet these requirements, analyses scenarios of the proposed development included the analysis of existing conditions and build-out 2005 site traffic impacts.

The Elementary School is scheduled to open in 2004 with a projected enrollment of 600. A maximum capacity of 950 is expected to be reached by 2011. The Middle School is scheduled to open in 2005 with a projected enrollment of 1,100. A maximum capacity of 1,300 students is expected to be reached by 2011. Distribution of site traffic to the roadway network was based on existing traffic volumes, the layout of the existing roadway network, proposed attendance boundaries, and location of the project driveways.

To determine the traffic impact of the proposed development, the projected traffic conditions were analyzed. Based on these traffic conditions, the following recommendations are presented.

The following items may require some form of participation by the project developer.

- Location of the Knollcreek intersection and Judson Road should consider the existing vertical profile of Judson Road. If the intersection is left unsignalized then a minimum intersection sight distance of 385 feet north and 500 feet south of Knollcreek should be provided.
- Each driveway should include one inbound lane and two outbound lanes (one for left turns and one for right turns).

- The median opening should use the bullet nose design as described on page 701 of 2001 AASHTO Policy on Geometric Design of Highways and Streets (ASSHTO Greenbook). The small radius of the median should be 2 feet and the large radius should be 75 feet to accommodate school buses. For an assumed median width of 14 feet the minimum length of the median opening should be 96 feet.
- Elementary school may need additional space to accommodate special events for up to 300 vehicles or approximately 33% of the school attendance. All of the parking area would not necessarily need to be marked, as parking for special events often uses all available parking space, marked or not.
- Installation of a traffic signal at the intersection of Judson Road and Knollcreek.
- Recommend a left turn storage length of 230 feet for eastbound Knollcreek at Judson Road and 200 feet for northbound Judson Road at Knollcreek.
- Consideration of a traffic signal at the intersection of Knollcreek with Elementary School Driveway #1 and the new neighborhood access point to improve traffic flow in and out of the sites and to improve the safety of pedestrians and school children crossing the roadway
- Parent drop-off/pick-up area should be designed to maximize the curb space for curb side drop off. NEISD should plan to actively manage drop-off/pick-up areas to maximize vehicle efficiency.
- Driveway 2 and assumed Driveway 4 are likely to produce stacking along Knollcreek. NEISD should consider the use of "traffic supervisor(s)" or uniformed officer(s) to provide traffic control to direct drivers during peak periods.
- Consideration of a traffic signal at the intersection of Judson Road and Mountain Vista Drive and middle school Driveway 5 to improve traffic flow onto Judson Road.
- Incorporate traffic control improvements such as signing and pavement markings into the site plan that conform to the *Texas Manual on Uniform Traffic Control Devices* for consistent uniform traffic control.
- Provide right turn deceleration lane on southbound Judson Road at Knollcreek.
- Construct median left turn lanes along Knollcreek at each school driveway to facilitate the safe and efficient flow of traffic. Taper design should be accordance with the AASHTO Greenbook.
- NEISD should operate the elementary and middle with hours that offset the peak times between the two schools. Using existing school start and stop times, it is recommended that elementary school hours be from 7:35 am to 2:35 pm and middle school hours be from 8:30 am to 3:30 pm.

TABLE OF CONTENTS

DESCRIPTION **PAGE**

Introduction **1**

Purpose 1

Study Procedure 1

Data Collection 2

Area Conditions **3**

Transportation Network Study Area 3

Study Area – Adjacent Land Use 7

Projected Traffic **8**

Trip Generation 8

Trip Distribution **10**

Traffic Analysis **28**

Site Access 28

Capacity Analyses 29

Existing Conditions 32

Evaluation of Traffic Impacts 32

Key Intersection Capacity Analysis 32

Site Driveway Capacity Analysis 32

Traffic Signal Warrant Analyses 34

Recommendations **34**

APPENDICES

A City of San Antonio TIA Threshold Worksheet

B Traffic Count Data and Trip Generation

C School Boundary and Intersection Photographs

D Capacity Analyses

E Traffic Signal Warrant Study

F ADT Calculation Worksheets

LIST OF FIGURES

PAGE

Figure 1 Project Location 5
Figure 2 Existing Traffic Volumes 6
Figure 3 Global Trip Distribution 11
Figure 4 Entering Elementary School Trip Distribution 12
Figure 5 Entering Elementary School Traffic Volumes 13
Figure 6 Exiting Elementary School Trip Distribution 14
Figure 7 Exiting Elementary School Traffic Volumes 15
Figure 8 Entering Subdivision Trip Distribution 16
Figure 9 Entering Subdivision Traffic Volumes 17
Figure 10 Exiting Subdivision Trip Distribution 18
Figure 11 Exiting Subdivision Traffic Volumes 19
Figure 12 Elementary School Total Traffic Volumes (2005) 20
Figure 13 Middle School Entering Trip Distribution Total (2005) 21
Figure 14 Middle School Entering Traffic Volumes (2005) 22
Figure 15 Middle School Exiting Trip Distribution (2005) 23
Figure 16 Middle School Exiting Traffic Volumes (2005) 24
Figure 17 Entering Subdivision Traffic Volumes (2005) 25
Figure 18 Exiting Subdivision Traffic Volumes (2005) 26
Figure 19 Middle School Total Traffic Volumes (2005) 27

LIST OF TABLES

PAGE

Table 1 Proposed Land Use Summary 7

Table 2 Trip Generation Rates for Proposed Development 9

Table 3 Site Traffic for Proposed Development 9

Table 4 Driveway Throat Length vs. Queue Length 28

Table 5 Left Turn Storage Length 29

Table 6 HCM Level of Service at Unsignalized Intersections 30

Table 7 HCM Level of Service at Signalized Intersections 31

Table 8 Key Intersection Capacity Analysis Build-out (2005) 33

INTRODUCTION

Pape-Dawson Engineers, Inc., (PD) was retained by North East Independent School District (NEISD), to prepare a Traffic Impact Analysis for the development of an elementary and middle School in northern Bexar County, Texas. In addition, a new residential subdivision will be developed adjacent to and across from the new schools. The proposed schools are located at the southwest corner of Judson Road and Knollcreek (Ferguson MAPSCO® Map 519, Grid A4). See **Figures 1** and **2** for project location and site plan. The proposed residential development is primarily located north of Knollcreek and extends west to O'Connor. A smaller portion of the new subdivision is located south of Knollcreek, adjacent to the elementary school property. The proposed site is located within San Antonio City Limits in Bexar County. The elementary and middle school development are projected to be completed in 2004 and 2005 respectively.

Judson Road provides regional and direct access to the site. The study area encompasses intersections located within the study area. The future key intersection within this boundary was identified as:

1) Knollcreek and Judson Road

The proposed site consists of parcels zoned R5 and C2. Residential single family lots zoned R5 are characterized as medium-to high-density single family residential uses. Commercial Districts, zoned C2, are characterized as general commercial activities designed to serve the community such as repair shops, wholesale businesses, warehousing and limited retail sales.

PURPOSE

This study was conducted to assess the transportation impacts of the proposed development on the area thoroughfare network and to review site access and circulation, required by Sections 19-82 and 19-84 of the Code of Ordinances of the City of San Antonio. The format of this study follows the requirements listed in Section 19-83 of the Code of Ordinances. A copy of the City of San Antonio Traffic Impact Analysis Threshold Worksheet is provided in **Appendix A**. Purposes for traffic impact assessments are (1) to address and evaluate the project's impact on the adjacent street network, and (2) to mitigate any negative impacts of site-generated traffic on the adjacent street network.

STUDY PROCEDURE

The following information provides a summary of the field data, engineering analyses, conclusions, and recommendations related to this traffic impact assessment. This methodology is based on the analyses of the existing and projected site-generated traffic on area roadways. The following tasks were completed during the study:

- Analysis parameters were determined through discussions with the City of San Antonio staff.
- A field investigation of the roadways within the vicinity of the site was completed.

- Existing 24-hour turning movement counts were gathered in the field on May 24, 2001 and December 3, 2002.
- Using Trip Generation, Version 4, by Microtrans™, the projected number of trips to be generated by the elementary and middle school, and neighborhood developments were estimated for both the AM and PM peak hours. Trip Generation, Version 4, by Microtrans™, automates the use of the tabular information in the 6th Edition of *Trip Generation* produced by the Institute of Transportation Engineers. The projected number of elementary school trips were estimated using data collected from a Traffic Study for the Patricia J. Blattman Elementary School in the Northside School District in January 2002. The data from this study were also used to estimate the middle school trips,
- Trip distribution was estimated on the basis of existing and anticipated traffic patterns and the Thoroughfare Plan maintained by the City of San Antonio.
- A global trip distribution was developed based upon school boundaries. Separate distributions were developed for the elementary school and middle school based on the projected attendance boundaries.
- Entering and exiting site traffic was assigned to the site driveways and local street network using the trip distribution.
- A rough trip assignment for the Stuebing Ranch residential development was also developed for projecting traffic from the subdivision.
- Non-site (background) traffic volumes were estimated for the design year 2005. The total traffic volumes were developed by combining the estimated site-generated volumes with the projected non-site volumes.
- Capacity analyses of the studied intersection and driveways were performed for the design year 2005 when the Elementary and Middle School have been completed. For this report it is assumed that the residential subdivision is complete.
- Comparison of the capacity analyses resulted in conclusions regarding the transportation needs and impact of the development.
- Potential mitigation measures were identified and analyzed for effectiveness.
- Recommendations were prepared to enhance site circulation and mitigate negative impacts where necessary.

DATA COLLECTION

To evaluate the impact of site-generated traffic on the roadway network, it was first necessary to determine existing conditions of the study area. Traffic volume data along Judson Road was collected on May 24, 2001. Turning movement data was collected at the intersection of Judson Road and Mountain Vista Road on December 3, 2002. Traffic data are presented in **Appendix B**.

AREA CONDITIONS

The location of the elementary and middle school, and residential development is shown on **Figure 1**. The school site is located west off of Judson Rd. and south of Knollcreek Road. The residential development is located north and south of Knollcreek. The proposed developments are located within an area with very light commercial and heavy residential land uses. Traffic traveling to and from the site will use Judson Road and O'Connor Road for regional access. The study area encompasses the following key intersection:

1) Judson road and Knollcreek

TRANSPORTATION NETWORK STUDY AREA

Brief descriptions of the existing roadways that were evaluated in this study are included in the following paragraphs. The existing roadways that were evaluated in this study are (1) Judson Road. Intersection photographs and school boundary layouts are presented in **Appendix C**.

Area Roadway System

Judson Road

Judson Road is a five-lane divided Secondary Type A Arterial. The posted speed limit is 40 miles per hour in both directions between Loop 1604 and Stahl Road. The average daily traffic volume for this roadway is approximately 9,450 vehicles per day as measured in this study. The next major intersections along Judson Rd. are approximately 4,500 feet to the south at Stahl Road and approximately 1,570 feet to the north at Loop 1604.

Knollcreek

Knollcreek is new 4-lane divided Secondary Arterial Type A thoroughfare connecting Judson Road and O'Connor. The anticipated speed limit is 40 miles per hour.

Proposed Driveways

As indicated on the site plan for the proposed development, the elementary school will have two driveways located on Knollcreek (Driveway 1 & 2). The middle school will have two of the site driveways located on Knollcreek (Driveway 3 & 4) and one driveway located on Judson Road (Driveway 5). The proposed east driveway located on Judson is directly across from Mountain Vista Drive (Vista Subdivision). Driveway 1 is located directly across from the new subdivision, Stuebing Ranch, south access point and primarily serves school bus traffic and faculty parking. Driveway 2 primarily serves parent drop off traffic and administration and visitor parking. The Middle School site plan is still under development. Based on a comparable footprint Driveway 3 is expected to serve school bus and faculty parking. Driveway 4 is expected to serve parent drop-off and administration and visitor parking. Driveway 5 could provide access for school buses, faculty, and/or parent drop-off.

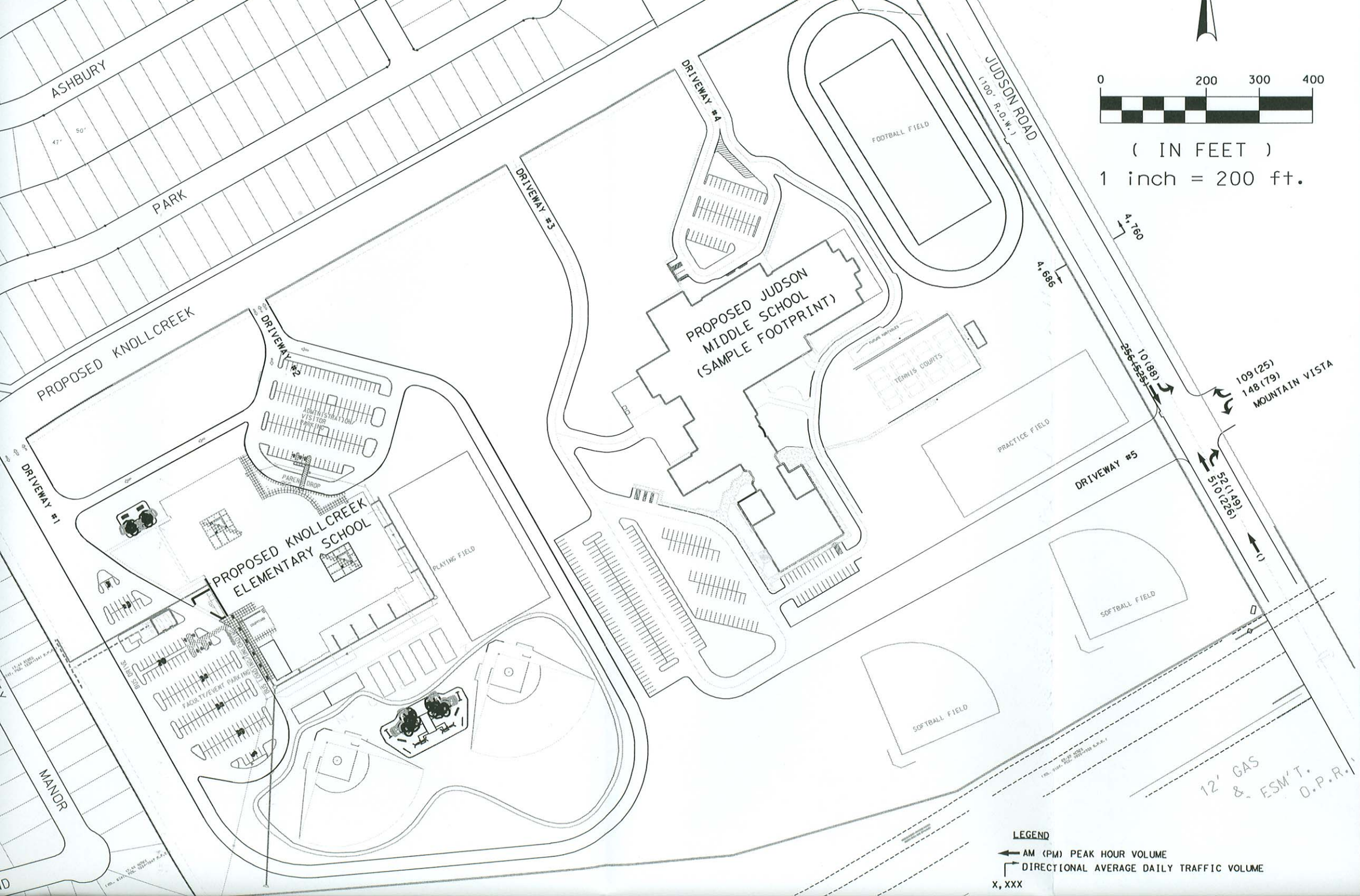
Existing Traffic Volumes and Conditions

Traffic flow along Judson Road is relatively moderate. Turning movement count and volume data are summarized in **Figure 2**. The AM peak hour generally occurs between 7:30 and 8:30 AM and the PM peak hour generally occurs between 4:45 and 5:45 PM. Actual field data are presented in **Appendix B**.

KNOLLCREEK
FIGURE 1 PROJECT LOCATION

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

REVISIONS:



PAPE-DAWSON ENGINEERS

555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

KNOLLCREEK

FIGURE 2 EXISTING TRAFFIC VOLUMES

JOB NO. 5145-04

DATE 01/02/03

DESIGNER R. I.

CHECKED R. I. DRAWN EHA

Area of Significant Traffic Impact

Due to the traffic volume generation initially projected by the development, a Level 2 Traffic Impact Analysis was required. A City of San Antonio Traffic Impact Analysis (TIA) Threshold Worksheet for the proposed development is presented in **Appendix A**. A Level 2 Traffic Impact Analysis (TIA) is required when a proposed development generates over five hundred (500) peak hour trips (PHT). **Figure 1** illustrates both the project site and the existing usage of the adjacent land. The following key intersection was identified for evaluation:

1) Judson Road and Knollcreek

STUDY AREA – ADJACENT LAND USE

Existing Land Uses

Currently the proposed development is located on undeveloped land.

Proposed Land Uses

The proposed land uses, for this area are as follows:

1) Single Family Detached Housing (ITE Code 210)
2) Elementary School (ITE Code 520)
3) Middle School/Junior High School (ITE Code 522)

The new school boundaries for the elementary and middle schools are shown in Appendix C. The proposed land uses and size for this development are summarized in **Table 1** below.

Table 1
Proposed Land Use Summary

Land Use	ITE Code	Size	Units
Single Family Detached Housing	210	1,012	DU's*
Elementary School	520	800	Students
Middle School/Junior High School	522	1,250	Students

* D.U. - Dwelling Unit

PROJECTED TRAFFIC

TRIP GENERATION

The amount of site traffic generated by the proposed development is a function of the density and type of land use. The vehicle trips generated by the proposed development were estimated using the Trip Generation Software (T-GEN) distributed by Microtrans™. This software automates the use of trip generation tables produced by the Institute of Transportation Engineers and is considered an industry standard. The type of development (defined land use) and the corresponding development area are used to estimate the number of trips generated by the development. In particular, it is important to determine the number of entering and exiting trips during the peak hours of traffic on roadways adjacent to the site.

The trips generated during the peak hours for the site are important because these are the periods of greatest roadway congestion during the average day. By predicting the peak hour trips generated by the development, the adjacent roadway and intersection volumes after the development is completed may then be estimated. The AM and PM peak hour for Judson Road as determined by traffic counts performed were 7:00-8:00 AM and 5:00 – 6:00 PM, respectively. Elementary school start time is anticipated to be 7:30. The AM and PM peak hour for the elementary school based on a 7:30 start time and data collected from a previous elementary school Traffic Study are 7:00-8:00 AM and 2:00 – 3:00 PM, respectively. Middle school start time is anticipated to be 8:30.The AM and PM peak hour for the middle school is estimated to be 8:00-9:00 AM and 3:00 – 4:00 PM, respectively.

Microtrans™ trip generation data can be found in **Appendix B**. Resulting trip generation rates are summarized in **Table 2**. Elementary school rates are taken from the Patricia J. Blattman elementary school traffic study.

Based upon a comparison of the trip generation rates presented in ITE's *Trip Generation* the hourly and daily trip generation rates for Middle Schools are typically higher than the trip generation rates for Elementary Schools. For the proposed Middle School, we are using trip generation rates developed from data collected at two San Antonio area Elementary Schools. The resulting trip generation rate is much higher both on an hourly basis and a daily basis than the rates presented in *Trip Generation*. Rather than assume an increase in the Middle School trip generation as would be indicated by comparison of the ITE rates, we are assuming that the Middle School trip generation rate is equivalent to the Elementary School rate. The only way to determine if San Antonio Middle Schools would have a higher or lower rate than what has been assumed would be to gather traffic count data at several existing middle schools for comparison. We believe that our assumptions regarding middle school trip generation is justifiable under the existing conditions.

Single family detached housing rates for the elementary and middle school afternoon peak hours were determined from existing traffic count data along Judson Road. The weekday daily rate per vehicle was used to find the daily vehicle count and based on the hourly traffic distribution on Judson Road an hourly vehicle count was calculated. The calculations are summarized in Appendix F.

Table 2
Trip Generation Rates for Proposed Development

Land Use (ITE Code)	Unit	Weekday AM Peak Rate per Unit	Weekday AM Peak In/Out Split	Weekday PM Rate per Unit	Weekday PM In/Out Split	Weekday Daily Rate per Unit	Weekday Daily In/Out Split
Single Family Detached Housing(210)	DU's*	.75	25/75	1.01[1] .64[2] .48[3]	64/36 50/50 50/50	9.57	50/50
Elementary School (520)**	Student	.89	56/44	.44[3]	43/57	2.34	50/50
Middle/Junior High School (522)**	Student	.89	57/43	.44[2]	51/49	2.34	50/50

* D.U. – Dwelling Unit
** Based on trip generation data gathered from Patricia J. Blattman Elementary School traffic study.
1 – 4-6 PM (per ITE)
2 – 3-4 PM projected rate
3 – 2-4 PM projected rate

Based upon the trip generation rates from **Table 2**, the projected site traffic was calculated. **Table 3** shows the raw trips for the proposed development. 883 dwelling units were estimated for the northern portion of the neighborhood and 129 dwelling units were estimated for the southern portion. The northern portion of the neighborhood has an access point at O'Connor Road. For this report 50% of the traffic used this access point and the other 50% accessed Knollcreek.

Table 3
Site Traffic for Proposed Development

Land Use	ITE Code	Size	AM Peak Hour Enter	AM Peak Hour Exit	PM Peak Hour Enter	PM Peak Hour Exit	Daily Totals
Single Family Detached Housing	210	1012 DU's	193	566	658[1] 324[2] 243[3]	364[1] 324[2] 243[3]	9,685
Elementary School	520	800 Students	400	312	152[3]	200[3]	1,872
Middle School	522	1250 Students	634	478	280[2]	270[2]	2,925

* D.U. – Dwelling Unit
1 – 4-6 PM
2 – 3-4 PM
3 – 2-4 PM

TRIP DISTRIBUTION

The cardinal compass directions from which drivers are expected to approach and depart the sites are based on several variables. These include the configuration and characteristics of the local street network, the distribution of population within the region, and school boundaries. Expected global trip distribution for the proposed subdivisions, elementary, and middle school developments are presented in **Figure 3**. This trip distribution is based upon the existing traffic patterns within the study area, engineering judgment, and projected attendance boundaries. The proposed attendance boundaries are illustrated in Appendix C.

Site Traffic Assignment

Using the global trip distribution identified in **Figure 3** in conjunction with the roadway system that is assumed to be in place upon the completion of the development, detailed trip distributions were prepared for entering and exiting traffic. These detailed distributions are presented in **Figures 4** and **6** for elementary school traffic, **Figures 8** and **10** for subdivision traffic, and **Figures 13** and **15** for middle school traffic. The projected site traffic presented in **Table 3** was assigned to the local roadway network for the AM and PM peak periods using the detailed trip distributions presented in **Figures 4, 6, 8, 10, 13** and **15**.

Projected Traffic

Projected non-site traffic volumes for 2005 are presented **Appendix G**. The combined site plus non-site traffic volumes at completion in 2005 are illustrated on **Figures 12** and **19**. Total volumes were shown on different figures because of the difference in peak times between the elementary and middle school traffic. Exiting subdivision traffic was also adjusted to determine traffic volumes during the afternoon dismissal times. The traffic count data along Judson road was used to determine an hourly percent distribution. This was used to estimate the subdivision exiting traffic during the 2 – 3 pm and 3 – 4 pm times.

