

CITY OF WESLACO

A REGULAR MEETING OF THE PLANNING & ZONING COMMISSION

**OCTOBER 5, 2022, 5:30P.M.
LEGISLATIVE CHAMBERS
255 S. KANSAS AVENUE**

David Hernandez, Chairman

Lonnie Berry, Vice-Chairman

Miles Bullion, PZ Commissioner

Randy Summers, PZ Commissioner

Adrian Torres, PZ Commissioner

Jose Treviño, PZ Commissioner

Jim Forward, PZ Commissioner

**CITY OF WESLACO
PLANNING & ZONING COMMISSION
REGULAR MEETING
SEPTEMBER 7, 2022**

On Wednesday, September 7, 2022, at 5:30 pm., the Planning and Zoning Commission of the City of Weslaco, Texas, convened in regular session in person

The following commissioners were present:

David Hernandez	Chairman
Lonnie Berry	Vice-Chairman
Randy Summers	Commissioner.
Jim Forward	Commissioner
Milles Bullion	Commissioner
Adrian Torres	Commissioner
Jose Treviño	Commissioner
Jose Pedraza	Assistant Planning Director
Kayla Arevalo	Secretary

Also, present were Johanna Maldonado, City Planner; Jessie Valderas, Fire Inspector; Jeremy Anciso, Water & Sewer Superintendent Assistant, and citizens.

I. CALL TO ORDER:

Chairman Hernandez called the meeting to order and welcomed everyone in the audience.

A. Roll Call/Establish a Quorum

Mrs. Maldonado called the roll call noting that, Commissioner Treviño and Commissioner Torres were absent at the time of roll, a quorum was established.

II. PUBLIC COMMENTS

There were no comments received.

III. APPROVAL OF MINUTES

A. August 3, 2022, Regular Meeting

Commissioner Summers made a motion to approve the minutes of August 3, 2022, with the noted change, seconded by Commissioner Bullion. Motion carried.

IV. PUBLIC HEARING

A. Discussion and consideration to approve rezone 2625 Mile 6 ½ West Road. Also being 23.05-acre tract of land out of Farm Tract 648 and 649, West and Adams Tract Subdivision, Hidalgo County, Texas from R-1 One-family dwelling district to R-2 Duplex and Apartment District.

Mrs. Maldonado stated that notice appeared in the Monitor on August 22, 2022, there were nineteen (19) property owners notified within the 200-foot radius, no letters for or against the item were received. Staff recommended approval.

Commissioner Treviño arrived at the dais @ 5:34pm.

Commissioner Berry made a motion to close the Public Hearing, seconded by Commissioner Bullion. Motion carried.

Commissioner Summers made a motion to approve the rezone request, seconded by Commissioner Forward. Motion carried.

B. Discussion and consideration to approve a Conditional Use Permit to obtain a On Premise Mixed Beverage Restaurant Permit, and Late Hours Permit to Host Live Music at 509 S. Texas Blvd., also being Lot 39 & 40, Weslaco Original Townsite Subdivision, Hidalgo County, Texas

Mrs. Maldonado stated that notice appeared in the Monitor on July 18, 2022, there were eighteen (18) property owners notified within the 200-foot radius, no letters for or against the item were received. Staff recommended approval.

Commissioner Berry made a motion to close the Public Hearing, seconded by Commissioner Bullion. Motion carried.

Commissioner Berry made a motion to approve the conditional use request with the stipulation that two (2) licensed security guards be on duty between 6pm- close, seconded by Commissioner Bullion. Motion carried.

V. DISCUSSION AND CONSIDERATION

A. Discussion and consideration for the Preliminary Plat for Sayyed Commercial Development being a 2.960-acre out of farm tracts 1065, West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas Located on the Southeast corner of Mile 11 North & FM 1015. Possible Action.

Mrs. Maldonado stated that this item is a one (1) lot subdivision and is located outside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through an 8" waterline and sewer by the City of Weslaco through an 8" sewer line. The property is within a Flood Zone "B". Applicant is requesting a variance for a zero-foot side setback. Staff recommends approval of Preliminary Plat and compliance with the ordinance on the variance.

Commissioner Summers made the motion to approve the Preliminary plat with denial of the variance, seconded by Commissioner Bullion. Motion carried

B. Discussion and consideration for the Preliminary Plat for Sienna Subdivision being a 31.06-acre out of farm tracts 216, West Tract Subdivision, Weslaco, Hidalgo County, Texas Located on West side of mile 6 ½ West, 1015' South of Mile 10 North. Possible Action.

Mrs. Maldonado stated that this item is a fifty-two (52) lot subdivision and is located outside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through an 8" waterline and sewer by OSSF. The property is within a Flood Zone "X". Applicant is

requesting a variance for OSSF and Off-site Drainage. The developer is pending letters of support from drainage and irrigation district. Staff recommended approval of the Preliminary Plat and compliance with the ordinance on the variance.

Commissioner Berry made the motion to deny the Preliminary plat due to lack of support letters from the irrigation and drainage district, seconded by Commissioner Bullion. Motion carried

C. Discussion and consideration for the Preliminary Plat for Mi Fortuna Estates being a 4.52-acre out of farm tract 790, West Tract Subdivision, Weslaco, Hidalgo County, Texas Located on the Southeast corner of Mile 11 North & FM 1015. Possible Action.

Mrs. Maldonado stated that this item is an eight (8) lot subdivision and is located inside the City of Weslaco. This subdivision is being serviced with water by City of Weslaco through a 12" waterline and sewer by the City of Weslaco through a 10" sewer line. The property is within a Flood Zone "B". Staff recommended approval of the Preliminary Plat.

Commissioner Berry made the motion to approve the Preliminary plat, seconded by Commissioner Bullion. Motion carried

D. Discussion and consideration for the Voluntary Annexation of Gilberto Estates Subdivision– being a 4.56-acre tract of land out of Farm Tract 101, West and Adams Tract Subdivision, Hidalgo County, Texas located northwest corner of mile 10 N Rd & Mile 4 ½ West Rd. Possible Action

Mrs. Maldonado stated that the proposed development is currently located outside the City of Weslaco city limits. This subdivision is being serviced with water and sewer by OSSF. The proposed development will be one-family residential lots. Pursuant to Senate Bill 374 the city has already obtained the portion of right-of-way from the County along East Mile 10 North Road adjacent to the development. The development is contiguous to the existing city limits line.

Commissioner Berry made the motion to approve the Voluntary Annexation request, seconded by Commissioner Summers. Motion carried

E. Discussion and consideration for the Preliminary Plat for Gilberto Estates being a 4.56-acre out of farm tract 101, West & Adams Tract Subdivision, Weslaco, Hidalgo County, Texas Located on the Northeast corner of Mile 4 ½ W & Mile 10 N. Possible Action.

Mrs. Maldonado stated that this item is a six (6) lot subdivision and is located currently outside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through a 6" waterline and sewer by OSSF. The property is within a Flood Zone "X". Staff recommended approval of the Preliminary Plat and compliance with the ordinance on the variance.

Commissioner Forward made the motion to approve the Preliminary plat, seconded by Commissioner Treviño. Motion carried

F. Discussion and consideration for the Final Plat for Rock Ridge – being 15.092 acres out of Farm Tract 631 & 633, West and Adams Tract Subdivision, Weslaco, Hidalgo

County, Texas located approximately 500 ft west of Bus. 83 and Westgate on the south side of Bus. 83. Possible Action.

Mrs. Maldonado stated that this item is a three (3) lot subdivision is located inside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through a 6" waterline and sewer by OSSF. The property is within a Flood Zone "X". Staff recommended denial of the Final Plat and compliance with the ordinance on the variance.

Commissioner Berry made the motion to approve the Final plat, seconded by Commissioner Forward. Motion carried

G. Discussion and consideration for the Final Plat for Mi Linda Phase I being a 23.05-acre out of farm tracts 648 & 649, West Tract Subdivision, Weslaco, Hidalgo County, Texas Located approximately 340 ft south of mile 6 ½ north along the west side of Milano Road. Possible Action.

Mrs. Maldonado stated that this item is a fifty-four (54) lot subdivision and is located inside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through an 8" waterline and sewer by the City of Weslaco through an 8" sewer line. The property is within a Flood Zone "B". Applicant is requesting a variance for off-site drainage and has received letters of support from Irrigation and Drainage District. Staff recommended approval of the Final Plat and compliance with the ordinance on the variance.

Commissioner Summers made the motion to approve the Final plat, seconded by Commissioner Berry. Motion carried.

H. Discussion and consideration for the Final Plat for Mi Linda Phase II being a 14.19-acre out of farm tracts 648 & 649, West Tract Subdivision, Weslaco, Hidalgo County, Texas Located approximately 340 ft south of mile 6 ½ north along the west side of Milano Road. Possible Action.

Mrs. Maldonado stated that this item is a sixty-eight (68) lot subdivision and is located outside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through an 8" waterline and sewer by the City of Weslaco through an 8" sewer line. The property is within a Flood Zone "B". Applicant is requesting a variance for off-site drainage and has received letters of support from Irrigation and Drainage District. Staff recommended approval of the Final Plat and compliance with the ordinance on the variance.

Commissioner Summers made the motion to approve the Final plat, seconded by Commissioner Berry. Motion carried.

I. Discussion and consideration for the Final Plat for Pike Terrace - being a 36.092-acre out of farm tract 163, block 178, The West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas Located on the southwest Corner of pike Blvd. and Milanos Rd. Possible Action.

Mrs. Maldonado stated that this item is a one hundred and five (105) lot subdivision and is located inside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply

Company through an 8" waterline and sewer by the City of Weslaco through a 12" sewer line. The property is within a Flood Zone "B". Staff recommended approval of the Final Plat.

Commissioner Berry made the motion to deny the Final plat, the plat note be about no lot access to Milanos, and Pike and lots 18 & 19 only have access to Woodpecker and lots 4&5 only have access to Oriole was not made and that the TIA was not submitted, seconded by Commissioner Forward. Motion carried

J. Discussion and consideration for the Final Plat for The Coves – being 18.48 acres out of Farm Tract 1030, West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas located on the Southside of mile 8 N. Rd. approximately 710' east of International Blvd. Possible Action

Mrs. Maldonado stated that this item is a sixty-four (64) lot subdivision and is inside the City of Weslaco. This subdivision is being serviced with water by the City of Weslaco through an 8" waterline and sewer by the City of Weslaco through an 8" sewer line. The property is within a Flood Zone "X". Applicant is requesting a variance for off-site drainage and has received letters of support from Irrigation and Drainage District. Staff recommended approval of the Final Plat and compliance with the ordinance on the variance.

Commissioner Summers made the motion to approve the Final plat and variance request, seconded by Commissioner Bullion. Motion carried

K. Discussion and consideration for six-month extension of the Final Plat for South Point Subdivision– being a resubdivision of 12.889 acres being all of lot 2 VBMH Subdivision, and out of Farm Tract 133, West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas located on between N Westgate Dr. and Border Ave. East Expressway 83. Possible action.

Mrs. Maldonado stated that the proposed seven (7) lot subdivision is located inside the City of Weslaco. Six-month extension of Final Plat approval is set to expire on August 17, 2022. Staff recommended approval.

Commissioner Summers made the motion to approve the extension, seconded by Commissioner Bullion. Motion carried

L. Discussion and consideration for the six-month extension of the Final Plat for Milanos Estates 1 Subdivision– being 26.43 acres being out of and forming a portion of Farm Tract 720 and 721, West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas located on the Northeast corner of Mile 5 ½ West and Mile 6 ½ Road. Possible Action.

Mrs. Maldonado stated that the proposed eighty-two (82) lot subdivision is outside the City of Weslaco. Final Plat approval is set to expire on September 15, 2022. This is the third 6-month extension for the development. Staff recommended approval.

Commissioner Berry made the motion to approve the extension, seconded by Commissioner Forward. Motion carried

VI. ADJOURNMENT

There being no further business to come before the Planning and Zoning Commission, Chairman Hernandez adjourned the meeting at 6:25p.m.

Planning and Zoning Commission

David Hernandez, Chairman

Lonnie Berry, Vice-Chairman

Randy Summers, Commissioner

Miles Bullion, Commissioner

Jose Treviño, Commissioner

Absent
Adrian Torres, Commissioner

Jim Forward, Commissioner

ATTEST:

Kayla A. Arevalo, Secretary



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: October 5, 2022	Agenda Item No. (to be assigned by PCE): IV.A.
From: Rebekah de la Fuente, Planning Director, on behalf of Javier Duran	
Subject/Agenda Item: Discussion and consideration to approve rezone 835 N Martinez. Also being Lot 1&2, Block 5, Villa Vista Subdivision, Hidalgo County, Texas from R-1 One-family dwelling district to B-1 neighborhood business district.	
Discussion/Overview: The applicant is requesting to rezone property from R-1 One Family Dwelling District to B-1 neighborhood business district. Notice of the application and the Public Hearing for the Planning and Zoning Commission appeared in The Monitor on September 19, 2022. Twenty-five (25) property owners within 200 feet of the applicant's property were notified by letter on September 23, 2022.	
If item requires Publication Notice, provide date and periodical of publication; indicate if comments received from letters mailed to property owners: N/A	
Staff recommendation for Commission's Action: Staff recommends approval based on 2040 land use map and surrounding land use.	
Additional Action Prompted: [X] Mayor's Signature [X] Public Hearing [] Budget Amendment [] Resolution [X] Ordinance – First Reading [X] Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Request letter.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	



APPLICATION FOR REZONING

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. RZNE-000309-2022

PROPOSED PROJECT

Legal Description of Property to be rezoned:

Lot 1 & 2 Block 5

Subdivision Name Villa Vista

Street Address 835 N Martinez

Existing Zoning Residential Existing Land Use R-1

Proposed Zoning Commercial Proposed Land Use B-1

- ☒ \$305.00 non-refundable filing fee.
- ☒ Detailed dimensioned site plan/map must be submitted with this request.
- ☒ Survey and metes and bounds if the legal description is a portion of a lot.
- ☒ City and school tax receipts attached.
- ☒ I have received a copy of "The Intent of Zoning Application Instructions".

APPLICANT

Name Javier Duran Phone (956) 766-0013

Address 905 Lantana Ln Fax: _____

City Weslaco State TX Zip Code 78599 E-Mail: thefactoryonpike@gmail.com

OWNER

Name Javier & Karla Duran Phone (956) 766-0013

Address 905 Lantana Ln Fax: _____

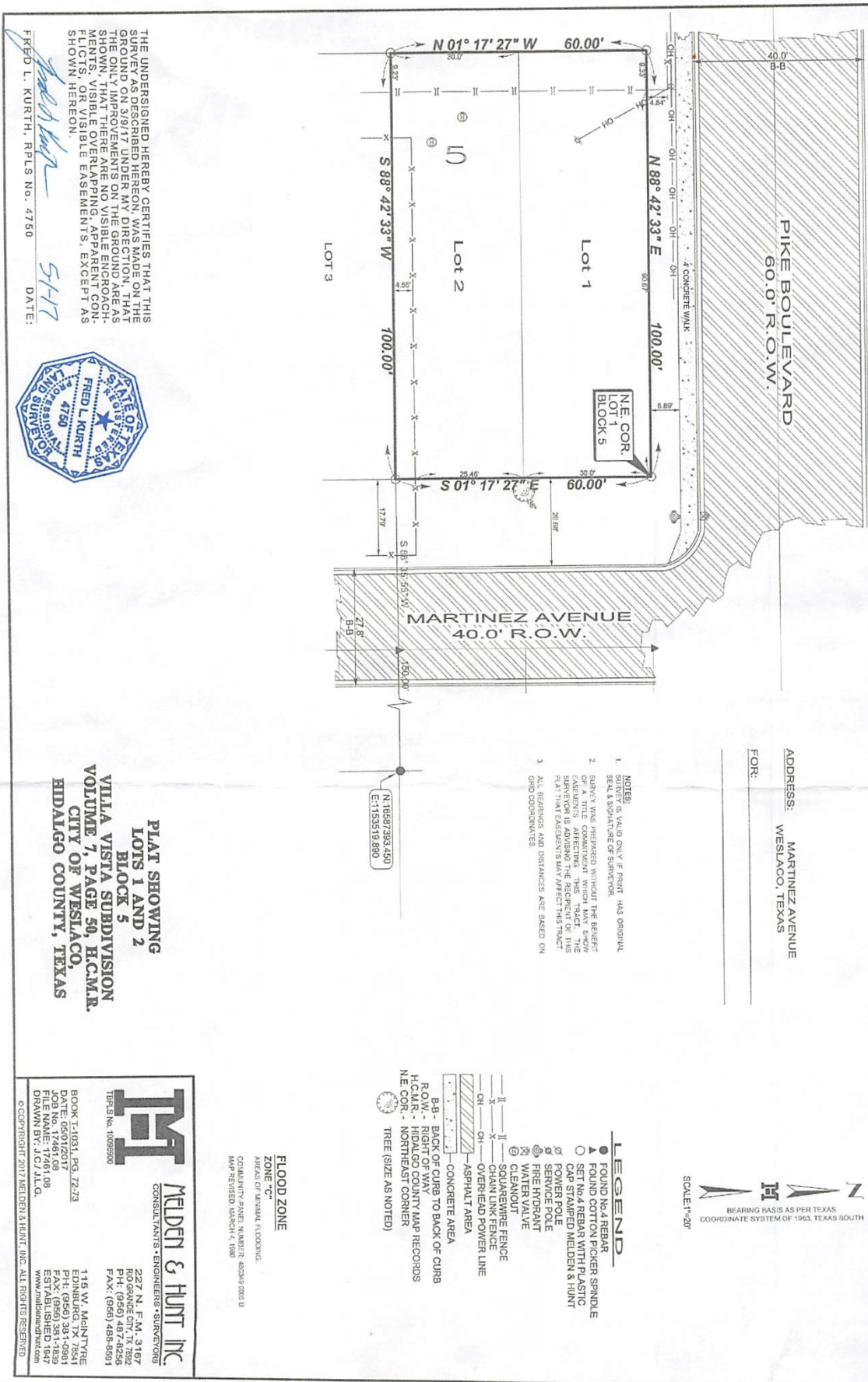
City Weslaco State TX Zip Code 78599 E-Mail: thefactoryonpike@gmail.com

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); or I am authorized by the actual owner to submit this application and have attached written evidence of such authorization.

Signature [Signature] Date 9-14-2022

Signature [Signature] Date 9-14-2022
Applicant

Signature _____ Date _____
Authorized Agent



City of Weslaco

"The City on the Grow"



David Suarez, Mayor
Josh Pedraza, Mayor Pro-Tem, District 1
Leo Muñoz, Commissioner, At-Large
Greg Kerr, Commissioner, At-Large
Letty Lopez, Commissioner, District 2
Jose "JP" Rodriguez, Commissioner, District 3
Adrian Farias, Commissioner, District 4

Martin Garza, Interim City Manager

PLANNING DEPARTMENT

September 23, 2022

Legal Notice

Dear Occupant:

The Weslaco Planning and Zoning Commission will hold a public hearing on Wednesday, October 5, 2022, and the City Commission will hold a public hearing on October 18, 2022, at 5:30 p.m. at the City Hall Legislative Chambers located at 255 South Kansas Avenue

Members of the public who wish to participate in Public Hearing on an agenda item must send their name, address and phone number via email to karevalo@weslacotx.gov by 12:00 pm on October 5, 2022. A staff member will contact you with instructions via phone call to address your public comment.

REZONE REQUEST:

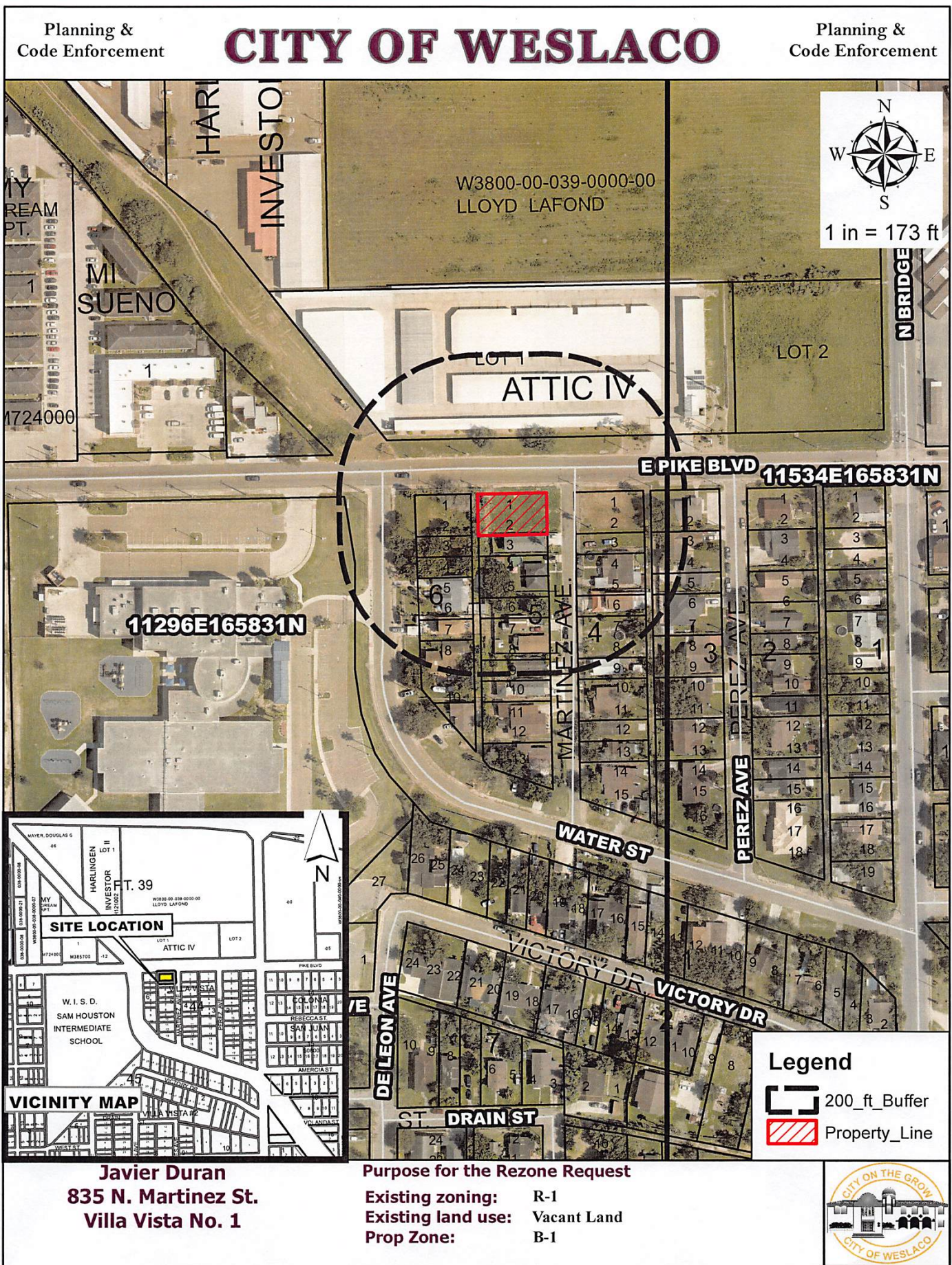
Javier Duran is requesting to rezone 835 N. Martinez. Also being Block 5, Lot 1 & 2, Villa Vista Subdivision, Hidalgo County, Texas from R-1 One-family dwelling district to B-1 neighborhood business district.

The public is hereby invited to attend and express their support or opposition to the request. You may also file a written notice supporting or protesting this action. For more information please call the Planning Department at (956) 447-3403.

Si desea información en español, por favor llame al departamento de Planeación de la ciudad de Weslaco, (956) 447-3403.

Sincerely,

Rebekah de la Fuente, CFM
Planning Director



City of Weslaco Code Enforcement Dept.

SEP 15, 2022

AATTIC IV LP	A6320-04-000-0001-00	L: 377664
2805 S 77 SUNSHINE STRIP	ATTIC 4 LOT 1	B: 879329
HARLINGEN TX 78550	799 E PIKE BLVD	
RODRIGUEZ DIANA C	V3800-01-003-0001-00	L: 30000
714 E PIKE BLVD	VILLA VISTA NO. 1 BLK 3 LOTS 1 & 2	B: 11588
WESLACO TX 78596	714 E PIKE BLVD	
RODRIGUEZ DIANA C	V3800-01-003-0003-00	L: 21300
714 E PIKE BLVD	VILLA VISTA NO. 1 LOTS 3 & 4 BLK 3	B: 34841
WESLACO TX 78596	831 N PEREZ AVE	
RODRIGUEZ DIANA C	V3800-01-003-0005-00	L: 10650
714 E PIKE BLVD	VILLA VISTA NO. 1 LOT 5 BLK 3	B: 25132
WESLACO TX 78596	0 N PEREZ AVE	
RODRIGUEZ DIANA C	V3800-01-003-0006-00	L: 21300
714 E PIKE BLVD	VILLA VISTA NO. 1 LOTS 6 & 7 BLK 3	B: 69549
WESLACO TX 78596	825 N PEREZ AVE	
DURAN JAVIER & KARLA	V3800-01-004-0001-00	L: 21300
905 LANTANA	VILLA VISTA NO. 1 BLK 4 LOTS 1 & 2	B: 0
WESLACO TX 78599	832 N MARTINEZ AVE	
KARLE FRED G	V3800-01-004-0003-00	L: 10650
PO BOX 1064	VILLA VISTA NO. 1 BLK 4 LOT 3	B: 0
SAN BENITO TX 78586	830 N MARTINEZ AVE	
JUAREZ HILARIO G	V3800-01-004-0004-00	L: 21300
728 VICTORY DR	VILLA VISTA NO. 1 BLK 4 LOTS 4 & 5	B: 36044
WESLACO TX 78596	828 N MARTINEZ AVE	
SALINAS GUSTAVO & MARICRUZ	V3800-01-004-0006-00	L: 10650
818 N MARTINEZ AVE	VILLA VISTA NO. 1 BLK 4 LOT 6	B: 31412
WESLACO TX 78596	818 N MARTINEZ AVE	
AGUIRRE ANDREW	V3800-01-004-0007-00	L: 21300
3018 HERMOSILLO ST	VILLA VISTA NO. 1 LOTS 7 & 8 BLK 4	B: 0
WESLACO TX 78596	0 MARTINEZ AVE	
SOLIS LAURA K	V3800-01-004-0009-00	L: 10650
820 N MARTINEZ AVE	VILLA VISTA NO. 1 LOT 9 BLK 4	B: 18584
WESLACO TX 78596	820 N MARTINEZ AVE	
R & A REAL ESTATE	V3800-01-005-0003-00	L: 10650
1609 DAVENPORT	VILLA VISTA NO. 1 BLK 5 LOT 3	B: 44366
WESLACO TX 78596	831 N MARTINEZ AVE	

City of Weslaco Code Enforcement Dept.

SEP 15, 2022

RODRIGUEZ VICTOR HUGO ESTEFANY J ORENDAIN 829 N MARTINEZ AVE WESLACO TX 78596	V3800-01-005-0004-00 VILLA VISTA NO. 1 BLK 5 LOTS 4 & 5 829 N MARTINEZ AVE	L: 21300 B: 24365
CARDENAS ROSENDO & JULITH O PO BOX 186 MOUNT ANGEL OR 97362	V3800-01-005-0006-00 VILLA VISTA NO. 1 BLK 5 LOT 6 827 N MARTINEZ AVE	L: 10650 B: 0
MUNIZ LORENA 509 N SINCLAIR WESLACO TX 78596	V3800-01-005-0007-00 VILLA VISTA NO. 1 LOTS 7 & 8 BLK 5 0 MARTINEZ AVE	L: 21300 B: 20782
MARTINEZ, JOSE LUIS RR 1 BOX 201A MERCEDES TX 78570-9036	V3800-01-005-0008-00 VILLA VISTA #1 BLK 5 LT 8 0 MARTINEZ AVE	L: 10050 B: 9920
CARDENAS ESEQUIEL 809 N MARTINEZ AVE WESLACO TX 78596	V3800-01-005-0009-00 VILLA VISTA NO. 1 BLK 5 LOT 9 809 N MARTINEZ AVE	L: 10650 B: 18982
MARTINEZ CONCHA R C/O ILDEFONSO S MARTINEZ SR 3143 N JENNINGS RD FLINT MI 48504	V3800-01-006-0001-00 VILLA VISTA NO. 1 BLK 6 LOTS 1 & 2 706 E PIKE BLVD	L: 17210 B: 18604
MARTINEZ VICTOR C/O ILDEFONSO S MARTINEZ SR 3143 N JENNINGS RD FLINT MI 48504	V3800-01-006-0003-00 VILLA VISTA NO. 1 BLK 6 LOT 3 0 WATER ST	L: 8605 B: 0
MARTINEZ PABLO C/O ILDEFONSO S MARTINEZ SR 3143 N JENNINGS RD FLINT MI 48504	V3800-01-006-0004-00 VILLA VISTA NO. 1 BLK 6 LOT 4 0 WATER ST	L: 8605 B: 0
HERRERA DIANNA MARIA HERLINDA HERRARA 808 WATER ST WESLACO TX 78599	V3800-01-006-0005-00 VILLA VISTA NO. 1 BLK 6 LOT 5 & 6 810 WATER ST	L: 17210 B: 59636
HERRERA, FRANCISCO & MARIA 810 WATER ST WESLACO TX 78596-4928	V3800-01-006-0006-00 VILLA VISTA #1 BLK 6 LT 6 810 WATER ST	L: 8242 B: 0
HERRERA FRANCISCO & DIANA 808 WATER ST WESLACO TX 78596	V3800-01-006-0007-00 VILLA VISTA NO. 1 BLK 6 LOT 7 808 WATER ST	L: 8605 B: 68863
VALDEZ JUVENTINO JR & MARGARITA 806 WATER ST WESLACO TX 78596	V3800-01-006-0008-00 VILLA VISTA NO. 1 BLK 6 LOTS 8 9 & 10 806 WATER ST	L: 24527 B: 52667

City of Weslaco Code Enforcement Dept.

SEP 15, 2022

WESLACO ISD	W3800-00-045-0000-00	L: 710982
PO BOX 266	WEST TRACT OUT-NW PT-N PT LOT 45	B: 3459863
WESLACO TX 78599	608 N CANTU	



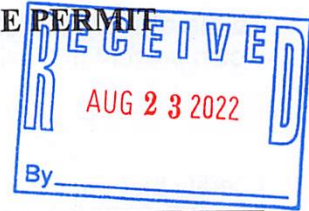
Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: October 5, 2022	Agenda Item No. (to be assigned by PCE): IV. B.
From: Rebekah de la Fuente, Planning Director, on behalf of Tiki Land Company, LLC.	
Subject/Agenda Item: Discussion and consideration to approve Conditional Use Permit to operate an event center at 310 W IH 2 STE. 1&2, also being Lot 2, 400 West Expressway 83 Subdivision, Hidalgo County, Texas	
Discussion/Overview: The applicant is requesting to obtain a Conditional Use Permit to operate an event center. Notice of the application and the public hearing for the Planning and Zoning Commission and the City Commission. Notice appeared in The Monitor on September 19, 2022. Twelve (12) property owners within 200 feet of the applicant's property were notified by letter on September 23, 2022.	
Staff recommendation for Commission's Action: Staff recommends approval of the conditional use permit.	
Additional Action Prompted: [X] Mayor's Signature [X] Public Hearing [] Budget Amendment [] Resolution [] Ordinance – First Reading [] Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Conditional Use Permit with attachments.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	

USE-000293-2022



APPLICATION FOR CONDITIONAL USE PERMIT



The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm. Deadline to submit request is 30 days prior to the meeting.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. _____

Appr. Dist No. 632974

PROPOSED PROJECT

400 West Expressway 83 Lot 2

Legal Description of Property for which Conditional Use Permit is requested:

Lot _____ Block _____

Subdivision Name _____

Street Address 310 Expway 83 Weslaco TX suite 1x2

Existing Zoning Commercial Existing Land Use Retail

Purpose for the Conditional Use Permit Request Event center

What, if anything, is planned to minimize the impact on the surrounding land uses: _____

- _____ \$300.00 non-refundable filing fee.
- _____ Detailed dimensioned site plan/map must be submitted with this request.
- _____ Survey and metes and bounds if the legal description is a portion of a lot.
- _____ City and school tax receipts attached.
- _____ I have received a copy of "CUP Application Instructions"

APPLICANT

Name Tiki Land Company LLC Phone 956-483-4372

Address 908 W Ferguson Ave Fax: _____

City Pharr State TX Zip Code 78577 E-Mail: TikiLandCompanyLLC@yahoo.com

OWNER

Name Triangular Investment LLC Phone 956-483-4372

Address 4745 S Jackson Rd Fax: _____

City Edinburg State TX Zip Code 78539 E-Mail: _____

To the best of your knowledge are there any deed restrictions, restrictive covenants, etc., which would prevent the utilization of the property in the manner indicated?

Yes _____ No _____

I certify that I am the actual owner of the property described above and this application is being submitted with my consent or I am authorized by the actual owner to submit this application and have attached written evidence of such authorization.

Signature _____ Date 8/23/22
Owner

Signature _____ Date 8/23/22
Applicant

Signature _____ Date _____
Authorized Agent

STAFF USE ONLY

Accepted By _____ Payment Received By _____ Date Paid _____

Notice of Public Hearing Sent to Property Owners Within 200' of Proposed Site Date _____

P & Z Notice of Public Hearing Published in Newspaper Date _____

City Commission Notice of Public Hearing Published in Newspaper Date _____

Presented to P & Z Commission Date _____
Approved _____ Disapproved _____ Tabled _____

Presented to City Commission Date _____
Approved _____ Disapproved _____ Tabled _____

City of Weslaco

"The City on the Grow"



David Suarez, Mayor
Josh Pedraza, Mayor Pro-Tem, District 1
Leo Muñoz, Commissioner, At-Large
Greg Kerr, Commissioner, At-Large
Letty Lopez, Commissioner, District 2
Jose "JP" Rodriguez, Commissioner, District 3
Adrian Farias, Commissioner, District 4

Martin Garza, Interim City Manager

PLANNING DEPARTMENT

September 23, 2022

Legal Notice

Dear Occupant:

The Weslaco Planning and Zoning Commission will hold a public hearing on Wednesday, October 5, 2022, and the City Commission will hold a public hearing on October 18, 2022, at 5:30 p.m. at the City Hall Legislative Chambers located at 255 South Kansas Avenue

Members of the public who wish to participate in Public Hearing on an agenda item must send their name, address and phone number via email to karevalo@weslacotx.gov by 12:00 pm on October 5, 2022. A staff member will contact you with instructions via phone call to address your public comment.

CONDITIONAL USE PERMIT REQUEST:

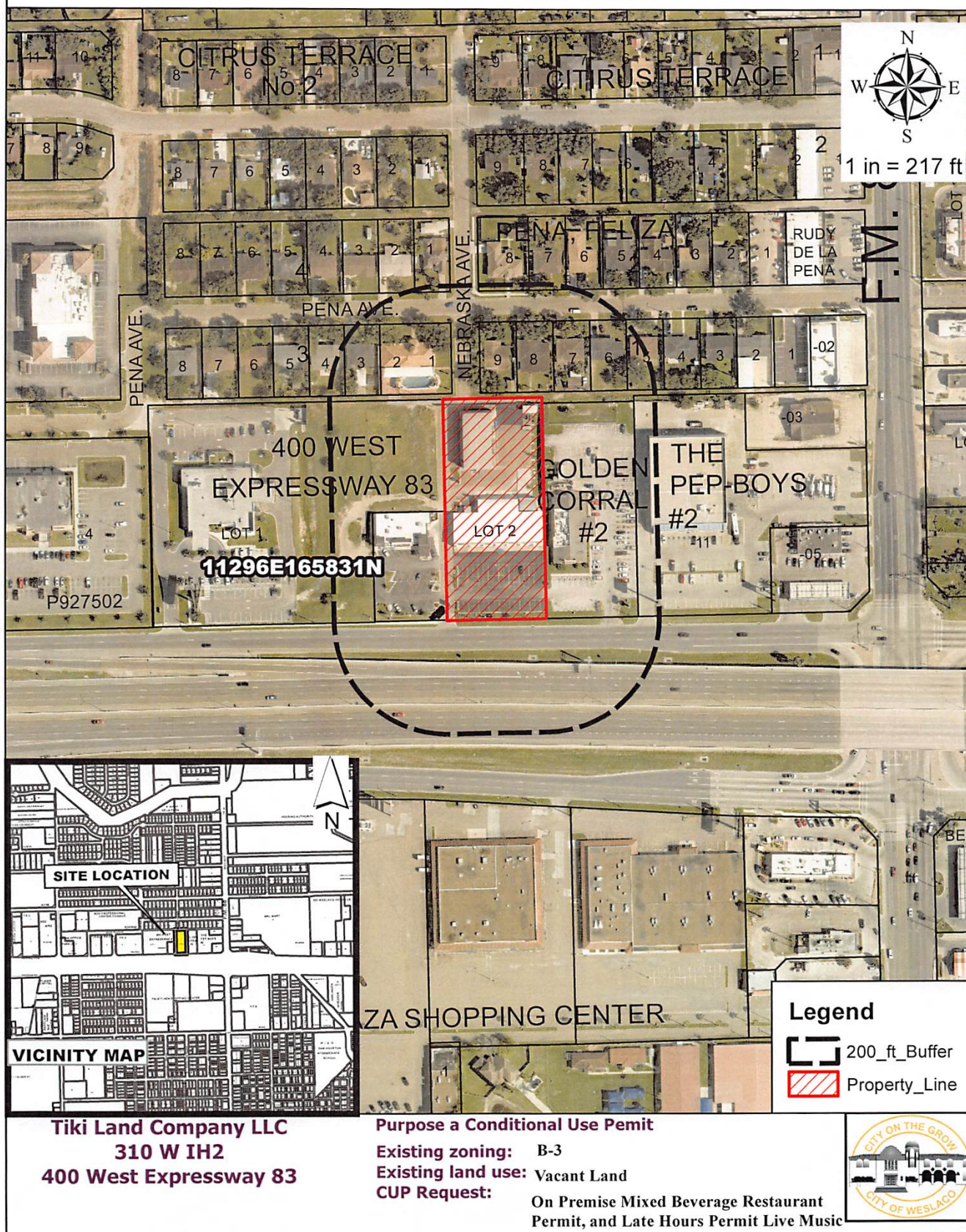
Tiki Land Company, LLC is requesting a Conditional Use Permit to operate an event center at 310 W IH 2 STE. 1&2, also being Lot 2, 400 West Expressway 83 Subdivision, Hidalgo County, Texas.

The public is hereby invited to attend and express their support or opposition to the request. You may also file a written notice supporting or protesting this action. For more information please call the Planning Department at (956) 447-3403.

Si desea información en español, por favor llame al departamento de Planeación de la ciudad de Weslaco, (956) 447-3403.

Sincerely,

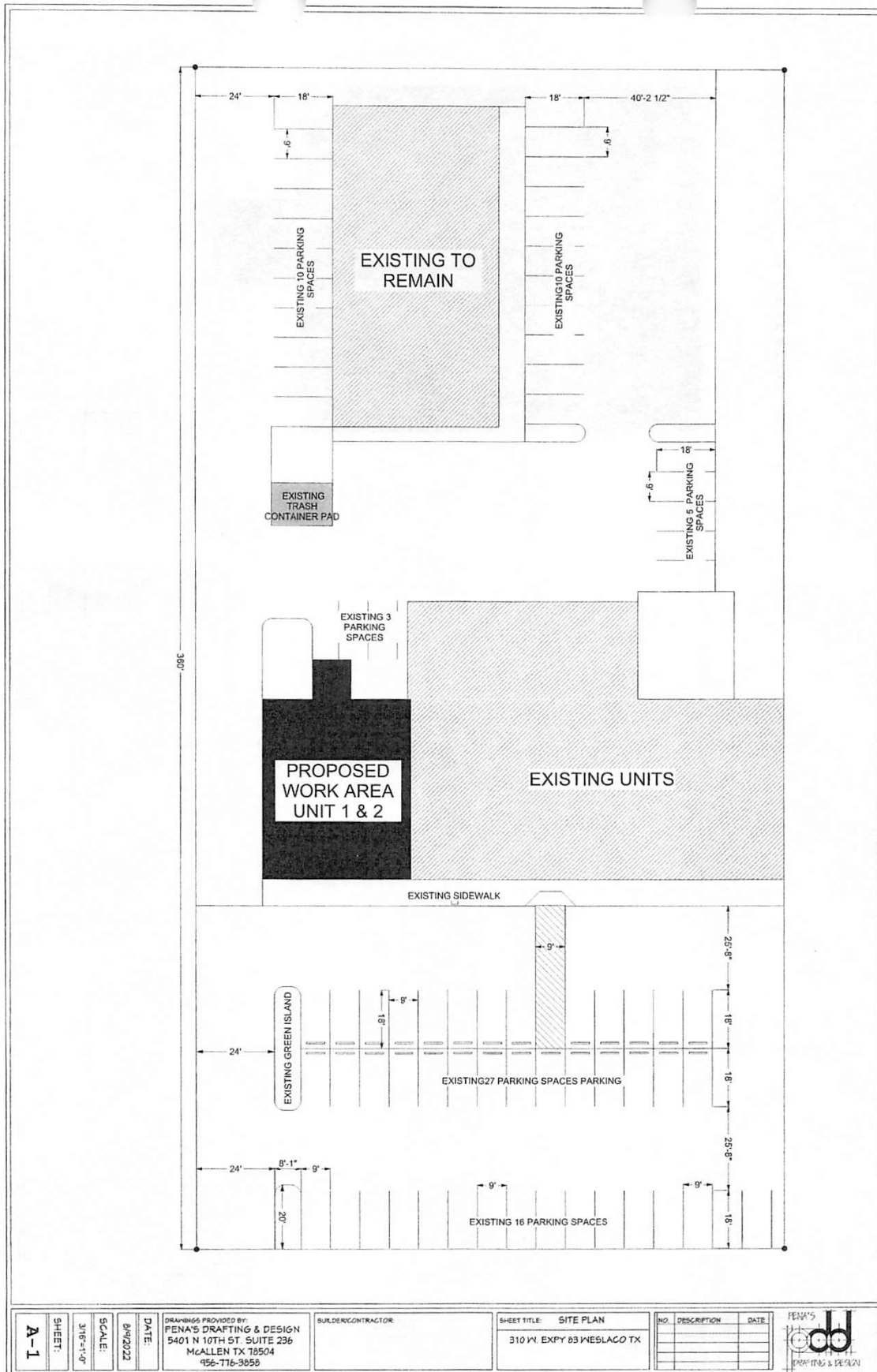
Rebekah de la Fuente, CFM
Planning Director



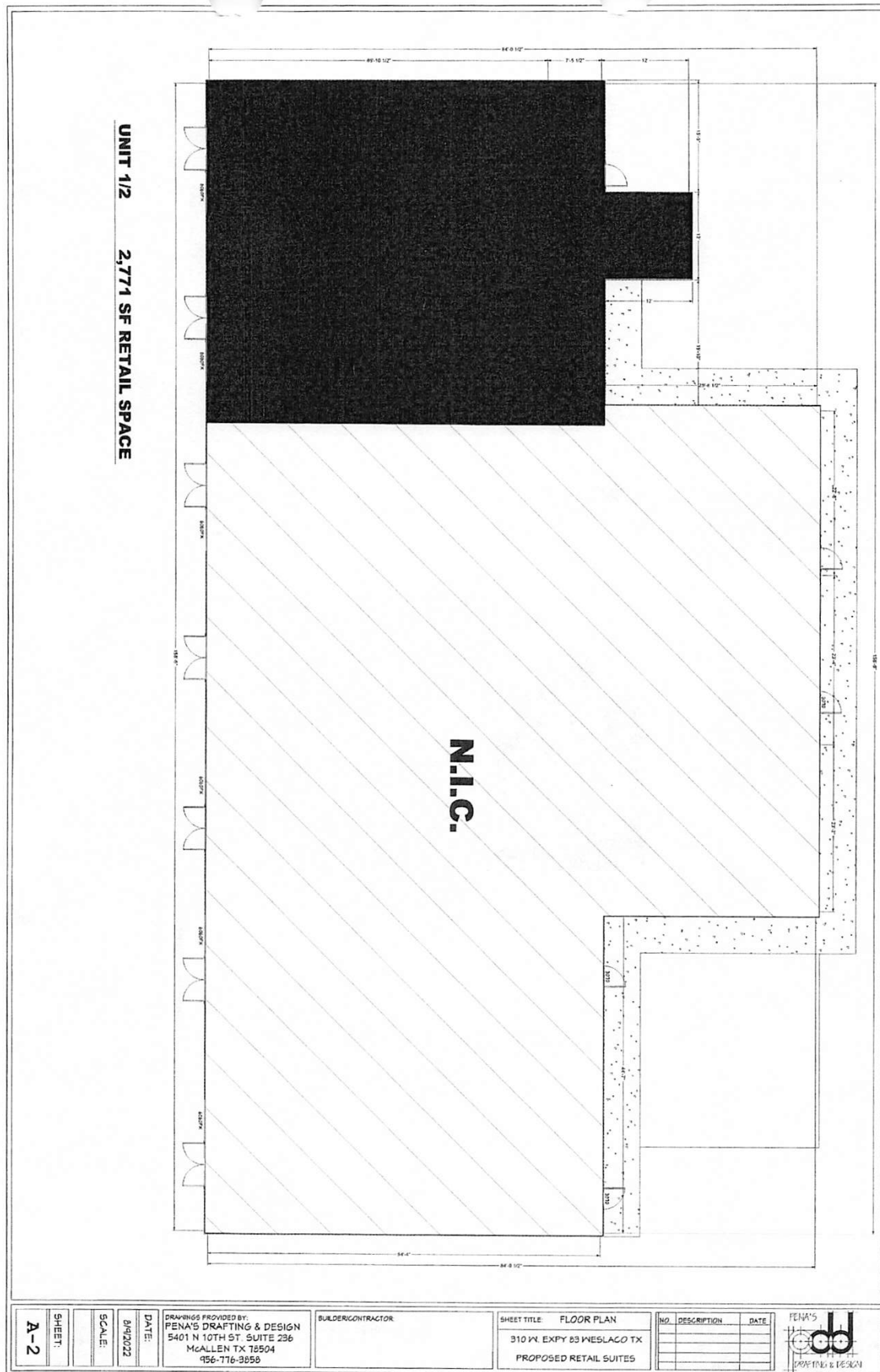
City of Weslaco Code Enforcement Dept.

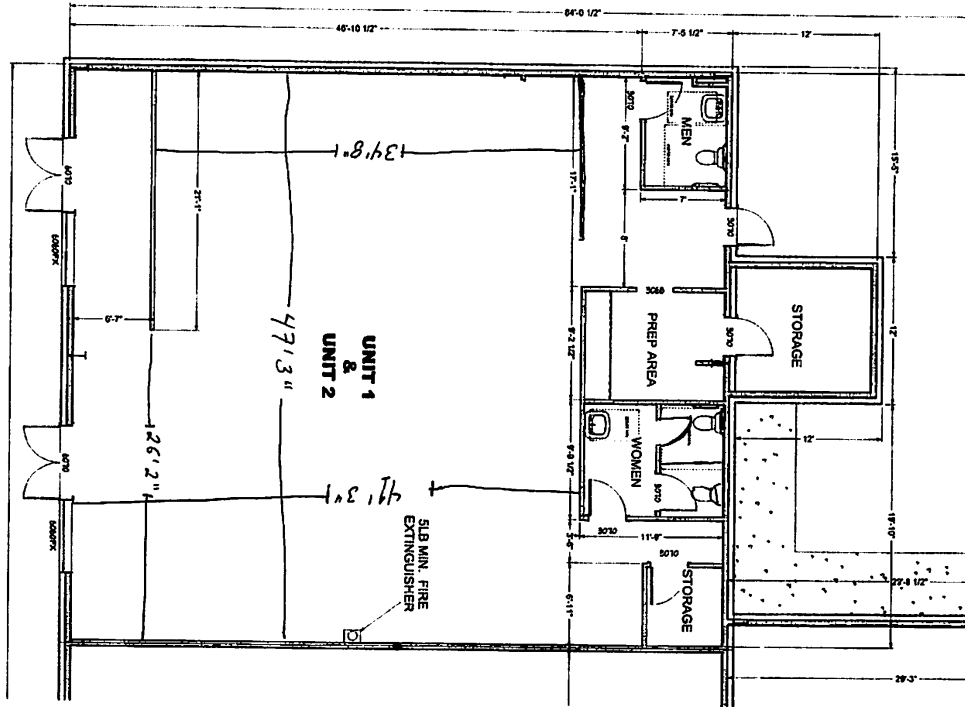
SEP 12, 2022

UNIVERSAL HEALTH REALTY INCOME 367 S GULPH RD KING OF PRUSSIA PA 19406	F5865-00-000-0001-00 400 WEST EXPRESSWAY 83 LOT 1 & 330 W EXPRWY 83	L: 2136545 B: 3504360
RUNYEN CHRIS & SHADEAN CO-TRUSTEES REVOCABLE TRUST 5535 LONG FELLOW DR SANTA BARBARA CA 93111	G4872-02-000-0000-00 GOLDEN CORRAL #2 BEING 1.64AC 300 W EXPRWY 83	L: 1143546 B: 421106
HERRERA ROY & MARGARITA 109 PENA AVE WESLACO TX 78599	P5400-00-001-0005-00 FELIZA PENA UT NO. 1 BLK 1 LOT 5 109 PENA AVE	L: 37781 B: 116895
BANDA JULIO JR & MARY A 111 PENA AVE WESLACO TX 78599	P5400-00-001-0006-00 FELIZA PENA UT NO. 1 BLK 1 LOT 6 111 PENA AVE	L: 37781 B: 104115
GARCIA JUAN JR ET UX 113 PENA AVE WESLACO TX 78599	P5400-00-001-0007-00 FELIZA PENA UT NO. 1 BLK 1 LOT 7	L: 37781 B: 113233
RAMON ROSENDO D & OLIVIA S 115 PENA AVE WESLACO TX 78599	P5400-00-001-0008-00 FELIZA PENA UT NO. 1 BLK 1 LOT 8 115 PENA AVE	L: 37781 B: 107294
GONZALEZ ANTONIO JR & OLGA 117 PAISANO LANE WESLACO TX 78599	P5400-00-001-0009-00 FELIZA PENA UT NO. 1 BLK 1 LOT 9	L: 37781 B: 113146
MALDONADO ISRAEL 201 PENA AVE WESLACO TX 78599	P5400-00-003-0001-00 FELIZA PENA UT NO. 1 BLK 3 LOTS 1 & 2 201 W PENA	L: 73238 B: 358064
FUENTES MICHAEL V & ANN MARIE 205 PENA AVE WESLACO TX 78599	P5400-00-003-0003-00 FELIZA PENA UT NO. 1 BLK 3 LOT 3 205 PENA AVE	L: 36619 B: 97570
CAVAZOS MARIA B 207 PENA AVE WESLACO TX 78599	P5400-00-003-0004-00 FELIZA PENA UT NO. 1 BLK 3 LOT 4 207 PENA AVE	L: 36619 B: 100695
PEP BOYS 3111 W ALLEGHENY AVE DEPT C PHILADELPHIA PA 19132	T3640-02-000-0000-05 THE PEP BOYS NO.2 ALL EXC S380'-W25' 1501 N TEXAS BLVD	L: 1564531 B: 995717
EXTREME NUTRITION-SPORTS 2602 YANEZ ST DONNA TX 78537	E8650-00-000-0001-00 EXTREME NUTRITION LOT 1	L: 384614 B: 417826



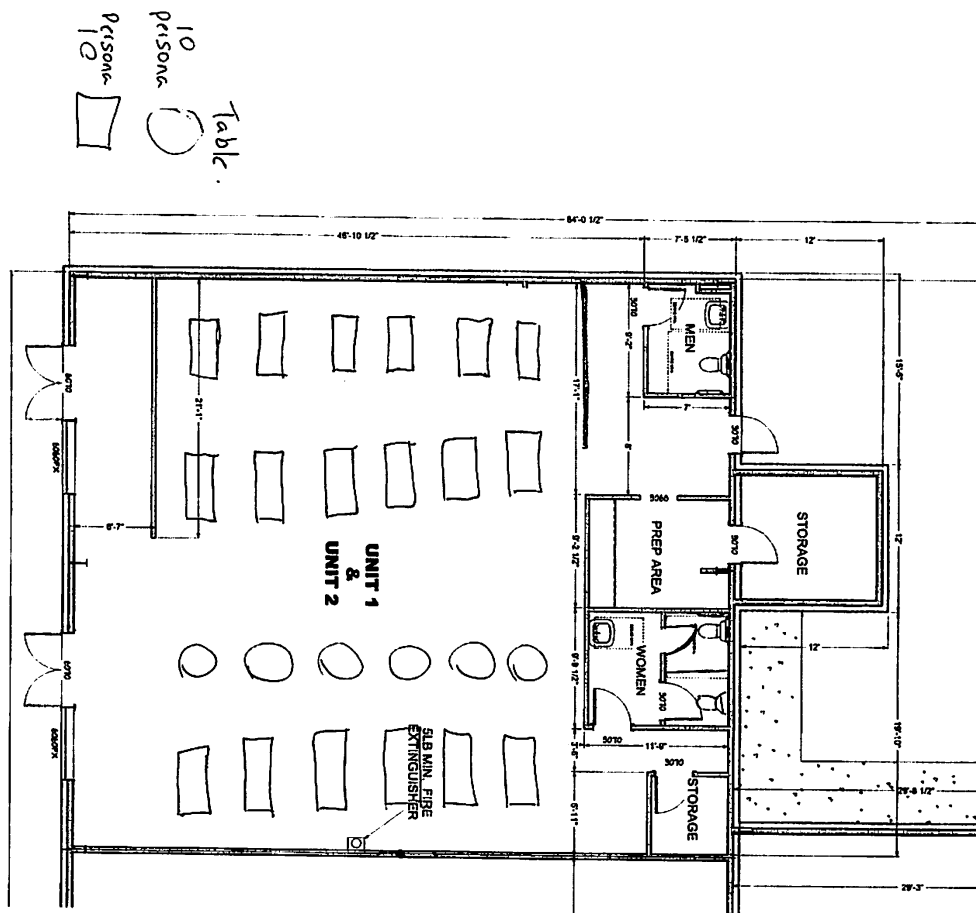
SHEET: A-1	SCALE: 3/16"=1'-0"	DATE: 8/9/2022	DRAWINGS PROVIDED BY: PENNA'S DRAFTING & DESIGN 5401 N 10TH ST. SUITE 236 MCALLEN TX 78504 956-776-3858	BUILDER/CONTRACTOR:	SHEET TITLE: SITE PLAN 310 W. EXFY 83 WESLACO TX	NO. DESCRIPTION DATE	PENNA'S DRAFTING & DESIGN
----------------------	-----------------------	-------------------	---	---------------------	--	----------------------	------------------------------





UNIT 1/2 2,771 SF RETAIL SPACE

A-3	SHEET:	SCALE:	DATE: 8/10/22	DRAWINGS PROVIDED BY: PENAS DRAFTING & DESIGN 5401 N 10TH ST. SUITE 236 MCALLEN TX 78504 956-716-5050	BUILDER/CONTRACTOR:	SHEET TITLE:	<table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	DESCRIPTION	DATE													PENAS DRAFTING & DESIGN
						NO.		DESCRIPTION	DATE														
310 W. EXFY 83 MESLACO TX																							



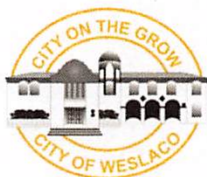
UNIT 1/2 2,771 SF RETAIL SPACE

SHEET: A-3	SCALE:	DATE: 04/20/22	DRAWINGS PROVIDED BY: PENAS DRAFTING & DESIGN 5401 N 10TH ST. SUITE 236 MCALLEN TX 78504 956-776-3656	OWNER/CONTRACTOR:	SHEET TITLE: 310 W. EXPT 03 MESLACO TX	NO. DESCRIPTION DATE	PENAS DRAFTING & DESIGN



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: October 5, 2022	Agenda Item No. (to be assigned by PCE): V.A.
From: Rebekah de la Fuente, Planning Director, on behalf of SWG Engineering	
Subject/Agenda Item: Discussion and consideration for the Preliminary and/or Final Plat for Pike Terrace - being a 36.092-acre out of farm tract 163, block 178, The West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas Located on the southeast Corner of w. pike Blvd. and Milanos Rd. Possible Action.	
Discussion/Overview: The proposed one hundred and five (105) lot subdivision is located inside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through an 8" waterline and sewer by the City of Weslaco through a 12" sewer line. The property is within a Flood Zone "B". Applicant has submitted his TIA to Engineering. Access for lots 18&19 and lots 4&5 have been restricted to fronting streets only with no access to Milanos or Pike.	
If item requires Publication Notice, provide date and periodical of publication; indicate if comments received from letters mailed to property owners: N/A	
Staff recommendation for Commission's Action: Staff recommends approval.	
Additional Action Prompted: ☒ Mayor's Signature ☐ Public Hearing ☐ Budget Amendment ☐ Resolution ☐ Ordinance – First Reading ☐ Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Subdivision platting, Staff's comments, Drainage Report, Subdivision plat and Utility layout.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	



SUBDIVISION PLATTING APPLICATION

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. PIAT-000273-2022

This form shall be completed by the Property Owner or Applicant and submitted to the Planning Department along with the required number of copies of the respective plat, review fee and all other required information listed below and in the Subdivision Ordinance. The submittal of an application does not constitute acceptance for processing until the staff reviews and determines the application is complete.

STAFF USE ONLY

☐ Single Lot Variance ☐ Minor Plat ☐ Planned Unit Development ☐ Standard Subdivision

GENERAL INFORMATION

Name of Subdivision: Pike Terrace Subdivision

Location: Southeast Corner of W. Pike Blvd. (Mile 8 North) and Milanos Rd. (Mile 6 1/2 West Rd)

Legal Description: A Tract of land containing 36.092 Acres situated in the City of Weslaco, Hidalgo County, Texas being a part or portion of Farm Tract 163, Block 178, The West and Adams Tract.

Is subdivision inside city limits? ☒ YES ☐ NO

If subdivision is in the ETJ, indicate? ☐ 3.5 Mile ☐ 5 Mile

If no submit letter of Annexation (Contiguous or Consensual)

Existing Zoning: R-1

Existing Land Use: Vacant Proposed Land Use: R-2 Duplex & Apts

Number of Lots Proposed: 105 Gross Acreage: 36.092

Title Report Submitted: ☐ YES ☐ NO

OWNER INFORMATION

Owner's Name: Shavi Mahtani Telephone: (956) 661-8888

Address: 100 E. Nolana Fax: _____

City: McAllen State: Tx Zip: 78501 E-mail: shavi@aurielinvestments.com

ENGINEER INFORMATION

Name: SWG Engineering LLC Telephone: (956) 968-2194

Address: 611 Bill Summers Intl. Blvd. Fax: (956) 968-8300

City: Weslaco State: Tx Zip: 78596 E-mail: jreyes@siglerwinstongreenwood.com

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

UTILITY PROVISIONS

Will proposed subdivision connect to:

☒ YES ☐ NO Water Provision: NAWSC
☒ YES ☐ NO Wastewater Provision: City of Weslaco
☒ YES ☐ NO Electric Company: AEP

☒ YES ☐ NO Phone Utility _____	☒ YES ☐ NO Gas Utility _____	☒ YES ☐ NO Cable Utility _____
---	---	---

Proposed subdivision is in the following districts:

☒ YES ☐ NO Drainage District <u>HCDD#1</u>	☒ YES ☐ NO Irrigation District <u>HCCID#9</u>
---	--

Has the property been assessed as flat rate irrigable property: ☐ YES ☐ NO

Have Water Rights been conveyed to City/Water Supplier? ☐ YES ☐ NO

(Attach written proof of such assessment or that it has never been assessed as such a property) If **YES**, attach an estimate from the irrigation district of the proportional water rights for the subdivision as calculated under Texas Water Code § 49.505.

SUBMITTALS REQUIRED FOR MINOR PLAT REVIEW

- _____ **Two (2)** sets of plats **folded and stapled** (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov
- _____ **\$355.00** Planning Review fee
- _____ One 11" X 17" reduced copy of plat
- _____ Plat Layout
 - _____ Existing & Proposed Easements
 - _____ Existing & Proposed ROW
 - _____ Existing & Proposed Drainage Easements
 - _____ Contours
 - _____ Flood Zones
 - _____ Adjoiners
 - _____ Existing street names
- _____ Drainage plans and calculations with engineer's seal
 - _____ Elevations
 - _____ Flood directional arrows
 - _____ Detention areas
 - _____ Street names
- _____ Proof of ownership of the property
- _____ If septic tank system required, submit soil evaluation report
- _____ Water Rights associated with the property
- _____ Tax Receipt for all taxing entities showing that taxes are paid in full

SUBMITTALS REQUIRED FOR PRELIMINARY (P & Z)

- ☒ **Twelve (12)** sets of preliminary plat **folded and stapled** (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov
- ☒ **\$350.00** (one time fee for preliminary and final plat)
- ☒ One 11" X 17" reduced copy of plat
- _____ Plat Layout
 - _____ Existing & Proposed Easements
 - _____ Existing & Proposed ROW
 - _____ Existing & Proposed Drainage Easements

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

- _____ Contours
- _____ Flood Zones
- _____ Adjoiners
- _____ Existing & Proposed street names
- _____ Utility Layout
- _____ Existing & Proposed Utilities
- _____ Proposed Fire Hydrants
- _____ Adjoiners
- _____ Street names
- _____ Drainage plans and calculations with engineer's seal
- _____ Elevations
- _____ Flood directional arrows
- _____ Detention areas
- _____ Street names
- _____ Proof of ownership of the property
- _____ If septic tank system required, submit soil evaluation report
- _____ Water Rights associated with the property
- _____ Tax Receipt for all taxing entities showing that taxes are paid in full
- _____ Number of fire hydrants proposed for subdivision
- _____ Trip Generation Worksheet

SUBMITTALS REQUIRED FOR FINAL (P & Z) **Will not apply to Single Lot Variance**

- _____ **Twelve (12) sets of plans FOLDED & STAPLED (24 x 36) & PDF copy with all corrections**
- _____ Plats to be sealed by Professional Engineer
- _____ Approved Drainage Report
- _____ Traffic Impact Analysis (If required)

SUBMITTALS REQUIRED FOR FINAL (City Commission)

- _____ One set of 8 ½ x 11 of plat and utilities with all corrections done

SUBMITTALS REQUIRED FOR PRE-CONSTRUCTION MEETING

- _____ Seven (7) full sets of construction plans 24 x 36 and one (1) 11 x 17 with plan & profile.
- _____ Engineering cost estimates for 3% geotechnical testing fees and 2% inspection fees
- _____ Notice of Intent
- _____ SW3P

SUBMITTALS REQUIRED FOR RECORDING OR HIDALGO COUNTY PLANNING

- _____ Electronic file of final plat and as-builds
- _____ Reproducible plat to be recorded with all required signatures
- _____ 3% geotechnical testing fees or negotiated Material Testing fee by City, whichever is higher
- _____ 2% inspection fee
- _____ Park Fees
- _____ Checks or Receipts: HCCID #9; HCDD #1; County Clerk
- _____ Tax certificates
- _____ Memo from engineering inspector releasing subdivision
- _____ Water Rights associated with the property dedicated and assigned to City of Weslaco or payment of fees sufficient to meet the needs necessitated and attributable to development
- _____ 30 Year Water and 30 Year Sewer Service Agreements
- _____ Park dedication/Fees in lieu of

SUBMITTALS REQUIRED FOR RECORDING BY SECURITY

- _____ Sealed engineering cost estimates
- _____ Letter of Credit/Performance Bond/Escrow

** Any revisions requested would require resubmission of plats and reduced copy reflecting changes.

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

Owner Printed Name: _____

Owner Signature: _____ Date: _____

_____ is the authorized agent

Authorized Agent Signature: SWG Engineering LLC Date: July 27, 2022

Authorized Agent Printed Name: [Signature], P.E.

THIS PAGE FOR STAFF USE ONLY

Date Received: _____ Received By: _____ Date Paid: _____

P & Z Commission Approval on Preliminary Plat: _____

P & Z Commission Approval on Final Plat: _____

City Commission Approval on Final Plat: _____

Preconstruction Meeting Date: _____

Date Recorded: _____ Instrument No. _____

General Comments: _____



ENGINEERING
WK Engineering PLLC
TBPE Firm F-17956
www.wkengineering.net

SWG Engineering, LLC.

611 Bill Summers International Blvd
Weslaco, TX 78596
(956) 968-2194

Traffic Impact Analysis

Pike Terrace Subdivision

City of Weslaco

September 2022

TABLE OF CONTENTS

Table of Contents	1
List of Figures	2
List of Tables	2
List Appendices	2
Executive Summary.....	3
Project Description	4
Introduction	4
Project Study Area	6
Existing Conditions.....	7
Surrounding Land Use.....	7
Roadways	8
Study Intersections.....	8
Milano Road & Pike Boulevard.....	8
Milano Road & US Business 83	8
Traffic Data.....	9
Analysis & Impact	10
Trip Generation.....	10
Trip Distribution.....	10
Development Access	11
Level of Service Analysis	11
Operational Considerations.....	13
Corridor Volumes.....	13
LOS Analysis Results	13
Conclusion.....	14

LIST OF FIGURES

Figure 1 – Project Location	4
Figure 2 – Site Plan	5
Figure 3 - Project Study Intersections	6
Figure 4 - Land Use.....	7
Figure 5 - Project Site.....	7
Figure 6 – Milano Road & Pike Boulevard	8
Figure 7 - Milano Road & US Business 83.....	9
Figure 8 - ADT Count Location	9
Figure 9 - Global Trip Distribution.....	10
Figure 10 - Percent Distribution Exhibit Example (Full Scale in Appendix)	11
Figure 11 - Synchro Model Screenshot	11

LIST OF TABLES

Table 1 - Trip Generation	10
Table 2 - LOS Criteria	12
Table 3 - Intersection LOS (AWSC).....	12
Table 4 - Intersection LOS (Signalized)	12
Table 5 - Intersection LOS (TWSC)	13
Table 6 – ADT.....	13

LIST APPENDICES

APPENDIX A – SITE LAYOUT

APPENDIX B – TRAFFIC DATA

APPENDIX C – TRAFFIC EXHIBITS

APPENDIX D – SYNCHRO REPORTS

APPENDIX E – TRIP GENERATION WORKSHEET

EXECUTIVE SUMMARY

WK Engineering, PLLC was retained by SWG Engineering, LLC to prepare a TIA Report for the proposed Pike Terrace Subdivision in Weslaco, Texas. The subdivision, which consists of approximately 36.1 acres and is located on the west side of Milano Road and approximately 1/3 mile south of Interstate 2, in Weslaco, TX. It is anticipated to accommodate approximately 105 multi-family units. The study area encompassed a total of two (2) intersections in the vicinity of the proposed development. While full buildout for residential subdivisions may vary, the initial homes will be constructed within a year and for the purpose of this study, the analysis was conducted for a 2027-year buildout.

Turning Movement Counts (TMC) were collected in September 2022 and projected traffic volumes were determined utilizing an annual average growth rate of 2% for five (5) years. Traffic Volume Counts were collected for Milano Road in September 2022 and used to calculate the corridor's average daily traffic (ADT) for the northbound, southbound, and combined directions. The proposed development's trip generation was calculated utilizing the ITE Trip Generation Manual (10th Edition). The proposed development consists of two (2) access points along the west side of Milano Road and south side of Pike Boulevard.

The results of the Level of Service (LOS) Analysis showed that the proposed development would have minimal impacts on the surrounding roadway network upon full build-out. For the intersections analyzed for the build out year 2027, the LOS varied between A and C.

This study was performed per the City of Weslaco's requirements to assess the impact of the proposed Pike Terrace Subdivision to the local transportation network. The traffic generated was distributed accordingly throughout the adjacent network and the study intersections were analyzed with Synchro 10 traffic simulation software for the full build-out (2027) year. The study results include:

Trip Generation Volumes for Pike Terrace Subdivision:

- AM Peak Hour: 89
- PM Peak Hour: 120

Projected Traffic Conditions (2022) AM/PM:

- Milano Road & Pike Boulevard ~ LOS C/B
- Milano Road & US Business 83 ~ LOS B/B

Projected Traffic Conditions with Trips Generated by Development (2022):

- Milano Road & Pike Boulevard ~ LOS C/C
- Milano Road & US Business 83 ~ LOS B/B
- Milano Road & Mockingbird Street ~ LOS A/A
- Driveway 2 & Pike Boulevard ~ LOS A/A

Recommendations & Conclusion:

The results of the LOS analysis show that the two intersections studied and proposed access drives will operate at an acceptable LOS. No further mitigation improvements are required. In summary, the project should be approved as proposed.

PROJECT DESCRIPTION

INTRODUCTION

WK Engineering PLLC was retained by SWG Engineering, LLC to prepare a Traffic Impact Analysis (TIA) Report for the proposed Pike Terrace Subdivision in Weslaco, Texas to assess the adequacy of the existing or future transportation infrastructure to accommodate additional trips generated by the proposed development.

The proposed development consists of approximately 36.1 acres and is located on the southwest corner of Milano Road, with the southern edge of the development reaching US Business 83. It is anticipated to accommodate approximately 105 multi-family, four-plex homes. The study area for the analysis encompassed a total of two (2) intersections. Although full buildout for residential subdivisions may vary, for the purposes of this study, the full build out was analyzed for 2027. As per the ITE Trip Generation Manual (10th Edition) the development will generate as many as 186 and 212 peak hour trips during the weekday morning and evening peaks, respectively, upon full build out. In accordance with City of Weslaco requirements, a TIA has been prepared for this project.

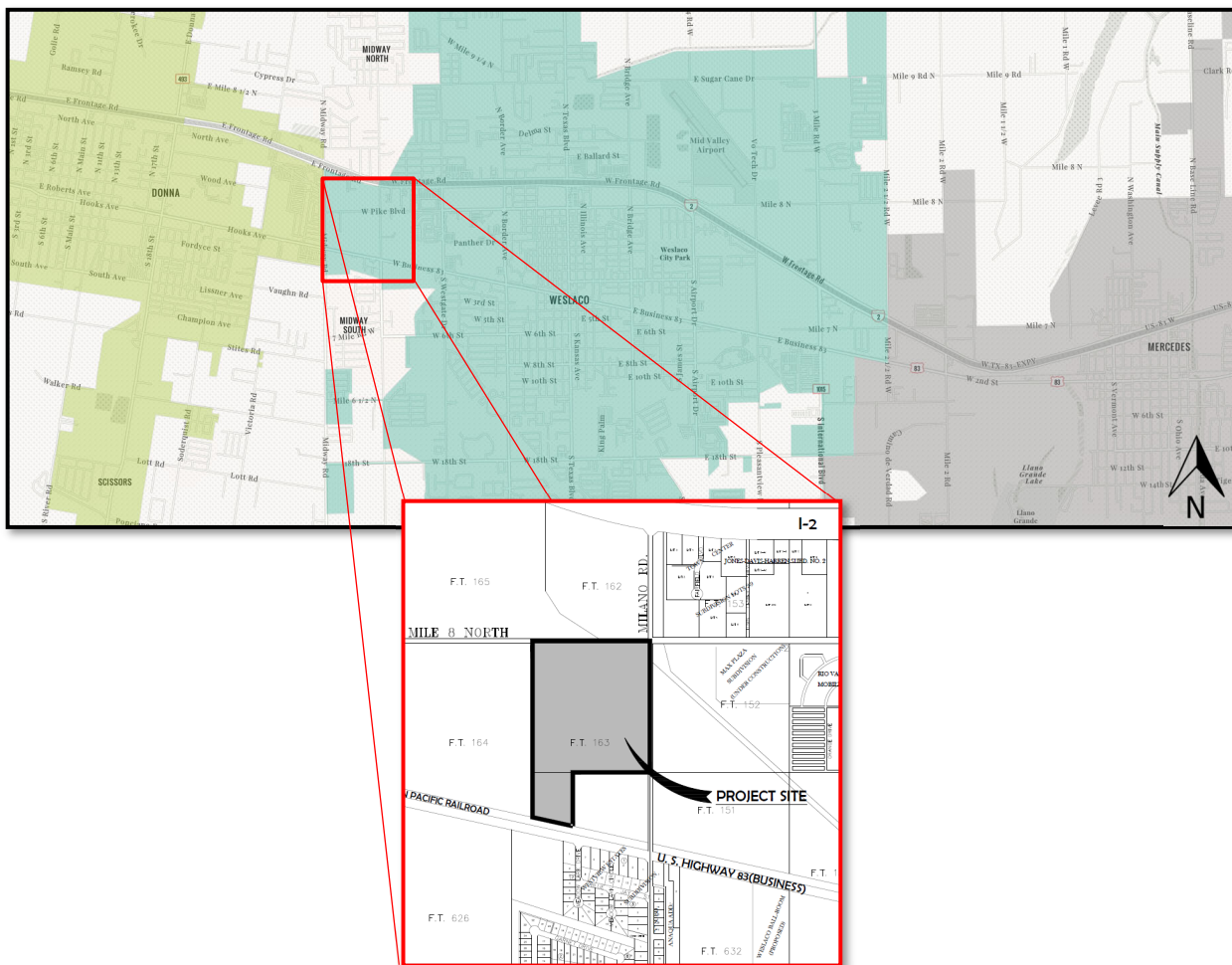


Figure 1 – Project Location

The proposed development, which will contain a total of 105 multi-family lots and an access drives along Milano Road and Pike Boulevard, can be seen in Figure 2 and in detail within the Appendix.

PIKE TERRACE SUBDIVISION
TRAFFIC IMPACT ANALYSES

CITY OF WESLACO
SEPTEMBER 2022

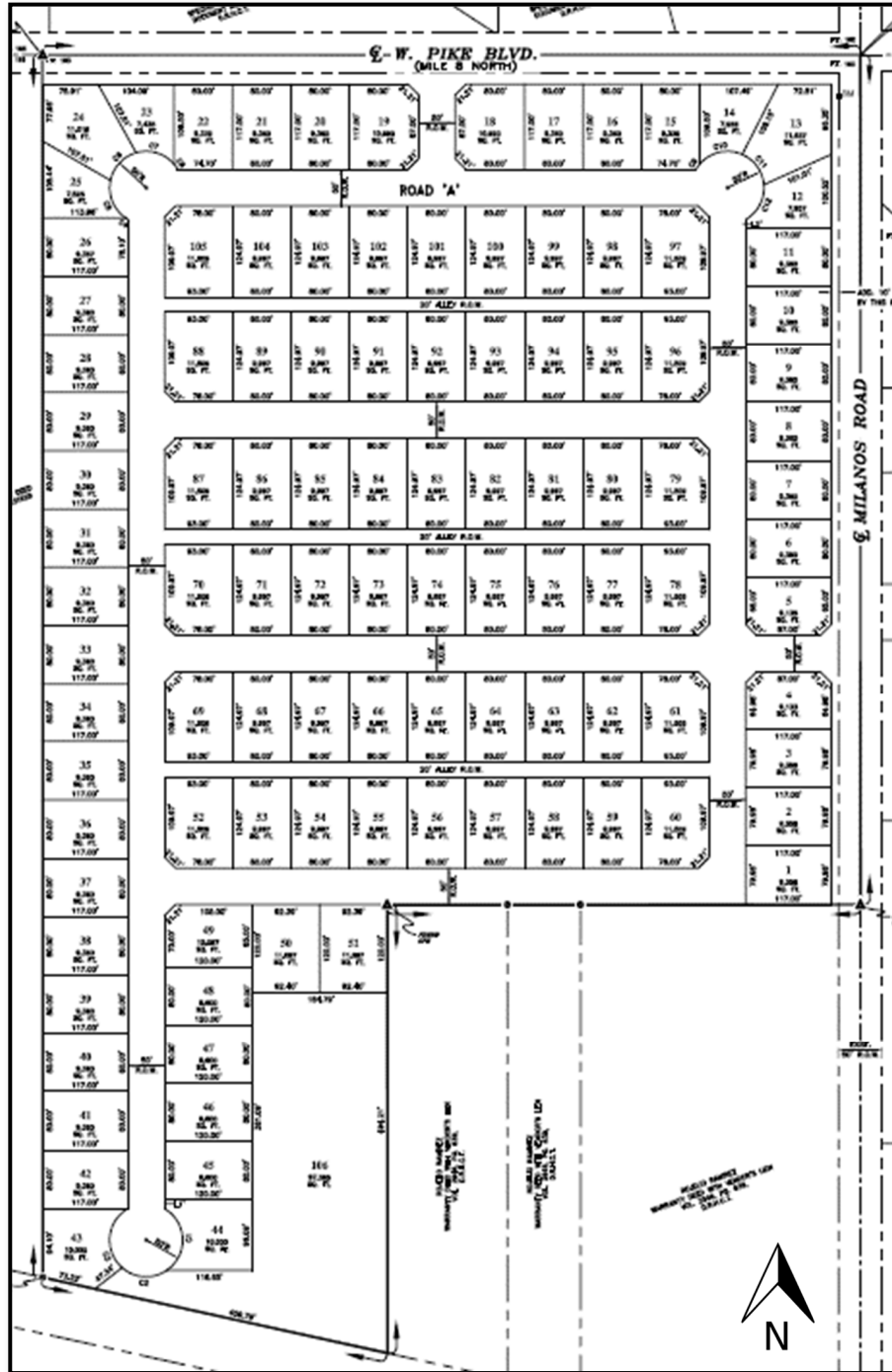


Figure 2 – Site Plan

PROJECT STUDY AREA

The study area for the proposed development will encompass two existing intersections, as requested by the City of Weslaco, and confirmed September 12, 2022. The intersections include Milano Road at Pike Boulevard and Milano Road at US Business 83. The locations of the intersections can be seen in Figure 3 below.

