# PAVING, GRADING, DRAINAGE & UTILITIES

FOR

# PROPOSED
# GOLIAD RETAIL
## LOT 3, BLOCK A
# DALTON GOLIAD ADDITION
## CITY OF ROCKWALL, TEXAS

613-01 DALTON GOLIAD ADDITION, ROCKWALL, TEXAS

SHEET INDEX



INFORMATION SHEETS

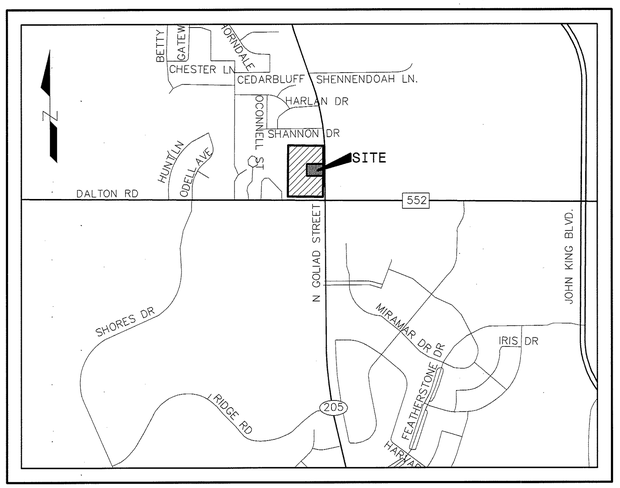
HARLAN PARK PHASE TWO, "DRAINAGE AREA MAP" SHT 7/9
HARLAN PARK PHASE TWO, "STORM SEWER PLAN" SHT 8/9
NEBBIE WILLIAMS ELEM. SCHOOL, "DRAINAGE AREA MAP" SHT C2.5

SUBMITTALS

| NO | DATE | COMMENTS |
|---|---|---|
| 1 | 02/26/2016 | FOR COORDINATION |
| 2 | 04/28/2016 | FIRST ENGINEERING SUBMITTAL |
| 3 | 05/27/2016 | CITY COMMENT SUBMITTAL |
| 4 | 06/21/2016 | CITY COMMENT SUBMITTAL |
| 5 | 11/06/2017 | RECORD DRAWINGS |

DEVELOPER:

ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
DALLAS, TX 75254




LOCATION MAP
N.T.S.

**RECORD DRAWING**

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

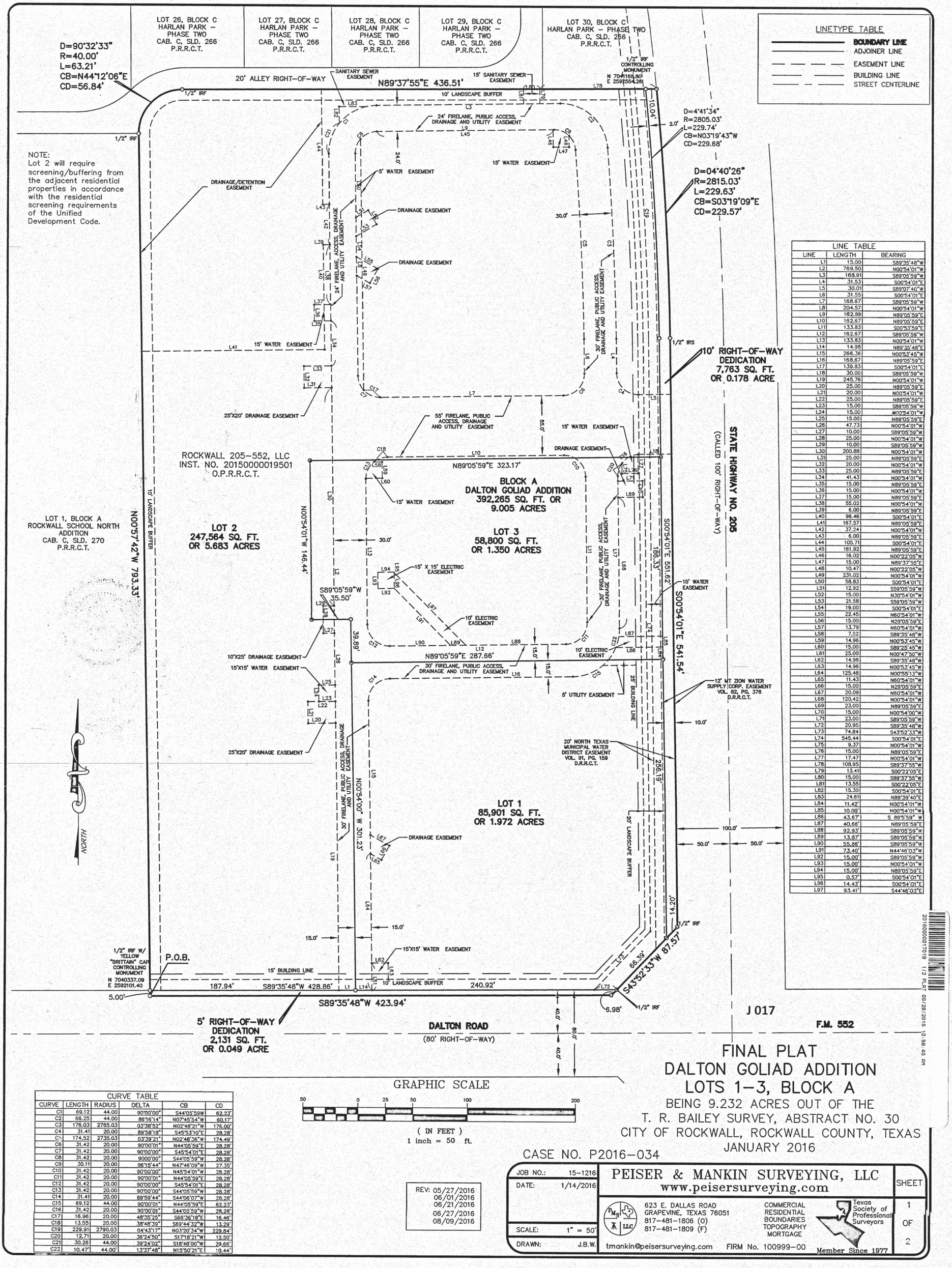
SIGNED DATE 11/6/17

**VASQUEZ ENGINEERING, LLC**
**TEXAS REG. F-12266**

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUAN J. VASQUEZ, P.E. 85852, ON 04/28/2016



**VASQUEZ ENGINEERING, L.L.C.**
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph: 972-278-2948
TX Registration #F-12266




LINETYPE TABLE

| | |
|---|---|
| BOUNDARY LINE | |
| ADJOINER LINE | |
| EASEMENT LINE | |
| BUILDING LINE | |
| STREET CENTERLINE | |

LINE TABLE

| LINE | LENGTH | BEARING |
|---|---|---|
| L1 | 15.00 | S89°35'48"W |
| L2 | 769.50 | N00°54'01"W |
| L3 | 168.91 | S89°05'59"W |
| L4 | 31.53 | S00°54'01"E |
| L5 | 30.01 | S89°07'40"W |
| L6 | 31.55 | S00°54'01"E |
| L7 | 168.67 | S89°05'59"W |
| L8 | 204.57 | N00°54'01"W |
| L9 | 162.89 | N89°05'59"E |
| L10 | 162.67 | N89°05'59"E |
| L11 | 133.83 | S00°53'59"E |
| L12 | 162.67 | S89°05'59"W |
| L13 | 133.83 | N00°54'01"W |
| L14 | 14.98 | N89°35'48"E |
| L15 | 266.36 | N00°53'45"W |
| L16 | 168.67 | N89°05'59"E |
| L17 | 139.83 | S00°54'01"E |
| L18 | 30.00 | S89°05'59"W |
| L19 | 245.76 | N00°54'01"W |
| L20 | 25.00 | N89°05'59"E |
| L21 | 20.00 | N00°54'01"W |
| L22 | 25.00 | N89°05'59"E |
| L23 | 15.00 | S89°05'59"W |
| L24 | 15.00 | N00°54'01"W |
| L25 | 15.00 | N89°05'59"E |
| L26 | 47.73 | N00°54'01"W |
| L27 | 10.00 | S89°05'59"W |
| L28 | 25.00 | N00°54'01"W |
| L29 | 10.00 | S89°05'59"W |
| L30 | 200.88 | N00°54'01"W |
| L31 | 25.00 | N89°05'59"E |
| L32 | 20.00 | N00°54'01"W |
| L33 | 25.00 | N89°05'59"E |
| L34 | 41.43 | N00°54'01"W |
| L35 | 15.00 | N89°05'59"E |
| L36 | 15.00 | N00°54'01"W |
| L37 | 15.00 | N89°05'59"E |
| L38 | 55.02 | N00°54'01"W |
| L39 | 6.00 | N89°05'59"E |
| L40 | 96.46 | S00°54'01"E |
| L41 | 167.57 | N89°05'59"E |
| L42 | 37.24 | N00°54'01"W |
| L43 | 6.00 | N89°05'59"E |
| L44 | 105.71 | S00°54'01"E |
| L45 | 161.92 | N89°05'59"E |
| L46 | 16.02 | N00°22'05"W |
| L47 | 15.00 | N89°37'55"E |
| L48 | 10.47 | N00°22'05"W |
| L49 | 231.02 | N00°54'01"W |
| L50 | 58.83 | S00°54'01"E |
| L51 | 12.92 | S59°05'59"W |
| L52 | 15.00 | N30°54'01"W |
| L53 | 21.58 | S59°05'59"W |
| L54 | 19.00 | S00°54'01"E |
| L55 | 22.45 | N60°54'01"W |
| L56 | 15.00 | N29°05'59"E |
| L57 | 13.79 | N60°54'01"W |
| L58 | 7.52 | S89°35'48"W |
| L59 | 14.96 | N00°53'45"W |
| L60 | 15.00 | S89°25'45"W |
| L61 | 25.00 | N00°47'50"W |
| L62 | 14.96 | S89°35'48"W |
| L63 | 14.96 | N00°53'45"W |
| L64 | 125.48 | N00°55'13"W |
| L65 | 11.43 | N60°54'01"W |
| L66 | 15.00 | N29°05'59"E |
| L67 | 20.09 | N60°54'01"W |
| L68 | 120.42 | N00°54'01"W |
| L69 | 23.00 | N89°05'59"E |
| L70 | 15.00 | N00°54'00"W |
| L71 | 23.00 | S89°05'59"W |
| L72 | 20.95 | S89°35'48"W |
| L73 | 74.84 | S43°52'33"W |
| L74 | 545.44 | S00°54'01"E |
| L75 | 9.37 | N00°54'01"W |
| L76 | 15.00 | N89°05'59"E |
| L77 | 17.47 | N00°54'01"W |
| L78 | 108.95 | S89°37'55"W |
| L79 | 13.41 | S00°22'05"E |
| L80 | 15.00 | S89°37'55"W |
| L81 | 13.55 | S00°22'05"E |
| L82 | 15.30 | S00°54'01"E |
| L83 | 24.61 | N89°39'40"E |
| L84 | 11.42' | N00°54'01"W |
| L85 | 10.00' | N00°54'01"W |
| L86 | 43.67' | S 89°5'59" W |
| L87 | 40.66' | N89°05'59"E |
| L88 | 92.93' | S89°05'59"W |
| L89 | 13.87' | S89°05'59"W |
| L90 | 55.86' | S89°05'59"W |
| L91 | 73.40' | N44°46'03"W |
| L92 | 15.00' | S89°05'59"W |
| L93 | 15.00' | N00°54'01"W |
| L94 | 15.00' | N89°05'59"E |
| L95 | 0.57' | S00°54'01"E |
| L96 | 14.43' | S00°54'01"E |
| L97 | 93.41' | S44°46'03"E |

CURVE TABLE

| CURVE | LENGTH | RADIUS | DELTA | CB | CD |
|---|---|---|---|---|---|
| C1 | 69.12 | 44.00 | 90°00'00" | S44°05'59W | 62.23' |
| C2 | 66.25 | 44.00 | 86°16'14" | N07°45'54"W | 60.17' |
| C3 | 176.03 | 2765.03 | 03°38'52" | N02°48'21"W | 176.00' |
| C4 | 31.41 | 20.00 | 89°58'18" | S45°53'10"E | 28.28' |
| C5 | 174.52 | 2735.03 | 03°39'21" | N02°48'36"W | 174.49' |
| C6 | 31.42 | 20.00 | 90°00'01" | N44°05'59"E | 28.28' |
| C7 | 31.42 | 20.00 | 90°00'00" | S45°54'01"E | 28.28' |
| C8 | 31.42 | 20.00 | 9000'00" | S44°05'59"W | 28.28' |
| C9 | 30.11 | 20.00 | 86°15'44" | N47°46'09"W | 27.35' |
| C10 | 31.42 | 20.00 | 90°00'00" | N45°54'01"W | 28.28' |
| C11 | 31.42 | 20.00 | 90°00'01" | N44°05'59"E | 28.28' |
| C12 | 31.42 | 20.00 | 90°00'00" | S45°54'01"E | 28.28' |
| C13 | 31.42 | 20.00 | 90°00'00" | S44°05'59"W | 28.28' |
| C14 | 31.41 | 20.00 | 89°59'44" | S44°06'07"W | 28.28' |
| C15 | 69.12 | 44.00 | 90°00'01" | N44°05'59"E | 62.23' |
| C16 | 31.42 | 20.00 | 90°00'01" | S44°05'59"W | 28.28' |
| C17 | 16.96 | 20.00 | 48°35'25" | S66°36'18"E | 16.46' |
| C18 | 13.55 | 20.00 | 38°48'39" | S69°44'32"W | 13.29' |
| C19 | 229.91 | 2790.03 | 04°43'17" | N03°20'34"W | 229.84' |
| C20 | 12.71 | 20.00 | 36°24'50" | S17°18'21"W | 12.50' |
| C21 | 30.26 | 44.00 | 39°24'02" | S18°48'00"W | 29.66' |
| C22 | 10.47' | 44.00' | 13°37'48" | N15°50'21"E | 10.44' |

GRAPHIC SCALE

50 0 25 50 100 200

( IN FEET )
1 inch = 50 ft.

REV: 05/27/2016
06/01/2016
06/21/2016
06/27/2016
08/09/2016

# FINAL PLAT
# DALTON GOLIAD ADDITION
# LOTS 1-3, BLOCK A

BEING 9.232 ACRES OUT OF THE
T. R. BAILEY SURVEY, ABSTRACT NO. 30
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS
JANUARY 2016

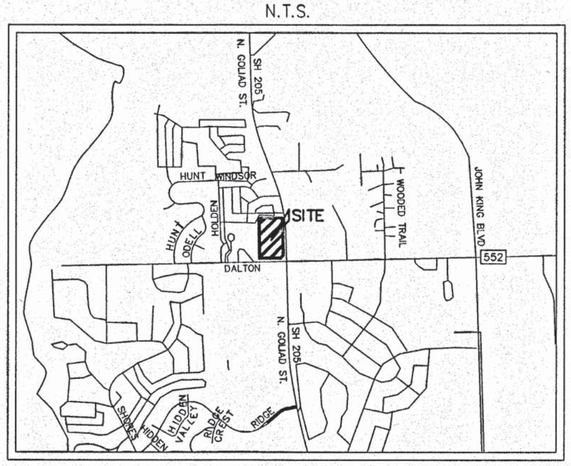
CASE NO. P2016-034

| | |
|---|---|
| JOB NO.: | 15-1216 |
| DATE: | 1/14/2016 |
| SCALE: | 1" = 50' |
| DRAWN: | J.B.W. |


PEISER & MANKIN SURVEYING, LLC
www.peisersurveying.com
623 E. DALLAS ROAD
GRAPEVINE, TEXAS 76051
817-481-1806 (O)
817-481-1809 (F)
COMMERCIAL
RESIDENTIAL
BOUNDARIES
TOPOGRAPHY
MORTGAGE
tmankin@peisersurvey.com
FIRM No. 100999-00
Texas Society of Professional Surveyors
Member Since 1977


SHEET 1 OF 2

VICINITY MAP
N.T.S.




NOTES:
1. IRF – Iron Rod Found
2. IRS – Iron Rod Set w/ "PEISER & MANKIN SURV" red plastic cap
3. Notice: Selling a portion of this addition by metes and bounds is a violation of city subdivisions ordinance and state platting statues and is subject to fines and withholding of utilities and building certificates.
4. P.O.B. – Point of Beginning.
5. O.P.R.D.C.T. – Official Public Records, Collin County, Texas.
6. D.R.C.C.T. – Deed Records, Collin County, Texas.
7. Bearings based on the Texas State Plano Coordinate System, North Central Zone 4202, NAD83, as derived by field observations utilizing the RTK Network Administrated by Western Data Systems.
8. Lots 3 and 4 will require screening/buffering from the adjacent residential properties in accordance with the residential screening requirements of the Unified Development Code.
9. SLD. – SLIDE
10. CAB. – CABINET

RECOMMENDED FOR FINAL APPROVAL

Planning & Zoning Commission, Chairman — Date 7/26/16

APPROVED:
I hereby certify that the above and foregoing plat of an addition to the City of Rockwall, Texas, was approved by the City Council of the City of Rockwall on the 1 day of August, 2016.

This approval shall be invalid unless the approved plat for such addition is recorded in the office of the County Clerk of Rockwall, County, Texas, within one hundred eighty (180) days from said date of final approval.

WITNESS OUR HANDS, this 28 day of July, 2016.

Mayor, City of Rockwall — City Secretary — City Engineer

SURVEYOR'S CERTIFICATE

I, Timothy R. Mankin, a Registered Professional Land Surveyor in the State of Texas, do hereby certify that I prepared this plat from an actual on the ground survey of the land and that the monuments shown thereon were properly placed under my personal supervision in accordance with the subdivision regulations of the City of Rockwall, Texas.

Timothy R. Mankin — Date 08/16/2016
Registered Professional Land Surveyor, No. 6122

08/18/2016

Filed and Recorded
Official Public Records
Shelli Miller, County Clerk
Rockwall County, Texas
09/28/2016 10:58:40 AM
$100.00
20160000017019

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

STATE OF TEXAS

COUNTY OF ROCKWALL

I the undersigned owner of the land shown on this plat, and designated herein as the **DALTON GOLIAD ADDITION** subdivision to the City of Rockwall, Texas, and whose name is subscribed hereto, hereby dedicate to the use of the public forever all streets, alleys, parks, water courses, drains, easements and public places thereon shown on the purpose and consideration therein expressed. I further certify that all other parties who have a mortgage or lien interest in the **DALTON GOLIAD ADDITION** subdivision have been notified and signed this plat. I understand and do hereby reserve the easement strips shown on this plat for the purposes stated and for the mutual use and accommodation of all utilities desiring to use or using same. I also understand the following;

1. No buildings shall be constructed or placed upon, over, or across the utility easements as described herein.

2. Any public utility shall have the right to remove and keep removed all or part of any buildings, fences, trees, shrubs, or other growths or improvements which in any way endanger or interfere with construction, maintenance or efficiency of their respective system on any of these easement strips; and any public utility shall at all times have the right of ingress or egress to, from and upon the said easement strips for purpose of construction, reconstruction, inspecting, patrolling, maintaining, and either adding to or removing all or part of their respective system without the necessity of, at any time, procuring the permission of anyone.

3. The City of Rockwall will not be responsible for any claims of any nature resulting from or occasioned by the establishment of grade of streets in the subdivision.

4. The developer and subdivision engineer shall bear total responsibility for storm drain improvements.

5. The developer shall be responsible for the necessary facilities to provide drainage patterns and drainage controls such that properties within the drainage area are not adversely affected by storm drainage from the development.

6. All detention/drainage systems to be maintained, repaired, and replaced by property owner.

7. No house dwelling unit, or other structure shall be constructed on any lot in this addition by the owner or any other person until the developer and/or owner has complied with all requirements of the Subdivision Regulations of the City of Rockwall regarding improvements with respect to the entire block on the street or streets on which property abuts, including the actual installation of streets with the required base and paving, curb and gutter, water and sewer, drainage structures, storm structures, storm sewers, and alleys, all according to the specifications of the City of Rockwall; or Until an escrow deposit, sufficient to pay for the cost of such improvements, as determined by the city's engineer and/or city administrator, computed on a private commercial rate basis, has been made with the city secretary, accompanied by an agreement signed by the developer and/or owner, authorizing the city to make such improvements at prevailing private commercial rates, or have the same made by a contractor and pay for the same out of the escrow deposit, should the developer and/or owner fail or refuse to install the required improvements within the time stated in such written agreement, but in no case shall the City be obligated to make such improvements itself. Such deposit may be used by the owner and/or developer as progress payments as the work progresses in making such improvements by making certified requisitions to the city secretary, supported by evidence of work done; or Until the developer and/or owner files a corporate surety bond with the city secretary in a sum equal to the cost of such improvements for the designated area, guaranteeing the installation thereof within the time stated in the bond, which time shall be fixed by the city council of the City of Rockwall. I further acknowledge that the dedications and/or exaction's made herein are proportional to the impact of the Subdivision upon the public services required in order that the development will comport with the present and future growth needs of the City; I, my successors and assigns hereby waive any claim, damage, or cause of action that I may have as a result of the dedication of exactions made herein.

WITNESS MY HAND, this 25th day of August, 2016

ROCKWALL 205–552, LLC

By: OWNER Donald L. Silverman, MANAGER

STATE OF TEXAS:
COUNTY OF Dallas:
BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared Donald Silverman, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purpose and consideration thereof expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS 25TH DAY OF August, 2016.

NOTARY PUBLIC in and for the STATE OF TEXAS

ENGINEER:
VASQUEZ ENGINEERING, L.L.C.
1919 S. SHILOH ROAD
SUITE 440, LB 44
GARLAND, TEXAS 75042
972–278–2948
CONTACT: JUAN VASQUEZ, P.E.