	ENTER	EXIT
ELEMENTARY	35% (35%)	25% (35%)
MIDDLE	15% (10%)	2% (15%)
NEIGHBORHOOD	77% (28%)	77% (78%)

	ENTER	EXIT
ELEMENTARY	5% (5%)	5% (5%)
MIDDLE	5% (2%)	2% (5%)
NEIGHBORHOOD	23% (22%)	23% (22%)

	ENTER	EXIT
ELEMENTARY	5% (5%)	5% (5%)
MIDDLE	30% (25%)	12% (30%)
NEIGHBORHOOD	10% (11%)	12% (14%)

	ENTER	EXIT
ELEMENTARY	5% (5%)	45% (25%)
MIDDLE	2% (33%)	60% (12%)
NEIGHBORHOOD	28% (64%)	64% (33%)

	ENTER	EXIT
ELEMENTARY	25% (20%)	10% (15%)
MIDDLE	15% (10%)	5% (7%)
NEIGHBORHOOD	-	-

	ENTER	EXIT
ELEMENTARY	25% (20%)	10% (15%)
MIDDLE	25% (20%)	16% (31%)
NEIGHBORHOOD	62% (25%)	24% (53%)

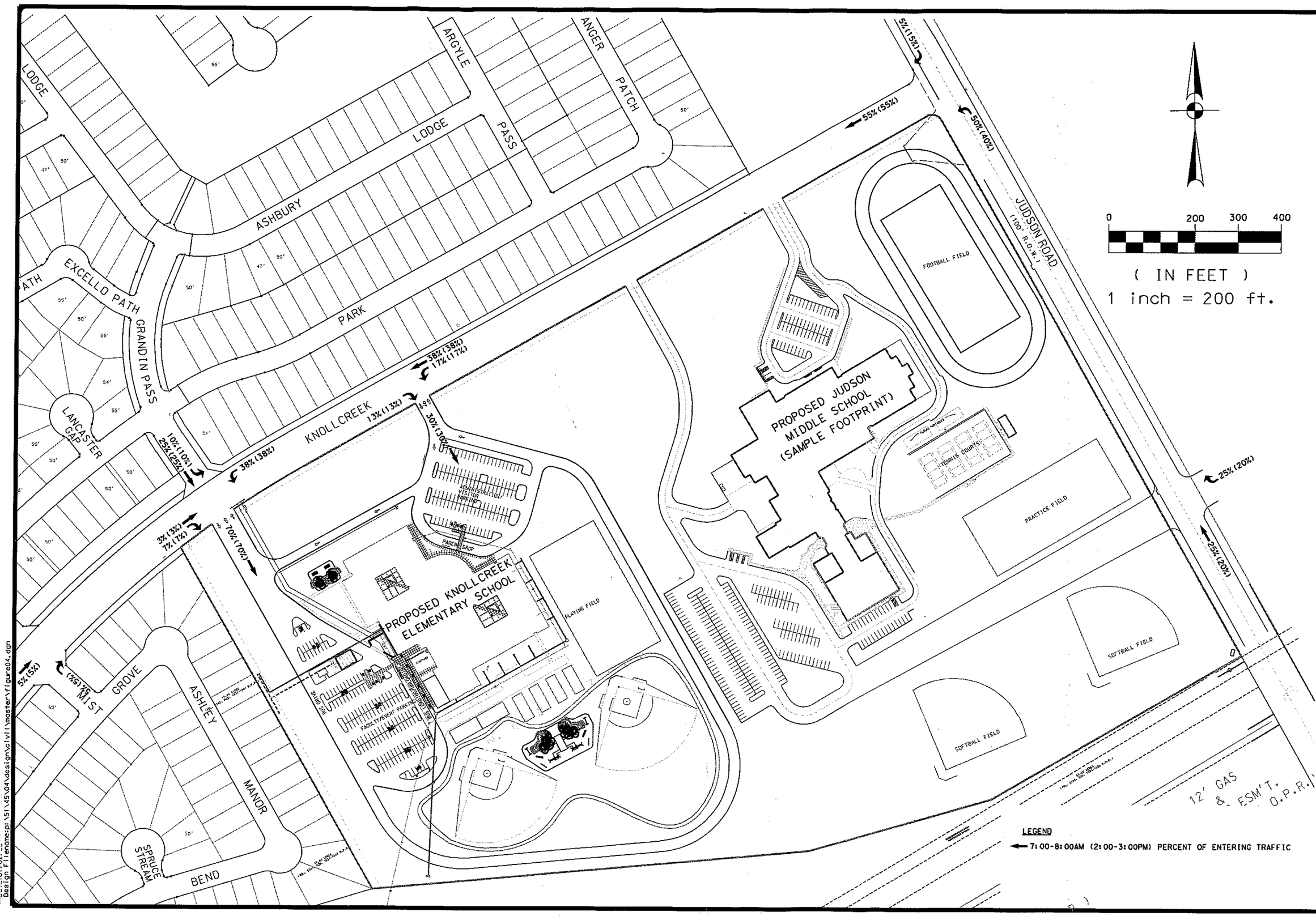
REVISIONS:

PAPE-DAWSON ENGINEERS

555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

KNOLLCREEK

FIGURE 3 GLOBAL DISTRIBUTION



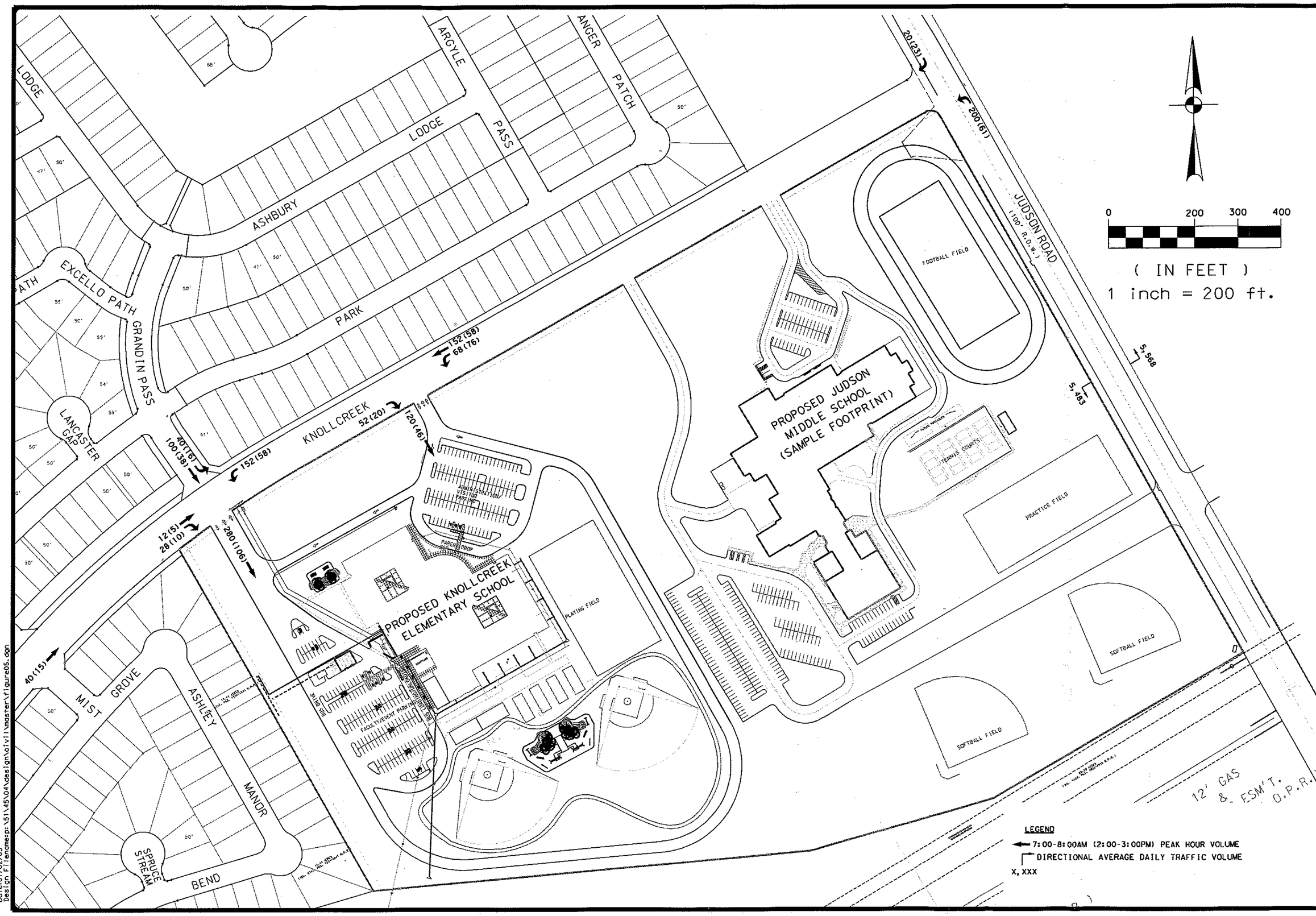
REVISIONS:

PAPE-DAWSON ENGINEERS
555 EAST RANSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

KNOLLCREEK
FIGURE 4 ENTERING ELEMENTARY SCHOOL TRIP DISTRIBUTION

JOB NO. 5145-04
DATE 01/02/03
DESIGNER R.I.
CHECKED R.I. DRAWN EHA
SHEET 4 OF 19

01/02
Design Filename:p:\51\45\04\design\civil\master\figure04.dgn



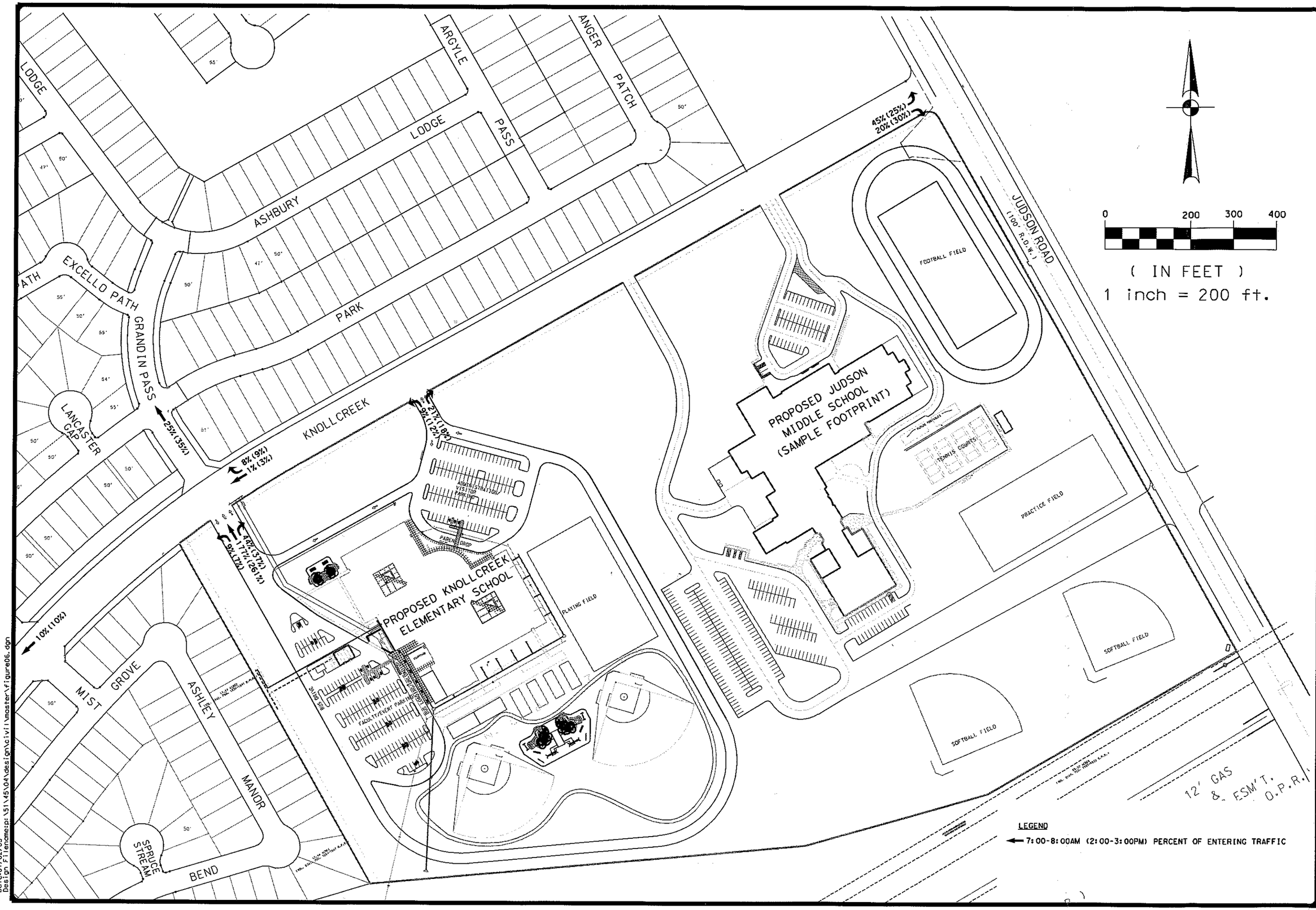
REVISIONS:

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

KNOLLCREEK
FIGURE 5 ENTERING ELEMENTARY SCHOOL TRAFFIC VOLUMES

JOB NO. 5145-04
DATE 01/02/03
DESIGNER R.I.
CHECKED R.I. DRAWN ENA
SHEET 5 OF 19

Date:01/02/03
Design Filename:p:\51\45\04\design\otvl1\master\figure05.dgn



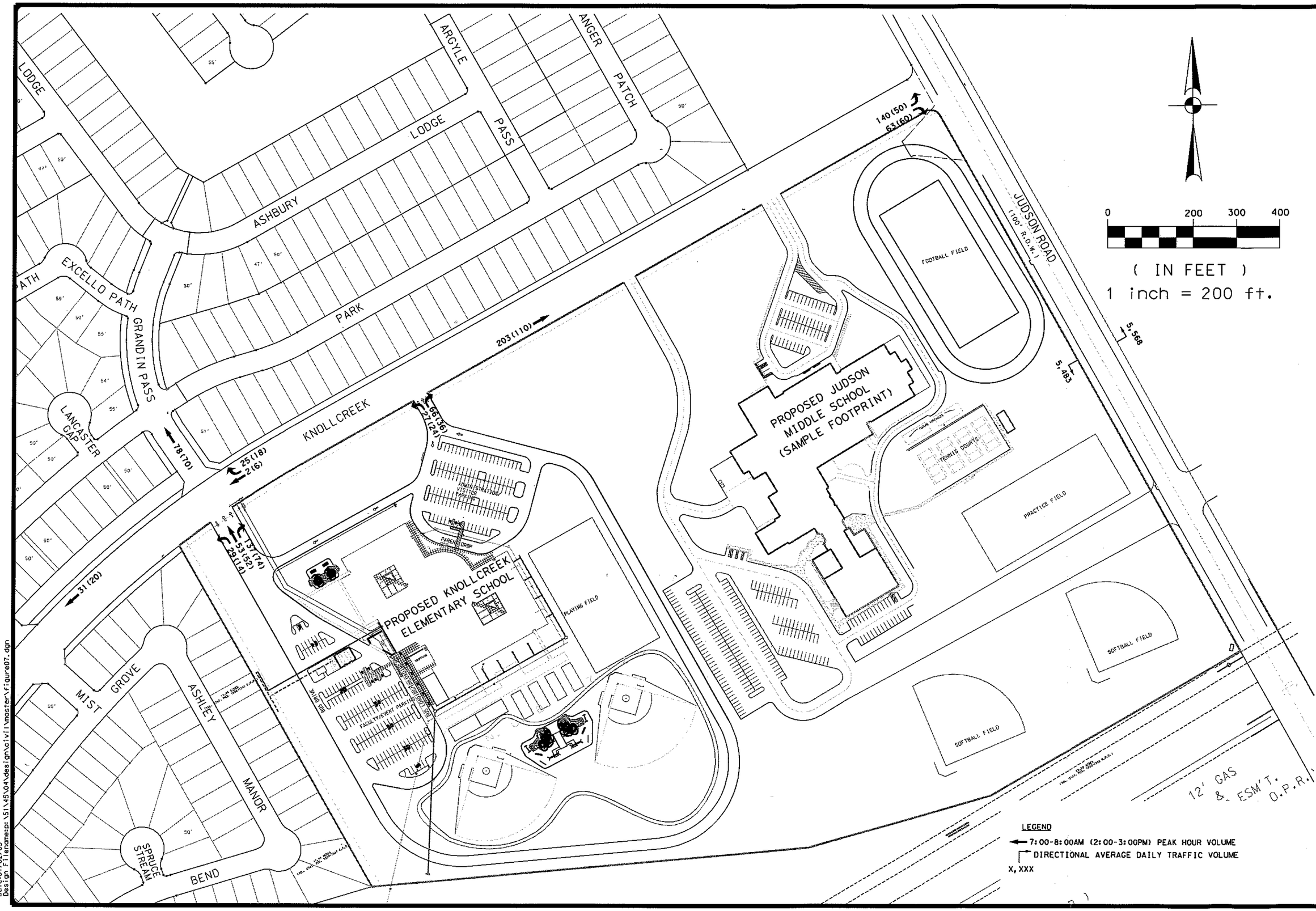
REVISIONS:

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

KNOLLCREEK
FIGURE 6 EXITING ELEMENTARY SCHOOL TRIP DISTRIBUTION

JOB NO. 5145-04
DATE 01/02/03
DESIGNER R.I.
CHECKED R.I. DRAWN EHA
SHEET 6 OF 19

Date:01/02/03
Design Filename:p:\5145\04\design\civil\master\figure06.dgn



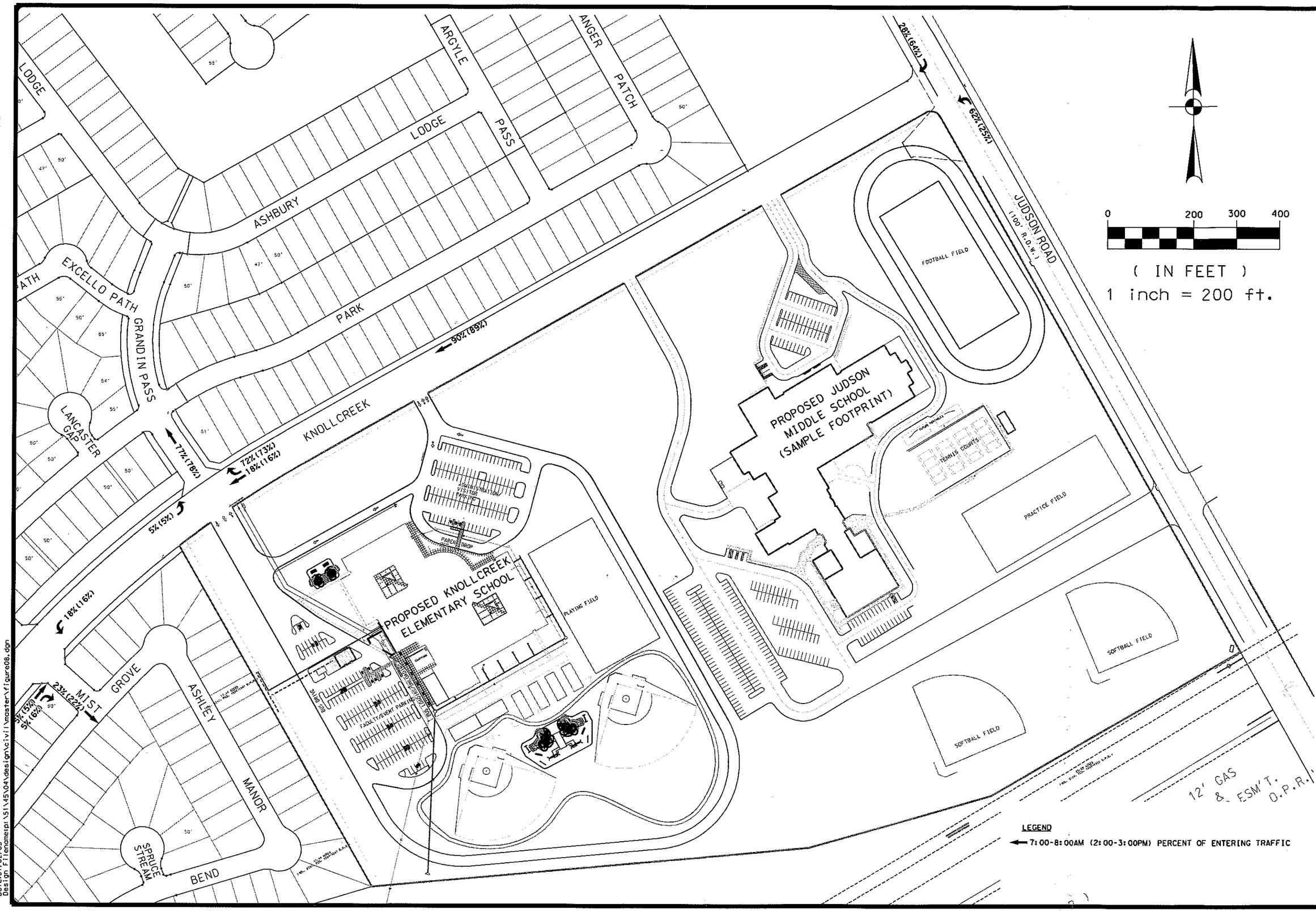
REVISIONS:

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.8050

KNOLLCREEK
FIGURE 7 EXITING ELEMENTARY SCHOOL TRAFFIC VOLUMES

JOB NO. 5145-04
DATE 01/02/03
DESIGNER R.I.
CHECKED R.I. DRAWN ENA
SHEET 7 OF 19

Date:01/02/03
Design File name:p:\51\45\04\design\civil\master\figure07.dgn



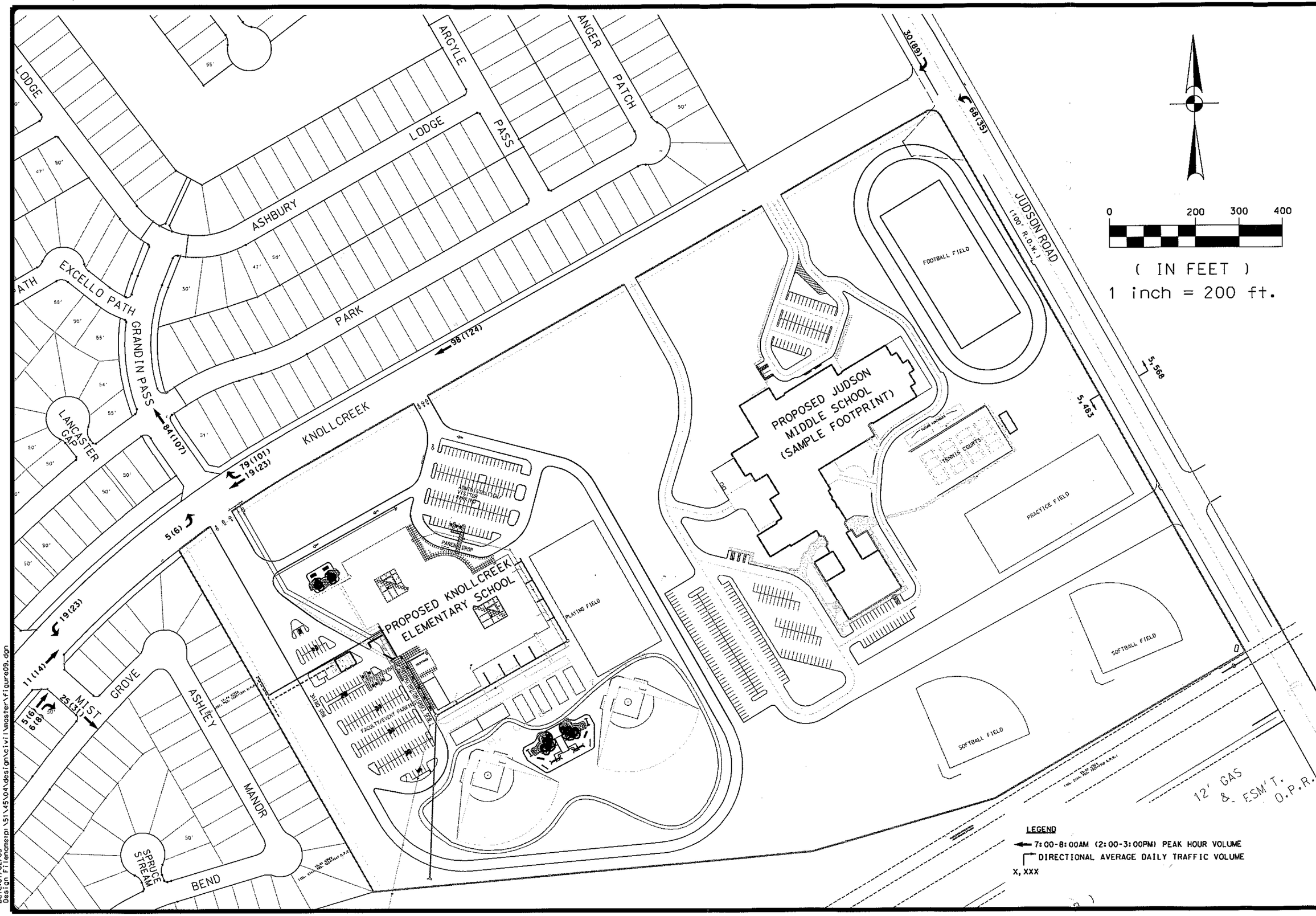
REVISIONS:

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.8010

KNOLLCREEK
FIGURE 8 ENTERING SUBDIVISION
TRIP DISTRIBUTION

JOB NO. 5145-04
DATE 01/02/03
DESIGNER R.I.
CHECKED R.I. DRAWN EHA
SHEET 8 OF 19

Date:01/02/03
Design File(name:p:\51\45\04\design\civil\master\figure08.dgn)



REVISIONS:

PAPE-DAWSON ENGINEERS

555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

KNOLLCREEK

FIGURE 9 ENTERING SUBDIVISION TRAFFIC VOLUMES

JOB NO. 5145-04

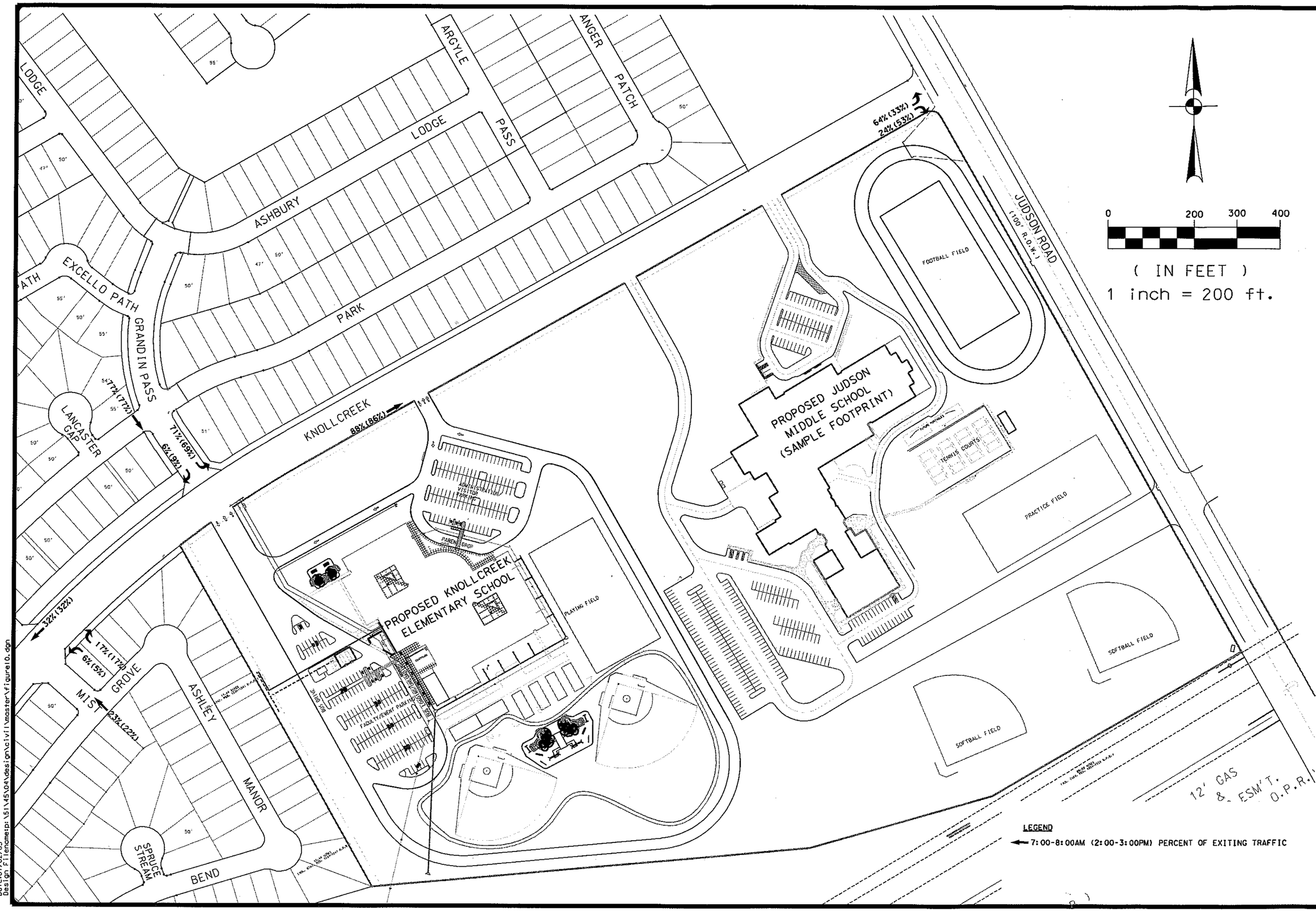
DATE 01/02/03

DESIGNER R.I.