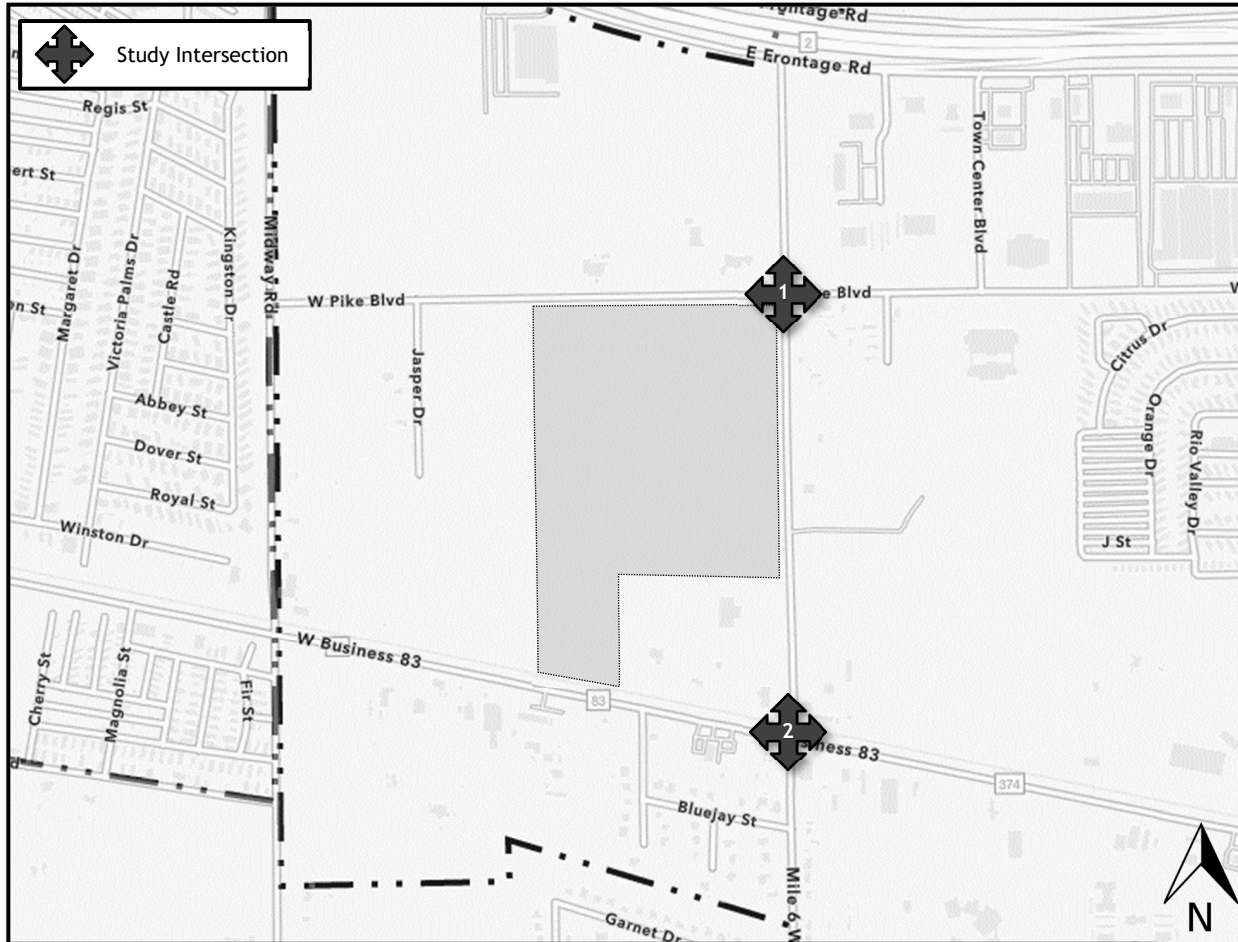


Figure 3 - Project Study Intersections

EXISTING CONDITIONS

SURROUNDING LAND USE

The existing zoning of the area surrounding the project consists primarily of single-family dwelling and “Secondary & Highway” Terraces. The area surrounding the project location is primarily comprised of residential and agricultural/open space use within the City of Weslaco’s city limits.

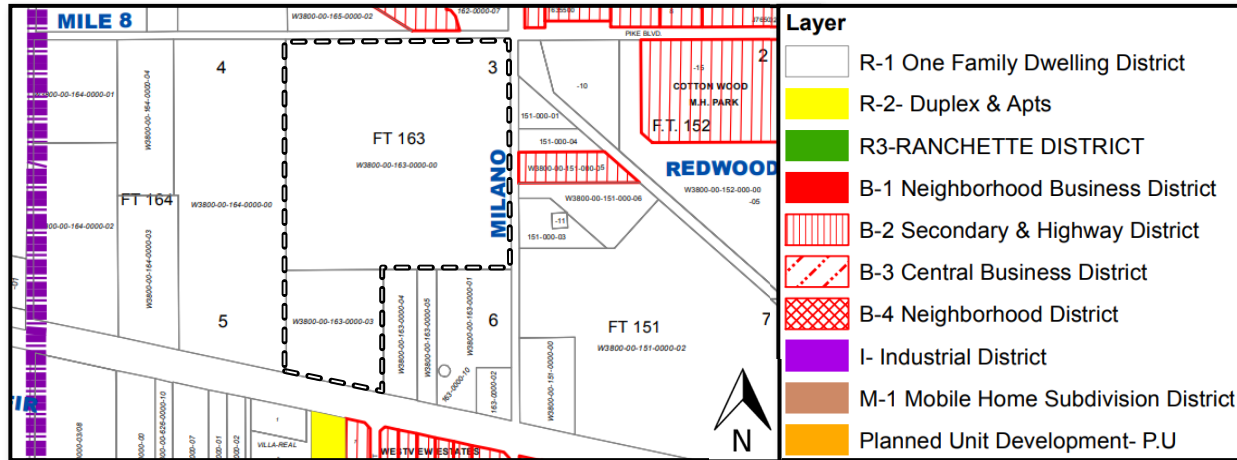


Figure 4 - Land Use

The proposed development is currently made up of vacant lots, located on the southwest of corner of Milan Road and Pike Boulevard. The site can be seen in Figure 5.



Figure 5 - Project Site

ROADWAYS

The roadways expected to be impacted by the proposed development include:

- Milano Road
 - Minor Collector
 - 30 mph posted speed limit
- Pike Boulevard
 - Major Collector/Local Road
 - 30 mph posted speed limit
- US Business 83
 - Principal Arterial (TXDOT)
 - 50 mph posted speed limit

STUDY INTERSECTIONS

The following photos present all intersection approach geometrics obtained from CONNECTExplorer aeriels. These multi-angle aerial photos, along with Google Street View, were used in conjunction with field reconnaissance work to develop an accurate base model of the existing conditions.

MILANO ROAD & PIKE BOULEVARD

The intersection of Milano Road and Pike Boulevard currently operates under All Way Stop Control (AWSC) for all directions. The Northbound direction consists of a left-turn lane and a thru/right-turn combo lane. The Southbound direction consists of a thru/left-turn and a thru/right-turn combo lane. The Eastbound direction consists of a single left/thru/right combo lane. The Westbound direction consists of a thru/right-turn combo lane and a right-turn lane.



Figure 6 – Milano Road & Pike Boulevard

MILANO ROAD & US BUSINESS 83

The intersection of Milano Road and US Business 83 currently operates under signalized control (6 phase). The Northbound direction consists of a single left/thru/right-turn combo lane, with a permitted left turn. The Southbound

PIKE TERRACE SUBDIVISION
TRAFFIC IMPACT ANALYSES

CITY OF WESLACO
SEPTEMBER 2022

direction consists of a thru/left-turn combo and a right-turn lane, with a permitted left turn. The Eastbound direction consists of a shoulder utilized by traffic as a right-turn lane, two thru lanes, and a left-turn lane, with a protected/permitted left turn. The Westbound direction consists of a thru/right turn combo lane, a thru lane, and a left-turn lane, with a protected/permitted left turn.



Figure 7 - Milano Road & US Business 83

TRAFFIC DATA

Existing traffic data, in the form of Turning movement Counts (TMCs), was collected for the study intersections in month of September of 2022. Projected traffic volumes were determined utilizing an annual average growth rate of 2% for five (5) years.

Traffic volume counts were conducted in the last week of September 2022 along Milano Road (Location: 26 9 58.78, -98 0 53.96 Degrees Minutes Seconds) for a seven day, 24-hr period to capture the Average Daily Traffic (ADT) for the roadway.

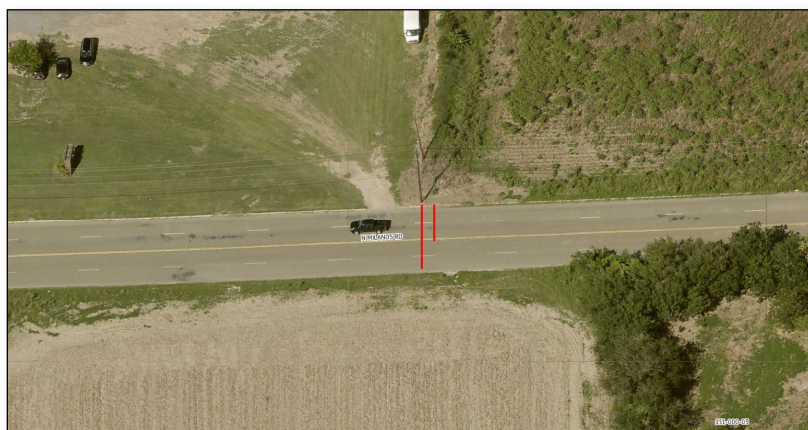


Figure 8 - ADT Count Location

All existing and projected traffic volumes are located within the Appendix.

ANALYSIS & IMPACT

TRIP GENERATION

The proposed development's trip generation was calculated utilizing the ITE Trip Generation Manual (10th Edition), and a land use of Multi-Family, Detached Housing (ITE 210) with 105 proposed units. Table 1 shows the calculated trip generation values for the development.

Table 1 - Trip Generation

Pike Terrace Subdivision Trip Generation Calculations						
Multifamily Housing (Low-Rise) (220)						
Units	119	Weekday 24 hrs	Weekday AM Peak		Weekday PM Peak	
% Enter / % Exit	50% / 50%	50%	23%	77%	63%	37%
Total Trips	3,134		186		212	
Enter / Exit	1,567	1,567	43	143	134	78

TRIP DISTRIBUTION

The trip distribution for the proposed development was established based upon four factors: 1) Traffic engineering judgment, 2) Existing traffic data/travel patterns, 3) Anticipated development circulation and driveway utilization, and 4) Existing travel demand patterns within the study area.

The global trip distribution entailed distributing the development traffic in general directions into and out of the development and network. The global trip distribution can be seen in Figure 8.

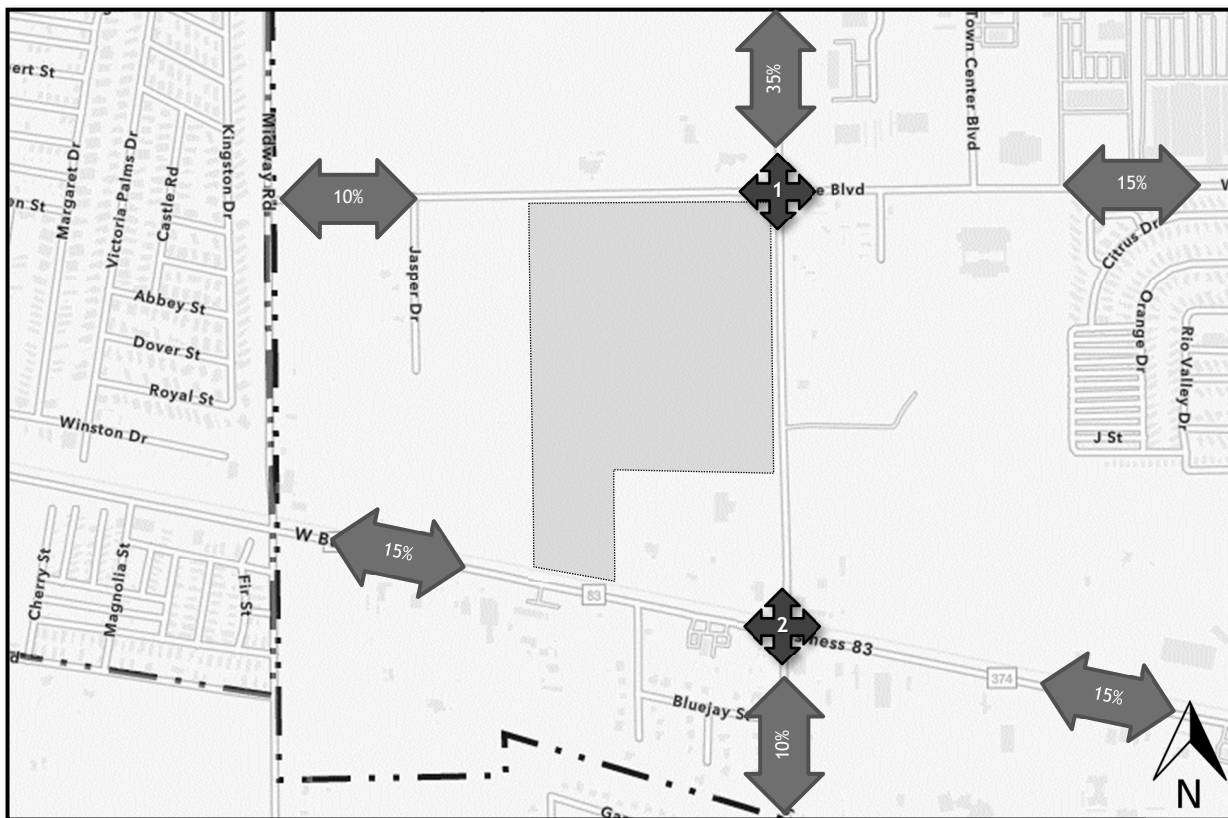


Figure 9 - Global Trip Distribution

Once the global trip distribution rates were established, the traffic was distributed through the network intersections accordingly. Exhibits showing existing, projected, percent/volume distribution, and projected with development traffic can be found within the Appendix (see Figure 9 as an example).

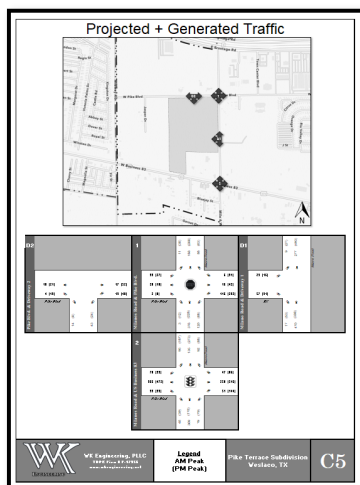


Figure 10 - Percent Distribution Exhibit Example (Full Scale in Appendix)

DEVELOPMENT ACCESS

The proposed development consists of two (2) access points, located along the west side of Milano Road (approximately 830 feet south of the intersection at Pike Boulevard) and along the south side of Pike Boulevard (approximately 560 feet west of the intersection at Milano Road). The access drives would allow for left turn and right turn movements entering and exiting the development, with stops for exiting traffic and cross traffic in both directions free flowing.

LEVEL OF SERVICE ANALYSIS

Level of service (LOS) is a method used to determine how well a transportation facility is operating from a traveler's perspective, defined as six levels of service, designated with a letter from "A" to "F". A traffic model was created using Synchro 11.0 Traffic Simulation Software to determine control delay according to the HCM method for signalized intersections, two-way stops, and all-way stops. The analysis process involved the development of a base model, calibration of the base model, and an alternative comparison to the base model. Development of the base model involves the creation of a system network, also referred to as the link-node diagram, and includes link-node assignments, traffic control, traffic signalization, roadway geometry, lane designations and assignments, volumes, and turning movements. As required by the City of Weslaco, a traffic analysis was conducted for three scenarios; existing, projected, and projected with development traffic conditions for the morning (AM) and evening (PM) peak periods. A screenshot of the Synchro Model created for this study can be seen in Figure 10.



Figure 11 - Synchro Model Screenshot

PIKE TERRACE SUBDIVISION

CITY OF WESLACO

TRAFFIC IMPACT ANALYSES

SEPTEMBER 2022

Based on criteria found in the *Highway Capacity Manual 6th Edition (HCM)*, Levels of Service (LOS) for each of the signalized intersections and Two-Way Stop Control within the study area was determined based on the measures of effectiveness obtained from the traffic simulation output. LOS criteria for a signalized intersection LOS and approaches for a TWSC intersection are based on average control delay in seconds per vehicle (sec/veh).

Table 2 shows the average control delay ranges with the corresponding LOS. In accordance with the HCM, an average control delay is calculated for each approach within the traffic simulation model. The combined approach average control delay measures are used to determine the overall intersection LOS.

Table 2 - LOS Criteria

Level of Service	Average Control Delay (sec/veh) Intersection (Signalized)	Average Control Delay (sec/veh) Per Approach (TWSC)
A	< 10	< 10
B	> 10 – <20	> 10 – <15
C	> 20 – <35	> 15 – <25
D	> 35 – <55	> 25 – <35
E	> 55 – <80	> 35 – <50
F	> 80	> 50

Tables 3 through 5 below are a summary of the intersections and approach LOS values obtained from the traffic simulation model.

Table 3 - Intersection LOS (AWSC)

	①	Milano Road & Pike Boulevard		Milano Road		Pike Boulevard		Intersection Total
				NB	SB	EB	WB	
AWSC	EXISTING (2021)	AM PEAK HOUR	DELAY	17.0	9.8	9.9	11.5	14.0
			LOS	C	A	A	B	B
		PM PEAK HOUR	DELAY	13.7	11.8	10.4	14.8	13.2
			LOS	B	B	B	B	B
	PROJECTED (2022)	AM PEAK HOUR	DELAY	22.3	10.3	10.3	12.2	17.1
			LOS	C	B	B	B	C
		PM PEAK HOUR	DELAY	15.9	12.8	10.9	16.8	14.9
			LOS	C	B	B	C	B
	PROJECTED w/ DEVELOPMENT	AM PEAK HOUR	DELAY	30.2	11.2	11.6	13.0	21.3
			LOS	D	B	B	B	C
		PM PEAK HOUR	DELAY	18.6	14.0	11.9	19.5	16.8
			LOS	C	B	B	C	C

Table 4 - Intersection LOS (Signalized)

	②	Milano Road & US Business 83		Milano Road		US Business 83		Intersection Total
				NB	SB	EB	WB	
Signalized	EXISTING (2021)	AM PEAK HOUR	DELAY	11.3	7.6	15.8	16.4	13.2
			LOS	B	A	B	B	B
		PM PEAK HOUR	DELAY	10.9	11.0	16.6	16.8	14.6
			LOS	B	B	B	B	B
	PROJECTED (2022)	AM PEAK HOUR	DELAY	13.1	8.1	15.8	16.5	13.9
			LOS	B	A	B	B	B
		PM PEAK HOUR	DELAY	12.1	12.1	16.7	17.0	15.2
			LOS	B	B	B	B	B
	PROJECTED w/ DEVELOPMENT	AM PEAK HOUR	DELAY	13.2	8.7	15.8	16.9	13.9
			LOS	B	A	B	B	B
		PM PEAK HOUR	DELAY	13.1	13.3	16.0	17.5	15.5
			LOS	B	B	B	B	B

Table 5 - Intersection LOS (TWSC)

TWSC	③ Milano Road & Driveway1			Milano Road		Driveway 1	Intersection Total
	PROJECTED w/ DEVELOPMENT	AM PEAK HOUR		NB	SB	EB	
			DELAY	0.4	0.0	11.6	1.4
			LOS	A	A	B	A
			PM PEAK HOUR	DELAY	1.5	0.0	13.6
LOS	A	A		A	A		

TWSC	④ Pike Blvd. & Driveway2			Driveway 2	Pike Blvd.		Intersection Total
	PROJECTED w/ DEVELOPMENT	AM PEAK HOUR		NB	EB	WB	
			DELAY	8.8	0.0	3.2	5.5
			LOS	A	A	A	A
			PM PEAK HOUR	DELAY	8.9	0.0	3.2
LOS	A	A		A	A		

OPERATIONAL CONSIDERATIONS

CORRIDOR VOLUMES

Traffic volume counts were conducted along Milano Road for a seven day, 24-hr period to capture the Average Daily Traffic (ADT) for the roadway. The table below summarizes the northbound, southbound, and total traffic volumes:

Table 6 – ADT

Milano Road	ADT
Northbound	4,615
Southbound	3,364
Total	7,979

The collected ADT is well below the capacity of a four-lane roadway and the recommended threshold for installation of medians along the roadway.

LOS ANALYSIS RESULTS

The results of the Level of Service (LOS) Analysis showed that the proposed development would have minimal impacts on the surrounding roadway network upon full build-out. Of the intersections analyzed for the build out year 2022, the LOS varied from A to B.

None of the intersections studied are projected to operate at a lower LOS than “C” due to the traffic generated by the development.

The proposed driveway intersections are projected to have minimal impact for thru traffic. Driveway 1 is projected to cause delay of 0.4 sec/veh and 1.5 sec/veh for northbound traffic in the AM and PM peak periods, respectively. Driveway 2 is projected to cause a delay of 3.2 sec/veh for eastbound traffic for both the AM and PM peak periods. The approaches for the thru traffic at both intersections are projected to be at a LOS of “A” and both driveways (TWSC) are projected to operate at a LOS of “A”. The addition of the projected development traffic would have minimal impacts to the thru traffic, and mitigation efforts of adding a left turn lanes along Milano Road and Pike Boulevard are not necessary, as the projected LOS are acceptable.

CONCLUSION

This study was performed per the City of Weslaco's requirements to assess the impact of the proposed Pike Terrace Subdivision to the local transportation network, within the City of Weslaco's city limits. The traffic generated was distributed accordingly throughout the adjacent network and two (2) study intersections and analyzed with Synchro 11 traffic simulation software for the full build-out (2027) year. The study results include:

Trip Generation Volumes for Pike Terrace Subdivision:

- AM Peak Hour: 186
- PM Peak Hour: 212

Projected Traffic Conditions (2027) AM/PM:

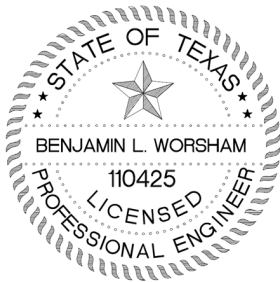
- Milano Road & Pike Boulevard ~ LOS C/B
- Milano Road & US Business 83 ~ LOS B/B

Projected Traffic Conditions w/Pike Terrace Subdivision (2022):

- Milano Road & Pike Boulevard ~ LOS C/C
- Milano Road & US Business 83 ~ LOS B/B
- Milano Road & Driveway 1 ~ LOS A/A
- Driveway 2 & Pike Boulevard ~ LOS A/A

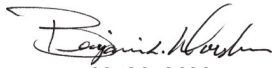
The primary purpose of this analysis was to assess the impacts of the proposed development to the local transportation network within the project study area. The studied intersections were analyzed during the AM and PM peak periods in accordance with City of Weslaco requirements.

The results of the LOS analysis show that the intersections studied will operate at an acceptable LOS, and the proposed access drives, along Milano Road and Pike Boulevard, are projected to operate at a level of service of "A" and are projected to be adequate for the development with the expected additional traffic. No further improvements for mitigation are recommended, nor should be required. In summary, the project should be approved as proposed.



Benjamin L. Worsham, P.E., P.T.O.E.

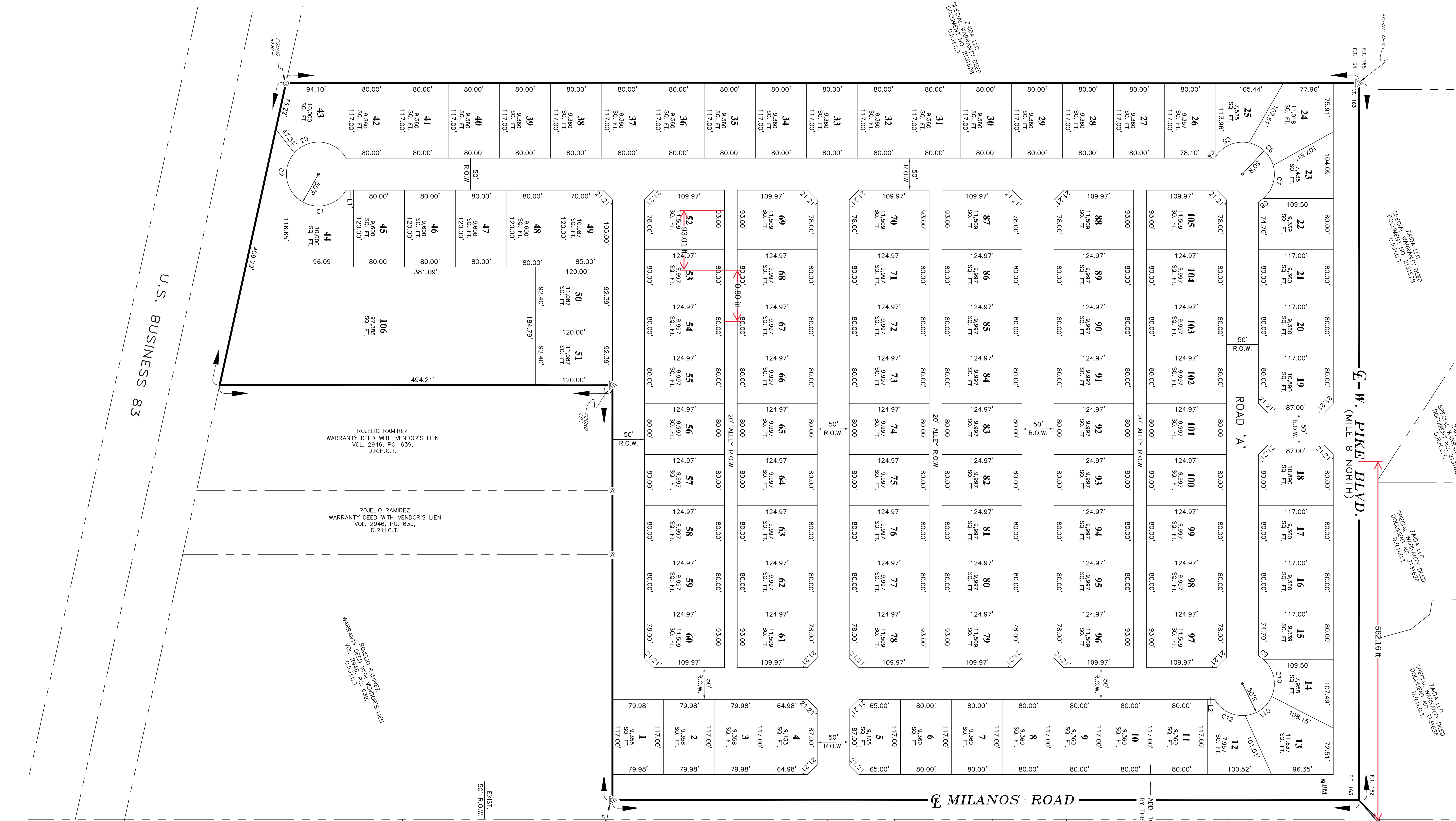
WK Engineering, PLLC


09/28/2022

APPENDIX A

SITE LAYOUT





POINT OF
COMMENCEMENT
REMINDED
K-1130351.1547
K-1130351.1547

ABBREVIATIONS			
REL.	=	VOLUME	TX.
PG.	=	PAGE	AC.
DOC.	=	DOCUMENT	SO. FT.
W.	=	WITH	SO. FT.
FL.	=	FLOW LINE	EXIST.
S.F.	=	SQUARE FEET	APPEAR.
HR.	=	IRIGATION	DEPT.
P.L.P.	=	PLASTIC IRRIGATION PIPE	DOC.
LF.	=	LINEAR FEET	Nb.
PROP.	=	PROPOSED	BK.
D.B.A.C.T.	=	DEED RECORD HIDALGO COUNTY TX.	CONN.
	=	DEED RECORD	DEED RECORD

Parcel Line Table		
LINE #	LENGTH	DIRECTION
L1	11.62	S 1° 12' 12" E 09.007'
L2	11.57	S 1° 12' 09.007'

Curve Table				
Curve #	Length	Radius	Tangent	Chord
C1	100.73	50.00	79.13	115.43
C2	66.14	50.00	38.91	75.79
C3	94.94	50.00	69.82	108.79
C4	3.58	50.00	1.79	4.11
C5	59.03	50.00	30.16	62.19
C6	54.27	50.00	30.16	62.19
C7	57.17	50.00	32.17	65.52
C8	9.19	50.00	4.61	10.54
C9	9.19	50.00	4.61	10.54
C10	63.94	50.00	37.18	73.27
C11	53.38	50.00	29.55	61.17
C12	56.74	50.00	31.86	65.02

GENERAL NOTES:

- MINIMUM SETBACKS SHALL BE IN ACCORDANCE WITH THE CITY OF FROM JUANILLO 25'.
- REAR MINIMUM 25'.
- SIDE MINIMUM OF 5' SETBACK OR 10' FOR CORNER LOT.
- MINIMUM FINISH FLOOR ELEVATION IS 16' ABOVE TOP OF CURB.
- BENCH MARK: AN SQUARE CUT ON A CURB NAIL ON THE NORTH SIDE OF U.S. ELEVATION 70.02 (N.A.S.D. 85).
- NO BUILDING OR FENCES SHALL BE BUILT OVER ANY EXISTENTS, EXCEPT AS SHOWN.
- ALL LOT CORNERS HAVE BEEN SET WITH 1/2" REBAR.
- NO WISE F WATER WELLS ARE LOCATED WITHIN 150 FEET OF ANY SEPTIC TANK SYSTEM.
- LANDSCAPING TO BE PROVIDED AS PER CITY ORDINANCE.
- NO FILL OR PERMANENT STRUCTURES SHALL BE ALLOWED WITHIN ANY UTILITY EASEMENTS.
- NO IMPROVEMENTS OF ANY KIND SHALL BE PLACED UPON N.A.M.S.C. RIGHT-OF-WAY OR EASEMENTS WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE N.A.M.S.C.
- DEVELOPER WILL PROVIDE STREET LIGHTING ACCORDING TO CITY STANDARDS (T RECD.)
- THE ENGINEER OF RECORD HAS ESTIMATED FOR THIS SUBDIVISION PLAT THAT A DETENTION VOLUME OF 2556 CUBIC FEET OR 0.039 ACRE FEET IS REQUIRED.

INDEX TO SHEET OF KING ESTATES, SUBDIVISION:

- SHEET 1: HEADQUARTERS LOCATION MAP AND ESTATE/PRINCIPAL CONTACTS, (NETS AND BOUNDS), SURVEYOR'S CERTIFICATION, PLAT NOTES AND RESTRICTIONS, OWNER'S DEDICATION, CERTIFICATION ATTENTION, CITY APPROVAL CERTIFICATE, CERTIFICATE, REGIONAL NOTES, CITY CLIENT'S RECORDING CERTIFICATE, REGIONAL NOTES.
- SHEET 2: ENGINEERING REPORT, INCLUDING DESCRIPTION OF WATER AND WASTEWATER AND ENGINEER'S CERTIFICATION OF DRAINAGE AND REVISION NOTES.
- SHEET 3: DAMAGE REPORT, INCLUDING DESCRIPTION OF DAMAGE AND REVISION NOTES.

FLOOD ZONE DATA:

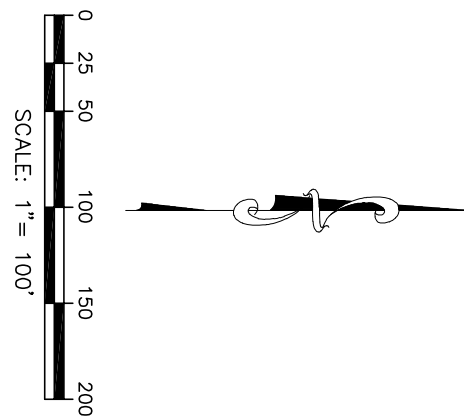
ZONE 1: AREAS OF 500-YEAR FLOOD AREAS OF 100-YEAR FLOOD WITH 1 SQUARE MILE: AND AREAS PROTECTED BY LEVEES FROM 100-YEAR FLOOD COMMUNITY-PANEL NUMBER 480334 DASH C EFFECTIVE DATE: JUNE 6, 2000



FILE FOR RECORD IN
HIDALGO COUNTY
ARTURO GUJARDO JR.
HIDALGO COUNTY CLERK

ON _____ AT _____ AM / PM
INSTRUMENT NUMBER _____
OF THE MAP RECORDS OF HIDALGO COUNTY, TEXAS
BY _____ DEPUTY

PRINCIPAL CONTACTS:	
NAME	ADDRESS
OWNER: SURETOR	000000000 0000000000
ENGINEER: JOSE G. RETES, JR.	000000000 0000000000
SURETOR: JCE WINSTON	000000000 0000000000



LEGEND

- PROPERTY LINE
PROPOSED EASEMENT
EXIST. PROP. / R.O.W. LINE
EXIST. ADJ. PROPERTY
CENTER LINE
FOUND COTTON PINE SPINDLE
FOUND REBAR
SET REBAR

LEGAL DESCRIPTION OF KING ESTATES SUBDIVISION:

KING ESTATES SUBDIVISION BEING A 20.00 GROSS ACRE TRACT OF LAND TRACT 164 BLOCK 178 WEST TRACT SUBDIVISION, AS RECORDED IN VOLUME 2 PAGE 34-37 OF THE HIDALGO COUNTY MAPS RECORDS, AND IS MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS: TO-WIT: BEGINNING AT A FOUND REBAR NAIL ON THE CENTERLINE OF MILE 8 NORTH AND BEING THE NORTHEAST CORNER OF THIS TRACT OF LAND, SAID NAIL ALSO BEING THE NORTHEAST CORNER OF FARM TRACT 164, BLOCK 178, WEST TRACT SUBDIVISION, AND POINT OF BEGINNING OF THIS TRACT OF LAND; THENCE, SOUTH, A DISTANCE OF 1677.70 FEET TO A FOUND NAIL FOR THE SOUTHEAST CORNER OF THIS TRACT OF LAND; THENCE, N77°20'0" W. ALONG WITH THE NORTH RAIL ROAD R.O.W. A DISTANCE OF 539.80 FEET TO A FOUND 1/2" REBAR FOR THE SOUTHWEST CORNER OF THIS TRACT OF LAND; THENCE, NORTH, A DISTANCE OF 788.33 FEET TO A FOUND 1/2" REBAR FOR AN INTERIOR CORNER OF THIS TRACT OF LAND; THENCE, WEST, A DISTANCE OF 21.56 FEET TO A FOUND 1/2" REBAR FOR AN EXTERIOR CORNER OF THE TRACT OF LAND; THENCE, NORTH, A DISTANCE OF 793.69 FEET TO A FOUND 1/2" REBAR FOR THE NORTHWEST CORNER OF THIS TRACT OF LAND; THENCE, EAST, A DISTANCE OF 548.82 FEET TO A FOUND 1/2" REBAR FOR THE NORTHEAST CORNER OF THIS TRACT OF LAND; AND THE POINT OF BEGINNING OF THE DESCRIPTION AND CONTAINING WITHIN THESE METES AND BOUNDS 20.00 GROSS ACRES, MORE OR LESS.

HIDALGO COUNTY
CERTIFICATE OF PLAT APPROVAL HIDALGO & CAMERON COUNTY IRRIGATION DISTRICT NO. 9

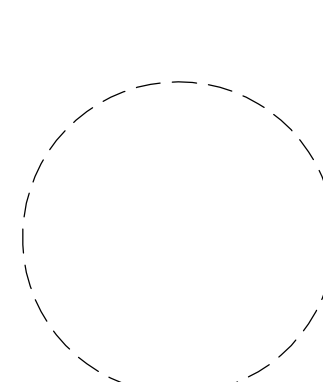
THIS PLAT IS HERE BY APPROVED BY THE HIDALGO & CAMERON COUNTY IRRIGATION DISTRICT NO. 9 DATED THIS _____ DAY OF _____ 2022.

- NO IMPROVEMENTS OF ANY KIND SHALL BE PLACED UPON HIDALGO AND CAMERON COUNTIES IRRIGATION DISTRICT NO. 9 RIGHT-OF-WAYS AND/OR EASEMENTS WITHOUT THE EXPRESSED WRITTEN PERMISSION OF HCCD #9.
- IT IS UNDERSTOOD THAT THE RATE OF FLOW OF STORM WATER FOR THE DEVELOPMENT WILL BE NO GREATER THAN THE RATE OF FLOW OF STORM WATER WHEN THE LAND WAS IN AGRICULTURAL USE.
- HCCD #9 WILL NOT BE RESPONSIBLE FOR THE STORM/DRAINAGE WATER SYSTEM TO ANY LOT WITH IN THIS SUBDIVISION. AS WELL, HCCD #9 WILL NOT BE RESPONSIBLE FOR THE DELIVERY OF WATER TO ANY LOT WITH IN THIS SUBDIVISION. IF DESIRED, THIS WILL NOT BE AT THE DISTRICT EXPENSE.
- HCCD #9 HAS NOT REVIEWED AND DOES NOT CERTIFY THAT THE STORM SEWER OR UTILITIES SYSTEMS DESCRIBED ARE APPROPRIATE FOR THE PARTICULAR SUBDIVISION, BASED ON GENERALLY ACCEPTED ENGINEERING CRITERIA. THE DEVELOPER AND HIS ENGINEER ARE RESPONSIBLE FOR THEIR DETERMINATIONS.

GENERAL MANAGER
HIDALGO & CAMERON COUNTIES IRRIGATION DISTRICT NO. 9

STATE OF TEXAS:
COUNTY OF HIDALGO:

I, JOSE G. RETES, JR., A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THE PROPER ENGINEERING CONSIDERATION HAS BEEN GIVEN TO THIS PLAT.



STATE OF TEXAS:
COUNTY OF HIDALGO:

JOE B. WINSTON, JR., a registered professional land surveyor in Texas, hereby certifies that the above plat and ground by me or under my supervision and that the proper engineering consideration has been given to this plat and is a true and accurate representation of the subdivision.

JOE B. WINSTON, JR., P.E.	#31109	R.P.L.S. # 3780
DATE		

PRELIMINARY
For Review Only

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW ONLY UNDER THE AUTHORITY OF:
JOSE G. RETES, JR., P.E.
IT IS NOT TO BE USED FOR BIDDING, CONSTRUCTION, OR PERMIT PURPOSES.
June 3, 2022

SIGLER, WINSTON, GREENWOOD & ASSOCIATES, LLC.
CONSULTING ENGINEERS
WESTLACO, TEXAS

611 BILL SUMMERS INTL. BLVD.
WESTLACO, TEXAS 78056
(956)-968-2194 OFFICE (956)-968-8900 FAX
TEXAS FIRM REGISTRATION NO. F-9932

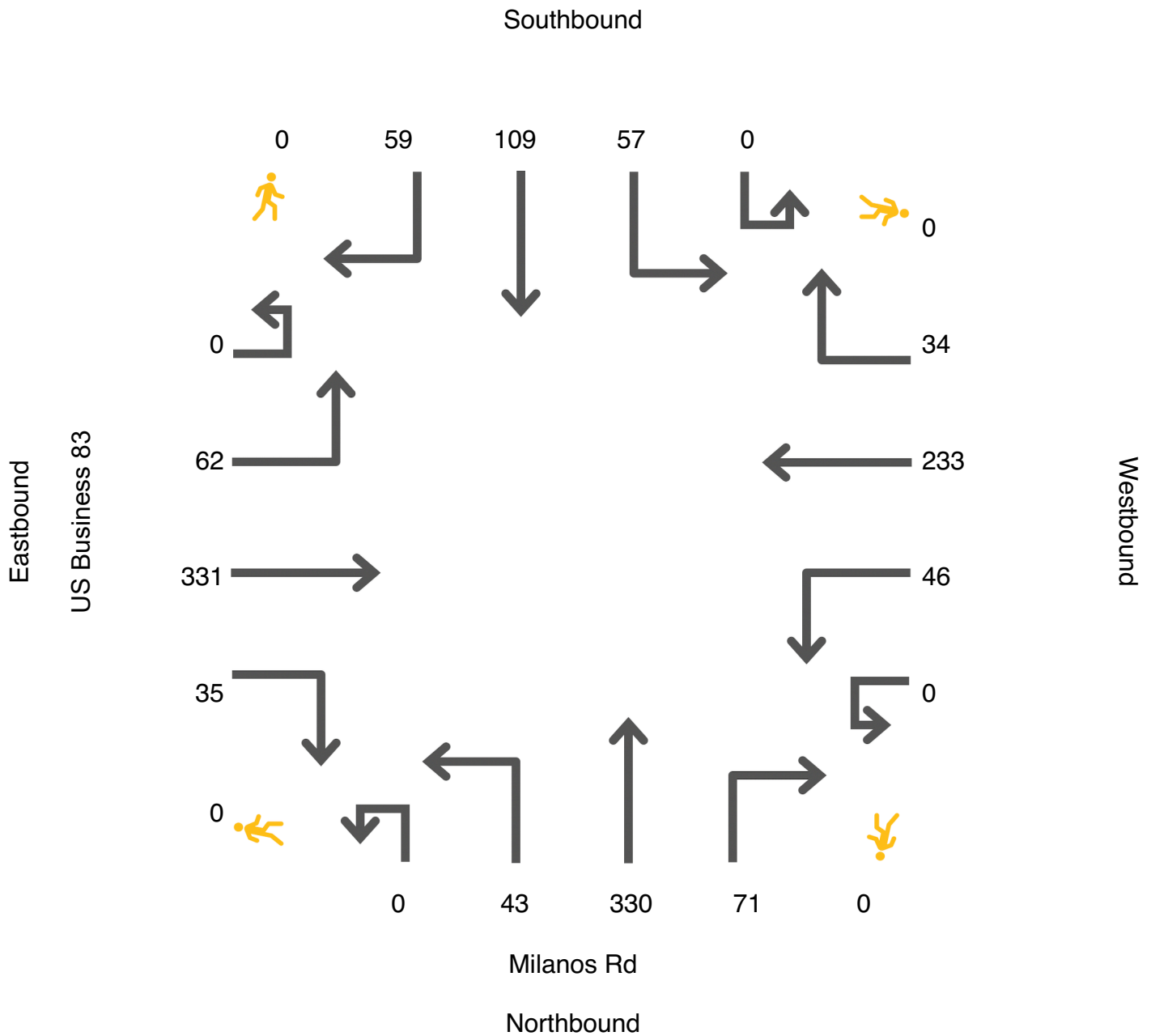
APPENDIX B

TRAFFIC DATA



Turning Movement Count

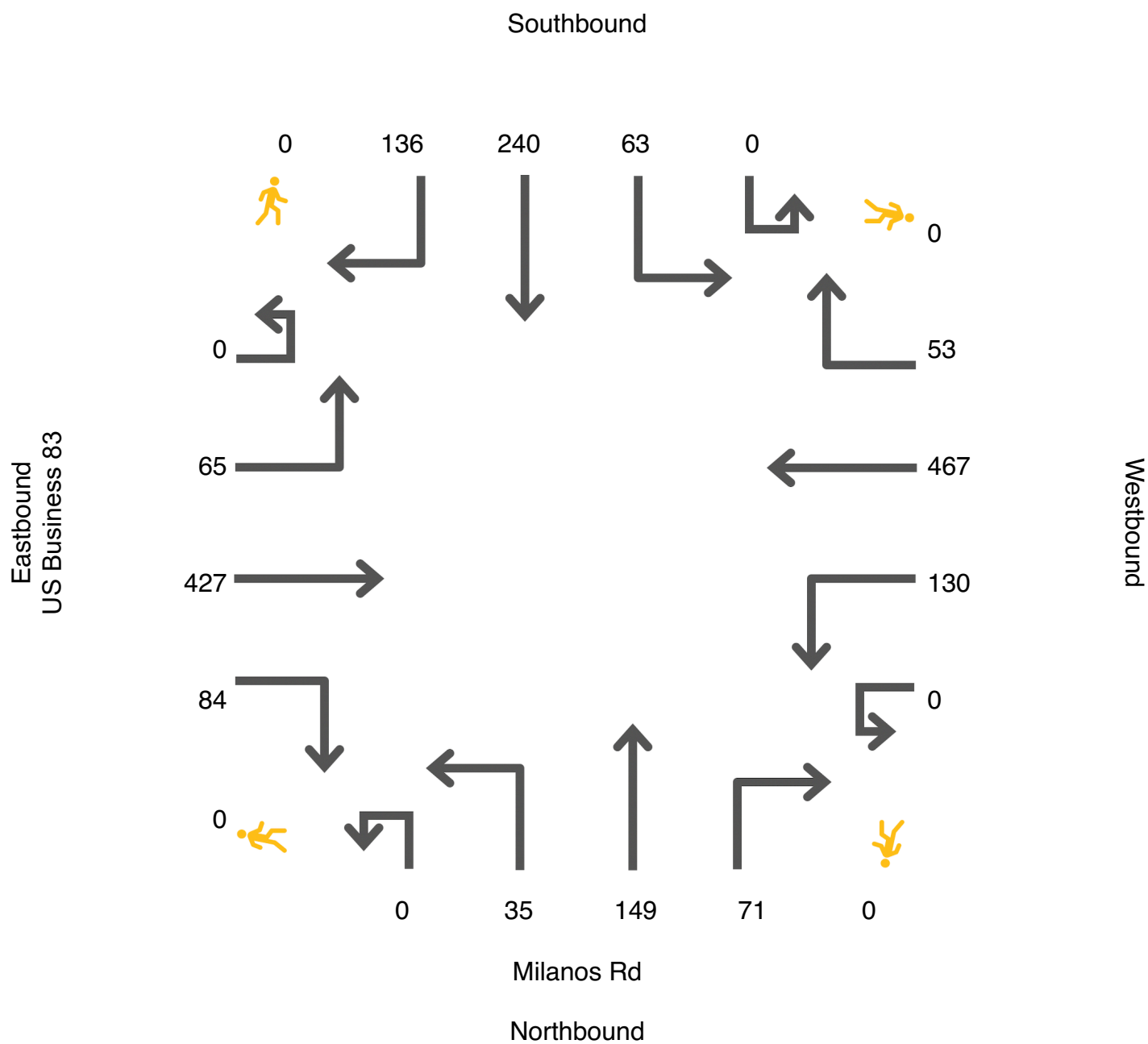
Study Name: Weslaco/Pike Terrace
Date: Tuesday, Sep 20 2022
Location: Weslaco Milanos Rd/ US Business 83
Observer: Tech 3
Weather: Clear
Comments: ""



7:00am to 8:00am

Turning Movement Count

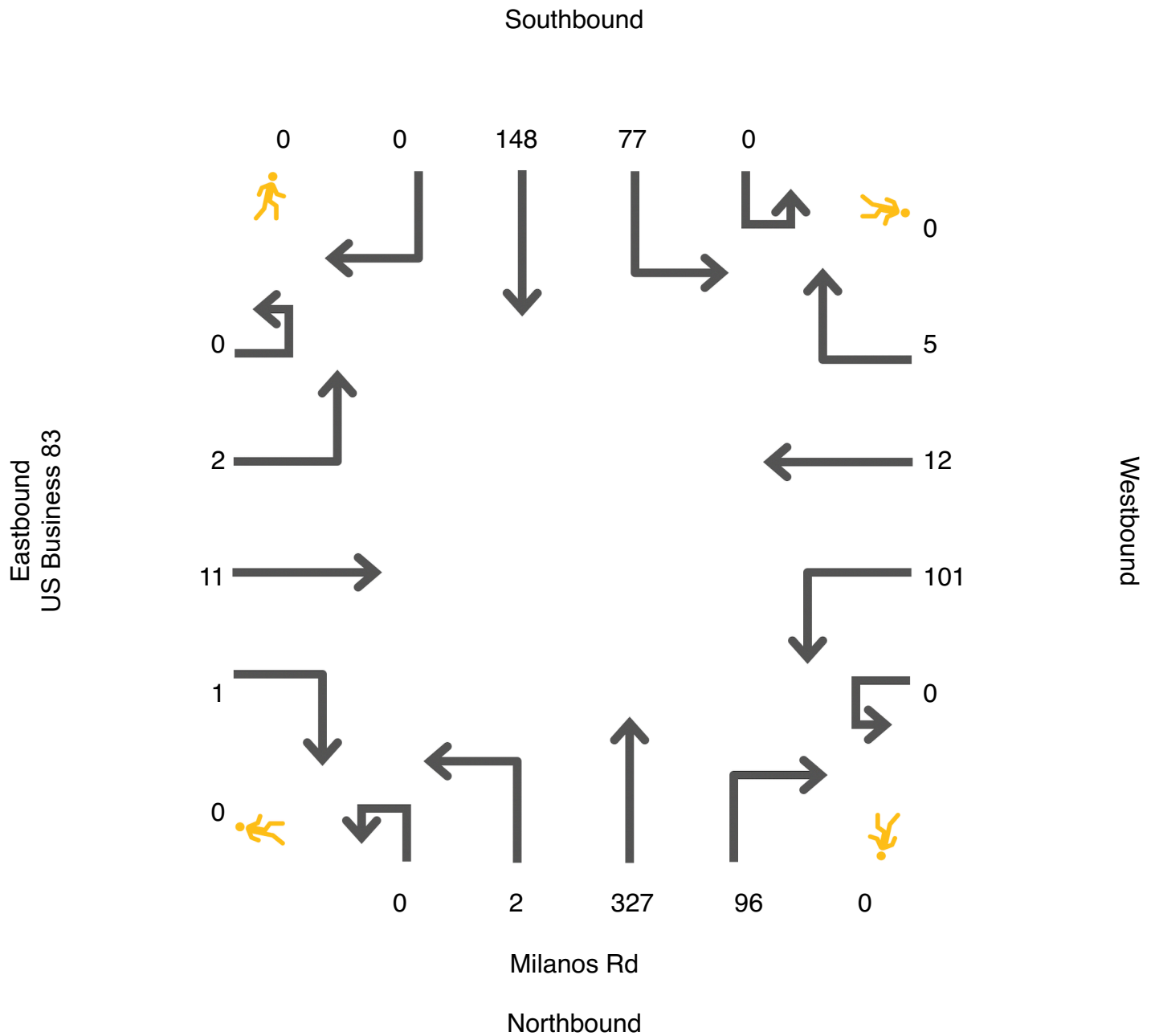
Study Name: Weslaco/Pike Terrace
Date: Tuesday, Sep 20 2022
Location: Milanos Rd/US Business 83
Observer: Tech 3
Weather: Mostly Cloudy
Comments: ""



5:00pm to 6:00pm

Turning Movement Count

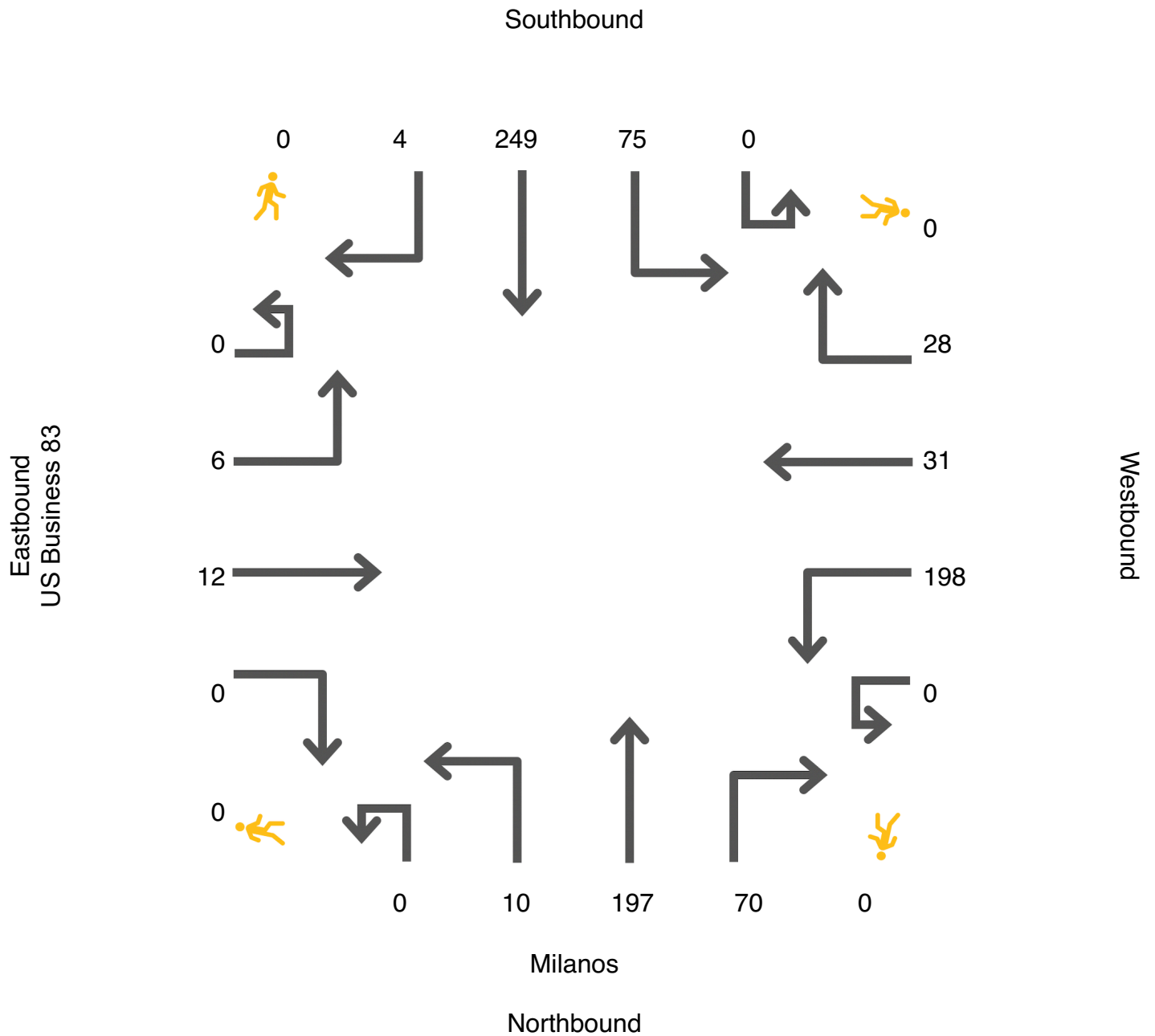
Study Name: Weslaco/ Pike Terrace
Date: Wednesday, Sep 21 2022
Location: Milanos Rd and Pike Blvd
Observer: Tech 3
Weather: Mostly Clear
Comments: ""



7:00am to 8:00am

Turning Movement Count

Study Name: Weslaco/Pike Terrace
Date: Wednesday, Sep 21 2022
Location: Milanos Rd and Pike Blvd
Observer: Tech 3
Weather: Sunny
Comments: ""



5:00pm 6:00pm

Project: Pike Terrace Subdivision
Month/Year: September 2022

Site: Weslaco, TX
Roadway: Milanos Road
Monday, 9/19/2022

Daily Volume, per Channel (Volume factor 0.5)

Interval Start		Northbound		Interval Start	
12:00 AM	5	19		12:00 PM	36
12:15 AM	4			12:15 PM	40
12:30 AM	3			12:30 PM	38
12:45 AM	7			12:45 PM	42
1:00 AM	3	8		1:00 PM	43
1:15 AM	2			1:15 PM	51
1:30 AM	3			1:30 PM	43
1:45 AM	0			1:45 PM	53
2:00 AM	5	10		2:00 PM	34
2:15 AM	2			2:15 PM	36
2:30 AM	0			2:30 PM	33
2:45 AM	3			2:45 PM	53
3:00 AM	0	10		3:00 PM	39
3:15 AM	5			3:15 PM	40
3:30 AM	0			3:30 PM	45
3:45 AM	5			3:45 PM	47
4:00 AM	7	26		4:00 PM	59
4:15 AM	5			4:15 PM	43
4:30 AM	9			4:30 PM	55
4:45 AM	5			4:45 PM	56
5:00 AM	12	52		5:00 PM	63
5:15 AM	12			5:15 PM	77
5:30 AM	12			5:30 PM	69
5:45 AM	16			5:45 PM	76
6:00 AM	11	108		6:00 PM	59
6:15 AM	28			6:15 PM	77
6:30 AM	31			6:30 PM	54
6:45 AM	38			6:45 PM	50
7:00 AM	47	313		7:00 PM	64
7:15 AM	63			7:15 PM	50
7:30 AM	103			7:30 PM	51
7:45 AM	100			7:45 PM	35
8:00 AM	94	305		8:00 PM	25
8:15 AM	91			8:15 PM	24
8:30 AM	61			8:30 PM	32
8:45 AM	59			8:45 PM	23
9:00 AM	51	183		9:00 PM	21
9:15 AM	44			9:15 PM	22
9:30 AM	46			9:30 PM	16
9:45 AM	42			9:45 PM	28
10:00 AM	31	129		10:00 PM	12
10:15 AM	41			10:15 PM	12
10:30 AM	22			10:30 PM	13
10:45 AM	35			10:45 PM	9
11:00 AM	37	130		11:00 PM	5
11:15 AM	40			11:15 PM	13
11:30 AM	22			11:30 PM	10
11:45 AM	31			11:45 PM	12
		24 Hour Total	6984		

12:00 AM - 12:00 PM

12 Hour Count 2342
Peak Hour Peak Volume 7:30 AM
Factor 597
0.80

12:00 PM - 12:00 AM

12 Hour Count 4642
Peak Hour Peak Volume 5:45 PM
Factor 686
0.95

Project: Pike Terrace Subdivision
Month/Year: September 2022

Site: Weslaco, TX
Roadway: Milanos Road
Tuesday, 9/20/2022

Daily Volume, per Channel (Volume factor 0.5)

Interval Start		Northbound		Interval Start	
12:00 AM	8	55		12:00 PM	86
12:15 AM	25			12:15 PM	79
12:30 AM	10			12:30 PM	96
12:45 AM	12			12:45 PM	102
1:00 AM	10	38		1:00 PM	82
1:15 AM	7			1:15 PM	104
1:30 AM	11			1:30 PM	105
1:45 AM	10			1:45 PM	119
2:00 AM	8	23		2:00 PM	98
2:15 AM	7			2:15 PM	101
2:30 AM	4			2:30 PM	103
2:45 AM	4			2:45 PM	102
3:00 AM	3	12		3:00 PM	110
3:15 AM	3			3:15 PM	116
3:30 AM	3			3:30 PM	132
3:45 AM	3			3:45 PM	103
4:00 AM	2	17		4:00 PM	114
4:15 AM	8			4:15 PM	114
4:30 AM	4			4:30 PM	134
4:45 AM	3			4:45 PM	146
5:00 AM	14	60		5:00 PM	182
5:15 AM	12			5:15 PM	176
5:30 AM	17			5:30 PM	222
5:45 AM	17			5:45 PM	160
6:00 AM	21	138		6:00 PM	184
6:15 AM	33			6:15 PM	188
6:30 AM	32			6:30 PM	177
6:45 AM	52			6:45 PM	161
7:00 AM	56	444		7:00 PM	142
7:15 AM	100			7:15 PM	116
7:30 AM	142			7:30 PM	128
7:45 AM	146			7:45 PM	116
8:00 AM	138	563		8:00 PM	93
8:15 AM	168			8:15 PM	116
8:30 AM	159			8:30 PM	96
8:45 AM	98			8:45 PM	76
9:00 AM	90	322		9:00 PM	83
9:15 AM	76			9:15 PM	79
9:30 AM	92			9:30 PM	60
9:45 AM	64			9:45 PM	72
10:00 AM	80	292		10:00 PM	62
10:15 AM	70			10:15 PM	45
10:30 AM	68			10:30 PM	52
10:45 AM	74			10:45 PM	50
11:00 AM	66	311		11:00 PM	44
11:15 AM	62			11:15 PM	32
11:30 AM	79			11:30 PM	44
11:45 AM	104			11:45 PM	25
		24 Hour Total	7402		

12:00 AM - 12:00 PM

12 Hour Count 2275
Peak Hour Peak Volume 7:45 AM
Factor 611
0.91

12:00 PM - 12:00 AM

12 Hour Count 5127
Peak Hour Peak Volume 5:30 PM
Factor 754
0.85

Project: Pike Terrace Subdivision
Month/Year: September 2022

Site: Weslaco, TX
Roadway: Milanos Road
Wednesday, 9/21/2022

Daily Volume, per Channel (Volume factor 0.5)

Interval Start		Northbound		Interval Start	
12:00 AM	20	70		12:00 PM	88
12:15 AM	18			12:15 PM	112
12:30 AM	15			12:30 PM	118
12:45 AM	17			12:45 PM	102
1:00 AM	16	49		1:00 PM	104
1:15 AM	11			1:15 PM	94
1:30 AM	6			1:30 PM	110
1:45 AM	16			1:45 PM	133
2:00 AM	2	26		2:00 PM	88
2:15 AM	8			2:15 PM	122
2:30 AM	8			2:30 PM	108
2:45 AM	8			2:45 PM	86
3:00 AM	7	28		3:00 PM	107
3:15 AM	9			3:15 PM	117
3:30 AM	4			3:30 PM	111
3:45 AM	8			3:45 PM	134
4:00 AM	6	22		4:00 PM	129
4:15 AM	5			4:15 PM	112
4:30 AM	6			4:30 PM	152
4:45 AM	5			4:45 PM	164
5:00 AM	16	64		5:00 PM	162
5:15 AM	14			5:15 PM	205
5:30 AM	14			5:30 PM	194
5:45 AM	20			5:45 PM	200
6:00 AM	21	121		6:00 PM	160
6:15 AM	31			6:15 PM	197
6:30 AM	31			6:30 PM	158
6:45 AM	38			6:45 PM	159
7:00 AM	64	422		7:00 PM	135
7:15 AM	99			7:15 PM	152
7:30 AM	114			7:30 PM	114
7:45 AM	145			7:45 PM	126
8:00 AM	176	653		8:00 PM	112
8:15 AM	182			8:15 PM	122
8:30 AM	157			8:30 PM	124
8:45 AM	138			8:45 PM	116
9:00 AM	115	365		9:00 PM	90
9:15 AM	100			9:15 PM	70
9:30 AM	80			9:30 PM	94
9:45 AM	70			9:45 PM	65
10:00 AM	86	349		10:00 PM	65
10:15 AM	85			10:15 PM	66
10:30 AM	90			10:30 PM	51
10:45 AM	88			10:45 PM	52
11:00 AM	73	340		11:00 PM	47
11:15 AM	93			11:15 PM	50
11:30 AM	88			11:30 PM	36
11:45 AM	86			11:45 PM	22
		24 Hour Total	7944		

12:00 AM - 12:00 PM

12 Hour Count 2509
Peak Hour Peak Volume 7:45 AM
Factor 660
0.91

12:00 PM - 12:00 AM

12 Hour Count 5435
Peak Hour Peak Volume 5:00 PM
Factor 761
0.93

Project: Pike Terrace Subdivision
Month/Year: September 2022

Site: Weslaco, TX
Roadway: Milanos Road
Thursday, 9/22/2022

Daily Volume, per Channel (Volume factor 0.5)

Interval Start		Northbound		Interval Start	
12:00 AM	37	86		12:00 PM	108
12:15 AM	15			12:15 PM	118
12:30 AM	18			12:30 PM	122
12:45 AM	16			12:45 PM	126
1:00 AM	16	63		1:00 PM	115
1:15 AM	16			1:15 PM	118
1:30 AM	16			1:30 PM	114
1:45 AM	15			1:45 PM	126
2:00 AM	8	30		2:00 PM	130
2:15 AM	10			2:15 PM	122
2:30 AM	6			2:30 PM	117
2:45 AM	6			2:45 PM	132
3:00 AM	5	26		3:00 PM	124
3:15 AM	3			3:15 PM	127
3:30 AM	12			3:30 PM	142
3:45 AM	6			3:45 PM	120
4:00 AM	6	33		4:00 PM	121
4:15 AM	12			4:15 PM	164
4:30 AM	2			4:30 PM	182
4:45 AM	13			4:45 PM	165
5:00 AM	14	72		5:00 PM	206
5:15 AM	18			5:15 PM	198
5:30 AM	16			5:30 PM	222
5:45 AM	24			5:45 PM	180
6:00 AM	27	131		6:00 PM	184
6:15 AM	34			6:15 PM	176
6:30 AM	28			6:30 PM	192
6:45 AM	42			6:45 PM	224
7:00 AM	58	447		7:00 PM	144
7:15 AM	100			7:15 PM	148
7:30 AM	148			7:30 PM	142
7:45 AM	141			7:45 PM	105
8:00 AM	178	669		8:00 PM	112
8:15 AM	177			8:15 PM	122
8:30 AM	158			8:30 PM	123
8:45 AM	156			8:45 PM	110
9:00 AM	105	377		9:00 PM	104
9:15 AM	89			9:15 PM	104
9:30 AM	102			9:30 PM	85
9:45 AM	81			9:45 PM	95
10:00 AM	96	373		10:00 PM	72
10:15 AM	97			10:15 PM	73
10:30 AM	95			10:30 PM	58
10:45 AM	85			10:45 PM	60
11:00 AM	112	433		11:00 PM	50
11:15 AM	105			11:15 PM	43
11:30 AM	100			11:30 PM	40
11:45 AM	116			11:45 PM	39
		24 Hour Total	8744		

12:00 AM - 12:00 PM

12 Hour Count 2740
Peak Hour Peak Volume 8:00 AM
Factor 669
0.94

12:00 PM - 12:00 AM

12 Hour Count 6004
Peak Hour Peak Volume 5:00 PM
Factor 806
0.91

Project: Pike Terrace Subdivision
Month/Year: September 2022

Site: Weslaco, TX
Roadway: Milanos Road
Friday, 9/23/2022

Daily Volume, per Channel (Volume factor 0.5)

Interval Start		Northbound		Interval Start	
12:00 AM	25	99		12:00 PM	88
12:15 AM	34			12:15 PM	118
12:30 AM	19			12:30 PM	139
12:45 AM	21			12:45 PM	124
1:00 AM	14	60		1:00 PM	120
1:15 AM	18			1:15 PM	152
1:30 AM	14			1:30 PM	140
1:45 AM	14			1:45 PM	116
2:00 AM	8	32		2:00 PM	120
2:15 AM	8			2:15 PM	120
2:30 AM	8			2:30 PM	150
2:45 AM	8			2:45 PM	118
3:00 AM	6	23		3:00 PM	156
3:15 AM	5			3:15 PM	150
3:30 AM	6			3:30 PM	128
3:45 AM	6			3:45 PM	163
4:00 AM	6	27		4:00 PM	150
4:15 AM	5			4:15 PM	179
4:30 AM	5			4:30 PM	178
4:45 AM	11			4:45 PM	178
5:00 AM	16	64		5:00 PM	214
5:15 AM	12			5:15 PM	182
5:30 AM	12			5:30 PM	206
5:45 AM	24			5:45 PM	212
6:00 AM	17	114		6:00 PM	176
6:15 AM	24			6:15 PM	170
6:30 AM	29			6:30 PM	186
6:45 AM	44			6:45 PM	164
7:00 AM	70	414		7:00 PM	154
7:15 AM	88			7:15 PM	157
7:30 AM	122			7:30 PM	160
7:45 AM	134			7:45 PM	182
8:00 AM	188	658		8:00 PM	168
8:15 AM	196			8:15 PM	125
8:30 AM	146			8:30 PM	141
8:45 AM	128			8:45 PM	148
9:00 AM	106	407		9:00 PM	110
9:15 AM	106			9:15 PM	110
9:30 AM	92			9:30 PM	118
9:45 AM	103			9:45 PM	90
10:00 AM	117	435		10:00 PM	110
10:15 AM	107			10:15 PM	104
10:30 AM	96			10:30 PM	84
10:45 AM	115			10:45 PM	68
11:00 AM	90	388		11:00 PM	88
11:15 AM	96			11:15 PM	55
11:30 AM	102			11:30 PM	56
11:45 AM	100			11:45 PM	28
24 Hour Total		9274			

12:00 AM - 12:00 PM

12 Hour Count 2721
Peak Hour Peak Volume 7:45 AM
Factor 664
0.85

12:00 PM - 12:00 AM

12 Hour Count 6553
Peak Hour Peak Volume 5:00 PM
Factor 814
0.95

Project: Pike Terrace Subdivision
Month/Year: September 2022

Site: Weslaco, TX
Roadway: Milanos Road
Saturday, 9/24/2022

Daily Volume, per Channel (Volume factor 0.5)

Interval Start		Northbound	Interval Start		
12:00 AM	44	167	12:00 PM	132	491
12:15 AM	47		12:15 PM	107	
12:30 AM	42		12:30 PM	124	
12:45 AM	34		12:45 PM	128	
1:00 AM	40	130	1:00 PM	107	503
1:15 AM	26		1:15 PM	140	
1:30 AM	38		1:30 PM	132	
1:45 AM	26		1:45 PM	124	
2:00 AM	23	84	2:00 PM	162	516
2:15 AM	19		2:15 PM	126	
2:30 AM	22		2:30 PM	118	
2:45 AM	20		2:45 PM	110	
3:00 AM	15	44	3:00 PM	103	461
3:15 AM	16		3:15 PM	128	
3:30 AM	5		3:30 PM	122	
3:45 AM	8		3:45 PM	108	
4:00 AM	8	32	4:00 PM	118	499
4:15 AM	13		4:15 PM	142	
4:30 AM	7		4:30 PM	109	
4:45 AM	4		4:45 PM	130	
5:00 AM	14	45	5:00 PM	122	454
5:15 AM	12		5:15 PM	111	
5:30 AM	10		5:30 PM	127	
5:45 AM	9		5:45 PM	94	
6:00 AM	9	70	6:00 PM	112	458
6:15 AM	24		6:15 PM	118	
6:30 AM	13		6:30 PM	128	
6:45 AM	24		6:45 PM	100	
7:00 AM	17	189	7:00 PM	124	472
7:15 AM	44		7:15 PM	122	
7:30 AM	55		7:30 PM	108	
7:45 AM	73		7:45 PM	118	
8:00 AM	71	276	8:00 PM	114	464
8:15 AM	70		8:15 PM	124	
8:30 AM	77		8:30 PM	102	
8:45 AM	58		8:45 PM	124	
9:00 AM	58	316	9:00 PM	102	426
9:15 AM	96		9:15 PM	120	
9:30 AM	68		9:30 PM	84	
9:45 AM	94		9:45 PM	120	
10:00 AM	121	418	10:00 PM	106	342
10:15 AM	98		10:15 PM	76	
10:30 AM	89		10:30 PM	96	
10:45 AM	110		10:45 PM	64	
11:00 AM	88	383	11:00 PM	67	285
11:15 AM	95		11:15 PM	70	
11:30 AM	110		11:30 PM	74	
11:45 AM	90		11:45 PM	74	
24 Hour Total		7525			

12:00 AM - 12:00 PM

12 Hour Count 2154
Peak Hour Peak Volume 10:00 AM
Factor 418
0.86

12:00 PM - 12:00 AM

12 Hour Count 5371
Peak Hour Peak Volume 1:15 PM
Factor 558
0.86

Project: Pike Terrace Subdivision
Month/Year: September 2022

Site: Weslaco, TX
Roadway: Milanos Road
Monday, 9/19/2022

Daily Volume, per Channel (Volume factor 0.5)

Interval Start		Southbound		Interval Start	
12:00 AM	13	45		12:00 PM	42
12:15 AM	12			12:15 PM	50
12:30 AM	15			12:30 PM	60
12:45 AM	5			12:45 PM	62
1:00 AM	8	21		1:00 PM	49
1:15 AM	3			1:15 PM	47
1:30 AM	4			1:30 PM	63
1:45 AM	6			1:45 PM	45
2:00 AM	6	15		2:00 PM	44
2:15 AM	1			2:15 PM	56
2:30 AM	4			2:30 PM	62
2:45 AM	4			2:45 PM	62
3:00 AM	6	16		3:00 PM	67
3:15 AM	3			3:15 PM	60
3:30 AM	4			3:30 PM	50
3:45 AM	3			3:45 PM	57
4:00 AM	3	16		4:00 PM	59
4:15 AM	3			4:15 PM	68
4:30 AM	5			4:30 PM	83
4:45 AM	5			4:45 PM	78
5:00 AM	6	16		5:00 PM	111
5:15 AM	6			5:15 PM	102
5:30 AM	0			5:30 PM	81
5:45 AM	4			5:45 PM	102
6:00 AM	5	42		6:00 PM	115
6:15 AM	8			6:15 PM	103
6:30 AM	9			6:30 PM	100
6:45 AM	20			6:45 PM	82
7:00 AM	26	111		7:00 PM	86
7:15 AM	24			7:15 PM	68
7:30 AM	27			7:30 PM	58
7:45 AM	34			7:45 PM	43
8:00 AM	52	261		8:00 PM	50
8:15 AM	96			8:15 PM	40
8:30 AM	55			8:30 PM	41
8:45 AM	58			8:45 PM	55
9:00 AM	39	161		9:00 PM	39
9:15 AM	48			9:15 PM	32
9:30 AM	42			9:30 PM	31
9:45 AM	32			9:45 PM	42
10:00 AM	32	166		10:00 PM	34
10:15 AM	38			10:15 PM	34
10:30 AM	54			10:30 PM	28
10:45 AM	42			10:45 PM	22
11:00 AM	34	179		11:00 PM	27
11:15 AM	70			11:15 PM	26
11:30 AM	36			11:30 PM	22
11:45 AM	39			11:45 PM	16
		24 Hour Total	3803		

12:00 AM - 12:00 PM

12 Hour Count 1049
Peak Hour Peak Volume 8:00 AM
Factor 261
0.68

12:00 PM - 12:00 AM

12 Hour Count 2754
Peak Hour Peak Volume 5:45 PM
Factor 420
0.91

Project: Pike Terrace Subdivision
Month/Year: September 2022

Site: Weslaco, TX
Roadway: Milanos Road
Tuesday, 9/20/2022

Daily Volume, per Channel (Volume factor 0.5)

Interval Start		Southbound		Interval Start	
12:00 AM	7	37		12:00 PM	44
12:15 AM	19			12:15 PM	40
12:30 AM	4			12:30 PM	58
12:45 AM	7			12:45 PM	50
1:00 AM	8	24		1:00 PM	46
1:15 AM	4			1:15 PM	62
1:30 AM	6			1:30 PM	53
1:45 AM	6			1:45 PM	61
2:00 AM	4	10		2:00 PM	39
2:15 AM	4			2:15 PM	51
2:30 AM	1			2:30 PM	52
2:45 AM	1			2:45 PM	53
3:00 AM	2	5		3:00 PM	66
3:15 AM	1			3:15 PM	58
3:30 AM	2			3:30 PM	70
3:45 AM	0			3:45 PM	49
4:00 AM	0	5		4:00 PM	61
4:15 AM	4			4:15 PM	68
4:30 AM	1			4:30 PM	74
4:45 AM	0			4:45 PM	92
5:00 AM	3	10		5:00 PM	123
5:15 AM	2			5:15 PM	109
5:30 AM	2			5:30 PM	124
5:45 AM	3			5:45 PM	84
6:00 AM	9	48		6:00 PM	110
6:15 AM	10			6:15 PM	106
6:30 AM	6			6:30 PM	106
6:45 AM	23			6:45 PM	89
7:00 AM	24	132		7:00 PM	88
7:15 AM	27			7:15 PM	66
7:30 AM	36			7:30 PM	86
7:45 AM	45			7:45 PM	70
8:00 AM	48	262		8:00 PM	52
8:15 AM	90			8:15 PM	74
8:30 AM	80			8:30 PM	59
8:45 AM	44			8:45 PM	46
9:00 AM	45	171		9:00 PM	60
9:15 AM	40			9:15 PM	49
9:30 AM	48			9:30 PM	34
9:45 AM	38			9:45 PM	48
10:00 AM	42	157		10:00 PM	38
10:15 AM	42			10:15 PM	34
10:30 AM	33			10:30 PM	36
10:45 AM	40			10:45 PM	34
11:00 AM	32	173		11:00 PM	33
11:15 AM	39			11:15 PM	16
11:30 AM	42			11:30 PM	27
11:45 AM	60			11:45 PM	18
24 Hour Total		4000			