OWNER:
ROCKWALL 205–552, LLC
1408 QUORUM DRIVE
SUITE 160
DALLAS, TX 75254

REV: 05/27/2016
06/01/2016
06/21/2016
06/27/2016
08/09/2016

OWNER'S CERTIFICATION

WHEREAS ROCKWALL 205–552, LLC, BEING THE OWNER OF A TRACT OF land in the County of Rockwall, State of Texas, said tract being described as follows:

BEING that certain tract of land situated in the T. R. BAILEY SURVEY, ABSTRACT NO. 30, in the City of Rockwall, Rockwal County, Texas, and being all of that certain tract of land conveyed to ROCKWALL 205–552, LLC in Warranty Deed recorded under Instrument Number 20150000019501, Deed Records, Rockwall County, Texas, and being more particularly described as follows;

BEGINNING at a point for the Southwest corner of said Rockwall 205 tract, same being in the North right–of–way line of Dalton Road (80 foot right–of–way);

THENCE North 00 deg. 57 min. 42 sec. West, along the west line of said Rockwall 205 tract, passing at a distance of 5.00 feet, a 1/2 inch iron rod with yellow "Brittain" cap found, same being the Southeast corner of Lot 1, Block A, Rockwall School North Addition, an addition to the City of Rockwall, Rockwall County, Texas, according to the plat thereof recorded in Cabinet C, Page 270, Plat Records, Rockwall County, Texas, and continuing along the common line of said Rockwall 205 tract and said Rockwall School North Addition, a total distance of 793.33 feet to a 1/2 inch iron rod found for the most westerly Northwest corner of said Rockwall 205 tract, same being the Northeast corner of said Rockwall School North Addition, same being in the South line of a 20 foot alley in Block C, Harlan Park – Phase Two, an addition to the City of Rockwall, Rockwall County, Texas, according to the plat thereof recorded in Cabinet C, Page 266, said Plat Records, same being the beginning of a curve to the right, having a radius of 40.00 feet, a central angle of 90 deg. 32 min. 33 sec., and a chord bearing and distance of North 44 deg. 12 min. 06 sec. East, 56.84 feet;

THENCE along the common line of said Rockwall 205 tract and said Block C as follows:

Along said curve to the right, an arc distance of 63.21 feet to a 1/2 inch iron rod found for angle point;

North 89 deg. 37 min. 55 sec. East, a distance of 436.51 feet to a 1/2 inch iron rod found for the Northeast corner of said Rockwall 205 tract, same being the Southeast corner of said Block C, same being in the westerly right–of–way line of State Highway No. 205 (called 100' right–of–way), same being the beginning of a non–tangent curve to the right, having a radius of 2815.03 feet, a central angle of 04 deg. 40 min. 26 sec., and a chord bearing and distance of South 03 deg. 19 min. 09 sec. East, 229.57 feet;

THENCE along the common line of said Rockwall 205 tract and said State Higwhay No. 205 as follows:

Along said non–tangent curve to the right, an arc distance of 229.63 feet to a 1/2 inch iron rod set with "Peiser & Mankin SURV" red plastic cap for angle point;

South 00 deg. 54 min. 01 sec. East, a distance of 541.54 feet to a 1/2 inch iron rod found for the most easterly Southeast corner of said Rockwall 205 tract, same being the North end of a corner clip in the intersection of said State Highway No. 205 and aforesaid Dalton Road;

THENCE South 43 deg. 52 min. 33 sec. West, along the common line of said Rockwall 205 tract and said corner clip, passing at a distance of 80.59 feet, a 1/2 inch iron rod found, and continuing a total distance of 87.57 feet to a point for the most southerly Southeast corner of said Rockwall 205 tract, same being the South end of said corner clip;

THENCE South 89 deg. 35 min. 48 sec. West, along the common line of said Rockwall 205 tract and said Dalton Road, a distance of 423.94 feet to the POINT OF BEGINNING and containing 402,160 square feet or 9.232 acre of computed land, more or less.

**J 018**

# FINAL PLAT
# DALTON GOLIAD ADDITION
# LOTS 1–3, BLOCK A

BEING 9.232 ACRES OUT OF THE
T. R. BAILEY SURVEY, ABSTRACT NO. 30
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS
JANUARY 2016

CASE NO. P2016–034

| | |
|---|---|
| JOB NO.: | 15–1216 |
| DATE: | 1/14/2016 |
| SCALE: | 1" = 50' |
| DRAWN: | J.B.W. |

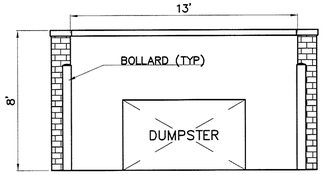

PEISER & MANKIN SURVEYING, LLC
www.peisersurveying.com
623 E. DALLAS ROAD
GRAPEVINE, TEXAS 76051
817–481–1806 (O)
817–481–1809 (F)
tmankin@peisersurveying.com


COMMERCIAL
RESIDENTIAL
BOUNDARIES
TOPOGRAPHY
MORTGAGE

FIRM No. 100999–00

Texas Society of Professional Surveyors
Member Since 1977

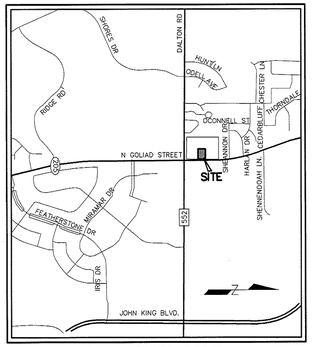
SHEET 2 OF 2




DUMPSTER ELEVATION

SCALE: 1/4"=1"

NOTE: SEE ARCH PLANS FOR DETAILS AND MATERIALS




LOCATION MAP

N.T.S.

**RECORD DRAWING**

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

SIGNED 11/6/17 DATE

**VASQUEZ ENGINEERING, LLC**
**TEXAS REG. F-12266**

GRAPHIC SCALE
0 20 40 80
( IN FEET )
1 inch = 40 ft.

| NO. | DATE | APP. |
|---|---|---|
| A | 11/06/17 | RECORD DRAWINGS |

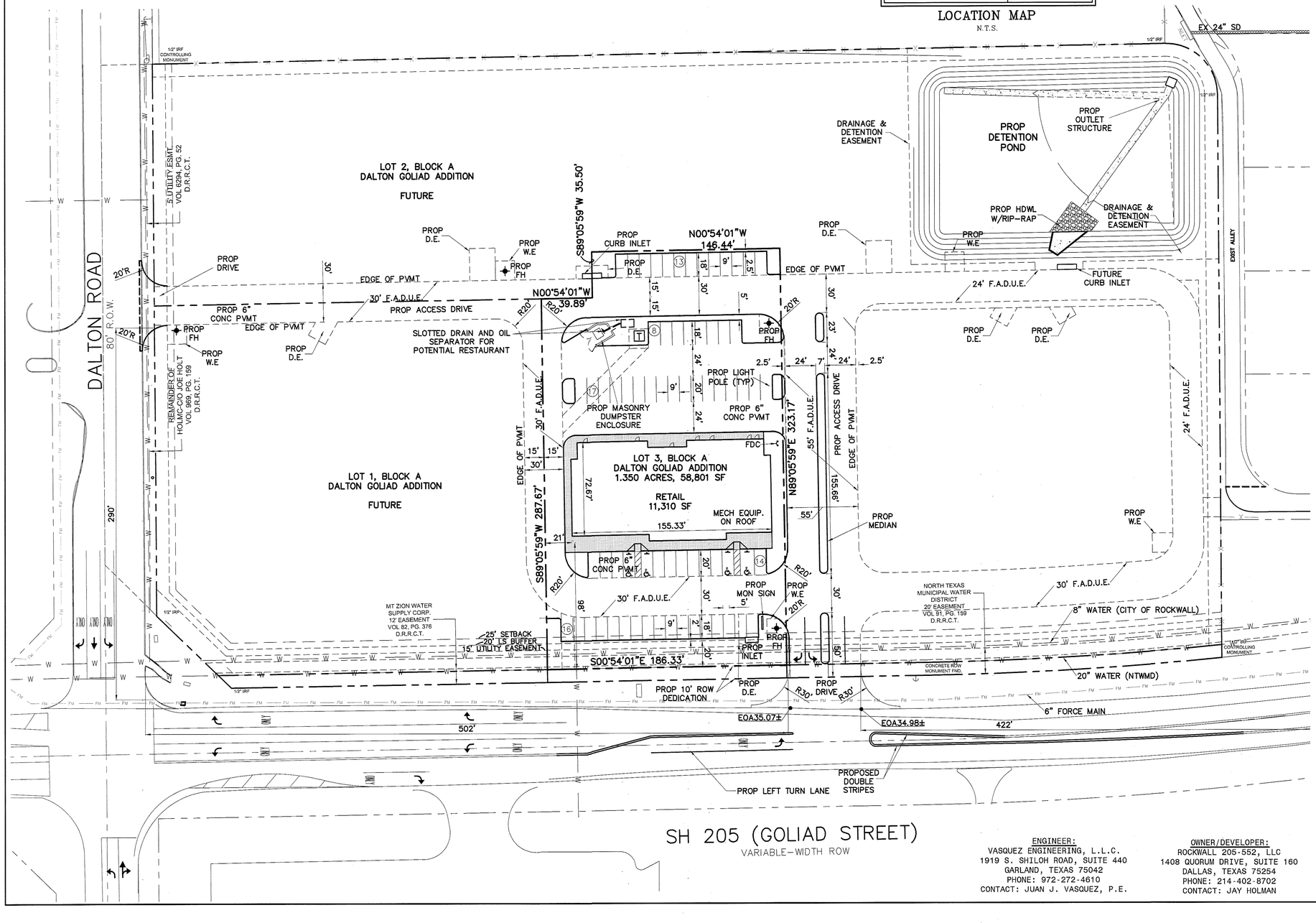
**VASQUEZ ENGINEERING, L.L.C.**
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph. 972-278-2948
TX Registration # F-12266

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUAN J. VASQUEZ, P.E. 85852, ON 10/20/2016

STATE OF TEXAS — JUAN J. VASQUEZ — 85852 — LICENSED PROFESSIONAL ENGINEER

LEGEND

| EXISTING | | PROPOSED |
|---|---|---|
| | PROPERTY LINE | |
| | PAVEMENT | |
| | SIDEWALK | |
| | LIGHT POLE | |
| | FIRE LANE, PUBLIC ACCESS, DRAINAGE & UTILITY EASEMENT | F.A.D.U.E. |




BENCHMARK:

MONUMENT 179.7' WEST OF WEST EDGE OF SH 205 PAVEMENT AND 6.8' NORTH OF BACK OF CURB DALTON ROAD.
ELEVATION = 541.57'

NOTES:

1. EXISTING TOPOGRAPHY BASED ON SURVEY PREPARED BY PEISER & MANKIN SURVEYING, LLC DATED 1/14/2016.
2. SEE LANDSCAPE PLAN FOR SITE LANDSCAPING.

| SITE SUMMARY TABLE | | |
|---|---|---|
| County | ROCKWALL | |
| Project Name | GOLIAD RETAIL | |
| Zoning District | GR N. SH 205 OVERLAY DISTRICT | |
| Proposed use | RETAIL STORE | |
| Site Area: | 1.350 Acres 58,801 S.F. | |
| Building Area | 11,310 S.F. (TOTAL) | |
| Building Height: | 26'2" - 1 STORY | |
| Lot Coverage: | 11,310/56,726 = 19.9% | |
| Floor Area Ratio: | 11,310/56,726 = 1:19.9 | |
| Parking Required: | 2,822 SF (REST)/100 SF/SPC | = 29 SPACES |
| | 2,600 SF (DENTAL)/200SF/SPC | = 13 SPACES |
| | 5,888 SF (RTL)/250 SF/SPC | = 24 SPACES |
| | Total | = 66 SPACES |
| Parking Provided: | Regular | = 64 SPACES |
| | Handicap | = 4 SPACES |
| | Total | = 68 SPACES |
| Impervious Area: | 49,980 / 58,801 SF = 85% | |
| Pervious Area: | 8,913 / 58,801 SF = 15% | |

# SITE PLAN
# GOLIAD RETAIL
## LOT 3, BLOCK A
## DALTON GOLIAD ADDITION
## 1.350 ACRES
## ROCKWALL, ROCKWALL COUNTY, TEXAS
## MARCH 28, 2016
## CASE #SP2016-005

ENGINEER:
VASQUEZ ENGINEERING, L.L.C.
1919 S. SHILOH ROAD, SUITE 440
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OWNER/DEVELOPER:
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PHONE: 214-402-8702
CONTACT: JAY HOLMAN

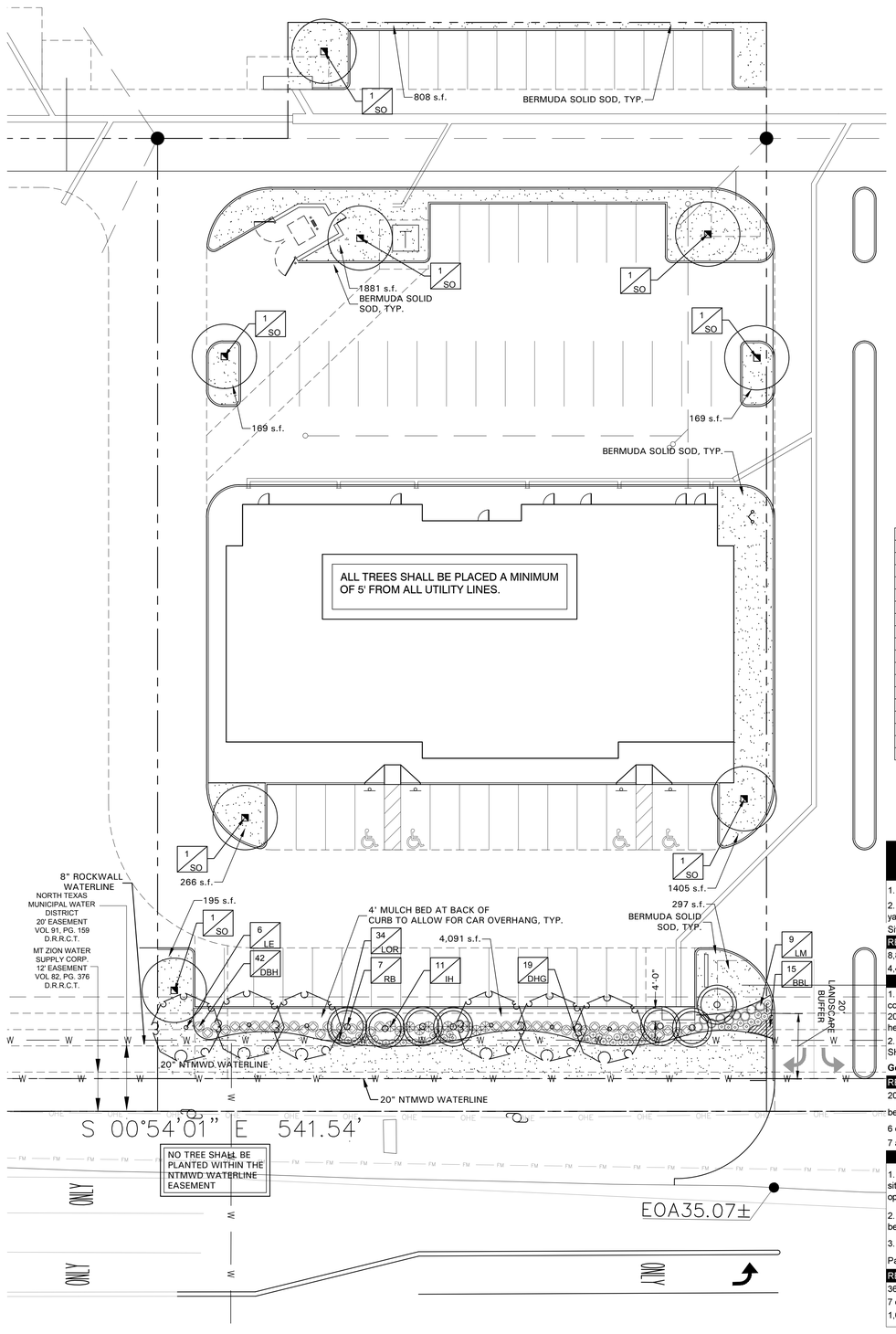
DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

SITE PLAN

LOT 3, BLOCK A
DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: 1" = 40'
Designed by: JJV
Drawn by: JJV
Checked by: JJV
606-01dwg\RETAIL\DGISP1.dwg
Date: 06/21/2016

SHEET
SP1




| SITE SUMMARY TABLE | | |
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## LANDSCAPE TABULATIONS
**ROCKWALL, TEXAS - SH205 Overlay**

**GENERAL**

1. Minimum of 15% of the lot area shall be landscaped (per GR zoning)

2. No less than 50% of the required landscape shall be located in the front or side yard.

Site Area: 58,801

| REQUIRED | PROVIDED |
|---|---|
| 8,820 s.f. (15%) | 9,281 s.f. (15.7%) |
| 4,410 s.f. (50%) | 6,192 s.f. |

**BUFFER STRIPS / STREET**

1. Buffer strips shall be a minimum of 20' wide and include a berm or shrubbery or a combination of both along the entire length of the property's frontage along the SH-205 r.o.w. The minimum required height is 30" and shall not exceed a maximum height of 48".

2. Three canopy trees along with four accent trees are required per 100 feet of the SH-205 r.o.w.

**Goliad Road (SH205) = 186 l.f.**

| REQUIRED | PROVIDED |
|---|---|
| 20' wide buffer | 20' wide buffer |
| berm and/or shrubs | shrubs 36" ht. |
| 6 canopy trees, 4" cal. | 6 canopy trees, 4" cal. |
| 7 accent trees, 4' ht. | 7 accent trees, 4' ht. |

**PARKING LOT LANDSCAPE**

1. Surface parking shall be screened from all adjacent public streets and neighboring sites. The screen must extend along all edges and be a min. 3' in height, 80% opaque.

2. There shall be a landscape island every 10 parking spaces. One shade tree shall be provided for every 10 cars. (68 parking spaces)

3. A minimum of 5% of the parking area shall be landscaped.

Parking area: 33,422 s.f.

| REQUIRED | PROVIDED |
|---|---|
| 36" screen | 36" screen |
| 7 canopy trees, 4" cal. | 7 canopy trees, 4" cal. |
| 1,671 s.f. (5%) | 3,801 s.f. (11.3%) |

**GENERAL LAWN NOTES**

EROSION CONTROL AND SOIL PREPARATION:
THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TOP SOIL AT THE CORRECT GRADES. CONTRACTOR TO FINE GRADE AREAS TO REACH FINAL CONTOURS AS SPECIFIED PER CIVIL PLANS. ALL CONTOURS SHOULD ACHIEVE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND STRUCTURES. WATER SHOULD NOT BE ABLE TO POOL IN ANY AREAS UNLESS SPECIFIED OTHERWISE. EROSION FABRIC SUCH AS JUTE MATTING OR OPEN WEAVE TO BE USED WHERE NECESSARY TO PREVENT SOIL EROSION.

ANY LOSS OF TOPSOIL OR GRASS DUE TO EROSION IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL IT IS 100% ESTABLISHED.

CONTRACTOR TO REMOVE ANY ROCKS 3/4" AND LARGER, STICKS AND DEBRIS PRIOR TO INSTALLATION OF TOPSOIL AND SOD.

FOUR (4") OF TOPSOIL SHALL BE APPLIED TO AREAS DISTURBED BY CONSTRUCTION RECEIVING SOD. IF TOPSOIL IS NOT AVAILABLE ON SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL AS APPROVED BY THE OWNER OR OWNERS REPRESENTATIVE.

TOPSOIL SHALL BE FRIABLE, NATURAL LOAM, FREE OF ROCKS, WEEDS, BRUSH, CLAY LUMPS, ROOTS, TWIGS, LITTER AND ENVIRONMENTAL CONTAMINANTS.

CONTRACTOR SHALL BE RESPONSIBLE FOR SOD UNTIL ACCEPTANCE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: MOWING, WATERING, WEEDING, CULTIVATING, CLEANING AND REPLACING DEAD OR BARE AREAS TO KEEP PLANTS IN A VIGOROUS, HEALTHY CONDITION. SOD SHALL BE REPLACED IF NECESSARY.

SOLID SOD:
SOLID SOD SHALL BE PLACED ALONG ALL IMPERVIOUS EDGES, AT A MINIMUM. THIS SHALL INCLUDE CURBS, WALKS, INLETS, MANHOLES AND PLANTING BED AREAS. SOD SHALL COVER OTHER AREAS COMPLETELY AS INDICATED BY PLAN.

SOD SHALL BE STRONGLY ROOTED DROUGHT RESISTANT SOD, NOT LESS THAN 2 YEARS OLD, FREE OF WEEDS AND UNDESIRABLE NATIVE GRASS AND MACHINE CUT TO PAD THICKNESS OF 3/4" (+ 1/4"), EXCLUDING TOP GROWTH AND THATCH. PROVIDE ONLY SOD CAPABLE OF VIGOROUS GROWTH AND DEVELOPMENT WHEN PLANTED.

DO NOT INSTALL SOD IF IT IS DORMANT OR GROUND IS FROZEN. LAY SOD WITH TIGHTLY FITTING JOINTS, NO OVERLAPS WITH STAGGERED STRIPS TO OFFSET JOINTS.

SOD SHALL BE ROLLED TO CREATE A SMOOTH EVEN SURFACE. SOD SHOULD BE WATERED THOROUGHLY DURING INSTALLATION PROCESS.

SHOULD INSTALLATION OCCUR BETWEEN OCTOBER 1ST AND MARCH 1ST, SOD SHALL INCLUDE AN OVER-SEED OF ANNUAL RYE OR WINTER RYEGRASS AT A RATE OF FOUR POUNDS PER ONE THOUSAND SQUARE FEET FOR A GROWN-IN APPEARANCE. CONTRACTOR SHALL ENSURE CONFORMANCE TO §115.D OF TITLE 7, PART XXIX, HORTICULTURE COMMISSION CHAPTER 1.

HYDROMULCH:

SCARIFY SURFACE TO A MINIMUM OF 2" DEPTH PRIOR TO THE IMPORT TOPSOIL APPLICATION. TOP SOIL SHALL BE PLACED 2" IN DEPTH IN ALL AREAS TO BE SEEDED. CONTRACTOR TO SUPPLY HIGH QUALITY IMPORTED TOPSOIL HIGH IN HUMAS AND ORGANIC CONTENT FROM A LOCAL SUPPLY. IMPORTED TOPSOIL SHALL BE REASONABLY FREE OF CLAY LUMPS, COARSE SANDS, STONES, ROOTS AND OTHER FOREIGN DEBRIS.

IF INADEQUATE MOISTURE IS PRESENT IN SOIL, APPLY WATER AS NECESSARY FOR OPTIMUM MOISTURE FOR SEED APPLICATION.