CHECKED R.I. DRAWN EHA

SHEET 9 OF 19

Date:01/02/03
Design Filename:p:\51\45\04\design\civil\master\figure09.dgn



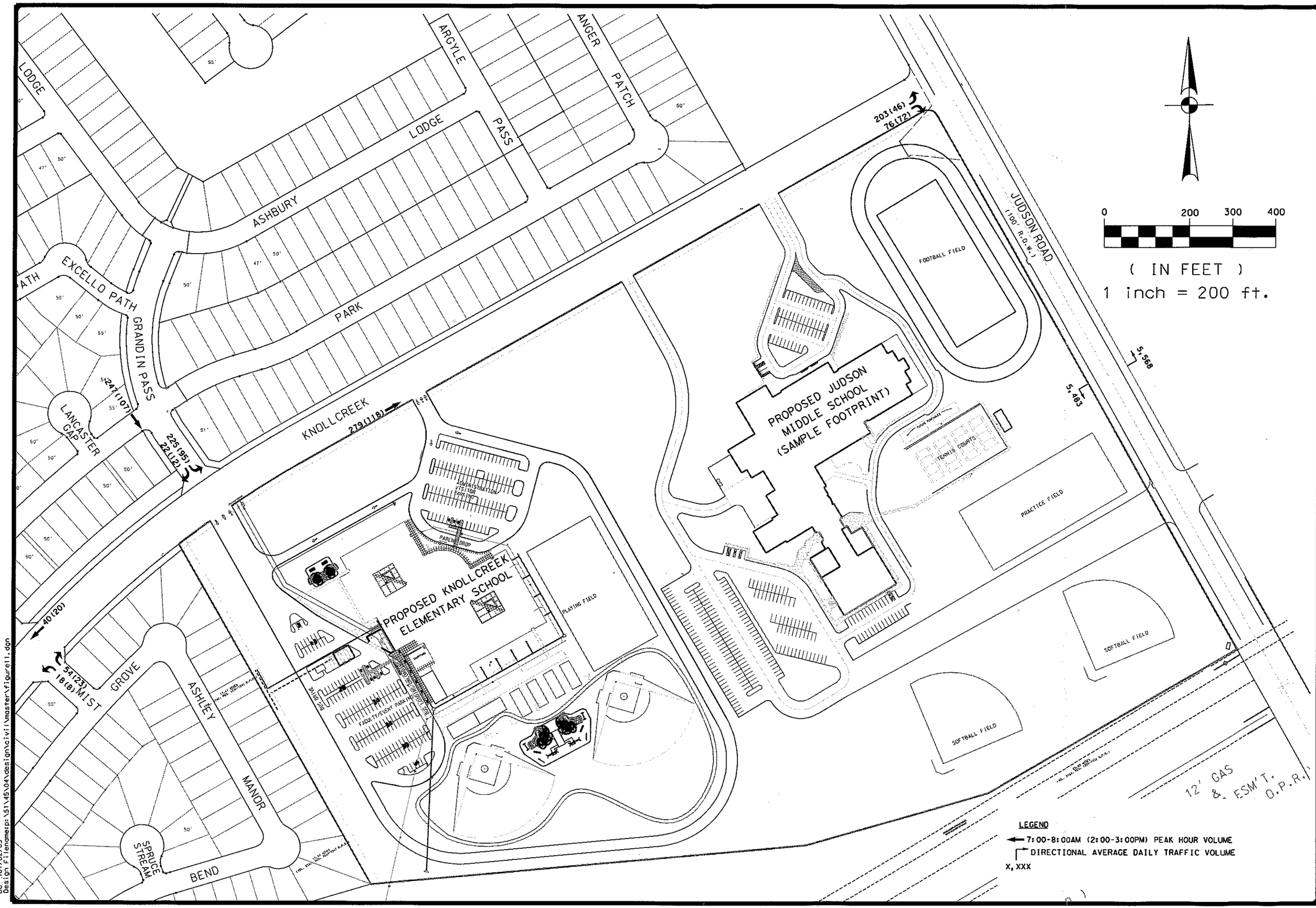
REVISIONS:

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.5010

KNOLLCREEK
FIGURE 10 EXITING SUBDIVISION TRIP DISTRIBUTION

JOB NO. 5145-04
DATE 01/02/03
DESIGNER R.I.
CHECKED R.I. DRAWN EHA
SHEET 10 OF 19

Date:01/02/03
Design File(name:p:\51\45\04\design\civil\master\figure10.dgn



REVISIONS:

PAPE-DAWSON ENGINEERS

555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

KNOLLCREEK

FIGURE 11 EXITING SUBDIVISION TRAFFIC VOLUMES

JOB NO. 5145-04

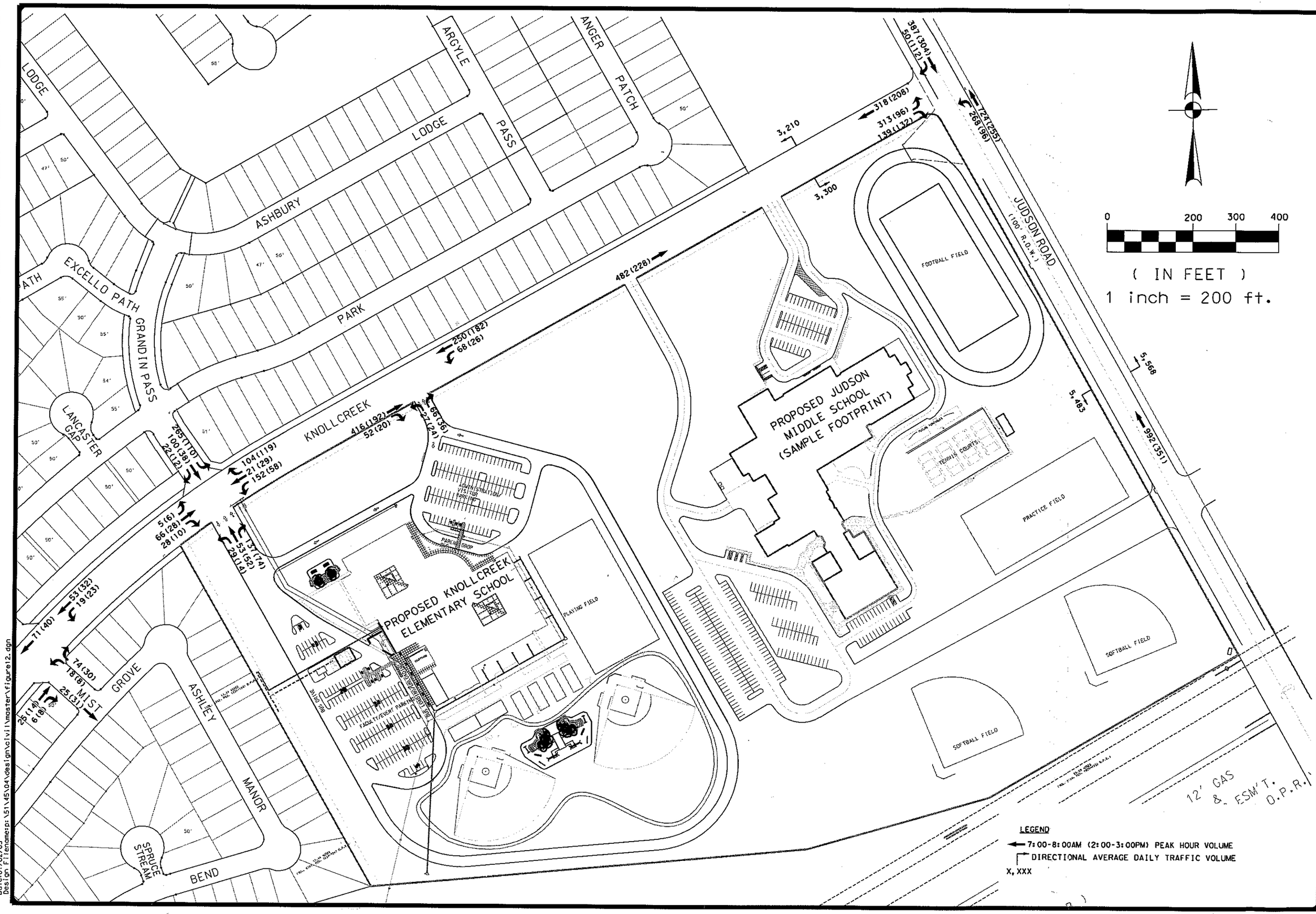
DATE 01/02/03

DESIGNER R.I.

CHECKED R.I. DRAWN EHA

SHEET 11 OF 19

DG: 01/02/03
Design Filename:p:\51\45\04\design\civil\master\figure11.dgn



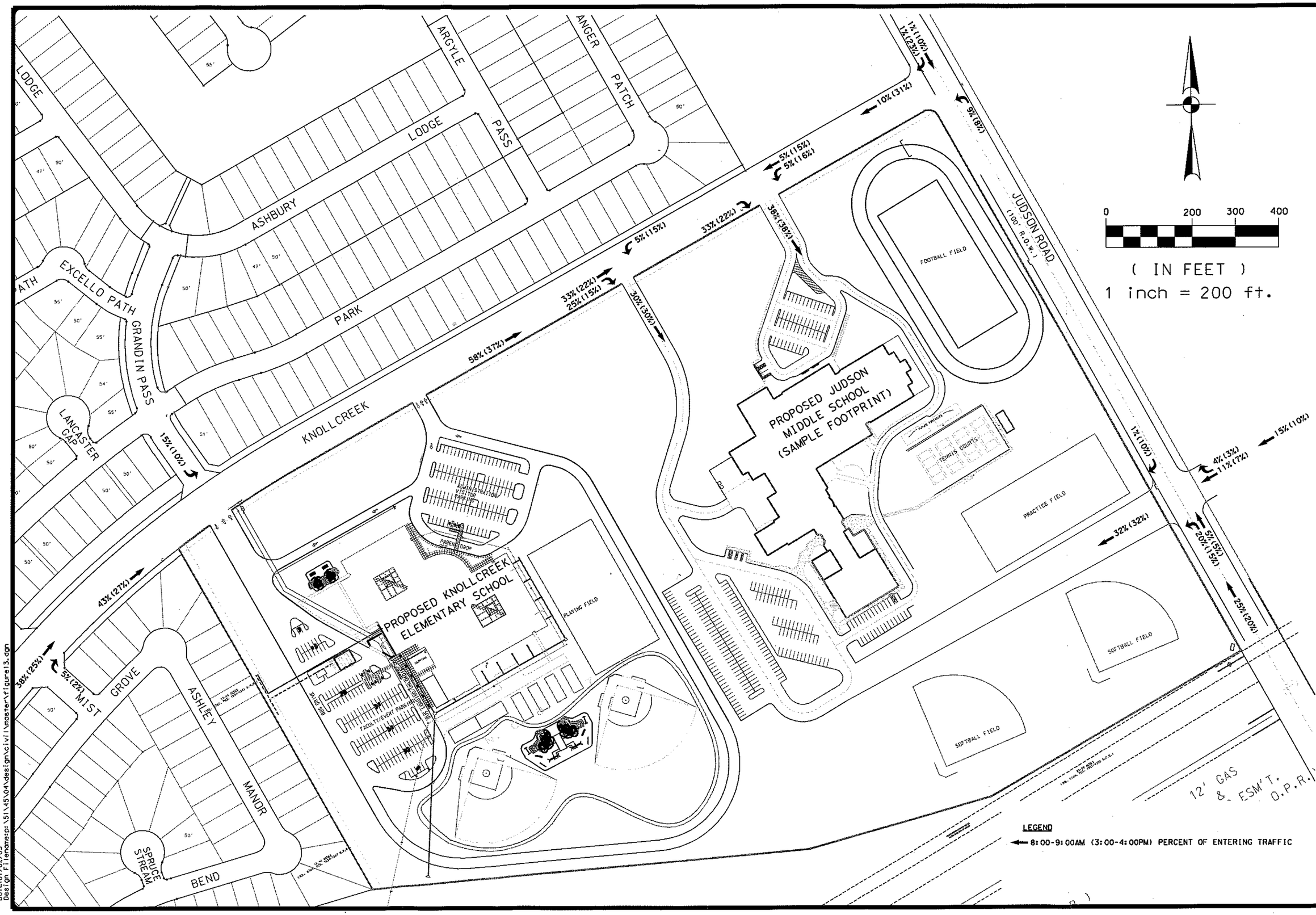
REVISIONS:

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

KNOLLCREEK
FIGURE 12 ELEMENTARY SCHOOL
TOTAL TRAFFIC VOLUMES (2005)

JOB NO. 5145-04
DATE 01/02/03
DESIGNER R.I.
CHECKED R.I. DRAWN EHA
SHEET 12 OF 19

Date:01/02/03
Design File name:p:\51\45\04\design\civil\master\figure12.dgn



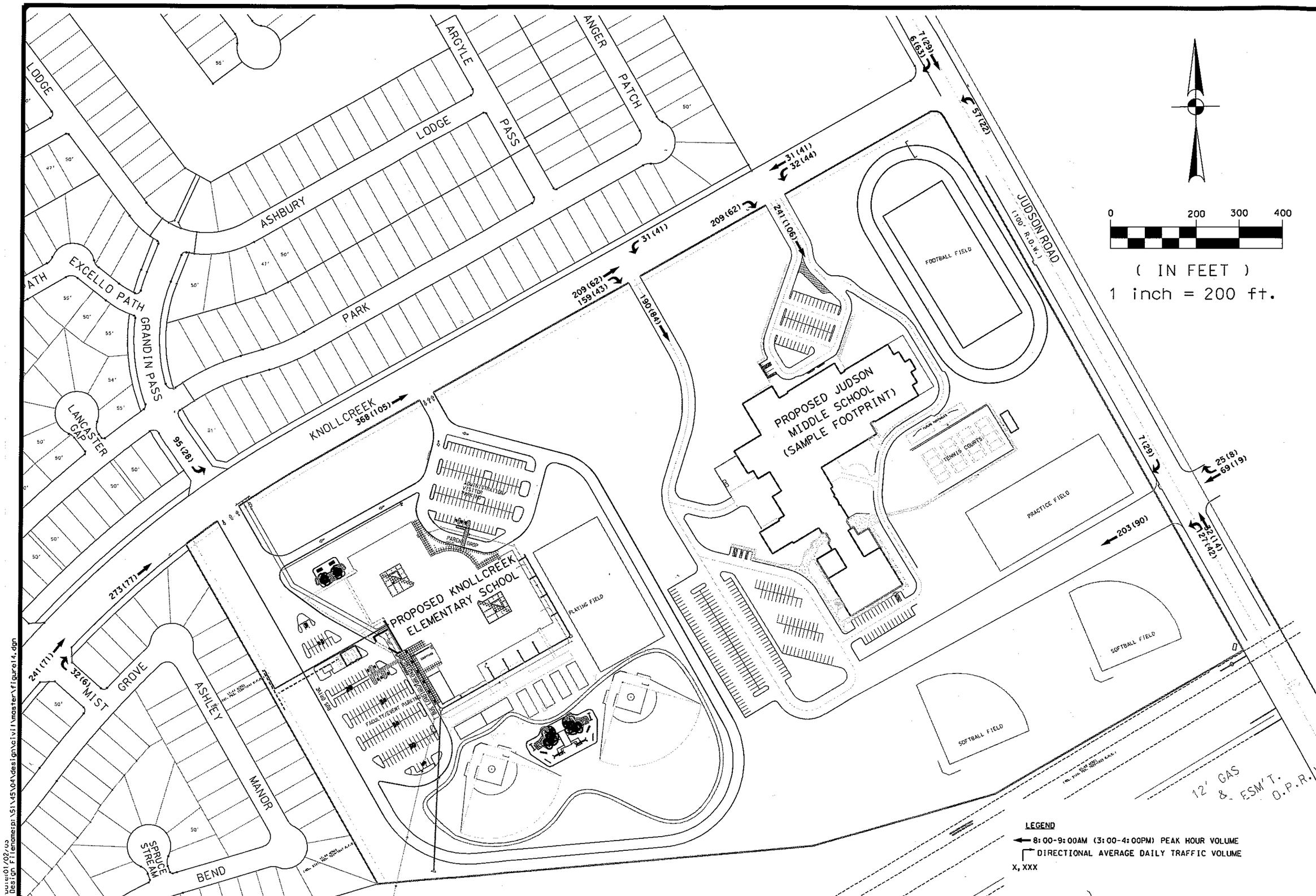
REVISIONS:

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

KNOLLCREEK
FIGURE 13 MIDDLE SCHOOL
ENTERING TRIP DISTRIBUTION

JOB NO. 5145-04
DATE 01/02/03
DESIGNER R.I.
CHECKED R.I. DRAWN EHA
SHEET 13 OF 19

Design Filename:p:\51\45\04\design\civil\master\figure13.dgn
Date:01/02/03



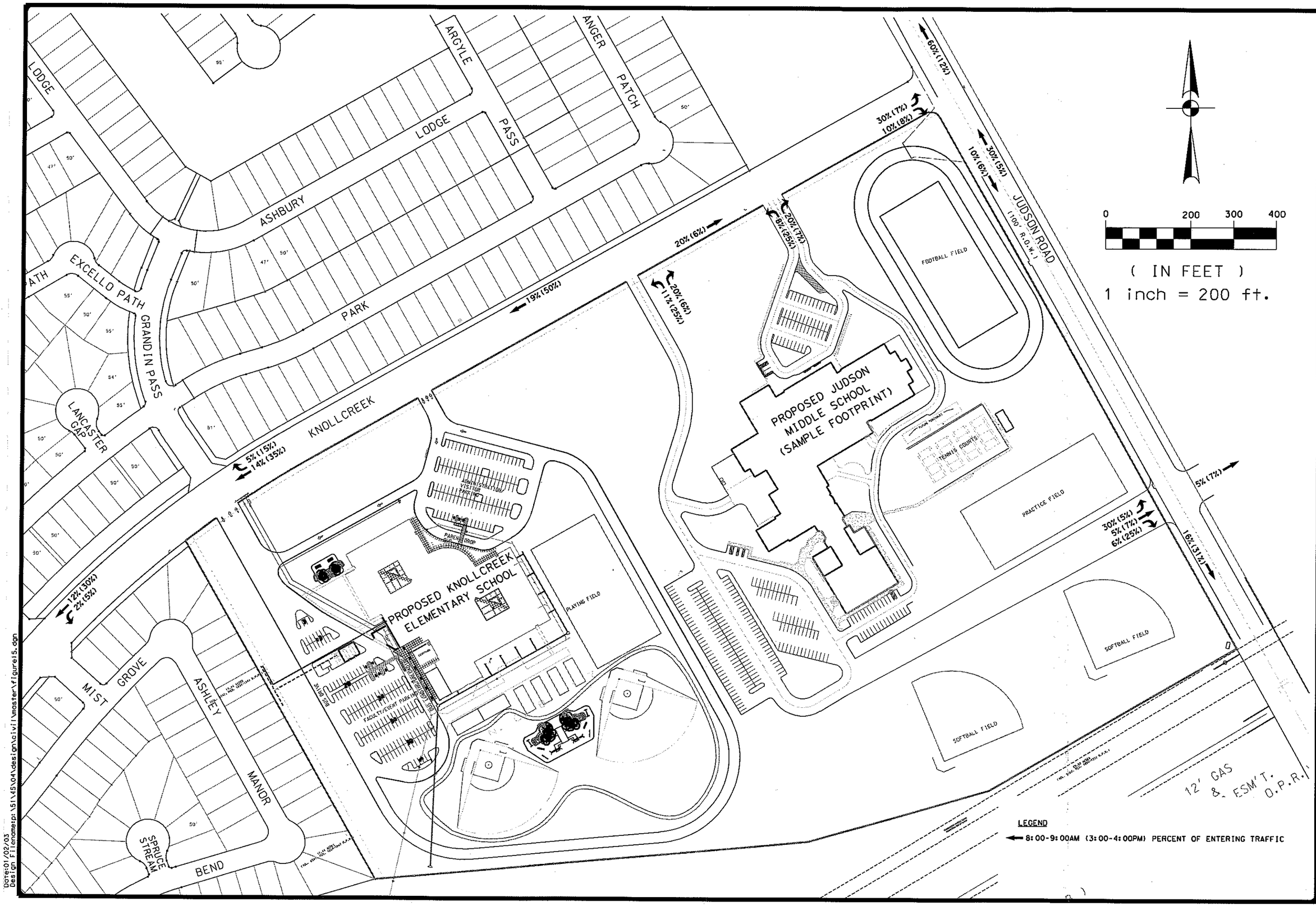
REVISIONS:

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

KNOLLCREEK
FIGURE 14 MIDDLE SCHOOL
ENTERING TRAFFIC VOLUMES

JOB NO. 5145-04
DATE 01/02/03
DESIGNER R.I.
CHECKED R.I. DRAWN ENA
SHEET 14 OF 19

Date:01/02/03
Design Filename:p:\51\45\04\design\civil\master\figure14.dgn



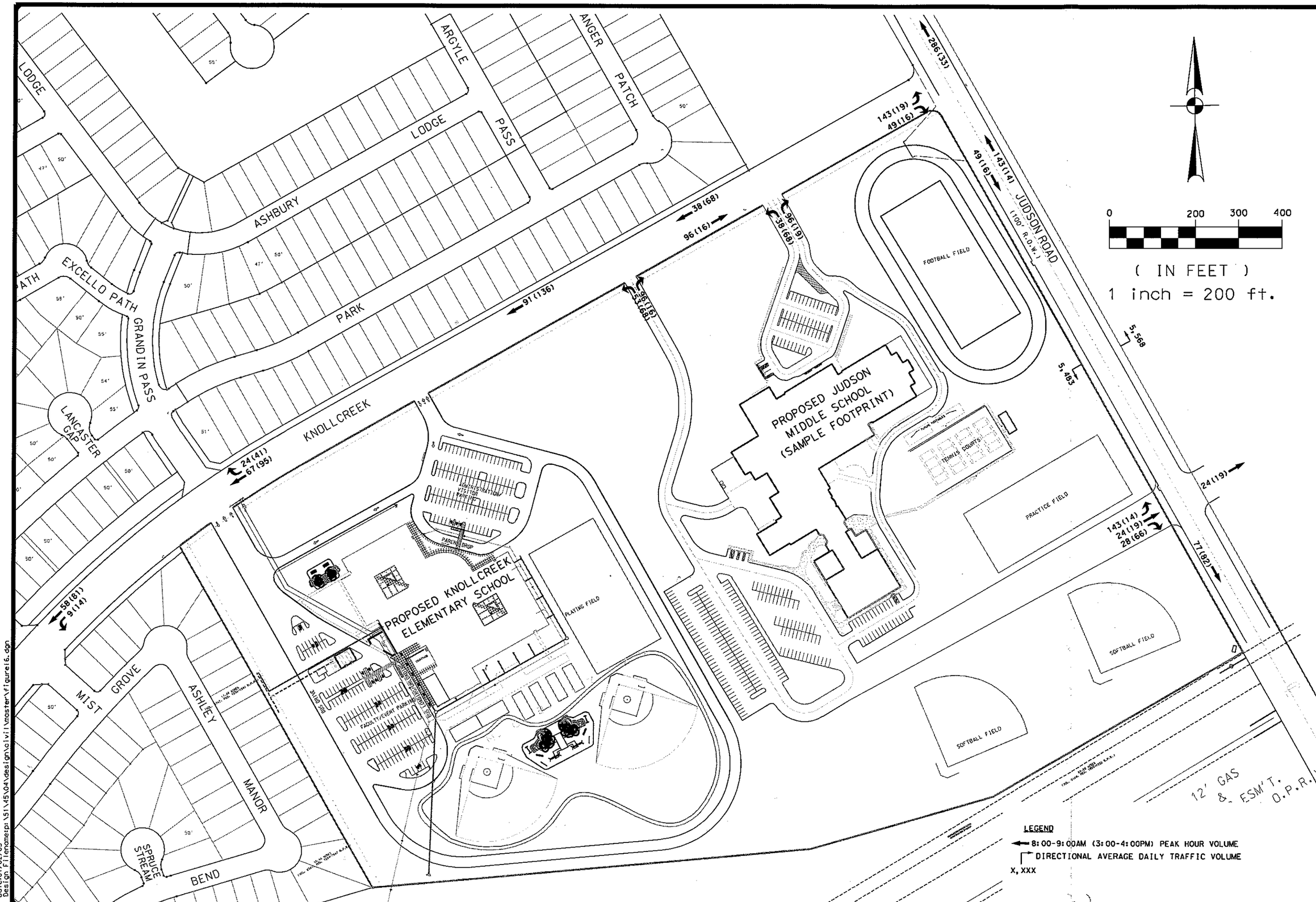
REVISIONS:

PAPE-DAWSON ENGINEERS
555 EAST RANDOLPH | SAN ANTONIO TEXAS 78215 | PHONE: 210.375.9000 FAX: 210.375.9010

KNOLLCREEK
FIGURE 15 MIDDLE SCHOOL EXITING TRIP DISTRIBUTION

JOB NO. 5145-04
DATE 01/02/03
DESIGNER R. I.
CHECKED R. I. DRAWN EHA
SHEET 15 OF 19

Date:01/02/03
Design Filename:p:\51\45\04\design\civil\master\figure15.dgn



REVISIONS:

PAPE-DAWSON ENGINEERS

555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

KNOLLCREEK

FIGURE 16 MIDDLE SCHOOL EXITING TRAFFIC VOLUMES

JOB NO. 5145-04

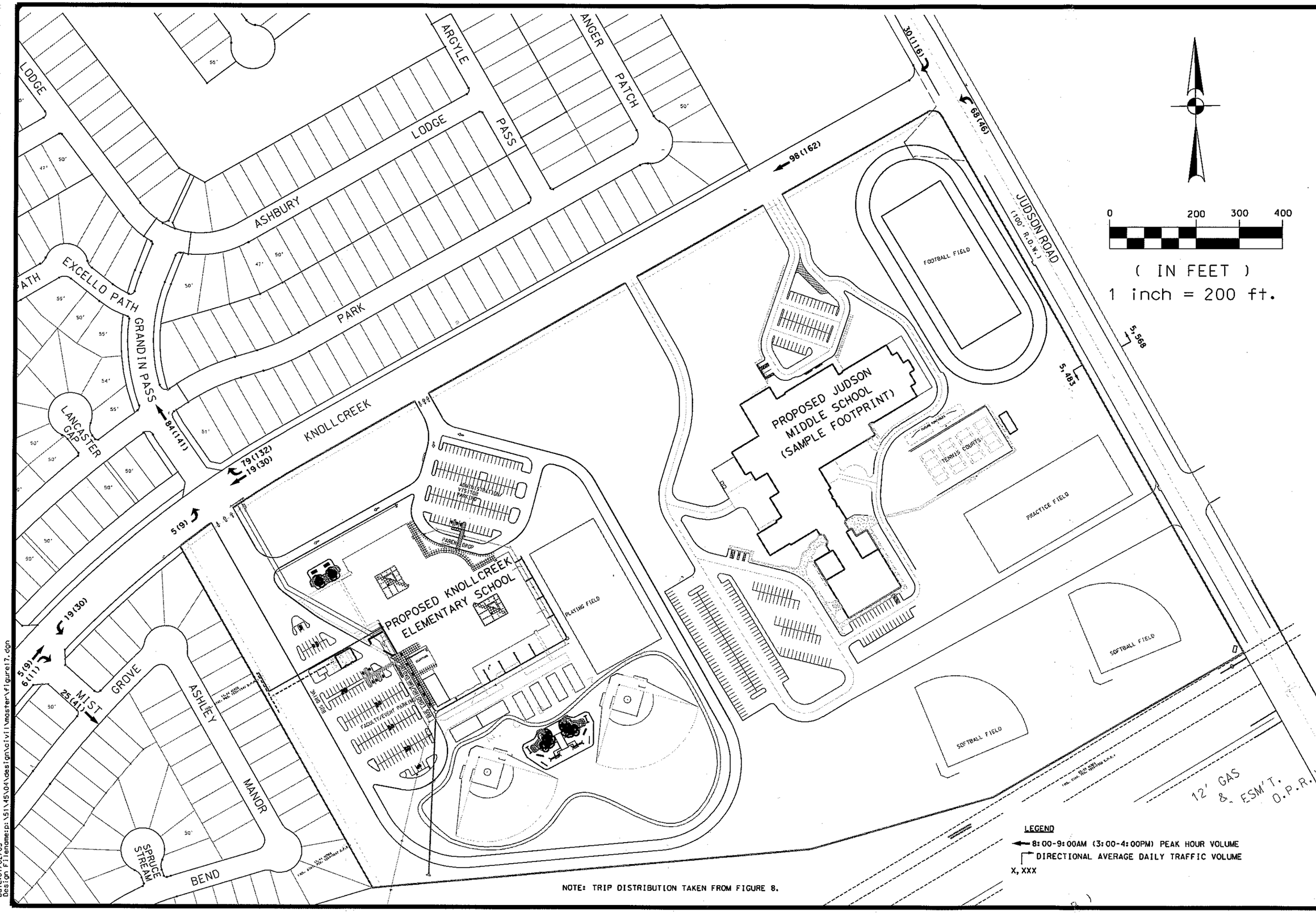
DATE 01/02/03

DESIGNER R.I.