12:00 AM - 12:00 PM

12 Hour Count 1034
Peak Hour Peak Volume 7:45 AM
Factor 263
0.73

12:00 PM - 12:00 AM

12 Hour Count 2966
Peak Hour Peak Volume 4:45 PM
Factor 448
0.90

Project: Pike Terrace Subdivision
Month/Year: September 2022

Site: Weslaco, TX
Roadway: Milanos Road
Wednesday, 9/21/2022

Daily Volume, per Channel (Volume factor 0.5)

Interval Start		Southbound		Interval Start	
12:00 AM	14	44		12:00 PM	54
12:15 AM	12			12:15 PM	56
12:30 AM	6			12:30 PM	59
12:45 AM	12			12:45 PM	56
1:00 AM	10	36		1:00 PM	58
1:15 AM	8			1:15 PM	50
1:30 AM	6			1:30 PM	61
1:45 AM	12			1:45 PM	62
2:00 AM	1	14		2:00 PM	46
2:15 AM	6			2:15 PM	62
2:30 AM	3			2:30 PM	64
2:45 AM	4			2:45 PM	52
3:00 AM	4	16		3:00 PM	63
3:15 AM	3			3:15 PM	73
3:30 AM	3			3:30 PM	70
3:45 AM	6			3:45 PM	70
4:00 AM	2	8		4:00 PM	70
4:15 AM	2			4:15 PM	65
4:30 AM	3			4:30 PM	106
4:45 AM	1			4:45 PM	123
5:00 AM	6	17		5:00 PM	112
5:15 AM	3			5:15 PM	148
5:30 AM	2			5:30 PM	108
5:45 AM	6			5:45 PM	150
6:00 AM	10	41		6:00 PM	117
6:15 AM	7			6:15 PM	154
6:30 AM	10			6:30 PM	122
6:45 AM	14			6:45 PM	116
7:00 AM	24	124		7:00 PM	92
7:15 AM	34			7:15 PM	122
7:30 AM	20			7:30 PM	98
7:45 AM	46			7:45 PM	82
8:00 AM	70	326		8:00 PM	73
8:15 AM	94			8:15 PM	86
8:30 AM	84			8:30 PM	97
8:45 AM	78			8:45 PM	74
9:00 AM	54	184		9:00 PM	60
9:15 AM	58			9:15 PM	49
9:30 AM	36			9:30 PM	74
9:45 AM	36			9:45 PM	37
10:00 AM	46	162		10:00 PM	52
10:15 AM	39			10:15 PM	52
10:30 AM	37			10:30 PM	38
10:45 AM	40			10:45 PM	34
11:00 AM	35	188		11:00 PM	40
11:15 AM	47			11:15 PM	38
11:30 AM	48			11:30 PM	26
11:45 AM	58			11:45 PM	14
24 Hour Total		4745			

12:00 AM - 12:00 PM

12 Hour Count 1160
Peak Hour Peak Volume 8:00 AM
Factor 326
0.87

12:00 PM - 12:00 AM

12 Hour Count 3585
Peak Hour Peak Volume 5:45 PM
Factor 543
0.88

Project: Pike Terrace Subdivision
Month/Year: September 2022

Site: Weslaco, TX
Roadway: Milanos Road
Thursday, 9/22/2022

Daily Volume, per Channel (Volume factor 0.5)

Interval Start		Southbound		Interval Start	
12:00 AM	26	65		12:00 PM	62
12:15 AM	11			12:15 PM	58
12:30 AM	14			12:30 PM	95
12:45 AM	14			12:45 PM	72
1:00 AM	10	38		1:00 PM	59
1:15 AM	12			1:15 PM	54
1:30 AM	7			1:30 PM	74
1:45 AM	9			1:45 PM	84
2:00 AM	6	21		2:00 PM	67
2:15 AM	6			2:15 PM	70
2:30 AM	5			2:30 PM	63
2:45 AM	4			2:45 PM	70
3:00 AM	4	16		3:00 PM	61
3:15 AM	2			3:15 PM	55
3:30 AM	6			3:30 PM	85
3:45 AM	4			3:45 PM	68
4:00 AM	2	19		4:00 PM	78
4:15 AM	9			4:15 PM	115
4:30 AM	0			4:30 PM	108
4:45 AM	8			4:45 PM	112
5:00 AM	6	18		5:00 PM	146
5:15 AM	4			5:15 PM	138
5:30 AM	2			5:30 PM	128
5:45 AM	6			5:45 PM	107
6:00 AM	9	42		6:00 PM	112
6:15 AM	12			6:15 PM	114
6:30 AM	9			6:30 PM	124
6:45 AM	12			6:45 PM	156
7:00 AM	19	139		7:00 PM	98
7:15 AM	32			7:15 PM	98
7:30 AM	42			7:30 PM	80
7:45 AM	46			7:45 PM	67
8:00 AM	83	381		8:00 PM	84
8:15 AM	98			8:15 PM	81
8:30 AM	92			8:30 PM	96
8:45 AM	108			8:45 PM	80
9:00 AM	60	219		9:00 PM	80
9:15 AM	44			9:15 PM	49
9:30 AM	67			9:30 PM	48
9:45 AM	48			9:45 PM	66
10:00 AM	56	214		10:00 PM	50
10:15 AM	41			10:15 PM	56
10:30 AM	63			10:30 PM	42
10:45 AM	54			10:45 PM	52
11:00 AM	58	248		11:00 PM	41
11:15 AM	67			11:15 PM	30
11:30 AM	55			11:30 PM	26
11:45 AM	68			11:45 PM	30
24 Hour Total		5209			

12:00 AM - 12:00 PM

12 Hour Count 1420
Peak Hour Peak Volume 8:00 AM
Factor 381
0.88

12:00 PM - 12:00 AM

12 Hour Count 3789
Peak Hour Peak Volume 4:45 PM
Factor 524
0.90

Project: Pike Terrace Subdivision
Month/Year: September 2022

Site: Weslaco, TX
Roadway: Milanos Road
Friday, 9/23/2022

Daily Volume, per Channel (Volume factor 0.5)

Interval Start		Southbound		Interval Start	
12:00 AM	18	64		12:00 PM	61
12:15 AM	22			12:15 PM	70
12:30 AM	10			12:30 PM	74
12:45 AM	14			12:45 PM	70
1:00 AM	6	30		1:00 PM	72
1:15 AM	11			1:15 PM	72
1:30 AM	7			1:30 PM	88
1:45 AM	6			1:45 PM	75
2:00 AM	6	20		2:00 PM	80
2:15 AM	4			2:15 PM	78
2:30 AM	4			2:30 PM	112
2:45 AM	6			2:45 PM	70
3:00 AM	4	11		3:00 PM	105
3:15 AM	3			3:15 PM	81
3:30 AM	3			3:30 PM	80
3:45 AM	1			3:45 PM	90
4:00 AM	2	7		4:00 PM	84
4:15 AM	2			4:15 PM	90
4:30 AM	0			4:30 PM	107
4:45 AM	3			4:45 PM	124
5:00 AM	8	21		5:00 PM	124
5:15 AM	4			5:15 PM	108
5:30 AM	3			5:30 PM	126
5:45 AM	6			5:45 PM	132
6:00 AM	4	30		6:00 PM	144
6:15 AM	4			6:15 PM	116
6:30 AM	12			6:30 PM	120
6:45 AM	10			6:45 PM	112
7:00 AM	26	133		7:00 PM	99
7:15 AM	26			7:15 PM	94
7:30 AM	35			7:30 PM	80
7:45 AM	46			7:45 PM	90
8:00 AM	74	365		8:00 PM	78
8:15 AM	128			8:15 PM	96
8:30 AM	88			8:30 PM	86
8:45 AM	75			8:45 PM	94
9:00 AM	63	240		9:00 PM	64
9:15 AM	60			9:15 PM	78
9:30 AM	52			9:30 PM	65
9:45 AM	65			9:45 PM	64
10:00 AM	57	232		10:00 PM	64
10:15 AM	55			10:15 PM	72
10:30 AM	54			10:30 PM	56
10:45 AM	66			10:45 PM	46
11:00 AM	53	200		11:00 PM	63
11:15 AM	46			11:15 PM	38
11:30 AM	43			11:30 PM	41
11:45 AM	58			11:45 PM	18
		24 Hour Total	5404		

12:00 AM - 12:00 PM

12 Hour Count 1353
Peak Hour Peak Volume 8:00 AM
Factor 365
0.71

12:00 PM - 12:00 AM

12 Hour Count 4051
Peak Hour Peak Volume 5:30 PM
Factor 518
0.90

Project: Pike Terrace Subdivision
Month/Year: September 2022

Site: Weslaco, TX
Roadway: Milanos Road
Saturday, 9/24/2022

Daily Volume, per Channel (Volume factor 0.5)

Interval Start		Southbound		Interval Start	
12:00 AM	32	121		12:00 PM	78
12:15 AM	32			12:15 PM	56
12:30 AM	29			12:30 PM	72
12:45 AM	28			12:45 PM	62
1:00 AM	26	73		1:00 PM	68
1:15 AM	13			1:15 PM	80
1:30 AM	22			1:30 PM	86
1:45 AM	12			1:45 PM	86
2:00 AM	16	52		2:00 PM	84
2:15 AM	15			2:15 PM	82
2:30 AM	11			2:30 PM	78
2:45 AM	10			2:45 PM	74
3:00 AM	9	32		3:00 PM	62
3:15 AM	13			3:15 PM	80
3:30 AM	4			3:30 PM	88
3:45 AM	6			3:45 PM	69
4:00 AM	2	16		4:00 PM	64
4:15 AM	4			4:15 PM	90
4:30 AM	6			4:30 PM	75
4:45 AM	4			4:45 PM	82
5:00 AM	4	15		5:00 PM	73
5:15 AM	5			5:15 PM	66
5:30 AM	4			5:30 PM	68
5:45 AM	2			5:45 PM	56
6:00 AM	2	24		6:00 PM	61
6:15 AM	5			6:15 PM	68
6:30 AM	10			6:30 PM	72
6:45 AM	7			6:45 PM	71
7:00 AM	12	100		7:00 PM	79
7:15 AM	22			7:15 PM	76
7:30 AM	28			7:30 PM	62
7:45 AM	38			7:45 PM	66
8:00 AM	44	155		8:00 PM	64
8:15 AM	46			8:15 PM	82
8:30 AM	38			8:30 PM	60
8:45 AM	27			8:45 PM	84
9:00 AM	24	165		9:00 PM	69
9:15 AM	49			9:15 PM	85
9:30 AM	36			9:30 PM	58
9:45 AM	56			9:45 PM	75
10:00 AM	60	234		10:00 PM	68
10:15 AM	68			10:15 PM	38
10:30 AM	42			10:30 PM	56
10:45 AM	64			10:45 PM	44
11:00 AM	69	231		11:00 PM	46
11:15 AM	50			11:15 PM	42
11:30 AM	66			11:30 PM	45
11:45 AM	46			11:45 PM	60
24 Hour Total		4528			

12:00 AM - 12:00 PM

12 Hour Count 1218
Peak Hour Peak Volume 10:45 AM
Factor 249
0.90

12:00 PM - 12:00 AM

12 Hour Count 3310
Peak Hour Peak Volume 1:30 PM
Factor 338
0.98

APPENDIX C

TRAFFIC EXHIBITS



Existing Traffic



1	Milanos Road & Pike Blvd.		0 (4)	
		2 (6)	148 (249)	
		11 (12)	77 (75)	
		1 (0)		
2	Milanos Road & US Business 83	Pike Blvd		
		2 (10)	327 (197)	
		62 (65)	96 (70)	
		331 (427)		
			59 (136)	
			109 (240)	
			57 (63)	
			43 (35)	
			330 (149)	
			71 (71)	



WK Engineering, PLLC
TBPE Firm # F-17956
www.wkengineering.net

Legend
AM Peak
(PM Peak)

Pike Terrace Subdivision
Weslaco, TX

C1

Projected Traffic



1	Milanos Road & Pike Blvd.		0 (5)		
		3 (7)	↗	↖	6 (31)
		13 (14)	→	←	14 (35)
		2 (0)	↘	↙	112 (219)
	Pike Blvd	↗	↖	↘	↙
		3 (12)	362 (218)	106 (78)	
2	Milanos Road & US Business 83		66 (151)		
		69 (72)	↗	↖	38 (59)
		366 (472)	→	←	258 (516)
		39 (93)	↘	↙	51 (144)
	Pike Blvd	↗	↖	↘	↙
		48 (39)	365 (165)	79 (79)	



WK Engineering, PLLC
TBPE Firm # F-17956
www.wkengineering.net

Legend
AM Peak
(PM Peak)

Pike Terrace Subdivision
Weslaco, TX

C2

[illegible]

Pike Blvd. & Driveway 2		Pike Blvd.	
D2		10% 10%	30% 30%
		10% 10%	30% 30%

Milanos Road & US Business 83		Milanos Road & Pike Blvd.	
1		25% 25%	25% 25%
		5% 5%	10% 10%

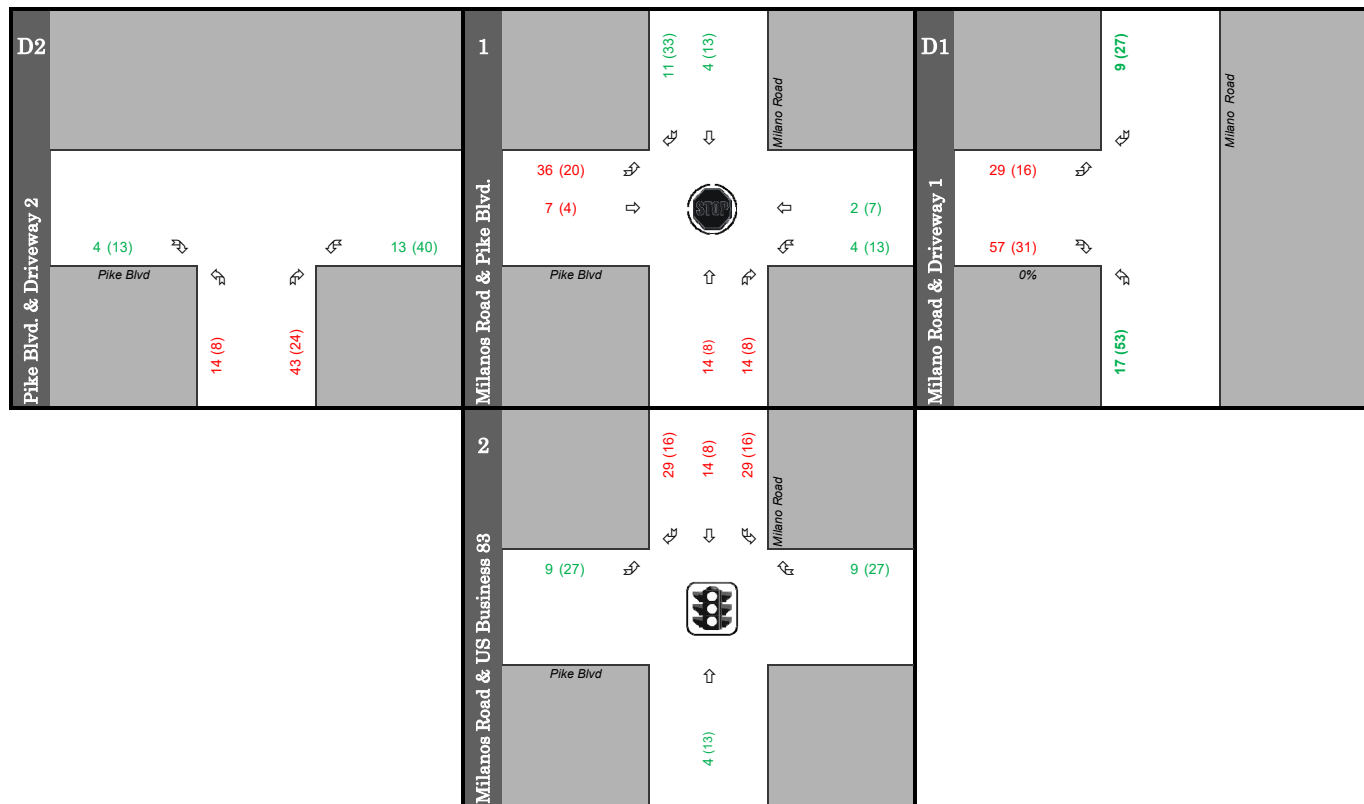
Milanos Road & Driveway 1		Milanos Road	
D1		20% 20%	20% 20%
		40% 40%	40% 40%



Legend
Entering
Exiting

C3

The map shows the intersection of W Pike Blvd and W Business 83. A large shaded area indicates the proposed intersection site. The map includes surrounding streets like E Frontage Rd, Town Center Blvd, and various residential streets. A north arrow is present in the bottom right corner.



Legend
Entering/Exiting
AM Peak/(PM Peak)

C4

Projected + Generated Traffic



D2	Pike Blvd. & Driveway 2	1	Milanos Road & Pike Blvd.	2	Milanos Road & US Business 83	D1	Milano Road & Driveway 1	Milano Road
	18 (21) →		39 (27) ↘	95 (167) ↘	78 (99) ↘		29 (16) ↘	
	4 (13) ↘		20 (18) →	135 (273) ↘	366 (472) →		57 (31) ↘	
			2 (0) ↘	92 (86) ↘	39 (93) ↘		0%	
	Pike Blvd		Pike Blvd	Pike Blvd	Pike Blvd			
	14 (8) ↘		3 (12) ↘	48 (39) ↘	48 (39) ↘		17 (63) ↘	
	43 (24) ↘		376 (226) ↘	369 (178) ↘	369 (178) ↘		470 (308) ↘	
			120 (86) ↘	79 (79) ↘	79 (79) ↘			
			11 (38) ↘					
			168 (288) ↘					
			86 (83) ↘					
			Milano Road					
			6 (31) ↘					
			16 (42) ↘					
			116 (232) ↘					



WK Engineering, PLLC
TBPE Firm # F-17956
www.wkengineering.net

Legend
AM Peak
(PM Peak)

Pike Terrace Subdivision
Weslaco, TX

C5

APPENDIX D

SYNCHRO REPORTS



HCM 2010 AWSC

1: Milano Road & Pike Boulevard

Pike Terrace Subdivision

City of Weslaco

Intersection

Intersection Delay, s/veh	14
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕			↕	
Traffic Vol, veh/h	2	11	1	101	12	5	2	327	96	77	148	0
Future Vol, veh/h	2	11	1	101	12	5	2	327	96	77	148	0
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	12	1	110	13	5	2	355	104	84	161	0
Number of Lanes	0	1	0	0	1	1	1	1	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	9.9	11.5	17	9.8
HCM LOS	A	B	C	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	14%	89%	0%	61%	0%
Vol Thru, %	0%	77%	79%	11%	0%	39%	100%
Vol Right, %	0%	23%	7%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	423	14	113	5	126	99
LT Vol	2	0	2	101	0	77	0
Through Vol	0	327	11	12	0	49	99
RT Vol	0	96	1	0	5	0	0
Lane Flow Rate	2	460	15	123	5	137	107
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.003	0.651	0.028	0.232	0.009	0.219	0.162
Departure Headway (Hd)	5.762	5.099	6.655	6.813	5.652	5.74	5.433
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	616	703	541	531	637	619	653
Service Time	3.542	2.879	4.662	4.513	3.352	3.538	3.23
HCM Lane V/C Ratio	0.003	0.654	0.028	0.232	0.008	0.221	0.164
HCM Control Delay	8.6	17	9.9	11.6	8.4	10.2	9.3
HCM Lane LOS	A	C	A	B	A	B	A
HCM 95th-tile Q	0	4.8	0.1	0.9	0	0.8	0.6

HCM 2010 Signalized Intersection Summary

2: Milano Road & US Business 83

Pike Terrace Subdivision

City of Weslaco

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	331	35	46	233	34	43	330	71	57	109	59
Future Volume (veh/h)	62	331	35	46	233	34	43	330	71	57	109	59
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	67	360	38	50	253	37	47	359	77	62	118	64
Adj No. of Lanes	1	2	1	1	2	0	0	1	0	0	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	388	636	284	351	520	75	136	616	125	298	513	703
Arrive On Green	0.06	0.18	0.18	0.05	0.17	0.17	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1774	3539	1583	1774	3105	449	92	1388	281	411	1157	1583
Grp Volume(v), veh/h	67	360	38	50	143	147	483	0	0	180	0	64
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1784	1762	0	0	1568	0	1583
Q Serve(g_s), s	1.3	3.9	0.8	0.9	3.0	3.1	0.1	0.0	0.0	0.0	0.0	1.0
Cycle Q Clear(g_c), s	1.3	3.9	0.8	0.9	3.0	3.1	8.4	0.0	0.0	2.5	0.0	1.0
Prop In Lane	1.00		1.00	1.00		0.25	0.10		0.16	0.34		1.00
Lane Grp Cap(c), veh/h	388	636	284	351	297	299	877	0	0	812	0	703
V/C Ratio(X)	0.17	0.57	0.13	0.14	0.48	0.49	0.55	0.00	0.00	0.22	0.00	0.09
Avail Cap(c_a), veh/h	486	1528	684	471	764	770	877	0	0	812	0	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.9	15.6	14.4	13.2	15.7	15.7	8.8	0.0	0.0	7.1	0.0	6.7
Incr Delay (d2), s/veh	0.2	0.8	0.2	0.2	1.2	1.3	2.5	0.0	0.0	0.6	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.9	0.4	0.5	1.6	1.6	4.8	0.0	0.0	1.4	0.0	0.5
LnGrp Delay(d),s/veh	13.1	16.4	14.6	13.4	16.9	17.0	11.3	0.0	0.0	7.8	0.0	7.0
LnGrp LOS	B	B	B	B	B	B	B			A		A
Approach Vol, veh/h	465				340			483			244	
Approach Delay, s/veh	15.8				16.4			11.3			7.6	
Approach LOS	B				B			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	6.7	12.0		23.0	7.2	11.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	5.0	18.0		18.5	5.0	18.0				
Max Q Clear Time (g_c+l1), s		10.4	2.9	5.9		4.5	3.3	5.1				
Green Ext Time (p_c), s		2.0	0.0	1.6		1.1	0.0	1.1				
Intersection Summary												
HCM 2010 Ctrl Delay	13.2											
HCM 2010 LOS	B											

HCM 2010 AWSC

1: Milano Road & Pike Boulevard

Pike Terrace Subdivision

City of Weslaco

Intersection

Intersection Delay, s/veh 13.2

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕			↕	
Traffic Vol, veh/h	6	12	0	198	31	28	10	197	70	75	249	4
Future Vol, veh/h	6	12	0	198	31	28	10	197	70	75	249	4
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	13	0	215	34	30	11	214	76	82	271	4
Number of Lanes	0	1	0	0	1	1	1	1	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	10.4	14.8	13.7	11.8
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	33%	86%	0%	38%	0%
Vol Thru, %	0%	74%	67%	14%	0%	62%	97%
Vol Right, %	0%	26%	0%	0%	100%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	267	18	229	28	200	129
LT Vol	10	0	6	198	0	75	0
Through Vol	0	197	12	31	0	125	125
RT Vol	0	70	0	0	28	0	4
Lane Flow Rate	11	290	20	249	30	217	140
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.02	0.475	0.038	0.47	0.048	0.373	0.232
Departure Headway (Hd)	6.586	5.892	7.07	6.797	5.651	6.185	5.972
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	543	609	504	530	633	581	601
Service Time	4.331	3.637	5.141	4.541	3.395	3.93	3.717
HCM Lane V/C Ratio	0.02	0.476	0.04	0.47	0.047	0.373	0.233
HCM Control Delay	9.5	13.9	10.4	15.5	8.7	12.6	10.5
HCM Lane LOS	A	B	B	C	A	B	B
HCM 95th-tile Q	0.1	2.6	0.1	2.5	0.2	1.7	0.9

HCM 2010 Signalized Intersection Summary

2: Milano Road & US Business 83

Pike Terrace Subdivision

City of Weslaco

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	427	84	130	467	53	35	149	71	63	240	136
Future Volume (veh/h)	65	427	84	130	467	53	35	149	71	63	240	136
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	71	464	91	141	508	58	38	162	77	68	261	148
Adj No. of Lanes	1	2	1	1	2	0	0	1	0	0	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	349	742	332	396	755	86	136	443	188	185	605	640
Arrive On Green	0.06	0.21	0.21	0.09	0.24	0.24	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1774	3539	1583	1774	3203	365	115	1095	466	223	1497	1583
Grp Volume(v), veh/h	71	464	91	141	280	286	277	0	0	329	0	148
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1798	1675	0	0	1720	0	1583
Q Serve(g_s), s	1.4	5.5	2.2	2.8	6.6	6.6	0.0	0.0	0.0	0.0	0.0	2.8
Cycle Q Clear(g_c), s	1.4	5.5	2.2	2.8	6.6	6.6	5.0	0.0	0.0	5.8	0.0	2.8
Prop In Lane	1.00		1.00	1.00		0.20	0.14		0.28	0.21		1.00
Lane Grp Cap(c), veh/h	349	742	332	396	417	424	767	0	0	790	0	640
V/C Ratio(X)	0.20	0.63	0.27	0.36	0.67	0.68	0.36	0.00	0.00	0.42	0.00	0.23
Avail Cap(c_a), veh/h	428	1392	623	428	696	708	767	0	0	790	0	640
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.9	16.5	15.2	12.5	15.9	15.9	9.6	0.0	0.0	9.9	0.0	9.0
Incr Delay (d2), s/veh	0.3	0.9	0.4	0.5	1.9	1.9	1.3	0.0	0.0	1.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.7	1.0	1.4	3.4	3.5	2.7	0.0	0.0	3.3	0.0	1.4
LnGrp Delay(d),s/veh	13.2	17.3	15.6	13.1	17.8	17.8	10.9	0.0	0.0	11.5	0.0	9.8
LnGrp LOS	B	B	B	B	B	B	B			B		A
Approach Vol, veh/h	626				707				277		477	
Approach Delay, s/veh	16.6				16.8				10.9		11.0	
Approach LOS	B				B				B		B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	8.7	14.1		23.0	7.5	15.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	5.0	18.0		18.5	5.0	18.0				
Max Q Clear Time (g_c+l1), s		7.0	4.8	7.5		7.8	3.4	8.6				
Green Ext Time (p_c), s		1.3	0.0	2.1		1.9	0.0	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay	14.6											
HCM 2010 LOS	B											

HCM 2010 AWSC

1: Milano Road & Pike Boulevard

Pike Terrace Subdivision

City of Weslaco

Intersection

Intersection Delay, s/veh 17.1

Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕			↕	
Traffic Vol, veh/h	3	13	2	112	14	6	3	362	106	86	164	0
Future Vol, veh/h	3	13	2	112	14	6	3	362	106	86	164	0
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	14	2	122	15	7	3	393	115	93	178	0
Number of Lanes	0	1	0	0	1	1	1	1	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	10.3	12.2	22.3	10.3
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	17%	89%	0%	61%	0%
Vol Thru, %	0%	77%	72%	11%	0%	39%	100%
Vol Right, %	0%	23%	11%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	468	18	126	6	141	109
LT Vol	3	0	3	112	0	86	0
Through Vol	0	362	13	14	0	55	109
RT Vol	0	106	2	0	6	0	0
Lane Flow Rate	3	509	20	137	7	153	119
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.005	0.753	0.038	0.268	0.011	0.255	0.188
Departure Headway (Hd)	5.994	5.329	6.93	7.04	5.879	6.002	5.693
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	601	682	516	511	608	599	631
Service Time	3.694	3.029	4.984	4.78	3.619	3.734	3.424
HCM Lane V/C Ratio	0.005	0.746	0.039	0.268	0.012	0.255	0.189
HCM Control Delay	8.7	22.4	10.3	12.4	8.7	10.8	9.7
HCM Lane LOS	A	C	B	B	A	B	A
HCM 95th-tile Q	0	6.9	0.1	1.1	0	1	0.7

HCM 2010 Signalized Intersection Summary

2: Milano Road & US Business 83

Pike Terrace Subdivision

City of Weslaco

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	366	39	51	258	38	48	365	79	63	121	66
Future Volume (veh/h)	69	366	39	51	258	38	48	365	79	63	121	66
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	75	398	42	55	280	41	52	397	86	68	132	72
Adj No. of Lanes	1	2	1	1	2	0	0	1	0	0	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	393	677	303	353	554	80	135	599	123	281	492	689
Arrive On Green	0.07	0.19	0.19	0.06	0.18	0.18	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1774	3539	1583	1774	3104	449	96	1378	282	385	1131	1583
Grp Volume(v), veh/h	75	398	42	55	158	163	535	0	0	200	0	72
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1783	1756	0	0	1516	0	1583
Q Serve(g_s), s	1.4	4.4	0.9	1.0	3.4	3.5	2.4	0.0	0.0	0.0	0.0	1.1
Cycle Q Clear(g_c), s	1.4	4.4	0.9	1.0	3.4	3.5	10.3	0.0	0.0	2.9	0.0	1.1
Prop In Lane	1.00		1.00	1.00		0.25	0.10		0.16	0.34		1.00
Lane Grp Cap(c), veh/h	393	677	303	353	316	318	857	0	0	773	0	689
V/C Ratio(X)	0.19	0.59	0.14	0.16	0.50	0.51	0.62	0.00	0.00	0.26	0.00	0.10
Avail Cap(c_a), veh/h	479	1498	670	462	749	755	857	0	0	773	0	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.7	15.7	14.3	13.0	15.8	15.8	9.6	0.0	0.0	7.6	0.0	7.1
Incr Delay (d2), s/veh	0.2	0.8	0.2	0.2	1.2	1.3	3.4	0.0	0.0	0.8	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.2	0.4	0.5	1.8	1.8	5.7	0.0	0.0	1.6	0.0	0.6
LnGrp Delay(d),s/veh	13.0	16.5	14.5	13.2	17.0	17.1	13.1	0.0	0.0	8.4	0.0	7.4
LnGrp LOS	B	B	B	B	B	B	B			A		A
Approach Vol, veh/h	515				376			535			272	
Approach Delay, s/veh	15.8				16.5			13.1			8.1	
Approach LOS	B				B			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		3	4	6			7	8			
Phs Duration (G+Y+Rc), s	23.0		6.9	12.6	23.0			7.4	12.1			
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5			4.5	4.5			
Max Green Setting (Gmax), s	18.5		5.0	18.0	18.5			5.0	18.0			
Max Q Clear Time (g_c+l1), s	12.3		3.0	6.4	4.9			3.4	5.5			
Green Ext Time (p_c), s	1.9		0.0	1.8	1.2			0.0	1.2			
Intersection Summary												
HCM 2010 Ctrl Delay	13.9											
HCM 2010 LOS	B											

HCM 2010 AWSC

1: Milano Road & Pike Boulevard

Pike Terrace Subdivision

City of Weslaco

Intersection

Intersection Delay, s/veh 14.9

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕			↕	
Traffic Vol, veh/h	7	14	0	219	35	31	12	218	78	83	275	5
Future Vol, veh/h	7	14	0	219	35	31	12	218	78	83	275	5
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	15	0	238	38	34	13	237	85	90	299	5
Number of Lanes	0	1	0	0	1	1	1	1	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	10.9	16.8	15.9	12.8
HCM LOS	B	C	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	33%	86%	0%	38%	0%
Vol Thru, %	0%	74%	67%	14%	0%	62%	96%
Vol Right, %	0%	26%	0%	0%	100%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	296	21	254	31	221	143
LT Vol	12	0	7	219	0	83	0
Through Vol	0	218	14	35	0	138	138
RT Vol	0	78	0	0	31	0	5
Lane Flow Rate	13	322	23	276	34	240	155
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.025	0.548	0.047	0.539	0.055	0.428	0.267
Departure Headway (Hd)	6.824	6.128	7.439	7.026	5.878	6.422	6.206
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	523	586	478	514	607	558	576
Service Time	4.588	3.892	5.538	4.786	3.638	4.185	3.969
HCM Lane V/C Ratio	0.025	0.549	0.048	0.537	0.056	0.43	0.269
HCM Control Delay	9.8	16.1	10.9	17.8	9	13.9	11.2
HCM Lane LOS	A	C	B	C	A	B	B
HCM 95th-tile Q	0.1	3.3	0.1	3.2	0.2	2.1	1.1

HCM 2010 Signalized Intersection Summary

2: Milano Road & US Business 83

Pike Terrace Subdivision

City of Weslaco

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	472	93	144	516	59	39	165	79	70	265	151
Future Volume (veh/h)	72	472	93	144	516	59	39	165	79	70	265	151
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	78	513	101	157	561	64	42	179	86	76	288	164
Adj No. of Lanes	1	2	1	1	2	0	0	1	0	0	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	346	790	353	395	801	91	134	425	184	186	579	624
Arrive On Green	0.07	0.22	0.22	0.09	0.25	0.25	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1774	3539	1583	1774	3203	365	119	1078	466	236	1469	1583
Grp Volume(v), veh/h	78	513	101	157	309	316	307	0	0	364	0	164
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1798	1663	0	0	1706	0	1583
Q Serve(g_s), s	1.5	6.2	2.5	3.1	7.5	7.5	0.0	0.0	0.0	1.1	0.0	3.3
Cycle Q Clear(g_c), s	1.5	6.2	2.5	3.1	7.5	7.5	5.9	0.0	0.0	7.1	0.0	3.3
Prop In Lane	1.00		1.00	1.00		0.20	0.14		0.28	0.21		1.00
Lane Grp Cap(c), veh/h	346	790	353	395	442	450	743	0	0	765	0	624
V/C Ratio(X)	0.23	0.65	0.29	0.40	0.70	0.70	0.41	0.00	0.00	0.48	0.00	0.26
Avail Cap(c_a), veh/h	414	1358	607	416	679	690	743	0	0	765	0	624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.8	16.6	15.1	12.5	16.0	16.0	10.4	0.0	0.0	10.7	0.0	9.6
Incr Delay (d2), s/veh	0.3	0.9	0.4	0.6	2.0	2.0	1.7	0.0	0.0	2.1	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.1	1.1	1.6	3.9	3.9	3.2	0.0	0.0	4.0	0.0	1.6
LnGrp Delay(d),s/veh	13.1	17.5	15.6	13.1	18.0	18.0	12.1	0.0	0.0	12.8	0.0	10.6
LnGrp LOS	B	B	B	B	B	B	B			B		B
Approach Vol, veh/h	692				782			307			528	
Approach Delay, s/veh	16.7				17.0			12.1			12.1	
Approach LOS	B				B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	8.9	15.0		23.0	7.7	16.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	5.0	18.0		18.5	5.0	18.0				
Max Q Clear Time (g_c+l1), s		7.9	5.1	8.2		9.1	3.5	9.5				
Green Ext Time (p_c), s		1.4	0.0	2.3		2.0	0.0	2.1				
Intersection Summary												
HCM 2010 Ctrl Delay	15.2											
HCM 2010 LOS	B											

HCM 2010 AWSC

1: Milano Road & Pike Boulevard

Pike Terrace Subdivision

City of Weslaco

Intersection

Intersection Delay, s/veh 21.3

Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕			↕	
Traffic Vol, veh/h	39	20	2	116	16	6	3	376	120	86	168	11
Future Vol, veh/h	39	20	2	116	16	6	3	376	120	86	168	11
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	22	2	126	17	7	3	409	130	93	183	12
Number of Lanes	0	1	0	0	1	1	1	1	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	11.6	13	30.2	11.2
HCM LOS	B	B	D	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	64%	88%	0%	51%	0%
Vol Thru, %	0%	76%	33%	12%	0%	49%	88%
Vol Right, %	0%	24%	3%	0%	100%	0%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	496	61	132	6	170	95
LT Vol	3	0	39	116	0	86	0
Through Vol	0	376	20	16	0	84	84
RT Vol	0	120	2	0	6	0	11
Lane Flow Rate	3	539	66	143	7	185	103
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.006	0.835	0.135	0.294	0.011	0.323	0.171
Departure Headway (Hd)	6.251	5.574	7.329	7.366	6.206	6.294	5.955
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	572	647	487	486	574	569	601
Service Time	3.994	3.316	5.407	5.131	3.97	4.048	3.709
HCM Lane V/C Ratio	0.005	0.833	0.136	0.294	0.012	0.325	0.171
HCM Control Delay	9	30.3	11.6	13.2	9	12	9.9
HCM Lane LOS	A	D	B	B	A	B	A
HCM 95th-tile Q	0	9	0.5	1.2	0	1.4	0.6

HCM 2010 Signalized Intersection Summary

2: Milano Road & US Business 83

Pike Terrace Subdivision

City of Weslaco

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	366	39	51	258	47	48	369	79	92	135	95
Future Volume (veh/h)	78	366	39	51	258	47	48	369	79	92	135	95
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	85	398	42	55	280	51	52	401	86	100	147	103
Adj No. of Lanes	1	2	1	1	2	0	0	1	0	0	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	392	677	303	353	519	93	134	599	122	315	416	689
Arrive On Green	0.07	0.19	0.19	0.06	0.17	0.17	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1774	3539	1583	1774	2998	539	95	1377	279	450	956	1583
Grp Volume(v), veh/h	85	398	42	55	164	167	539	0	0	247	0	103
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1768	1751	0	0	1406	0	1583
Q Serve(g_s), s	1.6	4.4	0.9	1.0	3.6	3.7	2.6	0.0	0.0	0.0	0.0	1.7
Cycle Q Clear(g_c), s	1.6	4.4	0.9	1.0	3.6	3.7	10.4	0.0	0.0	4.0	0.0	1.7
Prop In Lane	1.00		1.00	1.00		0.30	0.10		0.16	0.40		1.00
Lane Grp Cap(c), veh/h	392	677	303	353	306	306	855	0	0	731	0	689
V/C Ratio(X)	0.22	0.59	0.14	0.16	0.53	0.55	0.63	0.00	0.00	0.34	0.00	0.15
Avail Cap(c_a), veh/h	468	1498	670	462	749	748	855	0	0	731	0	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.8	15.7	14.3	13.2	16.0	16.1	9.7	0.0	0.0	7.8	0.0	7.3
Incr Delay (d2), s/veh	0.3	0.8	0.2	0.2	1.5	1.5	3.5	0.0	0.0	1.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.2	0.4	0.5	1.9	1.9	5.9	0.0	0.0	2.1	0.0	0.8
LnGrp Delay(d),s/veh	13.1	16.5	14.5	13.4	17.5	17.6	13.2	0.0	0.0	9.1	0.0	7.7
LnGrp LOS	B	B	B	B	B	B	B			A		A
Approach Vol, veh/h	525				386			539			350	
Approach Delay, s/veh	15.8				16.9			13.2			8.7	
Approach LOS	B				B			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		3	4	6		7	8				
Phs Duration (G+Y+Rc), s	23.0		6.9	12.6	23.0		7.7	11.9				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	18.5		5.0	18.0	18.5		5.0	18.0				
Max Q Clear Time (g_c+l1), s	12.4		3.0	6.4	6.0		3.6	5.7				
Green Ext Time (p_c), s	1.9		0.0	1.8	1.6		0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay	13.9											
HCM 2010 LOS	B											

HCM 2010 TWSC

3: Milano Road & Driveway 1

Pike Terrace Subdivision

City of Weslaco

Intersection

Int Delay, s/veh 1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑↑	↑↑	
Traffic Vol, veh/h	29	57	17	470	277	9
Future Vol, veh/h	29	57	17	470	277	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	62	18	511	301	10

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	598	156	311	0	-	0
Stage 1	306	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	434	862	1246	-	-	-
Stage 1	720	-	-	-	-	-
Stage 2	732	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	425	862	1246	-	-	-
Mov Cap-2 Maneuver	425	-	-	-	-	-
Stage 1	706	-	-	-	-	-
Stage 2	732	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	1.6	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1246	-	640	-	-
HCM Lane V/C Ratio	0.015	-	0.146	-	-
HCM Control Delay (s)	7.9	0.1	11.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

HCM 2010 TWSC

4: Driveway 2 & Pike Boulevard

Pike Terrace Subdivision

City of Weslaco

Intersection						
Int Delay, s/veh	5.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				 	 	
Traffic Vol, veh/h	18	4	13	17	14	43
Future Vol, veh/h	18	4	13	17	14	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	4	14	18	15	47
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	24	0	68	22
Stage 1	-	-	-	-	22	-
Stage 2	-	-	-	-	46	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1591	-	937	1055
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	976	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1591	-	929	1055
Mov Cap-2 Maneuver	-	-	-	-	929	-
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	967	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	3.2		8.8		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1021	-	-	1591	-	
HCM Lane V/C Ratio	0.061	-	-	0.009	-	
HCM Control Delay (s)	8.8	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 2010 AWSC

1: Milano Road & Pike Boulevard

Pike Terrace Subdivision

City of Weslaco

Intersection

Intersection Delay, s/veh 16.8

Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕			↕	
Traffic Vol, veh/h	27	18	0	232	42	31	12	226	86	83	288	38
Future Vol, veh/h	27	18	0	232	42	31	12	226	86	83	288	38
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	20	0	252	46	34	13	246	93	90	313	41
Number of Lanes	0	1	0	0	1	1	1	1	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	11.9	19.5	18.6	14
HCM LOS	B	C	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	60%	85%	0%	37%	0%
Vol Thru, %	0%	72%	40%	15%	0%	63%	79%
Vol Right, %	0%	28%	0%	0%	100%	0%	21%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	312	45	274	31	227	182
LT Vol	12	0	27	232	0	83	0
Through Vol	0	226	18	42	0	144	144
RT Vol	0	86	0	0	31	0	38
Lane Flow Rate	13	339	49	298	34	247	198
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.026	0.608	0.108	0.604	0.058	0.461	0.351
Departure Headway (Hd)	7.159	6.452	7.98	7.303	6.16	6.72	6.384
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	496	556	452	491	577	530	558
Service Time	4.957	4.249	5.98	5.094	3.949	4.518	4.182
HCM Lane V/C Ratio	0.026	0.61	0.108	0.607	0.059	0.466	0.355
HCM Control Delay	10.2	18.9	11.9	20.7	9.3	15.2	12.6
HCM Lane LOS	B	C	B	C	A	C	B
HCM 95th-tile Q	0.1	4	0.4	3.9	0.2	2.4	1.6

HCM 2010 Signalized Intersection Summary

2: Milano Road & US Business 83

Pike Terrace Subdivision

City of Weslaco

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	472	93	144	516	86	39	178	79	86	273	167
Future Volume (veh/h)	99	472	93	144	516	86	39	178	79	86	273	167
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	108	513	101	157	561	93	42	193	86	93	297	182
Adj No. of Lanes	1	2	1	1	2	0	0	1	0	0	1	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	357	854	382	406	775	128	129	425	172	205	537	609
Arrive On Green	0.08	0.24	0.24	0.09	0.25	0.25	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1774	3539	1583	1774	3041	503	115	1103	446	292	1396	1583
Grp Volume(v), veh/h	108	513	101	157	326	328	321	0	0	390	0	182
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1774	1664	0	0	1688	0	1583
Q Serve(g_s), s	2.1	6.2	2.5	3.1	8.1	8.1	0.0	0.0	0.0	1.6	0.0	3.8
Cycle Q Clear(g_c), s	2.1	6.2	2.5	3.1	8.1	8.1	6.5	0.0	0.0	8.2	0.0	3.8
Prop In Lane	1.00		1.00	1.00		0.28	0.13		0.27	0.24		1.00
Lane Grp Cap(c), veh/h	357	854	382	406	451	452	725	0	0	742	0	609
V/C Ratio(X)	0.30	0.60	0.26	0.39	0.72	0.73	0.44	0.00	0.00	0.53	0.00	0.30
Avail Cap(c_a), veh/h	401	1325	593	425	663	664	725	0	0	742	0	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.5	16.2	14.8	12.2	16.4	16.4	11.1	0.0	0.0	11.5	0.0	10.3
Incr Delay (d2), s/veh	0.5	0.7	0.4	0.6	2.2	2.2	2.0	0.0	0.0	2.7	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.1	1.1	1.6	4.2	4.2	3.5	0.0	0.0	4.6	0.0	1.9
LnGrp Delay(d),s/veh	13.0	16.9	15.1	12.8	18.6	18.6	13.1	0.0	0.0	14.2	0.0	11.5
LnGrp LOS	B	B	B	B	B	B	B			B		B
Approach Vol, veh/h	722				811				321		572	
Approach Delay, s/veh	16.0				17.5				13.1		13.3	
Approach LOS	B				B				B		B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	9.0	16.1		23.0	8.3	16.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	5.0	18.0		18.5	5.0	18.0				
Max Q Clear Time (g_c+l1), s		8.5	5.1	8.2		10.2	4.1	10.1				
Green Ext Time (p_c), s		1.4	0.0	2.3		2.1	0.0	2.1				
Intersection Summary												
HCM 2010 Ctrl Delay	15.5											
HCM 2010 LOS	B											

HCM 2010 TWSC

3: Milano Road & Driveway 1

Pike Terrace Subdivision

City of Weslaco

Intersection

Int Delay, s/veh 1.3

Movement

	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑↑	↑↑	
Traffic Vol, veh/h	16	31	53	308	493	27
Future Vol, veh/h	16	31	53	308	493	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	34	58	335	536	29

Major/Minor

	Minor2	Major1	Major2			
Conflicting Flow All	835	283	565	0	-	0
Stage 1	551	-	-	-	-	-
Stage 2	284	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	306	714	1003	-	-	-
Stage 1	541	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	284	714	1003	-	-	-
Mov Cap-2 Maneuver	284	-	-	-	-	-
Stage 1	503	-	-	-	-	-
Stage 2	739	-	-	-	-	-

Approach

	EB	NB	SB
HCM Control Delay, s	13.6	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt

	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1003	-	471	-	-
HCM Lane V/C Ratio	0.057	-	0.108	-	-
HCM Control Delay (s)	8.8	0.2	13.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	-	-

HCM 2010 TWSC

4: Driveway 2 & Pike Boulevard

Pike Terrace Subdivision

City of Weslaco

Intersection

Int Delay, s/veh 3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	21	13	40	52	8	24
Future Vol, veh/h	21	13	40	52	8	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	14	43	57	9	26

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	37	0	173
Stage 1	-	-	-	-	30
Stage 2	-	-	-	-	143
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1574	-	817
Stage 1	-	-	-	-	993
Stage 2	-	-	-	-	884
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1574	-	794
Mov Cap-2 Maneuver	-	-	-	-	794
Stage 1	-	-	-	-	993
Stage 2	-	-	-	-	859

Approach	EB	WB	NB
HCM Control Delay, s	0	3.2	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	968	-	-	1574	-
HCM Lane V/C Ratio	0.036	-	-	0.028	-
HCM Control Delay (s)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

APPENDIX E

TRIP GENERATION WORKSHEET



ben@wkengineering.net

From: Alberto J. Aldana <aaldana@weslacotx.gov>
Sent: Monday, September 12, 2022 12:00 PM
To: Benjamin L. Worsham
Cc: Jose Reyes, P.E.
Subject: RE: Pike Terrace TIA (formally Pike District)

Hello Ben.

The scope is acceptable.

However, current ADT's and TMC's should be collected.

Regards,



Albert J. Aldana, P.E.
City Engineer

255 S. Kansas Ave | Weslaco, TX 78596
(956) 969-1533

"The test of the artist does not lie in the will with which he goes to work, but in the excellence of the work he produces." — Thomas Aquinas

From: Benjamin L. Worsham <ben@wkengineering.net>
Sent: Monday, September 12, 2022 11:39 AM
To: Alberto J. Aldana <aaldana@weslacotx.gov>
Cc: Jose Reyes, P.E. <jreyes@siglerwinstongreenwood.com>
Subject: Re: Pike Terrace TIA (formally Pike District)

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open/download any attachments unless you recognize the sender and know the content is safe.

Mr. Aldana,

I'm following up on this request and voicemail I left earlier today. Please advise as to whether the scope would be acceptable.

Thank you,



Benjamin L. Worsham, P.E., P.T.O.E., C.F.M.
Principal Engineer, WK Engineering
(956) 335-0040 | www.wkengineering.net

On Tue, Sep 6, 2022 at 12:27 PM Benjamin L. Worsham <ben@wkengineering.net> wrote:

Good afternoon Mr. Aldana,

Just would like to follow up on this request. Please advise if you have any comments or questions on the scope of work.

Thank you,

On Thu, Sep 1, 2022 at 8:06 AM <ben@wkengineering.net> wrote:

Good morning Mr. Aldana,

I understand that the development Pike Terrace, previously Pike District, would need a revised TIA. In addition to the name change, the land use, access points, and development layout has changed. I'd like to confirm the scope of work for the study with you. Please see the attached revised Trip Generation Worksheet with:

- ITE Land Use – 220 (Multifamily housing – low rise)
- Weekday – 3,134 trips
- AM Peak – 186 trips
- PM Peak – 212 trips

I would also like to confirm if the scope is acceptable:

- Utilize ADT & TMC's from previous study
 - Conducted in January of 2021
 - Would include 2% COVID adjustment
 - Would include 2% growth rate for 2027 build out year
- Design considerations for:
 - Milanos Road
- Level of Service and geometry analysis for the study intersections
 - Milanos Road @ Pike Boulevard
 - Milanos Road @ US Bus 83
 - Milanos Road @ Proposed Access Driveway
 - Conditions include:
 - AM/PM peak hours
 - Existing/Projected/Projected with Development
- Specific considerations
 - Left turn movements into the development

Let me know if you have any questions or concerns.

Thank you,

----- Forwarded message -----

From: "Alberto J. Aldana" <aaldana@weslacotx.gov>
To: Benjamin Worsham <ben@wkengineering.net>
Cc: Jose Reyes <jreyes@siglerwinstongreenwood.com>
Bcc:
Date: Mon, 18 Jan 2021 16:17:38 -0500
Subject: RE: TIA - Pike District Subdivision

Good afternoon Ben.

This summary is spot on.

However, regarding the trip generation for this project, I want to provide you a copy of our comments.

Let me know if you have any questions.

Best wishes for the success of your work.

Sincerely,



Albert J. Aldana, P.E.

City Engineer

**255 S. Kansas Ave | Weslaco, TX 78796
(956) 969-1533**

"If, then, you are looking for the way by which you should go, take Christ,

because He Himself is the way." - Thomas Aquinas

From: Benjamin Worsham <ben@wkengineering.net>
Sent: Monday, January 18, 2021 3:09 PM
To: Alberto J. Aldana <aaldana@weslacotx.gov>
Cc: Jose Reyes <jreyes@siglerwinstongreenwood.com>
Subject: RE: TIA - Pike District Subdivision

Good Afternoon Mr. Aldana,

Thank you for taking the time to discuss the TIA scope this afternoon. As per our conversation, in summary the TIA and submittals will include:

- A revised Trip Generation Worksheet with:
 - Corrected weekday trips
 - ITE Land Use – 210 (Single family detached housing)
 - AM Peak - 96 trips
 - PM Peak – 115 trips
- ADT Counts and design considerations for:
 - Milanos Road
- Level of Service and geometry analysis for the study intersections
 - Milanos Road @ Pike Boulevard
 - Milanos Road @ US Bus 83
 - Milanos Road @ Mockingbird Street (Proposed Access Driveway)
 - Conditions include:
 - AM/PM peak hours
 - Existing/Projected/Projected with Development
- Specific considerations
 - 2% COVID adjustment
 - Left turn movements into the development

Please review the summary above and please advise if I left any specific topics out. I appreciate your time and look forward to completing this project with you.

Thank you,



Benjamin L. Worsham, P.E., P.T.O.E.

Principal Engineer, WK Engineering

(956) 335-0040 | www.wkengineering.net

From: Alberto J. Aldana <aaldana@weslacotx.gov>
Sent: Monday, January 18, 2021 11:26 AM
To: Benjamin Worsham <ben@wkengineering.net>
Cc: Jose Reyes <jreyes@siglerwinstongreenwood.com>
Subject: RE: TIA - Pike District Subdivision

Good morning Ben.

I would be happy to discuss the scope for this TIA. I have time this afternoon after 2:30 PM.

Let me know.

Thanks.



Albert J. Aldana, P.E.

City Engineer

255 S. Kansas Ave | Weslaco, TX 78596
(956) 969-1533

"If, then, you are looking for the way by which you should go, take Christ.

because He Himself is the way." - Thomas Aquinas

From: Benjamin Worsham <ben@wkengineering.net>
Sent: Monday, January 18, 2021 11:19 AM
To: Alberto J. Aldana <aaldana@weslacotx.gov>
Cc: Jose Reyes <jreyes@siglerwinstongreenwood.com>
Subject: TIA - Pike District Subdivision

Good Morning Mr. Aldana,

I would like to discuss the scope for the requested TIA for the Pike District Subdivision. Please see the trip generation rates in the attachment and let me know if you may have some time this afternoon to discuss the study area, trip/growth rates, and other study parameters.

Thank you,



Benjamin L. Worsham, P.E., P.T.O.E.

Principal Engineer, WK Engineering

(956) 335-0040 | www.wkengineering.net

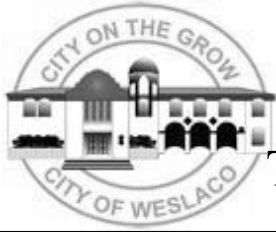
--

Benjamin L. Worsham, P.E., P.T.O.E., C.F.M.

Principal Engineer, WK Engineering

(956) 335-0040

www.wkengineering.net



City of Weslaco Engineering Division

255 S. Kansas ♦ Weslaco, TX 78570 ♦ (956)

TRIP GENERATION WORKSHEET

Complete parts A and B as an aid to determine if your project requires a Traffic Impact Analysis (TIA).

A. Subdivision Information

Subdivision Name: Pike Terrace Subdivision
 Location: West Pike Blvd. (Mile 8 North Rd.) and Milanos Road
 Applicant: SWG Engineering LLC ☐ Owner ☒ Agent
 Address: 611 Bill Summers Intl. Blvd. Weslaco, TX 78596 Phone Number: (956)968-2194

B. Trip Generation Calculation

The texts needed to complete this table are available at the Planning Department. See back of sheet for more information.

ITE Code	Anticipated Land Use	Project Size			AM Peak Hour Trips	PM Peak Hour Trips	Weekday Trips
		Acres	GFA	# of Units			
(220)	Multifamily Housing (Low-Rise)	36.092		420	186	212	3134

Comments: Previously Pike District, revised land use
 Prepared by: WK Engineering PLLC Date: _____
 Address: PO Box 3146, Edinburg, TX 78540 Phone Number: (956) 335-0040

(For Official Use Only, Do Not Write In This Box)

- _____ A traffic impact analysis is required. The agent 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.

Comments:

Reviewed by: _____ Date: _____ STID#: _____

Land Use: 220

Multifamily Housing (Low-Rise)

Description

Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have one or two levels (floors). Multifamily housing (mid-rise) (Land Use 221), multifamily housing (high-rise) (Land Use 222), and off-campus student apartment (Land Use 225) are related land uses.

Additional Data

In prior editions of *Trip Generation Manual*, the low-rise multifamily housing sites were further divided into rental and condominium categories. An investigation of vehicle trip data found no clear differences in trip making patterns between the rental and condominium sites within the ITE database. As more data are compiled for future editions, this land use classification can be reinvestigated.

For the three sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.72 residents per occupied dwelling unit.

For the two sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96.2 percent of the total dwelling units were occupied.

This land use included data from a wide variety of units with different sizes, price ranges, locations, and ages. Consequently, there was a wide variation in trips generated within this category. Other factors, such as geographic location and type of adjacent and nearby development, may also have had an effect on the site trip generation.

Time-of-day distribution data for this land use are presented in Appendix A. For the 10 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 7:15 and 8:15 a.m. and 4:45 and 5:45 p.m., respectively. For the one site with Saturday data, the overall highest vehicle volume was counted between 9:45 and 10:45 a.m. For the one site with Sunday data, the overall highest vehicle volume was counted between 11:45 a.m. and 12:45 p.m.

For the one dense multi-use urban site with 24-hour count data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 7:00 and 8:00 a.m. and 6:15 and 7:15 p.m., respectively.

For the three sites for which data were provided for both occupied dwelling units and residents, there was an average of 2.72 residents per occupied dwelling unit.

The average numbers of person trips per vehicle trip at the five general urban/suburban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.13 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.21 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in British Columbia (CAN), California, District of Columbia, Florida, Georgia, Illinois, Indiana, Maine, Maryland, Minnesota, New Jersey, New York, Ontario, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Virginia, and Washington.

It is expected that the number of bedrooms and number of residents are likely correlated to the number of trips generated by a residential site. Many of the studies included in this land use did not indicate the total number of bedrooms. To assist in the future analysis of this land use, it is important that this information be collected and included in trip generation data submissions.

Source Numbers

168, 187, 188, 204, 211, 300, 305, 306, 319, 320, 321, 357, 390, 412, 418, 525, 530, 571, 579, 583, 864, 868, 869, 870, 896, 903, 918, 946, 947, 948, 951

Multifamily Housing (Low-Rise) (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 42

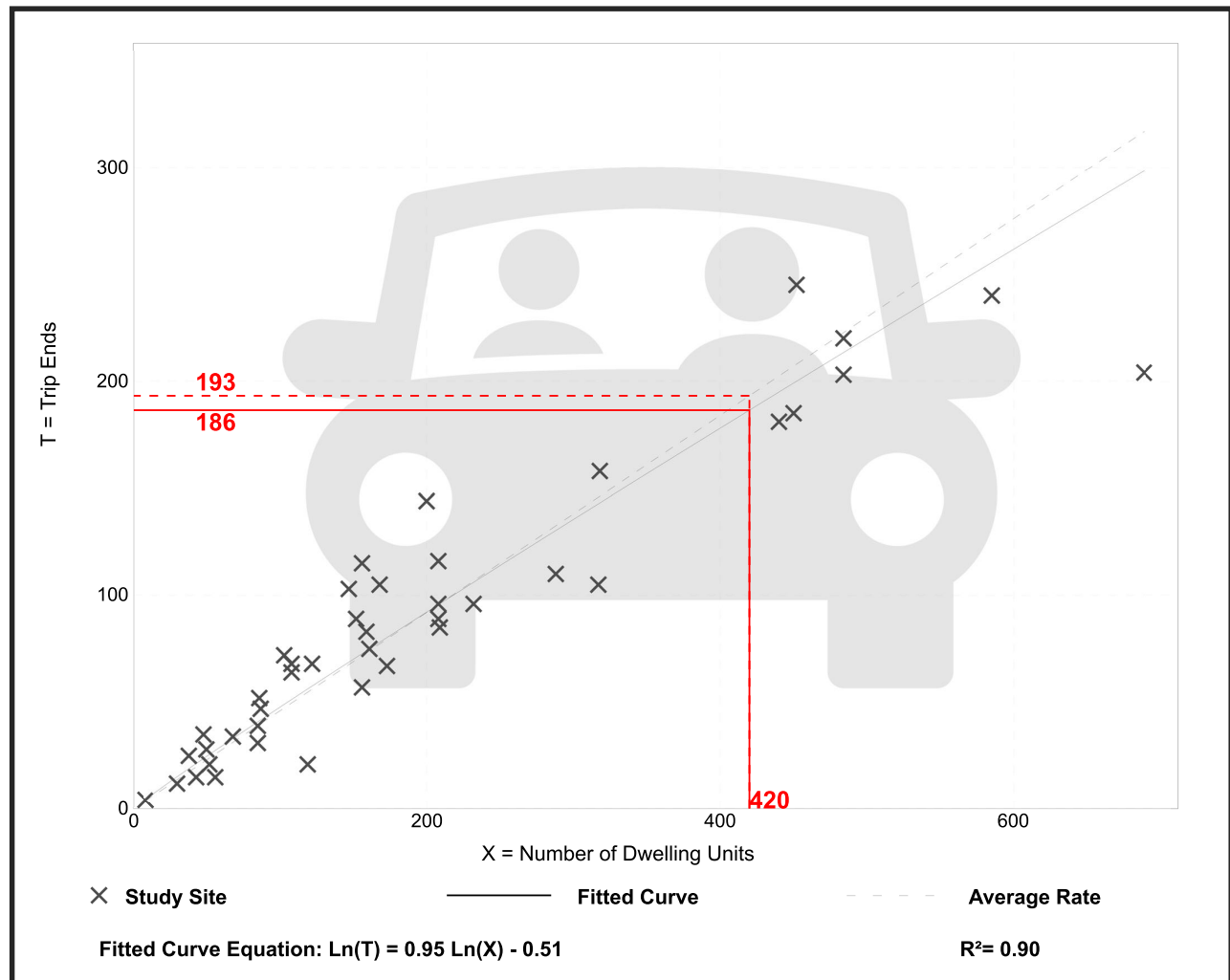
Avg. Num. of Dwelling Units: 199

Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.46	0.18 - 0.74	0.12

Data Plot and Equation



Multifamily Housing (Low-Rise) (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 50

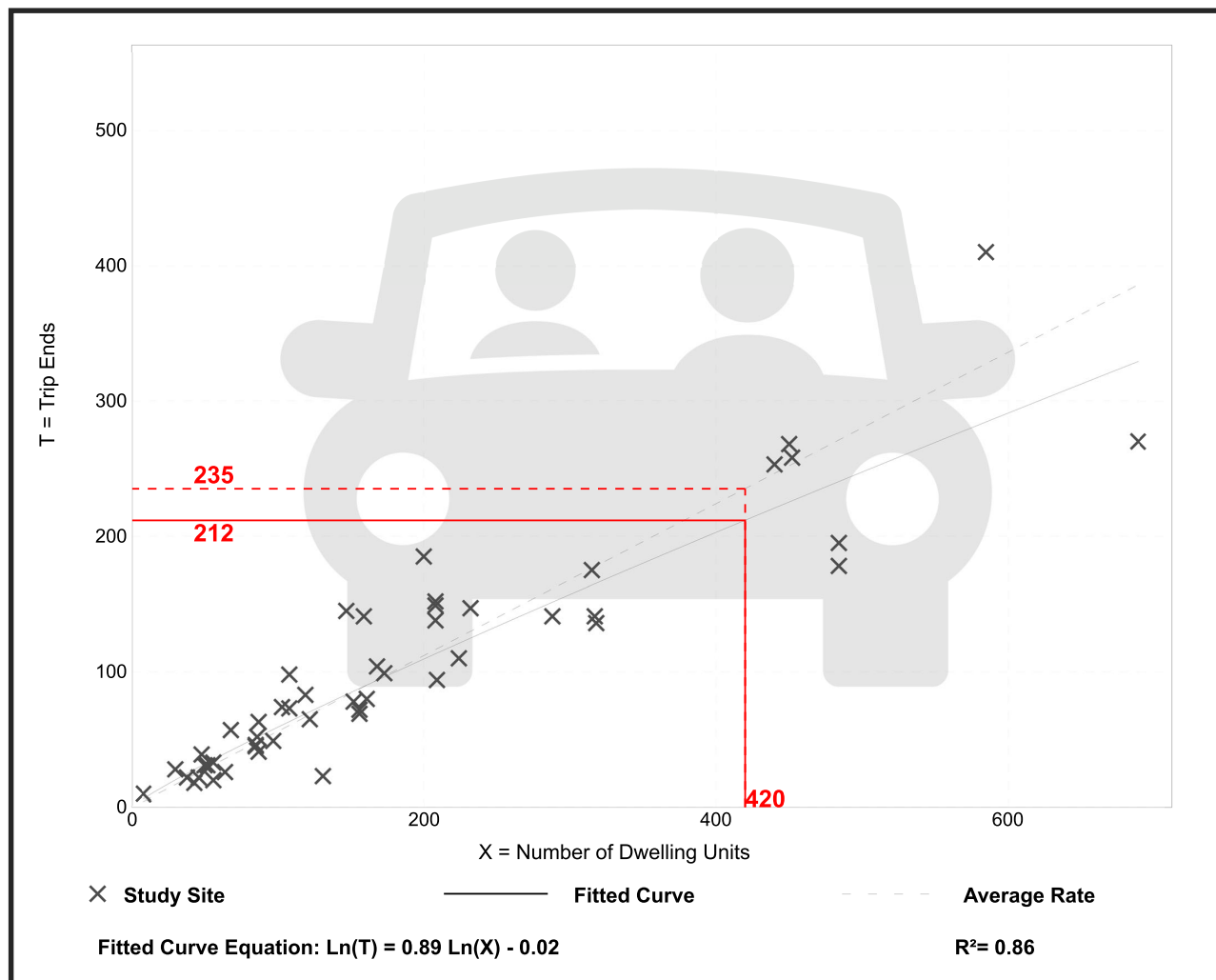
Avg. Num. of Dwelling Units: 187

Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.56	0.18 - 1.25	0.16

Data Plot and Equation



Multifamily Housing (Low-Rise) (220)

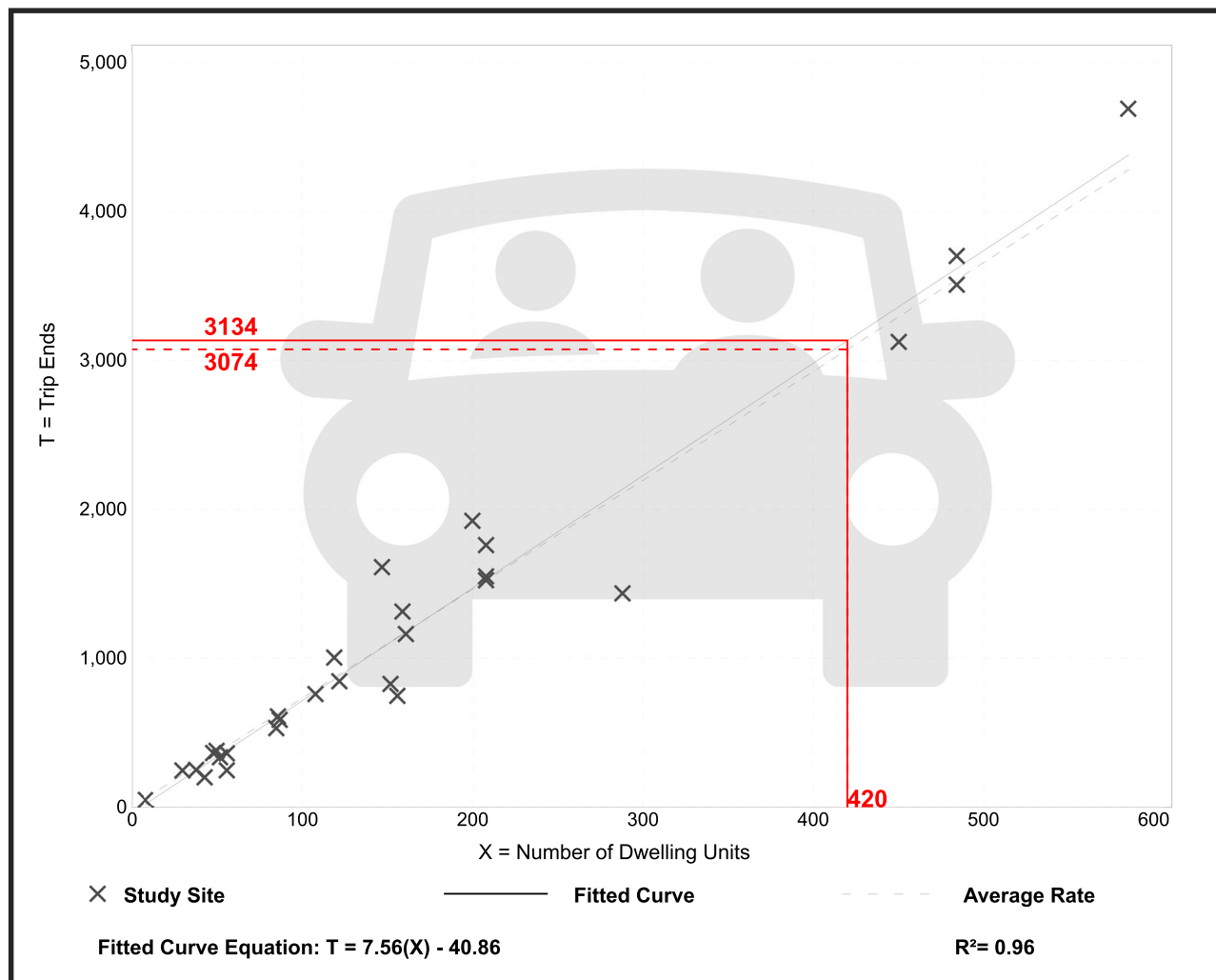
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

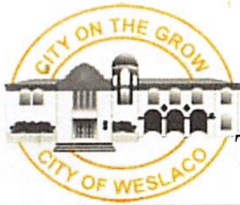
Setting/Location: General Urban/Suburban
Number of Studies: 29
Avg. Num. of Dwelling Units: 168
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.32	4.45 - 10.97	1.31

Data Plot and Equation





**City of Weslaco
Engineering Division**

255 S. Kansas ♦ Weslaco, TX 78570 ♦ (956)

TRIP GENERATION WORKSHEET

Complete parts A and B as an aid to determine if your project requires a Traffic Impact Analysis (TIA).

A. Subdivision Information

Subdivision Name: Pike Terrace Subdivision
 Location: West Pike Blvd. (Mile 8 North Rd.) and Milanos Road
 Applicant: SWG Engineering LLC ☐ Owner ☒ Agent
 Address: 611 Bill Summers Intl. Blvd. Weslaco, TX 78596 Phone Number: (956)968-2194

B. Trip Generation Calculation

The texts needed to complete this table are available at the Planning Department. See back of sheet for more information.

ITE Code	Anticipated Land Use	Project Size			AM Peak Hour Trips	PM Peak Hour Trips	Weekday Trips
		Acres	GFA	# of Units			
220	Multi-Family	36.092		105	280	298	578

Comments: _____
 Prepared by: SWG Engineering LLC Date: _____
 Address: 611 Bill Summer Intl. Blvd. Weslaco, TX 78596 Phone Number: (956)789-2194

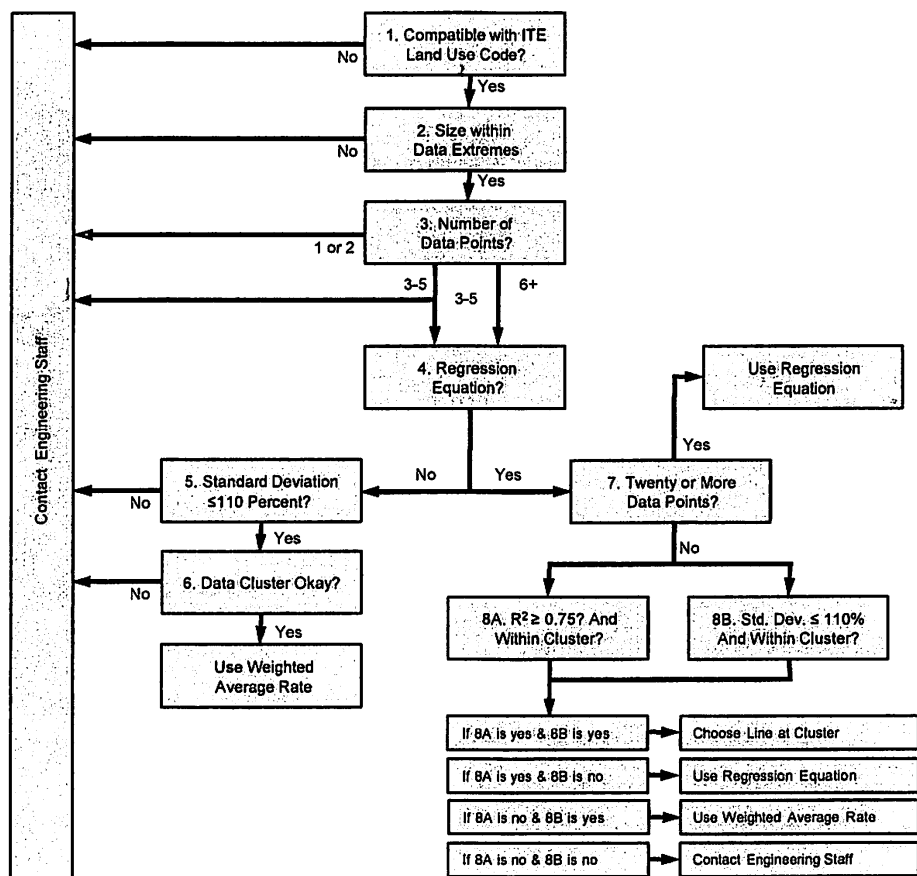
(For Official Use Only, Do Not Write In This Box)

- _____ A traffic impact analysis is required. The agent 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.

Comments: _____

Reviewed by: _____ Date: _____ STID#: _____

Recommended Procedure for Selecting Between Trip Generation Average Rates and Equations



From ITE Trip Generation Handbook

City of Weslaco
Engineering Division
255 S. Kansas Ave
Weslaco, TX 78596
(956)
(956) 973-3128 (fax)

Rebekah M. De La Fuente

PIKE Terrace.

From: Steve Valdez <SValdez@weslacoedc.com>
Sent: Tuesday, July 26, 2022 8:50 AM
To: Martin Garza; Molly Vallejo; Norma Cantu
Cc: Rebekah M. De La Fuente
Subject: Oversized Piping

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open/download any attachments unless you recognize the sender and know the content is safe.

Mr. Garza,

The EDC Board approved at yesterday's meeting to pay for the increased cost for "upsizing" the pipes for the subdivision along Milano Rd. Please let me know who we should write the check out to and when.

As part of our back up documentation, we would like to see the invoice that would have paid for the entire purchase of 12 inch sewer pipes.

Thank you,

Steve,



EDC
WESLACO
STEVEN M. VALDEZ
EXECUTIVE DIRECTOR

☎ O: (956) 969-0838 / C: (956) 279-9368
✉ svaldez@weslacoedc.com
🌐 www.weslacoedc.com
📍 275 S. Kansas Avenue, Suite A
Weslaco, TX 78596



SWG Engineering

Hidalgo County Drainage District No. 1

Drainage Report

Weslaco – Pike Terrace Subdivision

Hidalgo County, Texas

Prepared By:

SWG Engineering, LLC

611 Bill Summers Intl. Blvd.

Weslaco, Texas 78596

Tel: 956-968-2194

Fax: 956-968-8300

jreyes@siglerwinstongreenwood.com

6/22/2022



Handwritten signature in blue ink over the seal.
P.E.
Jun. 22. 2022

COVER SHEET	1
INDEX	2
PROJECT LOCATION	3
FLOOD PLAIN	3
SOIL CONDITIONS	3
EXISTING CONDITIONS	3
PROPOSED CONDITIONS	3
LOCATION MAP	4
HYDRAULIC CALCULATIONS	5
"C" VALUES FOR RATIONAL METHOD	6
RAINFALL INTENSITY FOR HIDALGO COUNTY	7
FLOOD PLAIN ATTACHMENTS	8
SOIL CONDITION ATTACHMENT	9

**DRAINAGE REPORT
For
PIKE TERRACE SUBDIVISION**

I. Project Location

This project involves the development of a 36.092 acre tract of land for residential use. The site is located in the city of Weslaco, Hidalgo County and lies on the southwest intersection of W Pike Blvd. (Mile 8 North Rd.) and N Milano Rd. (Mile 6 1/2 West Rd.) The proposed subdivision is comprised of 105 lots for a total of a 34.03 acre tract out of West tract, Hidalgo County, Texas.

II. Flood Plain

The area is considered to be under an unincorporated area determined by FEMA Flood Insurance Rate Map, Community Panel No. 480334 0450 C, and Map Revised June 6, 2000. The project area is under Zone "X", which is described as "Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile and areas protected by levees from 100-year flood".

III. Soil Conditions

According to the Soil Survey Report prepared for Hidalgo County by the U.S.D.A. Soil Conservation Service, the area is composed of three types of soil: Hidalgo fine sandy loam (0 to 1 percent slopes), Hidalgo fine sandy loam (1 to 3 percent slopes), and Hidalgo sandy clay loam (0 to 1 percent slopes). The predominant soil type being Hidalgo clay loam, is listed in Hydrological Group B. See attached Soil Survey of Hidalgo County, Texas.

IV. Existing Conditions

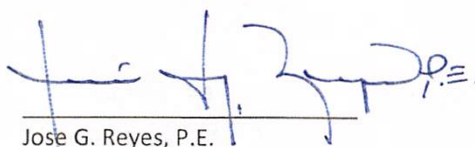
Existing runoff is by surface flow in a southwestern direction and has a runoff of **23.44 cfs** during the **10-yr** storm frequency as per attached calculations. The total impermeable area is approximately 0 square feet and the total permeable area is **1,482,347 sf²**. Due to no existing development, an existing weighted runoff coefficient of **C = 0.2** was calculated.