ALL SEED SHALL BE HIGH QUALITY, TREATED LAWN TYPE SEED AND IS FREE OF NOXIOUS GRASS SEEDS. THE SEED APPLICATION SHALL BE UNIFORMLY DISTRIBUTED ON THE AREAS INDICATED ON PLANS. HYDROMULCH WITH BERMUDA GRASS SEED AT A RATE OF TWO POUNDS PER ONE THOUSAND SQUARE FEET.

IF INSTALLATION OCCURS BETWEEN OCTOBER 1ST AND APRIL 1ST, ALL HYDORMULCH AREAS SHALL BE OVER-SEEDED WITH ANNUAL RYE GRASS AT A RATE OF FOUR POUNDS PER ONE THOUSAND SQUARE FEET. CONTRACTOR TO RE-HYDROMULCH WITH BERMUDA GRASS AT THE END OF THE ANNUAL RYE GROWING SEASON.

AFTER APPLICATION, NO EQUIPMENT SHALL OPERATE OVER APPLIED AREAS. WATER SEEDED AREAS IMMEDIATELY AFTER INSTALLATION TO SATURATION.

ALL LAWN AREAS TO BE HYDROMULCHED SHALL ACHIEVE 100% COVERAGE PRIOR TO FINAL ACCEPTANCE.

**LANDSCAPE NOTES**

REFERENCE SITEWORK AND SPECIFICATIONS FOR INFORMATION NEEDED FOR LANDSCAPE WORK.

CONTRACTOR TO VERIFY AND LOCATE ALL PROPOSED AND EXISTING STRUCTURES. NOTIFY LANDSCAPE ARCHITECT OR DESIGNATED REPRESENTATIVE FOR ANY LAYOUT DISCREPANCIES OR ANY CONDITION THAT WOULD PROHIBIT THE INSTALLATION AS SHOWN.

CONTRACTOR SHALL CALL 811 TO VERIFY AND LOCATE ANY AND ALL UTILITIES ON SITE PRIOR TO COMMENCING WORK. LANDSCAPE ARCHITECT SHOULD BE NOTIFIED OF ANY CONFLICTS.

A MINIMUM OF 2% SLOPE SHALL BE PROVIDED AWAY FROM ALL STRUCTURES.

LANDSCAPE ISLANDS SHALL BE CROWNED, AND UNIFORM THROUGHOUT THE SITE.

ALL PLANTING AREAS SHALL BE GRADED SMOOTH TO ACHIEVE FINAL CONTOURS AS INDICATED ON PLAN WITH 3" OF TOPSOIL AND 3" OF COMPOST AND CONSISTENTLY BLENDED TO A DEPTH OF 9". ALL BEDS SHALL BE CROWNED TO ANTICIPATE SETTLEMENT AND ENSURE PROPER DRAINAGE.

PLANTING AREAS AND SOD TO BE SEPARATED BY STEEL EDGING. EDGING TO BE GREEN IN COLOR AND A MINIMUM OF 3/16" THICK. EDGING SHALL BE STAKED FROM THE INSIDE OF BED. EDGING NOT TO BE MORE THAN 1/2" ABOVE FINISHED GRADE.

MULCH SHALL BE INSTALLED AT 1/2" BELOW THE TOPS OF SIDEWALKS AND CURBING.

QUANTITIES ON THESE PLANS ARE FOR REFERENCE ONLY. THE SPACING OF PLANTS SHOULD BE AS INDICATED ON PLANS OR OTHERWISE NOTED. ALL TREES AND SHRUBS SHALL BE PLANTED PER DETAILS.

CONTAINER GROWN PLANT MATERIAL IS PREFERRED HOWEVER BALL AND BURLAP PLANT MATERIAL CAN BE SUBSTITUTED IF NEED BE AND IS APPROPRIATE TO THE SIZE AND QUALITY INDICATED ON THE PLANT MATERIAL LIST.

TREES SHALL BE PLANTED AT A MINIMUM OF 5' FROM ANY UTILITY LINE, SIDEWALK OR CURB. TREES SHALL ALSO BE 10' CLEAR FROM FIRE HYDRANTS.

4" OF SHREDDED HARDWOOD MULCH (2" SETTLED THICKNESS) SHALL BE PLACED OVER 4.1 OZ WOVEN, WEED BARRIER FABRIC OR APPROVED EQUAL. WEED BARRIER FABRIC SHALL BE USED IN PLANT BEDS AND AROUND ALL TREES AND SHALL BE DE WITT WEED BARRIER OR APPROVED EQUAL. MULCH SHALL BE SHREDDED BARK OR RUBBER LANDSCAPE MULCH, PINE STRAW MULCH IS PROHIBITED.

CONTRACTOR TO PROVIDE UNIT PRICING OF LANDSCAPE MATERIALS AND BE RESPONSIBLE FOR OBTAINING ALL LANDSCAPE AND IRRIGATION PERMITS.

IRRIGATION:
IN THE ABSENCE OF AN IRRIGATION SYSTEM OR AREAS BEYOND THE COVERAGE LIMITS OF A PERMANENT IRRIGATION SYSTEM, CONTRACTOR SHALL WATER SOD TEMPORARILY, BY ANY MEANS AVAILABLE, TO DEVELOP ADEQUATE GROWTH. TURF SHALL BE IN 100% ESTABLISHMENT AT THE TIME OF ACCEPTANCE.

ALL PLANTING BEDS SHALL HAVE AN AUTOMATIC IRRIGATION SYSTEM WITH A FREEZE/RAIN SENSOR. SYSTEM SHALL ALSO HAVE AN ET WEATHER BASED CONTROLLER AND BE DESIGNED AND INSTALLED BY A LICENSED IRRIGATOR.

MAINTENANCE REQUIREMENTS:
VEGETATION SHOULD BE INSPECTED REGULARLY TO ENSURE THAT PLANT MATERIAL IS ESTABLISHING PROPERLY AND REMAINS IN A HEALTHY GROWING CONDITION APPROPRIATE FOR THE SEASON. IF DAMAGED OR REMOVED, PLANTS MUST BE REPLACED BY A SIMILAR VARIETY AND SIZE.

MOWING, TRIMMING, EDGING AND SUPERVISION OF WATER APPLICATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL THE OWNER OR OWNER'S REPRESENTATIVE ACCEPTS AND ASSUMES REGULAR MAINTENANCE.

ALL LANDSCAPE AREAS SHOULD BE CLEANED AND KEPT FREE OF TRASH, DEBRIS, WEEDS AND OTHER MATERIAL.

MISCELLANEOUS MATERIALS:

STEEL EDGING SHALL BE 3/16" X 4 X 16' DARK GREEN DURAEDGE STEEL LANDSCAPE EDGING.

IRRIGATION WILL MEET THE REQUIREMENTS OF THE ROCKWALL UDC.

**PLANT SCHEDULE**

| QTY | LABEL | COMMON NAME | SCIENTIFIC NAME | SIZE | NOTES |
|---|---|---|---|---|---|
| | | **SHADE TREES** | | | |
| 6 | LE | Lacebark Elm | *Ulmus parvifolia 'Sempervirens'* | 4" cal. | 12' ht., 4' spread |
| 7 | SO | Shumard Oak | *Quercus shumardii* | 4" cal. | 12' ht., 5' spread |
| | | **ORNAMENTAL TREES** | | | |
| 7 | RB | Oklahoma Redbud | *Cercis reniformis 'Oklahoma'* | 30 gal. | 8' ht., 4' spread, 3 trunk min. |
| | | **SHRUBS** | | | |
| 42 | DBH | Dwarf Burford Holly | *Ilex comuta ' Burford Nana'* | 5 gal. | full, 24" spread, 30" ht., 36" o.c. |
| 19 | DHG | Dwarf Hamlin Grass | *Pennisetum alopecuroides 'Hameln'* | 5 gal. | full, 18" sprd, 20" ht., 24" o.c. |
| 11 | IH | Indian Hawthorne 'Minor' | *Raphiolepsis indica 'Minor'* | 5 gal. | full, 24" spread, 30" ht., 36" o.c. |
| 9 | LM | Lindheimer Muhly Grass | *Muhlenbergia lindheimeri* | 5 gal. | full, 24" spread, 36" o.c. |
| 34 | LOR | Loropetalum 'Purple Pixie' | *Loropetalum chinensis 'Purple Pixie'* | 5 gal. | full, 18" sprd, 20" ht., 24" o.c. |
| | | **GROUNDCOVER/VINES/GRASS** | | | |
| 15 | BBL | Big Blue Liriope | *Liriope muscari 'Big Blue'* | 1 gal. | full, 18" o.c. |

**Plant list is an aid to bidders only. Contractor shall verify all quantities on plan. All heights and spreads are minimums. Trees shall have a strong central leader and be of matching specimens. All plant material shall meet or exceed remarks as indicated.**

GRAPHIC SCALE
0 20 40 FEET
Scale 1"=20' - 0"

LANDSCAPE ARCHITECT:
AWR Designs, LLC
10321 Bradshaw Drive
Fort Worth, Texas 76108
awr.designs@mail.com
c. 512.517.5589

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CONTACT: JUAN J. VASQUEZ, P.E.

OWNER/DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE, SUITE 160
DALLAS, TEXAS 75254
PHONE: 214-402-8702
CONTACT: JAY HOLMAN

# LANDSCAPE PLAN
## GOLIAD RETAIL
LOT 3, BLOCK A
DALTON GOLIAD ADDITION
1.350 ACRES
ROCKWALL, ROCKWALL COUNTY, TEXAS
MARCH 11, 2016
CASE #SP2016-005

| NO. | DATE | APP. |
|---|---|---|
| | | |


VASQUEZ ENGINEERING, L.L.C.
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph: 972-278-2948
TX Registration # F-12266


REGISTERED LANDSCAPE ARCHITECT
AMANDA W. RICHARDSON
2754
STATE OF TEXAS
3.7.16

DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

LANDSCAPE PLAN
LOT 3, BLOCK A
DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: 1" = 40'
Designed by: JJV
Drawn by: JJV
Checked by: JJV
608-01\dwg\RETAILBLDGSP1.dwg
Date: 03/11/2016

SHEET
LP1

SECTION 32 9300 - LANDSCAPE

PART 1 - GENERAL

1.1 QUALIFICATIONS OF THE LANDSCAPE CONTRACTOR.

A. ALL LANDSCAPE WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE FIRM SPECIALIZING IN LANDSCAPE PLANTING

1.2 REFERENCE DOCUMENTS

A. REFER TO LANDSCAPE PLANS, NOTES, AND DETAILS FOR ADDITIONAL REQUIREMENTS

1.3 SCOPE OF WORK / DESCRIPTION OF WORK

A. WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK, SPECIFIED HEREIN AND / OR SHOWN ON THE LANDSCAPE PLANS, NOTES, AND DETAILS.

B. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS.

C. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK

D. FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY TO PROVIDE ALL WORK, COMPLETE IN PLACE AS SHOWN AND SPECIFIED. WORK SHOULD INCLUDE:

E. PLANTING OF TREES, SHRUBS AND GRASSES

A. SEEDING

B. BED PREPARATION AND FERTILIZATION

C. WATER AND MAINTENANCE UNTIL FINAL ACCEPTANCE

D. WORK GUARANTEE

1.4 REFERENCES

A. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) Z60.1 - NURSERY STOCK

B. TEXAS STATE DEPARTMENT OF AGRICULTURE

C. TEXAS ASSOCIATION OF NURSERYMEN, GRADES AND STANDARDS

1.5 SUBMITTALS

A. PROVIDE REPRESENTATIVE QUANTITIES OF EACH SOIL, MULCH, BED MIX, GRAVEL AND STONE BEFORE INSTALLATION. SAMPLES TO BE APPROVED BY OWNER'S REPRESENTATIVE BEFORE USE.

B. SOIL AMENDMENTS AND FERTILIZERS SHOULD BE RESEARCHED AND BASED ON THE SOILS IN THE AREA.

C. BEFORE INSTALLATION, SUBMIT DOCUMENTATION THAT PLANT MATERIALS ARE AVAILABLE AND HAVE BEEN RESERVED. FOR ANY PLANT MATERIAL NOT AVAILABLE, SUBMIT REQUEST FOR SUBSTITUTION.

1.6 JOB CONDITIONS, DELIVERY, STORAGE AND HANDLING

A. GENERAL CONTRACTOR TO COMPLETE WORK BEFORE LANDSCAPE CONTRACTOR TO COMMENCE. ALL PLANTING BED AREAS SHALL BE LEFT THREE INCHES BELOW FINAL GRADE OF SIDEWALKS, DRIVES AND CURBS. ALL AREAS TO RECEIVE SOLID SOD SHALL BE LEFT ONE INCH BELOW THE FINAL GRADE OF WALKS, DRIVES AND CURBS. CONSTRUCTION DEBRIS SHALL BE REMOVED PRIOR TO LANDSCAPE CONTRACTOR BEGINNING WORK.

B. ALL PACKAGED MATERIALS SHALL BE SEALED IN CONTAINERS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. ALL MATERIALS SHALL BE PROTECTED FROM DETERIORATION IN TRANSIT AND WHILE STORED ON SITE.

C. DELIVER PLANT MATERIALS IMMEDIATELY PRIOR TO INSTALLATION. PLANT MATERIALS SHOULD BE INSTALLED ON THE SAME DAY AS DELIVERED. IF PLANTING CANNOT BE INSTALLED ON THE SAME DAY, PROVIDE ADDITIONAL PROTECTION TO MAINTAIN PLANTS IN A HEALTHY, VIGOROUS CONDITION.

D. STORE PLANT MATERIALS IN SHADE, PROTECT FROM FREEZING AND DRYING.

E. KEEP PLANT MATERIALS MOIST AND PROTECT FROM DAMAGE TO ROOT BALLS, TRUNKS AND BRANCHES.

F. PROTECT ROOT BALLS BY HEELING WITH SAWDUST OR OTHER MOISTURE RETAINING MATERIAL IF NOT PLANTED WITHIN 24 HOURS OF DELIVERY.

G. NOTIFY OWNER'S REPRESENTATIVE OF DELIVERY SCHEDULE 72 HOURS IN ADVANCE.

H. FOR BALLED AND BURLAPPED PLANTS - DIG AND PREPARE SHIPMENT IN A MANNER THAT WILL NOT DAMAGE ROOTS, BRANCHES, SHAPE, AND FUTURE DEVELOPMENT.

I. CONTAINER GROWN PLANTS - DELIVER PLANTS IN CONTAINER TO HOLD BALL SHAPE AND PROTECT ROOT MASS.

J. STORAGE OF ALL MATERIALS AND EQUIPMENT WILL BE AT THE RISK OF THE LANDSCAPE CONTRACTOR. OWNER WILL NOT BE HELD RESPONSIBLE FOR THEFT OR DAMAGE.

1.7 SEQUENCING

A. INSTALL TREES, SHRUBS, AND LINER STOCK PLANT MATERIALS PRIOR TO INSTALLATION OF LAWN/SOLID SOD.

B. WHERE EXISTING TURF AREAS ARE BEING CONVERTED TO PLANTING BEDS, THE TURF SHALL BE CHEMICALLY ERADICATED TO MINIMIZE RE-GROWTH IN THE FUTURE. AREAS SHALL BE PROPERLY PREPARED WITH AMENDED ORGANIC MATTER.

1.8 WARRANTIES PERIOD, PLANT GUARANTEE, REPLACEMENTS

A. PROVIDE A MINIMUM OF (2) COPIES OF RECORD DRAWINGS TO THE OWNER UPON COMPLETION OF WORK. A RECORD DRAWING IS A RECORD OF ALL CHANGES THAT OCCURRED IN THE FIELD AND THAT ARE DOCUMENTED THROUGH CHANGE ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING MARKUPS.

B. FURNISH WRITTEN WARRANTY THAT PLANT MATERIALS WILL BE IN A HEALTHY, VIGOROUS GROWING CONDITION FOR ONE YEAR (TWELVE MONTHS) AFTER FINAL ACCEPTANCE. DAMAGE DUE TO ACTS OF GOD, VANDALISM, OR NEGLIGENCE BY OWNER IS EXCLUDED.

C. REPLACE DEAD, UNHEALTHY, AND UNSIGHTLY PLANT MATERIAL WITHIN WARRANTY PERIOD UPON NOTIFICATION BY OWNER OR OWNER'S REPRESENTATIVE. PLANTS USED FOR REPLACEMENT SHALL BE OF THE SAME SIZE AND KIND AS THOSE ORIGINALLY PLANTED OR SPECIFIED.

D. THE OWNER AGREES THAT FOR THE ONE YEAR WARRANTY PERIOD TO BE EFFECTIVE, HE WILL WATER PLANTS AT LEAST TWICE A WEEK DURING DRY PERIODS.

E. NOTIFY OWNER OR OWNERS REPRESENTATIVE SEVEN DAYS PRIOR TO THE EXPIRATION OF THE WARRANTY PERIOD.

A. REMOVE DEAD, UNHEALTHY AND UNSIGHTLY PLANTS

B. REMOVE GUYING AND STAKING MATERIALS.

1.9 MAINTENANCE

A. MAINTAIN PLANT LIFE AND PLANTING BEDS IMMEDIATELY AFTER PLACEMENT AND FOR MINIMUM 30 DAYS AFTER FINAL ACCEPTANCE.

B. ALL LANDSCAPE MUST BE MAINTAINED AND GRASS MOWED/EDGED ON A WEEKLY SCHEDULE UNTIL ACCEPTANCE BY OWNER.

C. REPLACE DEAD OR DYING PLANTS WITH PLANTS OF SAME SIZE AND SPECIES AS SPECIFIED.

D. REMOVE TRASH, DEBRIS, AND LITTER. WATER, PRUNE, RESTAKE TREES, FERTILIZE, WEED AND APPLY HERBICIDES AND FUNGICIDES AS REQUIRED.

E. REMOVE CLIPPINGS AND DEBRIS FROM SITE PROMPTLY.

F. COORDINATE WITH OPERATION OF IRRIGATION SYSTEM TO ENSURE THAT PLANTS ARE ADEQUATELY WATERED. HAND WATER AREAS NOT RECEIVING ADEQUATE WATER FROM AN IRRIGATION SYSTEM.

G. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN ACCORDANCE TO THE MAINTENANCE SERVICE TO ENSURE THE SYSTEM IS IN PROPER WORKING ORDER WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION.

H. RESET SETTLED PLANTS

I. REAPPLY MULCH TO BARE AND THIN AREAS.

J. SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL, HEALTHY STAND OF GRASS AT NO ADDITIONAL COST TO THE OWNER.

K. TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD, ALL OF THE FOLLOWING CONDITIONS MUST OCCUR:

a. THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH EXCEPTIONS MADE FOR SEASONAL DORMANCY). ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE.

b. ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE.

c. SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A MINIMUM HEIGHT OF 1 1/2 INCHES BEFORE FIRST MOWING. HYDROMULCHED AREAS SHALL SHOW ACTIVE, HEALTHY GROWTH. BARE AREAS LARGER THAN TWELVE SQUARE INCHES MUST BE RESODDED OR RESEEDED (AS APPROPRIATE) PRIOR TO FINAL ACCEPTANCE. ALL SODDED TURF SHALL BE NEATLY MOWED.

1.10 QUALITY ASSURANCE

A. COMPLY WITH ALL FEDERAL, STATE, COUNTY AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK.

B. EMPLOY PERSONNEL EXPERIENCED AND FAMILIAR WITH THE REQUIRED WORK AND SUPERVISION BY A FOREMAN.

C. DO NOT MAKE PLANT MATERIAL SUBSTITUTIONS. IF THE LANDSCAPE MATERIAL SPECIFIED IS NOT READILY AVAILABLE, SUBMIT PROOF TO LANDSCAPE ARCHITECT ALONG WITH THE PROPOSED MATERIAL TO BE USED IN LIEU OF THE SPECIFIED PLANT.

D. OWNER'S REPRESENTATIVE SHALL INSPECT ALL PLANT MATERIAL AND RETAINS THE RIGHT TO INSPECT MATERIALS UPON ARRIVAL TO THE SITE AND DURING INSTALLATION. THE OWNER'S REPRESENTATIVE MAY ALSO REJECT ANY MATERIALS HE/SHE FEELS TO BE UNSATISFACTORY OR DEFECTIVE DURING THE WORK PROCESS. ALL PLANTS DAMAGED IN TRANSIT OR AT THE JOB SITE SHALL BE REJECTED.

PART 2 - PRODUCTS

2.1 PLANT MATERIALS

A. ALL PLANTS SHALL BE CERTIFIED IN ACCORDANCE THE AMERICAN STANDARD FOR NURSERY STOCK.

B. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE, AND WITH SIMILAR CLIMACTIC CONDITIONS.

C. PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED, EXCEPT THE PLANTS LARGER THAN THOSE SPECIFIED MAY BE USED. USE OF LARGER PLANTS SHALL NOT INCREASE THE CONTRACT PRICE.

D. WHERE MATERIALS ARE PLANTED IN MASSES, PROVIDE PLANTS OF UNIFORM SIZE.

E. PLANT SCHEDULE ON DRAWING IS FOR CONTRACTORS INFORMATION ONLY AND NO GUARANTEE IS EXPRESSED OR IMPLIED THAT QUANTITIES THEREIN ARE CORRECT. THE CONTRACTOR SHALL ENSURE THAT ALL PLANT MATERIALS SHOWN ON THE DRAWINGS ARE INCLUDED IN HIS OR HER BID.

F. SHALL BE FREE OF DISEASE, INSECT INFESTATION, DEFECTS INCLUDING WEAK OR BROKEN LIMBS, CROTCHES, AND DAMAGED TRUNKS, ROOTS OR LEAVES, SUN SCALD, FRESH BARK ABRASIONS, EXCESSIVE ABRASIONS, OBJECTIONABLE DISFIGUREMENT, INSECT EGGS AND LARVAE.

G. ALL PLANTS SHALL EXHIBIT NORMAL GROWTH HABITS, VIGOROUS, HEALTHY FULL, WELL BRANCHES, WELL ROOTED, PROPORTIONATE AND SYMMETRICAL.

H. ROOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED, FIBROUS ROOT SYSTEMS, NON-POT-BOUND, FREE FROM ENCIRCLING AND/OR GIRDLING ROOTS, AND FREE FROM ANY OTHER ROOT DEFECTS (SUCH AS J-SHAPED ROOTS).

I. ANY PLANT DEEMED UNACCEPTABLE BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND SHALL BE REPLACED WITH AN ACCEPTABLE PLANT OF LIKE TYPE AND SIZE AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE UNHEALTHY, EVEN IF DETERMINED TO STILL BE ALIVE, SHALL NOT BE ACCEPTED. THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE SHALL BE THE SOLE JUDGES AS TO THE ACCEPTABILITY OF PLANT MATERIAL.