CHECKED R.I. DRAWN EHA

SHEET 16 OF 19

Date:01/02/03
Design Filename:p:\51\45\04\design\civil\master\figure16.dgn



NOTE: TRIP DISTRIBUTION TAKEN FROM FIGURE 8.

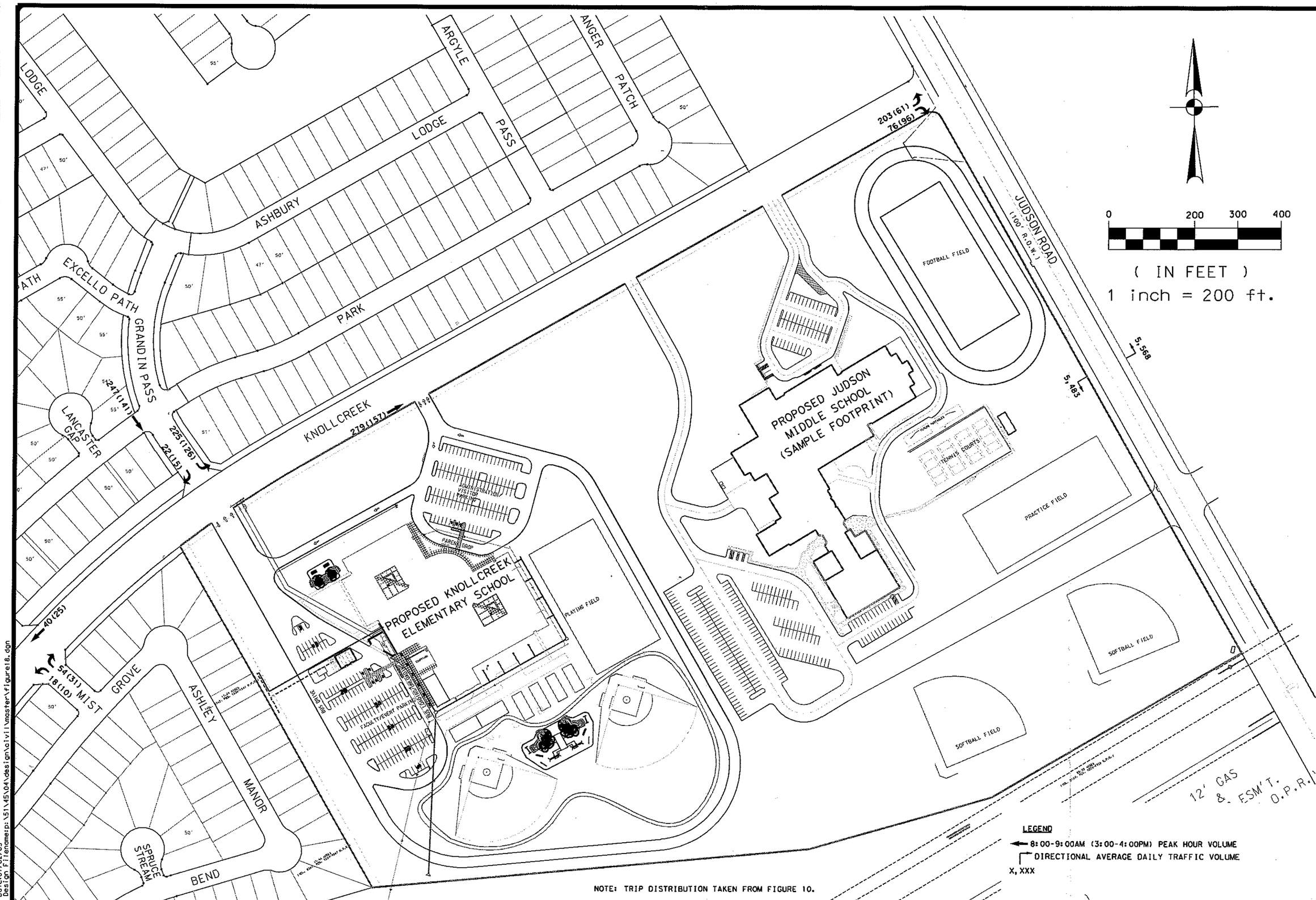
Date:01/02/03
Design Filename:p:\51\45\04\design\civil\master\figure17.dgn

REVISIONS:

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

KNOLLCREEK
FIGURE 17 ENTERING SUBDIVISION TRAFFIC VOLUMES

JOB NO. 5145-04
DATE 01/02/03
DESIGNER R.I.
CHECKED R.I. DRAWN EHA
SHEET 17 OF 19



NOTE: TRIP DISTRIBUTION TAKEN FROM FIGURE 10.

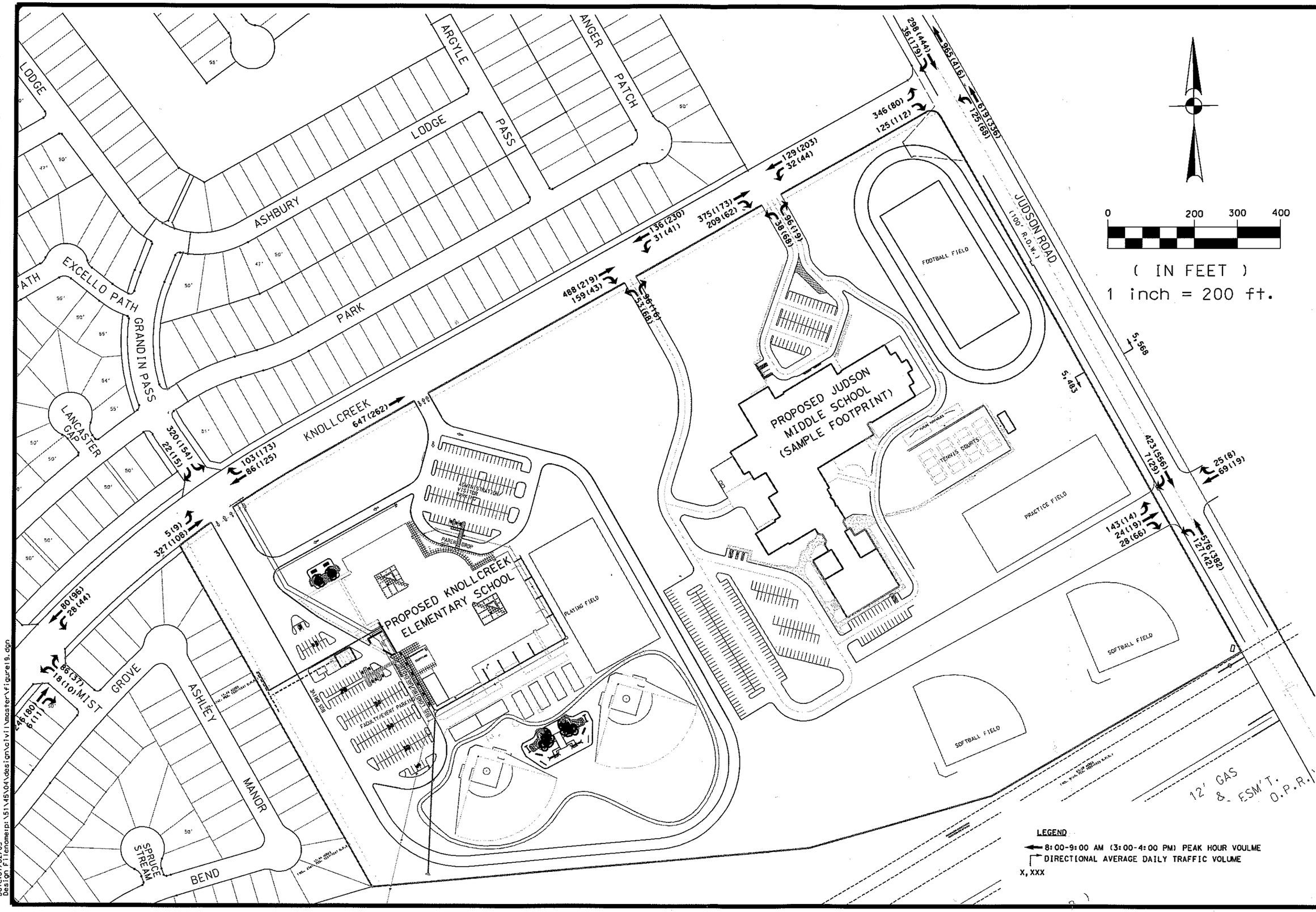
REVISIONS:

PAPE-DAWSON ENGINEERS
555 EAST RANDOLPH | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.5010

KNOLLCREEK
FIGURE 18 EXITING SUBDIVISION TRAFFIC VOLUMES

JOB NO. 5145-04
DATE 01/02/03
DESIGNER R.I.
CHECKED R.I. DRAWN ENA
SHEET 18 OF 19

Date:01/02/03
Design filename:p:\51\45\04\design\civil\master\figure18.dgn



REVISIONS:

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

KNOLLCREEK
FIGURE 19 MIDDLE SCHOOL
TOTAL TRAFFIC VOLUMES (2005)

JOB NO. 5145-04
DATE 01/02/03
DESIGNER R.I.
CHECKED R.I. DRAWN EHA
SHEET 19 OF 19

Date:01/02/03
Design Filename:p:\51\45\04\design\civil\master\figure19.dgn

TRAFFIC ANALYSIS

SITE ACCESS

The proposed driveway throat lengths are adequate for the projected demand and usage, as shown in **Table 4**, below.

Table 4
Driveway Throat Length vs. Queue Length

Driveway No.	Proposed Driveway Throat Length	Projected Queue Length Peak Hour
1	140'	63'
2	85'	20'
3	200'	30'
4	130'	25'
5 (2-Way Stop)	>500'	270'
5 (Signalization)	>500'	120'

The design throat lengths provide sufficient queue storage at each driveway for the 95th percentile queue projected using Synchro Version 5.0. A factor of 1.75 was applied to the output data in order to account for school growth and the presence of school buses.

The proposed driveway locations and throat lengths are designed to facilitate circulation within the site and also to provide easy access to the roadways serving the site. Circulation in and out of the site will benefit from the driveway throat lengths.

The recommended left turn storage lengths for the projected demand and usage, are shown in **Table 5**, below.

Table 5 Left Turn Storage Length	
Driveway No.	WB Knollcreek Left Turn Recommended Storage Length
1	150'
2	100'
3	100'
4	100'
	NB Judson Road
5	150'

The design storage lengths provide sufficient queue storage at each driveway for the 95th percentile queue projected using Synchro Version 5.0. The left turn tapers are recommended to be 102 feet in length and consist of a 300 foot turnoff curve radius followed by a 150 foot radius per pages 720 and 722 of the 2001 AASHTO Policy on Geometric Design of Highways and Streets (Greenbook). The current driveway spacing allows for the recommended storage lengths and taper.

CAPACITY ANALYSES

Capacity Analyses were conducted at each key intersection and site driveway's within the study area for Site plus Non-Site Traffic (2005). Capacity analyses are presented in standard Level of Service (LOS) format. Level of Service refers to the operational conditions within a traffic stream and their perception by motorist in terms of delay, freedom to maneuver, traffic interruptions, comfort, convenience and safety. LOS are designated from A to F with A representing the best traffic conditions and least delay, while F represents poor conditions and the highest delay. Evaluation of the peak hour capacity for each intersection and scenario were performed using Synchro Version 5.0. All intersections were analyzed with appropriate traffic control. Detailed analysis worksheets are provided in **Appendix D**.

Level of Service at unsignalized intersections is determined by the average delay a vehicle experiences on each intersection approach. Therefore, a different level of service is reported for each approach. The general characteristics associated with each level of service for unsignalized intersections are presented in **Table 6**. Most agencies consider Level of Service D to be the minimum acceptable level of service.

Table 6
HCM Level of Service at Unsignalized Intersections

Level of Service	Average Intersection Delay (sec/veh)	Description
A	≤ 10	Little or no delay
B	> 10 and ≤ 15	Short traffic delay
C	> 15 and ≤ 25	Average traffic delay
D	> 25 and ≤ 35	Long traffic delay
E	> 35 and ≤ 50	Very long traffic delay
F	>50	Extreme delays, possibly severe congestion

Level of service at signalized intersections is determined by the average vehicle delay. Values can be reported for the intersection as a whole, or each individual movement. For purposes of analysis, in this report, summary intersection Level-of-Service values are reported since the intersection LOS is C or greater. The general characteristics associated with each level of service for signalized intersections are presented in Table 7. Most agencies consider Level of Service D to be the minimum acceptable level of service.

Table 7
HCM Level of Service at Signalized Intersections

Level of Service	Average Intersection Delay (sec/veh)	Description
A	≤ 10	No delays at intersection, smooth progression of traffic. Uncongested operations. All vehicles clear in a single signal cycle.
B	> 10 and ≤ 20	No delays at intersection, smooth progression of traffic. Uncongested operations. All vehicles clear in a single signal cycle.
C	> 20 and ≤ 35	Moderate delay, satisfactory to good progression of traffic. Light congestion, occasional backups on critical (high volume) approaches.
D	> 35 and ≤ 55	Little or no progression of traffic along the roadway with a high probability of stopping at signalized intersections operating at this level of service. Significant congestion on critical approaches, but intersection is functional. Vehicles required to wait through more than one cycle during short peak periods.
E	> 55 and ≤ 80	Heavy traffic flow conditions. Delays of two or more traffic signal cycles probably. No progression. Limit of stable flow. Blockage of intersection may occur if signal does not provide for protected turning movements.
F	>80	Unstable traffic flow. Heavy congestion. Traffic moves in forced flow condition. Three or more cycles required to pass intersection. Total breakdown with stop and go conditions.
*	>> 80	Very unstable traffic flow. Very heavy congestion. Traffic moves in forced flow condition. More than three cycles required to pass intersection. Total breakdown. Stop and go only. Delays are beyond the range of the Highway Capacity Manual equations. Represents an extreme level of over saturation.

The City of San Antonio requires that viable recommendations for mitigation of site-generated traffic be developed for all roadways and intersections that are expected to operate at Level of Service D, E, or F. For boundary roadways, the City of San Antonio requires that roadways and intersections that are projected to operate at Level of Service D, E, or F with site-generated traffic must be improved to bring them up to the Level of Service that would exist without the site-generated traffic.

EXISTING CONDITIONS

Since Knollcreek does not currently exist analysis of the future intersections with only background traffic was prepared.

EVALUATION OF TRAFFIC IMPACTS

The non-site (background) traffic volumes that are projected to exist on the roadway network in the design year (the year that the development phase is completed), were estimated by factoring the existing count data with an annual growth rate of four (4) percent to bring the data up to the design year of 2005.

KEY INTERSECTION CAPACITY ANALYSIS

Build-out (2005)

Judson Road and Knollcreek

The peak hours for the above intersection were identified as 7-8 AM and 2-3 PM. Detailed analysis worksheets are presented in **Appendix D**. The results show that if the intersection operates as free-flow along Judson Road and stop control on Knollcreek the LOS is F on Knollcreek. Signalization results in a LOS of B or better for the entire intersection. A right-turn deceleration lane on the southbound approach to Knollcreek is recommended to improve intersection operations and remove traffic that is slowing for a right-turn from the traffic stream. Besides improving the through capacity, right-turn deceleration lanes will generally improve the safety of the roadway by reducing the number of rear-end collisions. The recommended left turn storage length for eastbound Knollcreek is 230 feet and 200 feet for northbound Judson Road. Capacity analysis for the intersection is presented in **Table 8.**

Driveway #1 and Knollcreek

The peak hours for the above intersection were identified as 7-8 AM and 4-5 PM. Detailed analysis worksheets are presented in **Appendix D**. HCM analysis results show that if the intersection operates as an all-way stop the intersection operates at an overall LOS of B or better. Capacity analysis for four way stop control is limited to a maximum of two lanes on all approaches, therefore, two lanes were assumed on all approaches. Analysis of the intersection as 2-way stop control with Knollcreek operating under free flow conditions results in a LOS of F (am) and C (pm) for vehicles exiting the neighborhood and elementary school. Signalization results in a LOS of A for the entire intersection. A signal at this intersection may be desirable since this would likely be a location with high pedestrian (children) movement in and out of the subdivision.

SITE DRIVEWAY CAPACITY ANALYSIS

An evaluation of the other site driveway's establishes a baseline for determining the impact of site traffic on the future roadway system. Specifically, conditions at site intersections are analyzed for the

design year assuming the development is constructed. This report is a planning level document and this analysis was performed to project future conditions to identify operational issues that may be addressed during the design phase. Capacity analyses for the site's driveways are presented in **Table 8**.

The site driveways operate reasonably well during the Peak hours at a level of service B or better. However, driveway 5 however operates at a level of service F during AM and PM peak hours. Left turning traffic is the main cause of this poor level of service. Simulation study with Synchro Version 5 indicated that driveway 5 is projected to operate at a LOS of B with signalization. Signalization would provide an opportunity for the left turning vehicles to safely complete the turn across the conflicting through traffic.

Table 8
Key Intersection Capacity Analysis Build-out (2005)

Intersection	Level of Service AM Peak	PM
Judson Road at Knollcreek[1]		
Stop on EB Knollcreek	**F**	**F**
Signalization	**B**	**A**
Driveway 1 at Knollcreek[3]		
4-Way Stop	**B**	**A**
2-Way Stop	**F**	**C**
Signalization	**A**	**A**
Driveway 2 at Knollcreek[3]		
Stop at Driveway	**B**	**B**
Driveway 3 at Knollcreek[2]		
Stop at Driveway	**B**	**B**
Driveway 4 at Knollcreek[2]		
Stop at Driveway	**B**	**B**
Driveway 5 at Judson Road[2]		
2-Way Stop	**F**	**F**
Signalization	**B**	**B**

1 – 4-6 pm
2 – 3 - 4 pm
3 – 2 – 3 pm

TRAFFIC SIGNAL WARRANT ANALYSES

A traffic signal warrant study for a proposed signal at Judson Road and Knollcreek and Judson Road and middle school Driveway 5 for projected 2005 conditions were performed as a part of this Traffic Impact Analysis. The study indicated that a traffic signal is warranted at both locations. A copy of traffic signal warrant study is presented in **Appendix F**. The installation of traffic signal's is expected to improve intersection operations.

Projected Average Daily Traffic (ADT) volumes were calculated to determine the future ADT of Judson Road and Knollcreek. Existing ADT was added to the future ADT produced from the elementary school, middle school, and residential neighborhood. A summary of the calculations is located in Appendix G. Knollcreek was not modeled in the latest Regional Model, no long term traffic projections for Knollcreek are available.

Elementary and Middle School – driveway in/out volume rates were distributed using data from the Patricia J. Blattman Traffic Study for incoming and outgoing vehicles distributed throughout the day. The same distribution was used for the middle school and offset by an hour to account for different school start and dismissal times. The driveway volumes were determined by taking the weekday 2-way volume counts and breaking them out based on the percent distribution for the AM(PM) times. The am percent distribution was assumed to be distributed from 12:00 am to 11:59 am, and the afternoon from 12:00 pm to 11:59 pm.

Residential Neighborhood – The 24 hour distribution was determined using the ADT counts on Judson Road. An adjustment was made to the 7-9 am and 3-4 pm distributions in order to more closely model the Trip Generation peak hour volumes. This was accomplished by simply averaging the count data during these times for both directions. Once the percentages were found a similar process was followed as stated above for the school distribution.

RECOMMENDATIONS

The development plans for the Knoll Creek Schools and residential development along Knollcreek Road should incorporate as many of the following recommendations to facilitate the movement of traffic to and from the site and further reduce the impact of site traffic on the adjacent street network, as possible. The following items may require some form of participation by the project developer.

- Location of the Knollcreek intersection and Judson Road should consider the existing vertical profile of Judson Road. If the intersection is left unsignalized then a minimum intersection sight distance of 385 feet north and 500 feet south of Knollcreek should be provided.
- Each driveway should include one inbound lane and two outbound lanes (one for left turns and one for right turns).
- The median opening should use the bullet nose design as described on page 701 of 2001 AASHTO Policy on Geometric Design of Highways and Streets (ASSHTO Greenbook).

The small radius of the median should be 2 feet and the large radius should be 75 feet to accommodate school buses. For an assumed median width of 14 feet the minimum length of the median opening should be 96 feet.

- Elementary school may need additional space to accommodate special events for up to 300 vehicles or approximately 33% of the school attendance. All of the parking area would not necessarily need to be marked, as parking for special events often uses all available parking space, marked or not.
- Installation of a traffic signal at the intersection of Judson Road and Knollcreek.
- Recommend a left turn storage length of 230 feet for eastbound Knollcreek at Judson Road and 200 feet for northbound Judson Road at Knollcreek.
- Consideration of a traffic signal at the intersection of Knollcreek with Elementary School Driveway #1 and the new neighborhood access point to improve traffic flow in and out of the sites and to improve the safety of pedestrians and school children crossing the roadway
- Parent drop-off/pick-up area should be designed to maximize the curb space for curb side drop off. NEISD should plan to actively manage drop-off/pick-up areas to maximize vehicle efficiency.
- Driveway 2 and assumed Driveway 4 are likely to produce stacking along Knollcreek. NEISD should consider the use of "traffic supervisor(s)" or uniformed officer(s) to provide traffic control to direct drivers during peak periods.
- Consideration of a traffic signal at the intersection of Judson Road and Mountain Vista Drive and middle school Driveway 5 to improve traffic flow onto Judson Road.
- Incorporate traffic control improvements such as signing and pavement markings into the site plan that conform to the *Texas Manual on Uniform Traffic Control Devices* for consistent uniform traffic control.
- Provide right turn deceleration lane on southbound Judson Road at Knollcreek.
- Construct median left turn lanes along Knollcreek at each school driveway to facilitate the safe and efficient flow of traffic. Taper design should be accordance with the AASHTO Greenbook.
- NEISD should operate the elementary and middle with hours that offset the peak times between the two schools. Using existing school start and stop times, it is recommended that elementary school hours be from 7:35 am to 2:35 pm and middle school hours be from 8:30 am to 3:30 pm.

APPENDIX A

COSA TIA WORKSHEET

Traffic Impact Analysis (TIA) Threshold Worksheet

Complete this form as an aid to determine if your project requires a Traffic Impact Analysis, as per City Code, Section 19-69.

Project Name: North East Independent School District – Knollcreek Elementary School
Location: Southwest corner of Judson Road and Knollcreek, San Antonio
Applicant: Pape-Dawson Engineers, Inc. ☐ Owner or ☒ Agent
Address: 555 East Ramsey, San Antonio, Texas 78216 Phone Number: (210) 375-9000

Permit Type (check one):
☒ Zoning, N.C.B._____ ☐ POADP #_____ ☐ Plat #_____ ☐ Bldg. Permit #_____ ☐ Other:_____

BOX A (Original TIA) *RESIDENTIAL DEVELOPMENT*

Anticipated Land Use	Number of Units	Peak Hour? (e.g., 5-6 pm, Wkday)	Peak Hour Trip Rate	Peak Hour Trips	Trip Rate Source
Single Family Detached Housing (210)	1012	5-6 PM Weekday	1.01	1022	ITE Code: 210 Other:

BOX B (Original TIA) *NON-RESIDENTIAL DEVELOPMENT*

Anticipated Land Use	Project Size			Peak Hour? (e.g., 5-6 pm, Wkday)	Peak Hour Trip Rate	Peak Hour Trips	Trip Rate Source
	Acres	GFA	Other*				
Elementary School (520) Middle/Junior High School (522)			800 1250	7-8 AM Weekday 8-9 AM Weekday	0.89 0.89	712 1112	ITE Code: Other: Local rate as described in report.

*specify: Students

BOX C (Updated TIA) If property already has a TIA on file, complete Box C; if not, ignore Box C.

Peak Hour Trips Projected in *Current* TIA	Peak Hour Trips (from Box A or B) Projected in *Updated* Development Plan	Increase in Peak Hour Trips (if over 100 additional trips, a new TIA is required)

BOX D (Information Regarding the Person/Agency, who prepared the TIA)

Prepared by: Gilmer D. Gaston, P.E., PTOE Date: January 03 2003
Comments: A Level 2 TIA is required and has been prepared

BOX E (For Official Use Only, Do Not Write in this Box))

_____ A traffic impact analysis is required. The consultant preparing the study must meet with City staff to discuss the scope and requirements of the study before beginning the study.
_____ A traffic impact analysis is not required. The traffic generated by the proposed development does not exceed the threshold requirements.
_____ The traffic impact analysis has been waived for the following reason(s):

Reviewed by:_____ Date:_____

NOTE: GFA = Gross Floor Area (bldg size) ITE = Institute of Transportation Engineers, *Trip Generation*, 6th Edition. 525 School Street, S.W., Suite 410, Washington, DC 20024-2729; (202) 554-8050.