V. Proposed Conditions

Subject tract of land will be developed into 105 lots that will serve as a multi-family subdivision. One of the lots will be dedicated for a detention pond. Proposed runoff after development is **111.32 cfs**, during the **50-year** storm frequency, which is an increase of **87.88 cfs**. The proposed drainage for Pike terrace Subdivision consists of surface runoff from future development into the street and green areas. The total impermeable area is approximately **1,408,295 sf²** and the total permeable area is **74,052 ft²**. A weighted runoff coefficient of **C = 0.59** was calculated. For a **50-year storm frequency**, a peak detention

volume is approximately **246,207 ft³ or 5.65 Acre-ft**. Please refer to attached drainage calculations. At time of improvements the storm water runoff from the improved area shall be discharged in a southwestern direction where it will be discharged into a proposed detention pond on the southeast corner of subdivision. The runoff shall be directed into an existing manhole along Milano's Rd. (Mile 6 ½ West Rd.), via 24" RCP, connected to an existing storm system, that will carry the storm water via 42" RCP to drain ditch 37D1, owned by HCCID#9. The detention pond is designed in order to detain a volume of **253,095 ft³ or 5.81 Acre-ft**, which will be able to hold a 50 year frequency.

The drainage calculations are attached.



Jose G. Reyes, P.E.
June 22, 2022



Weslaco – Pike Terrace Subdivision

Hidalgo County Drainage District No. 1 "C" Values for Rational Method

Type of Drainage Area	Runoff Coefficient
Residential Districts:	
Single Family (Lots less than ¼ acre)	0.30 – 0.50
Multi - Family (Less than 20 DU/AC)	0.40 – 0.60
Multi - Family (Greater than 20 DU/AC)	0.60 – 0.75
Business District:	
Downtown areas	0.70 – 0.95
Neighborhood areas	0.30 – 0.70
Industrial Districts:	
Light Areas	0.30 – 0.80
Heavy Areas	0.60 – 0.90
Railroad Yard Areas:	0.30 – 0.40
Park:	0.10 – 0.25
Unimproved Areas:	
Sand or sandy loam soil, 0-3%	0.15 – 0.20
Sand or sandy loam soil, 3-5%	0.20 – 0.25
Black or loessial soil, 0-3%	0.18 – 0.25
Black or loessial soil, 3-5%	0.25 – 0.30
Black or loessial soil, >5%	0.70 – 0.80
Deep sand area	0.05 – 0.15
Steep grassed slopes	0.70
Street:	
Asphalt	0.85 – 0.95
Concrete	0.90 – 0.95
Drives & Walks:	
Concrete	0.75 – 0.95

Last Updated: 6/22/2022

Detention Calculator

10-yr release

e= 0.8599
b= 116.24
d= 14.33

50 yr Storm

Title: SWGH# 22-122
34.03 Ac Mitigation Area
City of Weslaco, TX

Required Volume:

Req'd Volume 5.65 ac.ft

EXISTING DATA

Total Area 34.03 acre
Overland Flow Length - "L" 1100.00 LF

Existing Time of Concentration - "Tov" (grass) 45.55 % composition? 100%
Existing Time of Concentration - "Tov" (pavmt) 0.00 % composition? 0%
Total Existing Time of Concentration - "Tov" 45.55 minutes
Existing Runoff Coefficient - "C" 0.20
Intensity of Rainfall - "I" 3.44 in/hr
Existing - "Q" 23.44 cfs

e= 0.8613
b= 170.66
d= 16.71

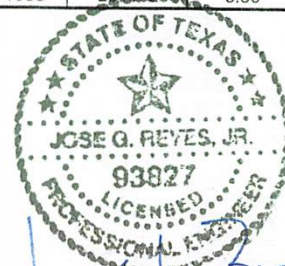
PROPOSED IMPROVEMENTS

Total Area 34.03 acre
Overland Flow Length - "L" 1100.00 LF

Proposed Time of Concentration - "Tov" (grass) 33.71 % composition? 74%
Proposed Time of Concentration - "Tov" (pavmt) 2.92 % composition? 26%
Total Proposed Time of Concentration - "Tov" 36.63 minutes
Proposed Runoff Coefficient - "C" 0.59
Intensity of Rainfall - "I" 5.55 in/hr
Proposed - "Q" 111.32 cfs

Time		I	Q in	V in	Q out	V out	Req'd V	Req'd V
min	hr	in/hr	ft ³ /s	ft ³	ft ³ /s	ft ³	ft ³	ac-ft
36.63	0.61	5.55	111.32	244683	23.44	51519	193164	4.43
46.63	0.78	4.79	96.01	268629	23.44	58551	210078	4.82
56.63	0.94	4.22	84.62	287540	23.44	65583	221957	5.10
66.63	1.11	3.78	75.80	303044	23.44	72614	230430	5.29
76.63	1.28	3.43	68.75	316115	23.44	79646	236470	5.43
86.63	1.44	3.14	62.98	327374	23.44	86678	240697	5.53
96.63	1.61	2.90	58.16	337238	23.44	93709	243529	5.59
106.63	1.78	2.70	54.08	346000	23.44	100741	245259	5.63
116.63	1.94	2.52	50.57	353871	23.44	107773	246099	5.65
126.63	2.11	2.37	47.51	361011	23.44	114804	246207	5.65
136.63	2.28	2.24	44.83	367539	23.44	121836	245704	5.64
146.63	2.44	2.12	42.46	373550	23.44	128868	244683	5.62
156.63	2.61	2.01	40.34	379118	23.44	135899	243218	5.58
166.63	2.78	1.92	38.44	384301	23.44	142931	241371	5.54
176.63	2.94	1.83	36.72	389151	23.44	149963	239188	5.49
186.63	3.11	1.75	35.16	393705	23.44	156994	236711	5.43
196.63	3.28	1.68	33.73	397999	23.44	164026	233973	5.37
206.63	3.44	1.62	32.43	402059	23.44	171058	231002	5.30

High Point



JUN. 22. 2022

Convert acre to sf below:	
acre:	sf:
1	43560
2.3E-05	1

Existing Runoff Coef. Calculation:

		Weighted C
Total Area =	34.03 acres	<u>0.20</u>
Impermeable Area =	0% 0.0 acres	0.9
Pavement Area =	0% 0.0 acres	0.95
Permeable Area =	100% 34.03 acres	0.2

Future Runoff Coef. Calculation:

		Weighted C
Total Area =	34.03 acres	<u>0.59</u>
Impermeable Area =	26% 8.85 acres	0.9
Permeable Area =	5% 1.70 acres	0.2
Multi-Family Area =	69% 23.48 acres	0.5

Elevations:

High =	88.68 ft
Low =	81.5 ft

Average Slope (Adjusted) = 0.00703

K= 0.828 *std coefficient*

N grass= 0.4 *unitless*

N pavement= 0.02 *unitless*

Rainfall Intensity-Duration-Frequency Coefficients for Texas

Based on United States Geological Survey (USGS) Scientific Investigations Report 2004-5041

"Atlas of Depth-Duration Frequency of Precipitation Annual Maxima for Texas"

1. Select English or SI Units

English

2. Select or Enter a County

Hidalgo

3. Enter a Time of Conc.

Select Units

36.33 min

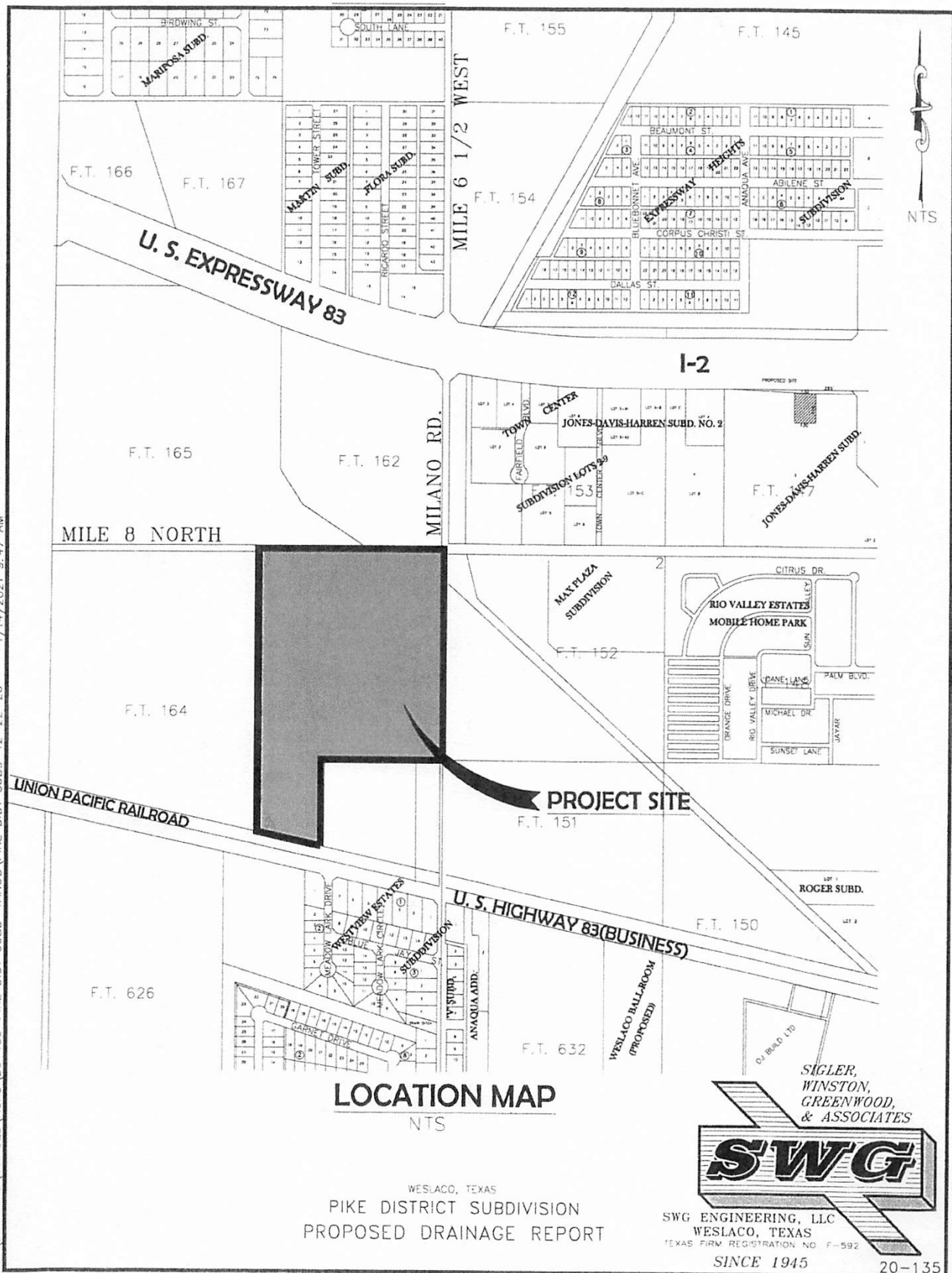
Coefficient	50% (2-year)	20% (5-year)	10% (10-year)	4% (25-year)	2% (50-year)	1% (100-year)
e	0.8645	0.8647	0.8599	0.8572	0.8613	0.8619
b (in.)	72.40	100.21	116.24	140.47	170.66	201.07
d (min)	12.92	13.90	14.33	15.32	16.71	18.00

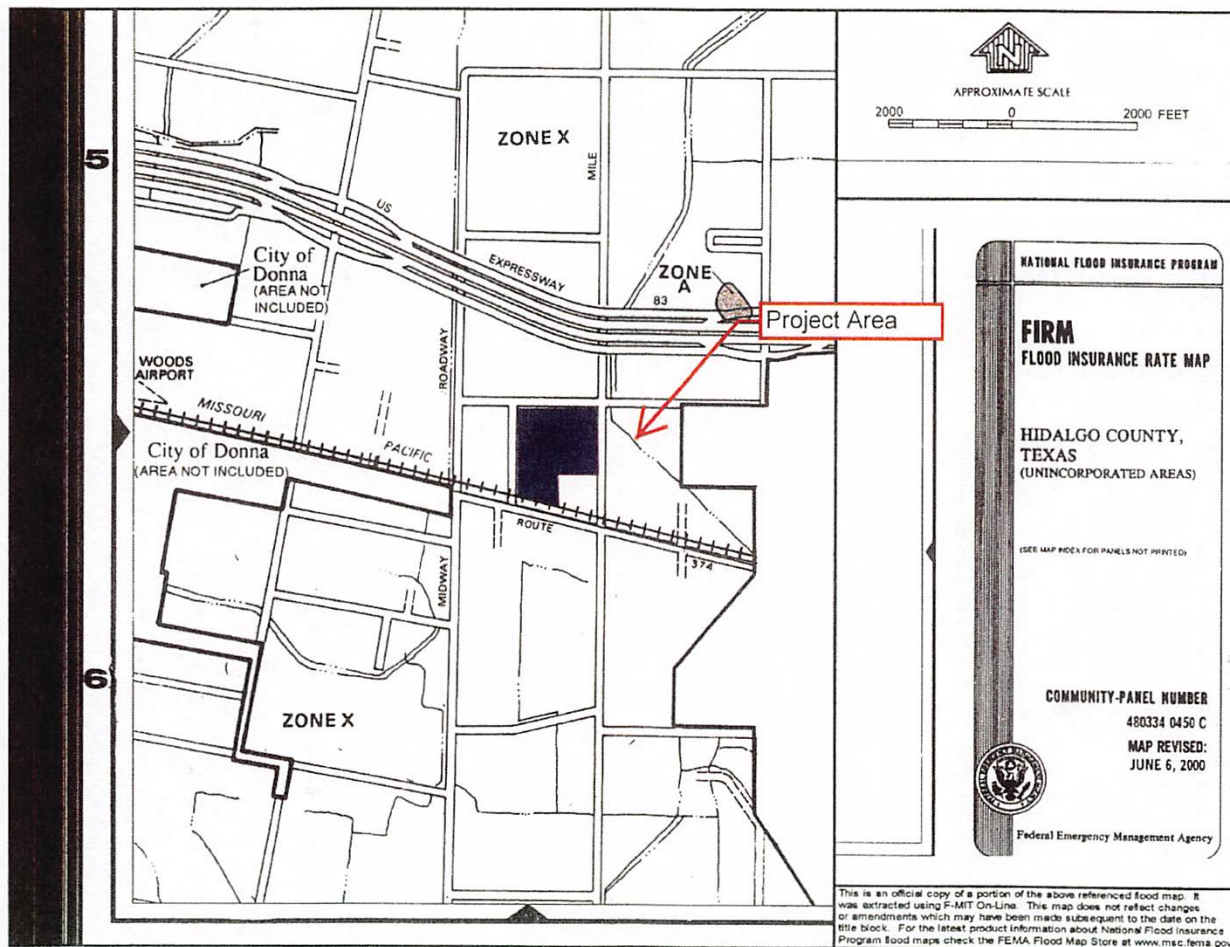
Intensity (in./hr) 2.49 3.39 3.98 4.78 5.58 6.43

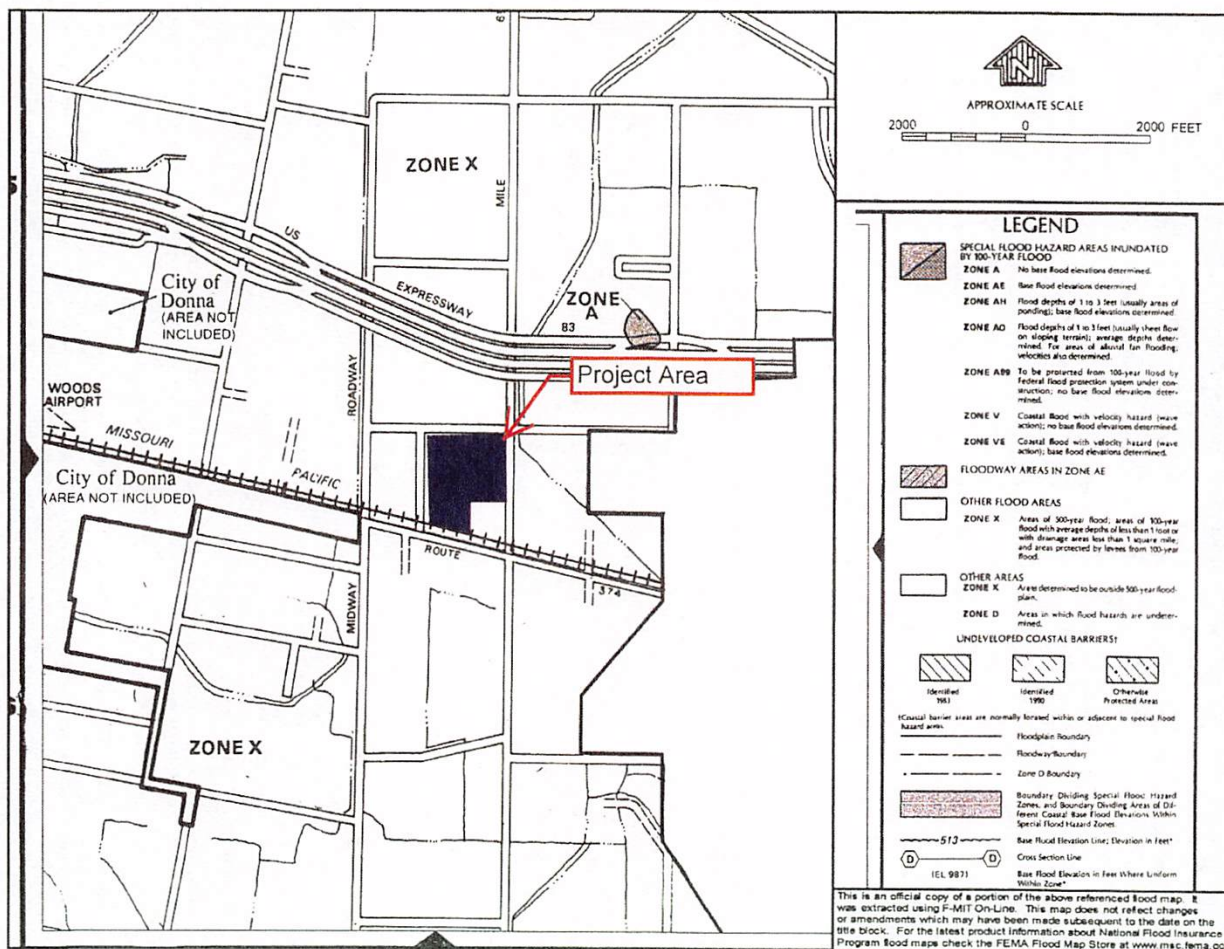
(Spreadsheet Release Date: August 31, 2015; data table reshuffle by Asquith July 14, 2016)

Attachments

Z:\DRAFTING\MANUEL\ACAD\20-135-PIKE DIST SUBD-12-22-20 1/14/2021 9:47 AM











United States
Department of
Agriculture

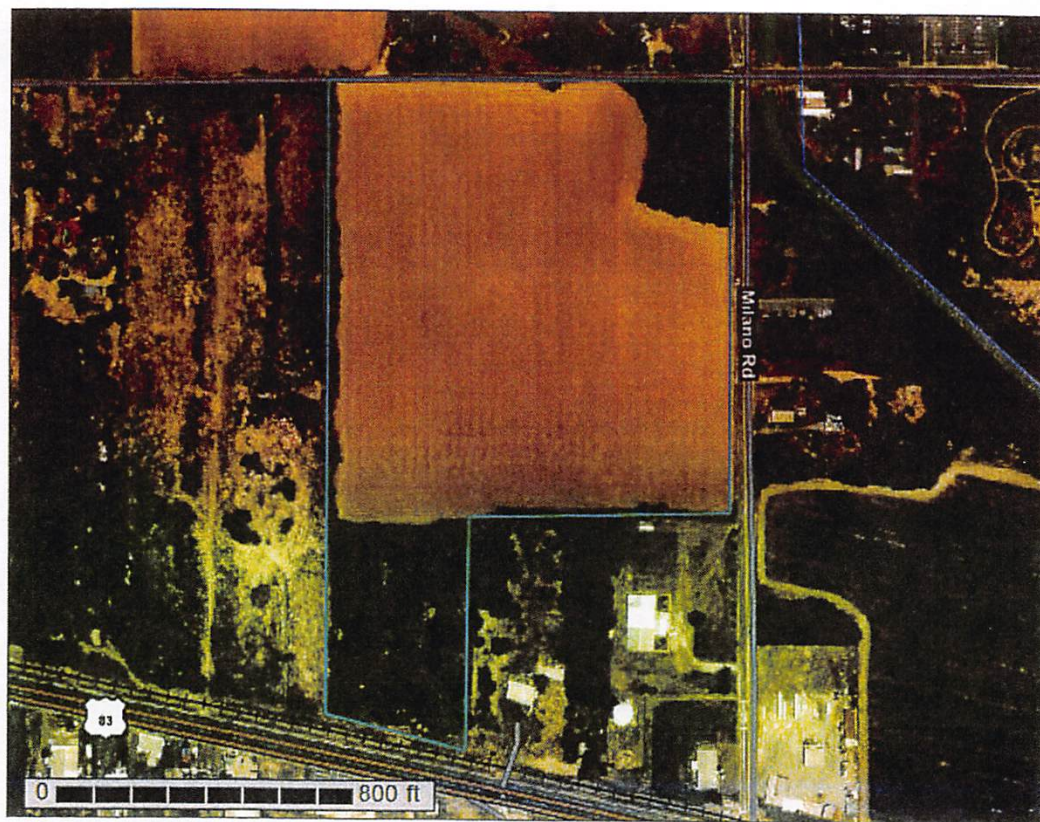
NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Hidalgo County, Texas**

Pike District Subdivision



December 28, 2020

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface.....	2
How Soil Surveys Are Made.....	5
Soil Map.....	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	11
Map Unit Descriptions.....	11
Hidalgo County, Texas.....	13
25—Hidalgo fine sandy loam, 0 to 1 percent slopes.....	13
26—Hidalgo fine sandy loam, 1 to 3 percent slopes.....	14
28—Hidalgo sandy clay loam, 0 to 1 percent slopes.....	15
References.....	18

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

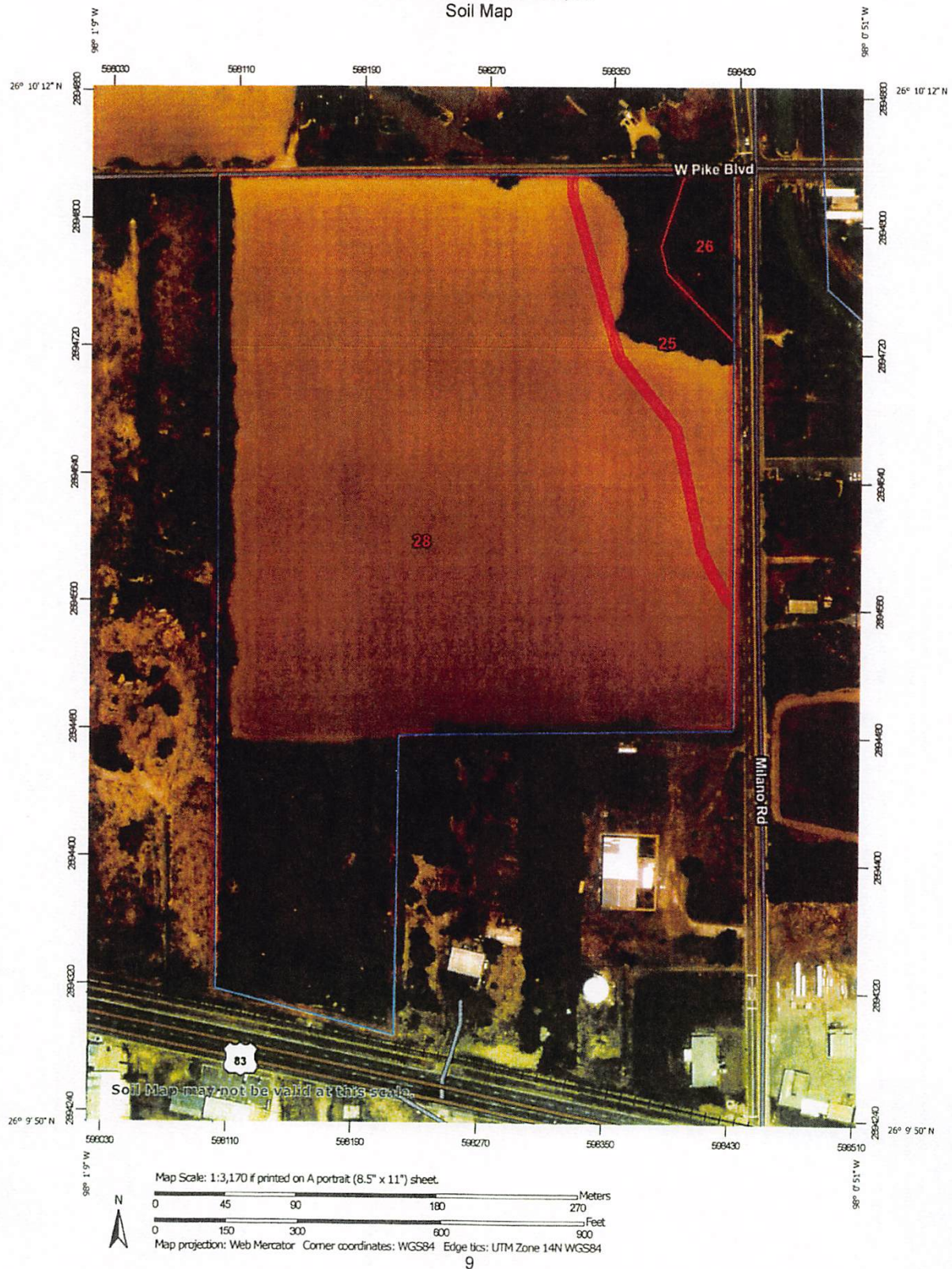
Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

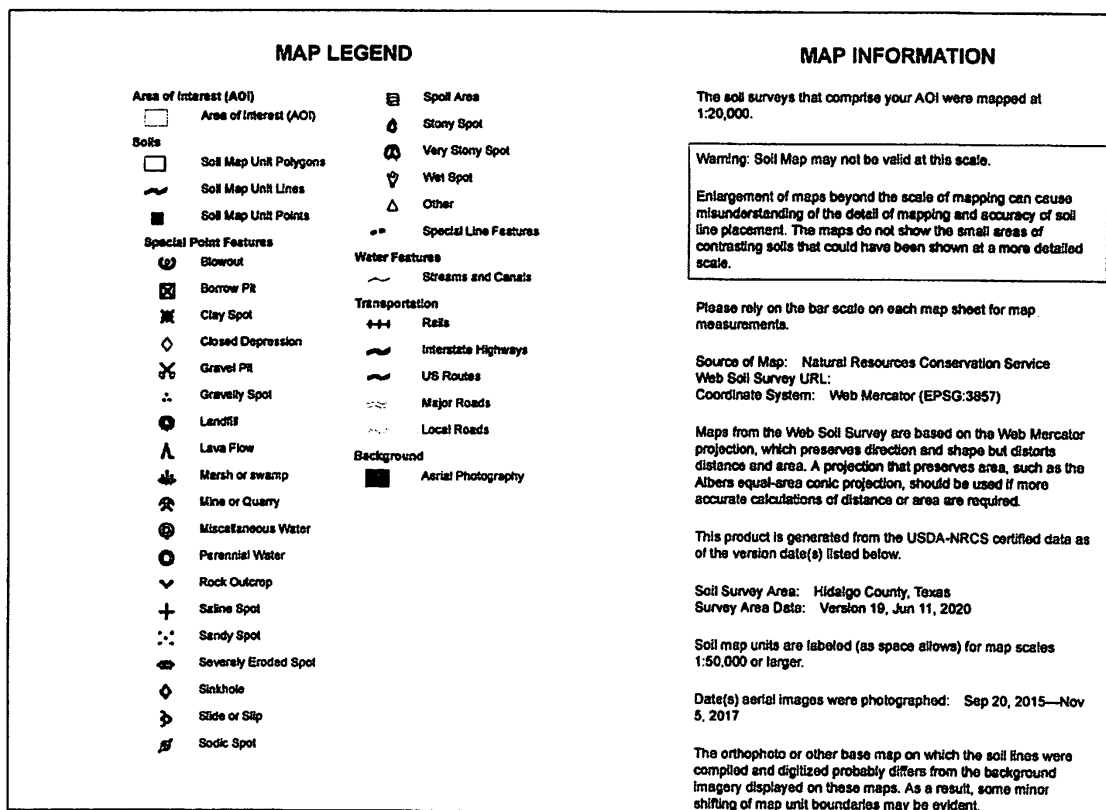
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Custom Soil Resource Report



Custom Soil Resource Report

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
25	Hidalgo fine sandy loam, 0 to 1 percent slopes	2.9	8.8%
26	Hidalgo fine sandy loam, 1 to 3 percent slopes	0.8	2.5%
28	Hidalgo sandy clay loam, 0 to 1 percent slopes	29.8	88.7%
Totals for Area of Interest		33.6	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

Custom Soil Resource Report

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Custom Soil Resource Report

Hidalgo County, Texas

25—Hidalgo fine sandy loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2sxn
Elevation: 20 to 500 feet
Mean annual precipitation: 20 to 27 inches
Mean annual air temperature: 72 to 74 degrees F
Frost-free period: 300 to 365 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Hidalgo and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hidalgo

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous loamy alluvium

Typical profile

Ap - 0 to 17 inches: fine sandy loam
Bk1 - 17 to 28 inches: sandy clay loam
Bk2 - 28 to 38 inches: clay loam
Ck - 38 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 35 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 10.0
Available water capacity: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: B
Ecological site: R083DY019TX - Gray Sandy Loam
Hydric soil rating: No

Custom Soil Resource Report

Minor Components

Willacy

Percent of map unit: 10 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Brennan

Percent of map unit: 5 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R083EY023TX - Sandy Loam
Hydric soil rating: No

26—Hidalgo fine sandy loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2sxvp
Elevation: 20 to 500 feet
Mean annual precipitation: 20 to 27 inches
Mean annual air temperature: 72 to 74 degrees F
Frost-free period: 300 to 365 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Hidalgo and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hidalgo

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Calcareous loamy alluvium

Typical profile

Ap - 0 to 17 inches: fine sandy loam
Bk1 - 17 to 28 inches: sandy clay loam
Bk2 - 28 to 38 inches: clay loam
Ck - 38 to 80 inches: clay loam

Custom Soil Resource Report

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 35 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 10.0
Available water capacity: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: R083DY019TX - Gray Sandy Loam
Hydric soil rating: No

Minor Components

Willacy

Percent of map unit: 10 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Brennan

Percent of map unit: 5 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R083EY023TX - Sandy Loam
Hydric soil rating: No

28—Hidalgo sandy clay loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2sxvl
Elevation: 20 to 500 feet
Mean annual precipitation: 20 to 27 inches
Mean annual air temperature: 72 to 74 degrees F
Frost-free period: 300 to 365 days
Farmland classification: All areas are prime farmland

Custom Soil Resource Report

Map Unit Composition

Hidalgo and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hidalgo

Setting

Landform: Terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Calcareous loamy alluvium

Typical profile

Ap - 0 to 17 inches: sandy clay loam

Bk1 - 17 to 28 inches: sandy clay loam

Bk2 - 28 to 38 inches: clay loam

Ck - 38 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Negligible

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)*

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 35 percent

Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum: 10.0

Available water capacity: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 1

Land capability classification (nonirrigated): 2c

Hydrologic Soil Group: B

Ecological site: R083DY019TX - Gray Sandy Loam

Hydric soil rating: No

Minor Components

Raymondville

Percent of map unit: 7 percent

Landform: Terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R083DY025TX - Clay Loam

Hydric soil rating: No

Racombes

Percent of map unit: 6 percent

Landform: Terraces

Custom Soil Resource Report

Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R083DY025TX - Clay Loam
Hydric soil rating: No

Willacy

Percent of map unit: 2 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Hidalgo County, Texas

157

TABLE 16.--ENGINEERING INDEX PROPERTIES
[Absence of an entry indicates that data were not estimated]

Map symbol and soil name	Depth <u>In</u>	USDA texture	Classification		Percentage passing sieve number--				Liquid limit <u>Pct</u>	Plas- ticity index
			Unified	AASHTO	4	10	40	200		
1.* Arenta										
2----- Benito	0-7 7-65	Clay----- Clay-----	CH CH	A-7-6 A-7-6	100 100	100 100	100 100	95-100 95-100	75-94 75-94	48-64 48-64
3, 4----- Brennan	0-13 13-65	Fine sandy loam Sandy clay loam, loam.	SM, SM-SC, SC, CL	A-2-4, A-4 A-2-6, A-4, A-6	100 95-100	98-100 90-100	70-100 60-100	20-45 30-59	<30 22-39	NP-9 8-22
5----- Camargo	0-8 8-65	Silt loam----- Stratified silty clay loam to very fine sandy loam.	CL, CL-ML CL	A-6, A-4 A-6, A-7-6	100 100	100 100	95-100 95-100	70-100 70-100	20-35 30-45	4-16 11-25
6----- Camargo	0-8 8-65	Silty clay loam Stratified silty clay loam to very fine sandy loam.	CL CL	A-6, A-7-6 A-6, A-7-6	100 100	100 100	95-100 95-100	70-100 70-100	30-45 30-45	11-25 11-25
7----- Cameron	0-30 30-65	Silty clay----- Silt loam, loam	CH, CL CL	A-7-6 A-4, A-6	100 100	100 95-100	100 90-100	90-100 70-95	48-68 25-35	25-41 8-15
8----- Comitas	0-28 28-80	Loamy fine sand Fine sandy loam, sandy clay loam.	SM, SM-SC SM, SC, SM-SC	A-2-4 A-2-4, A-2-6, A-4, A-6	95-100 95-100	95-100 90-100	85-100 80-100	15-25 23-50	<25 <34	NP-4 NP-14
9----- Delfina	0-13 13-34 34-72	Loamy fine sand Sandy clay loam, clay loam. Sandy clay loam, fine sandy loam.	SM, SM-SC SC, CL SC	A-2-4, A-4 A-6, A-7-6 A-6, A-7-6	100 100 90-100	100 95-100 75-98	85-100 90-100 70-97	20-45 40-55 36-50	<25 31-48 30-46	NP-7 18-35 16-31
10, 11----- Delfina	0-13 13-34 34-72	Fine sandy loam Sandy clay loam, clay loam. Sandy clay loam, fine sandy loam.	SM-SC, SC, SM SC, CL SC	A-2-4, A-4 A-6, A-7-6 A-6, A-7-6	100 100 90-100	100 95-100 75-98	90-100 90-100 70-97	25-50 40-55 36-50	19-30 31-48 30-46	3-10 18-35 16-31
12----- Delmita	0-13 13-34 34-60	Loamy fine sand Sandy clay loam, fine sandy loam. Indurated-----	SM, SM-SC, SP-SM SC ---	A-2-4 A-2-4, A-2-6, A-4, A-6 ---	100 100 ---	95-100 100 ---	85-100 90-100 ---	11-25 30-50 ---	<25 27-39 ---	NP-7 8-18 ---
13.* Delmita-----	0-13 13-34 34-60	Fine sandy loam Sandy clay loam, fine sandy loam. Indurated-----	SM, SM-SC SC ---	A-2-4 A-2-4, A-2-6, A-4, A-6 ---	100 100 ---	100 100 ---	90-100 90-100 ---	20-35 30-50 ---	<27 27-39 ---	NP-7 8-18 ---

See footnote at end of table.

158

Soil survey

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth <u>In</u>	USDA texture	Classification		Percentage passing sieve number--				Liquid limit <u>Pct</u>	Plas- ticity index
			Unified	AASHTO	4	10	40	200		
13:*										
Randado-----	0-9	Fine sandy loam	SM, SM-SC	A-2-4	75-100	70-100	70-100	20-35	<25	NP-7
	9-16	Fine sandy loam, sandy clay loam.	SC, SM-SC, GC	A-2-4, A-2-6, A-4, A-6	65-100	60-100	60-100	25-50	25-34	7-14
	16-60	Cemented-----	---	---	---	---	---	---	---	---
14-----	0-80	Fine sand-----	SP-SM, SM	A-2-4, A-3	100	100	75-100	5-25	<25	NP-3
Falfurrias										
15-----	0-7	Clay-----	CL, CH	A-7-6	100	100	100	90-100	41-55	20-30
Grulla	7-65	Silty clay, clay	CH	A-7-6	100	100	100	90-100	52-66	28-39
16, 17, 18-----	0-18	Fine sandy loam	SC, SM-SC, SM	A-2-4	100	95-100	95-100	17-35	<30	NP-8
Hargill	18-63	Sandy clay loam	SC, CL	A-6	100	95-100	95-100	40-55	30-40	11-20
	63-80	Sandy clay loam	SC	A-2-4, A-2-6, A-4, A-6	85-100	80-100	75-100	34-50	28-39	9-18
19, 20-----	0-8	Clay-----	CH	A-7-6	100	100	100	90-100	51-85	32-60
Harlingen	8-35	Clay-----	CH	A-7-6	100	100	100	95-100	65-85	50-65
	35-72	Clay-----	CH	A-7-6	100	100	100	95-100	65-85	50-65
21:*										
Harlingen-----	0-8	Clay-----	CH	A-7-6	100	100	100	90-100	51-85	32-60
	8-35	Clay-----	CH	A-7-6	100	100	100	95-100	65-85	50-65
	35-72	Clay-----	CH	A-7-6	100	100	100	95-100	65-85	50-65
Urban land.										
22, 23, 24-----	0-17	Sandy loam-----	SM	A-2-4	100	100	75-100	13-24	<25	NP-4
Hebbronville	17-58	Fine sandy loam, loam.	SM, SM-SC	A-2-4	100	100	90-100	20-30	<30	NP-7
	58-65	Fine sandy loam, loam.	SM-SC, SC	A-2-4, A-4, A-2-6, A-6	95-100	90-100	90-100	20-40	20-30	4-13
25, 26, 27-----	0-17	Fine sandy loam	SC, SM-SC	A-4, A-6	100	95-100	90-100	36-50	20-30	4-11
Hidalgo	17-28	Sandy clay loam, clay loam.	SC, CL	A-6	100	95-100	90-100	36-80	30-40	11-20
	28-80	Clay loam, sandy clay loam.	CL, SC	A-6, A-7-6	90-100	80-100	75-99	44-80	30-44	11-23
28, 29, 30-----	0-17	Sandy clay loam	SC, CL	A-6	100	95-100	90-100	36-55	29-40	11-20
Hidalgo	17-28	Sandy clay loam, clay loam.	SC, CL	A-6	100	95-100	90-100	36-80	30-40	11-20
	28-80	Clay loam, sandy clay loam.	CL, SC	A-6, A-7-6	90-100	80-100	75-99	44-80	30-44	11-23
31:*										
Hidalgo-----	0-17	Sandy clay loam	SC, CL	A-6	100	95-100	90-100	36-50	29-40	11-20
	17-28	Sandy clay loam, clay loam.	SC, CL	A-6	100	95-100	90-100	36-80	30-40	11-20
	28-80	Clay loam, sandy clay loam.	CL, SC	A-6, A-7-6	90-100	80-100	75-99	44-80	30-44	11-23
Urban land.										

See footnote at end of table.

Hidalgo County, Texas

159

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth In	USDA texture	Classification		Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO	4	10	40	200		
32:*										
Jimenez-----	0-8	Very gravelly loam.	GC, GM-GC	A-1, A-2-4, A-2-6	30-58	15-40	15-35	15-30	22-35	5-15
	8-10	Cemented-----	---	---	---	---	---	---	---	---
	10-60	Variable-----	---	---	---	---	---	---	---	---
Quemado-----	0-6	Very gravelly sandy loam.	GM, GC, GM-GC	A-1, A-2	30-50	20-50	15-35	15-30	<25	NP-10
	6-12	Very gravelly sandy loam, very gravelly loam, very gravelly sandy clay loam.	GM, GC, GM-GC	A-1, A-2	30-50	20-50	15-35	15-30	18-28	2-10
	12-18	Cemented-----	---	---	---	---	---	---	---	---
	18-60	Variable-----	---	---	---	---	---	---	---	---
33-----										
Laredo	0-14	Silty clay loam	CL	A-6, A-7-6, A-4	100	100	90-100	85-100	28-44	9-22
	14-65	Silty clay loam, silt loam, very fine sandy loam.	CL	A-6, A-7-6, A-4	100	95-100	90-100	70-95	28-43	9-21
34-----										
Matamoros	0-65	Silty clay, stratified silt loam to clay.	CH	A-7-6	100	100	100	95-100	51-65	30-41
35, 36, 37-----										
McAllen	0-14	Fine sandy loam	CL, SC, CL-ML, SM-SC	A-4, A-6	100	100	95-100	36-55	21-30	4-11
	14-72	Sandy clay loam, clay loam, fine sandy loam.	CL, SC	A-6	95-100	90-100	85-100	45-70	28-40	11-20
38-----										
McAllen	0-14	Sandy clay loam	CL, SC,	A-6	100	100	95-100	36-55	29-40	11-20
	14-72	Sandy clay loam, clay loam, fine sandy loam.	CL, SC	A-6	95-100	90-100	85-100	45-70	28-40	11-20
39, 40, 41-----										
Mercedes	0-19	Clay-----	CH	A-7-6	85-100	80-100	80-100	75-95	55-76	32-49
	19-57	Clay-----	CH, CL-CH	A-7-6	85-100	80-100	80-100	75-95	50-76	32-49
	57-65	Clay-----	CH, CL	A-7-6	85-100	80-100	80-100	75-95	48-76	32-49
42-----										
Nueces	0-29	Fine sand-----	SP-SM, SM, SM-SC	A-2-4, A-3	100	95-100	90-100	8-35	<25	NP-6
	29-72	Sandy clay loam, sandy loam.	SC	A-2-6, A-6	90-100	90-100	80-100	20-50	25-40	11-20
43:*										
Nueces	0-29	Fine sand-----	SP-SM, SM, SM-SC	A-2-4, A-3	100	95-100	90-100	8-35	<25	NP-6
	29-72	Sandy clay loam, sandy loam.	SC	A-2-6, A-6	90-100	90-100	80-100	20-50	25-40	11-20
Sarita-----										
	0-48	Fine sand-----	SM-SC, SP-SM, SM	A-2-4, A-3	100	100	65-100	9-35	<25	NP-7
	48-80	Sandy clay loam, fine sandy loam.	SC	A-2-6, A-6	100	100	80-100	30-50	28-40	11-22
44-----										
Olmito	0-47	Silty clay-----	CH	A-7-6	100	100	100	90-100	51-70	28-44
	47-65	Silty clay, silty clay loam.	CH	A-7-6	95-100	90-100	85-100	85-100	51-70	28-44

See footnote at end of table.

160

Soil survey

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	4	10	40	200		
	<u>In</u>								<u>Pct</u>	
45,* 46,* 47.* Pits										
48, 49----- Racombe	0-13 13-49 49-72	Sandy clay loam Sandy clay loam, clay loam. Sandy clay loam, clay loam.	CL, SC CL, SC CL, SC	A-4, A-6 A-6, A-7 A-6	100 100 90-100	100 95-100 80-100	95-100 90-100 80-95	45-65 45-65 40-65	27-35 34-43 30-40	8-15 15-22 11-20
50----- Ramadero	0-21 21-65	Sandy clay loam Sandy clay loam, clay loam.	CL, SC CL, SC	A-6, A-4 A-6, A-7	100 100	100 95-100	95-100 90-100	45-65 45-65	27-39 32-42	9-18 13-21
51: * Randado-----	0-9 9-16 16-60	Fine sandy loam Fine sandy loam, sandy clay loam. Cemented-----	SM, SM-SC SC, SM-SC, GC ---	A-2-4 A-2-4, A-2-6, A-4, A-6 ---	75-100 65-100 ---	70-100 60-100 ---	70-100 60-100 ---	20-35 25-50 ---	<25 25-34 ---	NP-7 7-14 ---
Cuevitas-----	0-8 8-60	Fine sandy loam Cemented-----	SM, SM-SC, SC ---	A-2-4 ---	80-100 ---	80-100 ---	80-100 ---	20-35 ---	<28 ---	NP-9 ---
52, 53----- Raymondville	0-15 15-43 43-65	Clay loam----- Clay, clay loam Clay, clay loam	CL CL, CH CL, CH	A-6, A-7-6 A-6, A-7-6 A-7-6	100 100 100	100 95-100 85-100	95-100 95-100 80-100	51-85 75-95 75-95	37-50 38-55 40-53	18-30 19-35 20-30
54: * Raymondville----	0-15 15-43 43-65	Clay loam----- Clay, clay loam Clay, clay loam	CL CL, CH CL, CH	A-6, A-7-6 A-6, A-7-6 A-7-6	100 100 100	100 95-100 85-100	95-100 95-100 80-100	51-85 75-95 75-95	37-50 38-55 40-53	18-30 19-35 20-30
Urban land.										
55, 56----- Reynosa	0-15 15-48 48-65	Silty clay loam Silty clay loam, silt loam. Stratified silty clay loam to silt loam.	CL, CL-ML CL CL, CL-ML	A-6, A-4, A-7-6 A-6, A-4, A-7-6 A-6, A-4, A-7-6	100 100 100	100 100 100	95-100 95-100 90-100	80-100 80-100 70-100	25-45 28-44 20-49	7-25 9-23 4-29
57: * Reynosa-----	0-15 15-48 48-65	Silty clay loam Silty clay loam, silt loam. Stratified silty clay loam to silt loam.	CL, CL-ML CL CL, CL-ML	A-6, A-4, A-7-6 A-6, A-4, A-7-6 A-6, A-4, A-7-6	100 100 100	100 100 100	95-100 95-100 90-100	80-100 80-100 70-100	25-45 28-44 20-49	7-25 9-23 4-29
Urban land.										
58, 59----- Rio	0-12 12-38 38-63	Fine sandy loam Clay loam, clay Clay loam, sandy clay, sandy clay loam.	SC, SM-SC CL, CH CL	A-2-4, A-4 A-7-6 A-7-6	95-100 95-100 95-100	95-100 95-100 95-100	95-100 95-100 85-95	30-48 75-95 55-80	<30 43-57 41-50	5-10 21-32 20-27

See footnote at end of table.

Hidalgo County, Texas

161

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth In	USDA texture	Classification		Percentage passing sieve number--				Liquid limit Pot	Plas- ticity index
			Unified	AASHTO	4	10	40	200		
60, 61----- Rio	0-12 12-38 38-63	Clay loam----- Clay loam, clay Clay loam, sandy clay, sandy clay loam.	CL CL, CH CL	A-6, A-7 A-7-6 A-7-6	95-100 95-100 95-100	95-100 95-100 95-100	95-100 95-100 85-95	70-80 75-95 55-80	35-45 43-57 41-50	15-22 21-32 20-27
62----- Rio Grande	0-8 8-65	Silt loam----- Stratified silt loam to loamy very fine sand.	CL, CL-ML CL, CL-ML	A-4, A-6 A-4, A-6	100 100	100 100	95-100 95-100	70-95 70-100	20-30 20-33	4-12 4-12
63----- Rio Grande	0-8 8-65	Silty clay loam Stratified silt loam to loamy very fine sand.	CL CL, CL-ML	A-6, A-7 A-4, A-6	100 100	100 100	95-100 95-100	80-100 70-100	30-43 20-33	11-18 4-12
64, 65----- Runn	0-55 55-65	Silty clay----- Silty clay, silty clay loam, silt loam.	CH, CL CH, CL CL-ML	A-7-6 A-6 A-7-6, A-4	100 100	100 95-100	95-100 90-100	85-98 70-98	43-62 21-62	21-36 4-36
66----- Serita	0-48 48-80	Fine sand----- Sandy clay loam, fine sandy loam.	SH-SC, SP-SM, SM SC	A-2-4, A-3 A-2-6, A-6	100 100	100 100	65-100 80-100	9-35 30-50	<25 28-40	NP-7 11-22
67----- Tiocono	0-65	Clay-----	CH	A-7-6	100	100	95-100	85-100	56-76	33-49
68.* Urban land										
69.* Ustorthents										
70, 71----- Willacy	0-14 14-80	Fine sandy loam Sandy clay loam, fine sandy loam.	SC, SM-SC SC, CL	A-2-4, A-4 A-4, A-6	100 95-100	100 90-100	95-100 90-100	30-45 36-65	20-30 28-40	5-10 9-20
72.* Willacy-----	0-14 14-80	Fine sandy loam Sandy clay loam, fine sandy loam.	SC, SM-SC SC, CL	A-2-4, A-4 A-4, A-6	100 95-100	100 90-100	95-100 90-100	30-45 36-65	20-30 28-40	5-10 9-20
Urban land.										
73----- Zalla	0-9 9-65	Loamy fine sand Loamy fine sand, fine sand, sand.	SP-SM, SM SM-SC SP-SM, SM, SM-SC	A-2-4 A-2-4	95-100 95-100	95-100 95-100	70-85 70-85	10-25 10-25	<25 <25	NP-7 NP-7
74----- Zalla	0-9 9-65	Silt loam----- Loamy fine sand, fine sand, sand.	CL, CL-ML, ML SP-SM, SM, SM-SC	A-4, A-6 A-2-4	100 95-100	100 95-100	90-100 70-85	70-80 10-25	<30 <25	NP-11 NP-7

* See description of the map unit for composition and behavior characteristics of the map unit.

166

Soil survey

TABLE 18.--SOIL AND WATER FEATURES

["Flooding" and "water table" and terms such as "rare," "brief," "apparent," and "perched" are explained in the text. The symbol > means more than. Absence of an entry indicates that the feature is not a concern]

Map symbol and soil name	Hydro-logic group	Flooding			High water table			Cemented pan		Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hard-ness	Uncoated steel	Concrete
1.* Arents					<u>Ft</u>			<u>In</u>			
2----- Benito	D	Occasional	Long-----	Sep-May	4.0-6.0	Apparent	Sep-May	---	---	High-----	Low.
3, 4----- Brennan	B	None-----	---	---	>6.0	---	---	---	---	Moderate	Low.
5, 6----- Camargo	B	Rare-----	Brief-----	Sep-May	>6.0	---	---	---	---	Moderate	Low.
7----- Cameron	D	None-----	---	---	5.0-6.0	Apparent	Sep-May	---	---	High-----	Low.
8----- Comitas	A	None-----	---	---	>6.0	---	---	---	---	Low-----	Low.
9, 10, 11----- Delfina	B	None-----	---	---	2.5-5.0	Apparent	Sep-May	---	---	High-----	Low.
12----- Delmita	C	None-----	---	---	>6.0	---	---	20-40	Thin	Moderate	Low.
13.* Delmita-----	C	None-----	---	---	>6.0	---	---	20-40	Thin	Moderate	Low.
Randado-----	C	None-----	---	---	>6.0	---	---	8-20	Thin	Moderate	Low.
14----- Falfurrias	A	None-----	---	---	>6.0	---	---	---	---	Low-----	Low.
15** Grulla	D	Frequent-----	Very long	Sep-May	+2-6.0	Apparent	Sep-May	---	---	High-----	Low.
16, 17, 18----- Hargill	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
19----- Harlingen	D	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
20----- Harlingen	D	None-----	---	---	5.0-6.0	---	---	---	---	High-----	Moderate.
21.* Harlingen-----	D	None to rare	---	---	>6.0	---	---	---	---	High-----	Low.
Urban land.											
22, 23, 24----- Hebbronville	B	None-----	---	---	>6.0	---	---	---	---	Low-----	Low.
25, 26, 27, 28, 29----- Hidalgo	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
30----- Hidalgo	B	None-----	---	---	2.5-5.0	Apparent	Sep-May	---	---	High-----	Low.
31.* Hidalgo-----	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
Urban land.											
32.* Jimenez-----	C	None-----	---	---	>6.0	---	---	7-20	Thin	High-----	Low.

See footnotes at end of table.

Hidalgo County, Texas

167

TABLE 18.--SOIL AND WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table			Cemented pan		Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hard- ness	Uncoated steel	Concrete
					<u>Ft</u>			<u>In</u>			
32:*											
Quemado-----	C	None-----	---	---	>6.0	---	---	10-20	Thin	Moderate	Low.
33-----	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
Laredo-----											
34-----	C	Occasional	Long-----	Sep-May	>6.0	---	---	---	---	High-----	Low.
Matamoros-----											
35, 36, 37, 38----	C	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
McAllen-----											
39, 40, 41-----	D	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
Mercedes-----											
42-----	C	None-----	---	---	>6.0	---	---	---	---	Moderate	Low.
Nueces-----											
43:*											
Nueces-----	C	None-----	---	---	>6.0	---	---	---	---	Moderate	Low.
Sarita-----	A	None-----	---	---	>6.0	---	---	---	---	Low-----	Low.
44, 44-----	D	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
Olmito-----											
45,* 46,* 47.*											
Pits-----											
48-----	B	Rare-----	---	---	>6.0	---	---	---	---	High-----	Low.
Racombe-----											
49-----	B	Rare-----	---	---	1.5-4.5	Apparent	Sep-May	---	---	High-----	Low.
Racombe-----											
50-----	B	Common-----	Brief-----	Sep-May	>6.0	---	---	---	---	High-----	Low.
Ramadero-----											
51:*											
Randado-----	C	None-----	---	---	>6.0	---	---	8-20	Thin	Moderate	Low.
Cuevitas-----	D	None-----	---	---	>6.0	---	---	8-14	Thin	Moderate	Low.
52-----	D	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
Raymondville-----											
53-----	D	None-----	---	---	2.5-4.5	Apparent	Sep-May	---	---	High-----	Low.
Raymondville-----											
54:*											
Raymondville-----	D	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
Urban land.											
55-----	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
Reynosa-----											
56-----	B	None-----	---	---	1.5-4.5	Apparent	Sep-May	---	---	High-----	Low.
Reynosa-----											
57:*											
Reynosa-----	B	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
Urban land.											
58**-----	D	Frequent-----	Long-----	Sep-May	+2-6.0	Apparent	Sep-May	---	---	High-----	Low.
Rio-----											
59**-----	D	Frequent-----	Long-----	Sep-May	+2-4.5	Apparent	Sep-May	---	---	High-----	Low.
Rio-----											

See footnotes at end of table.

168

Soil survey

TABLE 18.--SOIL AND WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table			Cemented pan		Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hard- ness	Uncoated steel	Concrete
60**----- Rio	D	Frequent----	Long-----	Sep-May	+2-6.0	Apparent	Sep-May	---	---	High-----	Low.
61**----- Rio	D	Frequent----	Long-----	Sep-May	+2-4.5	Apparent	Sep-May	---	---	High-----	Low.
62, 63----- Rio Grande	B	Rare-----	Brief-----	Sep-May	>6.0	---	---	---	---	High-----	Low.
64----- Runn	D	None-----	---	---	>6.0	---	---	---	---	High-----	Low.
65----- Runn	D	None-----	---	---	2.5-5.0	Apparent	Sep-May	---	---	High-----	Low.
66----- Sarita	A	None-----	---	---	>6.0	---	---	---	---	Low-----	Low.
67**----- Tiocano	D	Frequent----	Long-----	Sep-May	+3-6.0	Perched	Sep-May	---	---	High-----	Low.
68.* Urban land											
69.* Ustorthents											
70, 71----- Willacy	B	None-----	---	---	>6.0	---	---	---	---	Moderate	Low.
72:* Willacy----- Urban land.	B	None-----	---	---	>6.0	---	---	---	---	Moderate	Low.
73----- Zalla	A	Occasional	Brief-----	Sep-May	>6.0	---	---	---	---	High-----	Low.
74----- Zalla	A	Rare-----	Brief-----	Sep-May	>6.0	---	---	---	---	High-----	Low.

* See description of the map unit for composition and behavior characteristics of the map unit.
** In the "High water table--Depth" column, a plus sign preceding the range in depth indicates that the water table is above the surface of the soil. The first numeral in the range indicates how high the water rises above the surface. The second numeral indicates the depth below the surface.

Hidalgo County, Texas

153

TABLE 15.--WATER MANAGEMENT

[Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not evaluated]

Map symbol and soil name	Limitations for--		Features affecting--			
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions	Grassed waterways
1: # Arents						
2----- Benito	Moderate: seepage.	Moderate: hard to pack, excess salt.	Peres slowly, excess salt.	Slow intake, peres slowly, excess salt.	Peres slowly---	Excess salt, peres slowly.
3, 4----- Brennan	Moderate: seepage.	Moderate: piping.	Favorable-----	Favorable-----	Favorable-----	Favorable.
5, 6----- Camargo	Moderate: seepage.	Moderate: piping.	Floods-----	Erodes easily	Erodes easily	Erodes easily.
7----- Cameron	Severe: seepage.	Moderate: piping.	Favorable-----	Slow intake---	Favorable-----	Favorable.
8----- Comitas	Severe: seepage.	Moderate: seepage, piping.	Cutbanks cave	Droughty, fast intake.	Too sandy, soil blowing.	Droughty.
9----- Delfina	Moderate: seepage.	Moderate: wetness.	Favorable-----	Wetness, droughty, fast intake.	Soil blowing---	Favorable.
10, 11----- Delfina	Moderate: seepage.	Moderate: wetness.	Favorable-----	Wetness-----	Favorable-----	Favorable.
12----- Delmita	Severe: seepage.	Moderate: thin layer.	Cemented pan---	Soil blowing, cemented pan.	Cemented pan, soil blowing.	Cemented pan.
13: # Delmita-----	Severe: seepage.	Moderate: thin layer.	Cemented pan---	Soil blowing, cemented pan.	Cemented pan, soil blowing.	Cemented pan.
Randado-----	Severe: cemented pan, seepage.	Severe: thin layer.	Cemented pan---	Cemented pan---	Cemented pan---	Cemented pan.
14----- Falfurrias	Severe: seepage.	Severe: seepage, piping.	Cutbanks cave	Droughty, fast intake.	Too sandy-----	Droughty.
15----- Grulla	Slight-----	Severe: hard to pack, ponding.	Ponding, peres slowly, floods.	Ponding, slow intake, peres slowly.	Ponding, peres slowly.	Wetness, peres slowly.
16, 17----- Hargill	Moderate: seepage.	Moderate: piping.	Favorable-----	Favorable-----	Favorable-----	Favorable.
18----- Hargill	Moderate: seepage, slope.	Moderate: piping.	Slope-----	Slope-----	Favorable-----	Favorable.
19----- Harlingen	Slight-----	Severe: hard to pack.	Peres slowly---	Slow intake, peres slowly.	Peres slowly---	Excess salt, peres slowly.
20----- Harlingen	Slight-----	Moderate: hard to pack, excess salt.	Peres slowly, excess salt.	Droughty, slow intake, peres slowly.	Peres slowly---	Excess salt, droughty, peres slowly.
21: # Harlingen-----	Slight-----	Severe: hard to pack.	Peres slowly---	Slow intake, peres slowly.	Peres slowly---	Excess salt, peres slowly.
Urban land.						

See footnote at end of table.

154

Soil survey

TABLE 15.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--		Features affecting--			
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions	Grassed waterways
22, 23, 24----- Hebbronville	Severe: seepage.	Moderate: piping.	Favorable-----	Favorable-----	Soil blowing---	Favorable.
25, 26----- Hidalgo	Moderate: seepage.	Moderate: piping.	Favorable-----	Favorable-----	Favorable-----	Favorable.
27----- Hidalgo	Moderate: seepage, slope.	Moderate: piping.	Slope-----	Slope-----	Favorable-----	Favorable.
28, 29----- Hidalgo	Moderate: seepage.	Moderate: piping.	Favorable-----	Favorable-----	Favorable-----	Favorable.
30----- Hidalgo	Moderate: seepage.	Moderate: piping, wetness, excess salt.	Excess salt----	Wetness, excess salt.	Wetness-----	Excess salt, droughty.
31: * Hidalgo----- Urban land.	Moderate: seepage.	Moderate: piping.	Favorable-----	Favorable-----	Favorable-----	Favorable.
32: * Jimenez-----	Severe: cemented pan.	Severe: thin layer.	Cemented pan---	Droughty, cemented pan, slope.	Large stones, cemented pan.	Large stones, droughty.
Quemado-----	Severe: cemented pan.	Severe: seepage.	Cemented pan---	Droughty, cemented pan, slope.	Large stones, cemented pan.	Large stones, droughty, cemented pan.
33----- Laredo	Severe: seepage.	Moderate: piping.	Favorable-----	Erodes easily	Erodes easily	Erodes easily.
34----- Matamoros	Slight-----	Moderate: hard to pack.	Peres slowly, floods.	Slow intake, peres slowly, floods.	Peres slowly---	Peres slowly.
35, 36, 37, 38--- McAllen	Moderate: seepage.	Moderate: piping.	Favorable-----	Favorable-----	Favorable-----	Favorable.
39----- Mercedes	Slight-----	Severe: hard to pack.	Peres slowly---	Slow intake, peres slowly.	Peres slowly---	Peres slowly.
40----- Mercedes	Slight-----	Severe: hard to pack.	Peres slowly---	Slow intake, peres slowly, excess salt.	Peres slowly---	Excess salt, droughty, peres slowly.
41----- Mercedes	Slight-----	Severe: hard to pack.	Peres slowly---	Slow intake, peres slowly.	Peres slowly---	Peres slowly.
42----- Nueces	Moderate: seepage.	Severe: seepage, piping.	Cutbanks cave	Droughty, fast intake.	Too sandy, soil blowing.	Droughty.
43: * Nueces-----	Moderate: seepage.	Severe: seepage, piping.	Cutbanks cave	Droughty, fast intake.	Too sandy, soil blowing.	Droughty.
Sarita-----	Severe: seepage.	Severe: seepage, seepage.	Cutbanks cave	Droughty, fast intake.	Too sandy-----	Droughty.
44----- Olmito	Slight-----	Moderate: hard to pack.	Peres slowly---	Slow intake, peres slowly.	Peres slowly---	Peres slowly.

See footnote at end of table.

Hidalgo County, Texas

155

TABLE 15.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--		Features affecting--			
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions	Grassed waterways
45,* 46,* 47.* Pits						
48----- Racombes	Moderate: seepage.	Slight-----	Favorable-----	Favorable-----	Favorable-----	Favorable.
49----- Racombes	Moderate: seepage.	Severe: wetness, excess salt.	Excess salt----	Wetness, droughty, excess salt.	Wetness-----	Excess salt, droughty.
50----- Ramadero	Moderate: seepage.	Moderate: piping.	Floods-----	Floods-----	Favorable-----	Favorable.
51:* Randado-----	Severe: cemented pan, seepage.	Severe: thin layer.	Cemented pan---	Cemented pan---	Cemented pan---	Cemented pan.
Cuevitas-----	Severe: cemented pan, seepage.	Severe: thin layer.	Cemented pan---	Cemented pan---	Cemented pan---	Cemented pan.
52----- Raymondville	Slight-----	Moderate: hard to pack.	Percs slowly---	Slow intake, percs slowly.	Percs slowly---	Percs slowly.
53----- Raymondville	Slight-----	Severe: excess salt.	Percs slowly, excess salt.	Wetness, droughty, excess salt.	Wetness, percs slowly.	Excess salt, droughty, percs slowly.
54:* Raymondville-----	Slight-----	Moderate: hard to pack.	Percs slowly---	Slow intake, percs slowly.	Percs slowly---	Percs slowly.
Urban land.						
55----- Reynosa	Severe: seepage.	Moderate: thin layer, piping.	Favorable-----	Erodes easily	Erodes easily	Erodes easily.
56----- Reynosa	Severe: seepage.	Moderate: piping, wetness, excess salt.	Excess salt----	Wetness, excess salt, erodes easily.	Erodes easily, wetness.	Excess salt, erodes easily, droughty.
57:* Reynosa-----	Severe: seepage.	Moderate: thin layer, piping.	Favorable-----	Erodes easily	Erodes easily	Erodes easily.
Urban land.						
58----- Rio	Slight-----	Severe: ponding.	Ponding, percs slowly, floods.	Ponding, percs slowly, floods.	Ponding, percs slowly.	Wetness, percs slowly.
59----- Rio	Slight-----	Severe: ponding, excess salt.	Ponding, percs slowly, floods.	Ponding, droughty, percs slowly.	Ponding, percs slowly.	Wetness, excess salt, droughty.
60----- Rio	Slight-----	Severe: ponding.	Ponding, percs slowly, floods.	Ponding, percs slowly, floods.	Ponding, percs slowly.	Wetness, percs slowly.
61----- Rio	Slight-----	Severe: ponding, excess salt.	Ponding, percs slowly, floods.	Ponding, droughty, percs slowly.	Ponding, percs slowly.	Wetness, excess salt, droughty.
62, 63----- Rio Grande	Severe: seepage.	Severe: piping.	Floods-----	Erodes easily, floods.	Erodes easily	Erodes easily.

See footnote at end of table.

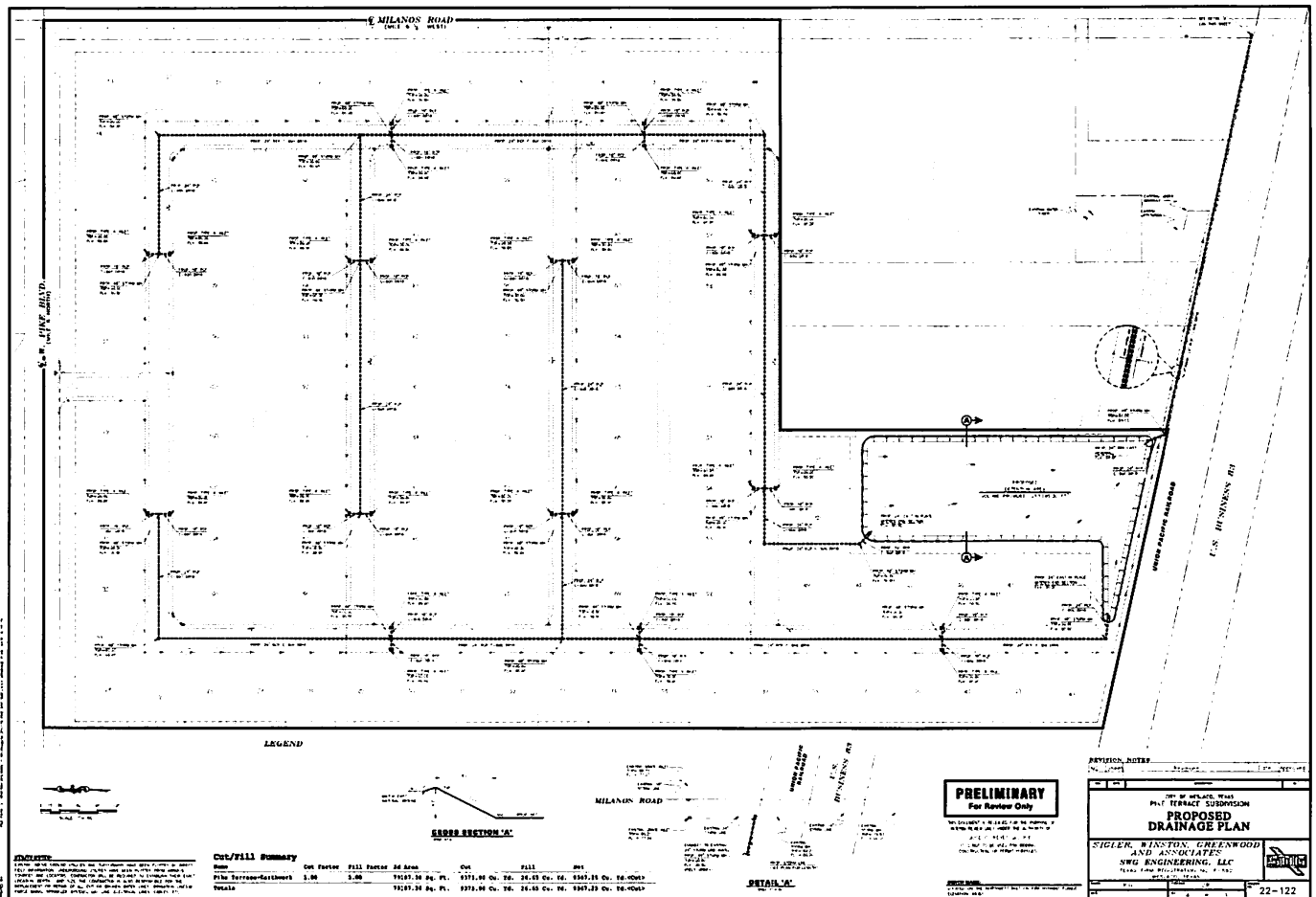
156

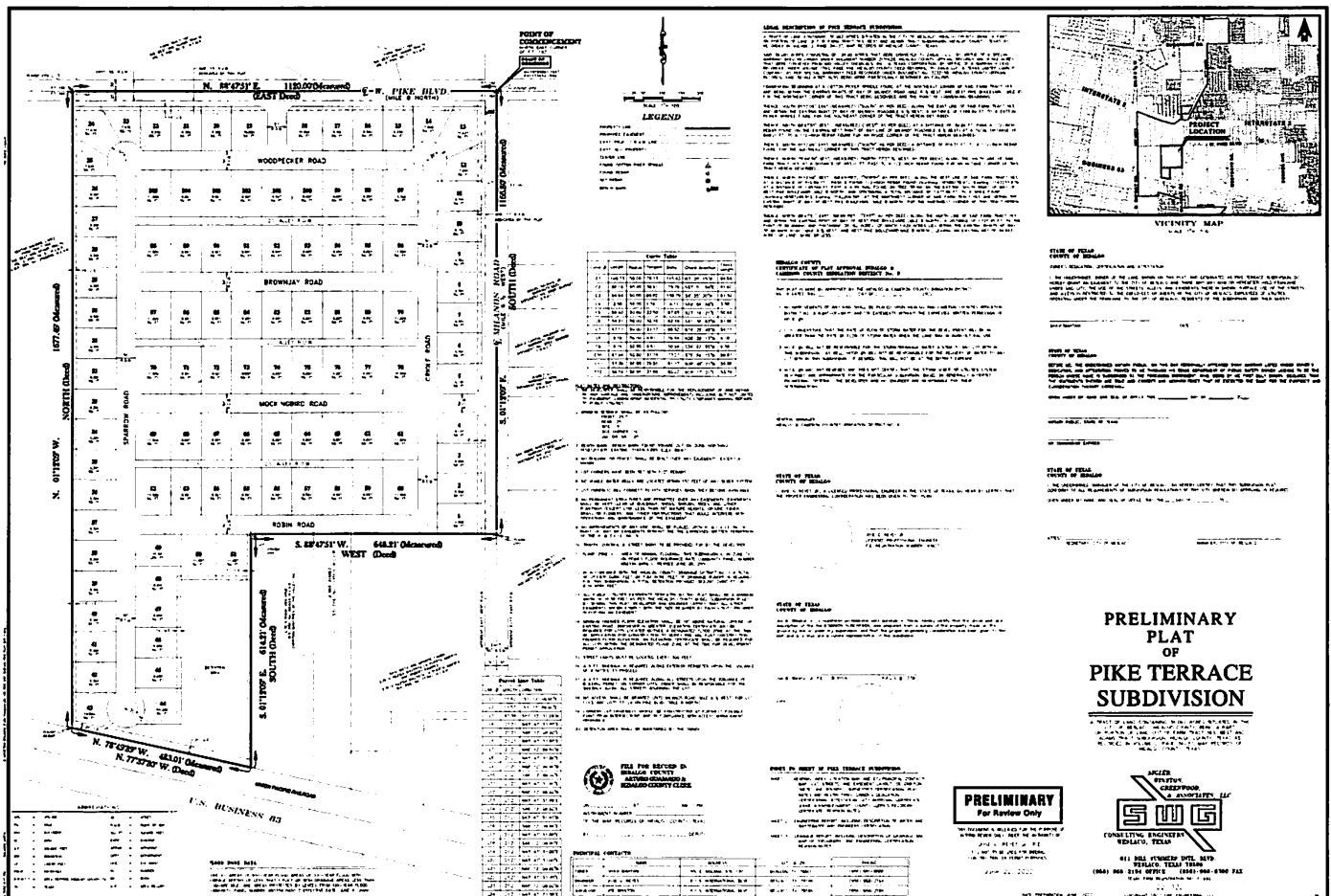
Soil survey

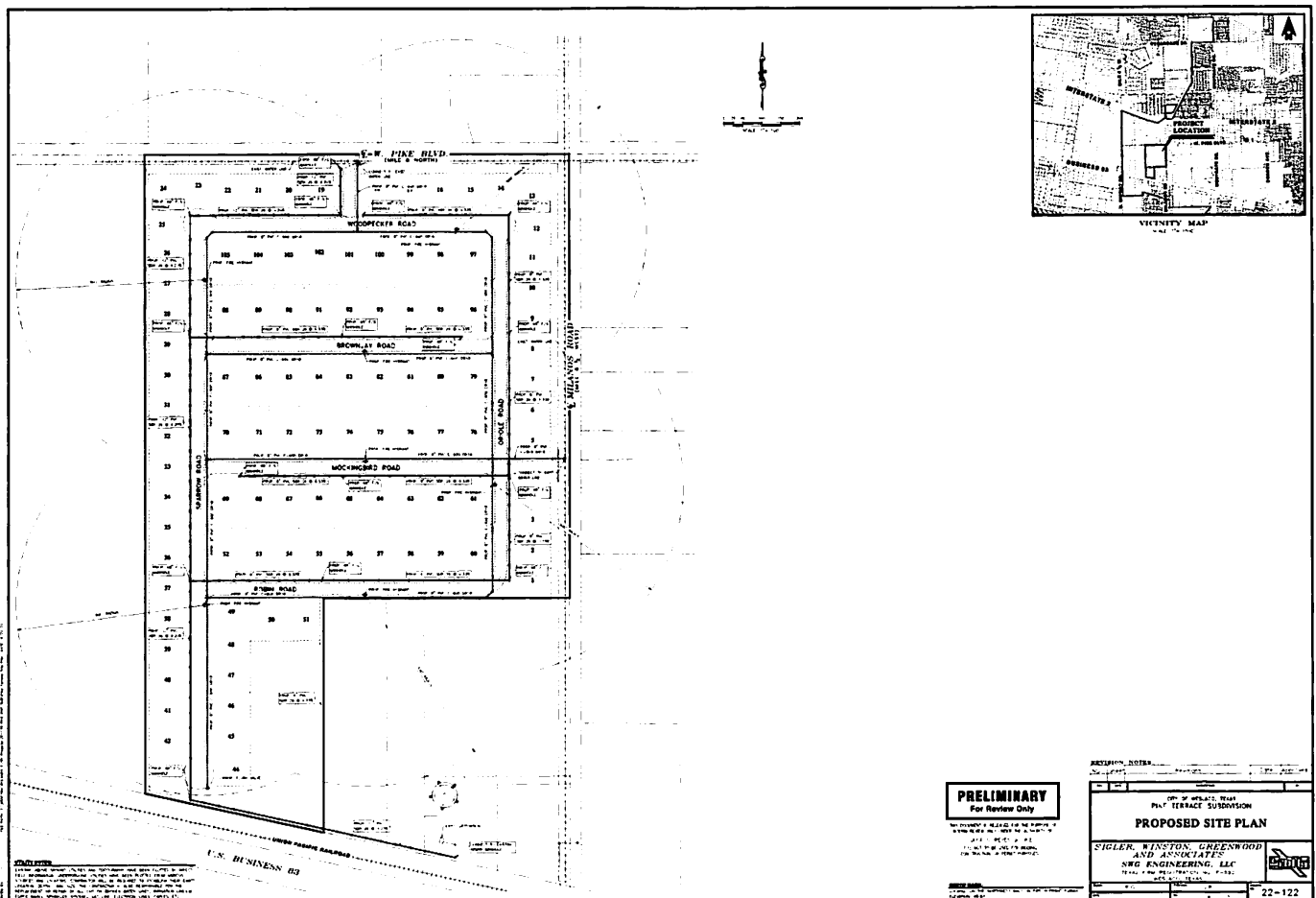
TABLE 15.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--		Features affecting--			
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions	Grassed waterways
64----- Runn	Moderate: seepage.	Moderate: hard to pack.	Peres slowly---	Slow intake, peres slowly, excess salt.	Peres slowly---	Peres slowly.
65----- Runn	Moderate: seepage.	Moderate: hard to pack, wetness, excess salt.	Peres slowly, excess salt.	Slow intake, peres slowly, excess salt.	Wetness, peres slowly.	Excess salt, erodes easily, peres slowly.
66----- Sarita	Severe: seepage.	Severe: seepage, seepage.	Cutbanks cave	Droughty, fast intake.	Too sandy-----	Droughty.
67----- Tiocano	Slight-----	Severe: hard to pack, ponding.	Ponding, peres slowly, floods.	Ponding, slow intake, peres slowly.	Ponding, peres slowly.	Wetness, peres slowly.
68.* Urban land						
69.* Ustorthents						
70, 71----- Willacy	Moderate: seepage.	Slight-----	Favorable-----	Favorable-----	Favorable-----	Favorable.
72.* Willacy----- Urban land.	Moderate: seepage.	Slight-----	Favorable-----	Favorable-----	Favorable-----	Favorable.
73, 74----- Zalla	Severe: seepage.	Severe: seepage, piping.	Floods-----	Droughty, fast intake.	Too sandy-----	Droughty.

* See description of the map unit for composition and behavior characteristics of the map unit.