J. ALL TREES SHALL BE STANDARD IN FORM, UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING

K. TREE TRUNKS TO BE STURDY, EXHIBIT HARDENED SYSTEMS AND VIGOROUS AND FIBROUS ROOT SYSTEMS, NOT ROOT OR POT BOUND.

L. TREES WITH DAMAGED 'OR CROOKED LEADERS, BARK ABRASIONS, SUNSCALD, DISFIGURING KNOTS, OR/INSECT DAMAGE WILL BE REJECTED.

M. CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE AS FOLLOWS: SIX INCHES ABOVE THE ROOT FLARE FOR TREES UP TO AND INCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER

N. MULTI-TRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT, MEASURED FROM THE TOP OF THE ROOT BALL.

O. ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED.

P. SOD: PROVIDE WELL-ROOTED SOD OF THE VARIETY NOTED ON THE PLANS. SOD SHALL BE CUT FROM HEALTHY, MATURE TURF WITH SOIL THICKNESS OF 3/4" TO 1". EACH PALLET OF SOD SHALL BE ACCOMPANIED BY A CERTIFICATE FROM SUPPLIER STATING THE COMPOSITION OF THE SOD.

2.2 ACCESSORIES/MISCELLANEOUS MATERIALS

A. MULCH - DOUBLE SHREDDED HARDWOOD MULCH, PARTIALLY DECOMPOSED BY LIVING EARTH TECHNOLOGIES OR APPROVED SUBSTITUTE. MULCH SHOULD BE FREE OF STICKS, STONES, CLAY, GROWTH AND GERMINATION INHIBITING INGREDIENTS.

B. FERTILIZER - COMMERCIAL FERTILIZER CONTAINING 10-20-10 OR SIMILAR ANALYSIS.

C. SOIL PREPARATION - SHALL BE FERTILE, LOAMY SOIL ORGANIC MATTER SHALL ENCOMPASS BETWEEN 3% AND 10% OF THE TOTAL DRY WEIGHT. SOIL SHALL BE FREE FROM SUBSOIL, REFUSE, ROOTS, HEAVY OR STIFF CLAY, STONES LARGER THAN 1", NOXIOUS WEEDS, STICKS, BRUSH, LITTER AND OTHER SUBSTANCES. IT SHOULD BE SUITABLE FOR THE GERMINATION OF SEEDS AND THE SUPPORT OF VEGETATIVE GROWTH. THE PH VALUE SHOULD BE BETWEEN 4 AND 7.

APPROXIMATE PARTICLE DISTRIBUTION FOR TOPSOIL

| | |
|---|---|
| CLAY | BETWEEN 15% AND 25% |
| SILT | BETWEEN 15% AND 25% |
| SAND | LESS THAN 50% |
| GRAVEL | LESS THAN 10% |

D. EXISTING TOPSOIL - MAY BE USED IF IT MEETS THE REQUIREMENTS FOR THE IMPORTED TOPSOIL OR IF APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. TOPSOIL SHALL NOT BE STRIPPED, TRANSPORTED OR GRADED IF MOISTURE CONTENT EXCEEDS FIELD CAPACITY. TOPSOIL STOCKPILES SHALL BE PROTECTED FROM EROSION OR CONTAMINATION.

E. ALL NEW TURF AREAS LOCATED ON THE FRONT, SIDES, REAR, AND INSIDE THE FIRE LANE SHALL BE SODDED AND SHALL BE AMENDED WITH QUALITY TOPSOIL AT A MINIMUM DEPTH OF FOUR INCHES.

F. STEEL EDGING - SHALL BE 3/16" X 4" X 16" DARK GREEN LANDSCAPE EDGING.

G. TREE STAKING - TREE STAKING SOLUTIONS OR APPROVED SUBSTITUTE; REFER TO DETAILS.

H. FILTER FABRIC - MIRAFI 140S BY MIRAFI INC. OR APPROVED SUBSTITUTE.

I. SAND - UNIFORMLY GRADED, WASHED, CLEAN, BANK RUN SAND.

J. DECOMPOSED GRANITE - BASE MATERIAL OF NATURAL MATERIAL MIX OF GRANITE AGGREGATE NOT TO EXCEED 1/8" IN DIAMETER.

K. RIVER ROCK - LOCALLY AVAILABLE RIVER ROCK BETWEEN 2"-4" IN DIAMETER.

L. PRE-EMERGENT HERBICIDES: ANY GRANULAR, NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIFIC ORNAMENTALS OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT HERBICIDES SHALL BE APPLIED PER THE MANUFACTURER'S LABELED RATES.

PART 3 - EXECUTION

3.1 PREPARATION

A. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE GRADE OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY SHOULD ANY DISCREPANCIES EXIST.

B. SOIL TESTING:

A. AFTER FINISH GRADES HAVE BEEN ESTABLISHED, CONTRACTOR SHALL HAVE SOIL SAMPLES TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY FOR THE FOLLOWING: SOIL TEXTURAL CLASS, GENERAL SOIL FERTILITY, PH, ORGANIC MATTER CONTENT, SALT (CEC), LIME, SODIUM ADSORPTION RATIO (SAR) AND BORON CONTENT. EACH SAMPLE SUBMITTED SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL.

B. CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG WITH THE SOIL SAMPLES.

C. THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR THE FOLLOWING (AS APPROPRIATE): GENERAL SOIL PREPARATION AND BACKFILL MIXES, PRE-PLANT FERTILIZER APPLICATIONS, AND ANY OTHER SOIL RELATED ISSUES. THE REPORT SHALL ALSO PROVIDE A FERTILIZER PROGRAM FOR THE ESTABLISHMENT PERIOD AND FOR LONG-TERM MAINTENANCE.

C. THE CONTRACTOR SHALL INSTALL SOIL AMENDMENTS AND FERTILIZERS PER THE SOILS REPORT RECOMMENDATIONS. ANY CHANGE IN COST DUE TO THE SOIL REPORT RECOMMENDATIONS, EITHER INCREASE OR DECREASE, SHALL BE SUBMITTED TO THE OWNER WITH THE REPORT

D. IF WEEDS ARE GROWING IN PLANTING AREAS, APPLY HERBICIDE RECOMMENDED BY MANUFACTURER AND APPLIED BY AN APPROVED LICENSED APPLICATOR. ALLOW WEEDS TO DIE, AND THEN GRUB OUT ROOTS TO A MINIMUM OF 1/2 INCH DEPTH.

E. PREPARE NEW PLANTING BEDS BY TILLING EXISTING SOIL TO A DEPTH OF SIX INCHES PRIOR TO PLACING COMPOST AND FERTILIZER. ADD SIX INCHES OF COMPOSE AND TILL INTO A DEPTH OF SIX INCHES OF THE TOPSOIL.

F. POSITION TREES AND SHRUBS AS DESIGNED ON PLAN. OBTAIN OWNERS REPRESENTATIVES APPROVAL PRIOR TO PROCEEDING.

G. ALL PLANTING AREAS SHALL RECEIVE A MINIMUM OF 2 INCH LAYER OF MULCH (SETTLED THICKNESS).

3.2 EXCAVATING

A. EXCAVATE PITS FOR PLANTING. TREE PITS SHALL BE LARGE ENOUGH TO PERMIT THE HANDLING OF THE ROOT BALL WITHOUT DAMAGE TO THE ROOTS. TREES SHALL BE PLANTED AT A DEPTH THAT WHEN SETTLED, THE CROWN OF THE PLANT SHALL BEAR THE SAME RELATIONSHIP TO THE FINISH GRADE AS IT DID TO THE SOIL SURFACE IN ORIGINAL PLACE OF GROWTH.

B. TREE PITS PERCOLATION TEST: FILL PIT WITH WATER AND ALLOW TO STAND FOR 24 HOURS. IF PIT DOES NOT DRAIN, THE TREE NEEDS TO BE MOVED TO ANOTHER LOCATION OR HAVE DRAINAGE ADDED.

C. SHRUB AND TREE PITS SHALL BE NO LESS THAN 24" WIDER THAN THE ROOT BALL AND 6" DEEPER THAN ITS VERTICAL DIMENSION. HOLES SHOULD BE ROUGH, NOT SMOOTH OR GLAZED.

3.3 PLANTING

A. REMOVE NURSERY TAGS AND STAKES FROM ALL PLANTS

B. REMOVE CONTAINERS WITHOUT DAMAGE TO ROOTS.

C. REMOVE BOTTOM OF PLANT BOXES PRIOR TO PLACING PLANTS. REMOVE SIDES AFTER PLACEMENT AND PARTIAL BACKFILLING.

D. REMOVE UPPER THIRD OF BURLAP FROM BALLED AND BURLAPPED TREES AFTER PLACEMENT.

E. PLACE PLANT UPRIGHT AND PLUMB IN CENTER OF HOLE. ORIENT PLANTS FOR BEST APPEARANCE.

F. SET PLANTS WITH TOP OF ROOT BALLS FLUSH WITH ADJACENT GRADE AFTER COMPACTION. ADJUST PLANT HEIGHT IF SETTLEMENT OCCURS AFTER BACKFILLING.

G. BACKFILL HOLES IMMEDIATELY AFTER PLANT IS PLACED USING BACKFILL MIX. BACKFILL TO ONE HALF DEPTH, FILL HOLE WITH WATER AND LIGHTLY TAMP SOIL TO REMOVE VOIDS AND AIR POCKETS.

H. TRIM PLANTS TO REMOVE DEAD AND INJURED BRANCHES ONLY. BRACE PLANTS OVER 65 GALLONS IN SIZE.

I. MULCH TO THE TOP OF THE ROOT BALL. DO NOT PLANT GRASS ALL THE WAY TO TRUNK OF THE TREE. MULCH WITH AT LEAST 2" OF SPECIFIED MULCH.

J. DO NOT WRAP TREES.

K. DO NOT OVER PRUNE.

L. BLOCKS OF SOD SHOULD BE LAID JOINT TO JOINT AFTER FERTILIZING THE GROUND FIRST. ROLL GRASS AREAS TO ACHIEVE A SMOOTH, EVEN SURFACE. THE JOINTS BETWEEN BLOCKS SHOULD BE FILLED WITH TOPSOIL AND THEN WATERED THOROUGHLY.

3.4 STEEL EDGING

A. STEEL EDGING SHALL BE INSTALLED AND ALIGNED AS INDICATED ON PLANS. OWNER'S REPRESENTATIVE TO APPROVE THE STAKED OR PAINTED LOCATION OF STEEL EDGE PRIOR TO INSTALLATION

B. ALL STEEL EDGING SHALL BE FREE OF BENDS OR KINKS.

C. TOP OF EDGING SHALL BE 1/2" MAXIMUM HEIGHT ABOVE FINAL FINISHED GRADE.

D. STAKES ARE TO BE INSTALLED ON THE PLANTING BED SIDE OF THE EDGING, NOT THE GRASS SIDE.

E. STEEL EDGING SHALL NOT BE INSTALLED ALONG SIDEWALKS OR CURBS.

F. EDGING SHOULD BE CUT AT A 45 DEGREE ANGLE WHERE IT MEETS SIDEWALKS OR CURBS.

3.5 CLEANUP

A. REMOVE CONTAINERS, TRASH, RUBBISH AND EXCESS SOILS FROM SITE AS WORK PROGRESSES.

B. REPAIR RUTS, HOLES AND SCARES IN GROUND SURFACES.

C. PREMISES SHALL BE KEPT NEAT AT ALL TIMES AND ORGANIZED.

D. ALL PAVED AREAS SHOULD BE CLEANED AT THE END OF EACH WORK DAY.

3.5 ACCEPTANCE

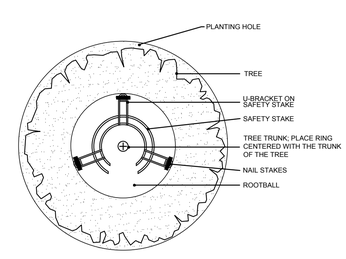
A. ENSURE THAT WORK IS COMPLETE AND PLANT MATERIALS ARE IN VIGOROUS AND HEALTHY GROWING CONDITION.

B. UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY.

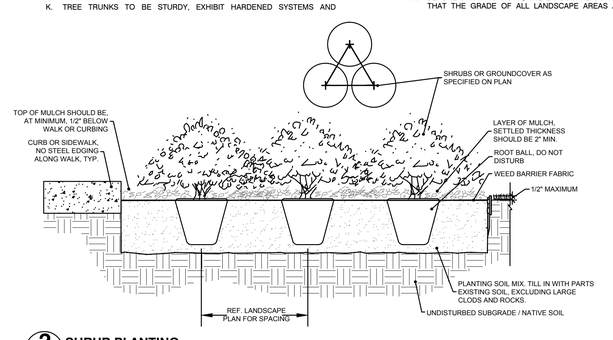
C. WHEN/IF THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE LANDSCAPE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S SATISFACTION WITHIN 24 HOURS.

D. THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE LANDSCAPE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.

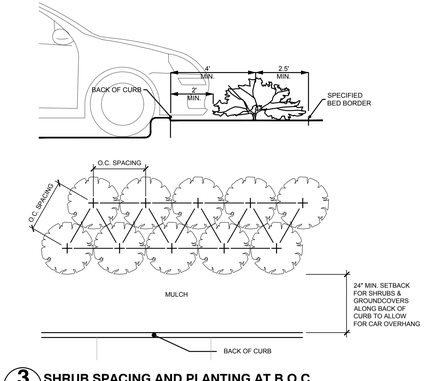
END OF SECTION



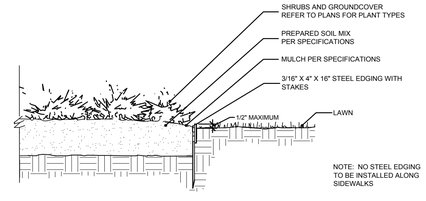

**1 TREE PLANTING**
N.T.S.




**2 SHRUB PLANTING**
N.T.S.




**3 SHRUB SPACING AND PLANTING AT B.O.C.**
N.T.S.




**4 STEEL EDGING DETAIL**
N.T.S.

LANDSCAPE ARCHITECT:

AWR Designs, LLC
10321 Bradshaw Drive
Fort Worth, Texas 76108
awr.designs@mail.com
c. 512.517.5589

ENGINEER:
VASQUEZ ENGINEERING, L.L.C.
1919 S. SHILOH ROAD, SUITE 440
GARLAND, TEXAS 75042
PHONE: 972-272-4610
CONTACT: JUAN J. VASQUEZ, P.E.

OWNER/DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE, SUITE 160
DALLAS, TEXAS 75254
PHONE: 214-402-8702
CONTACT: JAY HOLMAN

# LANDSCAPE SPECIFICATIONS AND DETAILS
## GOLIAD RETAIL
LOT 3, BLOCK A
DALTON GOLIAD ADDITION
1.350 ACRES
ROCKWALL, ROCKWALL COUNTY, TEXAS
MARCH 11, 2016
CASE #SP2016-005

| NO. | DATE | |
|---|---|---|
| | | APP. |


VASQUEZ ENGINEERING, L.L.C.
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph: 972-278-2948
TX Registration # F-12266

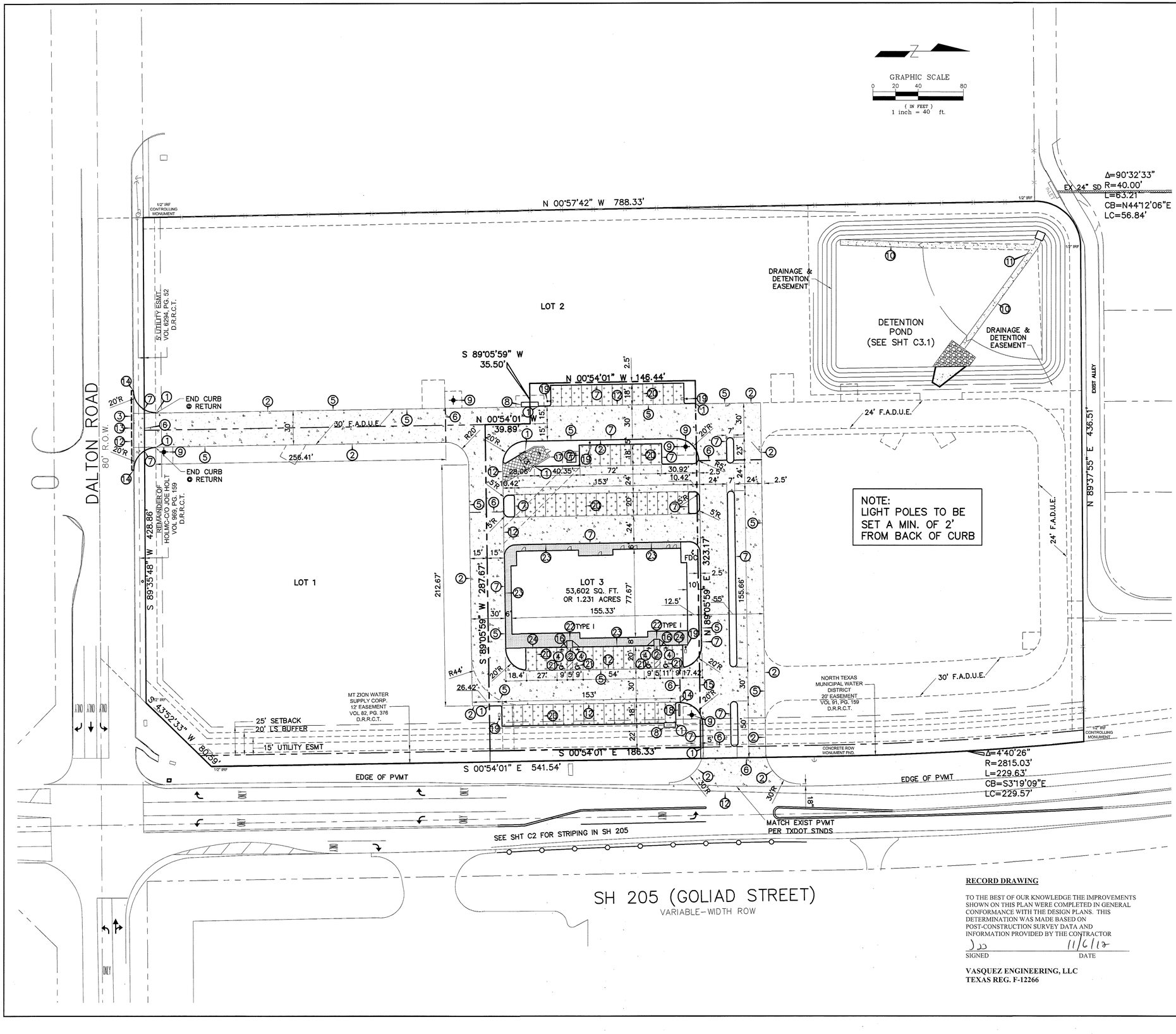

REGISTERED LANDSCAPE ARCHITECT
AMANDA W. RICHARDSON
2754
STATE OF TEXAS
3.7.16

DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

LOT 3, BLOCK A
DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: 1" = 40'
Designed by: JJV
Drawn by: JJV
Checked by: JJV
608-01\dwg\RETAILBLDGSP1.dwg
Date: 03/11/2016

SHEET
**LP2**




LEGEND

- PROP. 6" INTEGRAL CURB
- EXISTING CURB/PAVEMENT
- PROPERTY LINE
- PROP 4" CONC SIDEWALK
- PROP 5" CONC PAVEMENT (REF DTL SHT C9)
- PROP 6" CONC PVMT (REF DTL SHT C9)
- PROP 7" CONC PVMT (REF DTL SHT C9)
- F.A.D.U.E. — FIRE LANE, PUBLIC ACCESS, DRAINAGE, & UTILITY ESMT

BENCHMARK:

MONUMENT 179.7' WEST OF WEST EDGE OF SH 205 PAVEMENT AND 6.8' NORTH OF BACK OF CURB DALTON ROAD.
ELEVATION = 541.57'

NOTES:

1. EXISTING TOPOGRAPHY BASED ON SURVEY PREPARED BY PEISER & MANKIN SURVEYING, LLC DATED 1/14/2016.
2. SEE SHEET C2 FOR TURN LANE DESIGN IN SH 205
3. SEE SHEET C3.1 AND 3.2 FOR GRADING PLANS.
4. SEE SHEET C9 FOR PAVING DETAILS.
5. ALL DIMENSIONS ARE TO FACE OF CURB, OR AS OTHERWISE NOTED.
6. ALL CURB RADII NOT LISTED ARE 2' FACE OF CURB.