Count Data/
Trip Generation

APPENDIX B

TRAFFIC COUNT DATA
TRIP GENERATION DATA

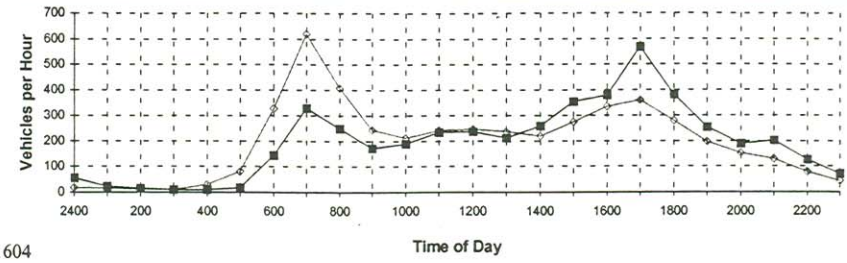
AC Group, LLC — **Automatic Traffic Recorder Counts**

Average Daily Traffic

Project No. : 12-01
Station No. : 200
Counter No. : 7596

Location: Judson Road
City/State: San Antonio, TX
Date: 24 May 2001
Day of Week: Thursday

Site: Judson Road, South of Loop 1604



Time	Peak	Northbound		Southbound	
2400					
15		5		9	
30		5		17	
45		5		15	
100		3	18	15	56
115		6		5	
130		2		6	
145		3		8	
200		3	14	3	22
215		8		2	
230		0		4	
245		0		6	
300		4	12	3	15
315		2		3	
330		1		0	
345		2		2	
400		4	9	5	10
415		4		5	
430		4		4	
445		14		1	
500		9	31	1	11
515		7		2	
530		14		3	
545		21		6	
600		38	80	6	17
615		42		19	
630		61		17	
645		98		34	
700		127	328	73	143
715		125		57	
730		145		94	
745		192		93	
800		157	619	87	331
815		135		80	
830		115		75	
845		77		47	
900		80	407	47	249
915		58		48	
930		80		43	
945		51		38	
1000		55	244	43	172
1015		50		35	
1030		60		55	
1045		54		47	
1100		47	211	52	189
1115		62		52	
1130		64		53	
1145		60		57	
1200		56	242	71	233

Time	Peak	Northbound		Southbound	
1200					
1215		56		71	
1230		72		49	
1245		57		55	
1300		61	246	62	237
1315		60		54	
1330		53		50	
1345		56		54	
1400		67	236	53	211
1415		59		40	
1430		49		76	
1445		60		84	
1500		50	218	60	260
1515		65		68	
1530		77		77	
1545		63		103	
1600		70	275	107	355
1615		107		83	
1630		69		89	
1645		76		94	
1700		84	336	115	381
1715		100		130	
1730		76		153	
1745		99		165	
1800		84	359	121	569
1815		81		117	
1830		65		102	
1845		68		89	
1900		66	280	75	383
1915		47		69	
1930		49		58	
1945		64		70	
2000		36	196	58	255
2015		44		48	
2030		31		48	
2045		36		50	
2100		40	151	43	189
2115		28		56	
2130		45		58	
2145		26		46	
2200		29	128	42	202
2215		22		39	
2230		15		38	
2245		22		26	
2300		19	78	22	125
2315		17		26	
2330		12		16	
2345		5		9	
2400		8	42	20	71
Daily Volumes		4,760		4,686	
			24-Hour Volume	9,446	

AC GROUP LLC
Traffic Data Surveyors

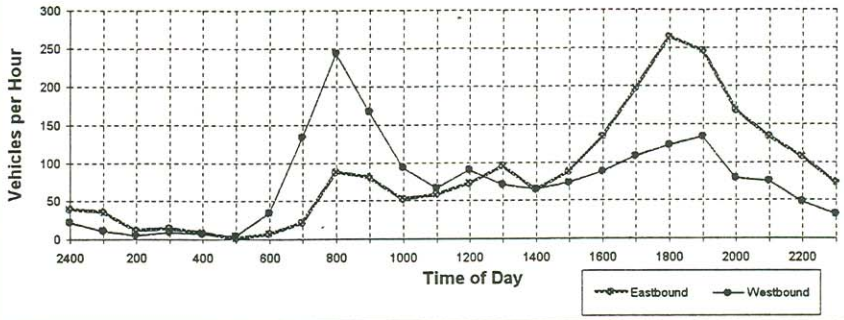
Mountain Vista (East of Judson Road)

Average Daily Traffic Data

Project No. : 42-02
Station No. : 100
Counter No. : 0042

Date: 4 December 2002
Day of Week: Wednesday

Site: Mountain Vista and Judson Road
Location: EB / WB Mountain Vista
City/State: San Antonio, Texas



End Time	Eastbound Mountain Vista		Westbound Mountain Vista	
15	13		4	
30	11		4	
45	8		2	
100	5	37	2	12
115	4		1	
130	3		2	
145	3		3	
200	3	13	0	6
215	3		4	
230	2		4	
245	5		0	
300	5	15	2	10
315	1		1	
330	3		1	
345	5		5	
400	0	9	1	8
415	1		1	
430	0		1	
445	0		1	
500	1	2	2	5
515	1		1	
530	3		4	
545	2		12	
600	2	8	18	35
615	7		14	
630	4		29	
645	5		47	
700	6	22	45	135
715	10		60	
730	19		59	
745	28		79	
800	32	89	47	245
815	17		51	
830	21		44	
845	23		34	
900	21	82	40	169
915	11		26	
930	15		24	
945	11		17	
1000	16	53	28	95
1015	9		19	
1030	17		16	
1045	17		16	
1100	16	59	16	67
1115	26		23	
1130	16		19	
1145	16		34	
1200	15	73	15	91

End Time	Eastbound Mountain Vista		Westbound Mountain Vista	
1215	31		13	
1230	15		19	
1245	28		19	
1300	22	96	21	72
1315	16		23	
1330	14		20	
1345	22		12	
1400	13	65	11	66
1415	20		23	
1430	25		18	
1445	22		16	
1500	22	89	17	74
1515	30		15	
1530	35		27	
1545	37		25	
1600	33	135	22	89
1615	33		23	
1630	53		33	
1645	48		32	
1700	64	198	21	109
1715	56		27	
1730	81		30	
1745	63		31	
1800	65	265	36	124
1815	82		32	
1830	67		41	
1845	54		30	
1900	43	246	32	135
1915	58		20	
1930	42		21	
1945	34		23	
2000	36	170	16	80
2015	31		24	
2030	41		14	
2045	28		23	
2100	35	135	15	76
2115	27		14	
2130	28		13	
2145	30		7	
2200	23	108	15	49
2215	22		11	
2230	15		9	
2245	19		7	
2300	18	74	5	32
2315	6		8	
2330	16		4	
2345	13		6	
2400	5	40	5	23
Directional ADT	3,083		1,807	
Total ADT	4,890			

AC Group, LLC

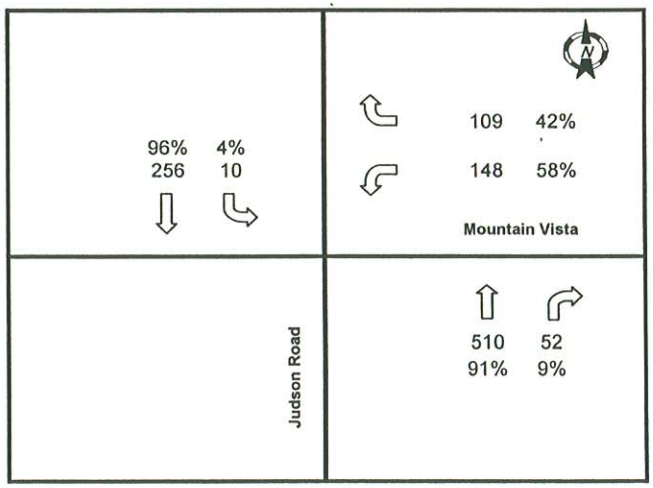
Location:	Judson Road and Mountain Vista
Project #:	42-02
North-South street:	Judson Road
East-West street:	Mountain Vista
Time Period:	1 7:00 - 9:00 AM
Date recorded:	3 December 2002
Comments:	

AC GROUP LLC
Traffic Data Surveyors

Time		Northbound						Southbound						Eastbound						Westbound					
Movement		left		thru		right		left		thru		right		left		thru		right		left		thru		right	
Vehicle Type		C	T	C	T	C	T	C	T	C	T	C	T	C	T	C	T	C	T	C	T	C	T	C	T
7:00 AM	7:15 AM	-	-	122	2	6	0	4	0	46	1	-	-	-	-	-	-	-	-	36	0	-	-	30	0
7:15 AM	7:30 AM	-	-	117	3	9	0	2	0	67	1	-	-	-	-	-	-	-	-	43	2	-	-	23	0
7:30 AM	7:45 AM	-	-	141	4	15	0	3	0	69	1	-	-	-	-	-	-	-	-	47	0	-	-	31	0
7:45 AM	8:00 AM	-	-	117	4	22	0	1	0	71	0	-	-	-	-	-	-	-	-	20	0	-	-	23	2
8:00 AM	8:15 AM	-	-	100	2	10	0	7	0	61	3	-	-	-	-	-	-	-	-	25	0	-	-	21	0
8:15 AM	8:30 AM	-	-	94	0	9	0	12	0	42	2	-	-	-	-	-	-	-	-	27	2	-	-	18	0
8:30 AM	8:45 AM	-	-	69	3	9	0	6	0	46	3	-	-	-	-	-	-	-	-	18	0	-	-	19	0
8:45 AM	9:00 AM	-	-	46	2	3	0	5	0	41	0	-	-	-	-	-	-	-	-	14	0	-	-	13	0
Total		0	0	806	20	83	0	40	0	443	11	0	0	0	0	0	0	0	0	230	4	0	0	178	2
Peak Total		0	0	497	13	52	0	10	0	253	3	0	0	0	0	0	0	0	0	146	2	0	0	107	2
Peak Movement Total		0		510		52		10		256		0		0		0		0		148		0		109	
Peak Turn Percent		0%		91%		9%		4%		96%		0%		0%		0%		0%		58%		0%		42%	
Peak Approach Total		562						266						0						257					

Peak Hour 7:00 AM - 8:00 AM
Percent Trucks 2%

Time		U-Turns			
Approach:					
Vehicle Type		C	T	C	T
7:00 AM	7:15 AM				
7:15 AM	7:30 AM				
7:30 AM	7:45 AM				
7:45 AM	8:00 AM				
8:00 AM	8:15 AM				
8:15 AM	8:30 AM				
8:30 AM	8:45 AM				
8:45 AM	9:00 AM				
Total		0	0	0	0
Peak Total		0	0	0	0
Peak Movement Total		0		0	
Peak Turn Percent		0%		0%	



AC Group, LLC

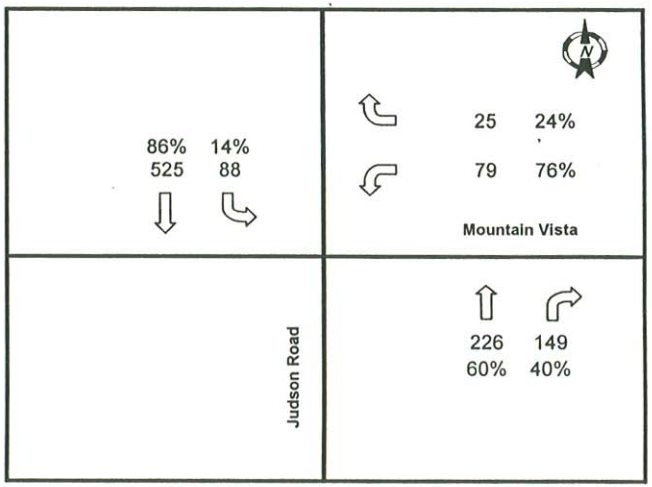
Location:	Judson Road and Mountain Vista		
Project #:	42-02		
North-South street:	Judson Road		
East-West street:	Mountain Vista		
Time Period:		3	4:00 - 6:00 PM
Date recorded:	3 December 2002		
Comments:			

AC GROUP LLC
Traffic Data Surveyors

Time	Northbound						Southbound						Eastbound						Westbound					
Movement	left		thru		right		left		thru		right		left		thru		right		left		thru		right	
Vehicle Type	C	T	C	T	C	T	C	T	C	T	C	T	C	T	C	T	C	T	C	T	C	T	C	T
4:00 PM 4:15 PM	-	-	51	3	27	0	17	0	126	3	-	-	-	-	-	-	-	-	13	3	-	-	7	0
4:15 PM 4:30 PM	-	-	68	2	22	0	16	0	96	0	-	-	-	-	-	-	-	-	17	5	-	-	8	0
4:30 PM 4:45 PM	-	-	67	0	27	0	18	0	77	0	-	-	-	-	-	-	-	-	23	0	-	-	11	0
4:45 PM 5:00 PM	-	-	60	0	38	0	16	0	86	0	-	-	-	-	-	-	-	-	15	0	-	-	5	0
5:00 PM 5:15 PM	-	-	58	0	40	0	21	0	126	0	-	-	-	-	-	-	-	-	21	1	-	-	6	0
5:15 PM 5:30 PM	-	-	54	0	37	0	19	0	131	0	-	-	-	-	-	-	-	-	18	0	-	-	5	0
5:30 PM 5:45 PM	-	-	61	0	37	0	20	0	158	0	-	-	-	-	-	-	-	-	19	0	-	-	3	0
5:45 PM 6:00 PM	-	-	53	0	35	0	28	0	110	0	-	-	-	-	-	-	-	-	20	0	-	-	11	0
Total	0	0	472	5	263	0	155	0	910	3	0	0	0	0	0	0	0	0	146	9	0	0	56	0
Peak Total	0	0	226	0	149	0	88	0	525	0	0	0	0	0	0	0	0	0	78	1	0	0	25	0
Peak Movement Total	0		226		149		88		525		0		0		0		0		79		0		25	
Peak Turn Percent	0%		60%		40%		14%		86%		0%		0%		0%		0%		76%		0%		24%	
Peak Approach Total	375						613						0						104					

Peak Hour 5:00 PM - 6:00 PM
Percent Trucks 1%

Time	U-Turns			
Approach:				
Vehicle Type	C	T	C	T
4:00 PM 4:15 PM				
4:15 PM 4:30 PM				
4:30 PM 4:45 PM				
4:45 PM 5:00 PM				
5:00 PM 5:15 PM				
5:15 PM 5:30 PM				
5:30 PM 5:45 PM				
5:45 PM 6:00 PM				
Total	0	0	0	0
Peak Total	0	0	0	0
Peak Movement Total	0		0	
Peak Turn Percent	0%		0%	



Knollcreek Elementary
Summary of Trip Generation Calculation

For 800 Students of Elementary School
December 11, 2002

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	2.34	0.00	1.00	1872
7-8 AM Peak Hour Enter	0.50	0.00	1.00	400
7-8 AM Peak Hour Exit	0.39	0.00	1.00	312
7-8 AM Peak Hour Total	0.89	0.00	1.00	712
2-3 PM Peak Hour Enter	0.19	0.00	1.00	152
2-3 PM Peak Hour Exit	0.25	0.00	1.00	200
2-3 PM Peak Hour Total	0.44	0.00	1.00	352
Saturday 2-Way Volume	0.00	0.00	1.00	0
Saturday Peak Hour Enter	0.00	0.00	1.00	0
Saturday Peak Hour Exit	0.00	0.00	1.00	0
Saturday Peak Hour Total	0.00	0.00	1.00	0

Note: A zero indicates no data available.
Source: Patricia J. Blattman Elementary School Traffic Study

TRIP GENERATION RATES FROM PATRICIA J. BLATTMAN ELEMENTARY SCHOOL TRAFFIC STUDY

Knollcreek
Summary of Trip Generation Calculation
For 1250 Students of Middle School / Jr. High School
December 11, 2002

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	1.45	1.41	1.00	1813
7-9 AM Peak Hour Enter	0.26	0.00	1.00	325
7-9 AM Peak Hour Exit	0.20	0.00	1.00	250
7-9 AM Peak Hour Total	0.46	0.75	1.00	575
4-6 PM Peak Hour Enter	0.08	0.00	1.00	100
4-6 PM Peak Hour Exit	0.08	0.00	1.00	100
4-6 PM Peak Hour Total	0.16	0.40	1.00	200
Saturday 2-Way Volume	0.00	0.00	1.00	0
Saturday Peak Hour Enter	0.00	0.00	1.00	0
Saturday Peak Hour Exit	0.00	0.00	1.00	0
Saturday Peak Hour Total	0.00	0.00	1.00	0

Note: A zero indicates no data available.
Source: Institute of Transportation Engineers
Trip Generation, 6th Edition, 1997.

TRIP GENERATION BY MICROTRANS

REVISED TRIP GENERATION RATES

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	2.34	0.00	1.00	2925
7-9 AM Peak Hour Enter	0.51	0.00	1.00	634
7-9 AM Peak Hour Exit	0.38	0.00	1.00	478
7-9 AM Peak Hour Total	0.89	0.55	1.00	1112
3-4 PM Peak Hour Enter	0.21	0.00	1.00	270
3-4 PM Peak Hour Exit	0.23	0.00	1.00	280
3-4 PM Peak Hour Total	0.44	0.00	1.00	550

Note: A zero indicates no data available.
Source: Patricia J. Blattman Elementary School Traffic Study
TRIP GENERATION RATES FROM PATRICIA J. BLATTMAN ELEMENTARY SCHOOL TRAFFIC STUDY

Knollcreek
Summary of Trip Generation Calculation
For 883 Dwelling Units of Single Family Detached Housing
December 11, 2002

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	9.57	3.69	1.00	8450
7-9 AM Peak Hour Enter	0.19	0.00	1.00	168
7-9 AM Peak Hour Exit	0.56	0.00	1.00	494
7-9 AM Peak Hour Total	0.75	0.90	1.00	662
4-6 PM Peak Hour Enter	0.65	0.00	1.00	574
4-6 PM Peak Hour Exit	0.36	0.00	1.00	318
4-6 PM Peak Hour Total	1.01	1.05	1.00	892
Saturday 2-Way Volume	10.09	3.67	1.00	8909
Saturday Peak Hour Enter	0.51	0.00	1.00	450
Saturday Peak Hour Exit	0.43	0.00	1.00	380
Saturday Peak Hour Total	0.94	0.99	1.00	830

Note: A zero indicates no data available.
Source: Institute of Transportation Engineers
Trip Generation, 6th Edition, 1997.

TRIP GENERATION BY MICROTRANS

Knollcreek
Summary of Trip Generation Calculation
For 129 Dwelling Units of Single Family Detached Housing
December 11, 2002

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	9.57	3.69	1.00	1235
7-9 AM Peak Hour Enter	0.19	0.00	1.00	25
7-9 AM Peak Hour Exit	0.56	0.00	1.00	72
7-9 AM Peak Hour Total	0.75	0.90	1.00	97
4-6 PM Peak Hour Enter	0.65	0.00	1.00	84
4-6 PM Peak Hour Exit	0.36	0.00	1.00	46
4-6 PM Peak Hour Total	1.01	1.05	1.00	130
Saturday 2-Way Volume	10.09	3.67	1.00	1302
Saturday Peak Hour Enter	0.51	0.00	1.00	66
Saturday Peak Hour Exit	0.43	0.00	1.00	55
Saturday Peak Hour Total	0.94	0.99	1.00	121

Note: A zero indicates no data available.
Source: Institute of Transportation Engineers
Trip Generation, 6th Edition, 1997.

TRIP GENERATION BY MICROTRANS

STUEBING RANCH
Summary of Trip Generation Calculation
For 1012 Dwelling Units of Single Family Detached Housing
December 11, 2002

2-3PM Projected Rate

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
4-6 PM Peak Hour Enter	0.24	0.00	1.00	243
4-6 PM Peak Hour Exit	0.24	0.00	1.00	243
4-6 PM Peak Hour Total	0.48	0.00	1.00	486

3-4PM Projected Rate

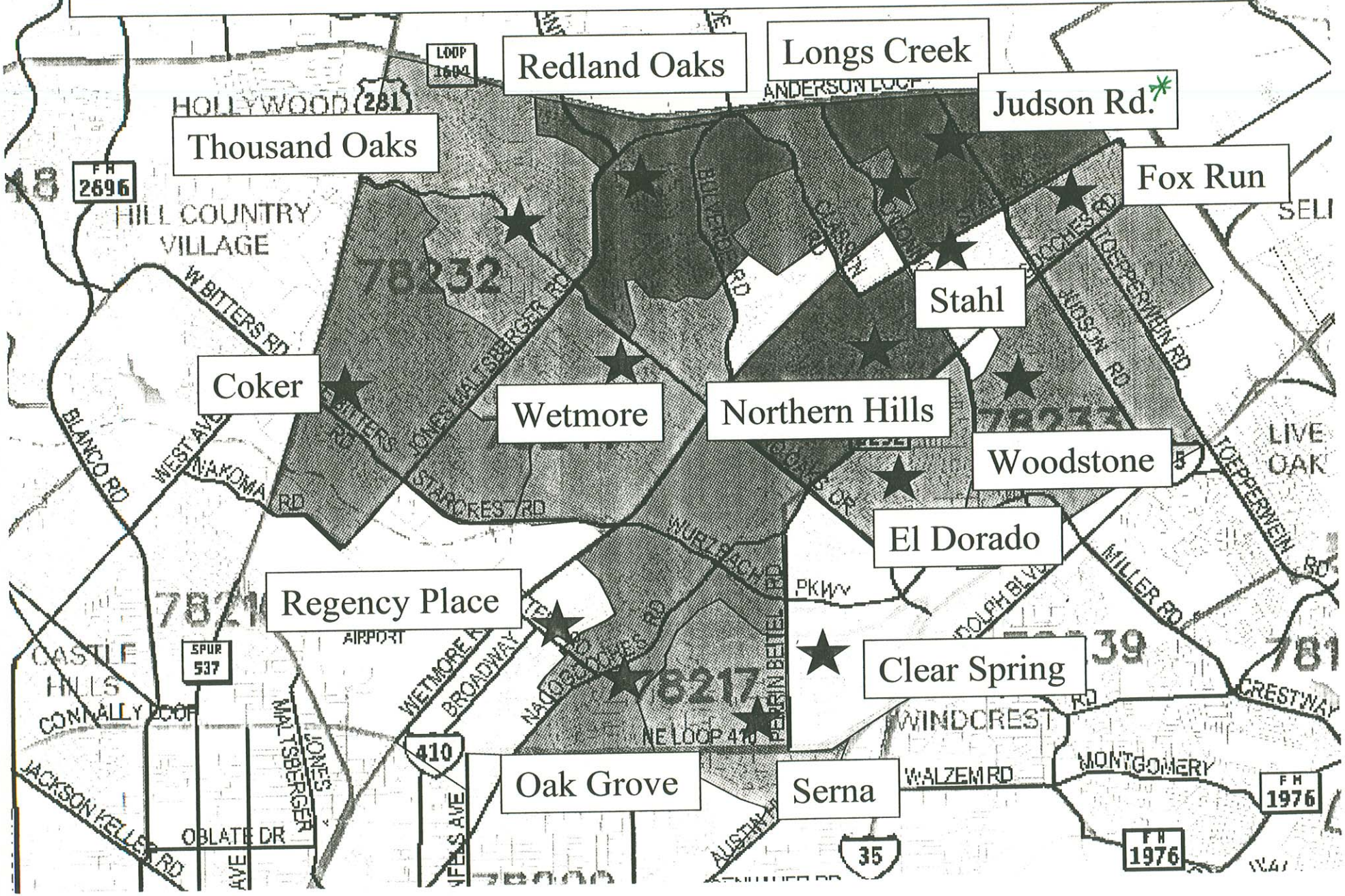
	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
4-6 PM Peak Hour Enter	0.32	0.00	1.00	324
4-6 PM Peak Hour Exit	0.32	0.00	1.00	324
4-6 PM Peak Hour Total	0.64	0.00	1.00	648

Note: A zero indicates no data available.

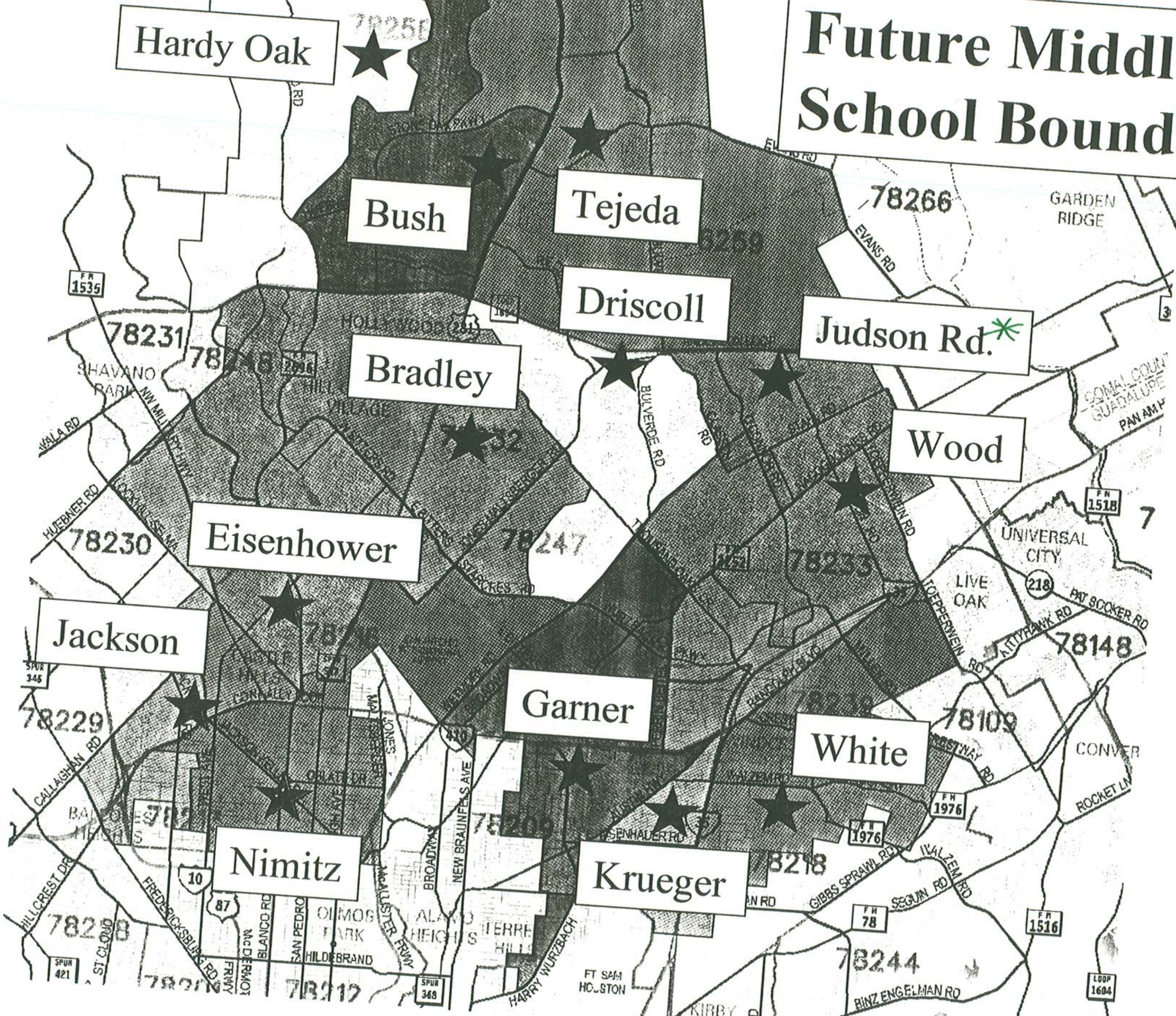
APPENDIX C

SCHOOL BOUNDARY AND INTERSECTION PHOTOGRAPHS

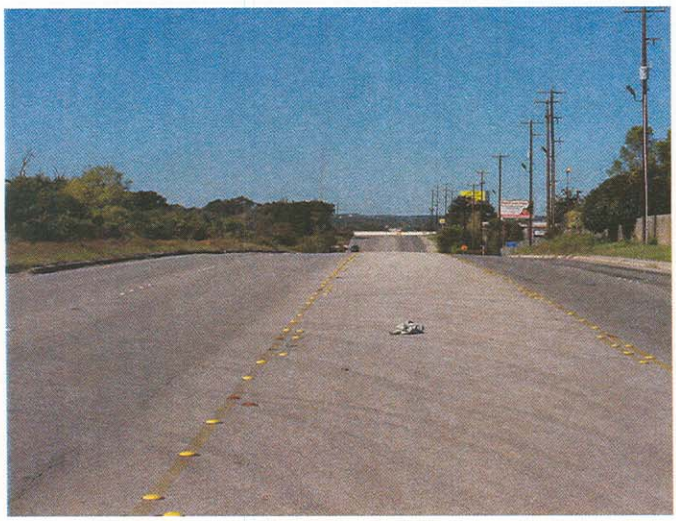
Future East Central Elementary Boundaries