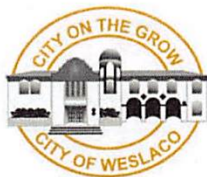






**Planning & Zoning Commission
Standardized Agenda Request Form**

Date of Meeting: October 5, 2022	Agenda Item No. (to be assigned by PCE): V. B.
From: Rebekah de la Fuente, Planning Director, on behalf of Dustin Moore.	
Subject/Agenda Item: Discussion and consideration for the Preliminary and/or Final Plat for Rock Ridge – being 15.092 acres out of Farm Tract 631 & 633, West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas located approximately 500 ft west of Bus. 83 and Westgate on the south side of Bus. 83. Possible Action.	
Discussion/Overview: The proposed one (2) lot subdivision is inside the City of Weslaco. This subdivision is being serviced with water by the City of Weslaco through an 8" waterline and sewer by the City of Weslaco through a 12" sewer line. The property is within a Flood Zone "X". Developer has removed original plat note 7 and updated easement to reflect utility and access easement.	
If item requires Publication Notice, provide date and periodical of publication; indicate if comments received from letters mailed to property owners: N/A	
Staff recommendation for Commission's Action: Staff recommends approval.	
Additional Action Prompted: [X] Mayor's Signature [] Public Hearing [] Budget Amendment [] Resolution [] Ordinance – First Reading [] Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Subdivision platting, Staff's comments, Drainage Report, Subdivision plat and Utility layout.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	



SUBDIVISION PLATTING APPLICATION

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. PIAT-000272-2022

This form shall be completed by the Property Owner or Applicant and submitted to the Planning Department along with the required number of copies of the respective plat, review fee and all other required information listed below and in the Subdivision Ordinance. The submittal of an application does not constitute acceptance for processing until the staff reviews and determines the application is complete.

STAFF USE ONLY

☐ Single Lot Variance ☐ Minor Plat ☐ Planned Unit Development ☐ Standard Subdivision

GENERAL INFORMATION

Name of Subdivision: ROCK RIDGE ESTATES

Location: 500' WEST OF BUS 83 + WESTGATE ON S SIDE OF BUS 83

Legal Description: 15.092 AC. OUT OF FT 631 + 633 WEST ADD
ADAMS SUBDIVISION

Is subdivision inside city limits? ☒ YES ☐ NO

If subdivision is in the ETJ, indicate? ☐ 3.5 Mile ☐ 5 Mile

If no submit letter of Annexation (Contiguous or Consensual)

Existing Zoning: _____

Existing Land Use: MF Proposed Land Use: MF

Number of Lots Proposed: 2 Gross Acreage: 15.092

Title Report Submitted: ☐ YES ☐ NO

OWNER INFORMATION

Owner's Name: FOUR RIGHT INVES. PARTNERS Telephone: 956-561-9587

Address: 3255 WILSHIRE BLVD Fax: _____

City: LOS ANGELES State: CA Zip: 90010 E-mail: _____

ENGINEER INFORMATION

Name: DUSTIN MOORE Telephone: 956-245-4651

Address: 14792 PALIS DR Fax: _____

City: LA FERIA State: TX Zip: 76559 E-mail: D.MOORE1420SURVEY124@gmail.com

UTILITY PROVISIONS

Will proposed subdivision connect to:

☒ YES ☐ NO Water Provision: WESLACO

☒ YES ☐ NO Wastewater Provision: WESLACO

☒ YES ☐ NO Electric Company: AT&T

☐ YES ☒ NO Phone Utility _____	☐ YES ☒ NO Gas Utility _____	☒ YES ☐ NO Cable Utility _____
---	---	---

Proposed subdivision is in the following districts:

☒ YES ☐ NO Drainage District <u>HCD 1</u>	☒ YES ☐ NO Irrigation District <u>HCD #9</u>
--	---

Has the property been assessed as flat rate irrigable property: ☐ YES ☒ NO

Have Water Rights been conveyed to City/Water Supplier? ☒ YES ☒ NO

(Attach written proof of such assessment or that it has never been assessed as such a property) If YES, attach an estimate from the irrigation district of the proportional water rights for the subdivision as calculated under Texas Water Code § 49.505.

SUBMITTALS REQUIRED FOR MINOR PLAT REVIEW

Two (2) sets of plats **folded and stapled** (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov

\$355.00 Planning Review fee

One 11" X 17" reduced copy of plat

Plat Layout

Existing & Proposed Easements

Existing & Proposed ROW

Existing & Proposed Drainage Easements

Contours

Flood Zones

Adjoiners

Existing street names

Drainage plans and calculations with engineer's seal

Elevations

Flood directional arrows

Detention areas

Street names

Proof of ownership of the property

If septic tank system required, submit soil evaluation report

Water Rights associated with the property

Tax Receipt for all taxing entities showing that taxes are paid in full

SUBMITTALS REQUIRED FOR PRELIMINARY (P & Z)

☒ Twelve (12) sets of preliminary plat **folded and stapled** (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov

☒ \$350.00 (one time fee for preliminary and final plat)

☒ One 11" X 17" reduced copy of plat

☒ Plat Layout

☒ Existing & Proposed Easements

☒ Existing & Proposed ROW

☒ Existing & Proposed Drainage Easements

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

- ☒ Contours
- ☒ Flood Zones
- ☒ Adjoiners
- ☒ Existing & Proposed street names
- ☒ Utility Layout
- ☒ Existing & Proposed Utilities
- ☒ Proposed Fire Hydrants
- ☒ Adjoiners
- ☒ Street names
- ☒ Drainage plans and calculations with engineer's seal
- ☒ Elevations
- ☒ Flood directional arrows
- ☒ Detention areas
- ☒ Street names
- ☒ Proof of ownership of the property
- ☒ If septic tank system required, submit soil evaluation report
- ☐ Water Rights associated with the property
- ☐ Tax Receipt for all taxing entities showing that taxes are paid in full
- ☐ Number of fire hydrants proposed for subdivision
- ☐ Trip Generation Worksheet

SUBMITTALS REQUIRED FOR FINAL (P & Z) **Will not apply to Single Lot Variance**

- ☐ Twelve (12) sets of plans **FOLDED & STAPLED** (24 x 36) & PDF copy **with all corrections**
- ☐ Plats to be sealed by Professional Engineer
- ☐ Approved Drainage Report
- ☐ Traffic Impact Analysis (If required)

SUBMITTALS REQUIRED FOR FINAL (City Commission)

- ☐ One set of 8 ½ x 11 of plat and utilities with all corrections done

SUBMITTALS REQUIRED FOR PRE-CONSTRUCTION MEETING

- ☐ Seven (7) full sets of construction plans 24 x 36 and one (1) 11 x 17 with plan & profile.
- ☐ Engineering cost estimates for 3% geotechnical testing fees and 2% inspection fees
- ☐ Notice of Intent
- ☐ SW3P

SUBMITTALS REQUIRED FOR RECORDING OR HIDALGO COUNTY PLANNING

- ☐ Electronic file of final plat and as-builds
- ☐ Reproducible plat to be recorded with all required signatures
- ☐ 3% geotechnical testing fees or negotiated Material Testing fee by City, whichever is higher
- ☐ 2% inspection fee
- ☐ Park Fees
- ☐ Checks or Receipts: HCCID #9; HCDD #1; County Clerk
- ☐ Tax certificates
- ☐ Memo from engineering inspector releasing subdivision
- ☐ Water Rights associated with the property dedicated and assigned to City of Weslaco or payment of fees sufficient to meet the needs necessitated and attributable to development
- ☐ 30 Year Water and 30 Year Sewer Service Agreements
- ☐ Park dedication/Fees in lieu of

SUBMITTALS REQUIRED FOR RECORDING BY SECURITY

- ☐ Sealed engineering cost estimates
- ☐ Letter of Credit/Performance Bond/Escrow

** Any revisions requested would require resubmission of plats and reduced copy reflecting changes.

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

Owner Printed Name: _____

Owner Signature: _____ Date: _____

_____ is the authorized agent

Authorized Agent Signature: *[Signature]* Date: 22 July 22

Authorized Agent Printed Name: Dustin Moore

THIS PAGE FOR STAFF USE ONLY

Date Received: _____ Received By: _____ Date Paid: _____

P & Z Commission Approval on Preliminary Plat: _____

P & Z Commission Approval on Final Plat: _____

City Commission Approval on Final Plat: _____

Preconstruction Meeting Date: _____

Date Recorded: _____ Instrument No. _____

General Comments: _____

DRAINAGE STATEMENT
FOR
ROCK RIDGE ESTATES

APRIL 2022
(REV* 18MAY22)



Prepared by:

Moore Land Surveying, LLC

14216 Palis Drive,
La Feria, TX 78559

(956)245-0988

TBPLS Firm No. 10194186
TBPE Firm No. 19190

DRAINAGE STATEMENT ROCK RIDGE ESTATES

REV* 18 MAY 2022

ROCK RIDGE ESTATES is a 15.092 ac. tract of land inside the city limits of the City of Weslaco. The property is located 425' west of the intersection of US Business 83 and Westgate Drive. The property is being developed into three (3) lots, one being 0.67 Ac. and two approximately 7.00 Ac. lots. The property is currently undeveloped and is in heavy brush. The proposed use of the property shall be for Apartment Units. The time of concentration was calculated using the "C" value for unimproved areas. The subdivision lies in Zone "X-Shaded" as per the National Flood Insurance Rate Map of Community No. 480334 panel number 0450, suffix "C", revised January 2, 1981, per the National Flood Insurance Rate Map of Community No. 480334 panel number 0450 suffix "C", revised June 6, 2000 (revised by the following LOMR's: 02-06-715p-480334 dated 5/30/2002; 15-06-2601p-480334 dated 12/24/2015; and 18-06-0700p-480334 dated 10/05/2018) Zone "X-Shaded" is an "area inside the 500-year flood plain". The plat will call for any new structure's finished floor elevation to be at elevation 82.50 ft. or 30" above natural ground whichever is higher in order to ensure the finished floor elevation is above the 100-year flood plain in order to mitigate flood damage.

The soils are 17% Sandy Loam (25), 1% Sandy Loam (26), and 82% Sandy Clay Loam (28) which are in hydrologic soil group "B" with moderate infiltration. (See excerpts from "Soil Survey of Hidalgo County, Texas")

Existing runoff of the land is by surface flow in a southwesterly direction into the City of Weslaco storm drains inside the property, where it flows through a 30" storm drain 2238' north and west to the HCDD No. 1 Drain north of Tesoro Drive, ultimately out-falling into the Arroyo Colorado, then Laguna Madre.

The proposed drainage for ROCK RIDGE ESTATES shall consist of allowing runoff to continue to surface flow in a southwesterly direction into the City of Weslaco storm drains inside the property, where it flows through an 30" storm drain 2238' north and west to the HCDD No. 1 Drain north of Tesoro Drive, ultimately out-falling into the Arroyo Colorado, then Laguna Madre. Per the City of Weslaco Drainage Policy, detention large enough to detain the post development 50-year event runoff for each lot site plan while discharging the pre-developed 10-year event for each lot is required to be installed at the time the permitting and site development before each lot is completed in order to have no negative impact on the Weslaco Storm sewer system. Until the site is changed from existing conditions no detention will be installed. For this site the pre-developed run-off is 6.23 CFS with an 80 min. pre-developed Tc, and 34 min. post-developed Tc. Based on the Modified Rational Method the largest detention volume produced was for a 5 min duration and produced 7,246 CF released at the 10-year existing conditions, had 166,009 CF inflow at 50-year proposed conditions, and resulted in a required final total storage volume of 158,763 CF. Run-off and detention were calculated assuming each lot would be apartment dwellings.



By: T. Moore 12/24/22
Dustin Moore, PE Date

☐ REJECTED	
☒ APPROVED FOR SUBMITTAL	
☐ TO H.C. PLANNING DEPT.	
☒ TO CITY	
☒ DISCHARGE PERMIT REQUIRED	
☐ DISTRICT FACILITY	
☒ CITY FACILITY	
☐ OTHER	
<u>6-6-22</u> H.C.D.D. NO. 1 DATE	

INDEX TO EXHIBITS

HYDRAULIC CALCULATIONS:	4
TIME OF CONCENTRATION CALCULATIONS:	5
RATIONAL METHOD “C” VALUES:	6
PROPOSED LAYOUT AND WEIGHTED “C” VALUE:	7
RAINFALL INTENSITY – DURATION CURVES:	8
FINAL PLAT:	9
PRELIMINARY PLAT:	10
FIRM MAP:	11
USGS MAP:	12
NRCS SOIL SURVEY MAP:	13

ROCK RIDGE ESTATES
Drainage Calculations
REV* 18MAY22

Pre-developed Conditions

Area = 15.09 AC
"C" = 0.15 (10) YR
Tc = 80 MIN
Q10pre = 2.75 (10)=IN/HR
6.23 CFS

Developed Conditions

Detention...50 year storm							
C FACTOR	STORM	DRAINAGE		INFLOW RATE	RELEASE VOL.	INFLOW VOL.	STORAGE REQ'D
	DURATION T(HR)	AREA A(AC)	Q1=CIA (CFS)	Vo=(.5*(T+Tc Dev))*Q10 Pre*60 (CF)	V1=(.5*(T+Tc Dev))*Q1*60 (CF)	V1-Vo (CF)	
0.70	0.08	13.50	15.09	142.62	7,246	166,009	158,763
0.70	0.17	11.00	15.09	116.21	8,255	154,092	145,837
0.70	0.25	9.00	15.09	95.08	9,151	139,767	130,616
0.70	0.33	8.00	15.09	84.52	10,048	136,408	126,360
0.70	0.50	6.50	15.09	68.67	11,953	131,844	119,891
0.70	0.67	5.25	15.09	55.46	13,858	123,461	109,603
0.70	0.83	4.75	15.09	50.18	15,651	126,155	110,504
0.70	1.00	4.25	15.09	44.90	17,556	126,614	109,059
0.70	1.50	3.25	15.09	34.33	23,159	127,724	104,565
0.70	2.00	2.75	15.09	29.05	28,762	134,221	105,459
0.70	3.00	1.90	15.09	20.07	39,967	128,865	88,897
0.70	4.00	1.50	15.09	15.85	51,173	130,259	79,086
Detention required =		158,763 CF					3,645 AC-FT

***Run-off and detention were calculated assuming each lot would be apartment dwellings.



[Handwritten signature]
10/5/22

TABLE 1
TIME OF CONCENTRATION DETERMINATION
WESLACO, TX

			OVERLAND FLOW			CHANNEL, PIPE, STREET, ETC. FLOW					
COMPUTATION POINT	DESCRIPTION OF RUN-OFF MEDIUM	C	LENGTH (FT)	GRADE (%)	TIME (MIN)	WIDTH/DIA (FT)	GRADE (%)	LENGTH (FT)	VELOCITY (FPS)	TIME (MIN)	TOTAL TIME (MIN)
WESLACO APARTMENTS-PRE DEVELOPED											
GRATE INLET IN MIDDLE OF THE PROPERTY	UNIMPROVED	0.30	890	0.45	56						56
STORM DRAIN							0.15	1763	1.75	17	17
WESLACO APARTMENTS - POST DEVELOPED											73
GRATE INLET IN MIDDLE OF THE PROPERTY	LAWN	0.30	80	0.50	16						16
GUTTER							0.20	150	1	3	3
STORM DRAIN							0.15	1650	1.75	16	16
											34

TIME OF CONCENTRATION

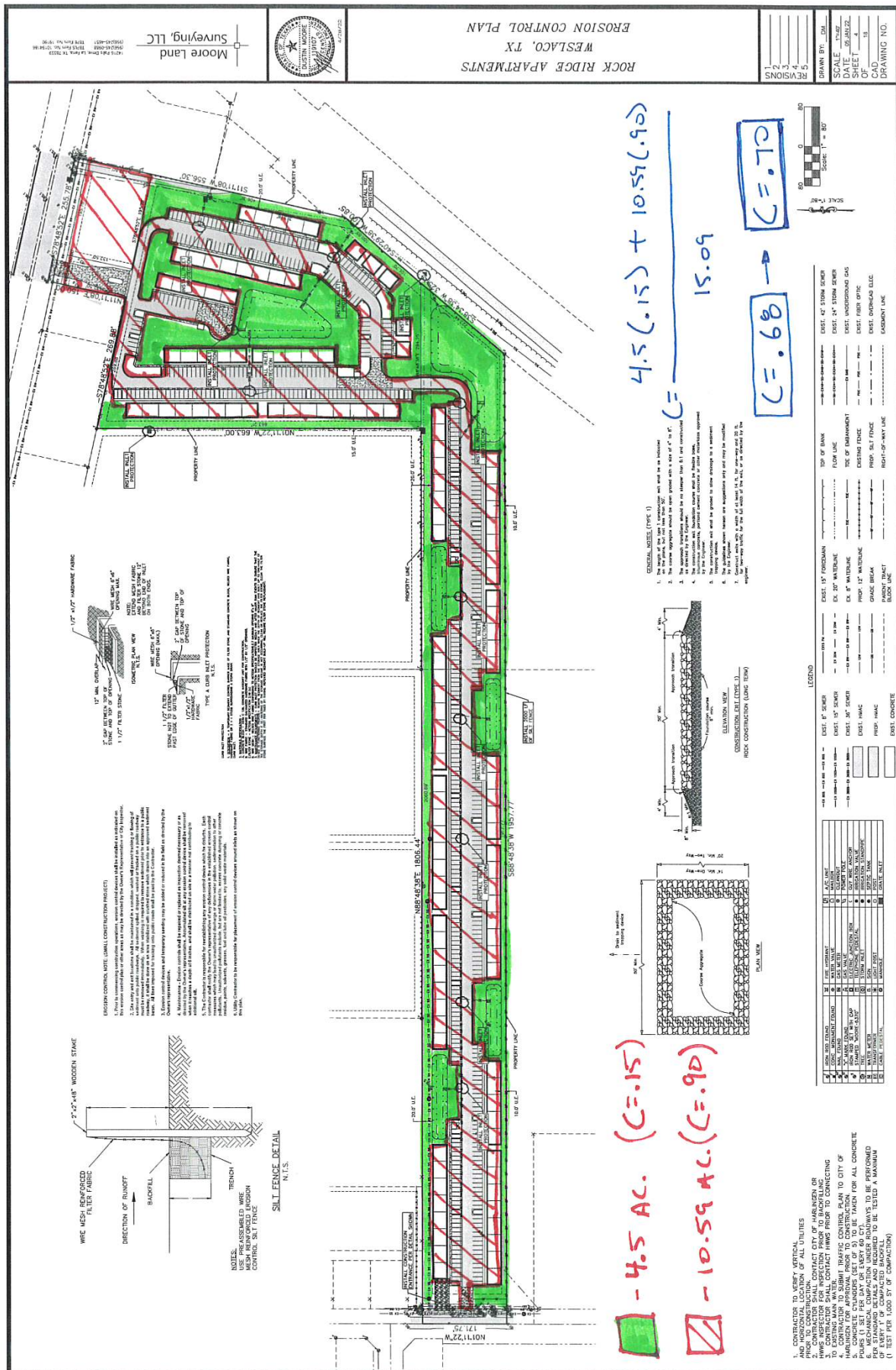
A) FOR OVERLAND FLOW: TIME= $\frac{1.8*(1.1 - C)*\sqrt[4]{L}}{\text{CUBEROOT (S)}}$

B) FOR STORM SEWERS, STREETS, CHANNELS, ETC. USE MANNING'S EQUATION.

C) $T_c = \frac{L}{V \times 60} = \text{MIN}$ $L = \text{LENGTH}$
 $V = \text{VELOCITY}$

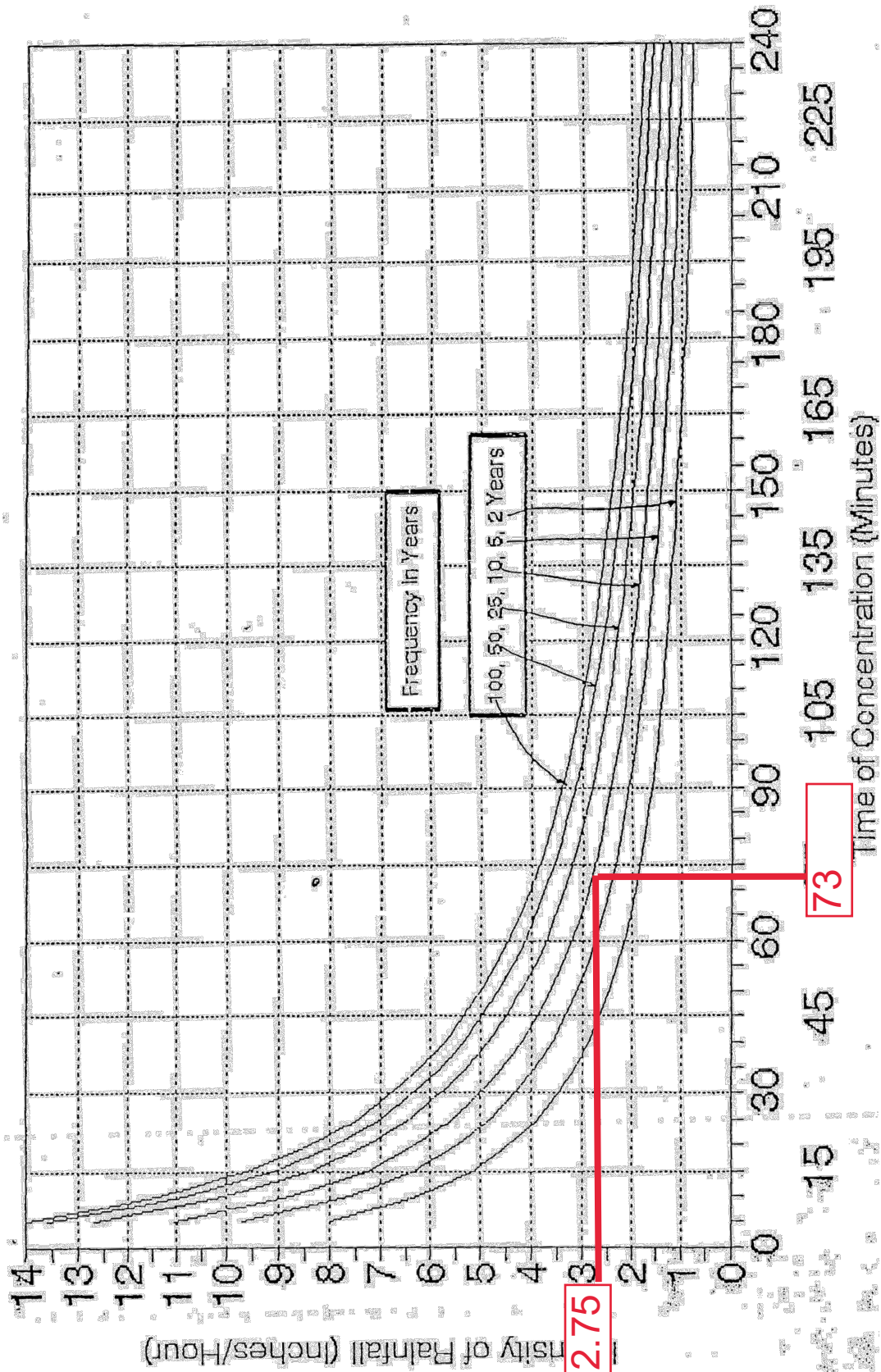
RATIONAL METHOD RUNOFF COEFFICIENTS

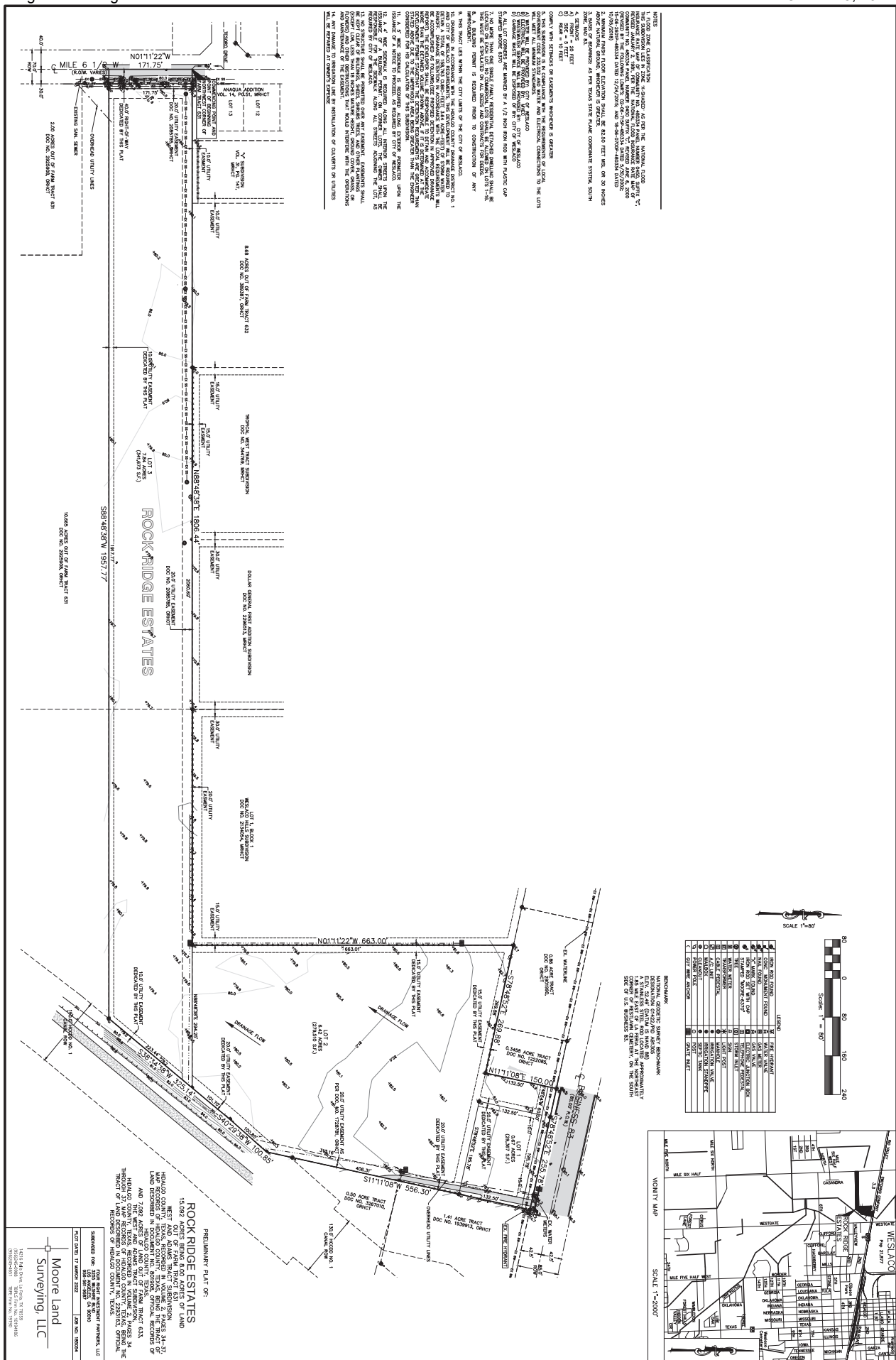
<u>Description of Area</u>	<u>Runoff Coefficients</u>	
Business:		
Downtown areas	0.70 to 0.95	
Neighborhood areas	0.50 to 0.70	
Residential:		
Single-family areas	0.35 to 0.50	
Multi units, detached	0.40 to 0.60	
Multi units, attached	0.60 to 0.75	
Residential (1/2 acre lots or more)	0.30 to 0.45	
Apartment dwelling areas	0.50 to 0.70	0.70
Industrial:		
Light areas	0.50 to 0.80	
Heavy areas	0.60 to 0.90	
Parks, cemeteries	0.10 to 0.25	
Playgrounds	0.20 to 0.35	
Railroad yard areas	0.20 to 0.40	
Unimproved areas	0.10 to 0.30	0.15
<u>Character of surface</u>	<u>Runoff Coefficients</u>	
Streets:		
Asphaltic	0.70 to 0.95	
Concrete	0.80 to 0.95	
Drives and Walks	0.75 to 0.85	
Roofs	0.75 to 0.95	
Lawns, Sandy Soil:		
Flat, 2%	0.05 to 0.10	
Average, 2 to 7%	0.10 to 0.15	
Steep, 7%	0.15 to 0.20	
Lawns, Heavy Soil:		
Flat, 2%	0.15 to 0.20	
Average, 2 to 7%	0.20 to 0.25	
Steep, 7%	0.25 to 0.35	

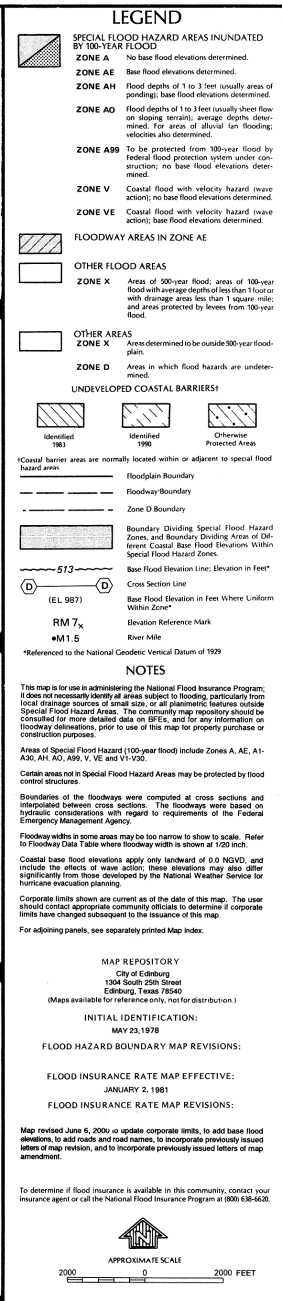
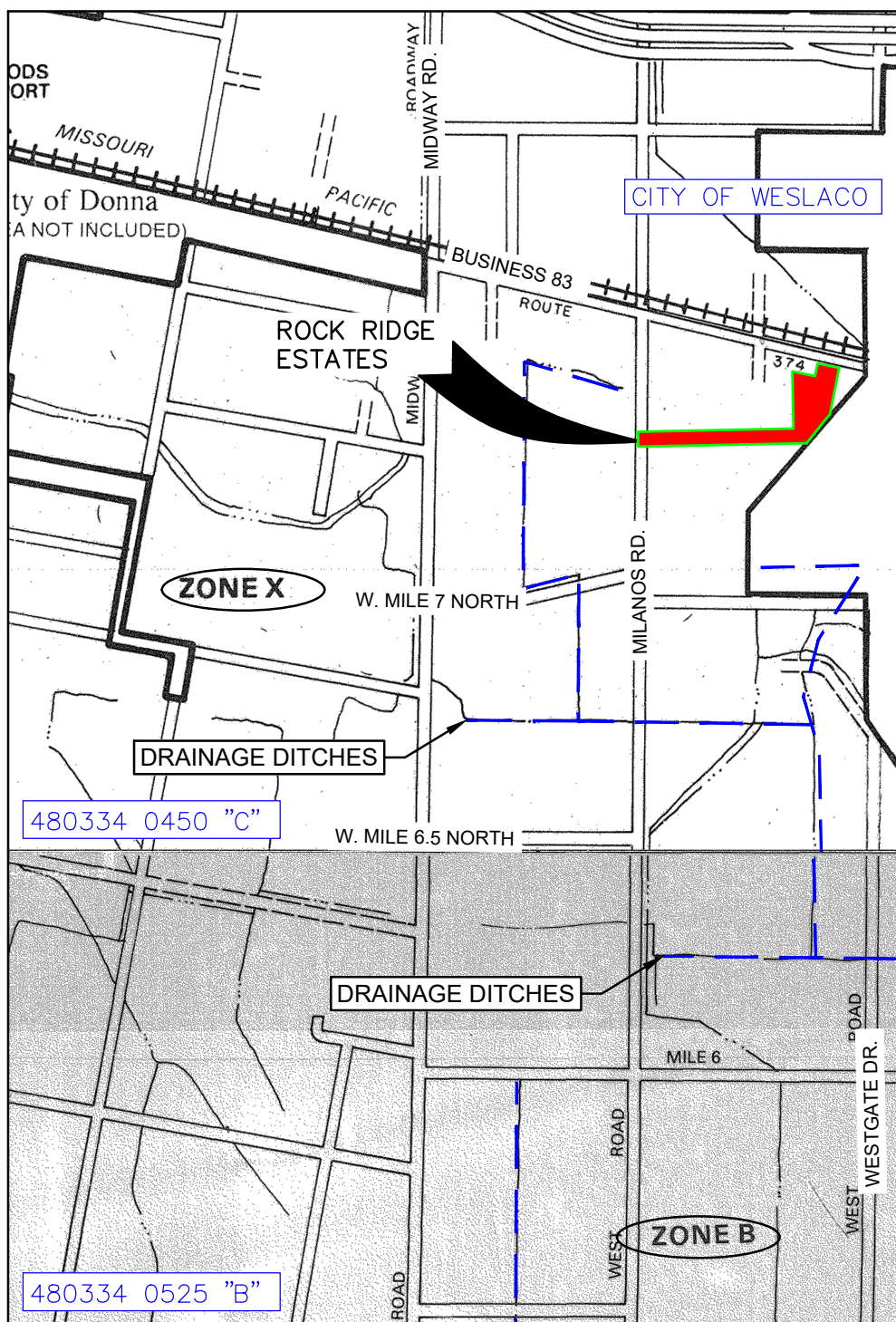


Rainfall Intensity for Fidalgo County

Based on NWS Tech Paper No. 40







NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

HIDALGO COUNTY, TEXAS
(UNINCORPORATED AREAS)

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER

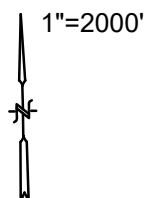
480334 0450 C

MAP REVISED:

JUNE 6, 2000

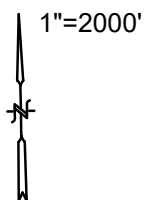
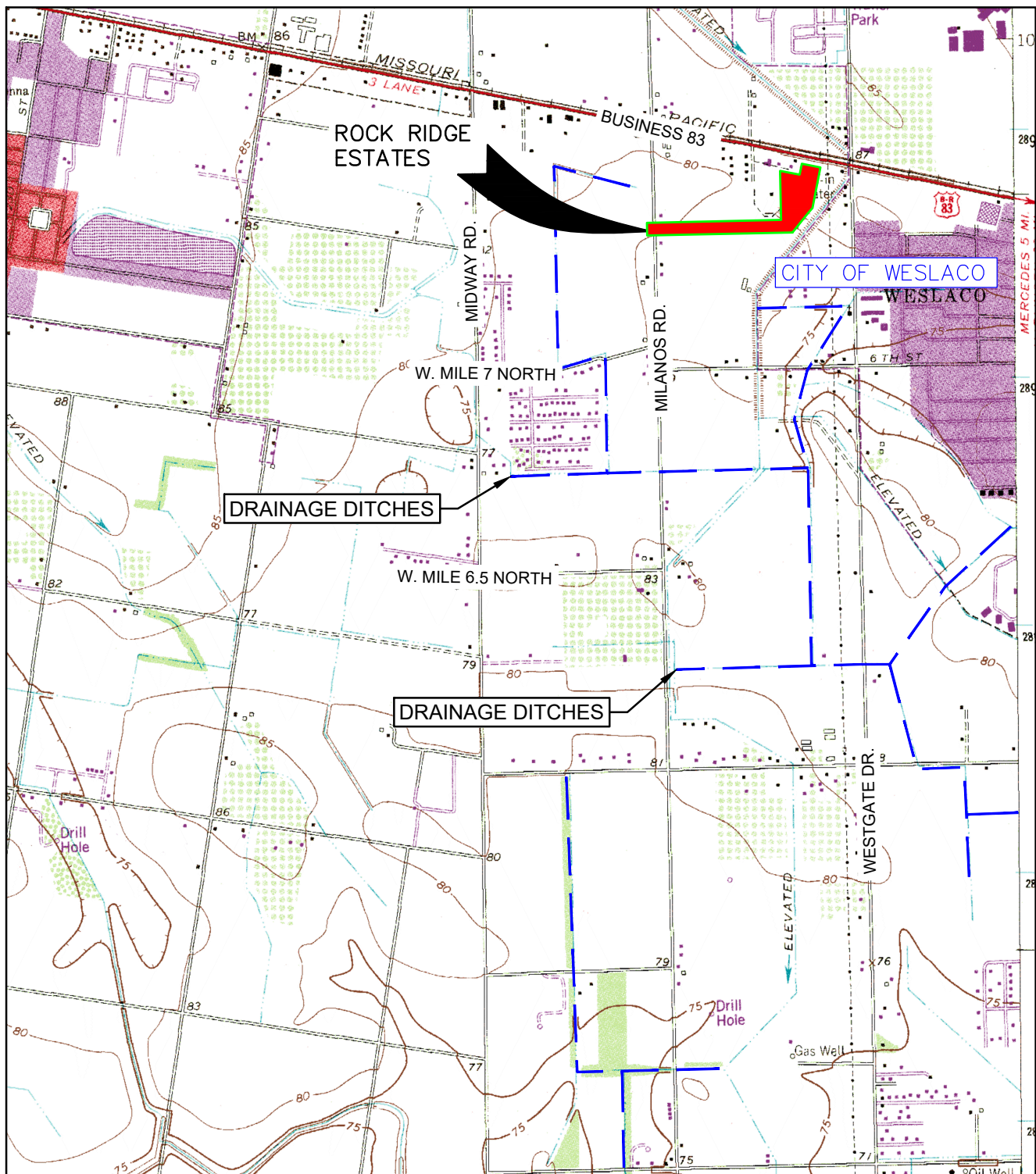


Federal Emergency Management Agency



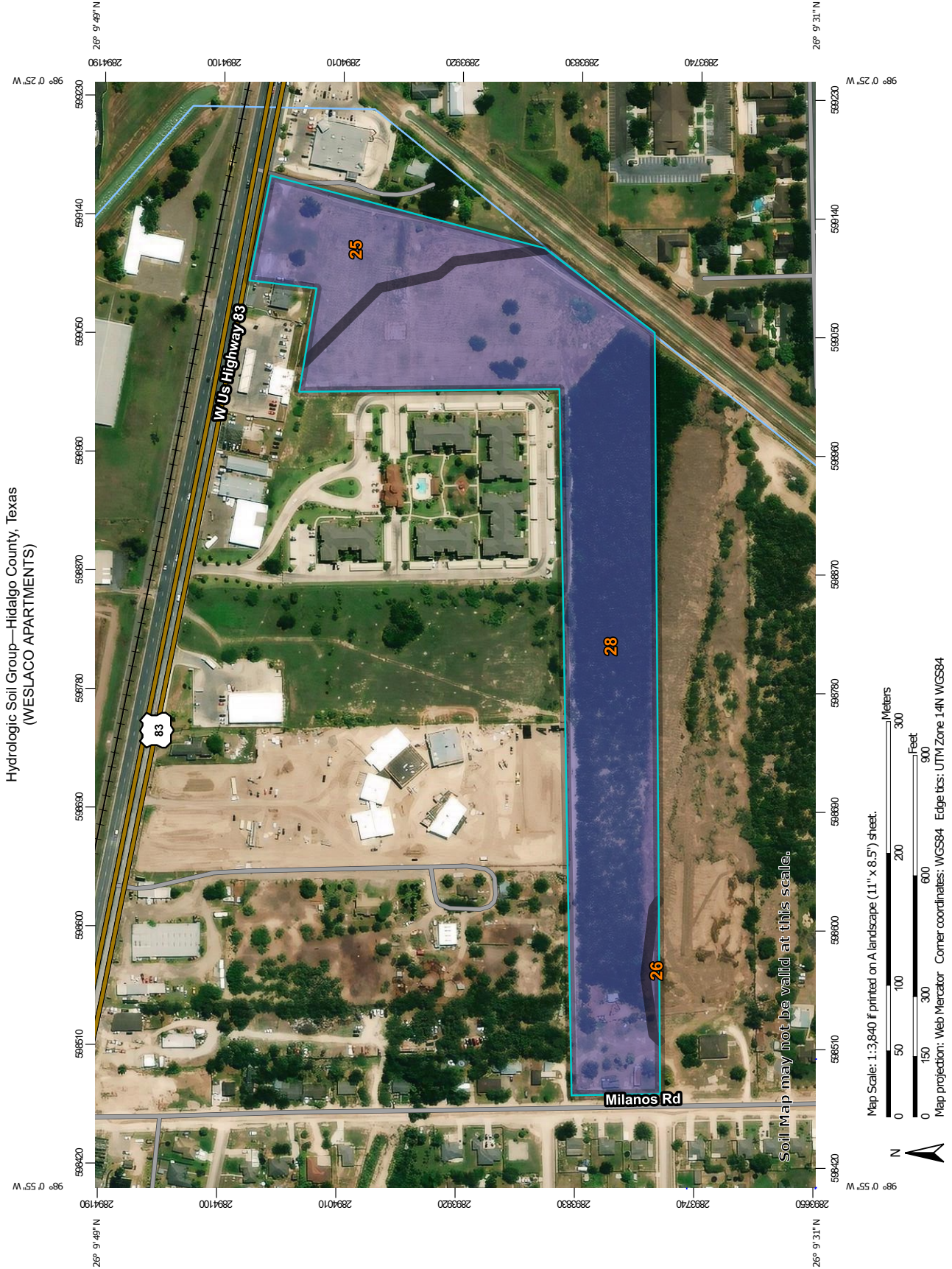
Moore Land
Surveying, LLC

14216 Palis Drive, La Feria, TX 78559
(956)245-0988 TBPLS Firm No. 10194186
(956)245-4651 TBPE Firm No. 19190



Moore Land Surveying, LLC

14216 Palis Drive, La Feria, TX 78559
(956)245-0988 TBPLS Firm No. 10194186
(956)245-4651 TBPE Firm No. 19190



MAP LEGEND

MAP INFORMATION

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

Soil Rating Lines

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Points

A
A/D
B
B/D

C
C/D
D
Not rated or not available

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Hidalgo County, Texas
Survey Area Data: Version 20, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 20, 2015—Nov 5, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
25	Hidalgo fine sandy loam, 0 to 1 percent slopes	B	2.9	16.9%
26	Hidalgo fine sandy loam, 1 to 3 percent slopes	B	0.2	1.0%
28	Hidalgo sandy clay loam, 0 to 1 percent slopes	B	14.2	82.1%
Totals for Area of Interest			17.3	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: October 5, 2022	Agenda Item No. (to be assigned by PCE): V.C.
From: Rebekah de la Fuente, Planning Director, on behalf of Melden & Hunt.	
Subject/Agenda Item: Discussion and consideration for the Final Plat for Sayyed Commercial Development being a 2.960-acre out of Farm Tracts 1065, West and Adams Tract Subdivision, Weslaco, Hidalgo County, Texas Located on the Southeast corner of Mile 11 North & FM 1015. Possible Action.	
Discussion/Overview: The proposed one (1) lot subdivision is located outside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through an 8" waterline and sewer by the City of Weslaco through an 8" sewer line. The property is within a Flood Zone "B".	
If item requires Publication Notice, provide date and periodical of publication; indicate if comments received from letters mailed to property owners: N/A	
Staff recommendation for Commission's Action: Staff recommends approval of Final Plat.	
Additional Action Prompted: [X] Mayor's Signature [] Public Hearing [] Budget Amendment [] Resolution [] Ordinance – First Reading [] Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Subdivision platting, Staff's comments, Drainage Report, Subdivision plat and Utility layout.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	



SUBDIVISION PLATTING APPLICATION

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. _____

This form shall be completed by the Property Owner or Applicant and submitted to the Planning Department along with the required number of copies of the respective plat, review fee and all other required information listed below and in the Subdivision Ordinance. The submittal of an application does not constitute acceptance for processing until the staff reviews and determines the application is complete.

STAFF USE ONLY

☐ Single Lot Variance ☒ Minor Plat ☐ Planned Unit Development ☐ Standard Subdivision

GENERAL INFORMATION

Name of Subdivision: SAYYED COMMERCIAL DEVELOPMENT

Location: southeast corner of Mile 11 North & FM 1015

Legal Description: A resubdivision of 2.960 acres out of Farm Tract 1065 The West & Adams Tracts S/D

Is subdivision inside city limits? ☐ YES ☒ NO

If subdivision is in the ETJ, indicate? ☐ 3.5 Mile ☒ 5 Mile

If no submit letter of Annexation (Contiguous or Consensual)

Existing Zoning: N/A

Existing Land Use: Open Proposed Land Use: Residential

Number of Lots Proposed: 1 Gross Acreage: 3.960

Title Report Submitted: ☐ YES ☒ NO

OWNER INFORMATION

Owner's Name: Maher Al Sayyed & Malek Al-Sayyed Telephone: c/o (956) 381-0981

Address: 2402 Lake Austin Blvd. Fax: c/o (956) 381-1839

City: Austin State: TX Zip: 78703 E-mail: malsayyed@yahoo.com

ENGINEER INFORMATION

Name: Melden & Hunt, Inc. Telephone: (956) 381-0981

Address: 115 W. McIntyre Street Fax: (956) 381-1839

City: Edinburg State: TX Zip: 78541 E-mail: mario@meldenandhunt.com

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

UTILITY PROVISIONS

Will proposed subdivision connect to:

☒ YES ☐ NO Water Provision: NAWSC

☒ YES ☐ NO Wastewater Provision: NAWSC

☒ YES ☐ NO Electric Company: MVEC

☒ YES ☐ NO Phone Utility <u>VERIZON</u>	☐ YES ☒ NO Gas Utility	☒ YES ☐ NO Cable Utility
--	---	---

Proposed subdivision is in the following districts:

☒ YES ☐ NO Drainage District <u>HCDD#1</u>	☒ YES ☐ NO Irrigation District _____
---	---

Has the property been assessed as flat rate irrigable property: ☐ YES ☒ NO

Have Water Rights been conveyed to City/Water Supplier? ☒ YES ☐ NO

(Attach written proof of such assessment or that it has never been assessed as such a property) If YES, attach an estimate from the irrigation district of the proportional water rights for the subdivision as calculated under Texas Water Code § 49.505.

SUBMITTALS REQUIRED FOR MINOR PLAT REVIEW

☒ Two (2) sets of plats **folded and stapled** (24 x 36) and forward a copy in PDF format to mbinojosa@weslacotx.gov & rdelafuente@weslacotx.gov

☒ \$355.00 Planning Review fee

☒ One 11" X 17" reduced copy of plat

☒ Plat Layout

☒ Existing & Proposed Easements

☒ Existing & Proposed ROW

☒ Existing & Proposed Drainage Easements

☒ Contours

☒ Flood Zones

☒ Adjoiners

☒ N/A Existing street names

☒ Drainage plans and calculations with engineer's seal

☒ Elevations

☒ Flood directional arrows

☒ Detention areas

☒ N/A Street names

☒ Proof of ownership of the property

☒ N/A If septic tank system required, submit soil evaluation report

☒ Water Rights associated with the property

☒ Tax Receipt for all taxing entities showing that taxes are paid in full

SUBMITTALS REQUIRED FOR PRELIMINARY (P & Z)

Twelve (12) sets of preliminary plat **folded and stapled** (24 x 36) and forward a copy in PDF format to mbinojosa@weslacotx.gov & rdelafuente@weslacotx.gov

\$350.00 (one time fee for preliminary and final plat)

One 11" X 17" reduced copy of plat

Plat Layout

Existing & Proposed Easements

Existing & Proposed ROW

Existing & Proposed Drainage Easements

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

- _____ Contours
- _____ Flood Zones
- _____ Adjoiners
- _____ Existing & Proposed street names
- _____ Utility Layout
- _____ Existing & Proposed Utilities
- _____ Proposed Fire Hydrants
- _____ Adjoiners
- _____ Street names
- _____ Drainage plans and calculations with engineer's seal
- _____ Elevations
- _____ Flood directional arrows
- _____ Detention areas
- _____ Street names
- _____ Proof of ownership of the property
- _____ If septic tank system required, submit soil evaluation report
- _____ Water Rights associated with the property
- _____ Tax Receipt for all taxing entities showing that taxes are paid in full
- _____ Number of fire hydrants proposed for subdivision
- _____ Trip Generation Worksheet

SUBMITTALS REQUIRED FOR FINAL (P & Z) **Will not apply to Single Lot Variance**

- _____ **Twelve (12) sets of plans FOLDED & STAPLED (24 x 36) & PDF copy with all corrections**
- _____ Plats to be sealed by Professional Engineer
- _____ Approved Drainage Report
- _____ Traffic Impact Analysis (If required)

SUBMITTALS REQUIRED FOR FINAL (City Commission)

- _____ One set of 8 ½ x 11 of plat and utilities with all corrections done

SUBMITTALS REQUIRED FOR PRE-CONSTRUCTION MEETING

- _____ Seven (7) full sets of construction plans 24 x 36 and one (1) 11 x 17 with plan & profile.
- _____ Engineering cost estimates for 3% geotechnical testing fees and 2% inspection fees
- _____ Notice of Intent
- _____ SW3P

SUBMITTALS REQUIRED FOR RECORDING OR HIDALGO COUNTY PLANNING

- _____ Electronic file of final plat and as-builds
- _____ Reproducible plat to be recorded with all required signatures
- _____ 3% geotechnical testing fees or negotiated Material Testing fee by City, whichever is higher
- _____ 2% inspection fee
- _____ Park Fees
- _____ Checks or Receipts: HCCID #9; HCDD #1; County Clerk
- _____ Tax certificates
- _____ Memo from engineering inspector releasing subdivision
- _____ Water Rights associated with the property dedicated and assigned to City of Weslaco or payment of fees sufficient to meet the needs necessitated and attributable to development
- _____ 30 Year Water and 30 Year Sewer Service Agreements
- _____ Park dedication/Fees in lieu of

SUBMITTALS REQUIRED FOR RECORDING BY SECURITY

- _____ Sealed engineering cost estimates
- _____ Letter of Credit/Performance Bond/Escrow

** Any revisions requested would require resubmission of plats and reduced copy reflecting changes.

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

Owner Printed Name: _____

Owner Signature: _____ Date: _____

MARIO A. REYNA, PRESIDENT OF MELDEN & HUNT, INC. _____ is the authorized agent

Authorized Agent Signature: Mario A. Reyna Date: 8.18.22

Authorized Agent Printed Name: MARIO A. REYNA

THIS PAGE FOR STAFF USE ONLY

Date Received: _____ Received By: _____ Date Paid: _____

P & Z Commission Approval on Preliminary Plat: _____

P & Z Commission Approval on Final Plat: _____

City Commission Approval on Final Plat: _____

Preconstruction Meeting Date: _____

Date Recorded: _____ Instrument No. _____

General Comments: _____



APPLICATION FOR SUBDIVISION VARIANCE

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. _____

GENERAL INFORMATION

Name of Subdivision: Sayped Commercial Development

Location: South east corner of Mill 11 + FM 1015

Legal Description: A resubdivision of 2.960 acres out of farm tract 1015 The West + Adams Tracts S/D

VARIANCE TYPE:

☐ Streetlights ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Sanitary Sewer ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Fire Hydrants ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☒ Setbacks ☐ YES ☐ NO

Describe in detail the reason for the variance request: side 0.0'
Reason being in case they want to extend to
Adjoint commercial site.

☐ Drainage ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Minimum Lot Size ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Sidewalks ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Easement Requirements ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Other _____ ☐ YES ☐ NO

Describe in detail the reason for the variance request:

OWNER INFORMATION

Owner's Name: _____ Telephone: _____

Address: _____ Fax: _____

City: _____ State: _____ Zip: _____ E-mail: _____

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

Owner Printed Name: _____

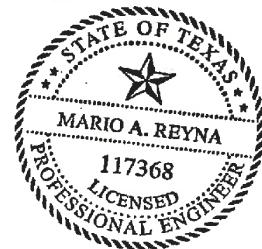
Owner Signature: _____ Date: _____

_____ is the authorized agent

Authorized Agent Signature:  Date: 8.25.22

Authorized Agent Printed Name: Mario A. Reyna

FIRM NAME: MELDEN & HUNT, INC. – #F1435
TITLE: SAYYED COMMERCIAL DEVELOPMENT
PREPARED BY: MARIO A. REYNA, P.E.
DATE: May 23, 2022



M. A. Reyna

5-25-22

INDEX

- 1. Drainage Statement**
- 2. Drainage Calculations**
- 3. Weighted C Calculation**
- 4. Runoff Coefficients**
- 5. Location Map**
- 6. Subdivision Plat**
- 7. Drainage Layout Plan**
- 8. USGS Topographical Map**
- 9. Rainfall Intensity Table**
- 10. Street Velocities & Capacities Flowing Curb Full Table**
- 11. USDA Soils Map**
- 12. USDA Soils Legend & Description**
- 13. FEMA FIRM with site location**



TBPELS Firm # F-1435
TBPELS # 10096900

MELDEN & HUNT INC.

CONSULTANTS • ENGINEERS • SURVEYORS

MARIO A. REYNA • ALLAN F. BOOE • KELLEY A. HELLER-VELA • ROBERTO N. TAMEZ • RUBEN JAMES DE JESUS • MICHAEL HERNANDEZ

DRAINAGE STATEMENT SAYYED COMMERCIAL DEVELOPMENT

Revised Date: May 23, 2022

SAYYED COMMERCIAL DEVELOPMENT is a 2.960-acres tract being out of Farm Tracts 1065, West and Adams Tracts Subdivision, County of Hidalgo, Texas as recorded in Volume 2, Pages 34-37, Hidalgo County Map Records. The property is located along the southeast intersection of F.M. 1015 and Mile 11 North Road. This subdivision falls outside the city limits of the City of Weslaco and within the 2 Mile ETJ. The property is currently open with a proposed 1-commercial lot use. This property is located in Zone "X" shaded & AE Zone in FEMA's Flood Insurance Rate Map, Community Panel No. 480334 0450 C, Map Date: June 6, 2000. Revised to reflect LOMR Date May 30, 2002. Zone "X" shaded is defined as "areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood". Zone "AE" has been redefined to Zone "X" as per LOMR F Case No. 20-06-3073A.

The soils are (25) Hidalgo Fine Sandy Loan and (28) Hidalgo Sandy Clay Loam. Soil Group "B" is moderately pervious with a relatively low plasticity index. This soil is in hydrologic group "B". (See excerpts from "Soil Survey of Hidalgo County, Texas").

Existing runoff is by surface flow in an easterly direction and has a runoff of 4.16 c.f.s. during the 10-year storm frequency as per the attached calculations. Proposed runoff after development is 21.53 c.f.s. during the 50-year storm frequency per the attached calculation which is an increase of 17.37 c.f.s.

The proposed drainage for **SAYYED COMMERCIAL DEVELOPMENT** consists of surface runoff from the lot into the proposed parking area. The runoff shall flow to low points draining into proposed Type "A" & Type CC inlets, which will drain East into an existing storm sewer system discharging into the Hidalgo & Cameron Counties Irrigation District No. 9 ditch. This existing Hidalgo & Cameron Counties Irrigation District No. 9 ditch flow north ultimately discharges into the Mercedes Later then East, ultimately draining into the I.B.W.C. FLOODWAY.

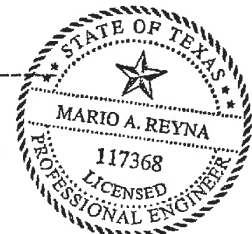
In accordance with the Hidalgo County drainage policy, the peak rate of runoff in the subdivision will not be increased during the 50-year rainfall event due to the improvements in this subdivision. Detention for Al Sayyed Commercial Development has been provided with the Vaquero Estates Phase 5 development.

☐ REJECTED	
☒ APPROVED FOR SUBMITTAL	
☒ TO H.C. PLANNING DEPT.	
☐ TO CITY	
☐ DISCHARGE PERMIT REQUIRED	
☐ DISTRICT FACILITY	
☐ CITY FACILITY	
☐ OTHER _____	
<u>Alexis Izagano</u> H.C.D.D. NO. 1	<u>6/10/22</u> DATE

By: Mario A. Reyna

Mario A Reyna, P.E.

Date



DRAINAGE REPORT

PROJECT NAME: **SAYYED COMMERCIAL DEVELOPMENT**

PROJECT NUMBER: **22-57**

of Lots: **1**

DATE: **May 23, 2022**

I. Existing Condition-10 year

Ex. Area: **172,509.00 sf**
3.96 ac

Int. Coeff. "k" **0.213** Table 3-2

Kp **3.28**

Length **450 ft**

Velocity **0.270582 ft/sec**

Slope : **0.15 %**

tc : **27.72 min**

Rainfall Intensity (10yr)

5.251 in/hr

c factor

0.200

Q peak existing condition:

4.16 cfs

II. Future Condition-50 year

Future area: **172,509.00 sf**
3.96 ac

Slope : **0.15 %**

tc : **18.75 min**

Rainfall Intensity (50yr)

8.171 in/hr

c factor

0.665

Q future cond. = $Aci = i * \quad =$

21.53

0.67

2.63474518 i

time min.	time hour	i in/hr	Qin cfs	Vin cf	Qout cfs	Vout cf	REQ'D V cf
5	0.08	13.57	35.75	10726	4.16	2963	7763
10	0.17	10.83	28.52	17113	4.16	3587	13526
15	0.25	9.10	23.98	21583	4.16	4211	17373
25	0.42	7.03	18.51	27764	4.16	5458	22305
35	0.58	5.80	15.27	32075	4.16	6706	25369
45	0.75	4.98	13.11	35398	4.16	7954	27445
55	0.92	3.96	10.43	34422	4.16	9201	25221
65	1.08	3.54	9.33	36386	4.16	10449	25937
75	1.25	3.21	8.46	38083	4.16	11696	26386
85	1.42	2.95	7.76	39586	4.16	12944	26642
95	1.58	2.73	7.18	40939	4.16	14192	26748
105	1.75	2.54	6.69	42161	4.16	15439	26722
115	1.92	2.67	7.05	48613	4.16	16687	31926
125	2.08	2.52	6.65	49856	4.16	17935	31921
135	2.25	2.39	6.30	51027	4.16	19182	31845
145	2.42	2.27	5.99	52125	4.16	20430	31695
155	2.58	2.17	5.71	53147	4.16	21677	31470
165	2.75	2.08	5.47	54124	4.16	22925	31199
175	2.92	1.99	5.24	55053	4.16	24173	30880
185	3.08	1.91	5.04	55947	4.16	25420	30527
195	3.25	1.84	4.85	56782	4.16	26668	30115
205	3.42	1.78	4.68	57620	4.16	27916	29705
215	3.58	1.72	4.53	58392	4.16	29163	29229
225	3.75	1.66	4.38	59151	4.16	30411	28741
235	3.92	1.61	4.24	59849	4.16	31658	28190

245	4.08	1.56	4.12	60575	4.16	32906	27669
255	4.25	1.52	4.00	61233	4.16	34154	27080
265	4.42	1.48	3.89	61875	4.16	35401	26474
275	4.58	1.44	3.79	62515	4.16	36649	25866
285	4.75	1.40	3.69	63166	4.16	37897	25269
295	4.92	1.37	3.60	63750	4.16	39144	24606
305	5.08	1.33	3.51	64320	4.16	40392	23928
315	5.25	1.30	3.43	64885	4.16	41639	23246
325	5.42	1.27	3.36	65455	4.16	42887	22568
335	5.58	1.25	3.28	65986	4.16	44135	21852
345	5.75	1.22	3.21	66538	4.16	45382	21156
355	5.92	1.19	3.14	66783	4.16	46630	20153
365	6.08	1.17	3.08	67510	4.16	47877	19633
375	6.25	1.15	3.03	68174	4.16	49125	19049
385	6.42	1.13	2.98	68775	4.16	50373	18402
395	6.58	1.10	2.90	68688	4.16	51620	17067
405	6.75	1.08	2.85	69146	4.16	52868	16278
415	6.92	1.07	2.81	69935	4.16	54116	15820
425	7.08	1.05	2.76	70344	4.16	55363	14981
435	7.25	1.03	2.71	70761	4.16	56611	14150
445	7.42	1.01	2.67	71192	4.16	57858	13333
455	7.58	1.00	2.62	71641	4.16	59106	12535
465	7.75	0.98	2.58	72039	4.16	60354	11686
475	7.92	0.97	2.56	72838	4.16	61601	11236
485	8.08	0.95	2.50	72838	4.16	62849	9989
495	8.25	0.94	2.48	73557	4.16	64097	9460
505	8.42	0.92	2.42	73446	4.16	65344	8102
515	8.58	0.91	2.40	74086	4.16	66592	7495
525	8.75	0.90	2.37	74695	4.16	67839	6856
535	8.92	0.88	2.32	74426	4.16	69087	5339
545	9.08	0.87	2.29	74956	4.16	70335	4621
555	9.25	0.86	2.27	75454	4.16	71582	3872
565	9.42	0.85	2.24	75920	4.16	72830	3090
575	9.58	0.84	2.21	76355	4.16	74078	2277
585	9.75	0.83	2.19	76758	4.16	75325	1433

Storage Required: 31,926 cf
Storage Required: 0.733 Ac.-Ft.
w/ release rate of: 4.16 cfs
Storage / Ac. Development: 0.185 Ac.Ft. per Ac.
Storage / Lot: 31925.69 cf per lot



TABLE 3-2: Intercept Coefficients	
Land Cover/ Flow Regime	"k"
Forest with heavy ground litter; hay meadow (overland flow)	0.076
Trash fallow or minimum tillage cultivation; contour or strip cropped; woodland (overland flow)	0.152
Short grass pasture (overland flow)	0.213
Cultivated straight row (overland flow)	0.274
Nearly bare and untilled (overland flow); alluvial fans in western mountain regions	0.305
Grassed waterway (shallow concentrated flow)	0.457
Unpaved (shallow concentrated flow)	0.491
Paved area (shallow concentrated flow); small upland gullies	0.619

Weighted "c" value				
Type of Drainage Area	"c" value:	Square Footage	Acreage	partial "c"
Residential				
Single Family (Lots less than 1/4 acre)	0.35		0.000	0.000
Single Family (Lots 1/4 to 1/2 acre)	0.3	0.00	0.000	0.000
Single Family (Lots greater than 1/2 acre)	0.25	0	0.000	0.000
Multi-Family (Less than 20 DU / AC)	0.5	0	0.000	0.000
Multi-Family (Greater than 20 DU / AC)	0.55	0	0.000	0.000
Business Districts:	0.75	110,444	2.535	1.902
Industrial				
Light areas	0.75	0	0.000	0.000
Heavy areas	0.75	0	0.000	0.000
Railroad yard areas	0.2	0	0.000	0.000
Roof/Building areas	0.75	0	0.000	0.000
Parks, cemeteries	0.1	0	0.000	0.000
Unimproved Areas				
Bare Surface	0.3	39,870	0.915	0.275
Grassland	0.25	0	0.000	0.000
Cultivated	0.2	0	0.000	0.000
Woodlands	0.15	0	0.000	0.000
Streets				
Asphalt	0.9	22195	0.510	0.459
Concrete	0.9	0	0.000	0.000
Drives and walks	0.9	0	0.000	0.000
Total:		172,509	3.960	2.635
Weighted "c":			0.665	

$$C_W = (C_1A_1 + C_2A_2 + C_3A_3 + \dots + C_nA_n) / A_{total}$$

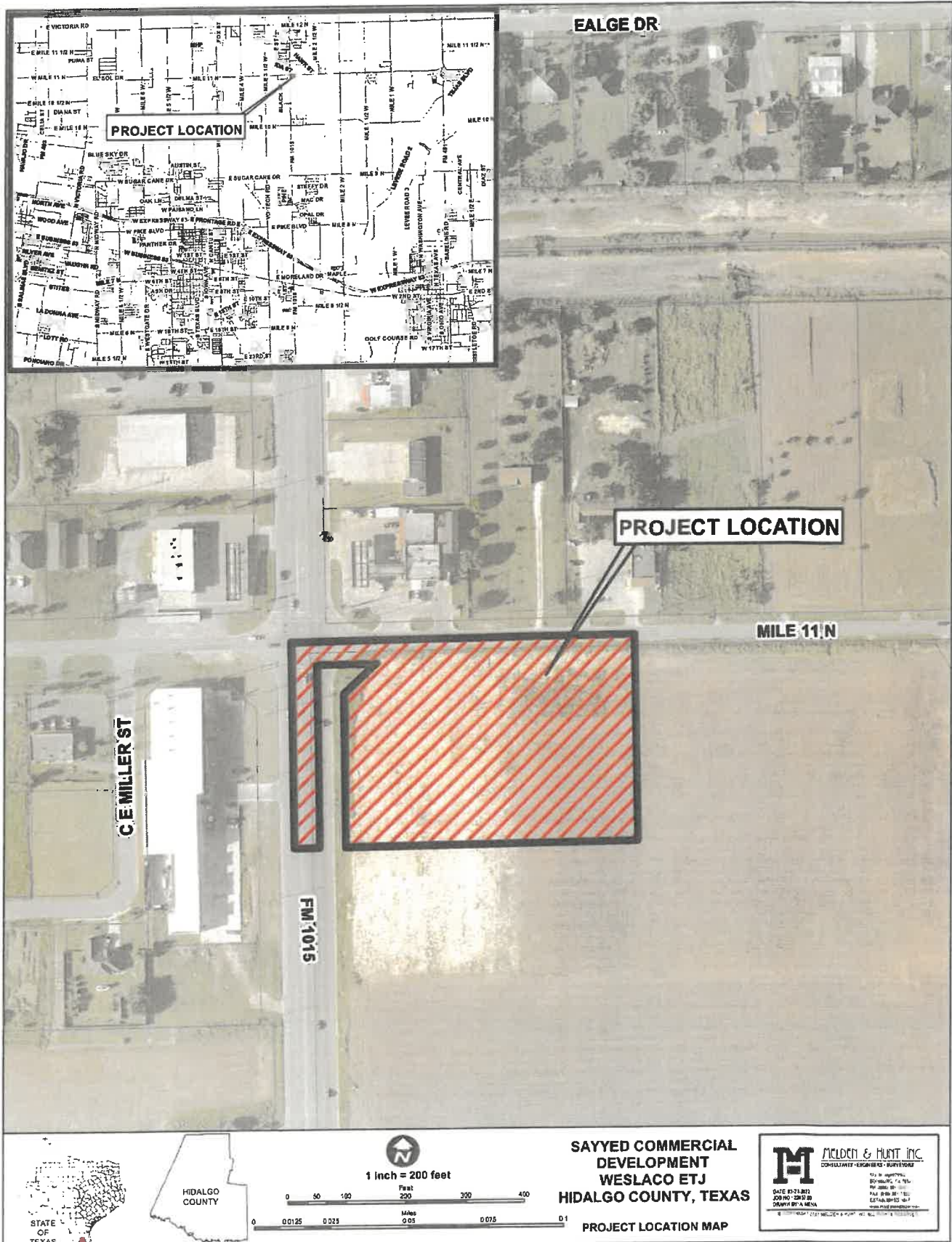
C_W = Weighted Runoff Coefficient (Composite Coefficient)

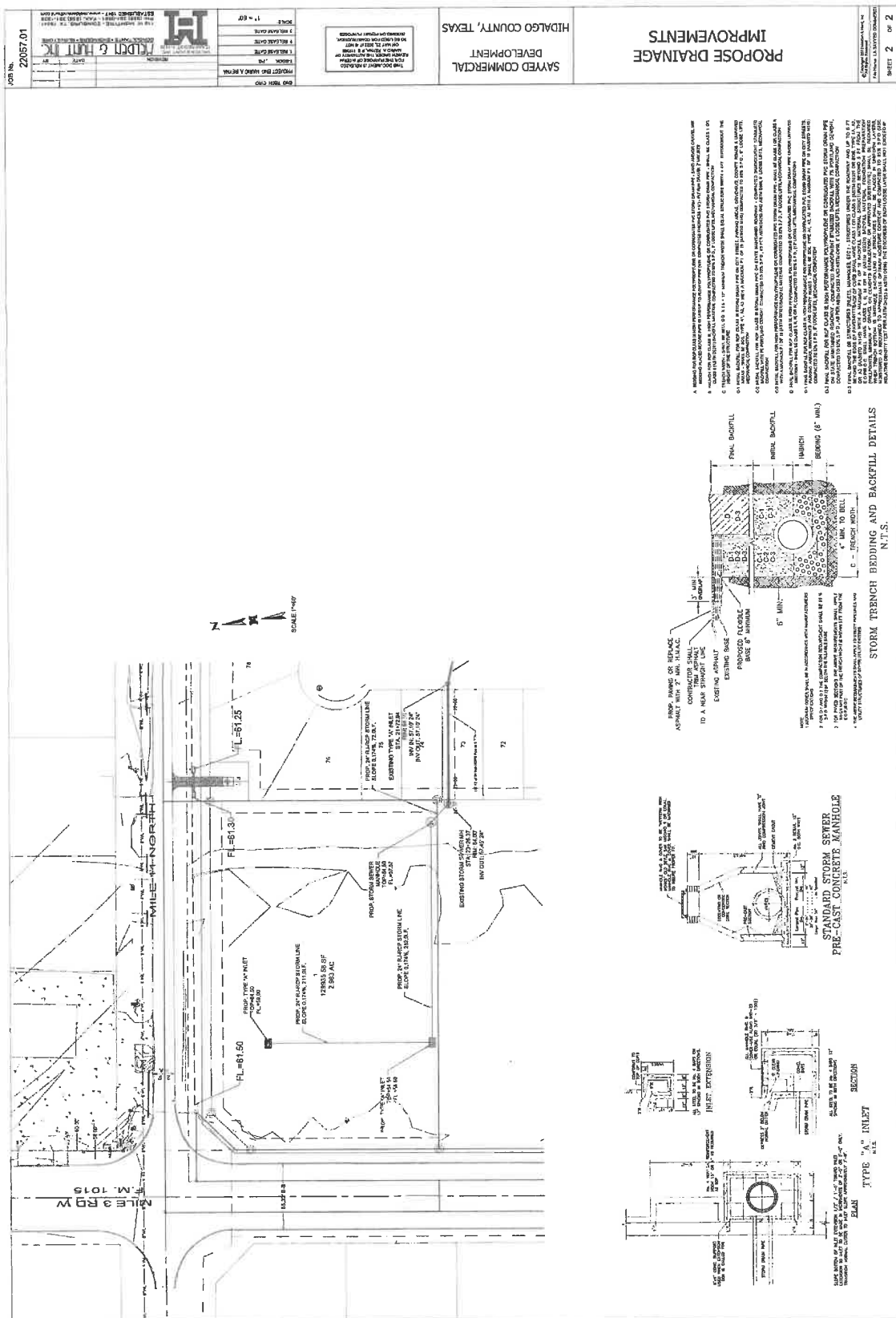
C_n = Runoff Coefficient n-th term

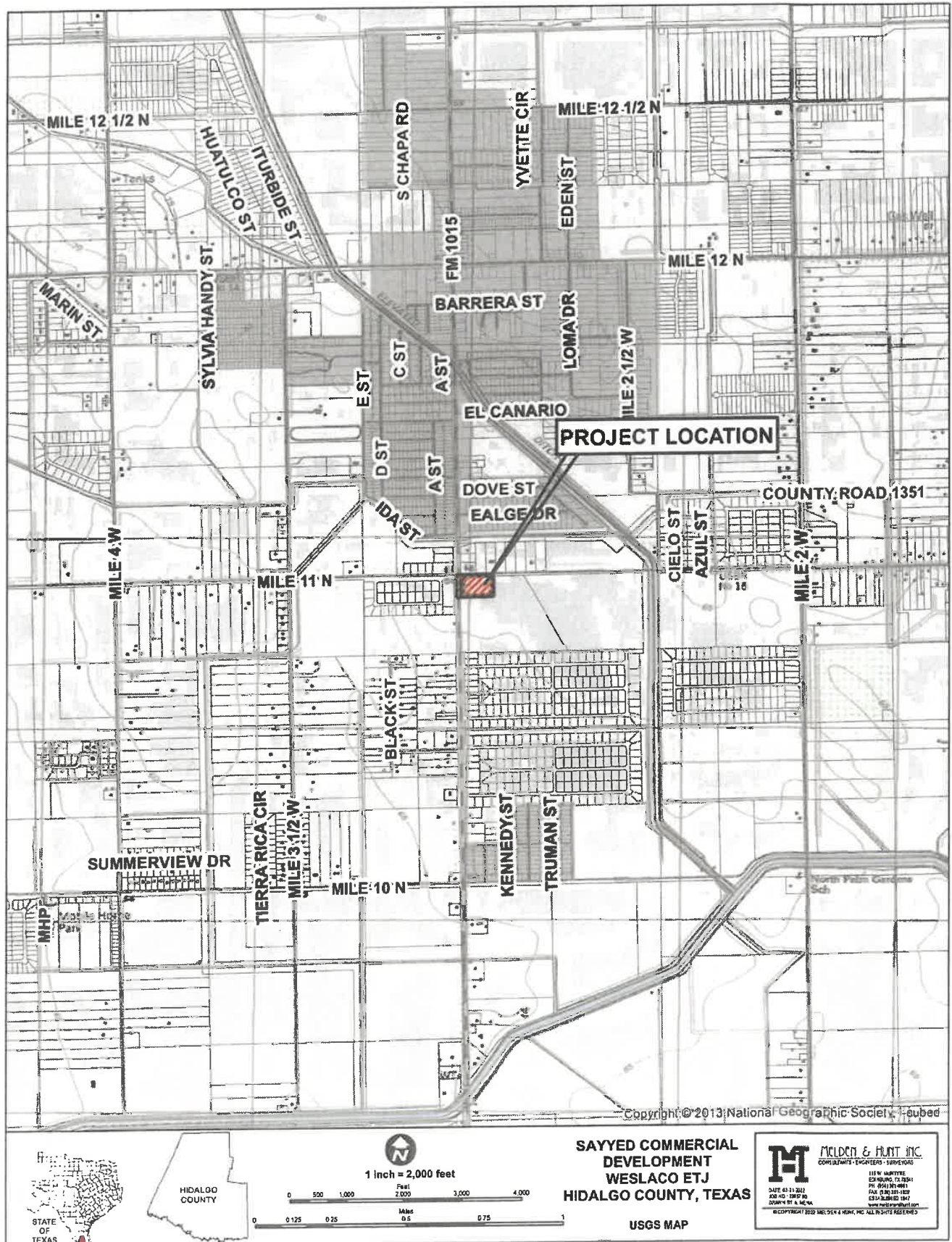
A_n = Area of n-th term

A_{total} = Total Area (acres)

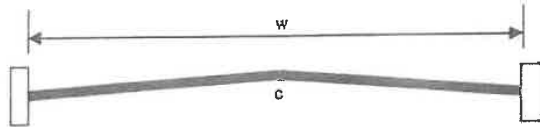
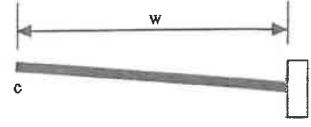
A_{total} = Total Area (acres)







Street Velocities and Capacities Flowing Curb Full
Manning's n = 0.018

										
	Local Street		Local Street		Collector Street		Secondary Street (half-section)		Primary Street (half-section)	
	w = 30'		w = 40'		w = 44'		w = 24'			
Slope %	c = 4" wp = 31.16 A = 12.45 r = 0.40		c = 4" wp = 41.17 A = 16.67 r = 0.405		c = 5" wp = 45.17 A = 16.50 r = 0.365		c = 6" wp = 24.66 A = 7.92 r = 0.32		c = 9" wp = 28.52 A = 8.12 r = 0.28	
	V ft/sec	Q cfs	V ft/sec	Q cfs	V ft/sec	Q cfs	V ft/sec	Q cfs	V ft/sec	Q cfs
0.10	1.42	17.68	1.43	23.81	1.33	22.01	1.22	9.66	1.12	9.09
0.15	1.74	21.66	1.74	29.17	1.63	26.96	1.50	11.88	1.37	11.12
0.20	2.00	24.90	2.02	33.68	1.89	31.13	1.73	13.70	1.58	12.83
0.25	2.24	27.89	2.26	37.66	2.11	34.80	1.93	15.29	1.77	14.37
0.30	2.46	30.63	2.47	41.25	2.31	38.13	2.12	16.79	1.94	15.75
0.35	2.65	32.99	2.67	44.56	2.50	41.18	2.29	18.14	2.09	16.97
0.40	2.84	35.36	2.86	47.64	2.67	44.02	2.44	19.32	2.24	18.19
0.45	3.01	37.47	3.03	50.53	2.83	46.69	2.59	20.51	2.37	19.24
0.50	3.17	39.47	3.19	53.26	2.98	49.22	2.73	21.62	2.50	20.30
0.55	3.32	41.33	3.35	55.86	3.13	51.62	2.87	22.73	2.62	21.27
0.60	3.47	43.20	3.50	58.34	3.27	53.92	2.99	23.68	2.74	22.25
0.65	3.61	44.94	3.64	60.72	3.40	56.12	3.12	24.71	2.86	23.14
0.70	3.75	46.62	3.78	63.02	3.53	58.24	3.23	25.58	2.96	24.04
0.75	3.88	48.31	3.91	66.23	3.65	60.28	3.35	26.53	3.06	24.85
0.80	4.01	49.92	4.04	67.37	3.77	62.26	3.46	27.40	3.16	25.66
0.85	4.13	51.42	4.17	69.44	3.89	64.17	3.56	28.20	3.26	26.47
0.90	4.25	52.91	4.29	71.45	4.00	66.03	3.67	29.07	3.35	27.20
0.95	4.37	54.41	4.40	73.41	4.11	67.84	3.77	29.86	3.44	27.93
1.00	4.48	55.78	4.52	75.31	4.22	69.61	3.86	30.57	3.53	28.66
1.50	5.49	68.35	5.53	92.25	5.17	85.25	4.73	37.46	4.33	35.16
2.00	6.34	78.93	6.39	106.52	5.97	98.44	5.46	43.24	5.00	40.60
2.50	7.09	88.27	7.14	119.09	6.67	110.06	6.11	48.39	5.59	45.39
3.00	7.76	96.61	7.83	130.46	7.31	120.56	6.69	52.98	6.12	49.59
3.50	8.39	104.46	8.45	140.91	7.89	130.22	7.23	57.26	6.61	53.67
4.00	8.97	111.68	9.04	150.64	8.44	139.21	7.73	61.22	7.07	57.41
4.50	9.51	118.40	9.58	159.78	8.95	147.66	8.20	64.94	7.50	60.90
5.00	10.02	124.75	10.10	168.42	9.43	155.65	8.64	68.43	7.90	64.15
5.50	10.51	130.85	10.60	176.64	9.89	163.24	9.06	71.76	8.29	67.31
6.00	10.98	136.70	11.07	184.49	10.33	170.50	9.46	74.92	8.65	70.24
6.50	11.43	143.30	11.52	192.03	10.76	177.46	9.85	78.01	9.01	73.16
7.00	11.86	147.66	11.95	199.28	11.16	184.16	10.22	80.94	9.35	75.92
7.50	12.28	152.89	12.37	206.27	11.55	190.63	10.58	83.79	9.68	78.60
8.00	12.68	157.85	12.78	213.04	11.93	196.88	10.93	86.57	9.99	81.12
8.50	13.07	162.72	13.17	219.59	12.30	202.94	11.26	89.18	10.30	83.64
9.00	13.45	167.45	13.55	225.96	12.66	208.82	11.59	91.79	10.60	86.07
9.50	13.82	172.06	13.93	232.15	13.00	214.54	11.91	94.33	10.89	88.43
10.00	14.18	176.54	14.29	238.18	13.34	220.12	12.22	96.78	11.17	90.70

Appendix 1.0 HIDALGO COUNTY RAINFALL INTENSITY TABLES

based on Weather Bureau (NWS) Technical Paper No. 40 "Rainfall Frequency Atlas of the United States"

formula $I = b/(t_e + d)^e$

TIME	2 yr.	5 yr.	10 yr.	25 yr.	50 yr.	100 yr.	TIME	2 yr.	5 yr.	10 yr.	25 yr.	50 yr.	100 yr.
1	10.404	12.626	14.283	16.353	17.386	17.952	36	3.095	3.866	4.486	5.189	5.701	6.098
2	9.653	11.721	13.281	15.215	16.210	16.793	37	3.040	3.799	4.410	5.103	5.608	6.001
3	9.012	10.950	12.426	14.244	15.204	15.797	38	2.986	3.735	4.337	5.019	5.519	5.908
4	8.458	10.286	11.687	13.405	14.333	14.929	39	2.935	3.673	4.267	4.939	5.433	5.817
5	7.974	9.706	11.042	12.671	13.570	14.165	40	2.886	3.614	4.199	4.861	5.350	5.730
6	7.546	9.194	10.472	12.023	12.895	13.487	41	2.838	3.557	4.134	4.786	5.270	5.646
7	7.167	8.740	9.966	11.447	12.294	12.881	42	2.793	3.501	4.071	4.714	5.193	5.565
8	6.827	8.334	9.512	10.930	11.755	12.336	43	2.748	3.448	4.010	4.644	5.118	5.487
9	6.520	7.968	9.103	10.464	11.268	11.841	44	2.706	3.396	3.951	4.577	5.046	5.411
10	6.243	7.636	8.732	10.042	10.825	11.391	45	2.665	3.346	3.895	4.511	4.976	5.337
11	5.990	7.334	8.394	9.656	10.421	10.979	46	2.625	3.298	3.840	4.448	4.908	5.266
12	5.758	7.058	8.084	9.303	10.051	10.601	47	2.586	3.251	3.786	4.387	4.843	5.197
13	5.546	6.804	7.799	8.978	9.710	10.252	48	2.549	3.206	3.735	4.328	4.779	5.130
14	5.350	6.569	7.536	8.678	9.395	9.928	49	2.513	3.162	3.685	4.270	4.717	5.065
15	5.169	6.353	7.293	8.400	9.102	9.628	50	2.477	3.120	3.636	4.215	4.658	5.002
16	5.000	6.151	7.067	8.142	8.831	9.348	51	2.443	3.078	3.589	4.161	4.600	4.941
17	4.843	5.964	6.856	7.902	8.577	9.087	52	2.410	3.038	3.543	4.108	4.543	4.881
18	4.697	5.789	6.659	7.677	8.340	8.842	53	2.378	2.999	3.499	4.057	4.488	4.824
19	4.560	5.625	6.475	7.466	8.117	8.612	54	2.347	2.962	3.456	4.007	4.435	4.767
20	4.432	5.472	6.302	7.268	7.908	8.396	55	2.317	2.925	3.414	3.959	4.383	4.713
21	4.311	5.327	6.139	7.082	7.711	8.192	56	2.288	2.889	3.373	3.912	4.333	4.659
22	4.198	5.191	5.985	6.906	7.525	8.000	57	2.259	2.854	3.333	3.867	4.284	4.608
23	4.090	5.062	5.840	6.740	7.349	7.817	58	2.231	2.821	3.295	3.822	4.236	4.557
24	3.989	4.941	5.703	6.583	7.183	7.644	59	2.204	2.788	3.257	3.779	4.189	4.508
25	3.893	4.825	5.572	6.434	7.025	7.480	60	2.178	2.756	3.220	3.737	4.144	4.460
26	3.802	4.716	5.449	6.293	6.875	7.324	65	2.056	2.607	3.050	3.541	3.933	4.237
27	3.715	4.612	5.331	6.158	6.732	7.176	70	1.948	2.475	2.899	3.368	3.745	4.038
28	3.633	4.513	5.220	6.030	6.596	7.034	75	1.852	2.358	2.765	3.212	3.577	3.860
29	3.554	4.419	5.113	5.908	6.467	6.899	80	1.765	2.252	2.643	3.073	3.426	3.699
30	3.480	4.329	5.011	5.792	6.343	6.769	85	1.688	2.156	2.533	2.946	3.289	3.554
31	3.408	4.244	4.914	5.680	6.224	6.646	90	1.617	2.069	2.434	2.831	3.164	3.421
32	3.340	4.161	4.821	5.574	6.111	6.527	95	1.552	1.990	2.342	2.726	3.050	3.299
33	3.275	4.083	4.732	5.472	6.002	6.413	100	1.493	1.917	2.258	2.629	2.944	3.187
34	3.212	4.008	4.646	5.374	5.897	6.304	105	1.439	1.850	2.181	2.540	2.847	3.083
35	3.152	3.935	4.564	5.280	5.797	6.199	110	1.389	1.788	2.109	2.457	2.757	2.988

where:	2yr	5yr	10yr	25yr	50yr	100yr
e=	0.831	0.795	0.778	0.771	0.749	0.740
b=	74	80	87	98	99	103
d=	9.6	9.2	9.2	9.2	9.2	9.6

Prepared By Melden & Hunt, Inc.