PAVING NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING WATER AND SANITARY SEWER APPURTENANCES PER CITY STANDARDS.
2. CONTRACTOR SHALL REMOVE EXCESS SOILS AND DEBRIS FROM SITE AND DISPOSE OF IN A LEGAL MANNER OFF SITE.
3. SOIL SHALL BE IN A MOIST AND COMPACTED CONDITIONS PRIOR TO PLACEMENT OF THE CONCRETE.
4. CONCRETE SHALL BE AS SHOWN ON THE PLANS. CONCRETE TO THE DEPTHS SHOWN ON THE PLANS.
5. REINFORCING STEEL SHALL BE SUPPORTED BY PLASTIC CHAIRS IN A MANNER TO PROVIDE A UNIFORM MESH CLEARANCE PER THE PROJECT DETAILS IN THE PLANS OR REQUIRED BY THE CITY. CONTRACTOR SHALL OBTAIN AND PAY FOR ANY PERMITS REQUIRED.
6. SURFACE FINISHING SHALL BE SKID RESISTANT AND A LIQUID CURING COMPOUND SHALL BE UNIFORMLY APPLIED ON THE CONCRETE IMMEDIATELY AFTER THE FINISHING OPERATION.
7. EXPANSION JOINTS OR ISOLATION JOINTS SHALL BE USED TO ISOLATE FIXED OBJECTS ABUTTING OR WITHIN THE PAVED AREAS. THEY SHOULD CONTAIN PREMOLDED JOINT FILLER FOR THE FULL DEPTH OF THE PAVEMENT AND BE SEALED PRIOR TO ALLOWING TRAFFIC.
8. EXPANSION JOINTS SHALL BE AS NOTED ON THE PLAN. SAWED JOINTS SHALL BE PLACED AT 15 FT MAX INTERVALS, AND CONSTRUCTION JOINTS SHALL BE LOCATED AT SAWED JOINTS OR EXPANSION JOINTS.
9. CONSTRUCT LONGITUDINAL BUTT JOINT WHERE EXISTING PAVEMENT
10. MEETS PROPOSED PAVEMENT REFERENCE DETAIL IN PLANS.
11. CONTRACTOR TO COORDINATE PAVEMENT COLORS/TREATMENTS WITH OWNER FOR ALL ENHANCED PAVEMENT.

| | |
|---|---|
| 1 | END CURB |
| 2 | NO CURB |
| 3 | CONSTRUCT LONG BUTT JOINT (PER CITY STNDS) |
| 4 | ACCESSIBLE SIGN (REF DTL SHT C9) |
| 5 | FIRE LANE STRIPING (PER CITY STNDS) |
| 6 | EXPANSION JOINT (REF DTL SHT C9) |
| 7 | 6" INTEGRAL CURB (REF DTL SHT C9) |
| 8 | CURB INLET (SEE SHT C5.1) |
| 9 | FIRE HYDRANT (REF CITY STNDS) |
| 10 | CONSTRUCT CONC FLUME (REF DTL SHT C9) |
| 11 | OUTLET STRUCTURE (REF DTL SHT C4.3) |
| 12 | MATCH EXIST PAVEMENT |
| 13 | SAWCUT & REMOVE EXIST CONC CURB (24" TYP) |
| 14 | MATCH EXIST CURB |
| 15 | NOT USED |
| 16 | STRIPED AISLE |
| 17 | DUMPSTER ENCLOSURE (REF ARCH PLANS) |
| 18 | MONUMENT SIGN (REF SIGN PLANS) |
| 19 | SITE LIGHT (REF MEP)(2' FROM BACK OF CURB MIN) |
| 20 | 4" WIDE WHITE STRIPE |
| 21 | INTERNATIONAL ACCESSIBLE SYMBOL (TYP) |
| 22 | BARRIER FREE RAMP TYPE I (REF DTL SHT C9) |
| 23 | SIDEWALK/CURB DTL (SEE SHT C9) |

RECORD DRAWING

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

SIGNED DATE 11/6/18

VASQUEZ ENGINEERING, LLC
TEXAS REG. F-12266

| NO. | | DATE | APP. |
|---|---|---|---|
| 1 | RECORD DRAWINGS | 11/06/17 | |

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUAN J. VASQUEZ, P.E. 95852, ON 04/28/2016

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STATE OF TEXAS — JUAN J. VASQUEZ — 95852 — LICENSED PROFESSIONAL ENGINEER

DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

DIMENSIONAL CONTROL & PAVING PLAN

DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: 1" = 40'
Designed by: JJV
Drawn by: JJV
Checked by: JJV
813-01dwg\C1 DIM CONTROL & PAVING PLAN.dwg
Date: 06/21/2016

SHEET
C1

BENCHMARK:

MONUMENT 179.7' WEST OF WEST EDGE OF SH 205 PAVEMENT AND 6.8' NORTH OF BACK OF CURB DALTON ROAD.
ELEVATION = 541.57'

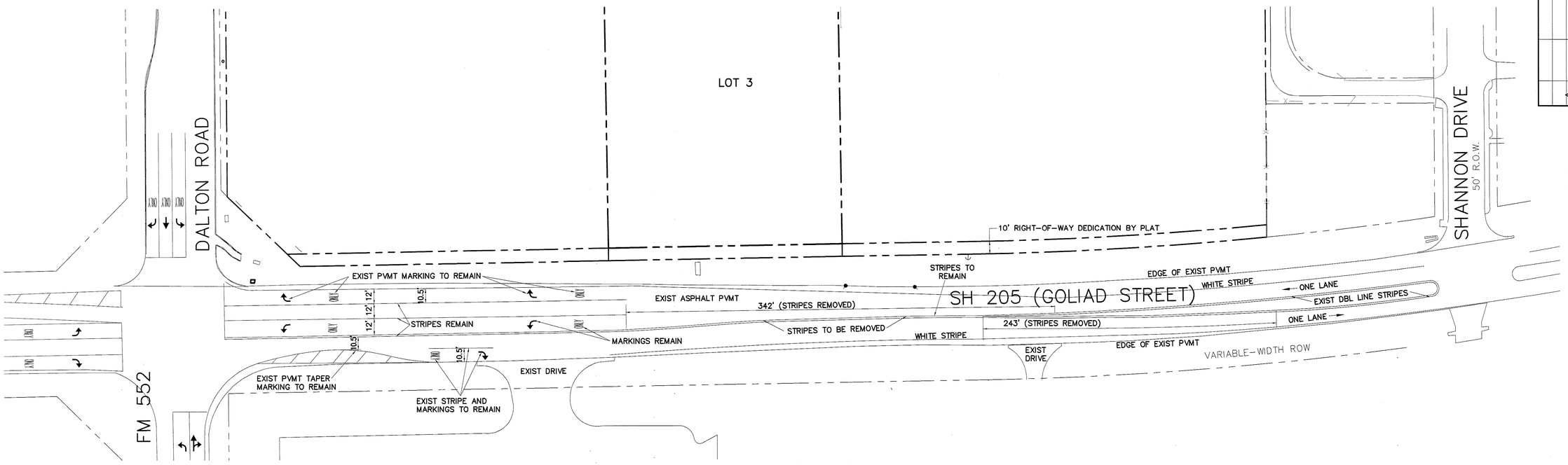
NOTES:

1. EXISTING TOPOGRAPHY BASED ON SURVEY PREPARED BY PEISER & MANKIN SURVEYING, LLC., DATED 01/14/2016.
2. ALL WORK WITHIN TXDOT R.O.W. SHALL BE PER TXDOT STANDARDS AND SPECIFICATIONS.
3. TRAFFIC CONTROL TO BE PER TXDOT STANDARDS AND SPECIFICATIONS.
4. CONTRACTOR TO COORDINATE CONSTRUCTION W/ ADJOINING BUSINESS.
5. CONTRACTOR TO CONTACT TXDOT INSPECTOR 48 HOURS PRIOR TO CONSTRUCTION.
6. EXISTING STRIPING TO BE REMOVED BY WATER OR SAND BLASTING. NO GRINDING OF THE EXISTING STRIPING WILL BE ALLOWED.

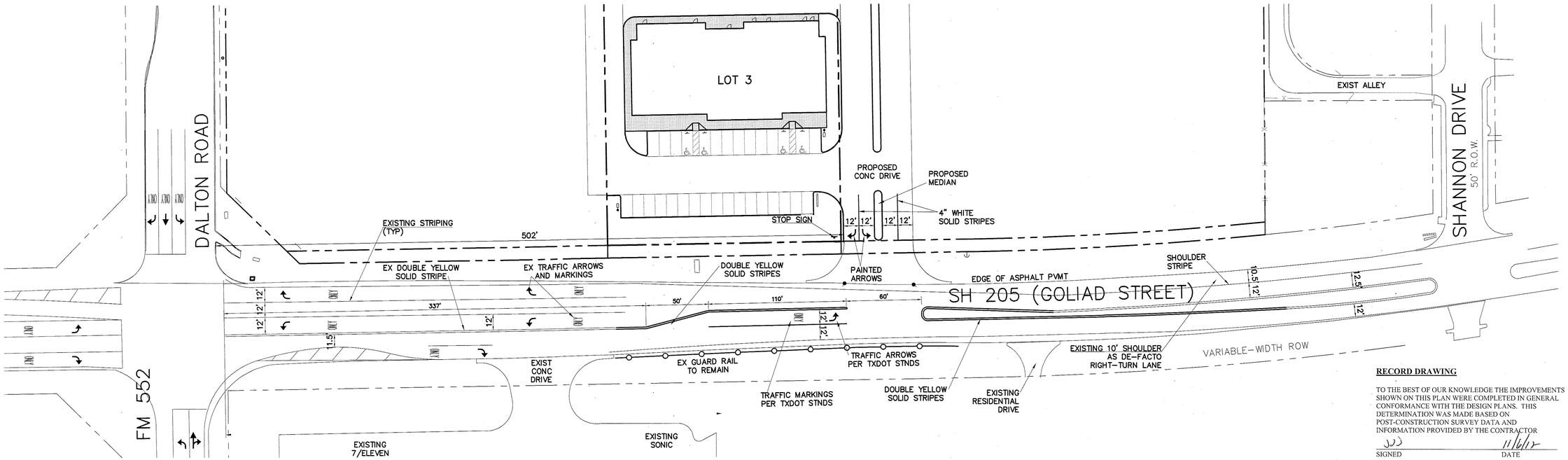
LEGEND

PROP. 6" INTEGRAL CURB
EXISTING CURB/PAVEMENT
PROPERTY LINE

GRAPHIC SCALE
0 20 40 80
( IN FEET )
1 inch = 40 ft.




EXISTING CONDITIONS




PROPOSED CONDITIONS

**RECORD DRAWING**

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

JJV — SIGNED
11/6/17 — DATE

VASQUEZ ENGINEERING, LLC
TEXAS REG. F-12266

| NO. | DATE | APP. |
|---|---|---|
| 1 | 11/06/17 | RECORD DRAWINGS |

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUAN J. VASQUEZ, P.E. 85852, ON 05/25/2016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STATE OF TEXAS — JUAN J. VASQUEZ — 85852 — LICENSED PROFESSIONAL ENGINEER

DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
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Dallas, TX 75254

# TURN LANE PLAN

DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: 1" = 40'
Designed by: JJV
Drawn by: JJV
Checked by: JJV
813-01dwg\C2 TURN LANE PLAN.dwg
Date: 05/21/2016

SHEET
C2

GRADING NOTES:

1. REFERENCE GENERAL NOTES ON THE PAVING PLAN FOR ADDITIONAL SPECIFICATIONS.
2. ALL CONSTRUCTION SHALL BE PER CITY STANDARDS FOR CONSTRUCTION.
3. AREAS TO RECEIVE PAVING SHALL BE STRIPPED TO A MINIMUM DEPTH OF SIX INCHES TO REMOVE ALL VEGETATION, TOP SOIL, AND DEBRIS IF PRESENT. EXCESS MATERIALS AND DEBRIS SHALL BE DISPOSED OF OFF SITE IN A LEGAL MANNER. TOP SOIL SHALL BE STOCKPILED FOR USE IN FINAL GRADING.
4. CONTRACTOR SHALL ESTABLISH INTERIOR SWALES TO ROUTE RAINFALL THROUGH THE SITE. WATER MUST NOT BE ALLOWED TO POND IN TREE GRUB HOLES. THE SITE SHOULD BE GRADED SUCH THAT POSITIVE SURFACE DRAINAGE AWAY FROM THE WORK AREAS IS ESTABLISHED AND MAINTAINED AT ALL TIMES. WATER MUST NOT BE ALLOWED TO POND ON THE SURFACE DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL PROVIDE FOR SEDIMENT AND EROSION CONTROL AS REQUIRED BY THE CITY THROUGHOUT THE CONSTRUCTION OF THE PROJECT. THE FILTER FABRIC NETS WILL BE PLACED AT THE TOE OF SLOPE OR IN THE FLOW LINE OF DITCHES AND ALONG PERIMETER OF THE PROJECT. EROSION CONTROL SHALL BE USED UNTIL LANDSCAPING IS COMPLETE AND GROUND OVER IS ESTABLISHED.
6. ALL AREAS THAT WILL RECEIVE FILL SHALL BE PROOF-ROLLED TO IDENTIFY WEAK ZONES. ALL WEAK ZONES MUST BE REMOVED AND REPLACED PRIOR TO FILL PLACEMENT.
7. FILL MATERIALS SHOULD BE PLACED IN LOOSE LIFTS, MAX. 8 INCHES THICK, AND EACH LIFT COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. EACH LIFT SHOULD BE INSPECTED AND APPROVED BY A QUALIFIED ENGINEERING TECHNICIAN, SUPERVISED BY A GEOTECHNICAL ENGINEER BEFORE ANOTHER LIFT IS ADDED. ALL FILL TO BE COMPACTED USING A SLEEP'S FOOT ROLLER.
8. TESTING IS REQUIRED, AND SHALL BE PERFORMED BY A LABORATORY APPROVED BY THE OWNER AND PAID FOR BY THE OWNER.
9. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT ALL PUBLIC UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. ALL MANHOLES, CLEANOUTS, VALVE BOXES, FIRE HYDRANTS, ETC., MUST BE ADJUSTED TO PROPER LINE AND GRADE BY THE CONTRACTOR PRIOR TO AND AFTER THE PLACING OF FINAL GRADING OR PERMANENT PAVING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING THE CONSTRUCTION OF PAVING FOR THIS PROJECT.
10. MATCH EXISTING GRADES AT COMMON PROPERTY LINES.
11. DETENTION POND TO BE FULLY INSTALLED AND FUNCTIONING PER PLAN ALONG WITH SIDES AND BOTTOM TO HAVE EITHER SOD OR ANCHORED SEEDED CURLEX INSTALLED PRIOR TO ANY PAVING BEING INSTALLED INCLUDING SLAB.

BENCHMARK:

MONUMENT 179.7' WEST OF WEST EDGE OF SH 205 PAVEMENT AND 6.8' NORTH OF BACK OF CURB DALTON ROAD.
ELEVATION = 541.57'

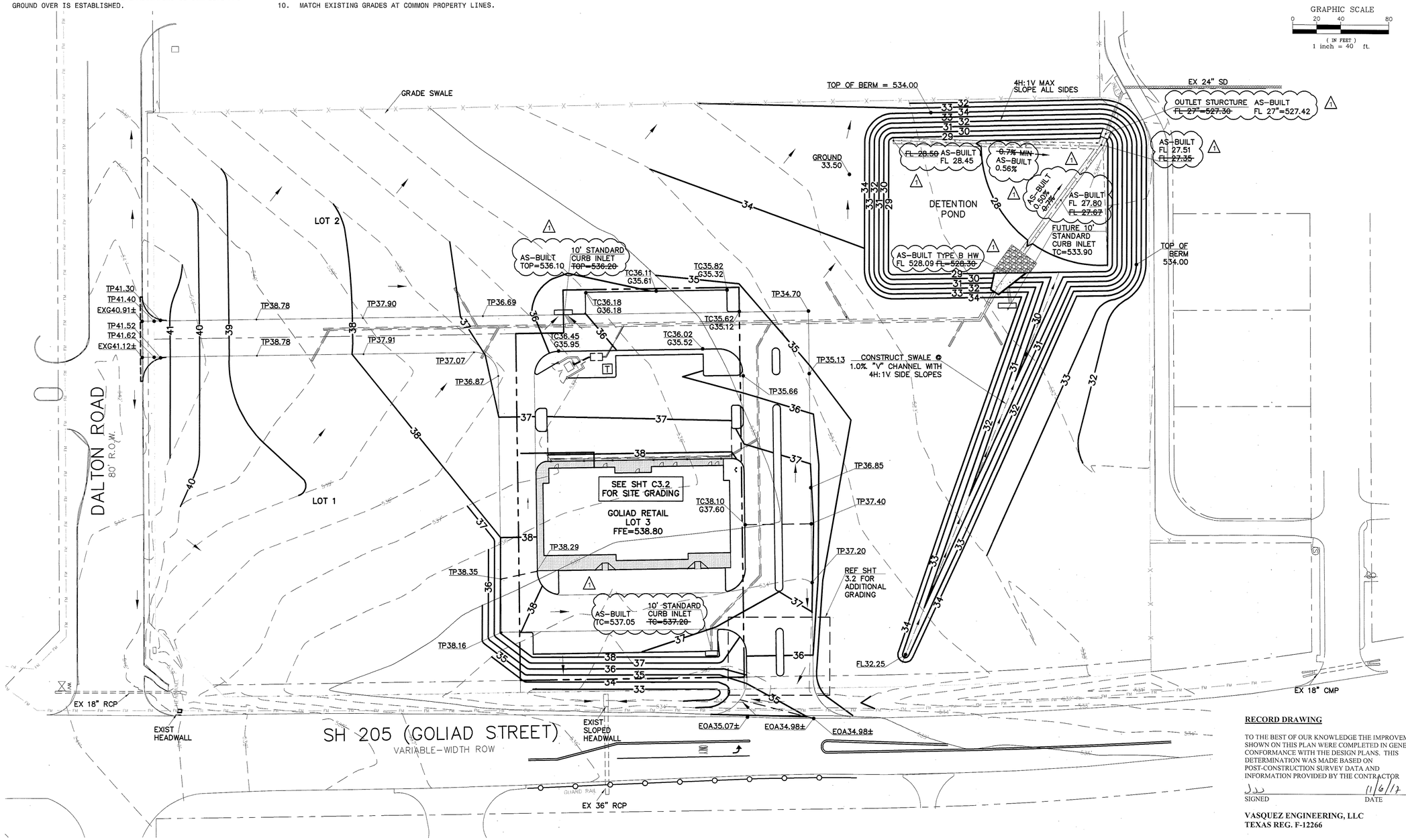
NOTES:

1. EXISTING TOPOGRAPHY BASED ON SURVEY PREPARED BY PEISER MANKIN SURVEYING, LLC DATED 1/14/2016.
2. SEE SHEET C1 FOR SITE LAYOUT.
3. SEE SHEET C3.2 FOR ADDITIONAL LOT 3 GRADING.
4. SEE SHEET C5.1 FOR STORM SEWER PLAN.
5. SEE SHEET C8 FOR EROSION CONTROL.

LEGEND

| EXISTING | | PROPOSED |
|---|---|---|
| | PROPERTY LINE | |
| | PAVEMENT | |
| 539 | CONTOUR | 39 |
| | TOP OF PVMT ELEV | TP38.40 |
| | TOP OF CURB ELEV<br>GUTTER ELEV | TC38.25<br>G37.75 |
| | RIDGE | |
| | SWALE | |
| | FLOW ARROW | |
| | STORM SEWER | |

GRAPHIC SCALE
0 20 40 80
( IN FEET )
1 inch = 40 ft.




RECORD DRAWING

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

SIGNED 11/6/17 DATE

VASQUEZ ENGINEERING, LLC
TEXAS REG. F-12266

| NO. | DATE | RECORD DRAWINGS | APP. |
|---|---|---|---|
| 1 | 11/06/17 | | |


VASQUEZ ENGINEERING, L.L.C.
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph: 972-278-2948
TX Registration # F-12266


THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUAN J. VASQUEZ, P.E. 85852, ON 05/29/2016

STATE OF TEXAS JUAN J. VASQUEZ 85852 LICENSED PROFESSIONAL ENGINEER

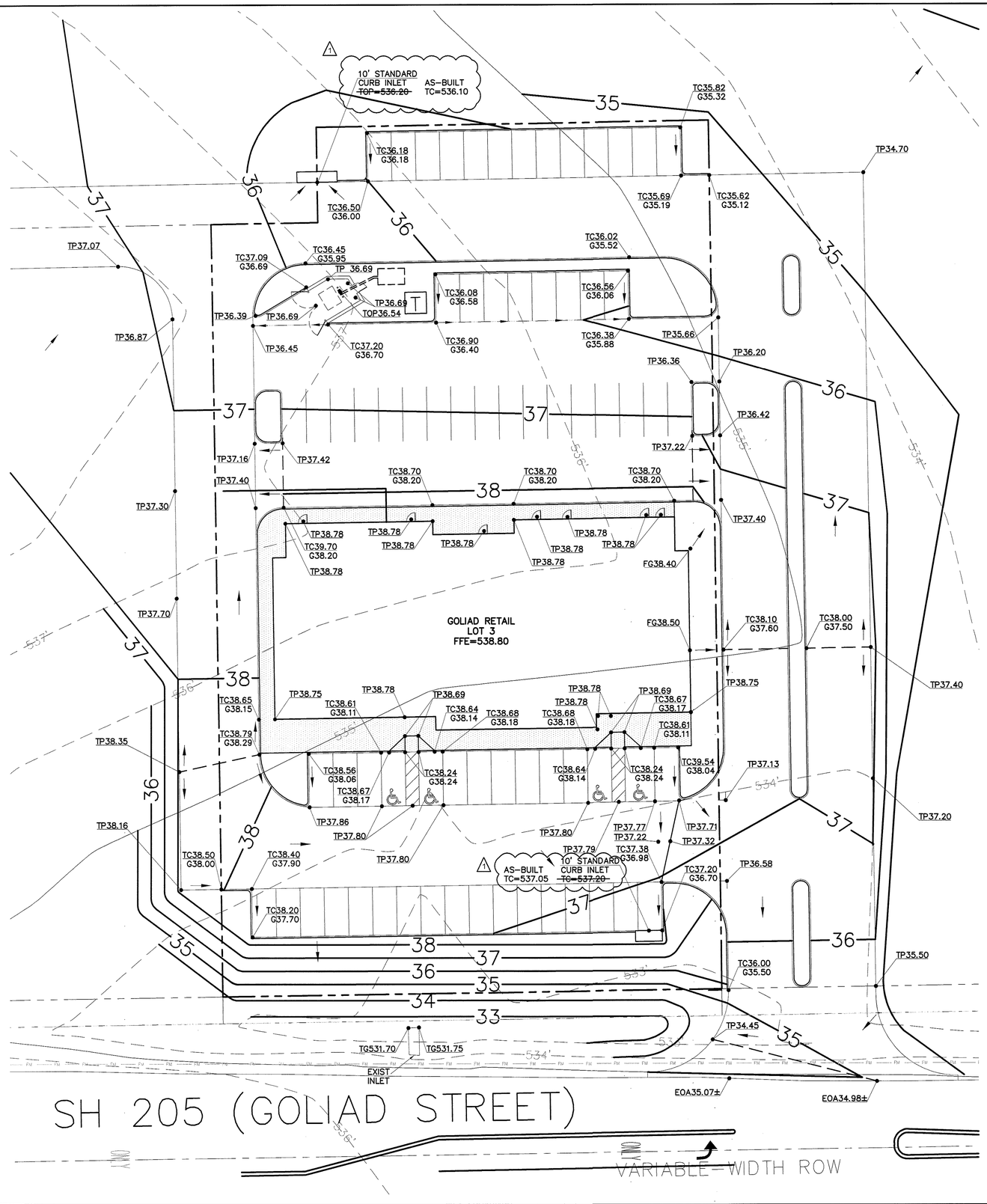
DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

SITE GRADING PLAN

DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: 1" = 40'
Designed by: JJV
Drawn by: JJV
Checked by: JJV
613-5\dwg\C3 GRADING PLAN.dwg
Date: 06/21/2016

SHEET
C3.1




GRAPHIC SCALE

0 10 20 40

( IN FEET )
1 inch = 20 ft.