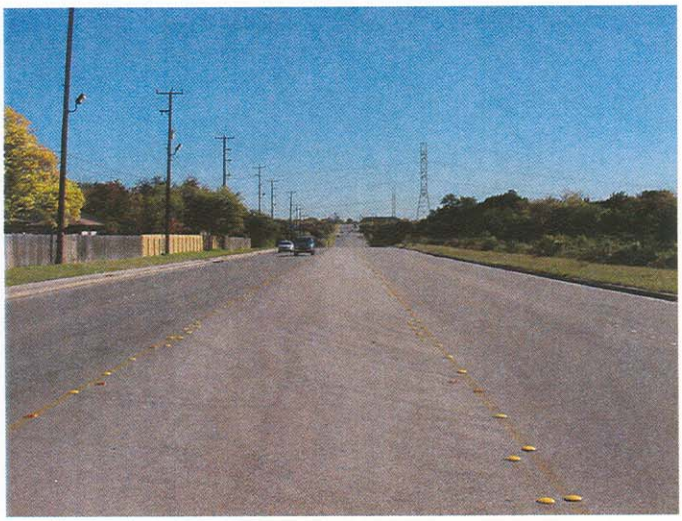
Future Middle School Boundaries



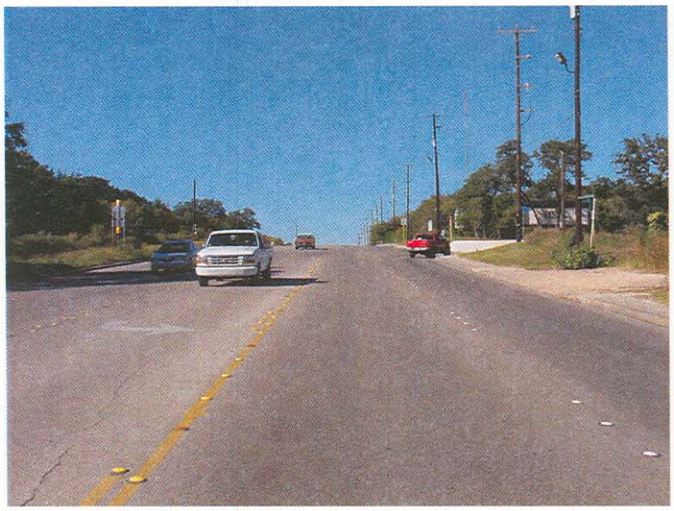
Intersection Photos
San Antonio, Texas



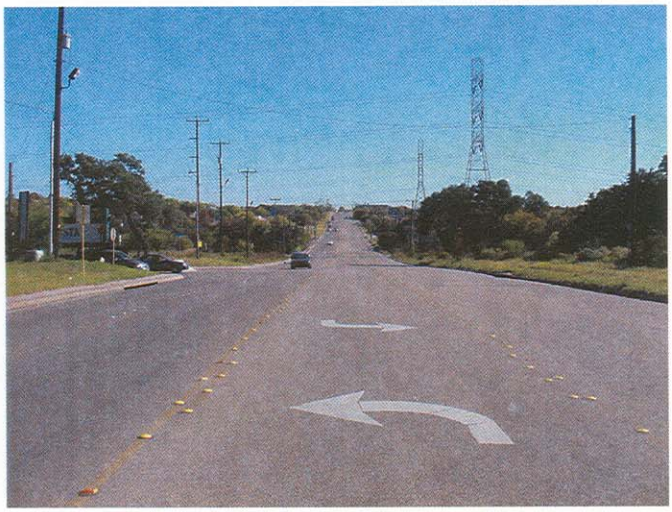
Northbound Judson Road near Future Knollcreek



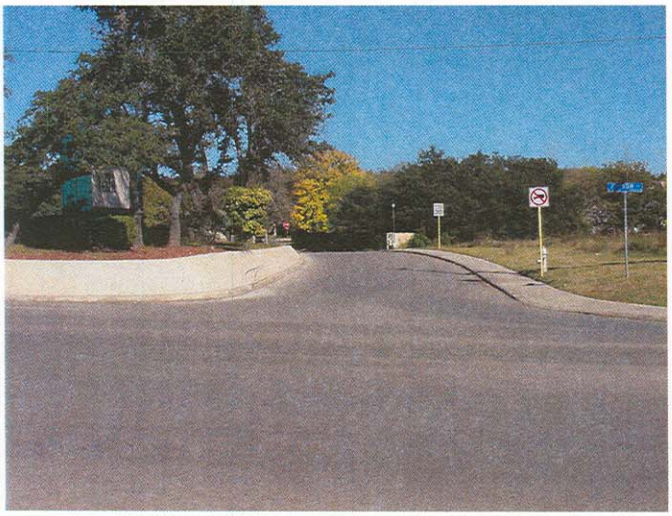
Southbound Judson Road near Future Knollcreek



Northbound Judson Road at Mountain Vista



Southbound Judson Road at Mountain Vista



Eastbound Mountain Vista at Judson Road

Westbound Mountain Vista at Judson Road

APPENDIX D

CAPACITY ANALYSES

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	107	136	152	406	556	271
Peak Hour Factor	0.92	0.92	0.92	0.81	0.88	0.92
Hourly flow rate (veh/h)	116	148	165	501	632	295
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
vC, conflicting volume	1213	316	926			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	14	78	77			
cM capacity (veh/h)	135	680	734			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	116	148	165	251	251	316	316	295
Volume Left	116	0	165	0	0	0	0	0
Volume Right	0	148	0	0	0	0	0	295
cSH	135	680	734	1700	1700	1700	1700	1700
Volume to Capacity	0.86	0.22	0.23	0.15	0.15	0.19	0.19	0.17
Queue Length (ft)	138	21	22	0	0	0	0	0
Control Delay (s)	106.8	11.8	11.3	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	B	B					
Approach Delay (s)	53.6		2.8			0.0		
Approach LOS	F							

Intersection Summary			
Average Delay	8.6		
Intersection Capacity Utilization	43.1%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	313	139	270	724	387	50
Peak Hour Factor	0.92	0.92	0.92	0.81	0.88	0.92
Hourly flow rate (veh/h)	340	151	293	894	440	54
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
vC, conflicting volume	1474	220	494			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	81	72			
cM capacity (veh/h)	85	784	1066			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	340	151	293	447	447	220	220	54
Volume Left	340	0	293	0	0	0	0	0
Volume Right	0	151	0	0	0	0	0	54
cSH	85	784	1066	1700	1700	1700	1700	1700
Volume to Capacity	4.00	0.19	0.28	0.26	0.26	0.13	0.13	0.03
Queue Length (ft)	Err	18	28	0	0	0	0	0
Control Delay (s)	Err	10.7	9.7	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	B	A					
Approach Delay (s)	6927.4		2.4			0.0		
Approach LOS	F							

Intersection Summary			
Average Delay	1567.7		
Intersection Capacity Utilization	57.3%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.95	1.00	0.41	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	757	3539	3539	1583
Volume (vph)	313	139	270	724	387	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.81	0.88	0.92
Adj. Flow (vph)	340	151	293	894	440	54
Lane Group Flow (vph)	340	151	293	894	440	54
Turn Type		pm+ov	pm+pt			pm+ov
Protected Phases	4	5	5	2	6	4
Permitted Phases		4	2			6
Actuated Green, G (s)	17.6	28.8	44.4	44.4	29.2	46.8
Effective Green, g (s)	17.6	28.8	44.4	44.4	29.2	46.8
Actuated g/C Ratio	0.25	0.41	0.63	0.63	0.42	0.67
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	445	742	642	2245	1476	1149
v/s Ratio Prot	c0.19	0.03	c0.07	0.25	0.12	0.01
v/s Ratio Perm		0.06	c0.22			0.02
v/c Ratio	0.76	0.20	0.46	0.40	0.30	0.05
Uniform Delay, d1	24.3	13.2	6.0	6.3	13.6	4.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.6	0.1	0.5	0.5	0.5	0.0
Delay (s)	31.9	13.4	6.5	6.8	14.1	4.0
Level of Service	C	B	A	A	B	A
Approach Delay (s)	26.2			6.7	13.0	
Approach LOS	C			A	B	

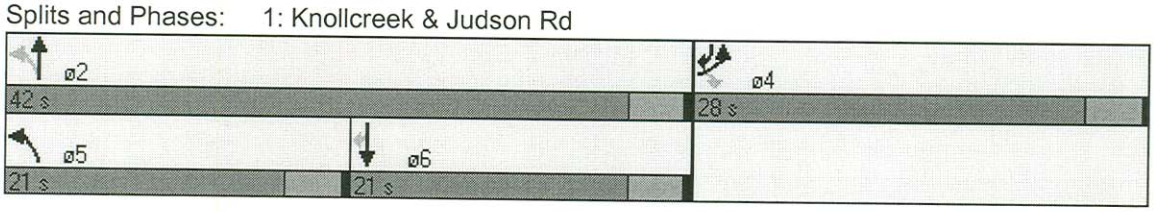
Intersection Summary			
HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.3%	ICU Level of Service	A
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.312			
Satd. Flow (perm)	1770	1583	581	3539	3539	1583
Satd. Flow (RTOR)		151				54
Volume (vph)	313	139	270	724	387	50
Lane Group Flow (vph)	340	151	293	894	440	54
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4	2			6
Total Split (s)	28.0	28.0	21.0	42.0	21.0	28.0
Act Effct Green (s)	17.8	17.8	44.2	44.2	29.0	50.8
Actuated g/C Ratio	0.25	0.25	0.63	0.63	0.41	0.73
v/c Ratio	0.75	0.29	0.53	0.40	0.30	0.05
Uniform Delay, d1	24.1	0.0	5.7	6.4	13.7	0.0
Delay	23.3	3.5	6.9	7.3	16.1	1.4
LOS	C	A	A	A	B	A
Approach Delay	17.2			7.2	14.5	
Approach LOS	B			A	B	
Queue Length 50th (ft)	135	0	48	86	63	0
Queue Length 95th (ft)	195	34	108	134	124	10
Internal Link Dist (ft)	407			1120	1677	
50th Up Block Time (%)						
95th Up Block Time (%)						
Turn Bay Length (ft)						
50th Bay Block Time %						
95th Bay Block Time %						
Queuing Penalty (veh)						

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 28 (40%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 11.1 — Intersection LOS: B
Intersection Capacity Utilization 57.3% — ICU Level of Service A

Splits and Phases: 1: Knollcreek & Judson Rd



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.95	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1770	3539	3370	
Flt Permitted	0.95	1.00	0.23	1.00	1.00	
Satd. Flow (perm)	1770	1583	436	3539	3370	
Volume (vph)	107	136	152	406	556	271
Peak-hour factor, PHF	0.92	0.92	0.92	0.81	0.88	0.92
Adj. Flow (vph)	116	148	165	501	632	295
Lane Group Flow (vph)	116	148	165	501	927	0
Turn Type		pm+ov	pm+pt			
Protected Phases	4	5	5	2	6	
Permitted Phases		4	2			
Actuated Green, G (s)	8.4	17.1	53.6	53.6	40.9	
Effective Green, g (s)	8.4	17.1	53.6	53.6	40.9	
Actuated g/C Ratio	0.12	0.24	0.77	0.77	0.58	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	212	477	500	2710	1969	
v/s Ratio Prot	c0.07	c0.04	0.04	0.14	c0.28	
v/s Ratio Perm		0.05	0.21			
v/c Ratio	0.55	0.31	0.33	0.18	0.47	
Uniform Delay, d1	29.0	21.6	3.3	2.2	8.3	
Progression Factor	1.00	1.00	0.69	0.75	1.00	
Incremental Delay, d2	2.9	0.4	0.4	0.1	0.8	
Delay (s)	31.9	22.0	2.6	1.8	9.2	
Level of Service	C	C	A	A	A	
Approach Delay (s)	26.3			2.0	9.2	
Approach LOS	C			A	A	

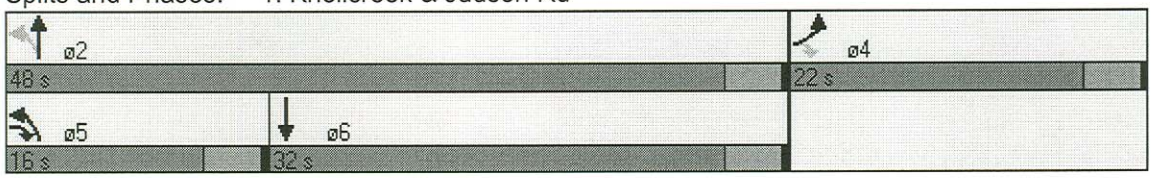
Intersection Summary			
HCM Average Control Delay	9.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	1583	1770	3539	3369	0
Flt Permitted	0.950		0.158			
Satd. Flow (perm)	1770	1583	294	3539	3369	0
Satd. Flow (RTOR)		136			131	
Volume (vph)	107	136	152	406	556	271
Lane Group Flow (vph)	116	148	165	501	927	0
Turn Type		pm+ov	pm+pt			
Protected Phases	4	5	5	2	6	
Permitted Phases		4	2			
Total Split (s)	22.0	16.0	16.0	48.0	32.0	0.0
Act Effct Green (s)	9.6	21.4	54.4	55.2	41.7	
Actuated g/C Ratio	0.14	0.31	0.78	0.79	0.60	
v/c Ratio	0.48	0.26	0.40	0.18	0.45	
Uniform Delay, d1	29.0	1.4	2.1	2.2	6.9	
Delay	27.2	3.7	2.0	2.0	8.1	
LOS	C	A	A	A	A	
Approach Delay	14.0			2.0	8.1	
Approach LOS	B			A	A	
Queue Length 50th (ft)	47	4	15	39	94	
Queue Length 95th (ft)	88	35	6	7	160	
Internal Link Dist (ft)	407			1120	1677	
50th Up Block Time (%)						
95th Up Block Time (%)						
Turn Bay Length (ft)						
50th Bay Block Time %						
95th Bay Block Time %						
Queuing Penalty (veh)						

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 30 (43%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 6.8 Intersection LOS: A
Intersection Capacity Utilization 52.5% ICU Level of Service A

Splits and Phases: 1: Knollcreek & Judson Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (veh/h)	5	66	28	152	21	104	29	53	137	265	100	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	5	72	30	165	23	113	32	58	149	288	109	24

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	41	66	177	124	89	149	397	24
Volume Left (vph)	5	0	165	0	32	0	288	0
Volume Right (vph)	0	30	0	113	0	149	0	24
Hadj (s)	0.1	-0.2	0.2	-0.5	0.1	-0.6	0.2	-0.6
Departure Headway (s)	6.9	6.6	6.7	6.0	6.4	5.7	6.2	5.5
Degree Utilization, x	0.08	0.12	0.33	0.21	0.16	0.24	0.68	0.04
Capacity (veh/h)	476	498	504	562	531	591	566	628
Control Delay (s)	9.3	9.3	11.8	9.3	9.4	9.3	20.3	7.5
Approach Delay (s)	9.3		10.8		9.3		19.6	
Approach LOS	A		B		A		C	

Intersection Summary			
Delay	13.8		
HCM Level of Service	B		
Intersection Capacity Utilization	50.8%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (veh/h)	6	28	10	58	29	119	14	52	74	110	38	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	7	30	11	63	32	129	15	57	80	120	41	13

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	22	26	79	145	72	80	161	13
Volume Left (vph)	7	0	63	0	15	0	120	0
Volume Right (vph)	0	11	0	129	0	80	0	13
Hadj (s)	0.1	-0.2	0.2	-0.5	0.1	-0.6	0.2	-0.6
Departure Headway (s)	5.7	5.3	5.6	4.9	5.4	4.8	5.5	4.8
Degree Utilization, x	0.03	0.04	0.12	0.20	0.11	0.11	0.25	0.02
Capacity (veh/h)	592	629	611	700	631	711	623	714
Control Delay (s)	7.7	7.4	8.1	7.9	7.9	7.2	9.1	6.6
Approach Delay (s)	7.5		8.0		7.5		8.9	
Approach LOS	A		A		A		A	

Intersection Summary			
Delay	8.1		
HCM Level of Service	A		
Intersection Capacity Utilization	32.4%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	66	28	152	21	104	29	53	137	265	100	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	5	72	30	165	23	113	32	58	149	288	109	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
vC, conflicting volume	136			102			518	564	51	634	523	68
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			89			90	85	85	0	73	98
cM capacity (veh/h)	1446			1488			312	384	1006	251	405	981

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	41	66	177	124	89	149	397	24
Volume Left	5	0	165	0	32	0	288	0
Volume Right	0	30	0	113	0	149	0	24
cSH	1446	1700	1488	1700	355	1006	280	981
Volume to Capacity	0.00	0.04	0.11	0.07	0.25	0.15	1.42	0.02
Queue Length (ft)	0	0	9	0	24	13	538	2
Control Delay (s)	1.0	0.0	7.3	0.0	18.5	9.2	242.4	8.8
Lane LOS	A		A		C	A	F	A
Approach Delay (s)	0.4		4.3		12.7		229.1	
Approach LOS					B		F	

Intersection Summary			
Average Delay	94.4		
Intersection Capacity Utilization	50.8%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	6	28	10	58	29	119	14	52	74	110	38	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	7	30	11	63	32	129	15	57	80	120	41	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
vC, conflicting volume	161			41			224	336	21	359	277	80
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			96			98	90	92	75	93	99
cM capacity (veh/h)	1416			1566			643	557	1052	471	602	963

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	7	20	21	63	21	140	72	80	161	13
Volume Left	7	0	0	63	0	0	15	0	120	0
Volume Right	0	0	11	0	0	129	0	80	0	13
cSH	1416	1700	1700	1566	1700	1700	574	1052	498	963
Volume to Capacity	0.00	0.01	0.01	0.04	0.01	0.08	0.13	0.08	0.32	0.01
Queue Length (ft)	0	0	0	3	0	0	11	6	35	1
Control Delay (s)	7.6	0.0	0.0	7.4	0.0	0.0	12.2	8.7	15.6	8.8
Lane LOS	A			A			B	A	C	A
Approach Delay (s)	1.0			2.1			10.3		15.1	
Approach LOS							B		C	

Intersection Summary			
Average Delay	7.9		
Intersection Capacity Utilization	32.3%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1000	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	0.96		1.00	0.88			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98	1.00		0.96	1.00
Satd. Flow (prot)	1770	3383		1770	3098			963	1583		1798	1583
Flt Permitted	0.67	1.00		0.69	1.00			0.85	1.00		0.73	1.00
Satd. Flow (perm)	1240	3383		1281	3098			835	1583		1357	1583
Volume (vph)	5	66	28	152	21	104	29	53	137	265	100	22
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	72	30	165	23	113	32	58	149	288	109	24
Lane Group Flow (vph)	5	102	0	165	136	0	0	90	149	0	397	24
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	12.0	12.0		12.0	12.0			28.7	28.7		28.7	28.7
Effective Green, g (s)	12.0	12.0		12.0	12.0			28.7	28.7		28.7	28.7
Actuated g/C Ratio	0.25	0.25		0.25	0.25			0.59	0.59		0.59	0.59
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	306	834		316	763			492	933		800	933
v/s Ratio Prot		0.03			0.04							
v/s Ratio Perm	0.00			c0.13				0.11	0.09		c0.29	0.02
v/c Ratio	0.02	0.12		0.52	0.18			0.18	0.16		0.50	0.03
Uniform Delay, d1	13.9	14.3		15.9	14.5			4.6	4.5		5.8	4.2
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	0.1		1.6	0.1			0.2	0.1		0.5	0.0
Delay (s)	13.9	14.3		17.4	14.6			4.8	4.6		6.3	4.2
Level of Service	B	B		B	B			A	A		A	A
Approach Delay (s)		14.3			16.1			4.7			6.2	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	48.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1000	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	0.96		1.00	0.88			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99	1.00		0.96	1.00
Satd. Flow (prot)	1770	3397		1770	3114			970	1583		1796	1583
Flt Permitted	0.65	1.00		0.73	1.00			0.95	1.00		0.78	1.00
Satd. Flow (perm)	1211	3397		1358	3114			930	1583		1455	1583
Volume (vph)	6	28	10	58	29	119	14	52	74	110	38	12
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	30	11	63	32	129	15	57	80	120	41	13
Lane Group Flow (vph)	7	41	0	63	161	0	0	72	80	0	161	13
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	7.6	7.6		7.6	7.6			18.3	18.3		18.3	18.3
Effective Green, g (s)	7.6	7.6		7.6	7.6			18.3	18.3		18.3	18.3
Actuated g/C Ratio	0.22	0.22		0.22	0.22			0.54	0.54		0.54	0.54
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	271	762		304	698			502	855		785	855
v/s Ratio Prot		0.01			c0.05							
v/s Ratio Perm	0.01			0.05				0.08	0.05		c0.11	0.01
v/c Ratio	0.03	0.05		0.21	0.23			0.14	0.09		0.21	0.02
Uniform Delay, d1	10.3	10.3		10.7	10.8			3.9	3.8		4.0	3.6
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	0.0		0.3	0.2			0.1	0.0		0.1	0.0
Delay (s)	10.3	10.4		11.0	10.9			4.0	3.8		4.2	3.6
Level of Service	B	B		B	B			A	A		A	A
Approach Delay (s)		10.3			11.0			3.9			4.1	
Approach LOS		B			B			A			A	

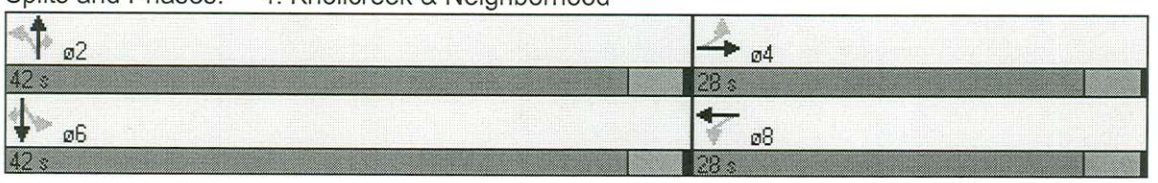
Intersection Summary			
HCM Average Control Delay	7.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.21		
Actuated Cycle Length (s)	33.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	32.3%	ICU Level of Service	A
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	3383	0	1770	3097	0	0	964	1583	0	1798	1583
Flt Permitted	0.666			0.688				0.840			0.728	
Satd. Flow (perm)	1241	3383	0	1282	3097	0	0	824	1583	0	1356	1583
Satd. Flow (RTOR)		30			113				149			24
Volume (vph)	5	66	28	152	21	104	29	53	137	265	100	22
Lane Group Flow (vph)	5	102	0	165	136	0	0	90	149	0	397	24
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	28.0	28.0	0.0	28.0	28.0	0.0	42.0	42.0	42.0	42.0	42.0	42.0
Act Effct Green (s)	13.0	13.0		13.1	13.1			29.1	29.1		29.1	29.1
Actuated g/C Ratio	0.25	0.25		0.25	0.25			0.58	0.58		0.58	0.58
v/c Ratio	0.02	0.12		0.51	0.16			0.19	0.15		0.50	0.03
Uniform Delay, d1	13.8	10.0		15.9	2.4			4.6	0.0		5.8	0.0
Delay	11.2	7.8		11.6	4.0			6.2	1.5		7.3	3.0
LOS	B	A		B	A			A	A		A	A
Approach Delay		8.0			8.2			3.3			7.0	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	1	4		21	1			8	0		43	0
Queue Length 95th (ft)	7	22		86	17			35	0		145	0
Internal Link Dist (ft)		2837			463			569			506	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)				100								
50th Bay Block Time %												
95th Bay Block Time %				1%								
Queuing Penalty (veh)												

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 50.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 6.6 — Intersection LOS: A
Intersection Capacity Utilization 50.8% — ICU Level of Service A

Splits and Phases: 4: Knollcreek & Neighborhood



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	416	52	68	250	27	66
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	452	57	74	272	29	72
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
vC, conflicting volume			509		764	254
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			93		91	90
cM capacity (veh/h)			1053		316	745

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	301	207	74	136	136	29	72
Volume Left	0	0	74	0	0	29	0
Volume Right	0	57	0	0	0	0	72
cSH	1700	1700	1053	1700	1700	316	745
Volume to Capacity	0.18	0.12	0.07	0.08	0.08	0.09	0.10
Queue Length (ft)	0	0	6	0	0	8	8
Control Delay (s)	0.0	0.0	8.7	0.0	0.0	17.6	10.3
Lane LOS			A			C	B
Approach Delay (s)	0.0		1.9			12.4	
Approach LOS						B	

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	31.7%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	192	20	26	182	24	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	209	22	28	198	26	39
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
vC, conflicting volume			230		375	115
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		96	96
cM capacity (veh/h)			1335		586	915

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	139	91	28	99	99	26	39
Volume Left	0	0	28	0	0	26	0
Volume Right	0	22	0	0	0	0	39
cSH	1700	1700	1335	1700	1700	586	915
Volume to Capacity	0.08	0.05	0.02	0.06	0.06	0.04	0.04
Queue Length (ft)	0	0	2	0	0	3	3
Control Delay (s)	0.0	0.0	7.8	0.0	0.0	11.4	9.1
Lane LOS			A			B	A
Approach Delay (s)	0.0		1.0			10.0	
Approach LOS						B	

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	16.5%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	488	159	31	136	53	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	530	173	34	148	58	104
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
vC, conflicting volume			703		758	352
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		83	84
cM capacity (veh/h)			890		330	645

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	354	350	34	74	74	58	104
Volume Left	0	0	34	0	0	58	0
Volume Right	0	173	0	0	0	0	104
cSH	1700	1700	890	1700	1700	330	645
Volume to Capacity	0.21	0.21	0.04	0.04	0.04	0.17	0.16
Queue Length (ft)	0	0	3	0	0	16	14
Control Delay (s)	0.0	0.0	9.2	0.0	0.0	18.2	11.7
Lane LOS			A			C	B
Approach Delay (s)	0.0		1.7			14.0	
Approach LOS						B	

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	33.3%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	173	62	44	203	68	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	188	67	48	221	74	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
vC, conflicting volume			255		428	128
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		86	98
cM capacity (veh/h)			1307		535	899

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	125	130	48	110	110	74	21
Volume Left	0	0	48	0	0	74	0
Volume Right	0	67	0	0	0	0	21
cSH	1700	1700	1307	1700	1700	535	899
Volume to Capacity	0.07	0.08	0.04	0.06	0.06	0.14	0.02
Queue Length (ft)	0	0	3	0	0	12	2
Control Delay (s)	0.0	0.0	7.9	0.0	0.0	12.8	9.1
Lane LOS			A			B	A
Approach Delay (s)	0.0		1.4			12.0	
Approach LOS						B	

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	18.1%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	375	209	32	129	38	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	408	227	35	140	41	104
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
vC, conflicting volume			635		661	317
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		89	85
cM capacity (veh/h)			944		381	678

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	272	363	35	70	70	41	104
Volume Left	0	0	35	0	0	41	0
Volume Right	0	227	0	0	0	0	104
cSH	1700	1700	944	1700	1700	381	678
Volume to Capacity	0.16	0.21	0.04	0.04	0.04	0.11	0.15
Queue Length (ft)	0	0	3	0	0	9	14
Control Delay (s)	0.0	0.0	9.0	0.0	0.0	15.6	11.3
Lane LOS			A			C	B
Approach Delay (s)	0.0		1.8			12.5	
Approach LOS						B	

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	31.7%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	173	62	44	203	68	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	188	67	48	221	74	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
vC, conflicting volume			255		428	128
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		86	98
cM capacity (veh/h)			1307		535	899

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	125	130	48	110	110	74	21
Volume Left	0	0	48	0	0	74	0
Volume Right	0	67	0	0	0	0	21
cSH	1700	1700	1307	1700	1700	535	899
Volume to Capacity	0.07	0.08	0.04	0.06	0.06	0.14	0.02
Queue Length (ft)	0	0	3	0	0	12	2
Control Delay (s)	0.0	0.0	7.9	0.0	0.0	12.8	9.1
Lane LOS			A			B	A
Approach Delay (s)	0.0		1.4			12.0	
Approach LOS						B	