Appendix 1.0 (cont.) **HIDALGO COUNTY RAINFALL INTENSITY TABLES (cont.)**

based on Weather Bureau (NWS) Technical Paper No. 40 "Rainfall Frequency Atlas of the United States"

$$\text{formula } I = b/(t_c + d)^e$$

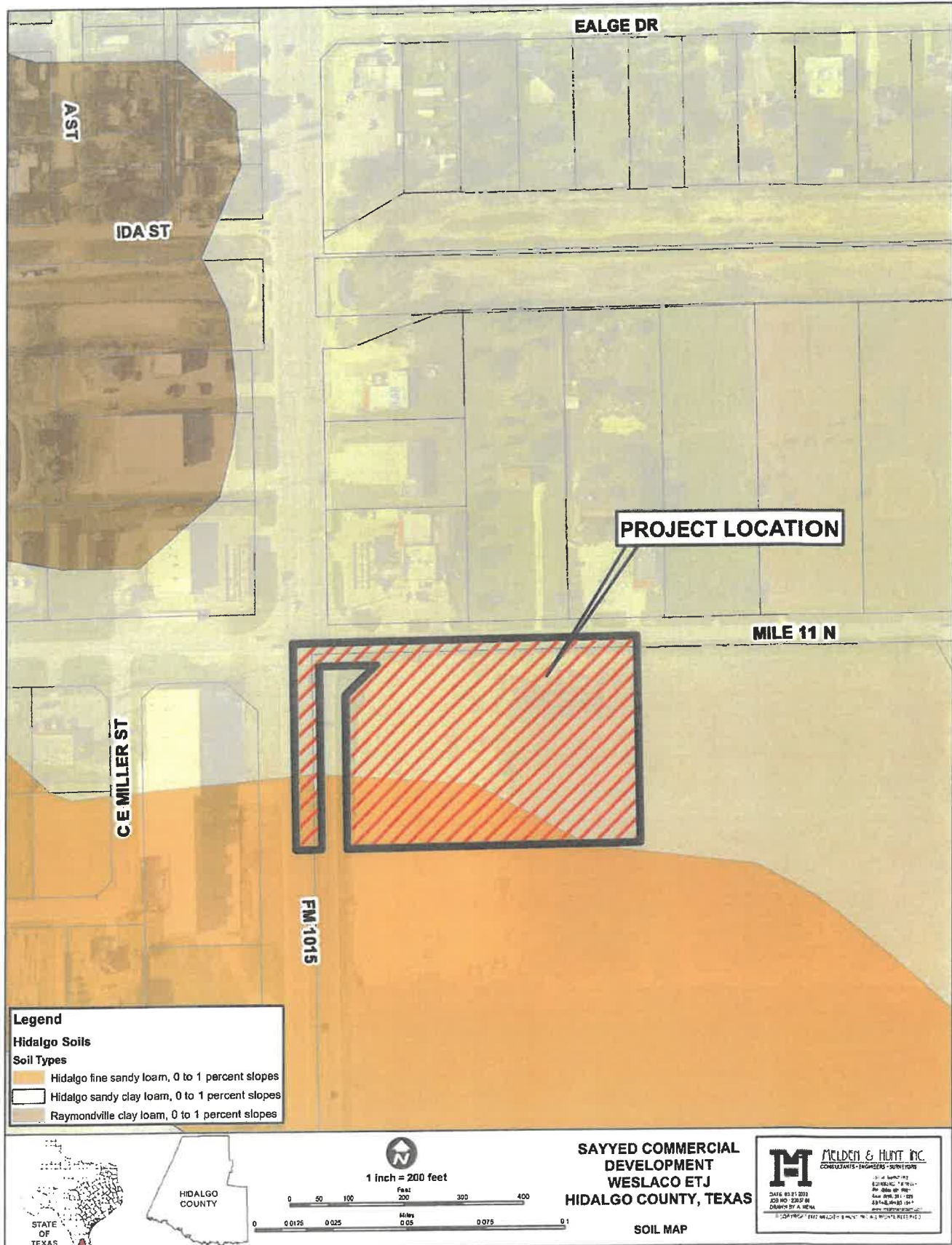
TIME	2 yr.	5 yr.	10 yr.	25 yr.	50 yr.	100 yr.
115	1.342	1.731	2.043	2.380	2.674	2.898
120	1.299	1.677	1.981	2.309	2.596	2.815
125	1.259	1.628	1.924	2.242	2.523	2.737
130	1.221	1.581	1.870	2.180	2.455	2.665
135	1.186	1.537	1.819	2.122	2.391	2.596
140	1.153	1.496	1.771	2.067	2.331	2.532
145	1.122	1.457	1.727	2.015	2.274	2.471
150	1.093	1.421	1.684	1.966	2.220	2.413
155	1.065	1.386	1.644	1.919	2.169	2.359
160	1.039	1.354	1.606	1.876	2.121	2.307
165	1.014	1.323	1.570	1.834	2.075	2.258
170	0.991	1.293	1.536	1.794	2.032	2.211
175	0.968	1.265	1.504	1.757	1.990	2.167
180	0.947	1.239	1.473	1.721	1.951	2.124
185	0.927	1.213	1.443	1.686	1.913	2.084
190	0.907	1.189	1.415	1.654	1.877	2.045
195	0.889	1.166	1.388	1.622	1.842	2.008
200	0.871	1.144	1.362	1.592	1.809	1.972
205	0.854	1.122	1.337	1.564	1.778	1.938
210	0.838	1.102	1.313	1.536	1.747	1.906
215	0.823	1.082	1.290	1.510	1.718	1.874
220	0.808	1.063	1.268	1.484	1.690	1.844
225	0.793	1.045	1.247	1.460	1.663	1.815
230	0.780	1.028	1.227	1.436	1.637	1.787
235	0.766	1.011	1.207	1.413	1.611	1.759
240	0.754	0.995	1.189	1.392	1.587	1.733
245	0.741	0.979	1.170	1.370	1.564	1.708
250	0.729	0.964	1.153	1.350	1.541	1.684
255	0.718	0.950	1.136	1.330	1.519	1.660
260	0.707	0.936	1.119	1.311	1.498	1.637
265	0.696	0.922	1.103	1.293	1.477	1.615
270	0.686	0.909	1.088	1.275	1.458	1.594
275	0.676	0.896	1.073	1.257	1.438	1.573
280	0.666	0.884	1.059	1.241	1.420	1.553
285	0.657	0.872	1.045	1.224	1.402	1.533

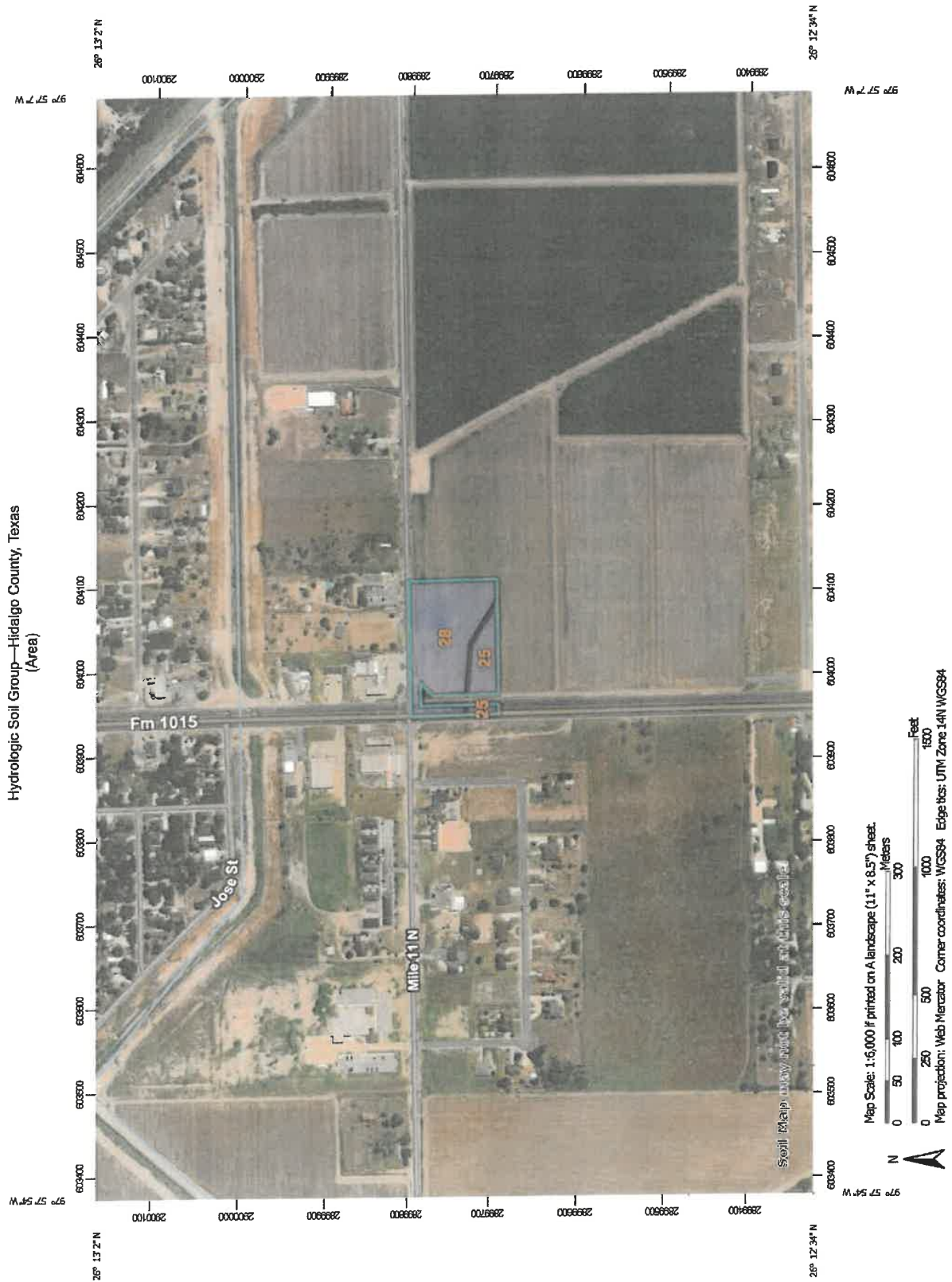
TIME	2 yr.	5 yr.	10 yr.	25 yr.	50 yr.	100 yr.
290	0.647	0.860	1.031	1.209	1.384	1.514
295	0.639	0.849	1.018	1.193	1.367	1.496
300	0.630	0.838	1.005	1.178	1.350	1.478
305	0.622	0.828	0.992	1.164	1.334	1.460
310	0.614	0.817	0.980	1.150	1.319	1.444
315	0.606	0.807	0.969	1.136	1.303	1.427
320	0.598	0.797	0.957	1.123	1.288	1.411
325	0.591	0.788	0.946	1.110	1.274	1.395
330	0.583	0.779	0.935	1.097	1.260	1.380
335	0.576	0.770	0.924	1.085	1.246	1.365
340	0.570	0.761	0.914	1.073	1.233	1.351
345	0.563	0.752	0.904	1.061	1.220	1.337
350	0.556	0.744	0.894	1.050	1.207	1.323
355	0.550	0.736	0.885	1.039	1.195	1.309
360	0.544	0.728	0.875	1.028	1.182	1.296
365	0.538	0.720	0.866	1.017	1.171	1.284
370	0.532	0.713	0.857	1.007	1.159	1.271
375	0.526	0.705	0.849	0.997	1.148	1.259
380	0.521	0.698	0.840	0.987	1.137	1.247
385	0.515	0.691	0.832	0.977	1.126	1.235
390	0.510	0.684	0.824	0.968	1.115	1.224
395	0.504	0.677	0.816	0.958	1.105	1.212
400	0.499	0.671	0.808	0.949	1.095	1.201
405	0.494	0.664	0.800	0.940	1.085	1.191
410	0.489	0.658	0.793	0.932	1.075	1.180
415	0.485	0.652	0.786	0.923	1.066	1.170
420	0.480	0.646	0.779	0.915	1.056	1.160
425	0.475	0.640	0.772	0.907	1.047	1.150
430	0.471	0.634	0.765	0.899	1.038	1.140
435	0.466	0.628	0.758	0.891	1.029	1.131
440	0.462	0.623	0.751	0.883	1.021	1.121
445	0.458	0.617	0.745	0.876	1.012	1.112
450	0.454	0.612	0.739	0.869	1.004	1.103
455	0.450	0.607	0.733	0.861	0.996	1.094
460	0.446	0.602	0.726	0.854	0.988	1.086

where:	2yr	5yr	10yr
e=	0.831	0.795	0.778
b=	74	80	87
d=	9.6	9.2	9.2

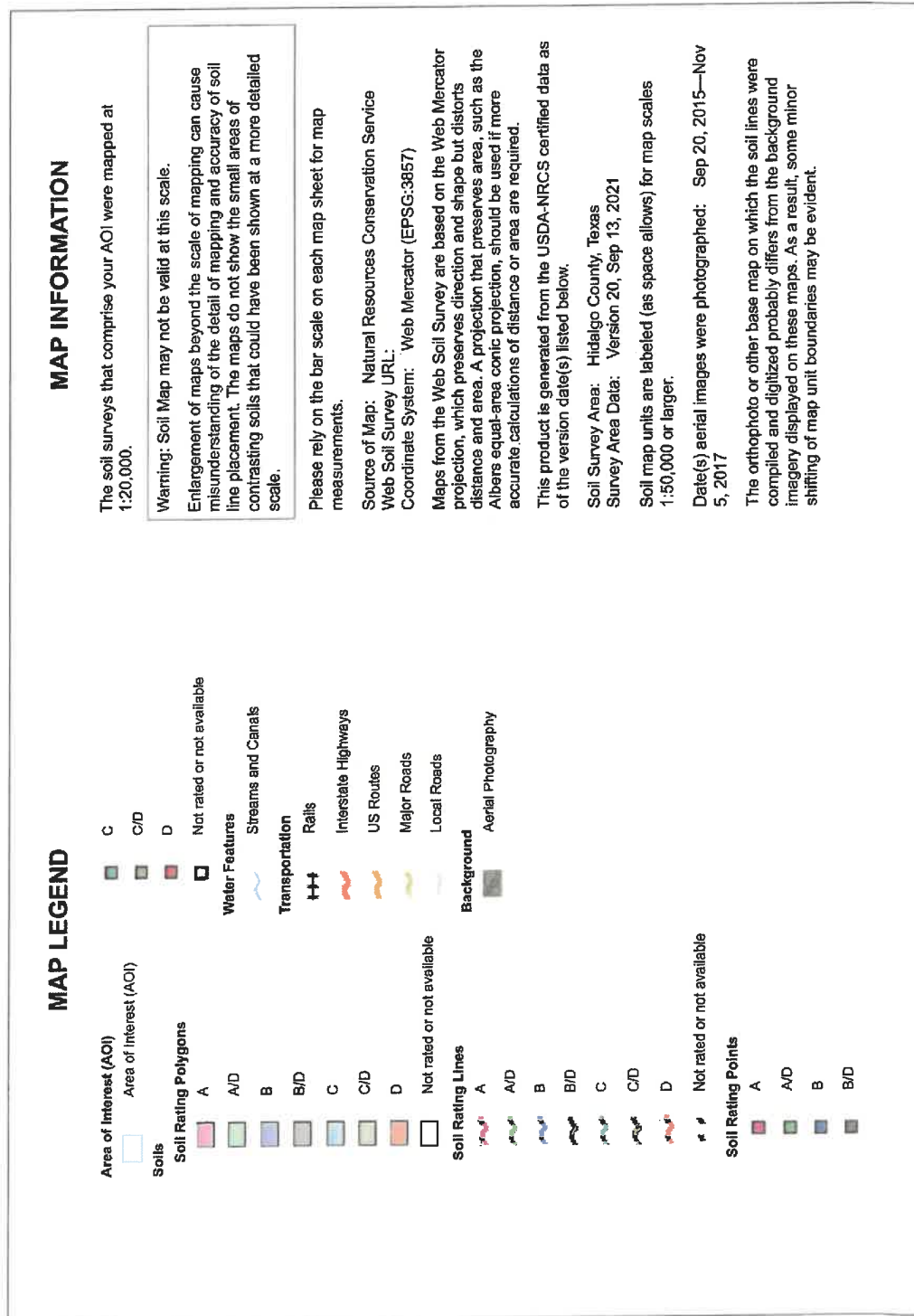
25yr	50yr	100yr
0.771	0.749	0.740
98	99	103
9.2	9.2	9.6

Prepared By Melden & Hunt, Inc.





Hydrologic Soil Group—Hidalgo County, Texas
(Area)



Hydrologic Soil Group—Hidalgo County, Texas

Area

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
25	Hidalgo fine sandy loam, 0 to 1 percent slopes	B	0.9	21.5%
28	Hidalgo sandy clay loam, 0 to 1 percent slopes	B	3.1	78.5%
Totals for Area of Interest			4.0	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

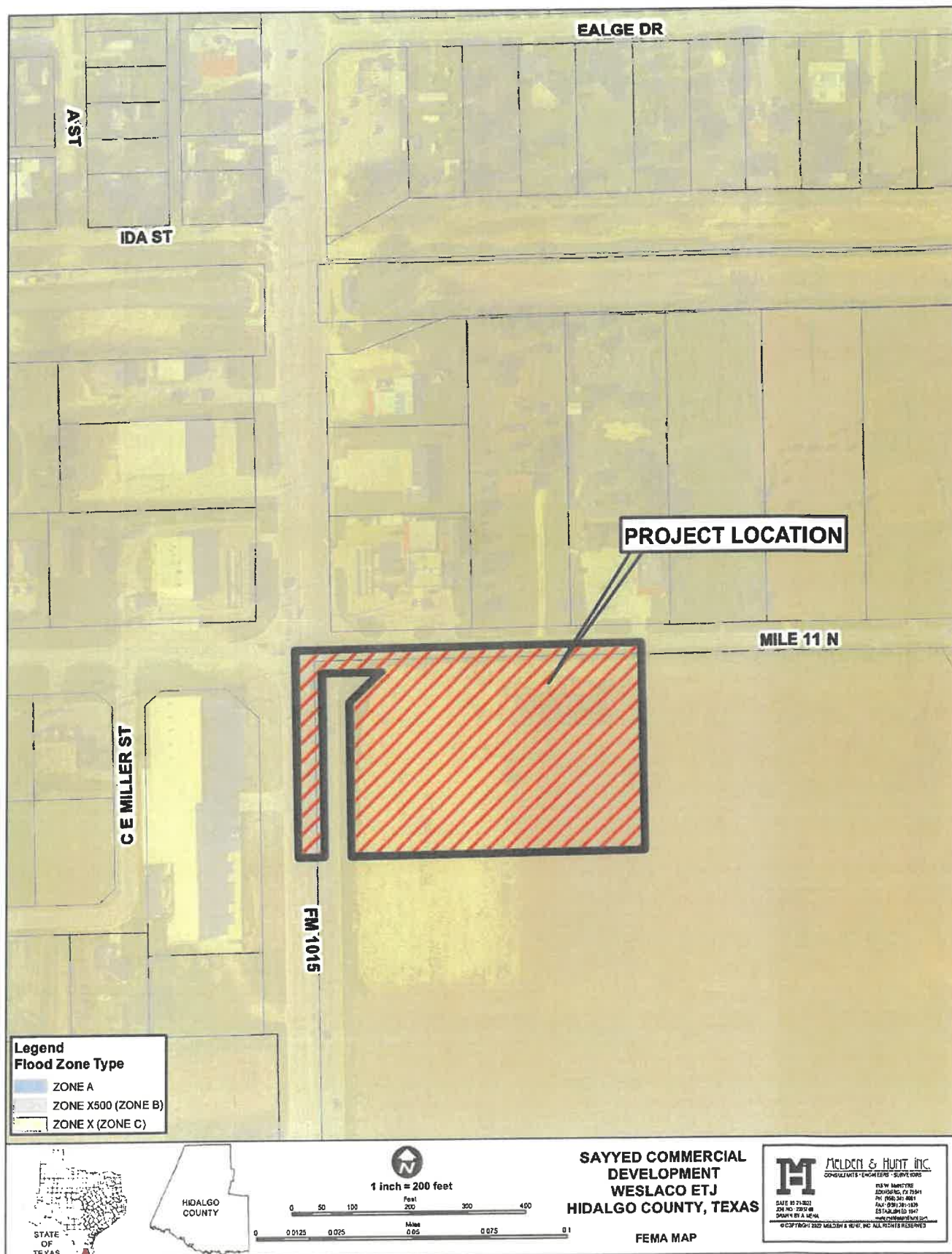
The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.



Page 1 of 3		Date: September 02, 2020		Case No.: 20-06-3073A		LOMR-F	
 Federal Emergency Management Agency Washington, D.C. 20472							
LETTER OF MAP REVISION BASED ON FILL DETERMINATION DOCUMENT (REMOVAL)							
COMMUNITY AND MAP PANEL INFORMATION				LEGAL PROPERTY DESCRIPTION			
COMMUNITY	HIDALGO COUNTY, TEXAS (Unincorporated Areas)			A portion of Farm Tracts 1065, 1066, 1071 and 1072, The West and Adams Tracts, as described in the Correction Assumption Warranty Deed recorded as Document No. 2775398, in the Office of the County Clerk, Hidalgo County, Texas The portion of property is more particularly described by the following metes and bounds:			
	COMMUNITY NO.: 480334						
AFFECTED MAP PANEL	NUMBER: 4803340450C						
	DATE: 6/6/2000						
FLOODING SOURCE: EAST LATERAL				APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 26.212463, -97.955059 SOURCE OF LAT & LONG: LOMA LOGIC DATUM: NAD 83			
DETERMINATION							
LOT	BLOCK/ SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NGVD 29)	LOWEST ADJACENT GRADE ELEVATION (NGVD 29)
--	--	--	Mile 11 North	Portion of Property	X (shaded)	--	64.0 feet
Special Flood Hazard Area (SFHA) - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).							
ADDITIONAL CONSIDERATIONS (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)							
LEGAL PROPERTY DESCRIPTION FILL RECOMMENDATION PORTIONS REMAIN IN THE SFHA				REVISED BY LETTER OF MAP REVISION STATE LOCAL CONSIDERATIONS			
This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Revision based on Fill for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the described portion(s) of the property(ies) is/are not located in the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This document revises the effective NFIP map to remove the subject property from the SFHA located on the effective NFIP map; therefore, the Federal mandatory flood insurance requirement does not apply. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed. This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.							
 Luis V. Rodriguez, P.E., Director Engineering and Modeling Division Federal Insurance and Mitigation Administration							

Page 2 of 3	Date: September 02, 2020	Case No.: 20-06-3073A	LOMR-F
-------------	--------------------------	-----------------------	--------



Federal Emergency Management Agency
Washington, D.C. 20472

**LETTER OF MAP REVISION BASED ON FILL
DETERMINATION DOCUMENT (REMOVAL)**
ATTACHMENT 1 (ADDITIONAL CONSIDERATIONS)

LEGAL PROPERTY DESCRIPTION (CONTINUED)
COMMENCING at a Nail set [N:16603554.540 E:1164323.367] at the Northeast corner of said Farm Tract 1072; THENCE, S 01° 11' 52" W along the East line of said Farm Tract 1072, at a distance of 30.00 feet pass the existing South right-of-way line of Mile 11 North, continuing a total distance of 60.00 feet; THENCE, S 88° 48' 08" W a distance of 286.64 feet to a No. 4 rebar set for the Northeast corner and POINT OF BEGINNING; THENCE, S 01° 11' 52" E, at a distance of 1,260.00 feet pass the South line of said Farm Tract 1072 and the North line of said Farm Tract 1071, continuing a total distance of 1,287.00 feet to a No. 4 rebar set on a North line of Vaquero Estates Phase IV, according to the plat thereof recorded in Instrument Number 2759584, Hidalgo County Map Records, for the Southeast corner of this tract; THENCE, S 88° 48' 08" W along the North line of said Vaquero Estates Phase IV, at a distance of 38.35 feet pass a No. 4 rebar found on the existing West right-of-way line of Spur Street, continuing a total distance of 875.36 feet to a No. 4 rebar set for the Southernmost Southwest corner of this tract; THENCE, N 33° 29' 12" W at a distance of 31.94 feet pass the North line of said Tract 1071 and the South line of said Tract 1065, continuing a total distance of 64.95 feet to a No. 4 rebar set for an angle point of this tract; THENCE, N 41° 45' 49" W a distance of 153.24 feet to a No. 4 rebar set for an angle point of this tract; THENCE, N 56° 00' 26" W a distance of 70.04 feet to a No. 4 rebar set for an angle point of this tract; THENCE, N 67° 05' 09" W a distance of 158.36 feet to a No. 4 rebar set for an angle point of this tract; THENCE, N 85° 01' 04" W a distance of 241.98 feet to a No. 4 rebar set for an angle point of this tract; THENCE, N 73° 41' 06" W a distance of 239.09 feet to a No. 4 rebar set for an angle point of this tract; THENCE, S 74° 52' 26" W a distance of 64.82 feet to a No. 4 rebar set for an angle point of this tract; THENCE, N 85° 26' 29" W a distance of 96.73 feet to a No. 4 rebar set for an angle point of this tract; THENCE, N 69° 32' 35" W 118.79 feet to a No. 4 rebar set for an angle point of this tract; THENCE, S 88° 48' 08" W a distance of 58.25 feet to a No. 4 rebar set for an angle point of this tract; THENCE, S 72° 54' 28" W a distance of 84.78 feet to a No. 4 rebar set for an angle point of this tract; THENCE, S 72° 54' 28" W a distance of 91.81 feet to a No. 4 rebar set for angle point of this tract; THENCE, S 78° 26' 24" W a distance of 89.52 feet to a No. 4 rebar set for angle point of this tract; THENCE, N 58° 02' 50" W a distance of 182.19 feet to a No. 4 rebar set for an angle point of this tract; THENCE, N 88° 03' 36" W a distance of 30.28 feet to a No. 4 rebar set for an angle point of this tract; THENCE, S 62° 18' 57" W a distance of 35.80 feet to a No. 4 rebar set for the Northernmost Southwest corner of this tract; THENCE, N 01° 11' 52" W a distance of 761.19 feet to a No. 4 rebar set for the Southernmost Northwest corner of this tract; THENCE, N 43° 48' 08" E a distance of 42.75 feet to a No. 4 rebar set for the Northernmost Northwest corner of this tract; THENCE, N 88° 48' 08" E, at a distance of 909.77 pass the East line of said Farm Tract 1065 and the West line of Farm Tract 1072, continuing a total distance of 2,453.12 feet to the POINT OF BEGINNING
FILL RECOMMENDATION (This Additional Consideration applies to the preceding 1 Property.)

The minimum NFIP criteria for removal of the subject area based on fill have been met for this request and the community in which the property is located has certified that the area and any subsequent structure(s) built on the filled area are reasonably safe from flooding. FEMA's Technical Bulletin 10-01 provides guidance for the construction of buildings on land elevated above the base flood elevation through the placement of fill. A copy of Technical Bulletin 10-01 can be obtained by calling the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or from our web site at <http://www.fema.gov/mit/tb1001.pdf>. Although the minimum NFIP standards no longer apply to this area, some communities may have floodplain management regulations that are more restrictive and may continue to enforce some or all of their requirements in areas outside the Special Flood Hazard Area.

This attachment provides additional information regarding this request. If you have any questions about this attachment, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.


Luis V. Rodriguez, P.E., Director
Engineering and Modeling Division
Federal Insurance and Mitigation Administration

Page 3 of 3	Date: September 02, 2020	Case No.: 20-06-3073A	LOMR-F
-------------	--------------------------	-----------------------	--------



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION BASED ON FILL DETERMINATION DOCUMENT (REMOVAL)

ATTACHMENT 1 (ADDITIONAL CONSIDERATIONS)

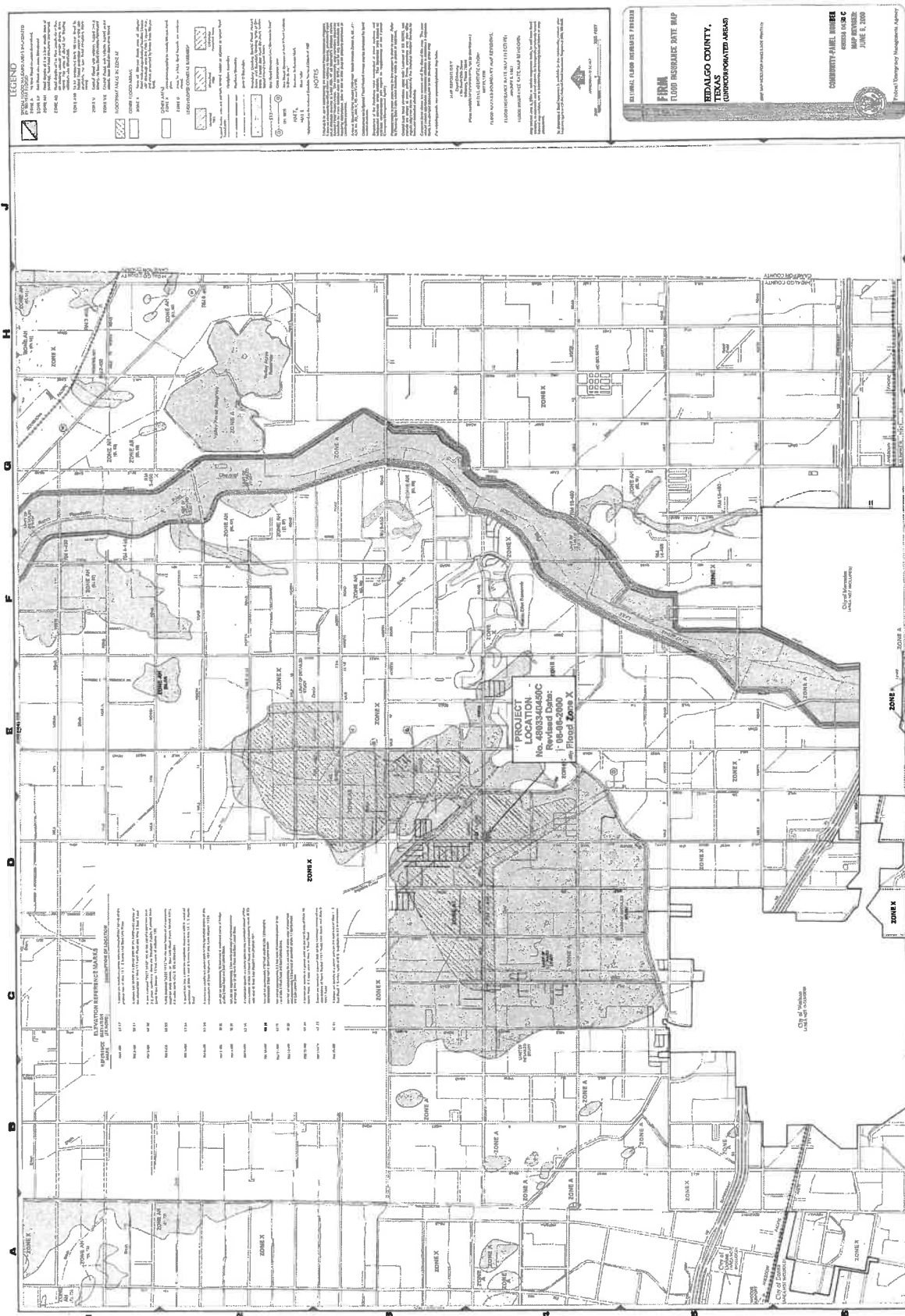
PORTIONS OF THE PROPERTY REMAIN IN THE SFHA (This Additional Consideration applies to the preceding 1 Property.)
Portions of this property, but not the subject of the Determination/Comment document, may remain in the Special Flood Hazard Area. Therefore, any future construction or substantial improvement on the property remains subject to Federal, State/Commonwealth, and local regulations for floodplain management.

REVISED BY LETTER OF MAP REVISION (This Additional Consideration applies to the preceding 1 Property.)
The effective National Flood Insurance Program map for the subject property, has since been revised by a Letter of Map Revision (LOMR) dated 5/30/2002. The 5/30/2002 LOMR has been used in making the determination/comment for the subject property.

STATE AND LOCAL CONSIDERATIONS (This Additional Consideration applies to all properties in the LOMR-F DETERMINATION DOCUMENT (REMOVAL))
Please note that this document does not override or supersede any State or local procedural or substantive provisions which may apply to floodplain management requirements associated with amendments to State or local floodplain zoning ordinances, maps, or State or local procedures adopted under the National Flood Insurance Program.

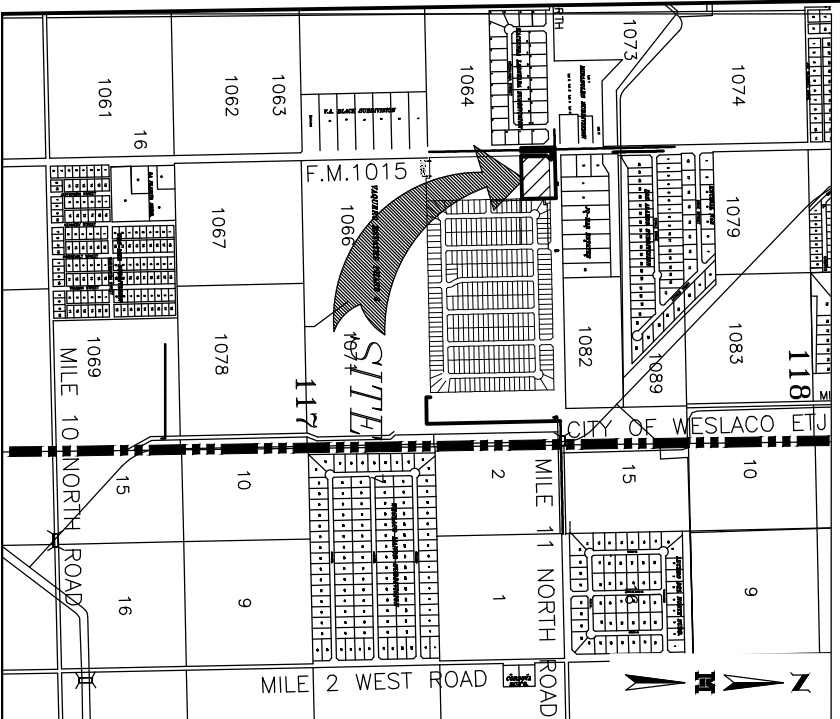
This attachment provides additional information regarding this request. If you have any questions about this attachment, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.


Luis V. Rodriguez, P.E., Director
Engineering and Modeling Division
Federal Insurance and Mitigation Administration





SAVED COMMERCIAL DEVELOPMENT IS LOCATED IN THE CENTRAL EAST PART OF THE HIGHLANDS COUNTY ON THE SOUTHEAST INTERSECTION OF MILE 11 NORTH AND E.M. 1015 WHICH IS THE ONLY NEARBY MUNICIPALITY IS THE CITY OF WESLACO. ACCORDING TO THE OFFICIAL MAP IN THE OFFICE OF THE SECRETARY OF THE CITY WESLACO (POPULATION 37,787) HAS UNDEVELOPED COMMERCIAL DEVELOPMENT LIES APPROXIMATELY 2 MILES FROM THE CITY LIMITS (AND IS WITHIN THE 2 MILE EXTRATERRITORIAL JURISDICTION (ETJ) UNDER LOCAL GOVERNMENT CODE § 212.001 AND 42.021. THIS SUBDIVISION FALLS WITHIN PRECINCT 1.



INDEX TO SHEET OF AL SAYVED COMMERCIAL DEVELOPMENT			
SHEET 1: HEADING, INDEX, LOCATION MAP AND E.T.I, PRINCIPAL CONTACTS, MAP, LOT, STREETS, AND EASEMENT LAYOUT, ENGINEERING CERTIFICATION, SURVEYORS CERTIFICATION, OWNERS DEDICATION CERTIFICATION, PLANNING CERTIFICATION, ENGINEERING CERTIFICATION, SURVEYORS CERTIFICATION, PLANNING DESCRIPTION, NOTES AND RECORDS, ENGINEERING CERTIFICATION, SURVEYORS CERTIFICATION, PLANNING NOTES AND RESTRICTIONS, HIDALGO COUNTY HEALTH DEPARTMENT CERTIFICATE, HIDALGO COUNTY JUDGE CERTIFICATION, IRRIGATION DISTRICT, H.C.D. NO. 1, NORTH ALAMO WATER SUPPLY CORPORATION CERTIFICATION, NOTARY PUBLIC CERTIFICATION, LOT DATA, CURVE DATA, LINE DATA, TABLES			
SHEET 2: ENGINEERING REPORT, INCLUDING DESCRIPTION OF WATER & SEWER (ENGLISH AND SPANISH VERSION), ENGINEERS CERTIFICATION, WATER & SEWER LAYOUT, DETAILS.			
SHEET 3: DRAINAGE REPORT INCLUDING DESCRIPTION OF DRAINAGE AND ENGINEERING CERTIFICATION, MAP OF TOPOGRAPHY AND STREET LAYOUT, STREET, STORE DETAIL.			
PRINCIPAL CONTACTS	NAME	ADDRESS	
OWNER:	MAHER AL SAYVED	2402 LAKE AUSTIN BL.	
ENGINEER:	MARIO A. REVILLA P.E.	115 W. MCINTYRE	
SURVEYOR:	RUBEN JAMES DE JESUS P.E., R.P.L.S.	115 W. MCINTYRE	

HIDALGO COUNTY
CERTIFICATE OF PLAT APPROVAL
UNDER LOCAL GOVERNMENT CODE § 232.028 (A)

WE, THE UNDERSIGNED CERTIFY THAT THIS PLAT OF SAVED COMMERCIAL DEVELOPMENT
WAS REVIEWED AND APPROVED BY THE HIDALGO COUNTY
COMMISSIONERS COURT ON _____ DAY OF _____, 20____.

HIDALGO COUNTY JUDGE _____
ATTEST: _____
HIDALGO COUNTY CLERK _____

RELOCATED TO THE CENTER LINE THEREOF BEING THE PRELINE AS RELOCATED CENTER LINE THEREOF BEING THE PRELINE AS RELOCATED

IN WITNESS WHEREOF, THE SAID GRANTOR HAS EXECUTED THIS INSTRUMENT THE ____ DAY OF _____, 20____.

MAHER AL-SAYEED
2402 LAKE AUSTIN BLVD.
AUSTIN, TEXAS 78703

MALEK AL-SAYEED
2402 LAKE AUSTIN BLVD.
AUSTIN, TEXAS 78703

THE STATE OF TEXAS \$
COUNTY OF HIDALGO \$

BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, ON THIS DAY PERSONALLY APPEARED MAHER AL-SAYVED & MALEK AL-SAYVED, KNOWN TO ME TO BE THE PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT THEY EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED.

HIDALGO COUNTY DRAINAGE DISTRICT NO. 1 HEREBY CERTIFIES THAT THE DRAINAGE PLANS FOR THIS SUBDIVISION COMPLY WITH THE MINIMUM STANDARDS OF THE DISTRICT ADOPTED UNDER TEXAS WATER CODE § 49.211 (c). THE DISTRICT HAS NOT REVIEWED AND DOES NOT CERTIFY THAT THE DRAINAGE STRUCTURES DESCRIBED ARE APPROPRIATE FOR THE SPECIFIC SUBDIVISION, BASED ON GENERALLY ACCEPTED ENGINEERING CRITERIA. IT IS THE RESPONSIBILITY OF THE DEVELOPER AND HIS ENGINEER TO MAKE THEIR DETERMINATIONS.

RAUL E. SESIN P.E., C.F.M. GENERAL MANAGER	DATE
---	------

I, THE UNDERSIGNED, CHAIRPERSON OF THE PLANNING AND ZONING COMMISSION OF THE CITY OF WESLACO, TEXAS HEREBY CERTIFY THAT THIS SUBDIVISION PLAN CONFORMS TO ALL REQUIREMENTS OF THE SUBDIVISION REGULATION OF THIS CITY WHEREIN MY

ENVIRONMENTAL HEALTH DIVISION MANAGER

TY JUDGE

STATE OF TEXAS
COUNTY OF HELLGAS

BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, ON THIS DAY PERSONALLY APPEARED, WALTER A. STAYED
PROVED TO ME, THROUGH HIS TEXAS DEPARTMENT OF PUBLIC SAFETY FIREARMS LICENSE TO BE
THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, WHO, BEING BY ME FIRST
DULY SURELY DECLARED THAT THE STATEMENT'S FACTS WERE TRUE AND CORRECT AND ACKNOWLEDGED
THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED,
GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS DAY OF 20. 22.

BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, ON THIS DAY PERSONALLY APPEARED MALEK A. SAYYED
 PROVED TO ME THROUGH HIS TEXAS DEPARTMENT OF PUBLIC SAFETY DRIVER'S LICENSE TO BE
 THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, WHO, BEING BY ME FIRST
 DULY SWORN, DECLARED THAT THE STATEMENTS THEREIN ARE TRUE AND CORRECT AND ACKNOWLEDGED
 THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREBY EXPRESSED.
 GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS DAY OF 20 22.

MARIO A. REYNA, P.E. # 117368
DATE PREPARED: 7-24-2019
ENGINEERING JOB NO. 22057.00

I, THE UNDERSIGNED, ROBERT N. JAMEZ, A REGISTERED PROFESSIONAL LAND SURVEYOR, IN THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THE HEREIN PRESENTED PLAT AND DESCRIPTION OF SAID COMMERCIAL DEVELOPMENT, WERE PREPARED FROM A SURVEY OF THE PROPERTY MADE ON THE GROUND BY ME OR UNDER MY SUPERVISION ON 11-26-17, AND THAT IT IS A TRUE AND ACCURATE REPRESENTATION OF THE SUBDIVISION OF THE LANDS HEREIN DESCRIBED.

THIS PLAT IS APPROVED BY THE HIDALGO AND CAMERON COUNTIES IRRIGATION DISTRICT No. 9

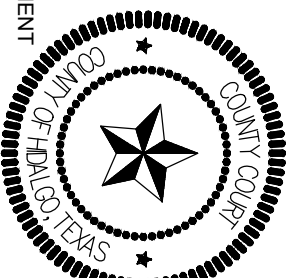
[illegible]

HIDALGO & CAMERON COUNTIES IRRIGATION DISTRICT NO. 9

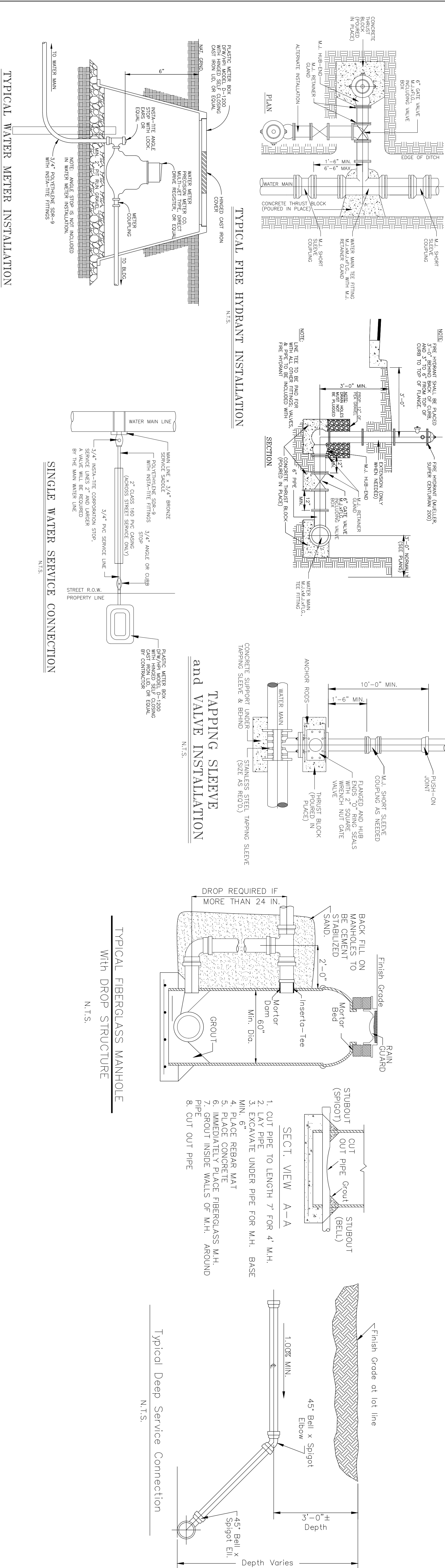
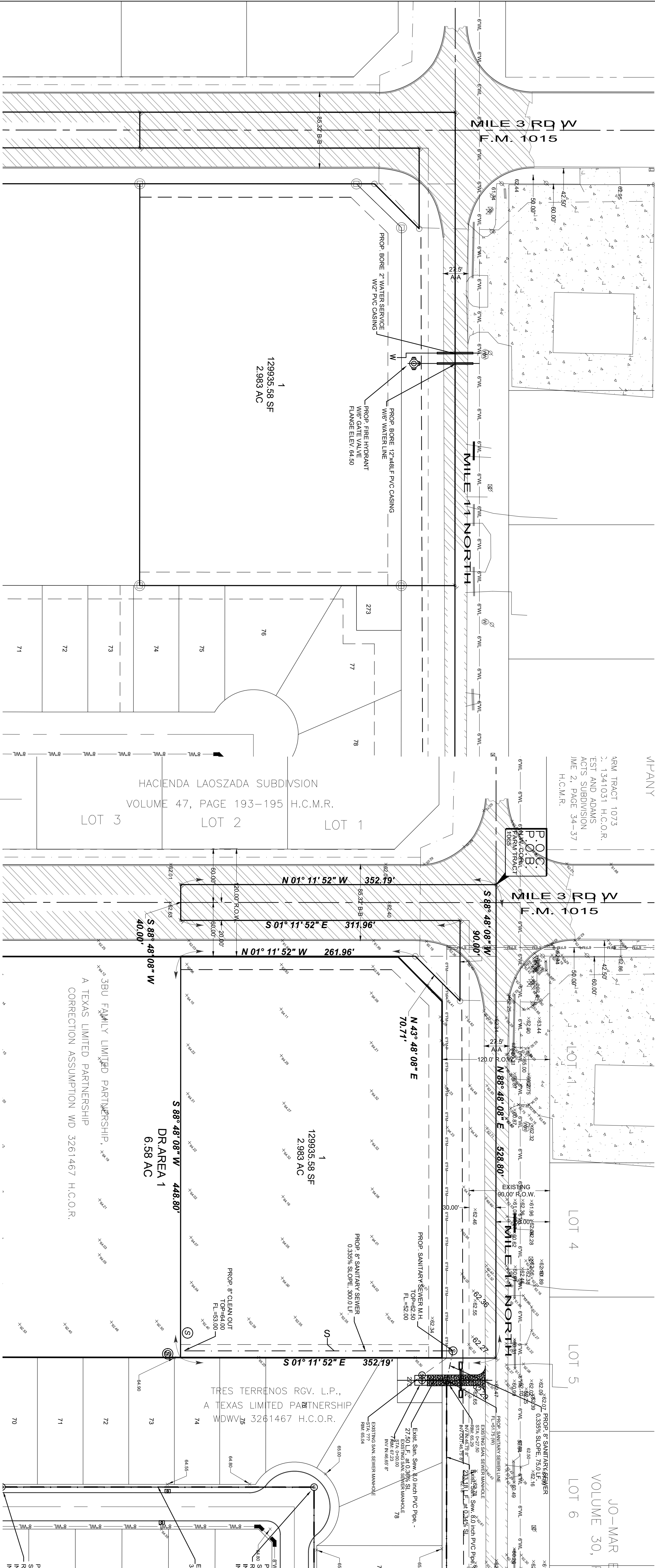
AO
APPROVAL
CODE § 212.009(C) AND §
OF SAYEED COMMERCIAL DEVELOPMENT
UNCIL OF THE CITY OF WESTLACO

OF THE MAP RECORDS OF HIDALGO COUNTY, TEXAS

By _____ DEPUTY



FILED FOR RECORD IN
HIDALGO COUNTY
ARTURO GUJARDO, JR.
HIDALGO COUNTY CLERK



JOB No.
22057.01

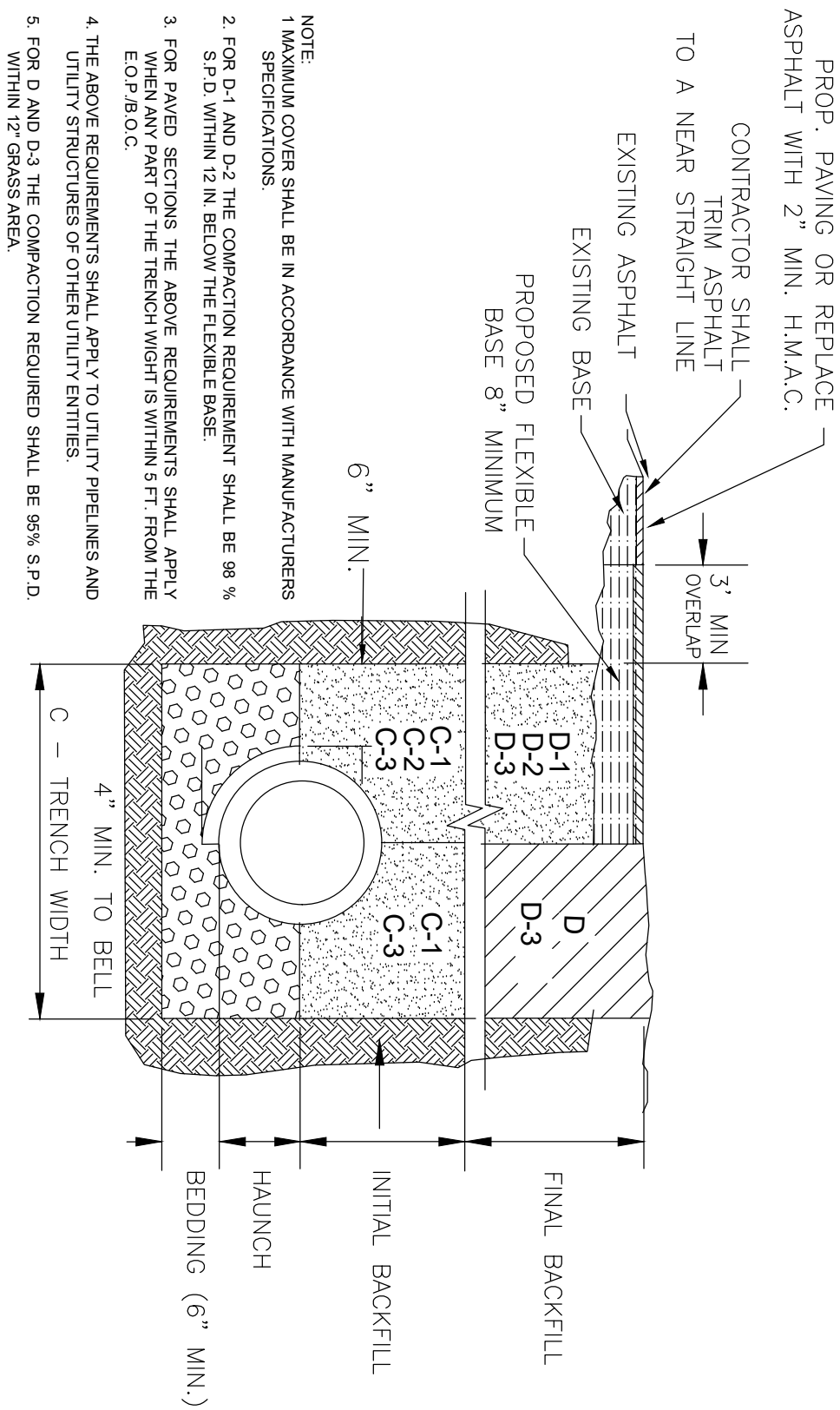
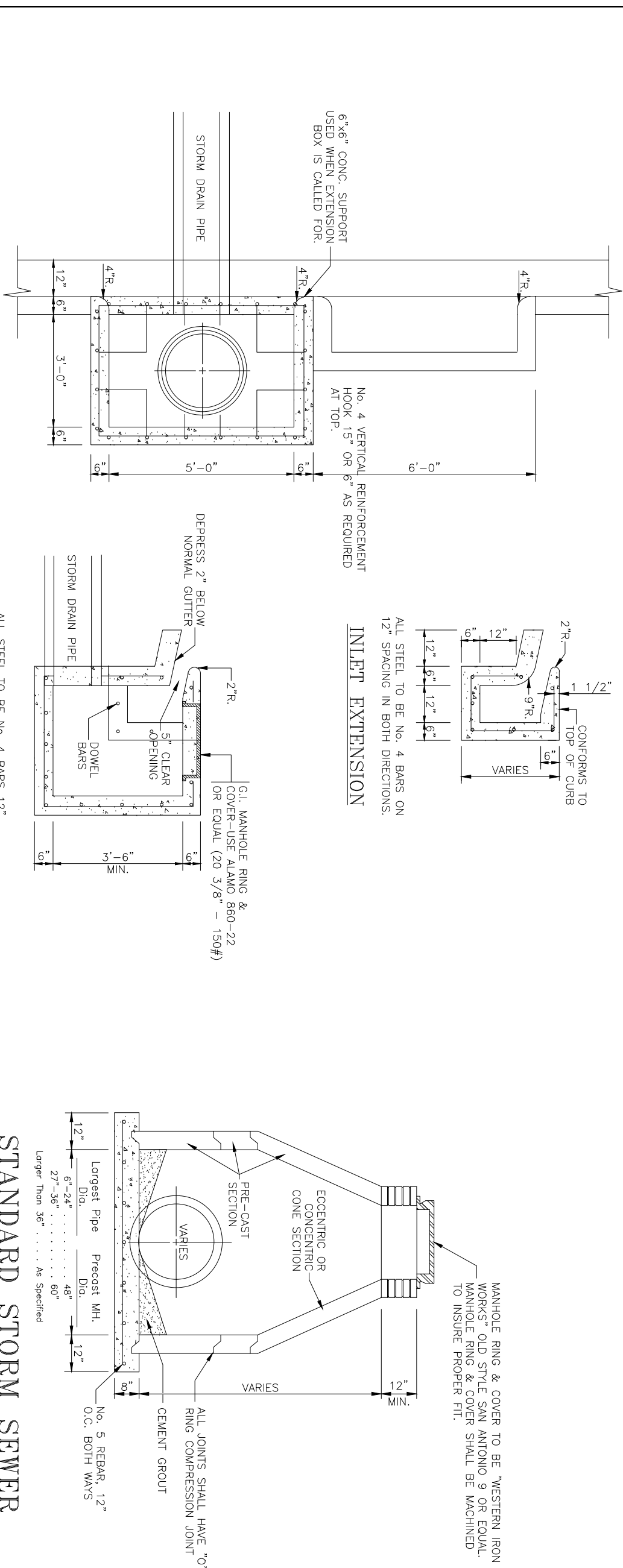
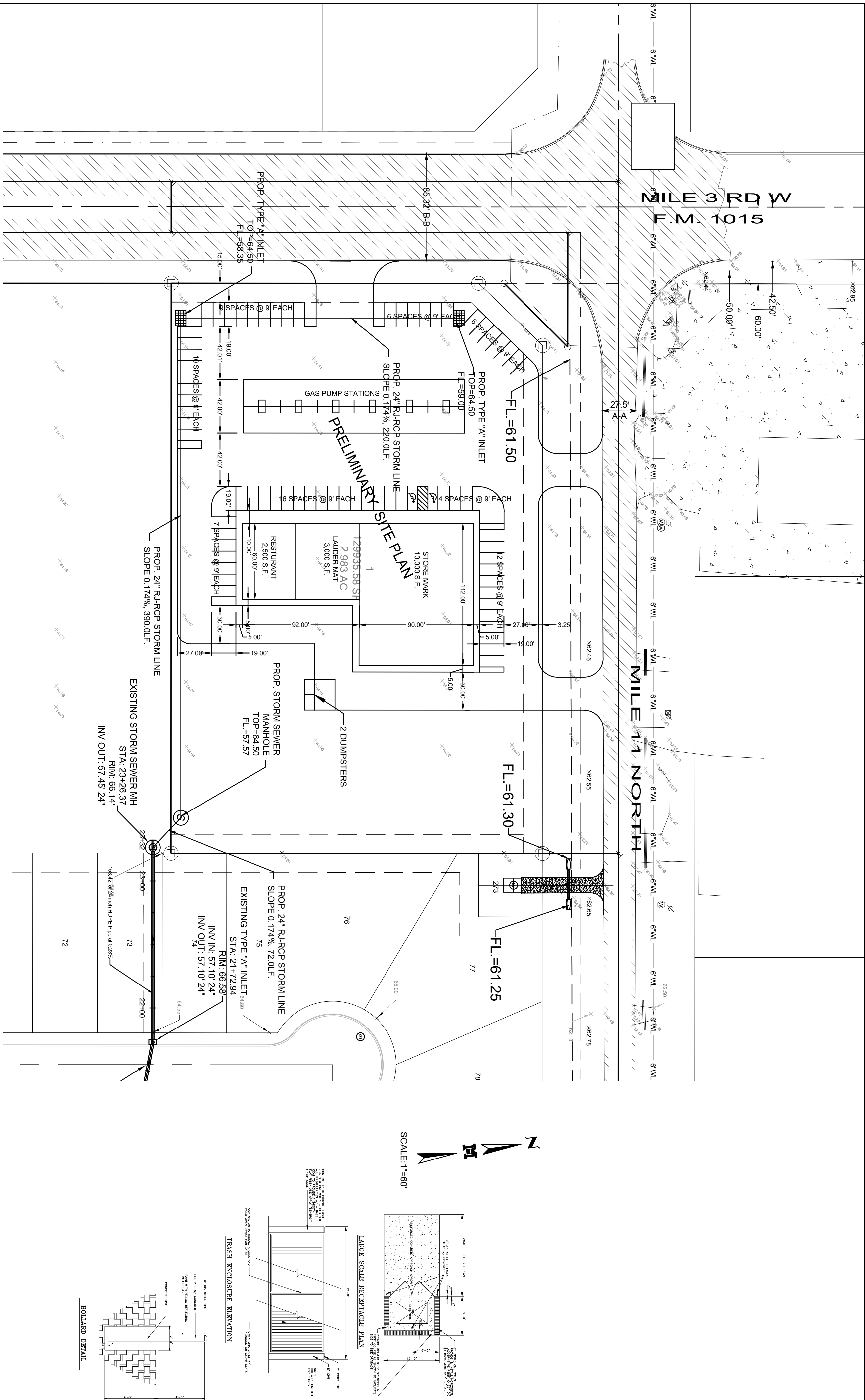
REVISION	DATE	BY
MELDEN & HUNT, INC. TEXAS REGIST. E-1495 CONSULTANTS • ENGINEERS • SURVEYORS		
115 W. McINTYRE - EDINBURG, TX. 78541 PH: (956) 381-0861 • FAX: (956) 381-1838 ESTABLISHED 1947 - www.meldenandhunt.com		

ENG. TECH: CIRIO
PROJECT ENG. MARIO A. REYNA
1-BOOK: , PG.
1. RELEASE DATE:
2. RELEASE DATE:
3. RELEASE DATE:
SCALE: 1" = 60'

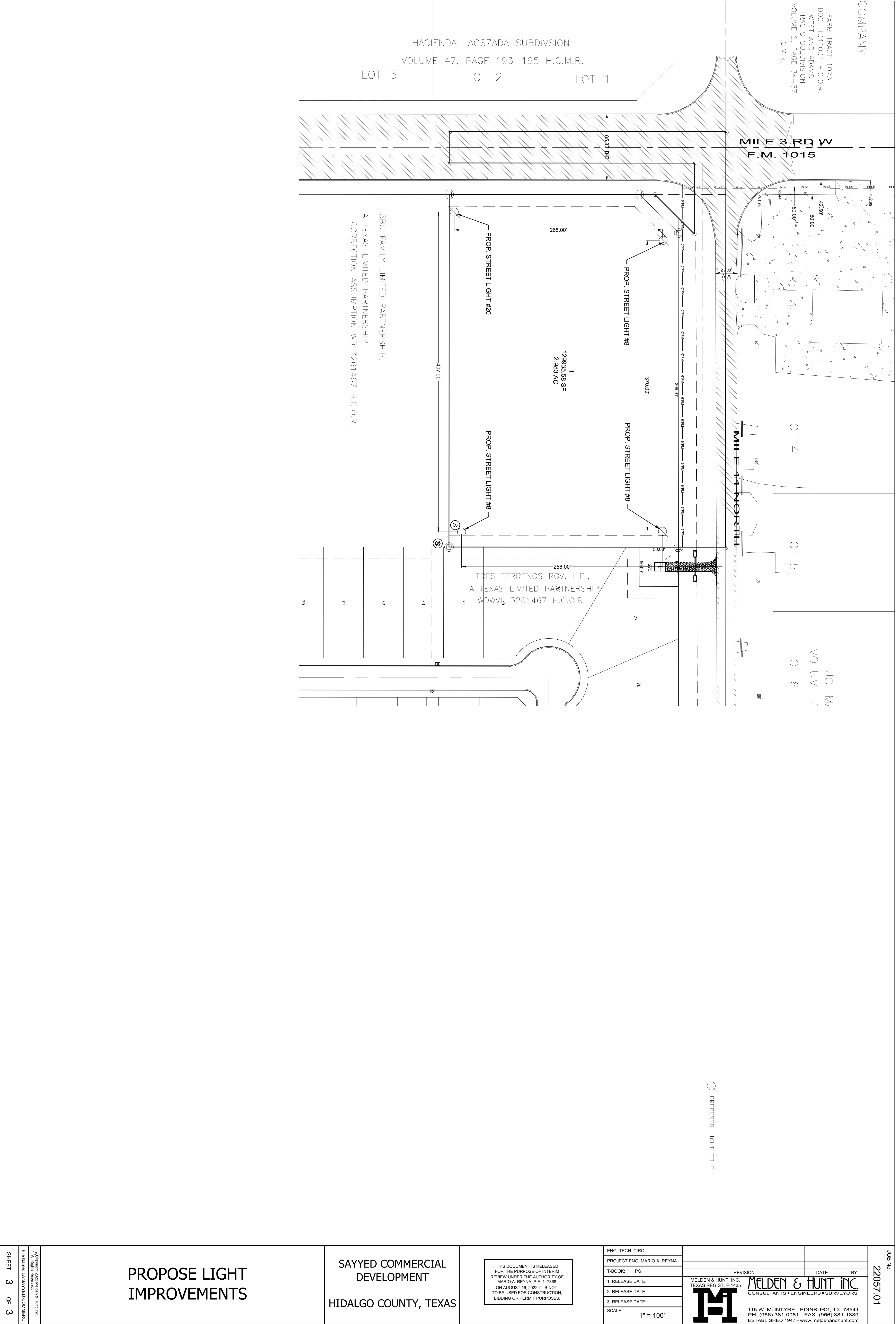
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF MARIO A. REYNA, P.E. 117368 ON AUGUST 16, 2022 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

SAYYED COMMERCIAL DEVELOPMENT
HIDALGO COUNTY, TEXAS

PROPOSED WATER & SANITARY SEWER IMPROVEMENTS

[illegible]

Y:\Land Development\Commercial\Weslaco\22057 - Mar Malek Al-Sayyed-Sayyed Commercial\Autocad Files\AL SAYYED COMMERCIAL.dwg, 8/24/2022 1:03:30 PM, DWG To PDF.pc3



PROPOSE LIGHT IMPROVEMENTS	SAYYED COMMERCIAL DEVELOPMENT HIDALGO COUNTY, TEXAS	THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF MARIO A. REYNA, P.E. 117388 ON AUGUST 16, 2022 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.	ENG. TECH: CIRO	MELDEN & HUNT, INC. CONSULTANTS • ENGINEERS • SURVEYORS 115 W. McINTYRE • EDINBURG, TX. 78541 PH: (956) 381-0981 • FAX: (956) 381-1839 ESTABLISHED 1947 - www.meldenandhunt.com	DATE	BY
			PROJECT ENG: MARIO A. REYNA		REVISION	DATE
			T-BOOK: , PG.		MELDEN & HUNT, INC. TEXAS REGIST. E-1435	DATE
			1. RELEASE DATE:		2. RELEASE DATE:	3. RELEASE DATE:
			SCALE: 1" = 100'		115 W. McINTYRE • EDINBURG, TX. 78541 PH: (956) 381-0981 • FAX: (956) 381-1839 ESTABLISHED 1947 - www.meldenandhunt.com	DATE

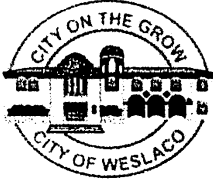
JOB No. 22057.01

SHEET 3 OF 3



**Planning & Zoning Commission
Standardized Agenda Request Form**

Date of Meeting: October 5, 2022	Agenda Item No. (to be assigned by PCE): V.D.
From: Rebekah de la Fuente, Planning Director, on behalf of Jose Torres.	
Subject/Agenda Item: Discussion and consideration for the Final Plat for Mi Fortuna Estates being a 4.52-acre out of Farm Tract 790, West Tract Subdivision, Weslaco, Hidalgo County, Texas Located on the Southeast corner of Mile 11 North & FM 1015. Possible Action.	
Discussion/Overview: The proposed eight (8) lot subdivision is located inside the City of Weslaco. This subdivision is being serviced with water by City of Weslaco through a 12" waterline and sewer by the City of Weslaco through a 10" sewer line. The property is within a Flood Zone "B".	
If item requires Publication Notice, provide date and periodical of publication; indicate if comments received from letters mailed to property owners: N/A	
Staff recommendation for Commission's Action: Staff recommends approval of Final Plat	
Additional Action Prompted: [X] Mayor's Signature [] Public Hearing [] Budget Amendment [] Resolution [] Ordinance – First Reading [] Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Subdivision platting, Staff's comments, Drainage Report, Subdivision plat and Utility layout.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	



SUBDIVISION PLATTING APPLICATION

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. PIAT-000298-2022

This form shall be completed by the Property Owner or Applicant and submitted to the Planning Department along with the required number of copies of the respective plat, review fee and all other required information listed below and in the Subdivision Ordinance. The submittal of an application does not constitute acceptance for processing until the staff reviews and determines the application is complete.

STAFF USE ONLY

☐ Single Lot Variance ☐ Minor Plat ☐ Planned Unit Development ☐ Standard Subdivision

GENERAL INFORMATION

Name of Subdivision: Mi Fortuna Estates

Location: 3402 S. Westgate Drive, Weslaco, Texas 78596

Legal Description: WEST TRACT E266'-N818.03' FT 790 5.01AC

Is subdivision inside city limits? ☒ YES ☐ NO

If subdivision is in the ETJ, indicate? ^{N/A} ☐ 3.5 Mile ☐ 5 Mile

If no submit letter of Annexation (Contiguous or Consensual)

Existing Zoning: R-1/R-2

Existing Land Use: Single-Family Home Proposed Land Use: 6 lots R-1 (Lots 3-8) & 2 Lots R-2 (Lots 1-2)

Number of Lots Proposed: 8 Gross Acreage: 4.52 AC

Title Report Submitted: ☒ YES ☐ NO

OWNER INFORMATION

Owner's Name: Julio and Marysol Garcia Telephone: 956-756-0944

Address: 3402 S. Westgate Drive Fax: N/A

City: Weslaco State: TX Zip: 78596 E-mail: marysolgarcia_66@yahoo.com

ENGINEER INFORMATION

Name: Jose F. Torres Telephone: 956-537-4037

Address: 512 W. Rosemary Ave. Fax: N/A

City: Pharr State: TX Zip: 78577 E-mail: btijoet@gmail.com

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

UTILITY PROVISIONS

Will proposed subdivision connect to:

☒ YES ☐ NO Water Provision: _____

☒ YES ☐ NO Wastewater Provision: _____

☒ YES ☐ NO Electric Company: _____

☒ YES ☐ NO Phone Utility _____	☒ YES ☐ NO Gas Utility _____	☒ YES ☐ NO Cable Utility _____
---	---	---

Proposed subdivision is in the following districts:

☒ YES ☐ NO Drainage District _____	☒ YES ☐ NO Irrigation District _____
---	---

Has the property been assessed as flat rate irrigable property: ☐ YES ☐ NO

Have Water Rights been conveyed to City/Water Supplier? ☒ YES ☐ NO

(Attach written proof of such assessment or that it has never been assessed as such a property) If YES, attach an estimate from the irrigation district of the proportional water rights for the subdivision as calculated under Texas Water Code § 49.505.