LEGEND

| EXISTING | | PROPOSED |
|---|---|---|
| | PROPERTY LINE | |
| | PAVEMENT | |
| 539 | CONTOUR | 39 |
| | TOP OF PVMT ELEV | TP38.40 |
| | TOP OF CURB ELEV GUTTER ELEV | TC38.25 G37.75 |
| | RIDGE | |
| | SWALE | |
| | FLOW ARROW | |
| | STORM SEWER | |

BENCHMARK:

MONUMENT 179.7' WEST OF WEST EDGE OF SH 205 PAVEMENT AND 6.8' NORTH OF BACK OF CURB DALTON ROAD.
ELEVATION = 541.57'

NOTES:

1. EXISTING TOPOGRAPHY BASED ON SURVEY PREPARED BY PEISER MANKIN SURVEYING, LLC DATED 1/14/2016.
2. SEE SHEET C1 FOR SITE LAYOUT.
3. SEE SHEET C3.1 FOR SITE GRADING.
4. SEE SHEET C5.1 FOR STORM SEWER PLAN.
5. SEE SHEET C8 FOR EROSION CONTROL.

GRADING NOTES:

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10. MATCH EXISTING GRADES AT COMMON PROPERTY LINES.

**RECORD DRAWING**

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

SIGNED DATE 11/6/17

**VASQUEZ ENGINEERING, LLC**
**TEXAS REG. F-12266**

| NO. | DATE | APP. |
|---|---|---|
| 1 | 11/06/17 | RECORD DRAWINGS |

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUAN J. VASQUEZ, P.E. 85852, ON 04/29/2016

STATE OF TEXAS
JUAN J. VASQUEZ
85852
LICENSED
PROFESSIONAL ENGINEER


VASQUEZ ENGINEERING, L.L.C.
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph. 972-278-2948
TX Registration # F-12266


DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

LOT 3 GRADING PLAN

DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: 1" = 20'
Designed by: JJV
Drawn by: JJV
Checked by: JJV
613-015\dwg\C3 GRADING PLAN.dwg
Date: 05/21/2016

SHEET
C3.2

| EXISTING STORM WATER RUNOFF DATA | | | | | | |
|---|---|---|---|---|---|---|
| DRAINAGE AREA | AREA (Acres) | C | Tc (Min) | I100 (in/hr) | Q100 (cfs) | COMMENT |
| 1 | 2.59 | 0.35 | 20 | 8.3 | 7.5 | [2]To Nebbie Williams Elementary School |
| 2 | 2.91 | 0.35 | 20 | 8.3 | 8.5 | To Exist 36" Culvert |
| 3 | 3.68 | 0.35 | 20 | 8.3 | 10.7 | [1]To Exist 15' Std Inlet |
| OS1 | 1.44 | 0.75 | 10 | 9.8 | 10.6 | To Exist 36" Culvert |
| OS2 | 0.80 | 0.75 | 10 | 9.8 | 5.9 | To Exist Culvert Shannon Road |
| OS3 | 0.24 | 0.75 | 10 | 9.8 | 1.8 | [1]To Exist 15' Std Inlet |

Note: [1]Reference "Harlan Park Phase Two" Plans, Shts 7 and 8, Dated 11/15/94 by Harold L. Evans Consulting Engineer
[2]Reference "Nebbie Williams Elementary School" Plans, Sht C2.5, Dated 8/17/95 by Glenn Engineering

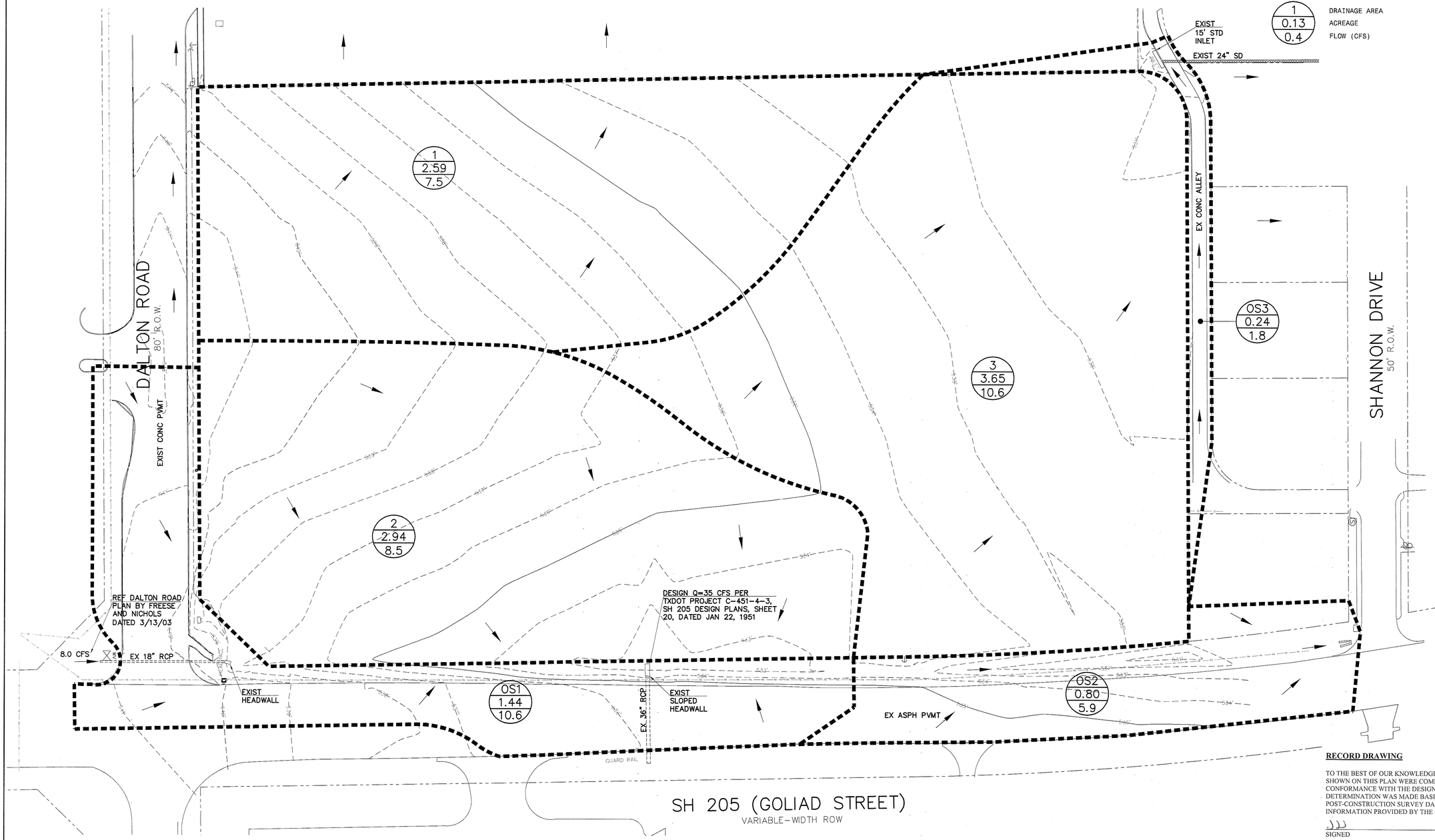
NOTES:

1. TOPOGRAPHIC SURVEY PREPARED BY PEISER & MANKIN SURVEYING, LLC. DATED 1/14/2016.
2. SEE SHEET C1 FOR SITE LAYOUT
3. SEE SHEET C4.4 FOR DETENTION CALCULATIONS.
4. SEE SHEET C5.1 FOR STORM SEWER PLAN.
5. SEE SHEET C8 FOR EROSION CONTROL.

GRAPHIC SCALE
0 20 40 80
( IN FEET )
1 inch = 40 ft.

LEGEND

- PROPERTY LINE
- PAVEMENT CURB/GUTTER
- 537 EXIST. CONTOUR
- 39 PROP. CONTOUR
- FLOW ARROW
- DRAINAGE DIVIDE(PROP)
- 1 / 0.13 / 0.4 DRAINAGE AREA / ACREAGE / FLOW (CFS)




RECORD DRAWING

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

SIGNED DATE 11/6/12

VASQUEZ ENGINEERING, LLC
TEXAS REG. F-12266

| NO. | DATE | | APP. |
|---|---|---|---|
| 1 | 11/06/17 | RECORD DRAWINGS | |


VASQUEZ ENGINEERING, L.L.C.
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Ph: 972-278-2948
TX Registration # F-12266


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STATE OF TEXAS
JUAN J. VASQUEZ
85852
LICENSED
PROFESSIONAL ENGINEER

DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

EXISTING DRAINAGE AREA MAP

DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: 1" = 40'
Designed by: JJV
Drawn by: JJV
Checked by: JJV
613-01\dwg\C4 DAM.dwg
Date: 06/21/2016

SHEET
C4.1

| PROPOSED STORM WATER RUNOFF DATA | | | | | | |
|---|---|---|---|---|---|---|
| DRAINAGE AREA | AREA (Acres) | C | Tc (Min) | I100 (in/hr) | Q100 (cfs) | COMMENT |
| 1 | 0.84 | 0.90 | 10 | 9.80 | 7.41 | Detention Pond |
| 2 | 1.27 | 0.90 | 10 | 9.80 | 11.20 | 10' Std Curb Inlet |
| 3 | 0.38 | 0.90 | 10 | 9.80 | 3.35 | To Detention Pond |
| 4 | 0.23 | 0.90 | 10 | 9.80 | 2.03 | Retail Building |
| 5 | 0.28 | 0.90 | 10 | 9.80 | 2.47 | Future Building |
| 6 | 0.29 | 0.90 | 10 | 9.80 | 2.56 | 10' Std Curb Inlet |
| 7 | 1.05 | 0.90 | 10 | 9.80 | 9.26 | 10' Std Curb Inlet |
| 8 | 0.43 | 0.90 | 10 | 9.80 | 3.79 | 10' Std Curb Inlet |
| 9 | 0.28 | 0.90 | 10 | 9.80 | 2.47 | Future Building |
| 10 | 0.44 | 0.90 | 10 | 9.80 | 3.88 | 18" RCP Lateral |
| 11 | Not used | | | | | |
| 12 | 0.28 | 0.90 | 10 | 9.80 | 2.47 | [1]West to Nebbie Williams School |
| 13 | 0.08 | 0.90 | 10 | 9.80 | 0.71 | Dalton Road channel West |
| 14 | 0.47 | 0.90 | 10 | 9.80 | 4.15 | [1]10' Std Curb Inlet |
| 15 | 0.35 | 0.90 | 10 | 9.80 | 3.09 | SH 205 North channel to Ex Inlet |
| 16 | Not used | | | | | |
| 17 | 0.19 | 0.90 | 10 | 9.80 | 1.68 | To Ex 15' Std Curb Inlet Via Alley |
| 18 | 0.04 | 0.90 | 10 | 9.80 | 0.35 | [1]Future Building |
| 19 | 0.23 | 0.90 | 10 | 9.80 | 2.03 | [1]Future Building |
| 20 | 0.25 | 0.90 | 10 | 9.80 | 2.21 | [1]Future Building |
| 21 | 0.16 | 0.90 | 10 | 9.80 | 1.41 | 10' Std Curb Inlet |
| 22 | 0.85 | 0.90 | 10 | 9.80 | 7.50 | Future Building |
| 23 | 0.78 | 0.90 | 10 | 9.80 | 6.88 | Future Building |
| OS1 | 1.44 | 0.75 | 10 | 9.80 | 10.58 | To Exist 36" Culvert |
| OS2 | 0.80 | 0.75 | 10 | 9.80 | 5.9 | To Exist Culvert Shannon Road |
| OS3 | 0.24 | 0.75 | 10 | 9.80 | 1.76 | [2]To Exist 15' Std Inlet |

[1]Reference "Aldi Food Store" Plans, Sht C-7, Dated 5/2/2016 by Burger Engineering
[2]Reference "Nebbie Williams Elementary School" Plans, Sht C2.5, Dated 8/17/95 by Glenn Engineering

AREA 13 REMOVED FROM AREA A2 AND ADDED TO AREA A3 IN DESIGN BY FREESE AND NICHOLS PER DALTON ROAD RECONSTRUCTION PLANS, "DRAINAGE AREA MAP", SHEET 14, DATED 4/5/2002. DESIGN Q100 TO THE 15' SAG INLET IS 25.20 CFS AND INCREASES TO 25.91 CFS. THE INLET CAN ACCEPT 30 CFS AND IS ADEQUATE.

DRAINAGE NOTES:

1. PROPOSED AREA 12 FLOWS TO NEBBIE WILLIAMS SCHOOL TO THE WEST. THE DESIGN PLANS FOR NEBBIE WILLIAMS SHOW A DESIGN FOR RUNOFF OF 18.50 CFS FROM THIS TRACT. THE PROPOSED RUNOFF IS 2.5 CFS. REFERENCE SHEET C2.5 PREPARED BY SHW GROUP, INC DATED 08/17/1995.
2. PROPOSED AREAS 20 AND 15 FLOW TO AN EXISTING 36" RCP. THE EXISTING FLOW TO THIS CULVERT IS 27.2 CFS AND THE PROPOSED FLOW IS 20.9 CFS. THE DESIGN FLOW FOR THE PIPE IS 35 CFS PER THE TXDOT DESIGN PLANS.

NOTES:

1. TOPOGRAPHIC SURVEY PREPARED BY PEISER & MANKIN SURVEYING, LLC. DATED 1/14/2016.
2. SEE SHEET C1 FOR SITE LAYOUT
3. SEE SHEET C4.4 FOR DETENTION CALCULATIONS.
4. SEE SHEET C5.1 FOR STORM SEWER PLAN.
5. SEE SHEET C8 FOR EROSION CONTROL.

NOTE:

DISCHARGE FOR 100 YR STORM = 19.76 CFS PER HARLAN PARK PHASE TWO SHEETS 7 AND 8 OR 9, DATED 11/16/94. REFERENCE SHEETS C4.4 FOR FLOW CALCULATIONS.

GRAPHIC SCALE
0 20 40 80
( IN FEET )
1 inch = 40 ft.

LEGEND
- PROPERTY LINE
- PAVEMENT CURB/GUTTER
- 537 EXIST. CONTOUR
- 39 PROP. CONTOUR
- FLOW ARROW
- DRAINAGE DIVIDE(PROP)
- 1 / 0.13 / 0.4 DRAINAGE AREA / ACREAGE / FLOW (CFS)

LOT 1, BLOCK A
ROCKWALL SCHOOL NORTH ADDITION
CAB C, PG. 270
D.R.R.C.T.

EXIST Q100=18.5 CFS
PROP Q100=2.5 CFS

FUTURE INLET

EX 15' STD INLET

EXIST 24" SD

OUTLET STRUCTURE

EX CONC ALLEY

FUTURE 10' INLET

10' INLET

10' INLET

DALTON ROAD
80' R.O.W.

SHANNON DRIVE
50' R.O.W.

(CALLED 0.34 ACRES)
CITY OF ROCKWALL
VOL. 6294, PG. 1
D.R.R.C.T.

REF. DALTON ROAD PLAN BY FREESE AND NICHOLS DATED 5/13/03

SHANNON DRIVE CROSSING SEE SHT C4.3 FOR CULVERT CALCULATION

8.0 CFS EX 18" RCP

EXIST HEADWALL

EXIST Q100=27.2 CFS
PROP Q100=20.9 CFS

EXIST SLOPED HEADWALL

EX 36" RCP

GUARD RAIL

EXIST SLOPED HEADWALL

EX 18" CMP

SH 205 (GOLIAD STREET)
VARIABLE-WIDTH ROW

RECORD DRAWING

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

SIGNED DATE 11/6/17

VASQUEZ ENGINEERING, LLC
TEXAS REG. F-12266

| NO. | DATE | RECORD DRAWINGS | APP. |
|---|---|---|---|
| 1 | 11/06/17 | | |

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STATE OF TEXAS
JUAN J. VASQUEZ
85852
LICENSED PROFESSIONAL ENGINEER

DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

PROPOSED DRAINAGE AREA MAP

DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: 1" = 40'
Designed by: JJV
Drawn by: JJV
Checked by: JJV
613-01\dwg\C4 DAM.dwg
DATE 6/2014/6/2/2016