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	18.1%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	143	24	28	148	69	122	127	576	52	10	423	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	155	26	30	161	75	133	138	626	57	11	460	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
vC, conflicting volume	1245	1444	234	1226	1420	341	467			683		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	77	96	0	36	80	87			99		
cM capacity (veh/h)	46	113	768	96	117	655	1090			906		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	182	30	236	133	138	417	265	11	307	161
Volume Left	155	0	161	0	138	0	0	11	0	0
Volume Right	0	30	0	133	0	0	57	0	0	8
cSH	50	768	101	655	1090	1700	1700	906	1700	1700
Volume to Capacity	3.62	0.04	2.32	0.20	0.13	0.25	0.16	0.01	0.18	0.09
Queue Length (ft)	Err	3	525	19	11	0	0	1	0	0
Control Delay (s)	Err	9.9	693.0	11.9	8.8	0.0	0.0	9.0	0.0	0.0
Lane LOS	F	A	F	B	A			A		
Approach Delay (s)	8564.7		447.9		1.5			0.2		
Approach LOS	F		F							

Intersection Summary			
Average Delay	1054.5		
Intersection Capacity Utilization	52.0%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	143	24	28	148	69	122	127	576	52	10	423	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	155	26	30	161	75	133	138	626	57	11	460	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
vC, conflicting volume	1245	1444	234	1226	1420	341	467			683		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	77	96	0	36	80	87			99		
cM capacity (veh/h)	46	113	768	96	117	655	1090			906		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	104	108	236	133	451	370	241	238
Volume Left	104	52	161	0	138	0	11	0
Volume Right	0	30	0	133	0	57	0	8
cSH	46	77	101	655	1090	1700	906	1700
Volume to Capacity	2.26	1.40	2.32	0.20	0.13	0.22	0.01	0.14
Queue Length (ft)	270	215	525	19	11	0	1	0
Control Delay (s)	766.2	334.7	693.0	11.9	3.6	0.0	0.5	0.0
Lane LOS	F	F	F	B	A		A	
Approach Delay (s)	545.7		447.9		2.0		0.3	
Approach LOS	F		F					

Intersection Summary			
Average Delay	150.3		
Intersection Capacity Utilization	65.9%	ICU Level of Service	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	14	19	66	79	19	38	42	382	81	54	556	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	15	21	72	86	21	41	46	415	88	59	604	32
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
vC, conflicting volume	1088	1332	318	1052	1304	252	636			503		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	88	85	89	35	86	94	95			94		
cM capacity (veh/h)	132	138	678	132	143	748	943			1057		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	36	72	107	41	46	277	226	59	403	233
Volume Left	15	0	86	0	46	0	0	59	0	0
Volume Right	0	72	0	41	0	0	88	0	0	32
cSH	135	678	134	748	943	1700	1700	1057	1700	1700
Volume to Capacity	0.27	0.11	0.79	0.06	0.05	0.16	0.13	0.06	0.24	0.14
Queue Length (ft)	25	9	121	4	4	0	0	4	0	0
Control Delay (s)	41.0	10.9	93.8	10.1	9.0	0.0	0.0	8.6	0.0	0.0
Lane LOS	E	B	F	B	A			A		
Approach Delay (s)	21.0		70.4		0.7			0.7		
Approach LOS	C		F							

Intersection Summary			
Average Delay	9.1		
Intersection Capacity Utilization	38.0%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	0.90		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1713		1770	1684		1770	3495		1770	3530	
Flt Permitted	0.62	1.00		0.48	1.00		0.47	1.00		0.35	1.00	
Satd. Flow (perm)	1147	1713		895	1684		873	3495		650	3530	
Volume (vph)	143	24	28	148	69	122	127	576	52	10	423	7
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	155	26	30	161	75	133	138	626	57	11	460	8
Lane Group Flow (vph)	155	56	0	161	208	0	138	683	0	11	468	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.9	7.2		24.1	10.8		37.5	37.5		37.5	37.5	
Effective Green, g (s)	16.9	7.2		24.1	10.8		37.5	37.5		37.5	37.5	
Actuated g/C Ratio	0.24	0.10		0.34	0.15		0.54	0.54		0.54	0.54	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	363	176		474	260		468	1872		348	1891	
v/s Ratio Prot	c0.06	0.03		c0.06	c0.12			c0.20			0.13	
v/s Ratio Perm	0.04			0.05			0.16			0.02		
v/c Ratio	0.43	0.32		0.34	0.80		0.29	0.36		0.03	0.25	
Uniform Delay, d1	22.1	29.1		16.7	28.6		9.0	9.4		7.7	8.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.42	0.36	
Incremental Delay, d2	0.8	1.0		0.4	16.0		1.6	0.6		0.2	0.3	
Delay (s)	22.9	30.2		17.1	44.5		10.6	9.9		3.4	3.5	
Level of Service	C	C		B	D		B	A		A	A	
Approach Delay (s)		24.8			32.6			10.0			3.5	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.5%	ICU Level of Service	A
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.92			1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1718			1791	1583	1770	3484		1770	3536	
Flt Permitted	0.38	1.00			0.75	1.00	0.42	1.00		0.45	1.00	
Satd. Flow (perm)	702	1718			1393	1583	777	3484		834	3536	
Volume (vph)	75	13	14	148	36	122	65	451	52	10	392	3
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	82	14	15	161	39	133	71	490	57	11	426	3
Lane Group Flow (vph)	82	29	0	0	200	133	71	547	0	11	429	0
Turn Type	pm+pt			pm+pt		Perm	pm+pt			Perm		
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	24.0	24.0			13.5	13.5	38.0	38.0		30.0	30.0	
Effective Green, g (s)	24.0	24.0			13.5	13.5	38.0	38.0		30.0	30.0	
Actuated g/C Ratio	0.34	0.34			0.19	0.19	0.54	0.54		0.43	0.43	
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	340	589			269	305	479	1891		357	1515	
v/s Ratio Prot	c0.02	0.02					0.01	c0.16			0.12	
v/s Ratio Perm	0.06				c0.14	0.08	0.07			0.01		
v/c Ratio	0.24	0.05			0.74	0.44	0.15	0.29		0.03	0.28	
Uniform Delay, d1	16.2	15.4			26.6	24.9	7.9	8.7		11.6	13.0	
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		0.52	0.54	
Incremental Delay, d2	0.4	0.0			10.6	1.0	0.1	0.4		0.1	0.4	
Delay (s)	16.6	15.4			37.2	25.9	8.0	9.1		6.2	7.4	
Level of Service	B	B			D	C	A	A		A	A	
Approach Delay (s)		16.3			32.7			8.9			7.4	
Approach LOS		B			C			A			A	

Intersection Summary			
HCM Average Control Delay	14.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
c Critical Lane Group			

APPENDIX E

TRAFFIC SIGNAL WARRANT STUDY

Warrant Study

TRAFFIC SURVEY - COUNT ANALYSIS
1980 TMUTCD WARRANTS (Rev. 5)

County: Bexar

City: San Antonio

Mapsco Coordinates: **519-A4**

Survey Date: **2005 PROJECTED**

		# Approach Lanes		85% Speed
Major	**JUDSON ROAD**	2		40
Minor	**KNOLLCREEK**	2		30

Eight High Hours : Lowest Volume of 8 hour study is the 8th highest hour.
Major and minor 8th high hours may not be the same hour.

Time Begins	Major Street Both Approaches Vehicles	Major Street Both Approaches Peds.	Minor Street High Vol. App. Vehicles	Minor Street High Vol. App. Peds.
7:00 AM	1,454		491	
4:00 PM	1,385		243	
8:00 AM	1,058		493	
5:00 PM	1,336		194	
3:00 PM	1,081		246	
6:00 PM	999		198	
2:00 PM	778		174	
12:00 PM	719		135	

Comments

PROJECTED CONDITIONS FOR 2005 WITH ELEM SCHOOL & MIDDLE SCHOOL, PLUS BUILDOUT OF STEUBING RANCH SATISFY WARRANTS FOR SIGNALIZATION. RECOMMENDATION: THE INSTALLATION OF A TRAFFIC SIGNAL IS EXPECTED TO IMPROVE THE OPERATION AND SAFETY OF THE INTERSECTION.

Warrant 1: Minimum Vehicular Volume

Number of Lanes		Major St. - Both Approaches 8th Highest Hour				Minor St. - High Volume Appr. 8th Highest Hour			
		Required		Existing		Required		Existing	
Major Street	Minor Street	Urban	Rural		%	Urban	Rural		%
1	1	500	350	-		150	105	-	
2 or >	1	600	420	-		150	105	-	
2 or >	2 or >	600	420	719	171%	200	140	135	96%
1	2 or >	500	350	-		200	140	-	

NOT SATISFIED

Warrant 2: Interruption of Continuous Traffic

Number of Lanes		Major St. - Both Approaches 8th Highest Hour				Minor St. - High Volume Appr. 8th Highest Hour			
		Required		Existing		Required		Existing	
Major Street	Minor Street	Urban	Rural		%	Urban	Rural		%
1	1	750	525	-		75	52	-	
2 or >	1	900	630	-		75	52	-	
2 or >	2 or >	900	630	719	114%	100	70	135	193%
1	2 or >	750	525	-		100	70	-	

SATISFIED

Warrant 3: Minimum Pedestrian Volume

		Major Street Traffic		Ped. X-Walk Across Maj. St. Required >3.5"	<3.5"	Existing
Yes	No	< than 60 gaps/hr. in traffic stream				
Yes	No	> than 300 ft. to nearest signal?	Four Hours	100	50	_____ %
			One Hour	190	95	_____

NOT SATISFIED

Warrant 4: School Crossing

Yes	No	Is the number of adequate gaps in the traffic stream during the period when the children are using the crossing less than the number of minutes in the same period?	**NOT APPLICABLE**

Warrant 5: Progressive Movement

Yes	No	Are the adjacent signals in a signal system?	
Yes	No	Would the resultant spacing be 1000 feet or more?	**NOT SATISFIED**

Warrant 6: Accident Experience

Yes	No	Is 80% or more of one of Warrants #1, #2, or #3 met?	
Yes	No	Have there been more than five accidents susceptible to correction by a traffic signal in 12 months?	**NOT APPLICABLE**

Warrant 7: System Warrant

Yes No Is the peak hour (or each of five hours on weekend) entering traffic volume on all approaches greater than 1000?

Check applicable characteristics of each route.

Major Street	1 _____	2 _____	3 _____	4 _____	5 _____
Minor Street	1 _____	2 _____	3 _____	4 _____	5 _____

Definition of Characteristics

1. It is part of street or highway system that serves as the principal network for through traffic flow.
2. It connects areas of principal traffic generation.
3. It includes rural or suburban highways outside, entering or traversing a city.
4. It has surface street freeway or expressway ramp terminals.
5. It appears as a major route on an official plan such as a major street plan in an urban area traffic and transportation study.

NOT APPLICABLE

Warrant 8: Combination of Warrants

Yes	No	Are 80% or more of two of Warrants #1, #2, or #3 met?	**SATISFIED**

Other Warrants (Attach Supplemental Sheets)

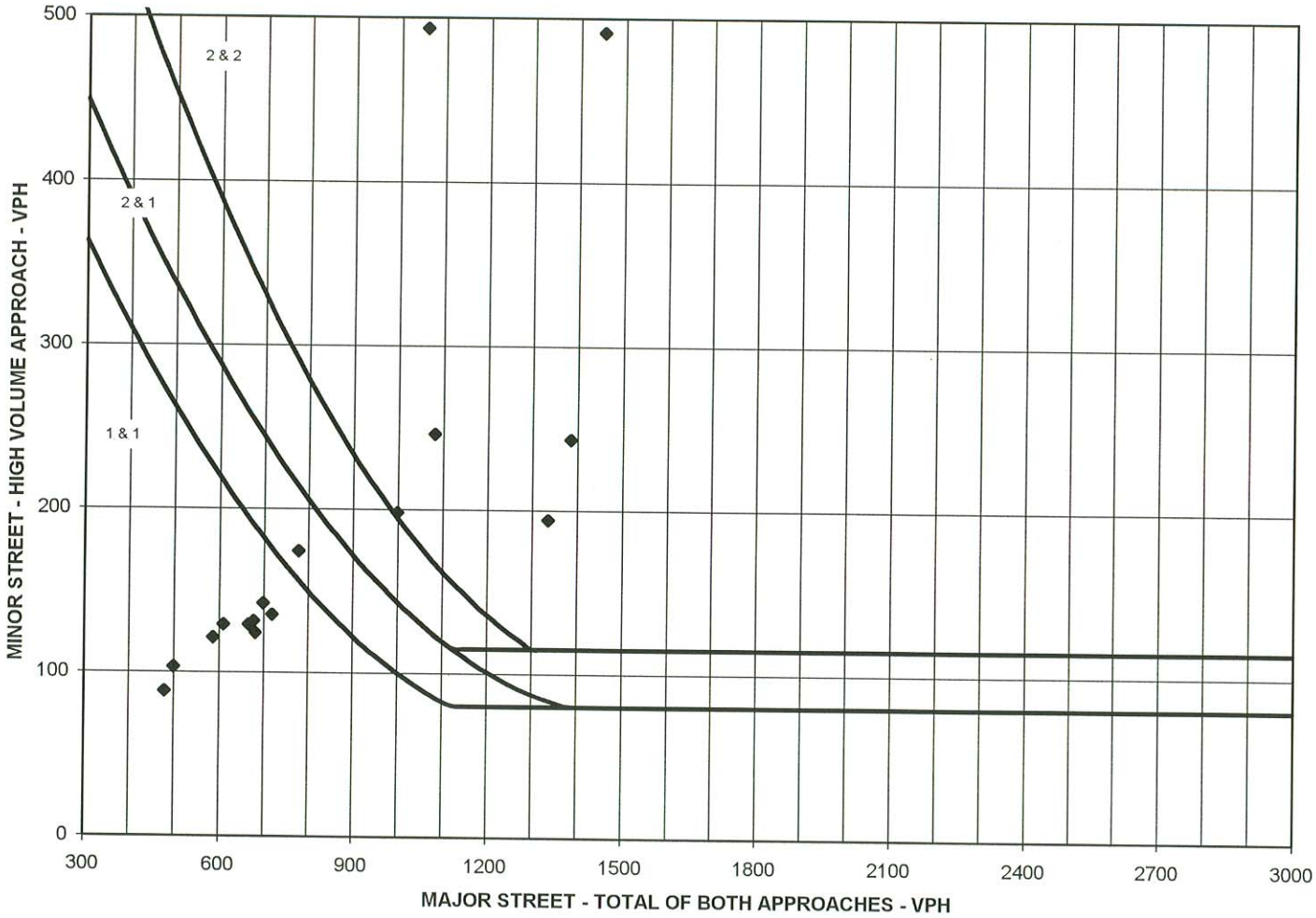
Yes	No	**Warrant 9: Four Hour Volumes**	**SATISFIED**
Yes	No	**Warrant 10: Peak Hour Delay**	**NOT REVIEWED**
Yes	No	**Warrant 11: Peak Hour Volume**	**SATISFIED**
Yes	No	**Warrant 12: Traffic Actuated Signals**	**SATISFIED**

Remarks _____

_____

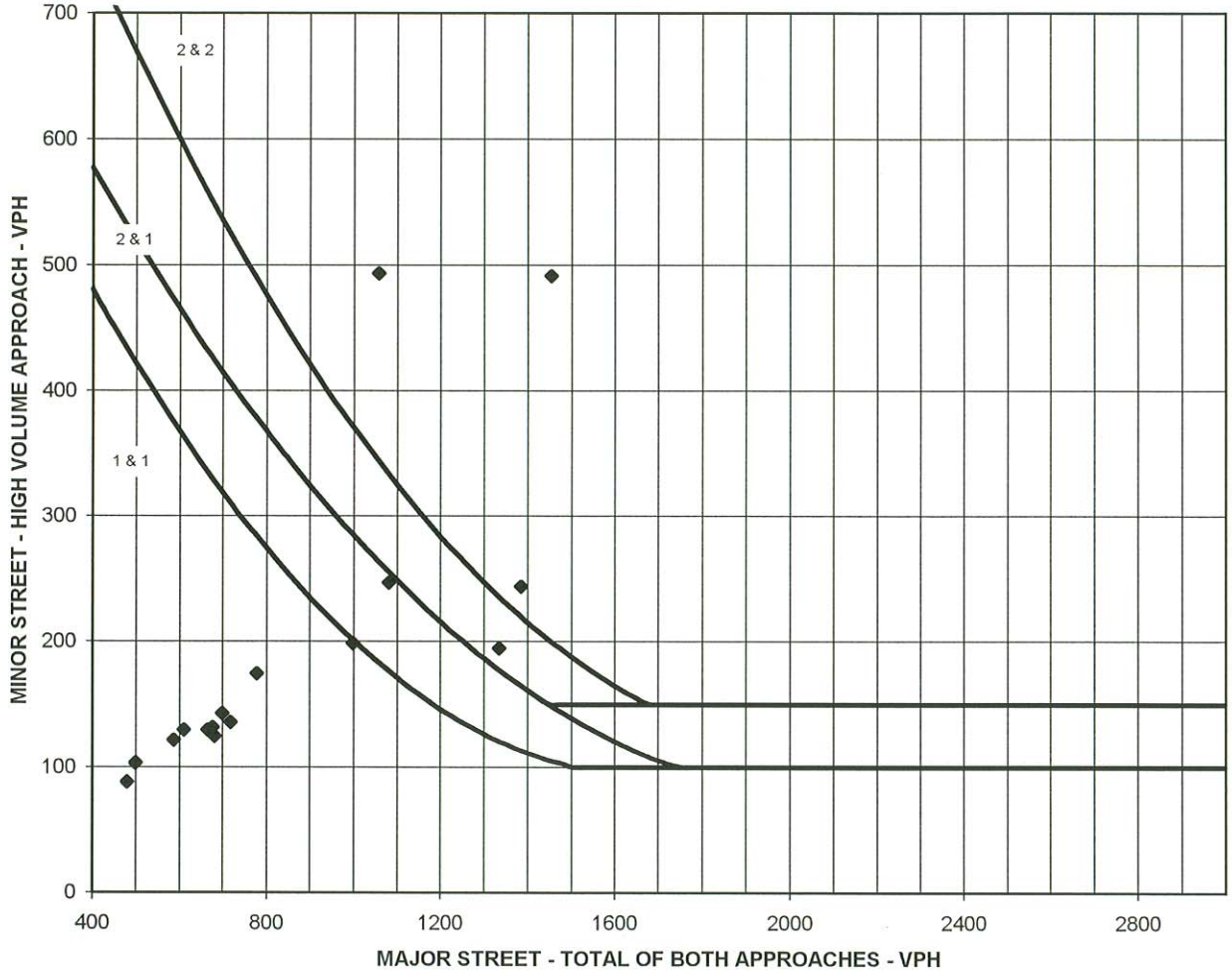
TOTAL NUMBER OF WARRANTS SATISFIED 5

WARRANT #9 FOUR HOUR VOLUME WARRANT



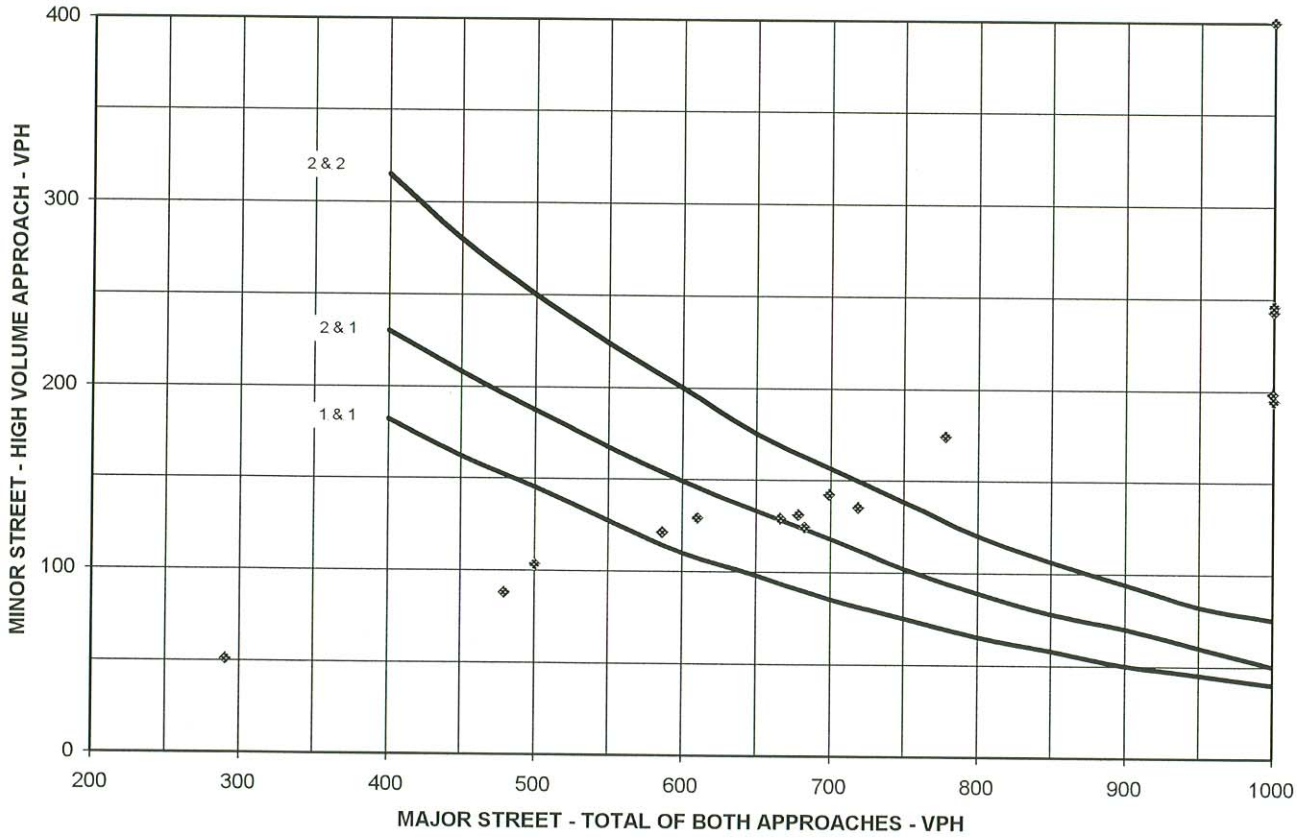
NOTE: 115 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE,

WARRANT 11 PEAK HOUR VOLUME WARRANT
(Figure 4-5)

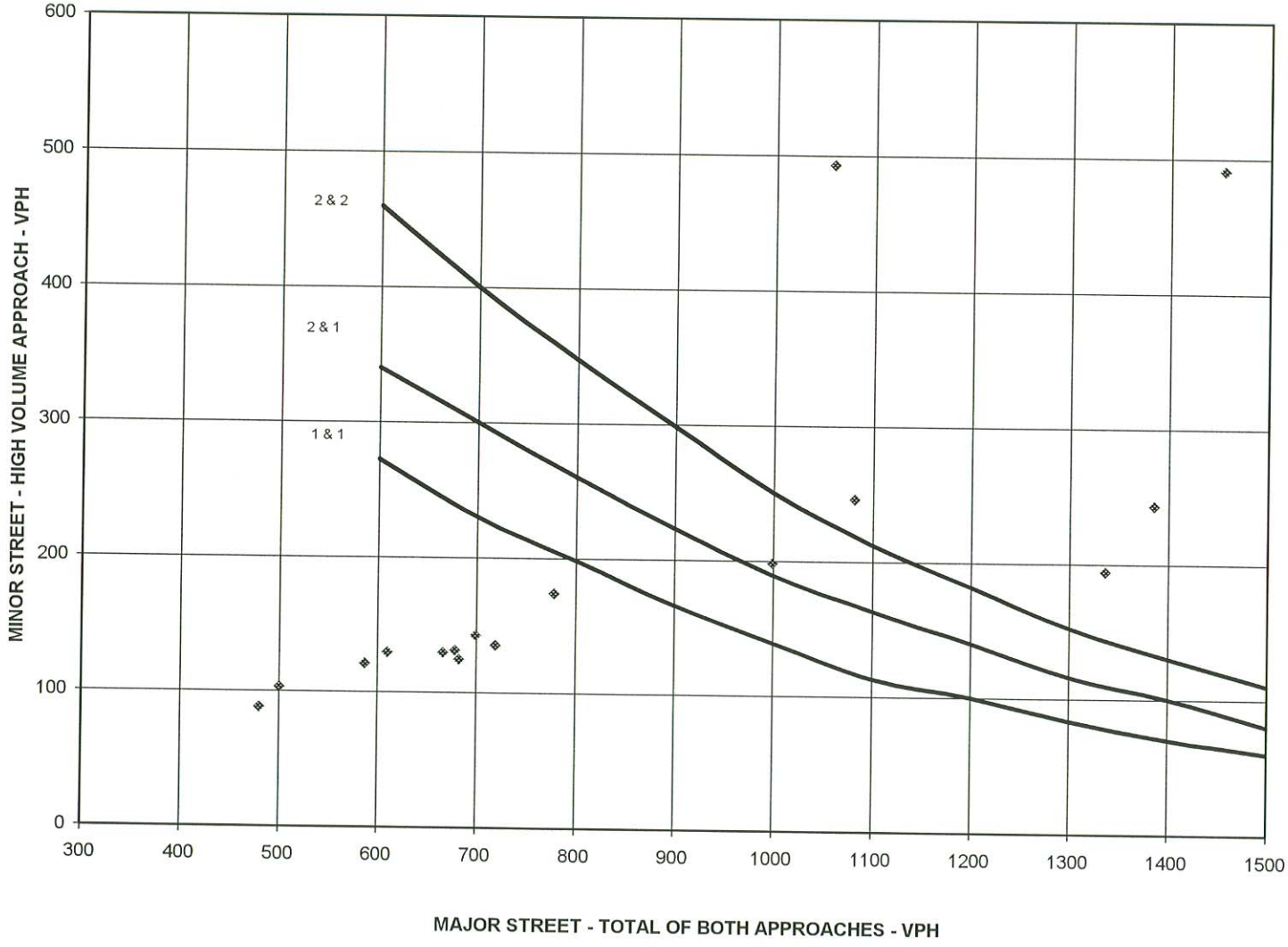


NOTE: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE,

WARRANT 12 - (8 Hour URBAN)
Traffic Actuated Figure 4-2.4



WARRANT 12 - (2 Hours URBAN) Traffic Actuated Figure 4-2.6



TRAFFIC SURVEY - COUNT ANALYSIS
1980 TMUTCD WARRANTS (Rev. 5)

County: Bexar

City: San Antonio

Mapsco Coordinates: **519-A4**

Survey Date: **2005 PROJECTED**

		# Approach Lanes		85% Speed
Major	**JUDSON ROAD**	2		40
Minor	**MNT VISTA DR**	2		30

Eight High Hours : Lowest Volume of 8 hour study is the 8th highest hour.
Major and minor 8th high hours may not be the same hour.