SUBMITTALS REQUIRED FOR MINOR PLAT REVIEW

_____ Two (2) sets of plats **folded and stapled** (24 x 36) and forward a copy in PDF format to rdelafuente@weslacotx.gov

_____ \$355.00 Planning Review fee

_____ One 11" X 17" reduced copy of plat

_____ Plat Layout

_____ Existing & Proposed Easements

_____ Existing & Proposed ROW

_____ Existing & Proposed Drainage Easements

_____ Contours

_____ Flood Zones

_____ Adjoiners

_____ Existing street names

_____ Drainage plans and calculations with engineer's seal

_____ Elevations

_____ Flood directional arrows

_____ Detention areas

_____ Street names

_____ Proof of ownership of the property

_____ If septic tank system required, submit soil evaluation report

_____ Water Rights associated with the property

_____ Tax Receipt for all taxing entities showing that taxes are paid in full

SUBMITTALS REQUIRED FOR PRELIMINARY (P & Z)

_____ Twelve (12) sets of preliminary plat **folded and stapled** (24 x 36) and forward a copy in PDF format to rdelafuente@weslacotx.gov

_____ \$355.00 (one time fee for preliminary and final plat)

_____ One 11" X 17" reduced copy of plat

_____ Plat Layout

_____ Existing & Proposed Easements

_____ Existing & Proposed ROW

_____ Existing & Proposed Drainage Easements

_____ Contours

- _____ Flood Zones
- _____ Adjoiners
- _____ Existing & Proposed street names
- _____ Utility Layout
- _____ Existing & Proposed Utilities
- _____ Proposed Fire Hydrants
- _____ Adjoiners
- _____ Street names
- _____ Drainage plans and calculations with engineer's seal
- _____ Elevations
- _____ Flood directional arrows
- _____ Detention areas
- _____ Street names
- _____ Proof of ownership of the property
- _____ If septic tank system required, submit soil evaluation report
- _____ Water Rights associated with the property
- _____ Tax Receipt for all taxing entities showing that taxes are paid in full
- _____ Number of fire hydrants proposed for subdivision
- _____ Trip Generation Worksheet

SUBMITTALS REQUIRED FOR FINAL (P & Z) **Will not apply to Single Lot Variance**

- ☒ Twelve (12) sets of plans **FOLDED & STAPLED** (24 x 36) & PDF copy with all corrections
- ☒ Plats to be sealed by Professional Engineer
- ☒ Approved Drainage Report
- ☒ Traffic Impact Analysis (If required)

SUBMITTALS REQUIRED FOR FINAL (City Commission)

- _____ One set of 8 ½ x 11 of plat and utilities with all corrections done

SUBMITTALS REQUIRED FOR PRE-CONSTRUCTION MEETING

- _____ Seven (7) full sets of construction plans 24 x 36 and one (1) 11 x 17 with plan & profile.
- _____ Engineering cost estimates for 3% geotechnical testing fees and 2% inspection fees
- _____ Notice of Intent
- _____ SW3P

SUBMITTALS REQUIRED FOR RECORDING OR HIDALGO COUNTY PLANNING

- _____ Electronic file of final plat and as-builds
- _____ Reproducible plat to be recorded with all required signatures
- _____ 3% geotechnical testing fees or negotiated Material Testing fee by City, whichever is higher
- _____ 2% inspection fee
- _____ Park Fees
- _____ Checks or Receipts: HCCID #9; HCDD #1; County Clerk
- _____ Tax certificates
- _____ Memo from engineering inspector releasing subdivision
- _____ Water Rights associated with the property dedicated and assigned to City of Weslaco or payment of fees sufficient to meet the needs necessitated and attributable to development
- _____ 30 Year Water and 30 Year Sewer Service Agreements
- _____ Park dedication/Fees in lieu of

SUBMITTALS REQUIRED FOR RECORDING BY SECURITY

- _____ Sealed engineering cost estimates
- _____ Letter of Credit/Performance Bond/Escrow

**** Any revisions requested would require resubmission of plats and reduced copy reflecting changes.**

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

Owner Printed Name: Julio and Marysol Garcia

Owner Signature: Marysol Garcia Julio Garcia Date: 08/15/22

Cynthia Torres is the authorized agent

Authorized Agent Signature: Cynthia Torres Date: 08/15/22

Authorized Agent Printed Name: Cynthia Torres

THIS PAGE FOR STAFF USE ONLY

Date Received: _____ Received By: _____ Date Paid: _____

P & Z Commission Approval on Preliminary Plat: _____

P & Z Commission Approval on Final Plat: _____

City Commission Approval on Final Plat: _____

Preconstruction Meeting Date: _____

Date Recorded: _____ Instrument No. _____

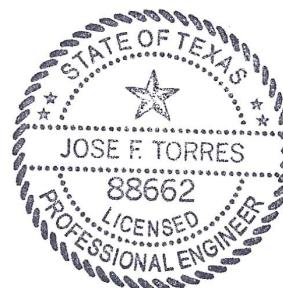
General Comments: _____

**DRAINAGE STATEMENT
FOR
MI FORTUNA ESTATES SUBDIVISION
WESLACO, TEXAS**

Prepared by

BTI, Inc.
F-14716

512 W. Rosemary Ave.
Pharr, Texas 78577
Tel: 956-537-4037
Email: btijoet@gmail.com



Jose F. Torres
6/3/2022

May 12, 2022

INDEX

Drainage Report Narrative: Pages 2.-5.
Hydrograph (5/12/2022)

- A. Plat reduction and On-Site Drainage Schematic Design for Mi Fortuna Estate Subdivision
- B. USGS Map, Hidalgo County Soils Survey Map
- C. Copy of FIRM – Hidalgo County, CPN 480334 0525 B
- D. Ditch Drain Widening Details for Mi Fortuna Estates Subdivision (Exhibit “A”)
- E. Copy of Mi Fortuna Estates Subdivision U & D sheet
- F. Hydrograph Data for the 10 yr. & 50 yr. storm for the Pre and Post Development

NOTE:

This report is over a Lot on West Track Subdivision – for a total 5.00 Gross Acres.

DRAINAGE REPORT NARRATIVE

The Proposed **MI FORTUNA ESTATES SUBDIVISION** is an 8 – Lot Development consisting of 6 Residential Lots with Lot 1 and 2 are to be designated as R-2 on the plat consisting of 5.00 Gross Acres (or 4.50 Net Acres) – less 40.0-foot S. Westgate Drive ROW. The development site is located at the south-west corner of Westgate Drive and Mile 5 N. Road within the City of Weslaco. It is described as Lot West Track Subdivision (5.00 Gross Acres) out of Volume 02, Pages 34-37, Map Records of Hidalgo County, Texas. Most of the tract is currently vacant and open with no development having a previous history of being used for open land purposes – the proposed new use is 8 residential lots complete with approximately 4.50 Acres consisting of a 40' B-B existing city roadway. This tract of land has 818.03 feet of frontage along the west side of S. Westgate Drive and has a gross east/west depth of 266.00 feet. Also, this tract of land has 266.00 feet of frontage along the north side of Mile 5 N Road. The property runoff eventually will head into the existing Weslaco Drain Ditch consist of 50 feet R.O.W. and is located north-east of the proposed development property and runs west to east adjacent to the Mile 5 N. Road.

The subject property is in Zone “B” in accordance with the FIRM Community Panel No. 480334 0525 B, dated LOMR 5/23/1978 – Effective Date February 02, 1981. Zone “B” shaded areas are defined by the National Flood Insurance Program as “Areas between limits of 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths of less than one (1) foot or where the contributing drainage area is less than one (1) square mile; and areas protected by levees from the base flood. (Medium Shading)

A review of Sheet 86 of the Soils Survey of Hidalgo County, Texas reveals that the underlying conditions of the subject property consist of a Hidalgo sandy clay loam

(28), (39) and (52) with the slopes between 0 and 1 percent. These kinds of soils are well drained and surface runoff is slow. For this soil type, permeabilities are moderate and the available water capacity is high.

The 4.50 Net Acre tract of land is bound by S. Westgate Drive on the east side, West Track Subdivision on the west, the Mile 5 N. Road along the north side and West Track Subdivision on the south. Cross section elevations of the subject property reveal that drainage is via overland sheet flow in a south-easterly direction (left to right) at a slope of 0.13% over an average drainage run 340.0 feet. There are formal existing drainage infrastructure improvements created by the City of Weslaco during the S. Westgate Drive improvement.

Using the Rational Method over a 50-year storm event (see attached hydrograph), is computed that the pre-development runoff is 3.19 CFS (10-Year Storm Event) while the post-development runoff is 7.26 CFS (50-Year Storm Event) – an increase of 4.07 CFS (See Exhibit B Sheets). Storage for newly created storm waters shall be provided by creating a ditch along the east side of Lots 1 through 4 adjacent and parallel to the S. Westgate Drive ROW.

In accordance with the drainage policies of the City of Weslaco and the County of Hidalgo, this subdivision shall be required to provide for new storage of drainage waters CREATED by the post-development of this 4.50 Net acre property. Using the Rational Method (For Reference: TxDOT Intensity-Frequency-Duration Coefficients for Texas Counties HDM (2018) for a 50-Year storm event, and existing drainage coefficient of 0.20 and a future computed drainage coefficient of 0.35 (assuming 1,600 Sq. Ft. of impervious lot improvements and the paved driveways) – For Reference: FHWA, Urban Drainage Design Manual HEC-22 (2009 3rd Edition), an average drainage run of 840.0 feet and an average slope of 0.13%, it was computed that the improved condition would produce an additional volume of 12,858.0 Cubic Feet, or 0.2951 Acre-Feet. The developer shall create a detention ditch on the east side of Lots 1 through 4 of the proposed Mi Fortuna Estates Subdivision to provide a minimum volume of 12,858.0 Cu. Ft. for Mi Fortuna Estates Subdivision using an approved ditch cross section profile as shown on Exhibit "A". The proposed drainage pond area would be classified as common property and the maintenance of the pond area shall be provided by each property owner. The drainage pond area shall consist of 18' x 335'. Access to the property Lots over the drainage pond shall be provided by each property owner with 18" RCP pipes with a minimum length of 16 feet on the driveway.

The purpose of the calculations that follow illustrate how the creation of the proposed detention drain ditch will provide for additional storage of a minimum of 12,858.0 Cu. Ft. for the proposed Mi Fortuna Estates Subdivision. It is proposed and reflected below that the proposed Detention Drain Ditch will be widened using a minimum ditch widening length of 335.0 feet using a 2:1 side slope all around the ditch and a 3.5 feet depth. The proposed ditch widening shall begin approximately 50 north on Lot 1

and finished 50' into Lot 4 for the storage volume earthwork. The proposed Detention Drain Ditch widening shall provide a minimum 12898.0 Cu. Ft. of storage.

**PROPOSED DETENTION DRAIN DITCH WIDENING CALCULATIONS FOR MI
FORTUNA ESTATE SUBDIVISION ARE LISTED BELOW**

Q (10) Exist = 3.19 cfs
Tc= 48.2 min. C = 0.20 A = 4.83 acres
I (10) = 3.30 in/hr

Q (50) Dev = 7.27 cfs
Tc= 52.1 min. C = 0.35 A = 4.83 acres
I (50) = 4.30 in/hr

Cross Section Area of Widening: 38.5 Sq. Ft. (7x3.5+4x3.5)

Length of Widening: 335.0 Ft.

(See Exhibit "A")

Storage to Detention Drain Ditch: 335 Ft. x 38.5 Sq. Ft. = 12,898 Cu. Ft. > 12,858 Cu. Ft. Req. - O.K.

Note: Any surplus dirt resulting from dirt excavation (widening) of the existing Proposed Detention Drain Ditch shall be used on the lands of the proposed residential lots.

CITY OF WESLACO 24" EXISTING STORM SEWER PIPE AND OUTFALL:

The max amount of flow in the existing 24" storm sewer line (Q10 post-development flow) is approximately 5.32 CFS.

In addition to providing storage in the Proposed Detention Drain Ditch, the subdivider shall provide a drainage analysis of the existing roadway storm sewer adjacent to the subdivision in accordance with storm sewer and drainage requirements of the City of Weslaco. All internal drainage shall be routed from the Mi Fortuna Estates Subdivision to the Weslaco Drain Ditch via the existing 24" x 860 feet storm sewer line to a 30" x 40 feet existing storm sewer that drains into the outfall – an existing storm sewer design that will transfer the flow into the Weslaco Drain Ditch. For the additional drainage runoff created from the existing roadways and adjacent properties from outside the Mi Fortuna Estates Subdivision should be routed to the Weslaco Drain Ditch in accordance with the Hidalgo County Drainage District No. 1, and the City of Weslaco drainage requirements and shall be the sole responsibility of these government entities for the maintenance of the appurtenances that convey the runoff into the Weslaco Drain Ditch outfall.

The newly proposed 12" pvc-pipe drain syphon and concrete rip-rap (will connect entrance and rip-rap at Weslaco Drain Ditch to the City of Weslaco standards) will be located near the center of the south inlet on S. Westgate Drive on West Track Subdivision and west of the existing concrete rip-rap of the existing 24" storm drainage line from the West Track Subdivision.

The existing outfall structures is located along an acquired 50-foot easement located along the Mile 5 North Road on the north side of the proposed development on the West Track Subdivision with pipes draining into the Weslaco Drain Ditch.

All internal roadway waters shall be routed to the Weslaco Drain Ditch via the existing 24" and 30" storm sewer line. Drainage waters falling and collected adjacent to the existing roadways of this subdivision shall be routed via existing curb & gutter improvements and curb inlet(s) into the existing 24" and 30" storm sewer lines with an outfall at the Weslaco Drain Ditch. The existing roadway consist of 40' B-B roadway. The subdivision design includes two existing 5' curb inlets (spacing in accordance with the City of Weslaco standards) and 24" and 30" storm sewer lines connecting all inlets and/or manholes.

All residential improvements shall be constructed at a finished floor elevation of not less than 24 inches as measured from the top of curb at the center of each lot. All improvements shall be graded in positive flow direction away from the house foundation.

S. Westgate Drive is an existing asphalt roadway improvement along the entire frontage of the Mi Fortuna Estates Subdivision (i.e. 5.0 Gross Acres) a pavement section which matches the paved section of Mile 5 N. Road north of this site. However, the developer shall grade and provide for a bar ditch and culverts at all entrances on the south side of S. Westgate Drive. The bar ditches shall be regraded and deepened on both sides to facilitate drainage flows on both sides of S. Westgate Drive in accordance with the current existing condition. Four concrete culverts crossing with concrete safety end treatments shall be provided at the sole entrance to the proposed Mi Fortuna Estates Subdivision from S. Westgate Drive.

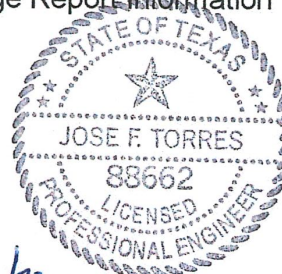
Date: 5/12/2022

Jose F. Torres, P.E.
Plat Engineer

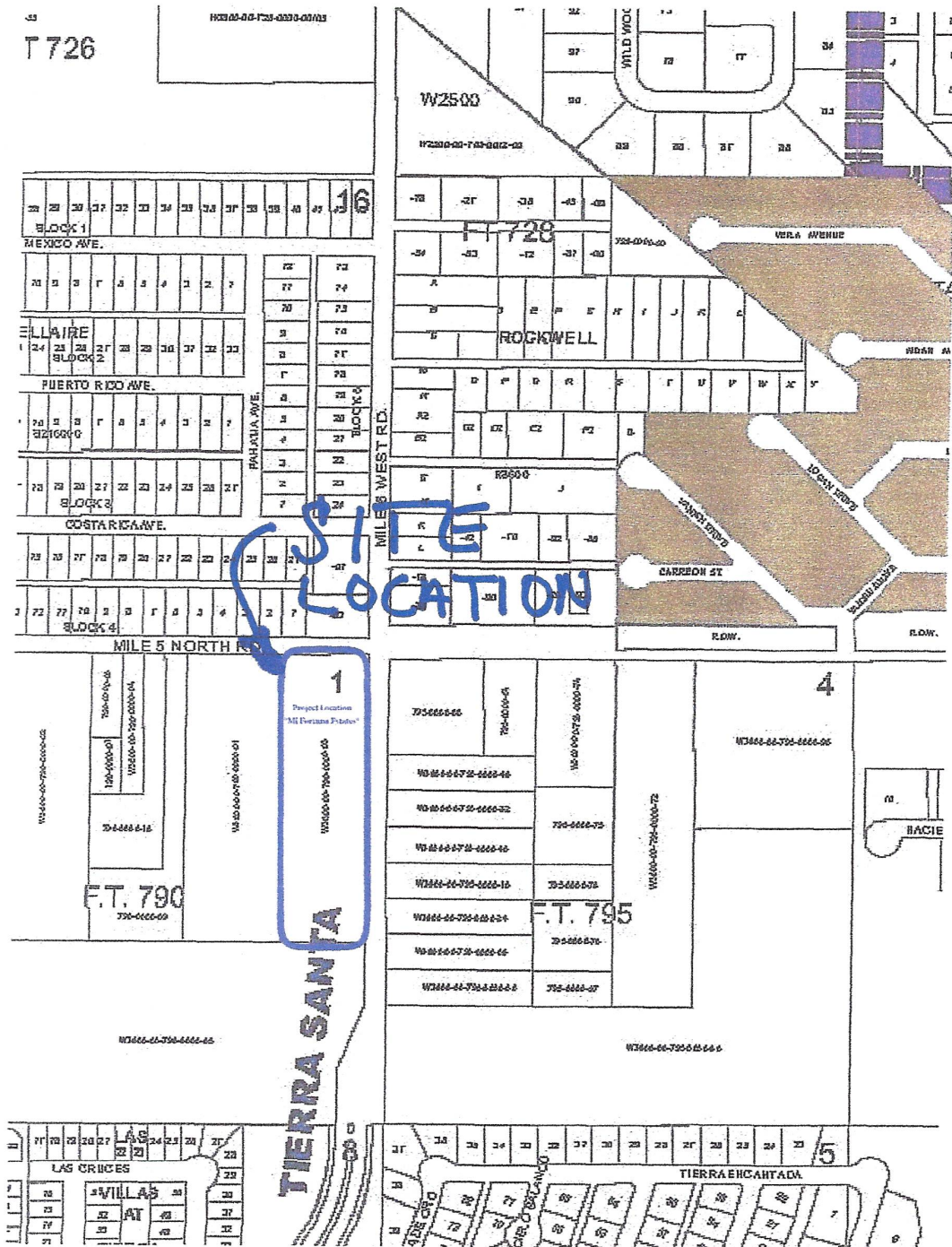
Attachment: Hydrograph and Other Required Drainage Report Information

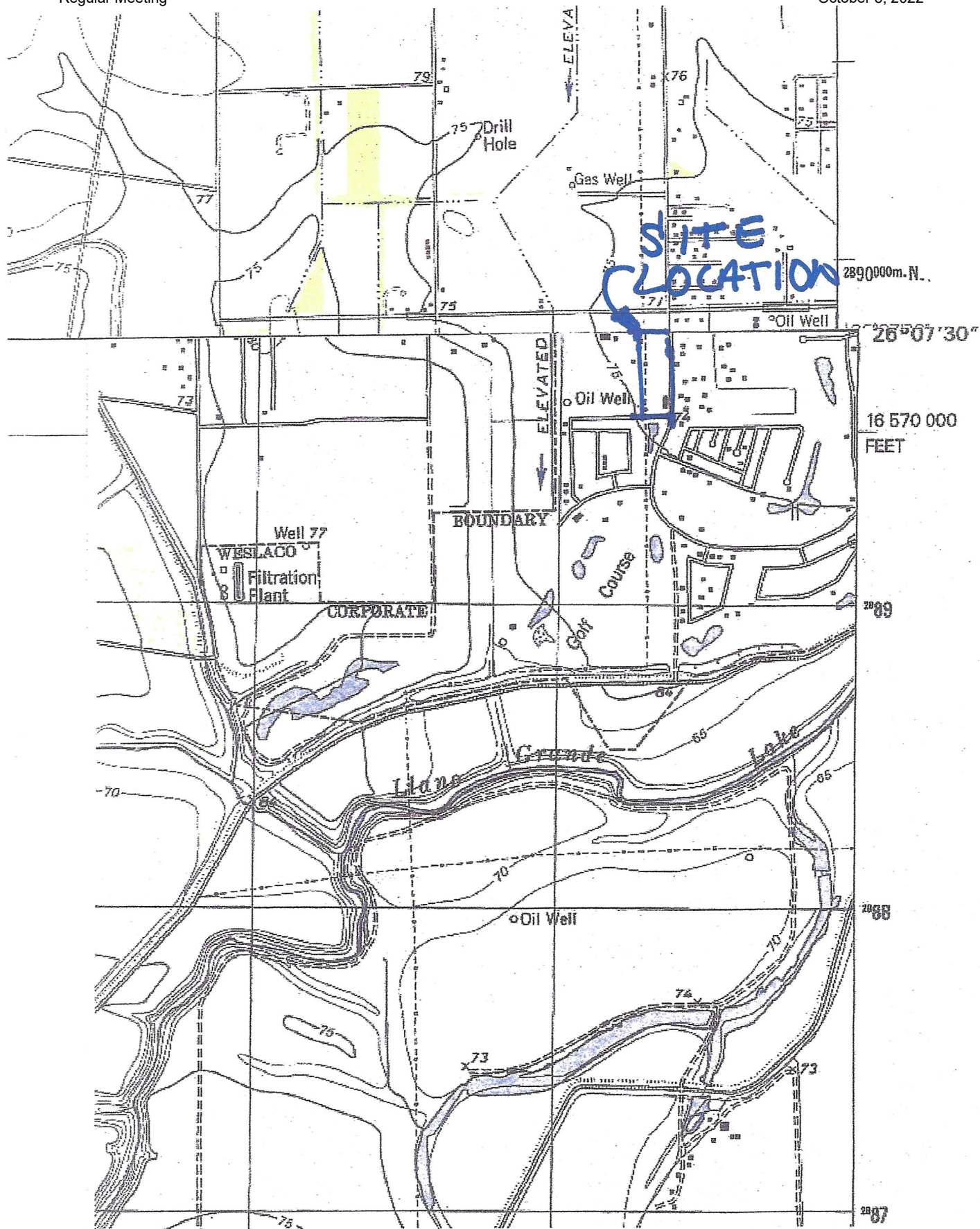
☐ REJECTED	
☒ APPROVED FOR SUBMITTAL	
☐ TO H.C. PLANNING DEPT.	
☒ TO CITY	
☒ DISCHARGE PERMIT REQUIRED	
☐ DISTRICT FACILITY	
☒ CITY FACILITY	
☐ OTHER	
	DATE
H.C.D.D. NO. 1	6-24-22

5




6/31/2022





STATE OF TEXAS
COUNTY OF HIDALGO

WE THE UNDERSIGNED OWNERS OF THE LAND SHOWN ON THIS PLAT, AND DESIGNATED HEREIN AS THE MI FORTUNA ESTATE SUBDIVISION, TO THE CITY OF WESTLACO, TEXAS, AND WHOSE NAME IS SUBSCRIBED HERETO, DO HEREBY DEDICATED TO THE USE OF THE PUBLIC ALL STREETS, ALLEYS, PARKS, WATER COURSES, DRAINS, EASEMENTS, AND PUBLIC PLACES THEREON SHOWN FOR THE PURPOSE OF CONSIDERATION THEREIN EXPRESSED.

OWNER: JULIO & MARYSOL GARCIA, L.L.C.
3402 S. WESTGATE
WESTLACO, TEXAS 78698

STATE OF TEXAS
COUNTY OF HIDALGO

BEFORE ME, THE UNDERSIGNED AUTHORITY ON THIS DAY PERSONALLY APPEARED _____ KNOWN TO ME TO BE THE PERSONS WHOSE NAMES SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT THEY EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN STATED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS THE _____ DAY OF _____, 200____.

NOTARY PUBLIC IN AND FOR THE
STATE OF TEXAS
MY COMMISSION EXPIRES: _____

STATE OF TEXAS, CITY OF WESTLACO, HIDALGO COUNTY

I, THE UNDERSIGNED, MAYOR OF THE CITY OF WESTLACO, TEXAS, HEREBY CERTIFY THAT THIS SUBDIVISION PLAT CONFORMS TO ALL THE REQUIREMENTS OF THE SUBDIVISION REGULATIONS OF THE CITY WHEREIN MY APPROVAL IS REQUIRED.

MAYOR, CITY OF WESTLACO, TEXAS.

CITY CLERK

STATE OF TEXAS
COUNTY OF HIDALGO

APPROVED AND AUTHORIZED FOR RECORD BY THE PLANNING AND ZONING COMMISSION, CITY OF WESTLACO, HIDALGO COUNTY, TEXAS, THIS THE _____ DAY OF _____, 200____, BY _____

THE PLANNING AND ZONING COMMISSION OF THE CITY OF WESTLACO, TEXAS.

DATED THIS _____ DAY OF _____, 200____.

CHAIRMAN, PLANNING AND ZONING COMMISSION

STATE OF TEXAS
COUNTY OF HIDALGO

I, JOSE F. TORRES, P.E., A LICENSED PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS, LICENSE NUMBER TX. 88862, DO HEREBY CERTIFY THAT THIS PLAT HAS BEEN GIVEN PROPER AND ADEQUATE ENGINEERING CONSIDERATION, AND, FURTHER, DO HEREBY CERTIFY THAT NONE OF THE AREAS BEING PLATTED HEREIN AS "MI FORTUNA ESTATES SUBDIVISION" AS DESCRIBED BY METES AND BOUNDS DESCRIPTION (SEE METES AND BOUNDS DESCRIPTION AT THE RIGHT) ARE NOT LOCATED IN A FLOOD PRONE AREA DESIGNATED AS ZONES "X" OR "X-1" DETERMINED AND DETERMINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

JOSE F. TORRES, P.E.
LICENSED PROFESSIONAL ENGINEER, TEXAS L.C. NO. 88862

STATE OF TEXAS
COUNTY OF HIDALGO

I, THE UNDERSIGNED A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, HEREBY CERTIFY THAT THIS PLAT IS TRUE AND CORRECTLY MADE AND IS PREPARED FROM AN ACTUAL SURVEY OF THE PROPERTY MADE UNDER MY SUPERVISION ON THE GROUND.

PABLO SOTO, R.P.L.S.
REG. PROFESSIONAL LAND SURVEYOR #0000

HIDALGO COUNTY DRAINAGE DISTRICT NO. 1 CERTIFICATION

HIDALGO COUNTY DRAINAGE DISTRICT NO. 1 HEREBY CERTIFIES THAT THE DRAINAGE PLANS FOR THIS SUBDIVISION COMPLY WITH THE MINIMUM STANDARDS OF THE DISTRICT ADOPTED UNDER TEXAS WATER CODE 49.21(C). THE DISTRICT HAS NOT REVIEWED AND DOES NOT CERTIFY THAT THE DRAINAGE STRUCTURES DESCRIBED ARE APPROPRIATE FOR THE SPECIFIC SUBDIVISION BASED ON GENERALLY ACCEPTED ENGINEERING CRITERIA. IT IS THE RESPONSIBILITY OF THE DEVELOPER OF THE SUBDIVISION AND ITS ENGINEER TO MAKE THESE DETERMINATIONS.

BY: _____ DATE: _____
HIDALGO COUNTY DRAINAGE DISTRICT NO. 1

PRINCIPAL CONTACTS:

NAME ADDRESS CITY & ZIP PHONE FAX
OWNER: JULIO & MARYSOL GARCIA, L.L.C. 3402 S. WESTGATE WESTLACO, TEXAS 78698 956-537-4037
ENGINEER: JOSE F. TORRES, P.E. 912 W. ROSEMARY AVE. PHARR, TX 78677 956-782-2557
SURVEYOR: PABLO SOTO, R.P.L.S. 130 E. PARK PHARR, TEXAS 78677 956-782-2557 000-000-0000

LEGEND:
• - SET 1/2" IRON ROD W/ CAP
STAMPED "RPLS 5571"
• - FOUND 1" IRON ROD

PRELIMINARY REVIEW

THIS DOCUMENT HAS BEEN RELEASED FOR PRELIMINARY REVIEW BY JOSE F. TORRES, P.E., REG. NO. 88862. THIS DOCUMENT IS FOR DESIGN REVIEW ONLY.
MAY 12, 2022

METES AND BOUNDS DESCRIPTION

A 5.00 acre tract of land out of Farm Tract 790, West Tract Subdivision, Hidalgo County, Texas, as per map recorded in Volume 2, Pages 34-37, Map Records of Hidalgo County, Texas, Said 5.00 acre tract of land is vested to Julio Garcia and wife Marysol Garcia from Melanie Louise McAllen Heartfield by virtue of a Warranty Deed dated August 10, 1998, recorded in Document No. 716470, Official Records of Hidalgo County, Texas. Said 5.00 acre tract of land being more particularly described by metes and bounds as follows:

Commencing at a cotton picker spindle set at the Northeast corner of POINT Farm Of Tract 790,

BEGINNING, West Tract Subdivision for the Northeast corner of this tract of land and the

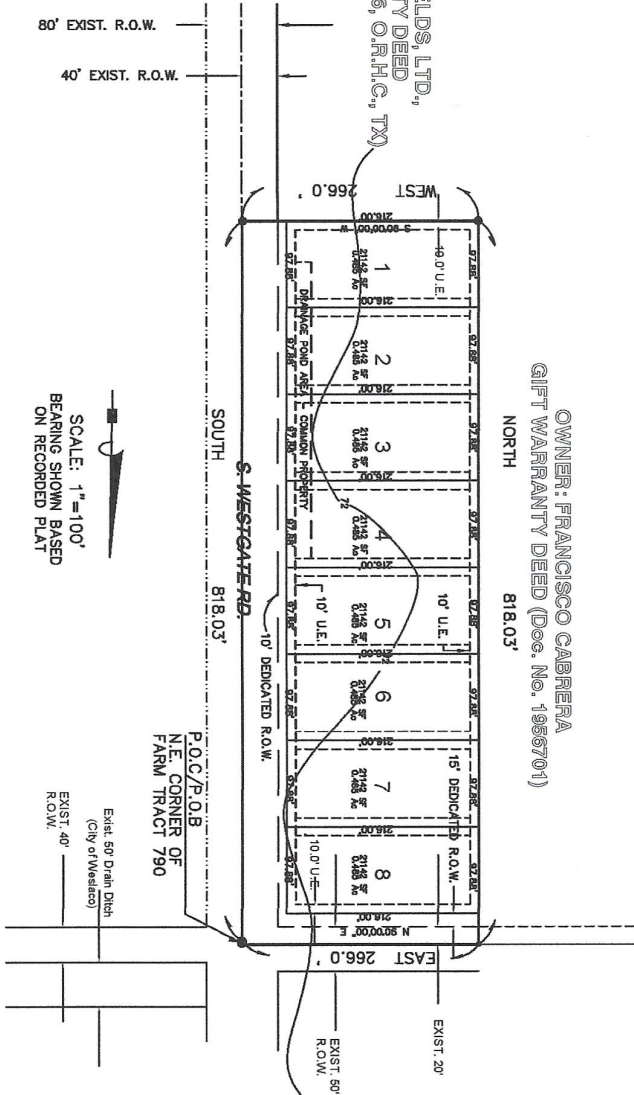
THENCE, South, with the East line of said Farm Tract 790, West Tract Subdivision, a distance of 813.03 feet to a magnetic nail set for the Southeast corner of this tract of land;

THENCE, West, parallel to the North line of said Farm Tract 790, West Tract Subdivision, at a distance of 40.00 feet pass a No. 4 rebar found at the existing West Easement and Right of Way line of South West Gate Drive (Mile 6 West Road) (as recorded in Document No. 585795, O.R.H.C., Texas), continuing for a total distance of 266.00 feet to a No. 4 rebar found for the Southwest corner of this tract of land;

THENCE, North, parallel to the East line of said Farm Tract 790, West Tract Subdivision, at a distance of 798.03 feet pass a No. 4 rebar found at the existing South Right of Way line of Mile 5 North Road, continuing for a total distance of 813.03 feet to a magnetic nail set at the North line of said Farm Tract 790, West Tract Subdivision for the Northwest corner of this tract of land;

THENCE, East, with the POINT North Of line of BEGINNING said Farm Tract 790, West Tract Subdivision, a distance of 266.00 feet to the POINT OF BEGINNING and containing 5.00 acres of land, more or less.

OWNER: FRANCISCO CABRERA
GIFT WARRANTY DEED (Doc. No. 1986701)



MI FORTUNA ESTATES SUBDIVISION

BEING A 5.00 ACRE TRACT OF LAND OUT OF FARM TRACT 790,
WEST TRACT SUBDIVISION, HIDALGO COUNTY, TEXAS, AS PER MAP
RECORDED IN VOLUME 2, PAGES 34-37, M.R.H.C., TEXAS.

HIDALGO COUNTY IRRIGATION DISTRICT No. 9

THIS PLAT IS HEREBY APPROVED BY HIDALGO COUNTY IRRIGATION DISTRICT No. 2 ON THIS _____ DAY OF _____, 200____.

PRESIDENT _____ SECRETARY _____

NO IMPROVEMENTS OF ANY KIND SHALL BE PLACED UPON H.C.I.D. No. 2 RIGHT OF WAY OR EASEMENTS WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE H.C.I.D. No. 2.

COUNTY CLERK'S RECORDING CERTIFICATE

I, _____ COUNTY CLERK OF HIDALGO, CERTIFY THAT THE PLAT BEARING THIS CERTIFICATE WAS FILED FOR RECORD AT _____ O'CLOCK _____ ON _____ SHEET(S) _____ OF _____ THE PLAT RECORDS OF _____ AND HIDALGO COUNTY AT _____ O'CLOCK _____ ON _____

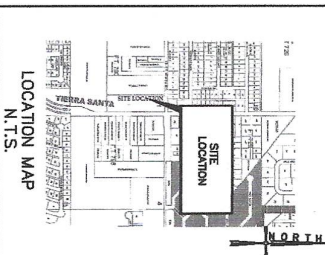
BTL INC.

CONSULTANTS • DESIGN ENGINEERS

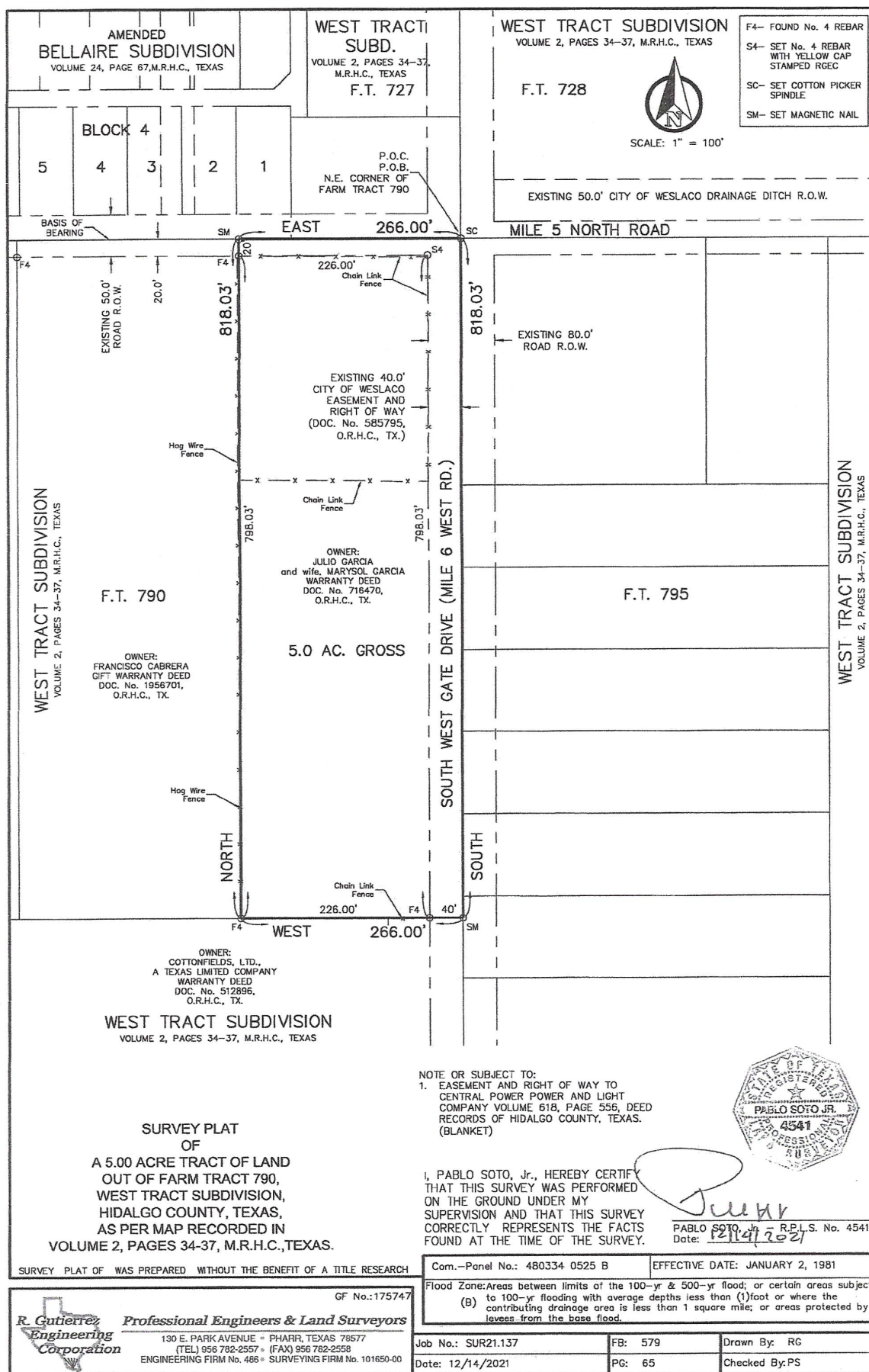
512 W. ROSEMARY AVE.
PHARR, TEXAS 78677
956-537-4037
F-14716

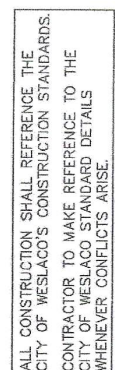
MI FORTUNA ESTATES SUBDIVISION IS LOCATED IN CENTRAL HIDALGO COUNTY 2.5 MILES SOUTH OF BUS. 83 ROAD, ALONG THE WEST SIDE OF S. WESTGATE ROAD. THIS SUBDIVISION LIES WITHIN THE CITY LIMITS OF WESTLACO, TEXAS.

PREPARED BY: BTL INC.
DATE PREPARED: MAY 12, 2022
DATE SURVEYED: DECEMBER 20, 2021
GENERAL PLAT NOTES:



1. Setback lines to be as per City of Westlaco Ordinance.
Single Family (R-1):
Front - 25.00' On Easement width, whichever is greater
Side - 5.00' On Easement width, whichever is greater
Rear - 25.00' On Easement, 20% of Lot depth need not to exceed 25'
Corner Side - 10.00' On Easement width, whichever is greater
Corner Garage Side - 16.00' / Corner Garage Front - 16.00'
Corner Side where ROW is greater than 50.00 feet - 20.00'
Multi-Family (R-2): Front - 20.00' or Easement width, whichever is greater; Side - 7' or Easement width whichever is greater; Rear - 15' or Easement width whichever is greater; Corner - 15' or Easement width whichever is greater.
2. FLOOD ZONE DESIGNATION: Zone "B" Shaded Area of 500-year flood, areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 100 acres and not shown on the latest Flood Insurance Rate Map (FIRM) Community Panel No. 480334, 0525 B flood (Revised to Relief Letter 5/23/1978). The areas within the drainage easements and the proposed street right-of-way are within the 100-year flood plain community panel number 480334, 0525 B Effective Date February 02, 1981 of the Federal Emergency Management Agency Maps for Hidalgo County, Texas and the local Flood Plain Administration identifies no other area within the proposed subdivision to be within 100-year flood plain.
Construction of residential housing within any area of the subdivision that is in the 100-year flood plain is prohibited. The housing shall be constructed on raised under the National Flood Insurance Act of 1968 (42 U.S.C. 1981-1986).
Minimum finished floor elevation for all buildings shall be 24' above the top of the curb of the street or 18' above natural ground, whichever is greater.
In accordance with the Hidalgo County Drainage District 1 and Hidalgo County requirements, the development shall be required to detain on Lot 1 thru 4 the runoff that is flowing on a southern-easterly direction to detain a total minimum volume as derived from the 50-year storm event, of 12,858 cubic-feet or 0.2851 acre-feet of storm water runoff. Drainage detention in accordance with the local requirements will be accomplished as follows. See sheet No. 18 for drainage compliance and details of bleeding runoff into the existing storm sewer.
Single Family: No more than one single family detached dwelling shall be located on each lot.
Multi-Family: No more than one (1) shall be located on each lot.
Unless otherwise noted on this Plat, all the Lots are monumented by 1/2 inch diameter by 18 inch long iron rod with yellow cap stamped "SEA 6762". Concrete monuments shall be set of each subdivision corner.
No structure shall be permitted over any easement. Easements shall be kept clear of fences, buildings, sheds, shrubs, trees, and other plantings (except low, less than 18 inches mature height, ground cover, grass, or flowers) and other obstructions that would interfere with the operations and maintenance of the easement.
Benchmark Note: BM #1 Top of existing Curb inlet located in the South side of S. Westgate Road near the Northeast corner of Lot 1 and Southeast corner of Lot 2. Elevation 72.42 feet.
A Five (5) foot sidewalk at Three (3) feet from the back of the curb is required at building permit stage provided by each Lot Owner. Also a five (5) feet sidewalk is required along all interior streets upon the issuance of a building permit. On corner lots, the sidewalk shall be extended to the street line, along all streets adjoining the lot.
All public utility easements dedicated by this Plat shall be a minimum width of 10.0 feet as per the Hidalgo County Model Subdivision Rules. By signing this Plat, Developer and Engineer certify that all other easements shown comply with the size required by each utility. Provided occupying an easement.
Clearances for water meters as per local government code requirements, sanitary sewer, must be connected to a residence prior to receiving a final clearance for a new structure. A sewer tap inspection shall be provided from the entry service line to the sewer main. The sewer main shall be installed in accordance with the local requirements for sewer installation.
All Lots shall have a post development finished grade from the rear of the lot to the curb and/or roadside ditch at a 1.0% slope to accomplish positive drainage. This is in accordance with the Hidalgo County Appendix 5, County Constitution Specifications 3.1.4.
Any addition to existing residence must comply with all setbacks restrictions recorded on this Plat.
All Subdivision Improvements shall comply with all Storm Water Pollution Prevention Plan (SWPPP) requirements.
Site plan and subdivision map must be required and approved by the City of Westlaco prior to issuance of building permit.
Corner Lots driveways should be constructed at the furthest possible point intersection and in compliance with access management ordinance.
Streetslight must be located every 300 feet.
All drainage easements shall be private within the property lines.
No access shall be granted onto Mile 5 North for Lot 8.
Corner Lot 8 driveway shall be constructed at furthest point from intersection of Mile 5 North and S. Westgate Road as per City of Westlaco access management ordinance.
Landscaping is required per City of Westlaco ordinance.
For Lots 1-4 the Common Property Area shall consist of 18'x335' for the detention pond area. Each property owner shall be responsible for the maintenance of the pond area on their Lot.
Access to the property Lots over the drainage pond area shall be provided by each property owner with 18" RCP pipes with a minimum length of 16 feet on the driveway.





BTI, Inc.

EXHIBIT B

Drainage Calculations

PAGE 1 OF 1

Description: Proposed Mi Fortuna Estates Subdivision (Q10) (Pre and Post Development CFS)
Subdivide and Tap into Waterline and Sewer Connections
Project: PJT-21-01
By: Jose F. Torres, P.E.
Date: 5/12/2022

I. General Information

- 1) Governing Equation: $Q = CIA$ (Rational Method), TxDOT IDF Curves for Hidalgo County & Manning's Equation (normal depth calculations)
- 2) TxDOT Intensity Constants for Hidalgo County, $I = b / (Tc + d)^e$ (See attachment A)

10 year storm
 $b = 70.9342$
 $e = 0.7562$
 $d = 9.5$

where Tc , is calculated with an average overland flow velocity (0-2% slopes):
a) existing unimproved conditions: $vel = 0.25$ ft/sec
b) proposed residential conditions: $vel = 0.30$ ft/sec
c) proposed pipe flow: $vel = 2$ ft/sec

- 3) Accepted Runoff Coefficients

a) Single Family Residence $c = 0.35$
b) unimproved sandy clay loam soil, $c = 0.20$ ref. TxDOT Hydraulic Manual

- 4) Total Area = 4.83 ac net

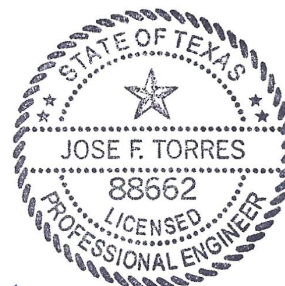
II. Existing Conditions

$Tc = 723 \text{ ft} / (0.25 \text{ ft/sec} \times 60 \text{ sec}) = 48.2 \text{ min.}$
 $I (10 \text{ yr}) = b / (Tc + d)^e = 3.30 \text{ in/hr}$
 $Q = CIA = (0.20)(3.30 \text{ in/hr})(4.83 \text{ ac}) = 3.19 \text{ cfs}$

III. Developed Conditions (Outfall to Exist Drainage Ditch - City of Weslaco)

Drainage area = 4.83 ac.
 $Tc = 261 \text{ ft} / (0.30 \text{ ft/sec} \times 60 \text{ sec}) + 677 \text{ ft} / (0.30 \times 60) = 52.1 \text{ min.}$
 $I (10 \text{ yr}) = b / (Tc + d)^e = 3.14 \text{ in/hr}$
 $Q = CIA = (0.35)(3.14 \text{ in/hr})(4.83 \text{ ac}) = 5.32 \text{ cfs}$

TOTAL = 5.32 cfs



Jose F. Torres
5/12/2022

BTI, Inc.

EXHIBIT B

Drainage Calculations

PAGE 1 OF 1

Description: Proposed Mi Fortuna Estates Subdivision (Q50)(Pre and Post Development CFS)
Subdivide and Tap into Waterline and Sewer Connections

Project: PJT-21-01

By: Jose F. Torres, P.E.

Date: 5/12/2022

I. General Information

- 1) Governing Equation: $Q = CIA$ (Rational Method), TxDOT IDF Curves for Hidalgo County & Manning's Equation (normal depth calculations)
- 2) TxDOT Intensity Constants for Hidalgo County, $I = b / (Tc + d)^e$ (See Attachment A)

50 year storm
b = 84.2575
e = 0.7257
d = 8.3

where Tc, is calculated with an average overland flow velocity (0-2% slopes):
a) existing unimproved conditions: $vel = 0.25$ ft/sec
b) proposed residential conditions: $vel = 0.30$ ft/sec
c) proposed pipe flow: $vel = 2$ ft/sec

3) Accepted Runoff Coefficients

- a) Single Family Residence c = 0.35
- b) unimproved sandy clay loam soil, c = 0.20 ref. TxDOT Hydraulic Manual

4) Total Area = 4.83 ac net

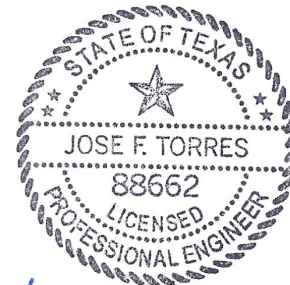
II. Existing Conditions

$Tc = 723 \text{ ft} / (0.25 \text{ ft/sec} \times 60 \text{ sec}) = 48.2 \text{ min.}$
 $I (50 \text{ yr}) = b / (Tc + d)^e = 4.51 \text{ in/hr}$
 $Q = CIA = (0.20)(4.51 \text{ in/hr})(4.83 \text{ ac}) = 4.36 \text{ cfs}$

III. Developed Conditions (Outfall to Exist Drainage Ditch - City of Weslaco)

Drainage area = 4.83 ac.
 $Tc = 261 \text{ ft} / (0.30 \text{ ft/sec} \times 60 \text{ sec}) + 677 \text{ ft} / (0.30 \times 60) = 52.0 \text{ min.}$
 $I (50 \text{ yr}) = b / (Tc + d)^e = 4.30 \text{ in/hr}$
 $Q = CIA = (0.35)(4.30 \text{ in/hr})(4.83 \text{ ac}) = 7.27 \text{ cfs}$

TOTAL = 7.27 cfs



Jose F. Torres
5/12/2022

MI FORTUNA ESTATES SUBDIVISION DETENTION STORAGE REQUIREMENTS

Q(10) PRE-DEVELOPMENT DRAINAGE FLOW

C	0.2								
I	t(c)	b	d	e	L	V			
<u>3.30</u>	48.20	70.93	9.5	0.7562	723	0.25			

A	4.83	ACRES							
Q(10)	3.19	CFS							

Q(50) POST-DEVELOPMENT DRAINAGE FLOW

C	0.35								
I	t(c)	b	d	e	L	V			
<u>4.30</u>	52.11	84.25	8.3	0.7257	938	0.3			
A	4.83	ACRES							
Q(50)	7.26	CFS							



Jose F. Torres
6/3/2022

MIN	HRS	I (in/hr)	Q(in)	Vol (in)	Q(out)	Vol (out)	Req. Vol.
			CFS	CF	CFS	CF	CF
5	0.08	12.88	21.78	6533.219	3.19	957	5576.22
10	0.17	10.22	17.28	10365.15	3.19	1914	8451.15
15	0.25	8.58	14.50	13047.8	3.19	2871	10176.80
25	0.42	6.62	11.19	16781.8	3.19	4785	11996.80
35	0.58	5.47	9.25	19418.03	3.19	6699	12719.03
45	0.75	4.70	7.95	21471.53	3.19	8613	12858.53
55	0.92	4.15	7.02	23164.36	3.19	10527	12637.36
65	1.08	3.73	6.31	24611.82	3.19	12441	12170.82
75	1.25	3.40	5.75	25881.27	3.19	14355	11526.27
85	1.42	3.13	5.30	27015.45	3.19	16269	10746.45
95	1.58	2.91	4.92	28043.18	3.19	18183	9860.18

IDF Report

IDF filename: McAllenTX (3).idf

05-03-2022

Hydrology Studio v 3.0.0.19

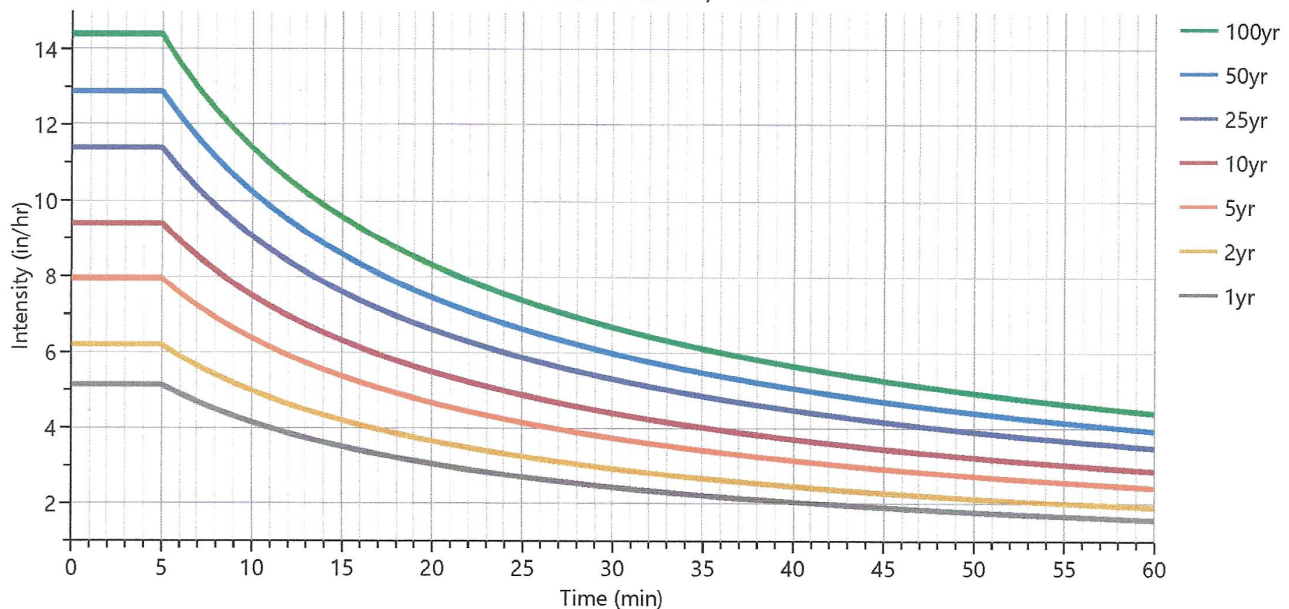
Equation Coefficients	Intensity = $B / (Tc + D)^E$ (in/hr)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
B	50.7472	53.2332	0.0000	64.6382	70.9342	76.1807	84.2575	89.2157	
D	11.7000	10.6000	0.0000	10.1000	9.5000	8.5000	8.3000	7.9000	
E	0.8135	0.7829	0.0000	0.7720	0.7562	0.7301	0.7257	0.7135	

Minimum Tc = 5 minutes

Tc (min)	Intensity Values (in/hr)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
Cf	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
5	5.14	6.20	0	7.95	9.39	11.39	12.88	14.39	
10	4.15	4.98	0	6.37	7.50	9.05	10.22	11.39	
15	3.51	4.20	0	5.37	6.31	7.60	8.58	9.56	
20	3.05	3.66	0	4.67	5.49	6.60	7.45	8.30	
25	2.71	3.25	0	4.14	4.87	5.87	6.62	7.38	
30	2.44	2.93	0	3.74	4.40	5.30	5.98	6.67	
35	2.23	2.68	0	3.42	4.02	4.85	5.47	6.11	
40	2.05	2.47	0	3.15	3.71	4.48	5.05	5.64	
45	1.90	2.29	0	2.93	3.45	4.17	4.70	5.26	
50	1.77	2.14	0	2.74	3.23	3.90	4.41	4.93	
55	1.67	2.01	0	2.57	3.04	3.68	4.15	4.65	
60	1.57	1.90	0	2.43	2.87	3.48	3.93	4.40	

Cf = Correction Factor applied to Rational Method runoff coefficient.

McAllen Texas, USA



Chapter 4 — Hydrology

Section 12 — Rational Method

Table 4-10: Runoff Coefficients for Urban Watersheds

Type of drainage area	Runoff coefficient
Business:	
Downtown areas	0.70-0.95
Neighborhood areas	0.30-0.70
Residential:	
Single-family areas	0.30-0.50
Multi-units, detached	0.40-0.60
Multi-units, attached	0.60-0.75
Suburban	0.35-0.40
Apartment dwelling areas	0.30-0.70
Industrial:	
Light areas	0.30-0.80
Heavy areas	0.60-0.90
Parks, cemeteries	0.10-0.25
Playgrounds	0.30-0.40
Railroad yards	0.30-0.40
Unimproved areas:	
Sand or sandy loam soil, 0-3%	0.15-0.20
Sand or sandy loam soil, 3-5%	0.20-0.25
Black or loessial soil, 0-3%	0.18-0.25
Black or loessial soil, 3-5%	0.25-0.30
Black or loessial soil, > 5%	0.70-0.80
Deep sand area	0.05-0.15
Steep grassed slopes	0.70
Lawns:	
Sandy soil, flat 2%	0.05-0.10
Sandy soil, average 2-7%	0.10-0.15
Sandy soil, steep 7%	0.15-0.20
Heavy soil, flat 2%	0.13-0.17
Heavy soil, average 2-7%	0.18-0.22

BTI, Inc.

EXHIBIT B

Drainage Calculations

PAGE 1 OF 1

Description: Proposed Mi Fortuna Estates Subdivision (DA A1-Q10)(Pre and Post Development)
Subdivide Property and Tap into Waterline and Sewer Connections
Project: PJT-21-01
By: Jose F. Torres, P.E.
Date: 2/12/2021

I. General Information

- 1) Governing Equation: $Q = CIA$ (Rational Method), TxDOT IDF Curves for Hidalgo County & Manning's Equation (normal depth calculations)
- 2) TxDOT Intensity Constants for Hidalgo County, $I = b / (Tc + d)^e$ (See attachment A)

10 year storm
 $b = 70.9342$
 $e = 0.7562$
 $d = 9.5$

where Tc , is calculated with an average overland flow velocity (0-2% slopes):

- a) existing unimproved conditions: $vel = 0.25$ ft/sec
- b) proposed residential conditions: $vel = 0.30$ ft/sec
- c) proposed pipe flow: $vel = 2$ ft/sec

- 3) Accepted Runoff Coefficients

- a) Single Family Residence $c = 0.35$
- b) unimproved sandy clay loam soil, $c = 0.20$ ref. TxDOT Hydraulic Manual

- 4) Total Area = 2.40 ac net

II. Existing Conditions

$Tc = 375 \text{ ft} / (0.25 \text{ ft/sec} \times 60 \text{ sec}) = 25.0 \text{ min.}$
 $I (10 \text{ yr}) = b / (Tc + d)^e = 4.87 \text{ in/hr}$
 $Q = CIA = (0.20)(4.87 \text{ in/hr})(2.40 \text{ ac}) = 2.34 \text{ cfs}$

III. Developed Conditions (Outfall to Exist Drainage Ditch - City of Weslaco)

Drainage area = 2.40 ac.
 $Tc = 241 \text{ ft} / (0.30 \text{ ft/sec} \times 60 \text{ sec}) + 275 \text{ ft} / (0.30 \times 60) = 28.7 \text{ min.}$
 $I (10 \text{ yr}) = b / (Tc + d)^e = 4.52 \text{ in/hr}$
 $Q = CIA = (0.35)(4.52 \text{ in/hr})(2.40 \text{ ac}) = 3.79 \text{ cfs}$

TOTAL = 3.79 cfs

BTI, Inc.

EXHIBIT B

Drainage Calculations

PAGE 1 OF 1

Description: Proposed Mi Fortuna Estates Subdivision (DA A2-Q10)(Pre and Post Development)
Subdivide Property and Tap into Waterline and Sewer Connections
Project: PJT-21-01
By: Jose F. Torres, P.E.
Date: 2/12/2021

I. General Information

- 1) Governing Equation: $Q = CIA$ (Rational Method), TxDOT IDF Curves for Hidalgo County & Manning's Equation (normal depth calculations)
- 2) TxDOT Intensity Constants for Hidalgo County, $I = b / (T_c + d)^e$ (See attachment A)

10 year storm
 $b = 70.9342$
 $e = 0.7562$
 $d = 9.5$

where T_c is calculated with an average overland flow velocity (0-2% slopes):

- a) existing unimproved conditions: $vel = 0.25$ ft/sec
- b) proposed residential conditions: $vel = 0.30$ ft/sec
- c) proposed pipe flow: $vel = 2$ ft/sec

3) Accepted Runoff Coefficients

- a) Single Family Residence $c = 0.35$
- b) unimproved sandy clay loam soil, $c = 0.20$ ref. TxDOT Hydraulic Manual

4) Total Area = 0.13 ac net

II. Existing Conditions

$T_c = 125 \text{ ft} / (0.25 \text{ ft/sec} \times 60 \text{ sec}) = 6.9 \text{ min.}$
 $I (10 \text{ yr}) = b / (T_c + d)^e = 8.54 \text{ in/hr}$
 $Q = CIA = (0.57)(8.54 \text{ in/hr})(0.129 \text{ ac}) = 0.63 \text{ cfs}$

III. Developed Conditions (Outfall to Exist Drainage Ditch - City of Weslaco)

Drainage area = 0.13 ac.
 $T_c = 125 \text{ ft} / (0.30 \text{ ft/sec} \times 60 \text{ sec}) + 0 \text{ ft} / (0.30 \times 60) = 6.9 \text{ min.}$
 $I (10 \text{ yr}) = b / (T_c + d)^e = 8.54 \text{ in/hr}$
 $Q = CIA = (0.57)(8.54 \text{ in/hr})(0.129 \text{ ac}) = 0.63 \text{ cfs}$

TOTAL = 0.63 cfs

BTI, Inc.

EXHIBIT B

Drainage Calculations

PAGE 1 OF 1

Description: Proposed Mi Fortuna Estates Subdivision (DA B1-Q10)(Pre and Post Development)
Subdivide Property and Tap into Waterline and Sewer Connections
Project: PJT-21-01
By: Jose F. Torres, P.E.
Date: 2/12/2021

I. General Information

- 1) Governing Equation: $Q = CIA$ (Rational Method), TxDOT IDF Curves for Hidalgo County & Manning's Equation (normal depth calculations)
- 2) TxDOT Intensity Constants for Hidalgo County, $I = b / (Tc + d)^e$ (See attachment A)

10 year storm
 $b = 70.9342$
 $e = 0.7562$
 $d = 9.5$

where Tc , is calculated with an average overland flow velocity (0-2% slopes):

- a) existing unimproved conditions: $vel = 0.25$ ft/sec
- b) proposed residential conditions: $vel = 0.30$ ft/sec
- c) proposed pipe flow: $vel = 2$ ft/sec

- 3) Accepted Runoff Coefficients

- a) Single Family Residence $c = 0.35$
- b) unimproved sandy clay loam soil, $c = 0.20$ ref. TxDOT Hydraulic Manual

- 4) Total Area = 2.40 ac net

II. Existing Conditions

$Tc = 455 \text{ ft} / (0.25 \text{ ft/sec} \times 60 \text{ sec}) = 30.3 \text{ min.}$
 $I (10 \text{ yr}) = b / (Tc + d)^e = 4.37 \text{ in/hr}$
 $Q = CIA = (0.20)(4.37 \text{ in/hr})(2.40 \text{ ac}) = 2.10 \text{ cfs}$

III. Developed Conditions (Outfall to Exist Drainage Ditch - City of Weslaco)

Drainage area = 2.40 ac.
 $Tc = 241 \text{ ft} / (0.30 \text{ ft/sec} \times 60 \text{ sec}) + 383 \text{ ft} / (0.30 \times 60) = 34.7 \text{ min.}$
 $I (10 \text{ yr}) = b / (Tc + d)^e = 4.04 \text{ in/hr}$
 $Q = CIA = (0.35)(4.04 \text{ in/hr})(2.40 \text{ ac}) = 3.40 \text{ cfs}$

TOTAL = 3.40 cfs

BTI, Inc.

EXHIBIT B

Drainage Calculations

PAGE 1 OF 1

Description: Proposed Mi Fortuna Estates Subdivision (DA B2-Q10)(Pre and Post Development)
Subdivide Property and Tap into Waterline and Sewer Connections
Project: PJT-21-01
By: Jose F. Torres, P.E.
Date: 2/12/2021

I. General Information

- 1) Governing Equation: $Q = CIA$ (Rational Method), TxDOT IDF Curves for Hidalgo County & Manning's Equation (normal depth calculations)
- 2) TxDOT Intensity Constants for Hidalgo County, $I = b / (T_c + d)^e$ (See attachment A)

10 year storm
 $b = 70.9342$
 $e = 0.7562$
 $d = 9.5$

where T_c is calculated with an average overland flow velocity (0-2% slopes):

- a) existing unimproved conditions: $vel = 0.25$ ft/sec
- b) proposed residential conditions: $vel = 0.30$ ft/sec
- c) proposed pipe flow: $vel = 2$ ft/sec

- 3) Accepted Runoff Coefficients

- a) Single Family Residence $c = 0.35$
- b) unimproved sandy clay loam soil, $c = 0.20$ ref. TxDOT Hydraulic Manual

- 4) Total Area = 0.70 ac net

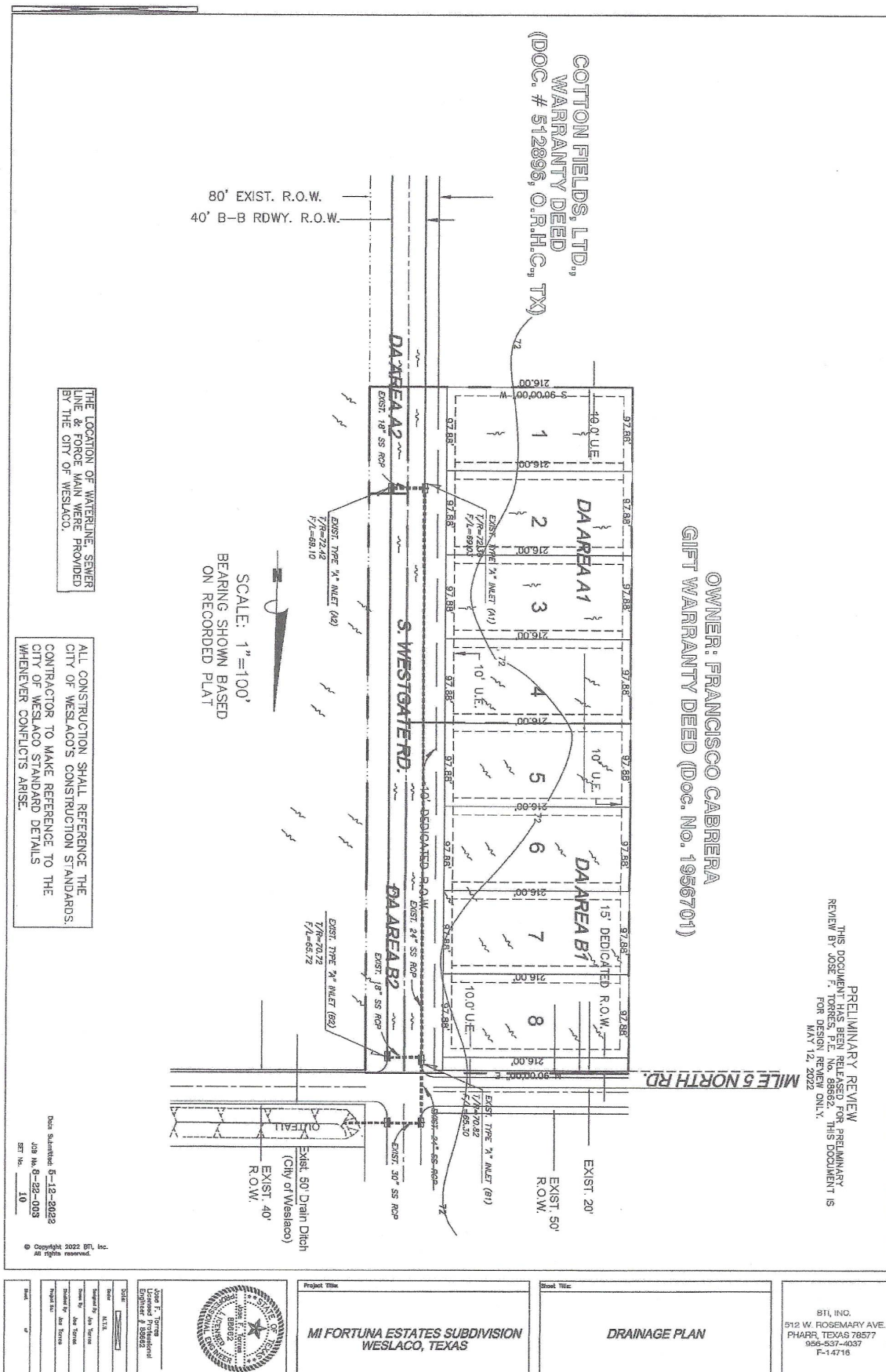
II. Existing Conditions

$T_c = 660 \text{ ft} / (0.3 \text{ ft/sec} \times 60 \text{ sec}) = 36.7 \text{ min.}$
 $I (10 \text{ yr}) = b / (T_c + d)^e = 3.91 \text{ in/hr}$
 $Q = CIA = (0.57)(3.91 \text{ in/hr})(0.697 \text{ ac}) = 1.56 \text{ cfs}$

III. Developed Conditions (Outfall to Exist Drainage Ditch - City of Weslaco)

Drainage area = 0.70 ac.
 $T_c = 660 \text{ ft} / (0.30 \text{ ft/sec} \times 60 \text{ sec}) + 0 / (0.30 \times 60) = 36.7 \text{ min.}$
 $I (10 \text{ yr}) = b / (T_c + d)^e = 3.91 \text{ in/hr}$
 $Q = CIA = (0.57)(3.91 \text{ in/hr})(0.697 \text{ ac}) = 1.56 \text{ cfs}$

TOTAL = 1.56 cfs



PRELIMINARY REVIEW
THIS DOCUMENT HAS BEEN RELEASED FOR PRELIMINARY
REVIEW BY 305617 FOR DESIGN REVIEW ONLY.
JANUARY 20, 2022

Line No.	Line Size (in)	Line Q (cfs)	Downstream Invert Elev (ft)	Downstream Depth (ft)	Downstream Area (sqft)	Downstream HGL Elev (ft)	Downstream Vel (ft/s)	Downstream Vel Head (ft)	Downstream EGL Elev (ft)	Length (ft)
1	30	9.38	63.78	2.5	4.91	66.28	1.91	0.06	66.34	12
2	30	9.38	64	2.32	4.75	66.32	1.98	0.06	66.38	42
3	24	9.38	64.2	2	3.14	66.37	2.99	0.14	66.51	90.35
4	24	4.42	65.47	1.51	2.54	66.98	1.74	0.05	67.02	665
5	18	0.63	69.09	1.01	1.27	70.1	0.5	0	70.1	42
6	18	1.56	65.47	1.5	1.77	67	0.88	0.01	67.01	42

Upstream Invert Elev (ft)	Upstream Depth (ft)	Upstream Area (sqft)	Upstream HGL Elev (ft)	Upstream Vel (ft/s)	Upstream Vel Head (ft)	Upstream EGL Elev (ft)	Pipe nValue	Pipe Energy Loss (ft)	Junction EGL Elev (ft)	Junction EGL Elev (ft)	Junction Energy Loss (ft)
63.91	2.37	4.81	66.28	1.95	0.06	66.34	0.011	0.005	66.3	66.35	0.01
64.17	2.16	4.5	66.33	2.08	0.07	66.39	0.011	0.016	66.38	66.45	0.06
65.47	1.08	1.74	66.55	5.39	0.45	67.01	0.011	0.501	66.55	67.01	0
69.09	0.74	1.07	69.83	4.15	0.27	70.1	0.011	3.078	69.83	70.1	0
69.2	0.9	1.11	70.1	0.57	0.01	70.1	0.011	0.002	70.1	70.11	0
65.72	1.28	1.61	67	0.97	0.01	67.02	0.011	0.007	67.01	67.03	0.01

ALL CONSTRUCTION SHALL REFERENCE THE
CITY OF WESLACO'S CONSTRUCTION STANDARDS.
CONTRACTOR TO MAKE REFERENCE TO THE
CITY OF WESLACO STANDARD DETAILS
WHENEVER CONFLICTS ARISE.

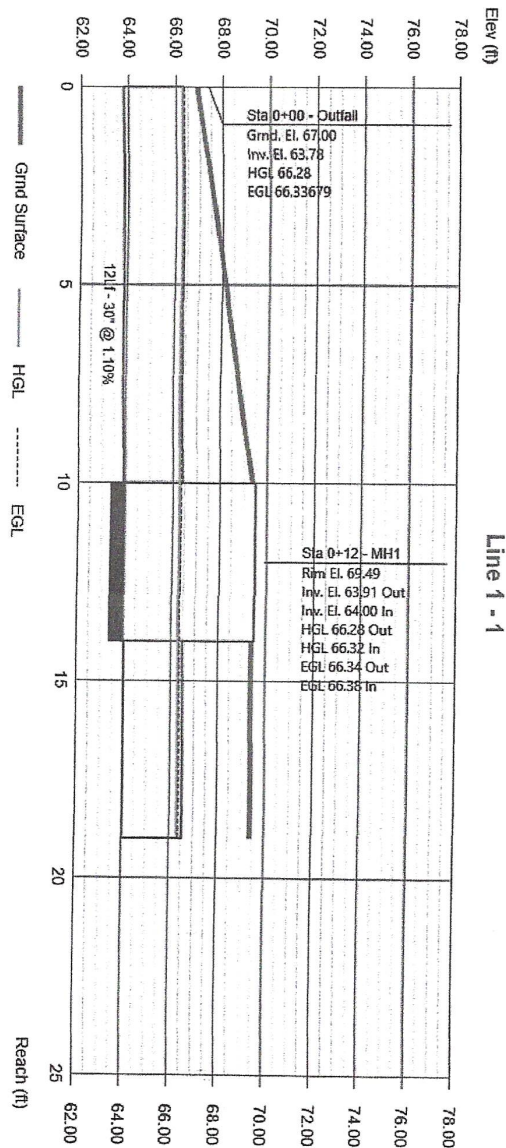


Project Title:
**MI FORTUNA ESTATES SUBDIVISION
WESLACO, TEXAS**

Sheet Title:
EXISTING DRAINAGE ANALYSIS CALC.

BTL INC.
512 W. ROSEMARY AVE
PHARR, TEXAS 78577
956-537-4037
F-14716

Drawn: M.S.L.
Checked: Joe Torres
Designed: Joe Torres
Reviewed: Joe Torres
Project No.



PRELIMINARY REVIEW
THIS DOCUMENT HAS BEEN RELEASED FOR PRELIMINARY
REVIEW BY JOSE F. TORRES, P.E., No. 88662. THIS DOCUMENT IS
FOR DESIGN REVIEW ONLY.
JANUARY 20, 2022

ALL CONSTRUCTION SHALL REFERENCE THE
CITY OF WESLACO'S CONSTRUCTION STANDARDS.
CONTRACTOR TO MAKE REFERENCE TO THE
CITY OF WESLACO STANDARD DETAILS
WHENEVER CONFLICTS ARISE.

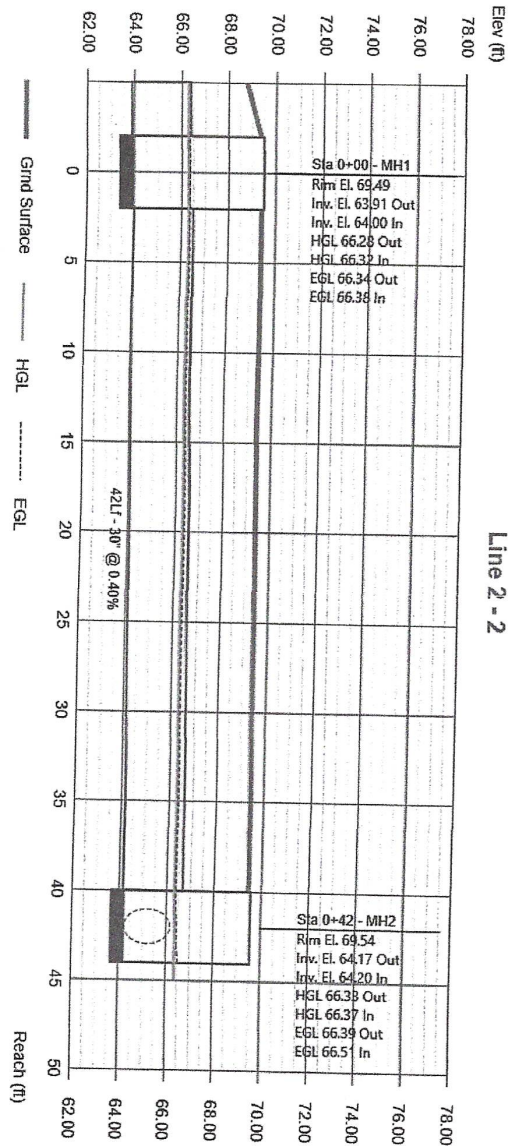


Project Title:
**MI FORTUNA ESTATES SUBDIVISION
WESLACO, TEXAS**

Sheet Title:
EXISTING STORM SEWER PROFILE

STL, INC.
512 W. ROSEMARY AVE.
PHARR, TEXAS 78577
956-537-4037
F-14716

Scale:
N.T.S.
Designed By: Jose Torres
Checked By: Jose Torres
Project No.:
Date:



PRELIMINARY REVIEW
THIS DOCUMENT HAS BEEN RELEASED FOR PRELIMINARY
REVIEW BY JOSE F. FOR DESIGN ONLY.
JANUARY 20, 2022

ALL CONSTRUCTION SHALL REFERENCE THE
CITY OF WESLACO'S CONSTRUCTION STANDARDS.
CONTRACTOR TO MAKE REFERENCE TO THE
CITY OF WESLACO STANDARD DETAILS
WHENEVER CONFLICTS ARISE.

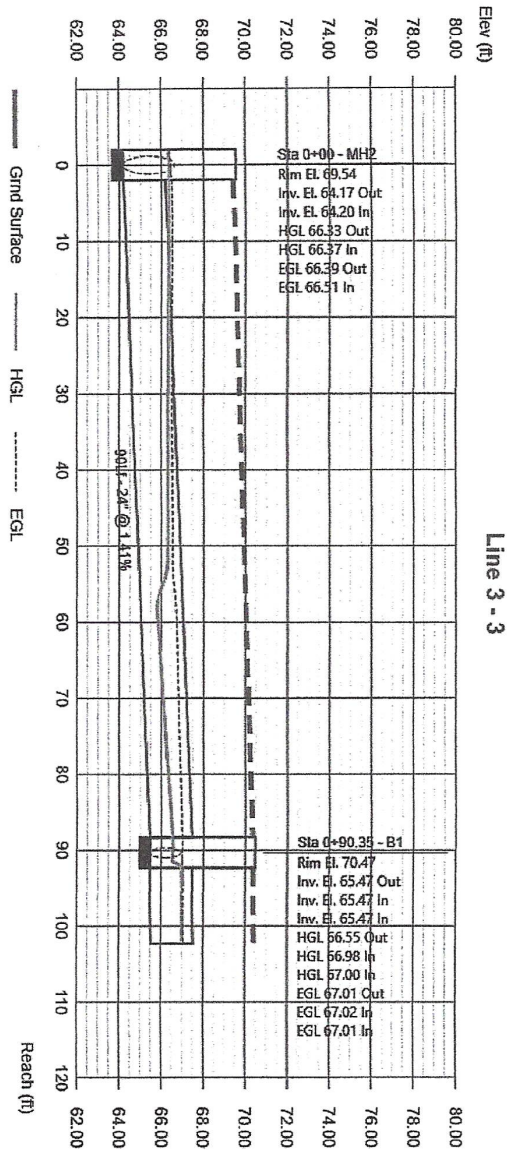


Project Title:
**MI FORTUNA ESTATES SUBDIVISION
WESLACO, TEXAS**

Sheet Title:
EXISTING STORM SEWER PROFILE

BTI, INC.
512 W. ROSEMARY AVE.
PHARR, TEXAS 78577
956-531-4937
F-14716

Scale:	N.T.S.
Drawn By:	Jos. Fortuna
Check By:	Jos. Fortuna
Project No.:	
Sheet No.:	2



PRELIMINARY REVIEW
THIS DOCUMENT HAS BEEN RELEASED FOR PRELIMINARY
REVIEW BY JOSE F. TORRES, P.E. No. 05862. THIS DOCUMENT IS
FOR DESIGN REVIEW ONLY.
JANUARY 20, 2022

ALL CONSTRUCTION SHALL REFERENCE THE
CITY OF WESLACO'S CONSTRUCTION STANDARDS.
CONTRACTOR TO MAKE REFERENCE TO THE
CITY OF WESLACO STANDARD DETAILS
WHENEVER CONFLICTS ARISE.