SHEET
C4.2

## COMPUTATION SHEET
## HYDRAULIC COMPUTATIONS FOR STORM DRAINS

| | | | | Drainage Area | | | | | Rainfall Intensity | | | | | Design Flow | | | Design Conduit | | | | Friction Loss | | Hydraulic Grade Line | | | Velocity | | Minor Loss | | | | | Ground/HGL Elev | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Design Point ID | Upstream Location (Design Point) | Downstream Location | Distance | Drainage Area | Total Drainage Area "A" | Runoff Coefficient "C" | Incremental "CA" | Total "CA" | Design Flood | Inlet Time | Travel Time in Conduit | Time of Concentration | Rainfall Intensity "I" | Design Runoff "Q" | Inlet Bypass "Q" | Pipe Discharge "Q" | No. of Conduits | Span Box Culvert | Pipe Diameter (Culvert Rise) | Slope of Conduit | Pipe Discharge "Q" | Friction Slope (Sf) | Friction Loss | Upstream HGL Elevation | Downstream HGL Elevation | Design Point Elevation | Upstream Velocity ($V_1$) | Downstream Velocity ($V_2$) | Upstream Velocity Head ($V_1^2/2g$) | Downstream Velocity Head ($V_2^2/2g$) | Minor Loss Coefficient K | K ($V_1^2/2g$) | Total Minor Loss | Upstream Ground Elev (Top of Curb) | Elev Difference Ground-HGL | Upstream Pipe Flowline | Downstream Pipe Flowline | Comments |
| | sta | sta | ft | acres | acres | | | | years | min | min | min | in/hr | cfs | cfs | cfs | | in (ft) | in | ft/ft | cfs | ft/ft | ft | ft | ft | ft | ft/sec | ft/sec | ft | ft | | ft | ft | ft | ft | ft | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| **LINE SD-1** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 586.22 | 462.76 | 123.46 | 0.67 | 0.67 | 0.90 | 0.60 | 0.60 | 100 | 10 | 0 | 10 | 9.80 | 5.91 | 0 | 5.91 | 1 | - | 24 | 0.0050 | 5.91 | 0.0000 | 0.00 | 534.96 | 534.96 | 535.01 | 0.00 | 1.88 | 0.00 | 0.05 | 0.50 | 0.00 | 0.05 | 538.19 | 3.18 | 531.23 | 530.61 | 24"x18"x60° WYE |
| | 462.76 | 444.96 | 17.80 | 0.28 | 0.95 | 0.90 | 0.86 | 1.46 | 100 | 10 | 0 | 10 | 9.80 | 8.38 | 0 | 8.38 | 1 | - | 24 | 0.0050 | 8.38 | 0.0014 | 0.02 | 534.87 | 534.85 | 534.96 | 1.88 | 2.67 | 0.05 | 0.11 | 0.50 | 0.03 | 0.08 | 536.86 | 1.90 | 530.61 | 530.52 | 24"x18"x60° WYE |
| | 444.96 | 383.73 | 61.23 | 0.04 | 0.99 | 0.90 | 0.89 | 2.35 | 100 | 10 | 0 | 10 | 9.80 | 8.73 | 0 | 8.73 | 1 | - | 24 | 0.0050 | 8.73 | 0.0015 | 0.09 | 534.78 | 534.69 | 534.85 | 2.67 | 2.78 | 0.11 | 0.12 | 0.50 | 0.06 | 0.06 | 536.65 | 1.80 | 530.52 | 530.22 | 24"x18"X60° WYE |
| | 383.73 | 218.74 | 164.99 | 1.95 | 2.94 | 0.90 | 2.65 | 5.00 | 100 | 10 | 0 | 10 | 9.80 | 25.93 | 0 | 25.93 | 1 | - | 36 | 0.0050 | 25.93 | 0.0015 | 0.25 | 534.54 | 534.29 | 534.69 | 2.78 | 3.67 | 0.12 | 0.21 | 0.50 | 0.06 | 0.15 | 536.42 | 1.73 | 530.22 | 529.39 | 36"x24"x60° WYE |
| | 218.74 | 153.34 | 65.40 | 0.73 | 3.67 | 0.90 | 3.30 | 8.30 | 100 | 10 | 0 | 10 | 9.80 | 32.37 | 0 | 32.37 | 1 | - | 36 | 0.0050 | 32.37 | 0.0024 | 0.15 | 534.07 | 533.92 | 534.29 | 3.67 | 4.58 | 0.21 | 0.33 | 0.50 | 0.10 | 0.22 | 535.00 | 0.71 | 529.39 | 529.07 | 36"x18"x60° WYE |
| | 153.34 | 51.87 | 101.47 | 0.23 | 3.90 | 0.90 | 3.51 | 11.81 | 100 | 10 | 0 | 10 | 9.80 | 34.40 | 0 | 34.40 | 1 | - | 36 | 0.0050 | 34.40 | 0.0027 | 0.27 | 533.71 | 533.44 | 533.92 | 4.58 | 4.87 | 0.33 | 0.37 | 0.50 | 0.16 | 0.20 | 534.70 | 0.78 | 529.07 | 528.56 | 36"x18"x60° WYE |
| | 51.87 | 44.87 | 7.00 | 0.85 | 4.75 | 0.90 | 4.28 | 16.08 | 100 | 10 | 0 | 10 | 9.80 | 41.90 | 0 | 41.90 | 1 | - | 36 | 0.0050 | 41.90 | 0.0039 | 0.03 | 533.08 | 533.06 | 533.44 | 4.87 | 5.93 | 0.37 | 0.55 | 0.50 | 0.18 | 0.36 | 534.27 | 0.83 | 528.56 | 528.52 | 36"x18"x60° WYE |
| | 44.87 | 38.87 | 6.00 | 0.00 | 4.75 | 0.90 | 4.28 | 20.36 | 100 | 10 | 0 | 10 | 9.80 | 41.90 | 0 | 41.90 | 1 | - | 36 | 0.0050 | 41.90 | 0.0039 | 0.02 | 532.78 | 532.76 | 533.06 | 5.93 | 5.93 | 0.55 | 0.55 | 0.50 | 0.27 | 0.27 | 534.22 | 1.16 | 528.52 | 528.49 | 36"x18"x60° WYE |
| | 38.87 | 19.70 | 19.17 | 0.78 | 5.53 | 0.90 | 4.98 | 25.34 | 100 | 10 | 0 | 10 | 9.80 | 48.77 | 0 | 48.77 | 1 | - | 36 | 0.0050 | 48.77 | 0.0054 | 0.10 | 532.35 | 532.24 | 532.76 | 5.93 | 6.90 | 0.55 | 0.74 | 0.60 | 0.33 | 0.41 | 534.17 | 1.41 | 528.49 | 528.40 | 36" 60° BEND |
| | 19.70 | 0.00 | 19.70 | 1.27 | 6.80 | 0.90 | 6.12 | 31.46 | 100 | 10 | 0 | 10 | 9.80 | 59.98 | 0 | 59.98 | 1 | - | 42 | 0.0050 | 59.98 | 0.0036 | 0.07 | 532.01 | 531.94 | 532.24 | 6.90 | 6.23 | 0.74 | 0.60 | 0.50 | 0.37 | 0.23 | 533.00 | 0.76 | 528.40 | 528.30 | 42"x24"x60° WYE |
| **LINE SD-2** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 291.92 | - | 0.45 | 0.45 | 0.90 | 0.41 | 0.41 | 100 | 10 | 0 | 10 | 9.80 | 3.97 | 0 | 3.97 | 1 | - | 18 | - | 3.97 | 0.0014 | - | 535.28 | 535.21 | 535.21 | - | 2.25 | - | 0.08 | 1.25 | - | 0.10 | 537.20 | 1.92 | 531.60 | 531.60 | INLET LOSS |
| | 291.92 | 271.79 | 20.13 | 0.00 | 0.45 | 0.90 | 0.41 | 0.81 | 100 | 10 | 0 | 10 | 9.80 | 3.97 | 0 | 3.97 | 1 | - | 18 | 0.0050 | 3.97 | 0.0014 | 0.03 | 535.21 | 535.18 | 535.21 | 2.25 | 2.25 | 0.08 | 0.08 | 1.00 | 0.08 | 0.00 | 537.20 | 1.99 | 531.60 | 531.50 | END PIPE |
| | 271.79 | 213.22 | 58.57 | 0.00 | 0.45 | 0.90 | 0.41 | 1.22 | 100 | 10 | 0 | 10 | 9.80 | 3.97 | 0 | 3.97 | 1 | - | 18 | 0.0050 | 3.97 | 0.0014 | 0.08 | 535.18 | 535.10 | 535.18 | 2.25 | 2.25 | 0.08 | 0.08 | 0.50 | 0.04 | 0.04 | 537.00 | 1.82 | 531.50 | 531.21 | 18" 45° BEND |
| | 213.22 | 106.95 | 106.27 | 0.00 | 0.45 | 0.90 | 0.41 | 1.62 | 100 | 10 | 0 | 10 | 9.80 | 3.97 | 0 | 3.97 | 1 | - | 18 | 0.0050 | 3.97 | 0.0014 | 0.15 | 535.06 | 534.91 | 535.10 | 2.25 | 2.25 | 0.08 | 0.08 | 0.50 | 0.04 | 0.04 | 537.36 | 2.26 | 531.21 | 530.67 | 18" 45° BEND |
| | 106.95 | 99.44 | 7.51 | 0.00 | 0.45 | 0.90 | 0.41 | 2.03 | 100 | 10 | 0 | 10 | 9.80 | 3.97 | 0 | 3.97 | 1 | - | 18 | 0.0050 | 3.97 | 0.0014 | 0.01 | 534.91 | 534.90 | 534.91 | 2.25 | 2.25 | 0.08 | 0.08 | 0.00 | 1.00 | 0.00 | 536.99 | 2.08 | 530.67 | 530.64 | NO LOSS |
| | 99.44 | 23.09 | 76.35 | 0.28 | 0.73 | 0.90 | 0.66 | 2.68 | 100 | 10 | 0 | 10 | 9.80 | 6.44 | 0 | 6.44 | 1 | - | 18 | 0.0050 | 6.44 | 0.0038 | 0.29 | 534.73 | 534.44 | 534.90 | 2.25 | 3.64 | 0.08 | 0.21 | 0.50 | 0.04 | 0.17 | 536.81 | 1.91 | 530.64 | 530.26 | 18"x18"x60° WYE |
| | 23.09 | 0.00 | 23.09 | 0.00 | 0.73 | 0.90 | 0.66 | 3.34 | 100 | 10 | 0 | 10 | 9.80 | 6.44 | 0 | 6.44 | 1 | - | 18 | 0.0050 | 6.44 | 0.0059 | 0.14 | 534.21 | 534.07 | 534.44 | 3.64 | 4.58 | 0.21 | 0.33 | 0.45 | 0.09 | 0.23 | 535.38 | 0.94 | 530.26 | 530.14 | 18" 30° BEND |
| **LATERALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SD-1A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 532.79 | - | - | 3.57 | - | - | 0.20 | 1.25 | 0.25 | - | 533.90 | 1.11 | - | - | 10' STD CURB INLET |
| SD-1A | 10.00 | 0.00 | 10.00 | 1.27 | 1.27 | 0.90 | 1.14 | 1.14 | 100 | 10 | 0 | 10 | 9.80 | 11.20 | 0 | 11.20 | 1 | - | 24 | 0.0050 | 11.20 | 0.0025 | 0.02 | 532.54 | 532.01 | 532.51 | 3.57 | 6.23 | 0.20 | 0.60 | 0.50 | 0.10 | 0.50 | 533.90 | 1.36 | 529.20 | 529.15 | 36"x24"x60° WYE |
| SD-1B | 35.00 | 0.00 | 35.00 | 0.23 | 0.23 | 0.90 | 0.21 | 0.21 | 100 | 10 | 0 | 10 | 9.80 | 2.03 | 0 | 2.03 | 1 | - | 18 | 0.0051 | 2.03 | 0.0004 | 0.01 | 534.09 | 533.71 | 534.07 | 1.15 | 4.87 | 0.02 | 0.37 | 0.50 | 0.01 | 0.36 | 534.42 | 0.33 | 530.00 | 529.82 | 36"x18"x60° WYE |
| SD-1C | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 535.18 | - | - | 5.48 | - | - | 0.47 | 1.25 | 0.58 | - | 536.20 | 1.02 | - | - | 10' STD CURB INLET |
| SD-1C | 10.00 | 0.00 | 10.00 | 1.95 | 1.95 | 0.90 | 1.76 | 1.76 | 100 | 10 | 0 | 10 | 9.80 | 17.20 | 0 | 17.20 | 1 | - | 24 | 0.0330 | 17.20 | 0.0058 | 0.06 | 534.60 | 534.54 | 534.54 | 5.48 | 3.67 | 0.47 | 0.21 | 0.50 | 0.23 | 0.00 | 536.20 | 1.60 | 531.05 | 530.72 | 36"x24"x60° WYE |
| SD-1D | 30.00 | 0.00 | 30.00 | 0.05 | 0.05 | 0.90 | 0.05 | 0.05 | 100 | 10 | 0 | 10 | 9.80 | 0.44 | 0 | 0.44 | 1 | - | 18 | 0.0050 | 0.44 | 0.0000 | 0.00 | 534.90 | 534.78 | 534.90 | 0.25 | 2.78 | 0.00 | 0.12 | 0.50 | 0.00 | 0.12 | 537.10 | 2.20 | 531.92 | 531.77 | 24"x18"x60° WYE |
| SD-1E | 30.00 | 0.00 | 30.00 | 0.28 | 0.28 | 0.90 | 0.25 | 0.25 | 100 | 10 | 0 | 10 | 9.80 | 2.47 | 0 | 2.47 | 1 | - | 18 | 0.0050 | 2.47 | 0.0006 | 0.02 | 534.99 | 534.87 | 534.97 | 1.40 | 2.67 | 0.03 | 0.11 | 0.50 | 0.02 | 0.10 | 537.01 | 2.02 | 532.01 | 531.86 | 18"x18"X60° WYE |
| SD-1F | 30.00 | 0.00 | 30.00 | 0.67 | 0.67 | 0.90 | 0.60 | 0.60 | 100 | 10 | 0 | 10 | 9.80 | 5.91 | 0 | 5.91 | 1 | - | 18 | 0.0050 | 5.91 | 0.0032 | 0.09 | 535.05 | 534.96 | 534.96 | 3.34 | 1.88 | 0.17 | 0.05 | 0.50 | 0.09 | 0.00 | 538.34 | 3.29 | 532.63 | 532.48 | 18"x18"X60° WYE |
| SD-1H | 25.00 | 0.00 | 25.00 | 0.85 | 0.85 | 0.90 | 0.77 | 0.77 | 100 | 10 | 0 | 10 | 9.80 | 7.50 | 0 | 7.50 | 1 | - | 18 | 0.0052 | 7.50 | 0.0051 | 0.13 | 533.62 | 533.08 | 533.49 | 4.24 | 5.93 | 0.28 | 0.55 | 0.50 | 0.14 | 0.41 | 534.28 | 0.66 | 529.44 | 529.31 | 36"x18"x60° WYE |
| SD-1I | 31.00 | 0.00 | 31.00 | 0.78 | 0.78 | 0.90 | 0.70 | 0.70 | 100 | 10 | 0 | 10 | 9.80 | 6.88 | 0 | 6.88 | 1 | - | 18 | 0.0052 | 6.88 | 0.0043 | 0.13 | 533.10 | 532.35 | 532.97 | 3.89 | 6.90 | 0.24 | 0.74 | 0.50 | 0.12 | 0.62 | 534.01 | 0.91 | 529.40 | 529.24 | 36"x18"x60° WYE |
| SD-2A | 28.00 | 0.00 | 28.00 | 0.28 | 0.28 | 0.90 | 0.25 | 0.25 | 100 | 10 | 0 | 10 | 9.80 | 2.47 | 0 | 2.47 | 1 | - | 18 | 0.0229 | 2.47 | 0.0006 | 0.02 | 534.94 | 534.73 | 534.92 | 1.40 | 3.64 | 0.03 | 0.21 | 0.50 | 0.02 | 0.19 | 538.10 | 3.16 | 531.28 | 530.64 | 18"x18"X60° WYE |

## INLET CALCULATIONS (100-YR)
## HYDRAULIC COMPUTATIONS FOR STORM DRAINS

| | INLET | | | STORM | DRAINAGE AREA CHARACTERISTICS | | | FLOW | | | | | SAG INLET | | INLET LENGTH | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Design Point ID | Storm Line | Station | Type "S"=Sag "G"=On Grade | Design Flood | Runoff Coefficient "C" | Intensity "I" | Area "A" | Street "$Q_S$" | Pipe "$Q_P$" | Carryover Flow to Inlet "$Q_{CO}$" | Total Flow to Inlet "$Q_T$" | Gutter or ROW Capacity | Weir (W) Orifice (O) Flow | Sag Depth | Inlet Bypass Flow/Carryover "$Q_{CO}$" | Flow Intercept by Inlet "$Q_I$" | Inlet Flow Bypass to Design Point | *Inlet Capacity, 'y' not to exceed 0.5 ft. | Comments |
| | | | | years | | in/hr | acres | cfs | cfs | cfs | cfs | cfs | cfs | ft | cfs | cfs | ft | cfs | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| A | SD-1 | 0+19.70 | S | 100 | 0.90 | 9.80 | 1.27 | 11.20 | 11.20 | 0.00 | 11.20 | - | W | 0.50 | 0.00 | 11.20 | 0.00 | 21.50 | 10' INLET, LINE SD-1 STA 0+19.70 |
| B | SD-1 | 3+83.73 | S | 100 | 0.90 | 9.80 | 1.95 | 17.20 | 17.20 | 0.00 | 17.20 | - | W | 0.50 | 0.00 | 17.20 | 0.00 | 21.50 | 10' INLET, LINE SD-1 STA 3+83.73 |
| C | SD-2 | 2+91.92 | S | 100 | 0.90 | 9.80 | 0.45 | 3.97 | 3.97 | 0.00 | 3.97 | - | W | 0.50 | 0.00 | 3.97 | 0.00 | 21.50 | 10' INLET, LINE SD-2 STA 2+91.92 |

*Inlet capacities according to Figure 3.7 for sag from City of Rockwall Standards of Design and Construction

### EXISTING SHANNON ROAD CROSSING DATA
### 18" CMP

**Crossing Discharge Data**

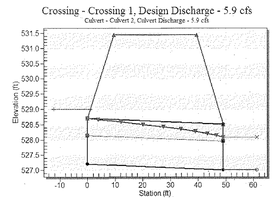
Discharge Selection Method: Specify Minimum, Design, and Maximum Flow
Minimum Flow: 1 cfs
Design Flow: 5.9 cfs
Maximum Flow: 10 cfs

**Tailwater Channel Data - Crossing 1**

Tailwater Channel Option: Triangular Channel
Side Slope (H:V): 3.00 (_:1)
Channel Slope: 0.0040
Channel Manning's n: 0.0350
Channel Invert Elevation: 527.01 ft

**Roadway Data for Crossing: Crossing 1**

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 100.00 ft
Crest Elevation: 531.45 ft
Roadway Surface: Paved
Roadway Top Width: 30.00 ft




**RECORD DRAWING**

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

SIGNED 11/6/17 DATE

**VASQUEZ ENGINEERING, LLC**
**TEXAS REG. F-12266**

| NO. | DATE | APP. |
|---|---|---|
| 1 | 11/06/17 | RECORD DRAWINGS | |


**VASQUEZ ENGINEERING, L.L.C.**
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph: 972-278-2948
TX Registration # F-12266


THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUAN J. VASQUEZ, P.E. 85852, ON 04/28/2016

STATE OF TEXAS
JUAN J. VASQUEZ
85852
LICENSED
PROFESSIONAL ENGINEER

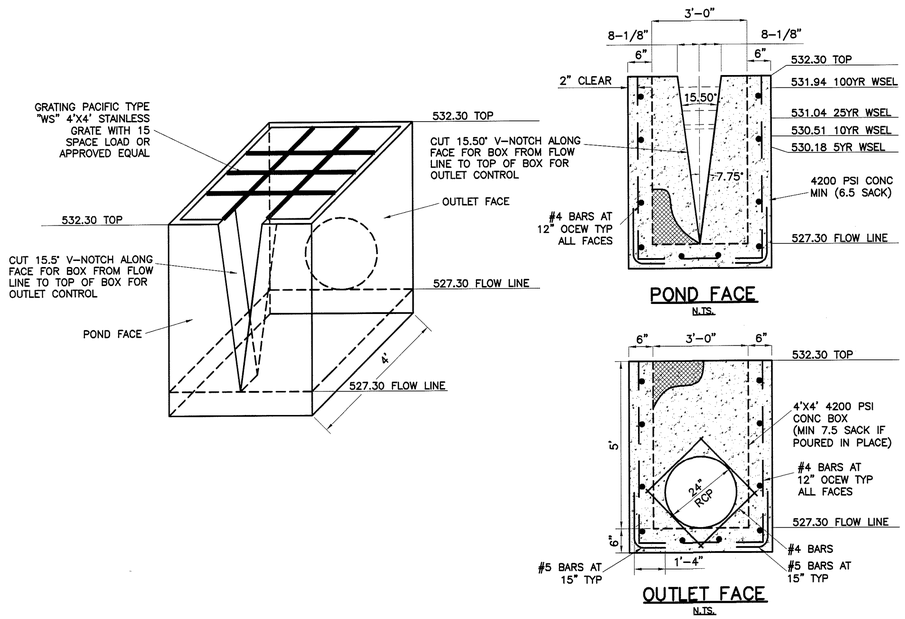
DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

HYDRAULIC CALCULATIONS

DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: N/A
Designed by: JJV
Drawn by: JJV
Checked by: JJV
613-01\dwg\C4.1 HYDRAULIC CALCULATIONS.dwg
Date: 05/21/2016

SHEET
C4.3




## OUTLET STRUCTURE DETIAL

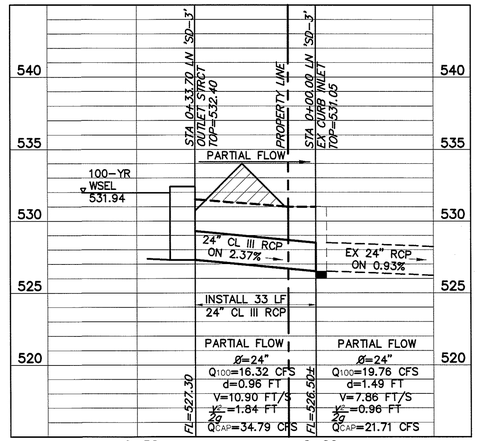
N.TS.

BENCHMARK:

MONUMENT 179.7' WEST OF WEST EDGE OF SH 205 PAVEMENT AND 6.8' NORTH OF BACK OF CURB DALTON ROAD.
ELEVATION = 541.57'

NOTES:

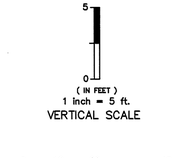
1. EXISTING TOPOGRAPHY BASED ON SURVEY PREPARED BY PEISER & MANKIN SURVEYING, LLC DATED 1/14/2016.
2. SEE SHEETS C3.1 & C3.2 FOR GRADING AND DRAINAGE DESIGN.




## OUTLET PIPE PROFILE

NOTE: EXISTING 24" RCP DESIGN AND DATA PER "HARLAN PARK PHASE TWO", SHEETS 7 AND 8, BY HAROLD L. EVANS, DATED 11/16/1994. REFER TO INFORMATIONAL SHEETS IN THESE PLANS. DESIGN Q100=19.76 PER THOSE PLANS.

NOTE: DESIGN OF EXISTING 24" RCP DOWNSTREAM OF DETENTION OUTLET WAS ORIGINALLY DESIGNED FOR 19.76 CFS TO INCLUDE 2.52 ACRES OF DEVELOPED LAND. THE PROPOSED TOTAL ENTERING THE PIPE FROM THE DETENTION AREA IS 16.32 CFS. FLOW FROM AREA OS3 ENTERS THE EX 15' INLET AND PROVIDES 1.76 FLOW. AREA 17 BYPASSES THE DETENTION POND AND PROVIDES 1.68 CFS OF FLOW. THUS THE PROPOSED FLOW ENTERING THE EX 24" RCP IS 16.32+1.76+1.68 CFS OR 19.76 CFS. THE REFERENCE HARLAN PARK PHASE TWO RECORD DRAWINGS BY HAROLD L. EVANS, P.E., JANUARY 1995. SEE SHEET 7, "DRAINAGE AREA MAP", AND SHEET 8, "STORM SEWER PLAN" ATTACHED TO PLANS FOR INFORMATION PURPOSES.




**5-YR STORM EVENT**
A. TOTAL AREA DRAINING TO POND = 8.22 AC (DA 1-10, 14, 17-19, 21-23)
B. TOTAL BYPASS AROUND POND = 0.19 (DA 17)
C. ALLOWABLE DISCHARGE FROM POND = (8.22)(0.35)(4.90) = 14.10 CFS
D. PROPOSED BYPASS AROUND POND = C/A = 0.90(6.1)(0.19) = 1.04 CFS
E. EXISTING BYPASS AROUND POND = C/A = 0.35(4.9)(0) = 0 CFS
F. DESIGN DISCHARGE FROM POND C-(D-E) = 14.10 - (1.04-0) = 13.06 CFS

| | Area, acres | 8.22 | | | |
|---|---|---|---|---|---|
| | Present Conditions | | | Proposed Conditions | |
| | C | 0.35 | | C | 0.90 |
| | Tc | 20.00 | | Tc | 10.00 |
| | i(5) | 4.90 | | i(5) | 6.10 |
| | Q(5) | 14.10 | | Q(5) | 45.13 |
| | Q(release) | 13.06 | | | |
| | | | | Proposed Intensities | |

| Time | Inflow | Outflow | Storage (cf) | Tc | Intensity |
|---|---|---|---|---|---|
| 10 | 27077 | 7836 | 19241 | 10 | 6.10 |
| 20 | 43500 | 11754 | 31746 | 20 | 4.90 |
| 30 | 54597 | 15672 | 38925 | 30 | 4.10 |
| 40 | 60368 | 19590 | 40778 | 40 | 3.40 |
| 50 | 62143 | 23508 | 38635 | 50 | 2.80 |
| 60 | 59245 | 27426 | 31819 | 60 | 2.60 |
| 70 | 74572 | 31344 | 43228 | 70 | 2.40 |
| 80 | 81674 | 35262 | 46412 | 80 | 2.30 |
| 90 | 83893 | 39180 | 44713 | 90 | 2.10 |
| 100 | 84337 | 43098 | 41239 | 100 | 1.90 |
| 120 | 74572 | 50934 | 23638 | 120 | 1.40 |

**5-YR DETENTION POND VOLUME (CF)**

| CONTOUR | AREA (SF) | VOLUME (CF) | SUMM. VOLUME (CF) | 100-YR VOLUME | 100-YR WSEL |
|---|---|---|---|---|---|
| 533.0 | 31502 | 30146 | 124482 | | |
| 532.0 | 28789 | 27481 | 94337 | | |
| 531.0 | 26173 | 24916 | 66856 | | |
| 530.0 | 23659 | 22453 | 41940 | 46412 | 530.18 |
| 529.0 | 21246 | 15055 | 19487 | | |
| 528.0 | 8864 | 4432 | 4432 | | |
| 527.0 | 0 | | | | |

**10-YR STORM EVENT**
A. TOTAL AREA DRAINING TO POND = 8.22 AC (DA 1-10, 14, 17-19, 21-23)
B. TOTAL BYPASS AROUND POND = 0.19 (DA 17)
C. ALLOWABLE DISCHARGE FROM POND = (8.22)(.35)(5.90) = 16.97 CFS
D. PROPOSED BYPASS AROUND POND = C/A = 0.90(7.1)(0.19) = 1.21 CFS
E. EXISTING BYPASS AROUND POND = C/A = 0.35(5.9)(0) = 0 CFS
F. DESIGN DISCHARGE FROM POND C-(D-E) = 16.97 - (1.21-0) = 15.76 CFS

| | Area, acres | 8.22 | | | |
|---|---|---|---|---|---|
| | Present Conditions | | | Proposed Conditions | |
| | C | 0.35 | | C | 0.90 |
| | Tc | 20.00 | | Tc | 10.00 |
| | i(10) | 5.90 | | i(10) | 7.10 |
| | Q(10) | 16.97 | | Q(10) | 52.53 |
| | Q(release) | 15.76 | | | |
| | | | | Proposed Intensities | |

| Time | Inflow | Outflow | Storage (cf) | Tc | Intensity |
|---|---|---|---|---|---|
| 10 | 31515 | 9456 | 22059 | 10 | 7.10 |
| 20 | 52378 | 14184 | 38194 | 20 | 5.90 |
| 30 | 63919 | 18912 | 45007 | 30 | 4.80 |
| 40 | 71021 | 23640 | 47381 | 40 | 4.00 |
| 50 | 77679 | 28368 | 49311 | 50 | 3.50 |
| 60 | 79898 | 33096 | 46802 | 60 | 3.00 |
| 70 | 87000 | 37824 | 49176 | 70 | 2.80 |
| 80 | 92327 | 42552 | 49775 | 80 | 2.60 |
| 90 | 99873 | 47280 | 52593 | 90 | 2.50 |
| 100 | 106531 | 52008 | 54523 | 100 | 2.40 |
| 120 | 85225 | 61464 | 23761 | 120 | 1.60 |