Time Begins	Major Street Both Approaches Vehicles	Peds.	Minor Street High Vol. App. Vehicles	Peds.
7:00 AM	1,551		375	
8:00 AM	1,133		278	
4:00 PM	1,245		159	
5:00 PM	1,193		159	
3:00 PM	1,025		154	
6:00 PM	968		165	
2:00 PM	758		117	
6:00 AM	677		156	

Comments

PROJECTED CONDITIONS FOR 2005 WITH ELEM SCHOOL & MIDDLE SCHOOL, PLUS BUILDOUT OF STEUBING RANCH SATISFY WARRANTS FOR SIGNALIZATION. RECOMMENDATION: THE INSTALLATION OF A TRAFFIC SIGNAL IS EXPECTED TO IMPROVE THE OPERATION AND SAFETY OF THE INTERSECTION.

Warrant 1: Minimum Vehicular Volume

Number of Lanes		Major St. - Both Approaches 8th Highest Hour				Minor St. - High Volume Appr. 8th Highest Hour			
Major Street	Minor Street	Required Urban	Required Rural	Existing	%	Required Urban	Required Rural	Existing	%
1	1	500	350	-		150	105	-	
2 or >	1	600	420	-		150	105	-	
2 or >	2 or >	600	420	677	113%	200	140	156	78%
1	2 or >	500	350	-		200	140	-	

NOT SATISFIED

Warrant 2: Interruption of Continuous Traffic

Number of Lanes		Major St. - Both Approaches 8th Highest Hour				Minor St. - High Volume Appr. 8th Highest Hour			
Major Street	Minor Street	Required Urban	Required Rural	Existing	%	Required Urban	Required Rural	Existing	%
1	1	750	525	-		75	52	-	
2 or >	1	900	630	-		75	52	-	
2 or >	2 or >	900	630	677	75%	100	70	156	156%
1	2 or >	750	525	-		100	70	-	

NOT SATISFIED

Warrant 3: Minimum Pedestrian Volume

Major Street Traffic

Yes	No	< than 60 gaps/hr. in traffic stream
Yes	No	> than 300 ft. to nearest signal?

Ped. X-Walk Across Maj. St.

	Required >3.5"	Required <3.5"	Existing	
Four Hours	100	50	_____	%
One Hour	190	95	_____	

NOT SATISFIED

Warrant 4: School Crossing

Yes	No	Is the number of adequate gaps in the traffic stream during the period when the children are using the crossing less than the number of minutes in the same period?	**NOT APPLICABLE**

Warrant 5: Progressive Movement

Yes	No	Are the adjacent signals in a signal system?	
Yes	No	Would the resultant spacing be 1000 feet or more?	**NOT SATISFIED**

Warrant 6: Accident Experience

Yes	No	Is 80% or more of one of Warrants #1, #2, or #3 met?	
Yes	No	Have there been more than five accidents susceptible to correction by a traffic signal in 12 months?	**NOT APPLICABLE**

Warrant 7: System Warrant

Yes	No	Is the peak hour (or each of five hours on weekend) entering traffic volume on all approaches greater than 1000?

Check applicable characteristics of each route.

Major Street	1 _____	2 _____	3 _____	4 _____	5 _____
Minor Street	1 _____	2 _____	3 _____	4 _____	5 _____

Definition of Characteristics

1. It is part of street or highway system that serves as the principal network for through traffic flow.
2. It connects areas of principal traffic generation.
3. It includes rural or suburban highways outside, entering or traversing a city.
4. It has surface street freeway or expressway ramp terminals.
5. It appears as a major route on an official plan such as a major street plan in an urban area traffic and transportation study.

NOT APPLICABLE

Warrant 8: Combination of Warrants

Yes	No	Are 80% or more of two of Warrants #1, #2, or #3 met?	**NOT SATISFIED**

Other Warrants (Attach Supplemental Sheets)

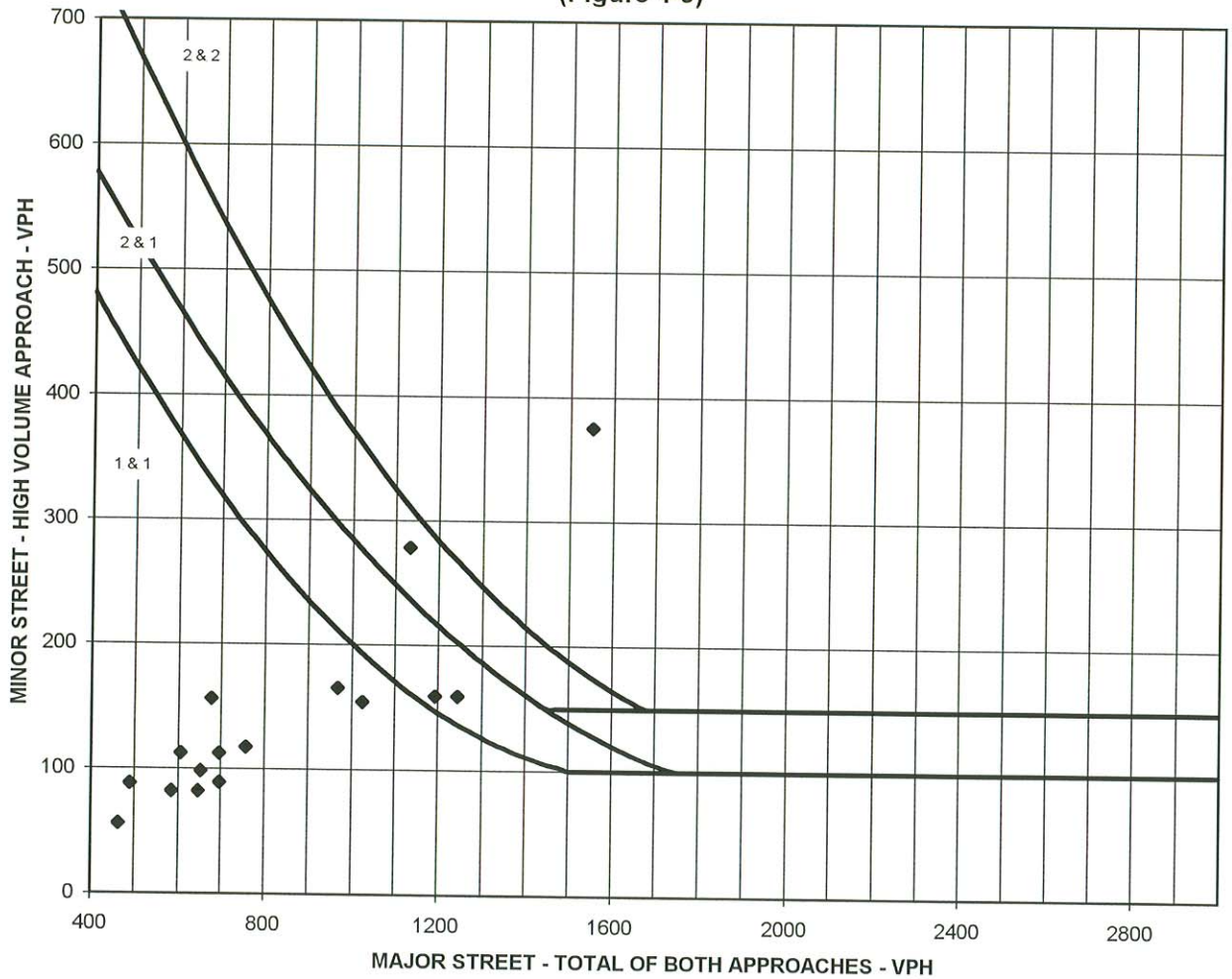
Yes	No	**Warrant 9: Four Hour Volumes**	**NOT SATISFIED**
Yes	No	**Warrant 10: Peak Hour Delay**	**NOT REVIEWED**
Yes	No	**Warrant 11: Peak Hour Volume**	**SATISFIED**
Yes	No	**Warrant 12: Traffic Actuated Signals**	**SATISFIED**

Remarks _____

_____

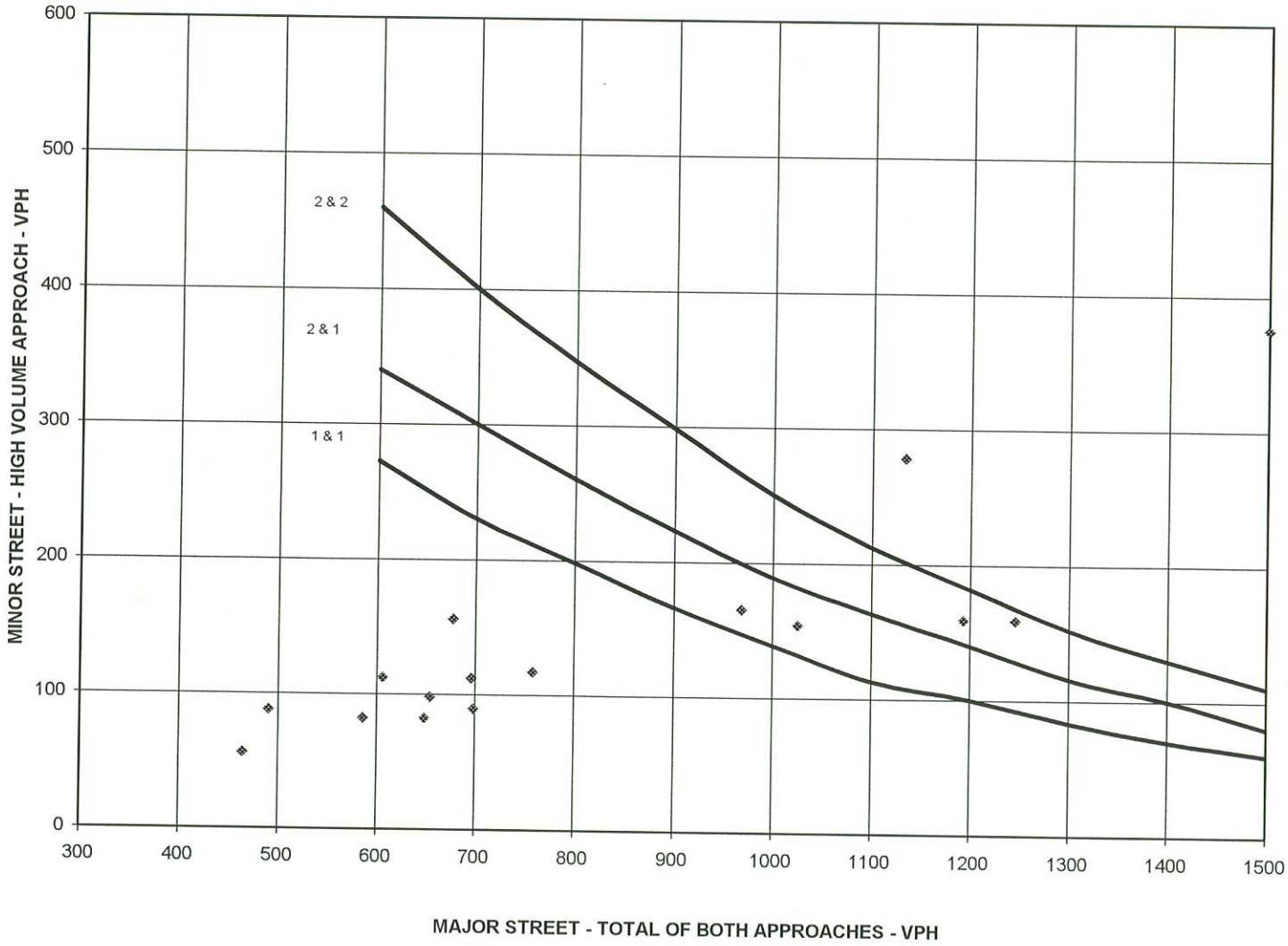
TOTAL NUMBER OF WARRANTS SATISFIED **2**

WARRANT 11 PEAK HOUR VOLUME WARRANT
(Figure 4-5)



NOTE: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE,

WARRANT 12 - (2 Hours URBAN) Traffic Actuated Figure 4-2.6



APPENDIX F

ADT CALCULATION WORKSHEETS

JUDSON & KNOLLCREEK INTERSECTION APPROACH VOLUMES

	NB Approach Elementary 45%	NB Middle Entering 9%	NB Middle Exiting 18%	NB DU's Entering	NB Existing 2001	NB Projected 2005	Total	SB Approach Elementary 5%(15%)	SB Middle In Dist. 2%(33%)	SB DU's Entering	SB Existing 2001	SB Growth 2005	Total	EB Approach Elementary	EB Middle 40%(13%)	EB DU's Exiting	Total
12-1 am	0	0	0	13	18	3	**34**	0	0	6	56	10	**71**	0	0	19	**19**
1-2 am	1	0	0	6	14	2	**23**	0	0	3	22	4	**29**	1	0	9	**10**
2-3 am	0	0	0	5	12	2	**19**	0	0	2	15	3	**20**	0	1	7	**7**
3-4 am	1	0	0	3	9	2	**14**	0	0	2	10	2	**13**	0	0	5	**5**
4-5 am	1	0	0	7	31	5	**44**	0	0	3	11	2	**16**	1	0	11	**11**
5-6 am	3	0	0	17	80	14	**114**	0	0	8	17	3	**28**	2	1	24	**27**
6-7 am	8	1	1	83	328	56	**476**	1	0	38	143	24	**206**	4	2	118	**124**
7-8 am	190	2	2	88	619	105	**1005**	21	1	40	331	56	**449**	210	4	277	**491**
8-9 am	6	56	87	88	407	69	**713**	1	13	40	249	42	**345**	17	199	277	**493**
9-10 am	6	2	7	73	244	41	**374**	1	1	33	172	29	**236**	9	16	104	**129**
10-11 am	9	2	4	70	211	36	**332**	1	1	32	189	32	**255**	13	8	100	**121**
11-12 pm	11	3	5	84	242	41	**386**	1	1	38	233	40	**313**	10	12	119	**142**
12-1 pm	7	3	4	35	246	42	**337**	2	13	89	237	40	**382**	11	3	121	**135**
1-2 pm	9	2	5	32	236	40	**325**	3	8	82	211	36	**341**	13	4	112	**129**
2-3 pm	58	3	6	34	218	37	**356**	19	10	88	260	44	**422**	50	5	120	**174**
3-4 pm	56	17	24	45	275	47	**464**	19	67	116	355	60	**617**	71	18	158	**246**
4-5pm	23	16	35	78	347	59	**558**	8	64	200	475	81	**827**	77	26	140	**243**
5-6 pm	19	7	38	78	347	59	**548**	6	27	200	475	81	**788**	26	28	140	**194**
6-7 pm	11	6	13	47	280	48	**404**	4	22	122	383	65	**595**	22	10	166	**198**
7-8 pm	6	3	11	32	196	33	**282**	2	12	83	255	43	**396**	10	8	113	**131**
8-9 pm	1	2	5	24	151	26	**209**	0	7	63	189	32	**291**	15	4	85	**103**
9-10pm	1	0	7	24	128	22	**182**	0	1	61	202	34	**298**	0	5	83	**88**
10-11pm	0	0	0	15	78	13	**106**	0	1	37	125	21	**185**	0	0	51	**51**
11-12 am	0	0	0	8	42	7	**57**	0	0	21	71	12	**104**	0	0	28	**28**
	425	125	255	990	4759	809	**7363**	90	248	1407	4686.0	797	**7227**	561	354	2386	**3300**

Growth 2005
(1+r)^n
r=4%
n=4
Rate=1.17

KNOLLCREEK AT JUDSON ROAD

	WB Middle 10%(31%)	WB Elem 55%(55%)	WB DU's From N	WB DU's From S	Total
12-1 am	0	0	13	6	19
1-2 am	0	1	6	3	10
2-3 am	0	0	5	2	7
3-4 am	0	1	3	2	5
4-5 am	0	1	7	3	11
5-6 am	0	3	17	8	28
6-7 am	1	9	83	38	131
7-8 am	3	232	88	40	362
8-9 am	66	8	88	40	201
9-10 am	2	8	73	33	117
10-11 am	2	11	70	32	116
11-12 pm	3	14	84	38	139
12-1 pm	12	9	35	89	145
1-2 pm	8	11	32	82	133
2-3 pm	10	71	34	88	203
3-4 pm	63	68	45	116	292
4-5pm	60	28	78	200	366
5-6 pm	25	23	78	200	326
6-7 pm	20	13	47	122	203
7-8 pm	11	8	32	83	134
8-9 pm	7	1	24	63	95
9-10pm	1	1	24	61	86
10-11pm	1	0	15	37	53
11-12 am	0	0	8	21	29
	295	519	990	1407	3210

DWELLING UNIT VOLUME DISTRIBUTION

	count data NB	count data SB	NB+SB Distribution	883/2 DU's 4225 trips DW Volume	Exiting	Entering	Exiting EB Tot 90%(90%)	Entering WB Tot 93%	Out EB Total All Du's	NB 73%(38%)	SB 27%(62%)	In WB Total All DU's	NB 68%(28%)	SB 31%(72%)	JUDSON ROAD NB Total	JUDSON ROAD SB Total
12-1 am	18	56	0.007834	33.1	16.6	16.6	14.9	15.4	18.5	13.5	5.0	19.2	13.0	5.9	26.6	10.9
1-2 am	14	22	0.003811	16.2	8.1	8.1	7.3	7.5	9.1	6.6	2.5	9.4	6.4	2.9	13.0	5.4
2-3 am	12	15	0.002858	12.1	6.1	6.1	5.4	5.6	6.8	5.0	1.8	7.0	4.8	2.2	9.7	4.0
3-4 am	9	10	0.002011	8.5	4.3	4.3	3.8	4.0	4.8	3.5	1.3	4.9	3.4	1.5	6.8	2.8
4-5 am	31	11	0.004446	18.8	9.4	9.4	8.5	8.7	10.5	7.7	2.8	10.9	7.4	3.4	15.1	6.2
5-6 am	80	17	0.010269	43.4	21.7	21.7	19.5	20.2	24.3	17.7	6.6	25.1	17.1	7.8	34.8	14.4
6-7 am	328	143	0.049862	210.7	105.4	105.4	94.8	98.0	117.9	86.1	31.8	122.0	83.0	37.8	169.0	69.7
7-8 am	513	290	0.08501	359.2	247.8	111.4	223.1	103.6	277.4	202.5	74.9	128.9	87.7	40.0	290.2	114.9
8-9 am	513	290	0.08501	359.2	247.8	111.4	223.1	103.6	277.4	202.5	74.9	128.9	87.7	40.0	290.2	114.9
9-10 am	244	172	0.04404	186.1	93.1	93.1	83.7	86.5	104.1	76.0	28.1	107.8	73.3	33.4	149.3	61.5
10-11 am	211	189	0.042346	179.0	89.5	89.5	80.6	83.2	100.2	73.1	27.0	103.6	70.5	32.1	143.6	59.2
11-12 pm	242	233	0.050286	212.5	106.3	106.3	95.6	98.8	119.0	86.8	32.1	123.1	83.7	38.2	170.5	70.3
12-1 pm	246	237	0.051133	216.1	108.1	108.1	97.2	100.5	120.9	46.0	75.0	123.6	34.6	89.0	80.6	163.9
1-2 pm	236	211	0.047322	200.0	100.0	100.0	90.0	93.0	111.9	42.5	69.4	114.4	32.0	82.3	74.6	151.7
2-3 pm	218	260	0.050603	213.8	106.9	106.9	96.2	99.4	119.6	45.5	74.2	122.2	34.2	88.0	79.7	162.2
3-4 pm	275	355	0.066695	281.8	140.9	140.9	126.8	131.0	157.7	59.9	97.8	161.1	45.1	116.0	105.0	213.8
4-5pm	347	475	0.087021	367.7	125.0	242.7	112.5	225.7	139.9	53.2	86.8	277.5	77.7	199.8	130.9	286.5
5-6 pm	347	475	0.087021	367.7	125.0	242.7	112.5	225.7	139.9	53.2	86.8	277.5	77.7	199.8	130.9	286.5
6-7 pm	280	383	0.070188	296.6	148.3	148.3	133.5	137.9	166.0	63.1	102.9	169.6	47.5	122.1	110.6	225.0
7-8 pm	196	255	0.047745	201.8	100.9	100.9	90.8	93.8	112.9	42.9	70.0	115.4	32.3	83.1	75.2	153.1
8-9 pm	151	189	0.035994	152.1	76.1	76.1	68.4	70.7	85.1	32.4	52.8	87.0	24.4	62.6	56.7	115.4
9-10pm	128	202	0.034935	147.7	73.9	73.9	66.5	68.7	82.7	31.4	51.3	84.4	23.6	60.8	55.1	112.1
10-11pm	78	125	0.021491	90.8	45.4	45.4	40.9	42.2	50.8	19.3	31.5	51.9	14.5	37.4	33.9	68.9
11-12 am	42	71	0.011963	50.6	25.3	25.3	22.8	23.5	28.3	10.8	17.6	28.9	8.1	20.8	18.9	38.4
	4759	4686	1.0	4225.5	2131.6	2093.9	1918.4	1947.3	2385.9	1281.1	1104.8	2404.3	989.6	1406.9	2270.7	2511.6

	129 DU's 1235 Trips DW Volume	Exiting	Entering	Exiting EB Total 75%(75%)	Entering WB Total 78%(73%)
12-1 am	9.7	4.9	4.9	3.6	3.8
1-2 am	4.8	2.4	2.4	1.8	1.9
2-3 am	3.6	1.8	1.8	1.4	1.4
3-4 am	2.5	1.3	1.3	0.9	1.0
4-5 am	5.5	2.8	2.8	2.1	2.1
5-6 am	12.7	6.4	6.4	4.8	5.0
6-7 am	61.6	30.8	30.8	23.1	24.0
7-8 am	105.0	72.5	32.6	54.3	25.4
8-9 am	105.0	72.5	32.6	54.3	25.4
9-10 am	54.4	27.2	27.2	20.4	21.2
10-11 am	52.3	26.2	26.2	19.6	20.4
11-12 pm	62.2	31.1	31.1	23.3	24.3
12-1 pm	63.2	31.6	31.6	23.7	23.1
1-2 pm	58.5	29.3	29.3	21.9	21.4
2-3 pm	62.5	31.3	31.3	23.4	22.8
3-4 pm	82.4	41.2	41.2	30.9	30.1
4-5pm	107.5	36.6	71.0	27.4	51.8
5-6 pm	107.5	36.6	71.0	27.4	51.8
6-7 pm	86.7	43.4	43.4	32.5	31.6
7-8 pm	59.0	29.5	29.5	22.1	21.5
8-9 pm	44.5	22.3	22.3	16.7	16.2
9-10pm	43.2	21.6	21.6	16.2	15.8
10-11pm	26.6	13.3	13.3	10.0	9.7
11-12 am	14.8	7.4	7.4	5.6	5.4
	1235.7	623.4	612.4	467.5	457.0

Steubing Inbound		Elem. Count	Middle Count
12-1 am	00	0	0
1-2 am	01	1	0
2-3 am	02	0	1
3-4 am	03	1	0
4-5 am	04	1	1
5-6 am	05	6	1
6-7 am	06	19	6
7-8 am	07	483	19
8-9 am	08	16	483
9-10 am	09	16	16
10-11 am	10	22	16
11-12 pm	11	28	22
12-1 pm	12	18	28
1-2 pm	13	22	18
2-3 pm	14	148	22
3-4 pm	15	141	148
4-5pm	16	58	141
5-6 pm	17	48	58
6-7 pm	18	26	48
7-8 pm	19	16	26
8-9 pm	20	2	16
9-10pm	21	2	2
10-11pm	22	0	2
11-12 pm	23	0	0
		1074	**1074**

Vehicle Totals

On NB Judson % Elementary	% Middle	Inbound Elementary 45%(45%)	Out(EB) Elementary 45%(25%)	Inbound Middle 17%(14%)	Outbound Middle 60%(12%)
0.0	0.0	0.0	0.0	0.0	0.0
0.1	0.0	0.5	0.5	0.0	0.0
0.0	0.1	0.0	0.0	0.2	0.6
0.1	0.0	0.5	0.0	0.0	0.0
0.1	0.1	0.5	0.5	0.2	0.0
0.6	0.1	2.6	1.3	0.2	0.6
1.8	0.6	7.6	3.0	1.0	1.7
45.0	1.8	189.5	145.3	2.8	3.9
1.5	45.0	6.4	11.4	69.3	185.6
1.5	1.5	6.4	5.9	2.4	14.7
2.1	1.5	8.9	8.9	2.4	7.7
2.7	2.1	11.4	7.2	3.3	11.5
1.7	2.7	7.2	5.0	4.2	9.3
2.1	1.7	8.9	5.9	2.7	2.3
13.8	2.1	58.1	22.7	3.3	2.8
13.2	13.8	55.6	32.1	21.3	10.4
5.5	13.2	23.2	35.1	20.4	14.9
4.5	5.5	19.0	11.7	8.5	16.3
2.5	4.5	10.6	10.1	7.0	5.5
1.5	2.5	6.4	4.7	3.9	4.6
0.2	1.5	0.9	6.6	2.4	2.2
0.2	0.2	0.9	0.0	0.4	3.1
0.0	0.2	0.0	0.0	0.4	0.0
0.0	0.0	0.0	0.0	0.0	0.0
100.70	100.70	425.1	317.9	156.3	297.7

Stuebing Outbound		Elem. Count	Middle Count
12-1 am	0	0	0
1-2 am	1	1	0
2-3 am	2	0	1
3-4 am	3	0	0
4-5 am	4	1	0
5-6 am	5	3	1
6-7 am	6	7	3
7-8 am	7	366	7
8-9 am	8	28	366
9-10 am	9	14	28
10-11 am	10	22	14
11-12 pm	11	18	22
12-1 pm	12	22	18
1-2 pm	13	26	22
2-3 pm	14	102	26
3-4 pm	15	145	102
4-5pm	16	159	145
5-6 pm	17	53	159
6-7 pm	18	45	53
7-8 pm	19	21	45
8-9 pm	20	29	21
9-10pm	21	0	29
10-11pm	22	0	0
11-12 pm	23	0	0
		1062	**1062**

Vehicle Totals

SB Judson % Elementary	% Middle	Out(EB) Elementary 20%(30%)	Inbound Elementary 5%(15%)	Outbound Middle 16%(31%)	Inbound Middle 2%(33%)
0.00	0.00	0.0	0.0	0.0	0.0
0.10	0.00	0.2	0.1	0.0	0.0
0.00	0.10	0.0	0.0	0.2	0.1
0.00	0.00	0.0	0.1	0.0	0.0
0.10	0.00	0.2	0.1	0.0	0.1
0.30	0.10	0.6	0.3	0.2	0.1
0.70	0.30	1.4	0.9	0.5	0.2
34.50	0.70	64.6	21.2	1.1	0.4
2.70	34.10	5.1	0.8	49.5	8.1
1.40	2.70	2.7	0.8	4.0	0.3
2.10	1.40	4.0	1.0	2.1	0.3
1.70	2.10	3.2	1.3	3.1	0.4
2.10	1.70	6.0	2.4	4.8	8.1
2.50	2.10	7.1	3.0	6.0	5.1
9.70	2.50	27.3	19.4	7.1	6.3
13.70	9.50	38.5	18.5	26.7	41.3
15.00	13.60	42.2	7.7	38.3	39.5
5.00	14.90	14.1	6.3	41.9	16.5
4.30	5.00	12.1	3.5	14.1	13.5
2.00	4.20	5.7	2.1	11.9	7.5
2.80	2.00	7.9	0.3	5.7	4.5
0.00	2.80	0.0	0.3	7.9	0.6
0.00	0.00	0.0	0.0	0.0	0.6
0.00	0.00	0.0	0.0	0.0	0.0
100.70	99.80	242.9	90.1	225.1	153.5