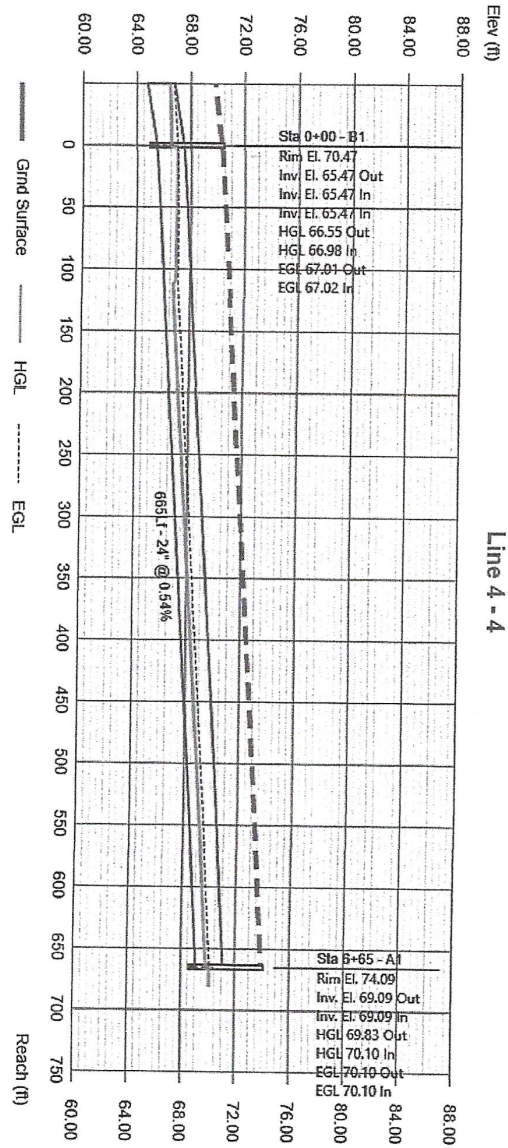


Project Title:
**MI FORTUNA ESTATES SUBDIVISION
WESLACO, TEXAS**

Sheet Title:
EXISTING STORM SEWER PROFILE

BTI, INC.
512 W. ROSEMARY AVE.
PHARR, TEXAS 78577
956-537-4037
F-14716

Drawn by	J.F. Torres
Checked by	J.F. Torres
Project No.	
Date	1/20/22



PRELIMINARY REVIEW
THIS DOCUMENT HAS BEEN RELEASED FOR PRELIMINARY
REVIEW BY JOSE F. TORRES, P.E. No. 38662. THIS DOCUMENT IS
FOR DESIGN REVIEW ONLY.
JANUARY 20, 2022

ALL CONSTRUCTION SHALL REFERENCE THE
CITY OF WESLACO'S CONSTRUCTION STANDARDS.
CONTRACTOR TO MAKE REFERENCE TO THE
CITY OF WESLACO STANDARD DETAILS
WHENEVER CONFLICTS ARISE.



Project Title
MI FORTUNA ESTATES SUBDIVISION
WESLACO, TEXAS

Sheet Title
EXISTING STORM SEWER PROFILE

BTI, INC.
512 W. ROSEMARY AVE.
PHARR, TEXAS 78577
361-537-4037
F-14716

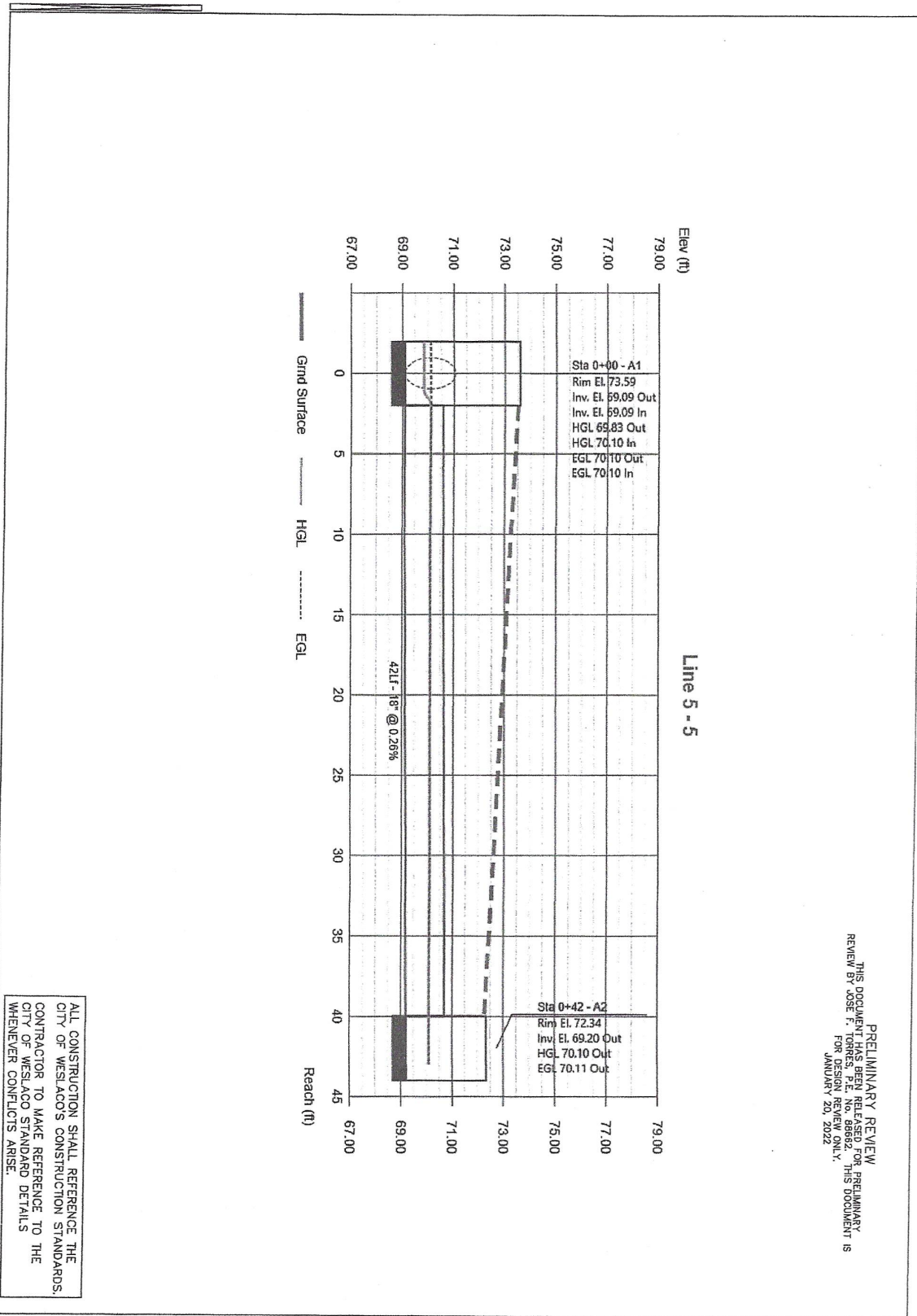
Scale
1" = 10'

Drawn By
J. Torres

Checked By
J. Torres

Reviewed By
J. Torres

Project No.
F-14716

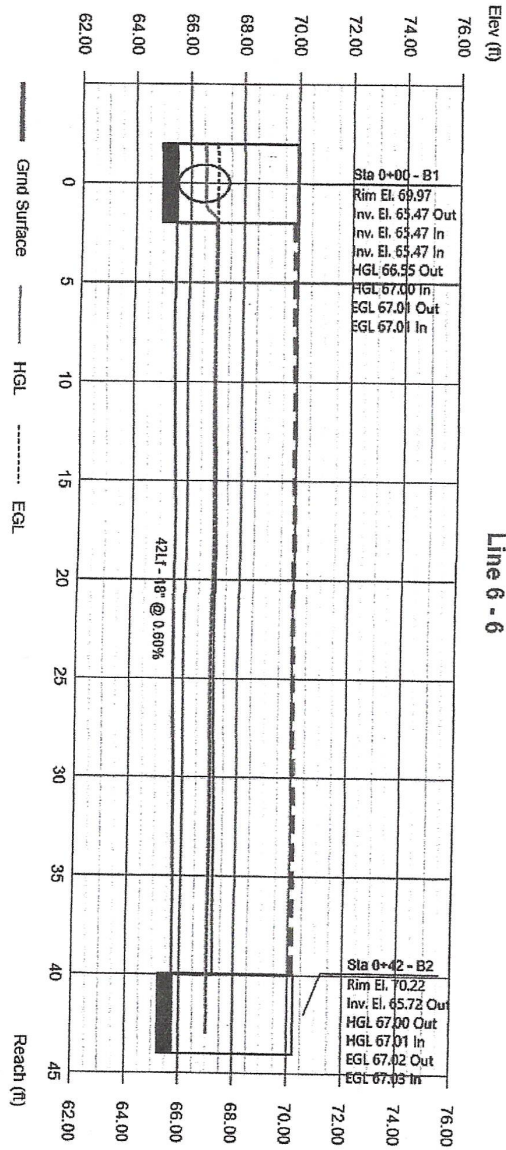


PRELIMINARY REVIEW
THIS DOCUMENT HAS BEEN RELEASED FOR PRELIMINARY REVIEW BY JOSE F. FOR DESIGN REVIEW ONLY.
JANUARY 20, 2022

BTI, INC. 512 W. ROSEMARY AVE. PHARR, TEXAS 78577 956-537-4037 F-14716	Project Title MI FORTUNA ESTATES SUBDIVISION WESLACO, TEXAS	Sheet Title EXISTING STORM SEWER PROFILE
---	---	--

Scale 1" = 10'	Drawn By J. Torres	Checked By J. Torres	Approved By J. Torres
---------------------------	-------------------------------	---------------------------------	----------------------------------

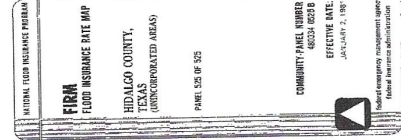
Professional Engineer J. Torres	Professional Engineer J. Torres
--	--



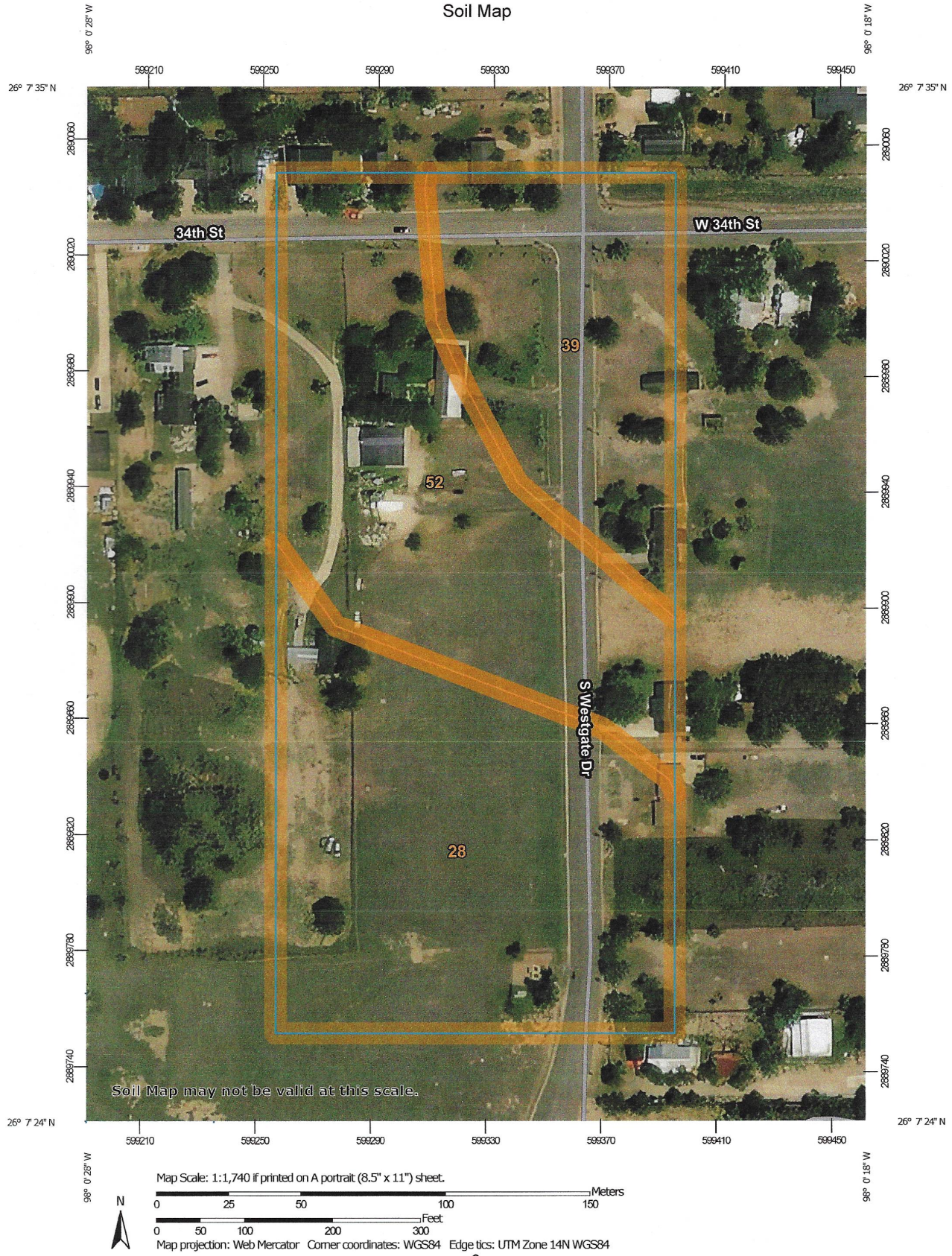
PRELIMINARY REVIEW
THIS DOCUMENT HAS BEEN RELEASED FOR PRELIMINARY
REVIEW BY JOSE F. TORRES, P.E., FOR DESIGN REVIEW ONLY.
JANUARY 20, 2022

ALL CONSTRUCTION SHALL REFERENCE THE
CITY OF WESLACO'S CONSTRUCTION STANDARDS.
CONTRACTOR TO MAKE REFERENCE TO THE
CITY OF WESLACO STANDARD DETAILS
WHENEVER CONFLICTS ARISE.

 Jose F. Torres Licensed Professional Engineer # 00000	MI FORTUNA ESTATES SUBDIVISION WESLACO, TEXAS	EXISTING STORM SEWER PROFILE	BTI, INC. 512 W. ROSEMARY AVE. PHARR, TEXAS 78577 936-837-4037 F-14716
---	---	--	---



Custom Soil Resource Report
Soil Map



160

Soil survey

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth <u>In</u>	USDA texture	Classification		Percentage passing sieve number--				Liquid limit <u>Pct</u>	Plas- ticity index
			Unified	AASHTO	4	10	40	200		
45,* 46,* 47.* Pits										
48, 49----- Racombe	0-13 13-49 49-72	Sandy clay loam Sandy clay loam, clay loam. Sandy clay loam, clay loam.	CL, SC CL, SC CL, SC	A-4, A-6 A-6, A-7 A-6	100 100 90-100	100 95-100 80-100	95-100 90-100 80-95	45-65 45-65 40-65	27-35 34-43 30-40	8-15 15-22 11-20
50----- Ramadero	0-21 21-65	Sandy clay loam Sandy clay loam, clay loam.	CL, SC CL, SC	A-6, A-4 A-6, A-7	100 100	100 95-100	95-100 90-100	45-65 45-65	27-39 32-42	9-18 13-21
51:* Randado-----	0-9 9-16 16-60	Fine sandy loam Fine sandy loam, sandy clay loam. Cemented-----	SM, SM-SC SC, SM-SC, GC ---	A-2-4 A-2-4, A-2-6, A-4, A-6 ---	75-100 65-100 ---	70-100 60-100 ---	70-100 60-100 ---	20-35 25-50 ---	<25 25-34 ---	NP-7 7-14 ---
Cuevitas-----	0-8 8-60	Fine sandy loam Cemented-----	SM, SM-SC, SC ---	A-2-4 ---	80-100 ---	80-100 ---	80-100 ---	20-35 ---	<28 ---	NP-9 ---
52, 53----- Raymondville	0-15 15-43 43-65	Clay loam----- Clay, clay loam Clay, clay loam	CL CL, CH CL, CH	A-6, A-7-6 A-6, A-7-6 A-7-6	100 100 100	100 95-100 85-100	95-100 95-100 80-100	51-85 75-95 75-95	37-50 38-55 40-53	18-30 19-35 20-30
54:* Raymondville----	0-15 15-43 43-65	Clay loam----- Clay, clay loam Clay, clay loam	CL CL, CH CL, CH	A-6, A-7-6 A-6, A-7-6 A-7-6	100 100 100	100 95-100 85-100	95-100 95-100 80-100	51-85 75-95 75-95	37-50 38-55 40-53	18-30 19-35 20-30
Urban land.										
55, 56----- Reynosa	0-15 15-48 48-65	Silty clay loam Silty clay loam, silt loam. Stratified silty clay loam to silt loam.	CL, CL-ML CL CL, CL-ML	A-6, A-4, A-7-6 A-6, A-4, A-7-6 A-6, A-4, A-7-6	100 100 100	100 100 100	95-100 95-100 90-100	80-100 80-100 70-100	25-45 28-44 20-49	7-25 9-23 4-29
57:* Reynosa-----	0-15 15-48 48-65	Silty clay loam Silty clay loam, silt loam. Stratified silty clay loam to silt loam.	CL, CL-ML CL CL, CL-ML	A-6, A-4, A-7-6 A-6, A-4, A-7-6 A-6, A-4, A-7-6	100 100 100	100 100 100	95-100 95-100 90-100	80-100 80-100 70-100	25-45 28-44 20-49	7-25 9-23 4-29
Urban land.										
58, 59----- Rio	0-12 12-38 38-63	Fine sandy loam Clay loam, clay Clay loam, sandy clay, sandy clay loam.	SC, SM-SC CL, CH CL	A-2-4, A-4 A-7-6 A-7-6	95-100 95-100 95-100	95-100 95-100 95-100	95-100 95-100 85-95	30-48 75-95 55-80	<30 43-57 41-50	5-10 21-32 20-27

See footnote at end of table.

Hidalgo County, Texas

159

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth In	USDA texture	Classification		Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO	4	10	40	200		
32:*										
Jimenez-----	0-8	Very gravelly loam.	GC, GM-GC	A-1, A-2-4, A-2-6	30-58	15-40	15-35	15-30	22-35	5-15
	8-10	Cemented-----	---	---	---	---	---	---	---	---
	10-60	Variable-----	---	---	---	---	---	---	---	---
Quemado-----	0-6	Very gravelly sandy loam.	GM, GC, GM-GC	A-1, A-2	30-50	20-50	15-35	15-30	<25	NP-10
	6-12	Very gravelly sandy loam, very gravelly loam, very gravelly sandy clay loam.	GM, GC, GM-GC	A-1, A-2	30-50	20-50	15-35	15-30	18-28	2-10
	12-18	Cemented-----	---	---	---	---	---	---	---	---
	18-60	Variable-----	---	---	---	---	---	---	---	---
33-----										
Laredo	0-14	Silty clay loam	CL	A-6, A-7-6, A-4	100	100	90-100	85-100	28-44	9-22
	14-65	Silty clay loam, silt loam, very fine sandy loam.	CL	A-6, A-7-6, A-4	100	95-100	90-100	70-95	28-43	9-21
34-----										
Matamoros	0-65	Silty clay, stratified silt loam to clay.	CH	A-7-6	100	100	100	95-100	51-65	30-41
35, 36, 37-----										
McAllen	0-14	Fine sandy loam	CL, SC, CL-ML, SM-SC	A-4, A-6	100	100	95-100	36-55	21-30	4-11
	14-72	Sandy clay loam, clay loam, fine sandy loam.	CL, SC	A-6	95-100	90-100	85-100	45-70	28-40	11-20
38-----										
McAllen	0-14	Sandy clay loam	CL, SC,	A-6	100	100	95-100	36-55	29-40	11-20
	14-72	Sandy clay loam, clay loam, fine sandy loam.	CL, SC	A-6	95-100	90-100	85-100	45-70	28-40	11-20
39, 40, 41-----										
Mercedes	0-19	Clay-----	CH	A-7-6	85-100	80-100	80-100	75-95	55-76	32-49
	19-57	Clay-----	CH, CL-CH	A-7-6	85-100	80-100	80-100	75-95	50-76	32-49
	57-65	Clay-----	CH, CL	A-7-6	85-100	80-100	80-100	75-95	48-76	32-49
42-----										
Nueces	0-29	Fine sand-----	SP-SM, SM, SM-SC	A-2-4, A-3	100	95-100	90-100	8-35	<25	NP-6
	29-72	Sandy clay loam, sandy loam.	SC	A-2-6, A-6	90-100	90-100	80-100	20-50	25-40	11-20
43:*										
Nueces-----	0-29	Fine sand-----	SP-SM, SM, SM-SC	A-2-4, A-3	100	95-100	90-100	8-35	<25	NP-6
	29-72	Sandy clay loam, sandy loam.	SC	A-2-6, A-6	90-100	90-100	80-100	20-50	25-40	11-20
Sarita-----										
	0-48	Fine sand-----	SM-SC, SP-SM, SM	A-2-4, A-3	100	100	65-100	9-35	<25	NP-7
	48-80	Sandy clay loam, fine sandy loam.	SC	A-2-6, A-6	100	100	80-100	30-50	28-40	11-22
44-----										
Olmito	0-47	Silty clay-----	CH	A-7-6	100	100	100	90-100	51-70	28-44
	47-65	Silty clay, silty clay loam.	CH	A-7-6	95-100	90-100	85-100	85-100	51-70	28-44

See footnote at end of table.

158

Soil survey

TABLE 16.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth In	USDA texture	Classification		Percentage passing sieve number--				Liquid limit Pet	Plas- ticity index
			Unified	AASHTO	4	10	40	200		
13:*										
Randado-----	0-9	Fine sandy loam	SM, SM-SC	A-2-4	75-100	70-100	70-100	20-35	<25	NP-7
	9-16	Fine sandy loam, sandy clay loam.	SC, SM-SC, GC	A-2-4, A-2-6, A-4, A-6	65-100	60-100	60-100	25-50	25-34	7-14
	16-60	Cemented-----	---	---	---	---	---	---	---	---
14-----	0-80	Fine sand-----	SP-SM, SM	A-2-4, A-3	100	100	75-100	5-25	<25	NP-3
Falfurrias										
15-----	0-7	Clay-----	CL, CH	A-7-6	100	100	100	90-100	41-55	20-30
Grulla	7-65	Silty clay, clay	CH	A-7-6	100	100	100	90-100	52-66	28-39
16, 17, 18-----	0-18	Fine sandy loam	SC, SM-SC, SM	A-2-4	100	95-100	95-100	17-35	<30	NP-8
Hargill	18-63	Sandy clay loam	SC, CL	A-6	100	95-100	95-100	40-55	30-40	11-20
	63-80	Sandy clay loam	SC	A-2-4, A-2-6, A-4, A-6	85-100	80-100	75-100	34-50	28-39	9-18
19, 20-----	0-8	Clay-----	CH	A-7-6	100	100	100	90-100	51-85	32-60
Harlingen	8-35	Clay-----	CH	A-7-6	100	100	100	95-100	65-85	50-65
	35-72	Clay-----	CH	A-7-6	100	100	100	95-100	65-85	50-65
21:*										
Harlingen-----	0-8	Clay-----	CH	A-7-6	100	100	100	90-100	51-85	32-60
	8-35	Clay-----	CH	A-7-6	100	100	100	95-100	65-85	50-65
	35-72	Clay-----	CH	A-7-6	100	100	100	95-100	65-85	50-65
Urban land.										
22, 23, 24-----	0-17	Sandy loam-----	SM	A-2-4	100	100	75-100	13-24	<25	NP-4
Hebbronville	17-58	Fine sandy loam, loam.	SM, SM-SC	A-2-4	100	100	90-100	20-30	<30	NP-7
	58-65	Fine sandy loam, loam.	SM-SC, SC	A-2-4, A-4, A-2-6, A-6	95-100	90-100	90-100	20-40	20-30	4-13
25, 26, 27-----	0-17	Fine sandy loam	SC, SM-SC	A-4, A-6	100	95-100	90-100	36-50	20-30	4-11
Hidalgo	17-28	Sandy clay loam, clay loam.	SC, CL	A-6	100	95-100	90-100	36-80	30-40	11-20
	28-80	Clay loam, sandy clay loam.	CL, SC	A-6, A-7-6	90-100	80-100	75-99	44-80	30-44	11-23
28, 29, 30-----	0-17	Sandy clay loam	SC, CL	A-6	100	95-100	90-100	36-55	29-40	11-20
Hidalgo	17-28	Sandy clay loam, clay loam.	SC, CL	A-6	100	95-100	90-100	36-80	30-40	11-20
	28-80	Clay loam, sandy clay loam.	CL, SC	A-6, A-7-6	90-100	80-100	75-99	44-80	30-44	11-23
31:*										
Hidalgo-----	0-17	Sandy clay loam	SC, CL	A-6	100	95-100	90-100	36-50	29-40	11-20
	17-28	Sandy clay loam, clay loam.	SC, CL	A-6	100	95-100	90-100	36-80	30-40	11-20
	28-80	Clay loam, sandy clay loam.	CL, SC	A-6, A-7-6	90-100	80-100	75-99	44-80	30-44	11-23
Urban land.										

See footnote at end of table.



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Hidalgo County, Texas



February 27, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	11
Map Unit Descriptions.....	11
Hidalgo County, Texas.....	13
28—Hidalgo sandy clay loam, 0 to 1 percent slopes.....	13
39—Mercedes clay, 0 to 1 percent slopes.....	14
52—Raymondville clay loam, 0 to 1 percent slopes.....	15
References	17

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

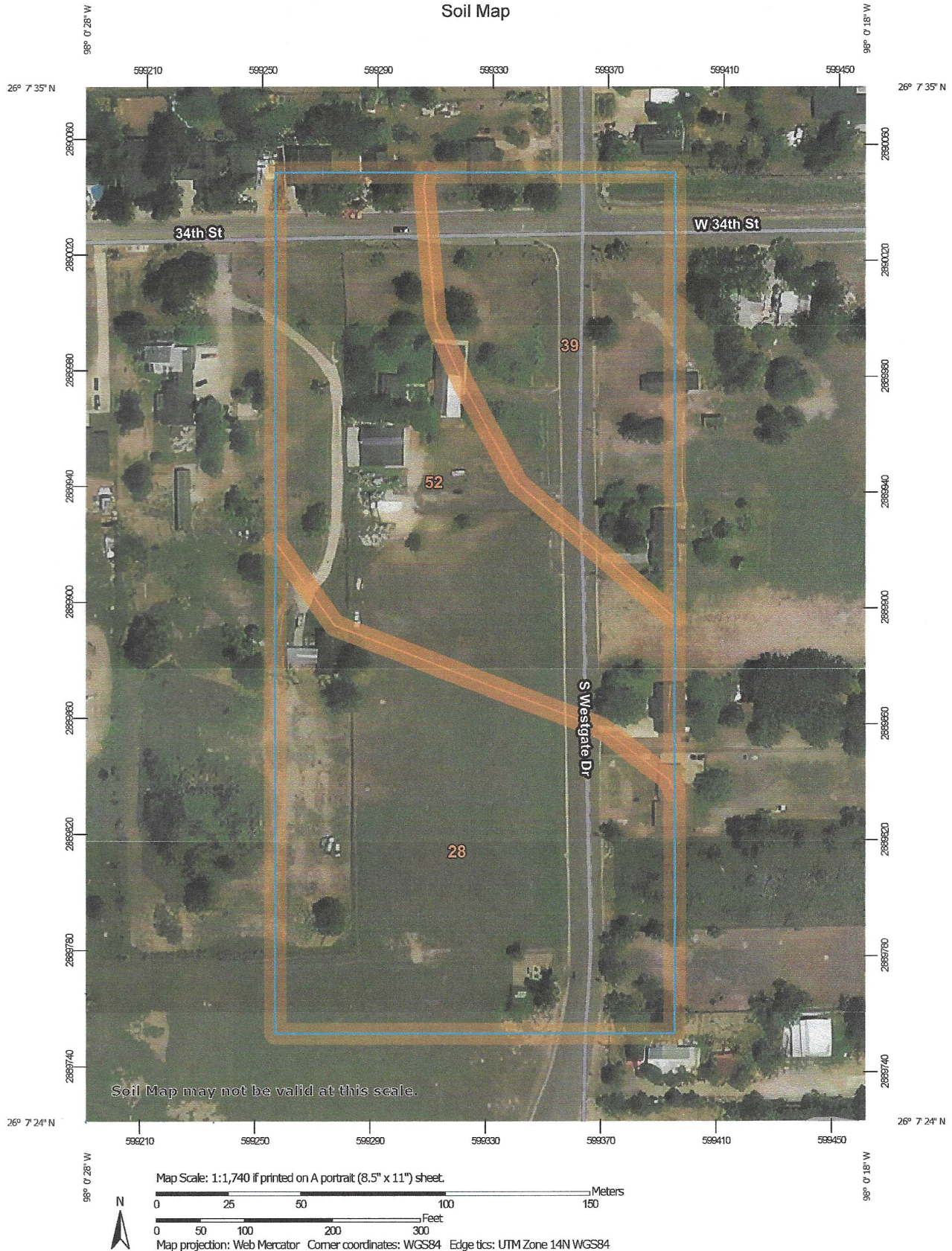
Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

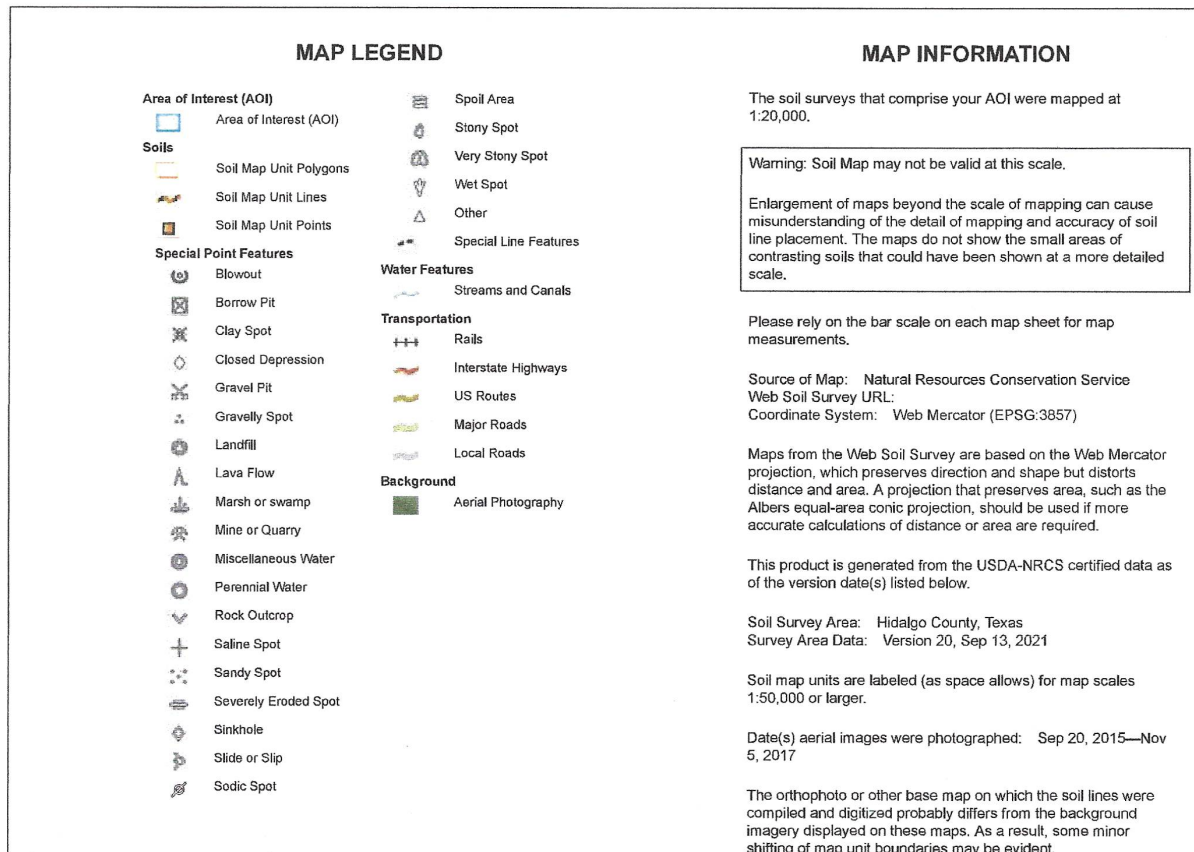
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Custom Soil Resource Report



Custom Soil Resource Report

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
28	Hidalgo sandy clay loam, 0 to 1 percent slopes	4.2	41.3%
39	Mercedes clay, 0 to 1 percent slopes	2.4	23.2%
52	Raymondville clay loam, 0 to 1 percent slopes	3.6	35.5%
Totals for Area of Interest		10.2	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

Custom Soil Resource Report

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Custom Soil Resource Report

Hidalgo County, Texas

28—Hidalgo sandy clay loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2sxl
Elevation: 20 to 500 feet
Mean annual precipitation: 20 to 27 inches
Mean annual air temperature: 72 to 74 degrees F
Frost-free period: 300 to 365 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Hidalgo and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hidalgo

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous loamy alluvium

Typical profile

Ap - 0 to 17 inches: sandy clay loam
Bk1 - 17 to 28 inches: sandy clay loam
Bk2 - 28 to 38 inches: clay loam
Ck - 38 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 35 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 10.0
Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 2c
Hydrologic Soil Group: B
Ecological site: R083DY019TX - Gray Sandy Loam
Hydric soil rating: No

Custom Soil Resource Report

Minor Components

Raymondville

Percent of map unit: 7 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R083DY025TX - Clay Loam
Hydric soil rating: No

Racombes

Percent of map unit: 6 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R083DY025TX - Clay Loam
Hydric soil rating: No

Willacy

Percent of map unit: 2 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

39—Mercedes clay, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: dblk
Elevation: 10 to 150 feet
Mean annual precipitation: 24 to 34 inches
Mean annual air temperature: 73 to 75 degrees F
Frost-free period: 300 to 365 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Mercedes and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mercedes

Setting

Landform: Delta plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous clayey alluvium

Custom Soil Resource Report

Typical profile

H1 - 0 to 19 inches: clay
H2 - 19 to 57 inches: clay
H3 - 57 to 65 inches: clay

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 10 percent
Maximum salinity: Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 12.0
Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: D
Ecological site: R083DY015TX - Saline Clay
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 15 percent
Hydric soil rating: No

52—Raymondville clay loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: dbm1
Elevation: 20 to 200 feet
Mean annual precipitation: 23 to 33 inches
Mean annual air temperature: 72 to 73 degrees F
Frost-free period: 300 to 340 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Raymondville and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Custom Soil Resource Report

Description of Raymondville

Setting

Landform: Delta plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous clayey alluvium

Typical profile

H1 - 0 to 15 inches: clay loam
H2 - 15 to 43 inches: clay loam
H3 - 43 to 65 inches: clay

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 8.0
Available water supply, 0 to 60 inches: Moderate (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: C
Ecological site: R083DY025TX - Clay Loam
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 15 percent
Hydric soil rating: No



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: October 5, 2022	Agenda Item No. (to be assigned by PCE): V.E.
From: Rebekah de la Fuente, Planning Director, on behalf of David Salinas.	
Subject/Agenda Item: Discussion and consideration for the Final Plat for Gilberto Estates being a 4.56-acre out of farm tract 101, West & Adams Tract Subdivision, Weslaco, Hidalgo County, Texas Located on the Northeast corner of Mile 4 ½ W & Mile 10 N. Possible Action.	
Discussion/Overview: The proposed Six (6) lot subdivision is currently located inside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through a 6" waterline and sewer by OSSF. The property is within a Flood Zone "X". Applicant is requesting variance for OSSF.	
If item requires Publication Notice, provide date and periodical of publication; indicate if comments received from letters mailed to property owners: N/A	
Staff recommendation for Commission's Action: Staff recommends approval of Final Plat and compliance with ordinance on the variance.	
Additional Action Prompted: ☒ Mayor's Signature ☐ Public Hearing ☐ Budget Amendment ☐ Resolution ☐ Ordinance – First Reading ☐ Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Subdivision platting, Staff's comments, Drainage Report, Subdivision plat and Utility layout.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	



SUBDIVISION PLATTING APPLICATION

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. PIAT-000299-2022

This form shall be completed by the Property Owner or Applicant and submitted to the Planning Department along with the required number of copies of the respective plat, review fee and all other required information listed below and in the Subdivision Ordinance. The submittal of an application does not constitute acceptance for processing until the staff reviews and determines the application is complete.

STAFF USE ONLY

☐ Single Lot Variance ☐ Minor Plat ☐ Planned Unit Development ☐ Standard Subdivision

GENERAL INFORMATION

Name of Subdivision: FINAL PLAT OF GILBERTO ESTATES

Location: IMMEDIATE NE CORNER OF MILE 4 1/2 W. + MILE 10 N.

Legal Description: A 4.56 ACRE TRACT 90 F.T. 101, WEST
+ ADAMS TRACT SUBDIVISION, H.C.T.

Is subdivision inside city limits? ☒ YES ☐ NO

If subdivision is in the ETJ, indicate? ☐ 3.5 Mile ☐ 5 Mile

If no submit letter of Annexation (Contiguous or Consensual)

Existing Zoning: OPEN

Existing Land Use: RESIDENTIAL Proposed Land Use: RESIDENTIAL

Number of Lots Proposed: 6 Gross Acreage: 4.56

Title Report Submitted: ☐ YES ☐ NO

OWNER INFORMATION

Owner's Name: JEERY GONZALEZ Telephone: 956-373-1533

Address: 718 COUNTRYSIDE DR. Fax: _____

City: WESLACO State: TX Zip: 78599 E-mail: JGONZALEZ@TEXASNATIONAL.COM

ENGINEER INFORMATION

Name: DAVID SALINAS, SEA Telephone: 956-682-9081

Address: 2221 DAFFODIL AVE Fax: _____

City: MCALLEN State: TX Zip: 78501 E-mail: DSALINAS@FALWASENGINEERING.COM

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

UTILITY PROVISIONS

Will proposed subdivision connect to:

☐ YES ☐ NO Water Provision: _____

☐ YES ☐ NO Wastewater Provision: _____

☐ YES ☐ NO Electric Company: _____

☐ YES ☐ NO Phone Utility _____

☐ YES ☐ NO Gas Utility

☐ YES ☐ NO Cable Utility

Proposed subdivision is in the following districts:

☐ YES ☐ NO Drainage District #1

☐ YES ☐ NO Irrigation District #9

Has the property been assessed as flat rate irrigable property: ☐ YES ☐ NO

Have Water Rights been conveyed to City/Water Supplier? ☐ YES ☐ NO

(Attach written proof of such assessment or that it has never been assessed as such a property) If **YES**, attach an estimate from the irrigation district of the proportional water rights for the subdivision as calculated under Texas Water Code § 49.505.

SUBMITTALS REQUIRED FOR MINOR PLAT REVIEW

Two (2) sets of plats **folded and stapled** (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov

\$355.00 Planning Review fee

One 11" X 17" reduced copy of plat

Plat Layout

Existing & Proposed Easements

Existing & Proposed ROW

Existing & Proposed Drainage Easements

Contours

Flood Zones

Adjoiners

Existing street names

Drainage plans and calculations with engineer's seal

Elevations

Flood directional arrows

Detention areas

Street names

Proof of ownership of the property

If septic tank system required, submit soil evaluation report

Water Rights associated with the property

Tax Receipt for all taxing entities showing that taxes are paid in full

SUBMITTALS REQUIRED FOR PRELIMINARY (P & Z)

Twelve (12) sets of preliminary plat **folded and stapled** (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov

\$350.00 (one time fee for preliminary and final plat) - \$355

One 11" X 17" reduced copy of plat

Plat Layout

Existing & Proposed Easements

Existing & Proposed ROW

Existing & Proposed Drainage Easements

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

- ☐ Contours
- ☐ Flood Zones
- ☐ Adjoiners
- ☐ Existing & Proposed street names
- ☒ Utility Layout
- ☐ Existing & Proposed Utilities
- ☐ Proposed Fire Hydrants
- ☐ Adjoiners
- ☐ Street names
- ☒ Drainage plans and calculations with engineer's seal
- ☐ Elevations
- ☐ Flood directional arrows
- ☐ Detention areas
- ☐ Street names
- ☒ Proof of ownership of the property
- ☒ If septic tank system required, submit soil evaluation report
- ☒ N/A Water Rights associated with the property
- ☒ Tax Receipt for all taxing entities showing that taxes are paid in full
- ☒ Number of fire hydrants proposed for subdivision
- ☒ Trip Generation Worksheet - SUBMITTED 6-16-22

SUBMITTALS REQUIRED FOR FINAL (P & Z) **Will not apply to Single Lot Variance**

- ☐ Twelve (12) sets of plans **FOLDED & STAPLED** (24 x 36) & PDF copy **with all corrections**
- ☐ Plats to be sealed by Professional Engineer
- ☐ Approved Drainage Report
- ☐ Traffic Impact Analysis (If required)

SUBMITTALS REQUIRED FOR FINAL (City Commission)

- ☐ One set of 8 1/2 x 11 of plat and utilities with all corrections done

SUBMITTALS REQUIRED FOR PRE-CONSTRUCTION MEETING

- ☐ Seven (7) full sets of construction plans 24 x 36 and one (1) 11 x 17 with plan & profile.
- ☐ Engineering cost estimates for 3% geotechnical testing fees and 2% inspection fees
- ☐ Notice of Intent
- ☐ SW3P

SUBMITTALS REQUIRED FOR RECORDING OR HIDALGO COUNTY PLANNING

- ☐ Electronic file of final plat and as-builds
- ☐ Reproducible plat to be recorded with all required signatures
- ☐ 3% geotechnical testing fees or negotiated Material Testing fee by City, whichever is higher
- ☐ 2% inspection fee
- ☐ Park Fees
- ☐ Checks or Receipts: HCCID #9; HCDD #1; County Clerk
- ☐ Tax certificates
- ☐ Memo from engineering inspector releasing subdivision
- ☐ Water Rights associated with the property dedicated and assigned to City of Weslaco or payment of fees sufficient to meet the needs necessitated and attributable to development
- ☐ 30 Year Water and 30 Year Sewer Service Agreements
- ☐ Park dedication/Fees in lieu of

SUBMITTALS REQUIRED FOR RECORDING BY SECURITY

- ☐ Sealed engineering cost estimates
- ☐ Letter of Credit/Performance Bond/Escrow

** Any revisions requested would require resubmission of plats and reduced copy reflecting changes.

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

Owner Printed Name: _____

Owner Signature: P.O.A. SUBMITTED ON 5-16-22 Date: _____

DAVID SALINAS FOR SALINAS ENGINEERING is the authorized agent

Authorized Agent Signature: _____ Date: 8-29-22

Authorized Agent Printed Name: DAVID SALINAS

THIS PAGE FOR STAFF USE ONLY

Date Received: _____ Received By: _____ Date Paid: _____

P & Z Commission Approval on Preliminary Plat: _____

P & Z Commission Approval on Final Plat: _____

City Commission Approval on Final Plat: _____

Preconstruction Meeting Date: _____

Date Recorded: _____ Instrument No. _____

General Comments: _____

DRAINAGE REPORT

FINAL PLAT OF
GILBERTO ESTATES

CITY OF WESLACO
HIDALGO COUNTY, TEXAS

PREPARED BY:

David Omar Salinas, P.E., R.P.L.S.
Salinas Engineering & Associates
(TBE F-6675)
2221 Daffodil Ave.
McAllen, Texas, 78501
(956) 682-9081
(956) 686-1489 Facsimile
(956) 648-8899 Cell
dsalinas@salinasengineering.com



JUNE 16, 2022

INDEX

Drainage Report Narrative: Page 2.-3.

- A. Hydrograph: Dated 06/17/2022 Attached
- B. Plat reduction of Gilberto Estates, Weslaco, H.C.T.
- C. Copy of FIRM – CPN 480334 0005 C, dated 11/2/82
- D. Copy of Plat reduction and other drainage report exhibits

DRAINAGE REPORT NARRATIVE

Proposed Gilberto Estates Subdivision is a 6 - lot 3.42 Acre residential subdivision out of Lot 101, West and Adams Tract Subdivision Hidalgo County, Texas. Said site is located within the limits of the City of Weslaco at the NWC of Mile 10 North and Mile 4 ½ West Roads having double frontage with 684.8 feet east/west and 290.40 feet north/south. Proposed use is single family residential use. This one lot plat is located in Zone “X” (unshaded) as per the FIRM Community Panel No. 480334 0450 C, Revised to Reflect LOMR dated 05/30/02. Zone “X” areas (unshaded) are defined as “determined to be outside the 500-year floodplain. The site is currently vacant and both roadways are improved with paved sections and adjoining bar ditches. North of adjacent to the site is a recorded plat having residential uses and to the west other residential homes.

Soils of this proposed plat consist of a Hidalgo sandy clay loam complex (Map Unit No. 28) with slopes between 0 and 1 percent – these soils are well drained with slow surface runoff with moderate permeabilities. This soil is in capability subclass IIc non-irrigated and in class I irrigated, Group B, and is in the Gray Sandy Loam range can be seen in Sheet 105 of the Soil Survey of Hidalgo County, Texas.

Waters entering the roadside bar ditches flow east and south along Mile 10 North and Mile 4 ½ West Roads, respectively. There is an existing metal grate inlet located just north of the intersection of both bar ditches. Waters flowing within said bar ditches flow into the grate inlet where waters are diverted via a storm line east under Mile 4 ½ West Road into a Hidalgo & Cameron Co. Irrigation Ditch No. 9 – called 7J1. This ditch although owned by the irrigation district is maintained by the HCDD No. 1. This ditch that runs parallel to and north of Mile 10 North Roads. Upon entering said ditch waters from this grate inlet flow east away from Mile 4 ½ West Road.

Waters within this property essentially flow via sheet flow in a due easterly direction via sheet flow over the un-developed lands. Waters may enter Mile 4 ½ West. Waters flow easterly at an average slope of 0.30% over an average drainage run of 330.0 feet. There are no improvements on this land so waters will flow un-impaired upon reaching a saturated condition.

In accordance with the drainage policies of the City of Weslaco, this subdivision shall be required to retain on-site the total volume of water CREATED by the post-development of this 1.98 net acre property. Using the Modified Rational Method (*For Reference: TxDOT Intensity-Frequency-Duration Coefficients for Texas Counties HDM (2004)*) over a 10-year storm event, and, existing drainage coefficient of 0.20 and a future computed drainage coefficient of 0.40 – *For Reference: FHWA, Urban Drainage Design Manual HEC -22 (2001)*, an average drainage run of 330.0 feet and an average slope of 0.30%, it was computed that the improved condition would produce an additional total volume of 13,297.83 Cubic Feet, or, 0.30 Acre-Feet. Runoff

shall increase from 2.70 CFS to 4.33 CFS – an increase of 1.63 CFS – on a 50-year storm event post development on this site.

The developer shall provide for on-site non-discharging detention such that a minimum volume of 13,297.83 Cu. Ft. of total on-site storage is provided. Each lot shall provide for on-site detention volume in the amount of not less than 2,216.31 Cu. Ft. Drainage swales shall be constructed in direct line of the direction of overland flow and an easement shall be provided on the plat for each swale. Maintenance of all swales shall lie with the respective lot owner.

A site and grading (drainage) plan is recommend to the City of Weslaco as part of the building permit to insure compliance with this report. All finished floor construction shall be at an elevation of not less than 68.0 or as approved by the City of Weslaco.

Date: June 17, 2022

Attachment: Hydrograph and Other Required Drainage Report Information
xc: n:\subdivisionplats\gilbertoestates.sub\drainagereport.061722

6/17/2022
jag

Detention Calculations
Gilberto Estates Subdivision

Runoff Calculations

Area: 3.42 acres		Proposed LAND CHARACTER		Existing LAND CHARACTER	
Length of Basin: 330.00 ft	0	1.37 acres	0.33 Developed	0.00 acres	0
Avg. Basin Slope (Hr): 0.30 %		2.05 acres	0.20 Undeveloped	3.42 acres	0
Undeveloped t _c : 43.96 min.		0.40 C (composite, developed)		0.20 C (composite, developed)	
Developed t _c : 34.19 min.					

2004		Undeveloped Calculations		LIMIT OUTFLOW:	
County: HIDALGO COUNTY, TEXAS		OUTFLOW		50 year storm	
2-year		e b d l ₂ (in/hr)		3.45	
0.831		74 9.6 2.71 Q ₂ = 1.85		10	
5-year		e b d l ₅ (in/hr)		50	
0.795		80 9.2 3.40 Q ₅ = 2.32		3.45	
10-year		e b d l ₁₀ (in/hr)		13.297.83	
0.778		87 9.2 3.95 Q ₁₀ = 2.70			
25-year		e b d l ₂₅ (in/hr)			
0.771		98 9.2 4.58 Q ₂₅ = 3.13			
50-year		e b d l ₅₀ (in/hr)			
0.749		99 9.2 5.05 Q ₅₀ = 3.45			
100-year		e b d l ₁₀₀ (in/hr)			
0.74		103 9.6 5.41 Q ₁₀₀ = 3.70			

post dev FAA		post dev RM	
tc 34.19/168	tc 10		
i 5.88	i 10.83		
Q 8.04	Q 14.81		

Alt IDF	
0	0

t _c	Intensity (in/hr)	Peak Disch. (cfs)	Acc. Runoff (acre ft)	Runoff difference (acre ft)	Acc. Disch. (cfs)	Net Storage (acre ft)
10	10.83	14.81	0.204	0.2040	0.082	0.122
20	7.91	10.82	0.298	0.0940	0.101	0.197
30	6.34	8.68	0.359	0.0605	0.120	0.239
40	5.35	7.32	0.403	0.0447	0.138	0.265
50	4.66	6.37	0.439	0.0356	0.157	0.282
60	4.14	5.67	0.468	0.0297	0.175	0.293
70	3.75	5.12	0.494	0.0255	0.194	0.300
80	3.43	4.69	0.516	0.0225	0.213	0.304
90	3.16	4.33	0.537	0.0201	0.231	0.305
100	2.94	4.03	0.555	0.0182	0.250	0.305
110	2.76	3.77	0.572	0.0167	0.269	0.303
120	2.60	3.55	0.587	0.0154	0.287	0.300
130	2.45	3.36	0.601	0.0144	0.306	0.296
140	2.33	3.19	0.615	0.0135	0.324	0.290
150	2.22	3.04	0.628	0.0127	0.343	0.284
160	2.12	2.90	0.639	0.0120	0.362	0.278
170	2.03	2.78	0.651	0.0114	0.380	0.271
180	1.95	2.67	0.662	0.0108	0.399	0.263
190	1.88	2.57	0.672	0.0103	0.418	0.254
200	1.81	2.48	0.682	0.0099	0.436	0.246
210	1.75	2.39	0.691	0.0095	0.455	0.237
220	1.69	2.31	0.700	0.0091	0.473	0.227
230	1.64	2.24	0.709	0.0088	0.492	0.217
240	1.59	2.17	0.718	0.0085	0.511	0.207
250	1.54	2.11	0.726	0.0082	0.529	0.197
260	1.50	2.05	0.734	0.0079	0.548	0.186
270	1.46	1.99	0.742	0.0077	0.567	0.175
280	1.42	1.94	0.749	0.0075	0.585	0.164
290	1.38	1.89	0.756	0.0072	0.604	0.152
300	1.35	1.85	0.763	0.0070	0.622	0.141
310	1.32	1.80	0.770	0.0069	0.641	0.129
320	1.29	1.76	0.777	0.0067	0.660	0.117
330	1.26	1.72	0.783	0.0065	0.678	0.105
340	1.23	1.68	0.790	0.0064	0.697	0.093
350	1.21	1.65	0.796	0.0062	0.716	0.080

The **FAA equation** was developed by the Federal Aviation Authority. It is based on data from airfield drainage and is most valid for small watersheds where sheet flow and overland flow predominate. The FAA equation is shown below for both U.S. and S.I. units.

For U.S. units: $t = 1.8(1.1 - C)L^{0.5}/S^{0.33}$

Where: L = length of flow path in ft

S = surface slope %

C = Rational Method runoff coefficient

t = travel time (time of concentration) in min



**City of Weslaco
Engineering Division**
255 S. Kansas ♦ Weslaco, TX 78570 ♦ (956)

TRIP GENERATION WORKSHEET

Complete parts A and B as an aid to determine if your project requires a Traffic Impact Analysis (TIA).

A. Subdivision Information

Subdivision Name: GILBERTO ESTATES
 Location: IMMEDIATE N.E. CORNER OF MI. 10 + MI. 4 1/2
 Applicant: DAVID SALINAS SALINAS ENG + ARCH. ☐ Owner ☒ Agent
 Address: 2221 DAFFODIL AVE Phone Number: 956-682-9081
WESLACO TX 78501

B. Trip Generation Calculation

The texts needed to complete this table are available at the Planning Department. See back of sheet for more information.

ITE Code	Anticipated Land Use	Project Size			AM Peak Hour Trips	PM Peak Hour Trips	Weekday Trips
		Acres	GFA	# of Units			
	<u>SINGLE FAMILY RESIDENTIAL</u>	<u>4.56</u>	<u>—</u>	<u>6</u>	<u>16.25</u>	<u>11.04</u>	<u>—</u>

Comments: _____
 Prepared by: DAVID SALINAS 6/15/22 Date:
 Address: 2221 DAFFODIL AVE Phone Number: 682 9081
WESLACO TX 78501

(For Official Use Only, Do Not Write In This Box)

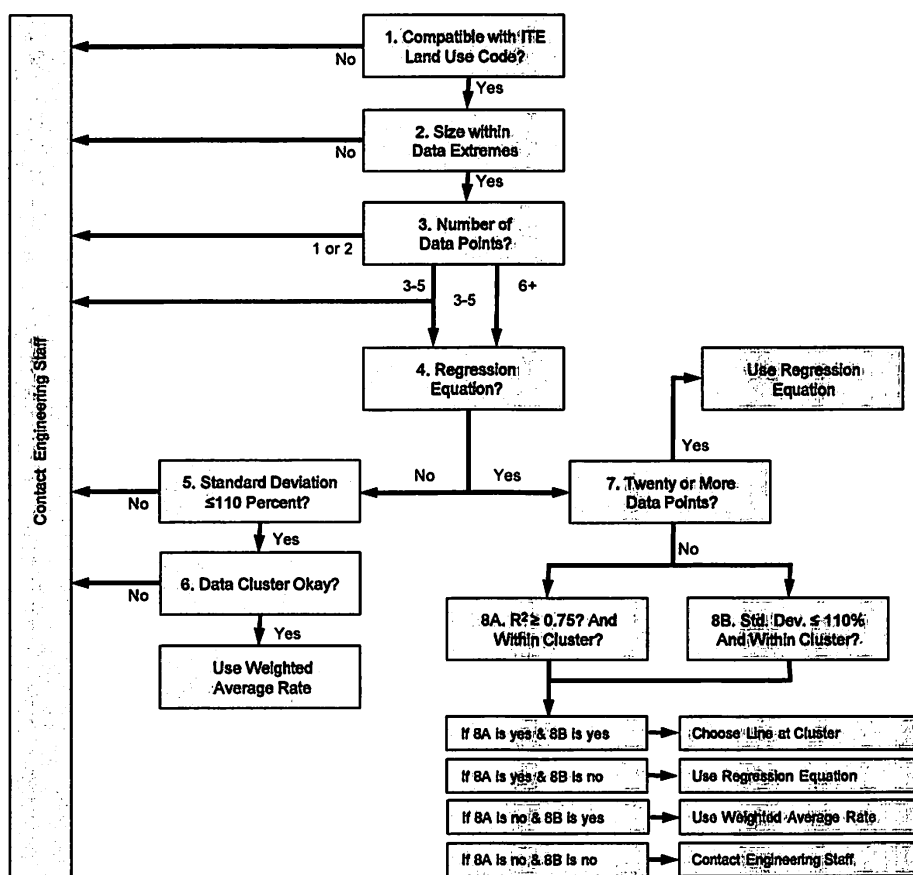
_____ A traffic impact analysis is required. The agent preparing the study must meet with City staff to discuss the scope and requirements of the study before beginning the study.
 _____ A traffic impact analysis is not required. The traffic generated by the proposed development does not exceed the threshold requirements.

Comments: _____

Reviewed by: _____ Date: _____ STID#: _____



Recommended Procedure for Selecting Between Trip Generation Average Rates and Equations



From ITE Trip Generation Handbook

Onsite Sewage Facility Site Evaluation

Applicant Information

Name: Jerry Gonzalez
Address: Mile 10 North & Mile 4 1/2 West
City: Weslaco State: TX Zipcode: _____

Property Location:

Subdivision: Gilbert Estates
Lot: _____ Block: _____
Street Address: Mile 10 North & Mile 4 1/2
City: Weslaco Zipcode: 78596

Site Evaluator Information

Name: Luz Gomez
Company: Gomez Backhoe Service
City: Mission State: TX Zipcode: 78574

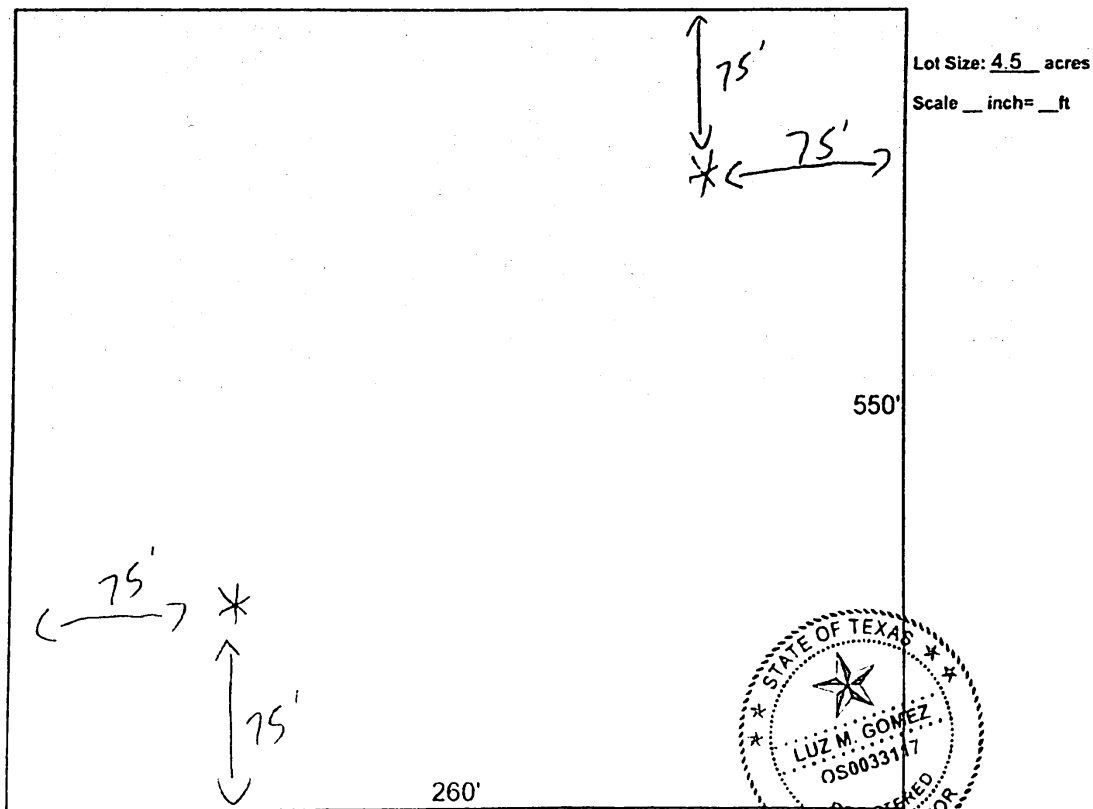
Installer Information:

Name: Sergio Rodriguez
Company: Ro-cha Septic
City: Mission State: TX Zipcode: 78574

Schematic of Lot or Tract

Show:

Compass North, adjacent streets, property dimensions, location of buildings, easements, swimming pools, water lines, and other surface improvements where known (drainage, patios, sidewalks).
Location of existing or proposed water wells within 150 ft of property.
Indicate slope or provide contour lines from structure to the farthest location of the proposed soil absorption or irrigated area.
Location of soil boring or dug pits.
Location of natural, constructed, or proposed drainage ways (streams, ponds, lakes, rivers, high tide of salt water bodies) water impoundment areas, cut or fill bank, sharp slopes and breaks.



Presence of 100 year flood zone
Presence of adjacent ponds, streams, water impoundments
Existing or proposed water well in nearby area
Organized sewage service available to lot or tract

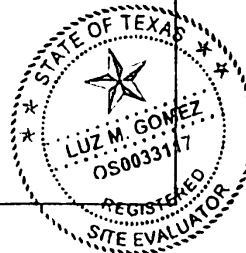
Yes ___ No ☒
Yes ___ No ☒
Yes ___ No ☒
Yes ___ No ☒

Site Evaluator

Name: Luz Gomez

Signature: *Luz Gomez*

License No.: OS 0033117



On-Site Sewage Facility
Soil Evaluation Report Information

Date Soil Survey Performed: 6/15/2022 County: Hidalgo

Subdivision: Gilbert Estates Lot: Block:

Name of Site Evaluator: Luz Gomez Registration Number: OS 0033117

Requirements:

At least two soil excavations must be performed on the site, at opposite ends of the proposed disposal area.
For subsurface disposal, soil evaluation must be performed to a depth of at least two feet below the proposed excavation depth.
For surface disposal, the surface horizon must be evaluated.
Describe each soil horizon and identify any restrictive features on the form. Indicated depths where features appear.

Soil Boring 1

Depth (Feet)	Texture Class	Soil Texture	Structure (For Class III blocky, platy or massive)	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
1	↓	↓	N/A	None	None	None
2						
3						
4						
5						
6	III	Silty Clay Loam				

Soil Boring 2

Depth (Feet)	Texture Class	Soil Texture	Structure (For Class III blocky, platy or massive)	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
1	↓	↓	N/A	None	None	None
2						
3						
4						
5						
6	III	Silty Clay Loam				

I certify that the findings of this report are based on my field observations and are accurate to the best of my ability

Signature of Site Evaluator

6/15/2022

Date:



Planning & Zoning Commission Standardized Agenda Request Form

Date of Meeting: October 5, 2022	Agenda Item No. (to be assigned by PCE): IV.F.
From: Rebekah de la Fuente, Planning Director, on behalf of SAMES.	
Subject/Agenda Item: Discussion and re-consideration for the Final Plat for Mid Valley International Industrial Park – being a 146.09 acre tract of land out of acre tract of land out of Farm Tract 1056, 1057 and 1058, Block 116, West Tract Subdivision, Weslaco, Hidalgo County, Texas located on the Northeast corner of the intersection Mile 9 & FM 1015. Possible Action.	
Discussion/Overview: The proposed twenty-six (26) lot subdivision is located inside the City of Weslaco. This subdivision is being serviced with water by North Alamo Water Supply Company through an 8" waterline and sewer by City of Weslaco services through a 10" sewer line. The property is within a Flood Zone "X".	
If item requires Publication Notice, provide date and periodical of publication; indicate if comments received from letters mailed to property owners: N/A	
Staff recommendation for Commission's Action: Staff recommends approval of Final Plat.	
Additional Action Prompted: [X] Mayor's Signature [] Public Hearing [] Budget Amendment [] Resolution [] Ordinance – First Reading [] Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments, (if any): Application for Subdivision platting, Staff's comments, Drainage Report, Subdivision plat and Utility layout.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	



SUBDIVISION PLATTING APPLICATION

PIAT-000107-2021

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. _____

This form shall be completed by the Property Owner or Applicant and submitted to the Planning Department along with the required number of copies of the respective plat, review fee and all other required information listed below and in the Subdivision Ordinance. The submittal of an application does not constitute acceptance for processing until the staff reviews and determines the application is complete.

STAFF USE ONLY

☐ Single Lot Variance ☐ Minor Plat ☐ Planned Unit Development ☐ Standard Subdivision

GENERAL INFORMATION

Name of Subdivision: Weslaco Industrial Park

Location: Located on the Northeast corner of intersection Mile 9 & FM 1015

Legal Description: West and Adams Tract Subdivision 146.09 Acre tract of land out of Farm tract 1056, 1057, and 1058 BLK 116

Is subdivision inside city limits? ☐ YES ☒ NO

If subdivision is in the ETJ, indicate? ☒ 3.5 Mile ☐ 5 Mile

If no submit letter of Annexation (Contiguous or Consensual)

Existing Zoning: Agriculture

Existing Land Use: Agriculture Proposed Land Use: Commercial & Industrial

Number of Lots Proposed: 20 Gross Acreage: 146.09

Title Report Submitted: ☒ YES ☐ NO

OWNER INFORMATION

Owner's Name: The Economic Development Corporation of Weslaco Telephone: 956-969-0838

Address: 275 S. Kansas Ave. Suite A Fax: _____

City: Weslaco State: TX Zip: 78596 E-mail: SValdez@weslacoedc.com

ENGINEER INFORMATION

Name: SAMES, Inc. Telephone: 956-702-8880

Address: 200 S. 10th St. Suite 1500 Fax: _____

City: McAllen State: TX Zip: 78501 E-mail: nlopez@samengineering-surveying.com

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

UTILITY PROVISIONS

Will proposed subdivision connect to:

☒ YES ☐ NO Water Provision: North Alamo Water Supply

☒ YES ☐ NO Wastewater Provision: City of Weslaco

☒ YES ☐ NO Electric Company: Magic Valley Corporation

☒ YES ☐ NO Phone Utility _____	☒ YES ☐ NO Gas Utility _____	☒ YES ☐ NO Cable Utility _____
---	---	---

Proposed subdivision is in the following districts:

☒ YES ☐ NO Drainage District <u>HCDD1</u>	☒ YES ☐ NO Irrigation District <u>HCCID9</u>
--	---

Has the property been assessed as flat rate irrigable property: ☒ YES ☐ NO

Have Water Rights been conveyed to City/Water Supplier? ☐ YES ☒ NO

(Attach written proof of such assessment or that it has never been assessed as such a property) If YES, attach an estimate from the irrigation district of the proportional water rights for the subdivision as calculated under Texas Water Code § 49.505.

SUBMITTALS REQUIRED FOR MINOR PLAT REVIEW

_____ **Two (2) sets of plats folded and stapled (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov**

_____ **\$355.00 Planning Review fee**

_____ **One 11" X 17" reduced copy of plat**

_____ **Plat Layout**

_____ Existing & Proposed Easements

_____ Existing & Proposed ROW

_____ Existing & Proposed Drainage Easements

_____ Contours

_____ Flood Zones

_____ Adjoiners

_____ Existing street names

_____ **Drainage plans and calculations with engineer's seal**

_____ Elevations

_____ Flood directional arrows

_____ Detention areas

_____ Street names

_____ **Proof of ownership of the property**

_____ **If septic tank system required, submit soil evaluation report**

_____ **Water Rights associated with the property**

_____ **Tax Receipt for all taxing entities showing that taxes are paid in full**

SUBMITTALS REQUIRED FOR PRELIMINARY (P & Z)

☒ **Twelve (12) sets of preliminary plat folded and stapled (24 x 36) and forward a copy in PDF format to mhinojosa@weslacotx.gov & rdelafuente@weslacotx.gov**

☒ **\$350.00 (one time fee for preliminary and final plat)**

☒ **One 11" X 17" reduced copy of plat**

☒ **Plat Layout**

_____ Existing & Proposed Easements

_____ Existing & Proposed ROW

_____ Existing & Proposed Drainage Easements

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

- ☐ Contours
- ☐ Flood Zones
- ☐ Adjoiners
- ☐ Existing & Proposed street names
- X ☐ Utility Layout
 - ☐ Existing & Proposed Utilities
 - ☐ Proposed Fire Hydrants
 - ☐ Adjoiners
 - ☐ Street names
- X ☐ Drainage plans and calculations with engineer's seal
 - ☐ Elevations
 - ☐ Flood directional arrows
 - ☐ Detention areas
 - ☐ Street names
- X ☐ Proof of ownership of the property
- N/A ☐ If septic tank system required, submit soil evaluation report
- ☐ Water Rights associated with the property
- X ☐ Tax Receipt for all taxing entities showing that taxes are paid in full
- X ☐ Number of fire hydrants proposed for subdivision
- X ☐ Trip Generation Worksheet

SUBMITTALS REQUIRED FOR FINAL (P & Z) **Will not apply to Single Lot Variance**

- ☐ **Twelve (12) sets of plans FOLDED & STAPLED (24 x 36) & PDF copy with all corrections**
- ☐ Plats to be sealed by Professional Engineer
- ☐ Approved Drainage Report
- ☐ Traffic Impact Analysis (If required)

SUBMITTALS REQUIRED FOR FINAL (City Commission)

- ☐ One set of 8 1/2 x 11 of plat and utilities with all corrections done

SUBMITTALS REQUIRED FOR PRE-CONSTRUCTION MEETING

- ☐ Seven (7) full sets of construction plans 24 x 36 and one (1) 11 x 17 with plan & profile.
- ☐ Engineering cost estimates for 3% geotechnical testing fees and 2% inspection fees
- ☐ Notice of Intent
- ☐ SW3P

SUBMITTALS REQUIRED FOR RECORDING OR HIDALGO COUNTY PLANNING

- ☐ Electronic file of final plat and as-builds
- ☐ Reproducible plat to be recorded with all required signatures
- ☐ 3% geotechnical testing fees or negotiated Material Testing fee by City, whichever is higher
- ☐ 2% inspection fee
- ☐ Park Fees
- ☐ Checks or Receipts: HCCID #9; HCDD #1; County Clerk
- ☐ Tax certificates
- ☐ Memo from engineering inspector releasing subdivision
- ☐ Water Rights associated with the property dedicated and assigned to City of Weslaco or payment of fees sufficient to meet the needs necessitated and attributable to development
- ☐ 30 Year Water and 30 Year Sewer Service Agreements
- ☐ Park dedication/Fees in lieu of

SUBMITTALS REQUIRED FOR RECORDING BY SECURITY

- ☐ Sealed engineering cost estimates
- ☐ Letter of Credit/Performance Bond/Escrow

** Any revisions requested would require resubmission of plats and reduced copy reflecting changes.

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

Owner Printed Name: _____

Owner Signature: _____ Date: _____

_____ is the authorized agent

Authorized Agent Signature: Alex Mendez Date: 8/9/21

Authorized Agent Printed Name: Alex Mendez

THIS PAGE FOR STAFF USE ONLY

Date Received: _____ Received By: _____ Date Paid: _____

P & Z Commission Approval on Preliminary Plat: _____

P & Z Commission Approval on Final Plat: _____

City Commission Approval on Final Plat: _____

Preconstruction Meeting Date: _____

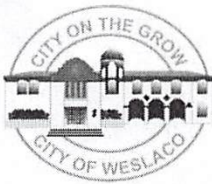
Date Recorded: _____ Instrument No. _____

General Comments: _____



**Planning & Zoning Commission
Standardized Agenda Request Form**

Date of Meeting: October 5, 2022	Agenda Item No. (to be assigned by PCE): IV.G.
From: Rebekah de la Fuente, Planning Director, on behalf of Rio Delta Engineering.	
Subject/Agenda Item: Discussion and consideration on the variance request to section 26-34 for Chelsea Park Villas Subdivision – being 6.83 acres being the West 6.83 Acres of Chelsea Park Subdivision, Weslaco, Hidalgo County, Texas located on the Southwest Corner of W 9 th & S. Border Ave. Possible Action.	
Discussion/Overview: Developers is requesting to a 50 ft right of way dedication along the adjacent ditch. The city ordinance requires a 75-foot drainage ditch easement from the centerline of the drainage ditch; therefore the developer is requesting a variance to Section 26-34.	
If item requires Publication Notice, provide date and periodical of publication; indicate if comments received from letters mailed to property owners: N/A	
Staff recommendation for Commission's Action: Staff recommends compliance with the ordinance for the variance request.	
Additional Action Prompted: [X] Mayor's Signature [] Public Hearing [] Budget Amendment [] Resolution [] Ordinance – First Reading [] Ordinance – Final Reading	
Advisory Review, (if any): (name of board/committee, date of action, recommendation): N/A	
If item previously considered, provide date and action by Commission: N/A	
Attachments,(if any): Application for Subdivision platting, Staff's comments, Drainage Report, Subdivision plat and Utility layout.	
Responsibilities upon Commission's Action: Planning staff will advise applicant.	



APPLICATION FOR SUBDIVISION VARIANCE

VAR-000307-2022

The Planning & Zoning Commission meets every 1st Wednesday of each month at 5:30 pm.

The City Commission meets every 1st and 3rd Tuesday of each month at 5:30 pm

FILE NO. _____

GENERAL INFORMATION

Name of Subdivision: CHELSEA PARK VILLAS SUBDIVISION

Location: SW CORNER OF W 9TH & S BORDER AVE

Legal Description: 6.83 ACRES, MORE OR LESS, BEING THE WEST 6.83 ACRES OF CHELSEA PARK SUBDIVISIONS, AN ADDITION TO THE CITY OF WESLACO, HIDALGO COUNTY, TEXAS AS PER MAP OR PLAT THEROF IN VOLUME 22, PAGE 159 M.R.H.C.

VARIANCE TYPE:

☐ Streetlights ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Sanitary Sewer ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Fire Hydrants ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Setbacks ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Drainage ☒ YES ☐ NO

Describe in detail the reason for the variance request:

- 1) WE ARE REQUESTING AN EXEMPTION TO THE 75.00-FOOT R.O.W. DEDICATION & PROPOSE TO DEDICATE 50.00-FEET IN LIEU OF THE 75.00 FEET REQUESTED BY CITY STAFF.

THE NEIGHBORING DEVELOPMENTS HAVE AT MOST 50.00-FOOT R.O.W. DEDICATION, WITH SOME OF THEM HAVING NO R.O.W. DEDICATION. ADDITIONALLY, THE PROPERTY JUST SOUTH OF THIS PROJECT HAS LESS THAN 50.00-FOOT R.O.W. DEDICATION.

- 2) WE ARE ALSO PROPOSING TO EXCAVATE THE EXISTING DITCH IN LIEU OF ONSITE DETENTION.

255 S. KANSAS AVE ■ WESLACO, TEXAS 78596-6285 ■ 956-447-3401 ■ (Fax) 956-973-3128 ■ WWW.WESLACOTX.GOV

☐ Minimum Lot Size ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Sidewalks ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Easement Requirements ☐ YES ☐ NO

Describe in detail the reason for the variance request:

☐ Other _____ ☐ YES ☐ NO

Describe in detail the reason for the variance request:

OWNER INFORMATION

Owner's Name: LF TRINITY DEVELOPMENT GROUP, LLC Telephone: _____
Address: 3533 MORELAND DRIVE, SUITE A Fax: _____
City: WESLACO State: TX Zip: 78596 E-mail: leo@trinitymep.com

AUTHORIZATION AND ACKNOWLEDGEMENTS

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable); and the following person listed below is my authorized agent to act on my behalf.

I certify that the above information is correct and complete to the best of my knowledge. I understand that I must comply with all applicable local, state, and federal regulations.

Owner Printed Name: Leonardo Munoz, P.E.

Owner Signature: _____ Date: 9.9.22

Rio Delta Engineering is the authorized agent

Authorized Agent Signature: _____ Date: 9/9/22

Authorized Agent Printed Name: Ivan Garcia, P.E., R.P.L.S.