**10-YR DETENTION POND VOLUME (CF)**

| CONTOUR | AREA (SF) | VOLUME (CF) | MM. VOLUME (CF) | 100-YR VOLUME | 100-YR WSEL |
|---|---|---|---|---|---|
| 533.0 | 31502 | 30146 | 124482 | | |
| 532.0 | 28789 | 27481 | 94337 | | |
| 531.0 | 26173 | 24916 | 66856 | | |
| 530.0 | 23659 | 22453 | 41940 | 54523 | 530.51 |
| 529.0 | 21246 | 15055 | 19487 | | |
| 528.0 | 8864 | 4432 | 4432 | | |
| 527.0 | 0 | | | | |

**25-YR STORM EVENT**
A. TOTAL AREA DRAINING TO POND = 8.22 AC (DA 1-10, 14, 17-19, 21-23)
B. TOTAL BYPASS AROUND POND = 0.19 (DA 17)
C. ALLOWABLE DISCHARGE FROM POND = 17.42 CFS (2)
D. PROPOSED BYPASS AROUND POND = C/A = 0.90(8.3)(0.19) = 1.42 CFS
E. EXISTING BYPASS AROUND POND = C/A = 0.35(6.6)(0) = 0 CFS
F. DESIGN DISCHARGE FROM POND C-(D-E) = 17.42 - (1.42-0) = 16.00 CFS

| | Area, acres | 8.22 | | | |
|---|---|---|---|---|---|
| | Present Conditions | | | Proposed Conditions | |
| | C | 0.35 | | C | 0.90 |
| | Tc | 20.00 | | Tc | 10.00 |
| | i(25) | 6.60 | | i(25) | 8.30 |
| | Q(25) | 18.99 | | Q(25) | 61.40 |
| | Q(release) | 16.00 | | | |
| | | | | Proposed Intensities | |

| Time | Inflow | Outflow | Storage (cf) | Tc | Intensity |
|---|---|---|---|---|---|
| 10 | 36842 | 9600 | 27242 | 10 | 8.30 |
| 20 | 58592 | 14400 | 44192 | 20 | 6.60 |
| 30 | 73240 | 19200 | 54040 | 30 | 5.50 |
| 40 | 81674 | 24000 | 57674 | 40 | 4.60 |
| 50 | 88776 | 28800 | 59976 | 50 | 4.00 |
| 60 | 93215 | 33600 | 59615 | 60 | 3.50 |
| 70 | 102536 | 38400 | 64136 | 70 | 3.30 |
| 80 | 110082 | 43200 | 66882 | 80 | 3.10 |
| 90 | 115853 | 48000 | 67853 | 90 | 2.90 |
| 100 | 119848 | 52800 | 67048 | 100 | 2.70 |
| 120 | 101205 | 62400 | 38805 | 120 | 1.90 |

(2) DISCHARGE 17.42 CFS ESTIMATED AT 44% OF THE DIFFERENCE BETWEEN 100-YR STORM AND 10-YR STORM FLOWS. PERCENTAGE BASED ON 10 MINUTE Tc INTENSITY DIFFERENCES.

**25-YR DETENTION POND VOLUME (CF)**

| CONTOUR | AREA (SF) | VOLUME (CF) | MM. VOLUME (CF) | 100-YR VOLUME | 100-YR WSEL |
|---|---|---|---|---|---|
| 533.0 | 31502 | 30146 | 124482 | | |
| 532.0 | 28789 | 27481 | 94337 | | |
| 531.0 | 26173 | 24916 | 66856 | 67853 | 531.04 |
| 530.0 | 23659 | 22453 | 41940 | | |
| 529.0 | 21246 | 15055 | 19487 | | |
| 528.0 | 8864 | 4432 | 4432 | | |
| 527.0 | 0 | | | | |

**100-YR STORM EVENT**
A. TOTAL AREA DRAINING TO POND = 8.22 AC (DA 1-10, 14, 17-19, 21-23)
B. TOTAL BYPASS AROUND POND = 0.19 (DA 17)
C. ALLOWABLE DISCHARGE FROM POND = 18.00 CFS (1)
D. PROPOSED BYPASS AROUND POND = C/A = 0.90(9.8)(0.19) = 1.68 CFS
E. EXISTING BYPASS AROUND POND = C/A = 0.35(8.3)(0) = 0 CFS
F. DESIGN DISCHARGE FROM POND C-(D-E) = 18.00 - (1.68-0) = 16.32 CFS

| | Area, acres | 8.22 | | | |
|---|---|---|---|---|---|
| | Present Conditions | | | Proposed Conditions | |
| | C | 0.35 | | C | 0.90 |
| | Tc | 20.00 | | Tc | 10.00 |
| | i(100) | 8.30 | | i(100) | 9.80 |
| | Q(100) | 23.88 | | Q(100) | 72.50 |
| | Q(release) | 16.32 | | | |
| | | | | Proposed Intensities | |

| Time | Inflow | Outflow | Storage (cf) | Tc | Intensity |
|---|---|---|---|---|---|
| 10 | 43500 | 9792 | 33708 | 10 | 9.80 |
| 20 | 73684 | 14688 | 58996 | 20 | 8.30 |
| 30 | 91883 | 19584 | 72299 | 30 | 6.90 |
| 40 | 102980 | 24480 | 78500 | 40 | 5.80 |
| 50 | 110970 | 29376 | 81594 | 50 | 5.00 |
| 60 | 119848 | 34272 | 85576 | 60 | 4.50 |
| 70 | 124286 | 39168 | 85118 | 70 | 4.00 |
| 80 | 131388 | 44064 | 87324 | 80 | 3.70 |
| 90 | 139822 | 48960 | 90862 | 90 | 3.50 |
| 100 | 146525 | 53856 | 92669 | 100 | 3.30 |
| 120 | 146480 | 63648 | 82832 | 120 | 2.75 |

(1) DISCHARGE 19.76 CFS FROM STORM PIPE DESIGN HARLAN PARK PHASE TWO, SHEETS 7 AND 8 OF 9, DATED 11/16/94. DA "OS3" ENTERS EX INLET AND REDUCES ALLOWABLE FLOW TO 18.00 CFS.

**100-YR DETENTION POND VOLUME (CF)**

| CONTOUR | AREA (SF) | VOLUME (CF) | MM. VOLUME (CF) | 100-YR VOLUME | 100-YR WSEL |
|---|---|---|---|---|---|
| 533.0 | 31502 | 30146 | 124482 | | |
| 532.0 | 28789 | 27481 | 94337 | | |
| 531.0 | 26173 | 24916 | 66856 | 92669 | 531.94 |
| 530.0 | 23659 | 22453 | 41940 | | |
| 529.0 | 21246 | 15055 | 19487 | | |
| 528.0 | 8864 | 4432 | 4432 | | |
| 527.0 | 0 | | | | |

**V-NOTCHED WEIR CALCULATION**

| | WSEL | FLOW LINE | C | ANGLE | Q CFS |
|---|---|---|---|---|---|
| 5YEAR | 530.18 | 527.30 | 0.60 | 0.271 | 4.92 |
| 10YEAR | 530.51 | 527.30 | 0.60 | 0.271 | 6.45 |
| 25YEAR | 531.04 | 527.30 | 0.60 | 0.271 | 9.45 |
| 100YEAR | 531.94 | 527.30 | 0.60 | 0.271 | 16.21 |

Q = 8/15*C*(2g)^0.5*TAN(ANGLE/2)*H^2.5
ANGLE = 15.5 DEGREES = 0.271 RADIANS
H = WSEL - FLOW LINE

**DISCHARGE FROM POND**

| EVENT | ALLOWABLE DISCHARGE FROM POND (CFS) | ACTUAL DISCHARGE FROM POND (CFS) |
|---|---|---|
| 5YEAR | 13.06 | 4.92 |
| 10YEAR | 15.76 | 6.45 |
| 25YEAR | 16.00 | 9.45 |
| 100YEAR | 16.32 | 16.21 |

**RECORD DRAWING**

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

11/6/17
SIGNED DATE

**VASQUEZ ENGINEERING, LLC**
**TEXAS REG. F-12266**

| NO. | DATE | RECORD DRAWINGS | APP. |
|---|---|---|---|
| 1 | 11/06/17 | | |

VASQUEZ ENGINEERING, L.L.C.
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph: 972-278-2948
TX Registration # F-12266

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUAN J. VASQUEZ, P.E. 85852, ON 04/26/2016

STATE OF TEXAS
JUAN J. VASQUEZ
85852
LICENSED
PROFESSIONAL ENGINEER

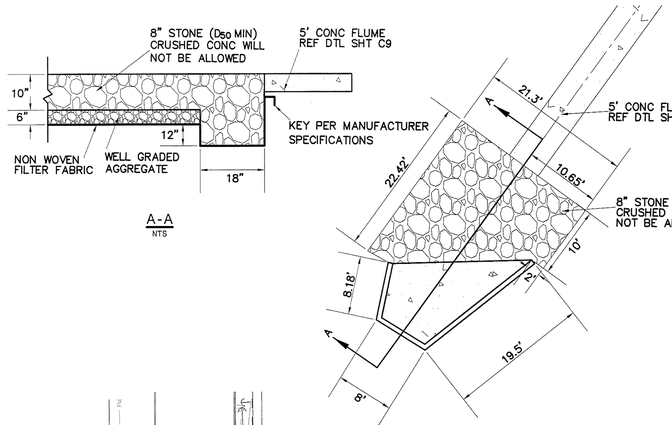
DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

DETENTION CALCULATIONS

DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: N/A
Designed by: JJV
Drawn by: JJV
Checked by: JJV
613-01\dwg\C4.1 DETENTION CALCULATIONS.dwg
Date: 06/21/2016

SHEET
C4.4




ROCK RIPRAP OUTLET DETAIL
NTS

STORM SEWER NOTES:

1. ALL CONSTRUCTION SHALL BE PER THE CITY'S REQUIREMENTS.
2. ALL STORM SEWER SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED ON THE PLANS.
4. ALL TRENCHING SHALL BE IN ACCORDANCE WITH THE LATEST OSHA STANDARDS AND SPECIFICATIONS.
5. ALL CONCRETE PIPE JOINTS SHALL BE SEALED WITH RAMNECK OR EQUIVALENT.
6. CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS PRIOR TO CONNECTING TO EXISTING STRUCTURES.
7. GROUT ALL PIPE CONNECTIONS AT STRUCTURES TO PROVIDE A WATERTIGHT SEAL.
8. ADJUST ALL UTILITY APPURTENANCES TO FINAL GRADE.
9. ALL PRIVATE STORM SEWER TO BE MAINTAINED AND REPAIRED BY THE OWNER.
10. USE 4' JOINTS WITH BEVELED ENDS IF RADIUS OF STORM SEWER IS LESS THAN 100 FEET.
11. CURB INLET, SHALL BE PER CURRENT CITY STANDARDS.
12. STORM SEWER MANHOLES SHALL BE PER CURRENT CITY STANDARDS.

BENCHMARK:

MONUMENT 179.7' WEST OF WEST EDGE OF SH 205 PAVEMENT AND 6.8' NORTH OF BACK OF CURB DALTON ROAD.
ELEVATION = 541.57'

NOTES:

1. EXISTING TOPOGRAPHY BASED ON SURVEY PREPARED BY PEISER & MANKIN SURVEYING, LLC DATED 1/14/2016.
2. SEE SHEET C3.1 AND 3.2 FOR GRADING PLAN.
4. SEE SHEET C5.2 FOR STORM SEWER PROFILES.
5. SEE SHEET C6 FOR OTHER SITE UTILITIES.

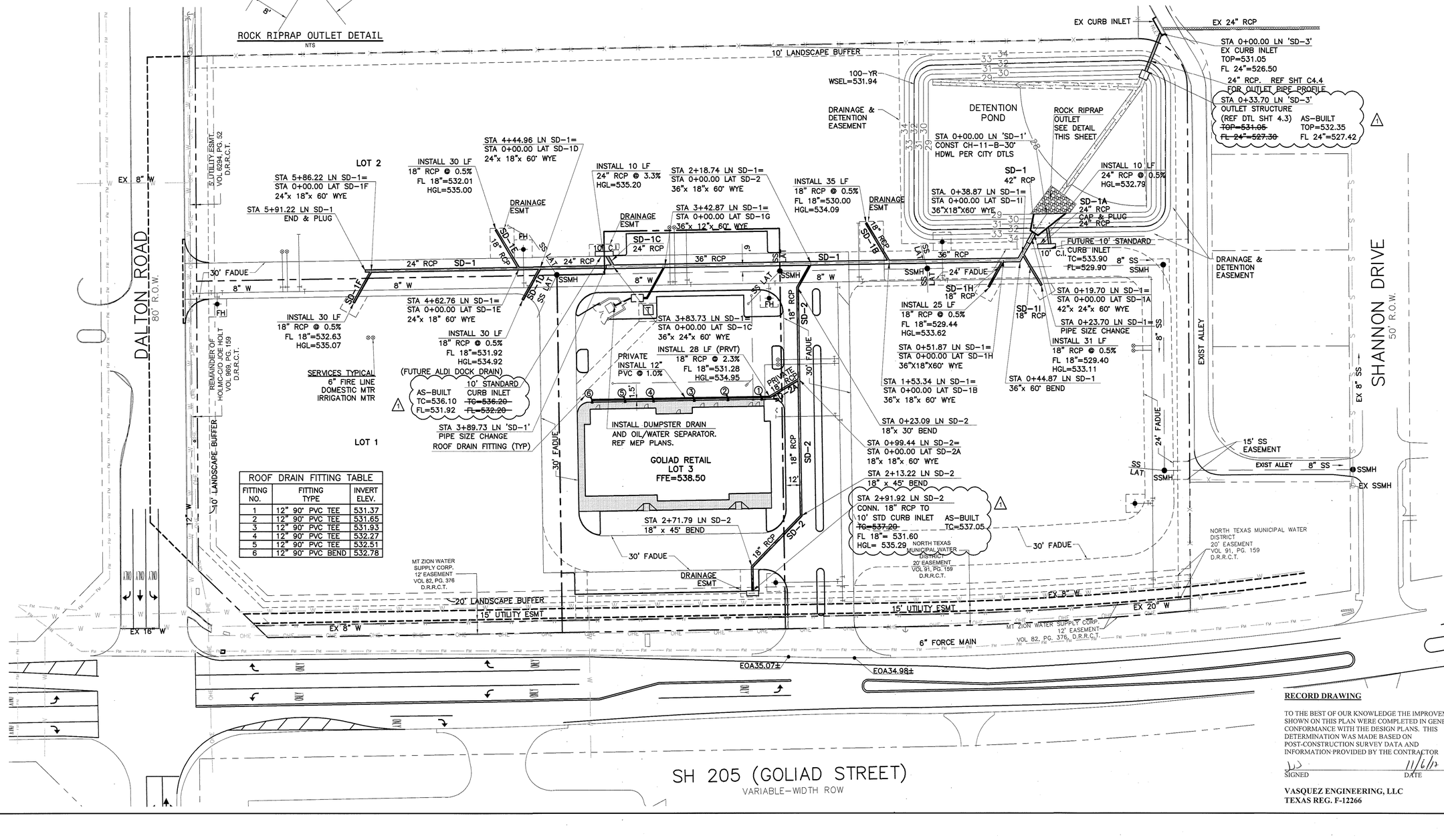
NOTE:

ALL 18" STORM LATERALS TO BE CAPPED AND PLUGGED.

LEGEND

| EXISTING | | PROPOSED |
|---|---|---|
| | PROPERTY LINE | |
| | PAVEMENT | |
| W | WATER LINE | 8"W |
| S EX.8"SS | SAN. SEW. LINE | 8"SS |
| OHE | OVERHEAD ELEC. LINE | |
| | STORM SEWER | SD |
| | FIRE LANE, PUBLIC ACCESS DRAINAGE & UTILITY ESMT | FADUE |

GRAPHIC SCALE
0 20 40 80
( IN FEET )
1 inch = 40 ft.




ROOF DRAIN FITTING TABLE

| FITTING NO. | FITTING TYPE | INVERT ELEV. |
|---|---|---|
| 1 | 12" 90° PVC TEE | 531.37 |
| 2 | 12" 90° PVC TEE | 531.65 |
| 3 | 12" 90° PVC TEE | 531.93 |
| 4 | 12" 90° PVC TEE | 532.27 |
| 5 | 12" 90° PVC TEE | 532.51 |
| 6 | 12" 90° PVC BEND | 532.78 |

RECORD DRAWING

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

SIGNED 11/6/17 DATE

VASQUEZ ENGINEERING, LLC
TEXAS REG. F-12266

| NO. | DATE | | APP. |
|---|---|---|---|
| 1 | 11/06/17 | RECORD DRAWINGS | |

VASQUEZ ENGINEERING, L.L.C.
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph: 972-278-2948
TX Registration # F-12266

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUAN J. VASQUEZ, P.E. 85852, ON 04/28/2016

STATE OF TEXAS
JUAN J. VASQUEZ
85852
LICENSED PROFESSIONAL ENGINEER

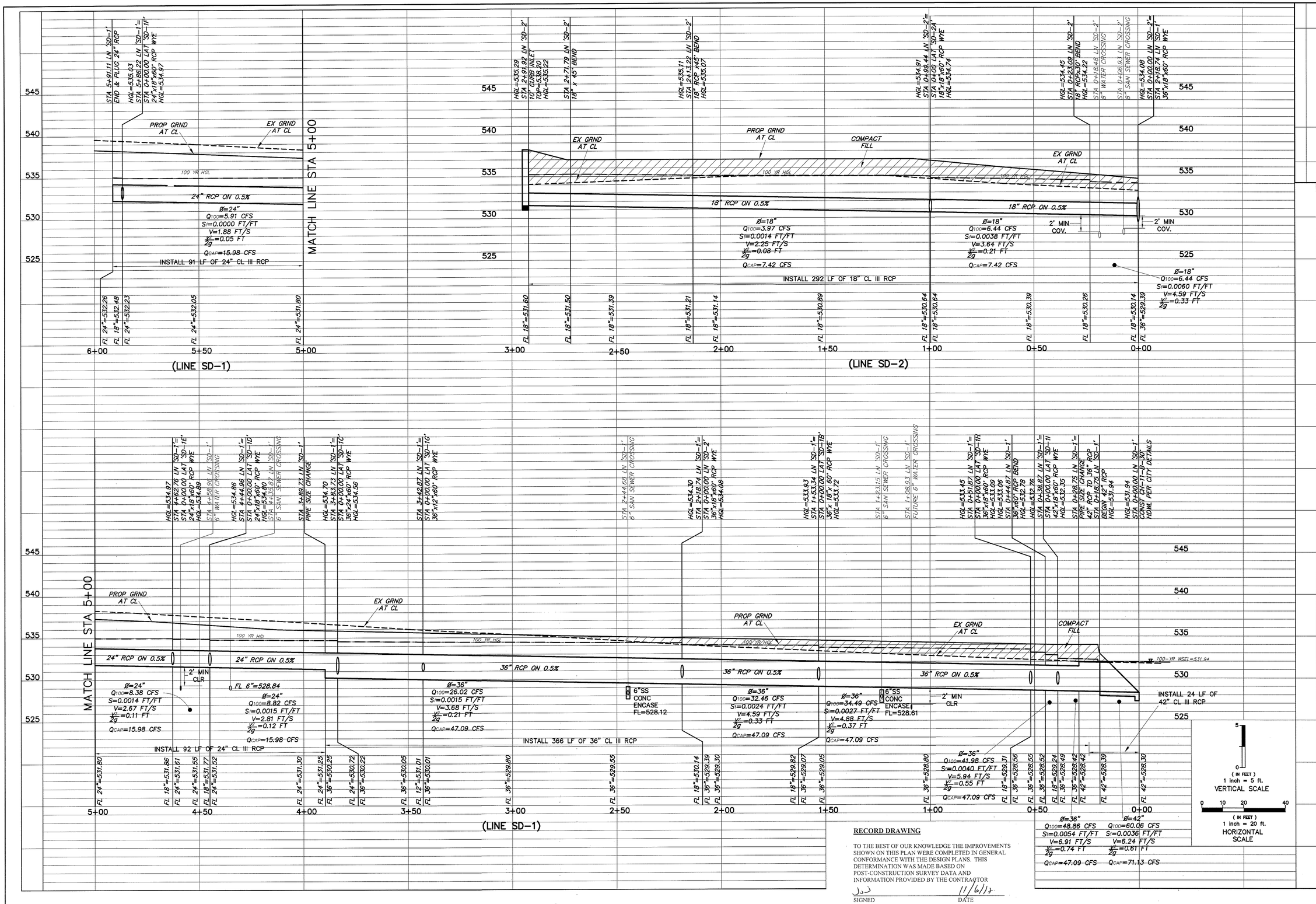
DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

STORM SEWER PLAN

DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: 1" = 40'
Designed by: JJV
Drawn by: JJV
Checked by: JJV
613-01dwg\C5.1 STORM SEWER PLAN.dwg
Date: 08/21/2016

SHEET
C5.1




**RECORD DRAWING**

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

SIGNED DATE 11/6/17

VASQUEZ ENGINEERING, LLC
TEXAS REG. F-12266

| NO. | DATE | APP. |
|---|---|---|
| 1 | 11/06/17 | RECORD DRAWINGS |

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUAN J. VASQUEZ, P.E. 85852, ON 04/25/2016


VASQUEZ ENGINEERING, L.L.C.
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph: 972-278-2948
TX Registration # F-12266


STATE OF TEXAS — JUAN J. VASQUEZ — 85852 — LICENSED PROFESSIONAL ENGINEER

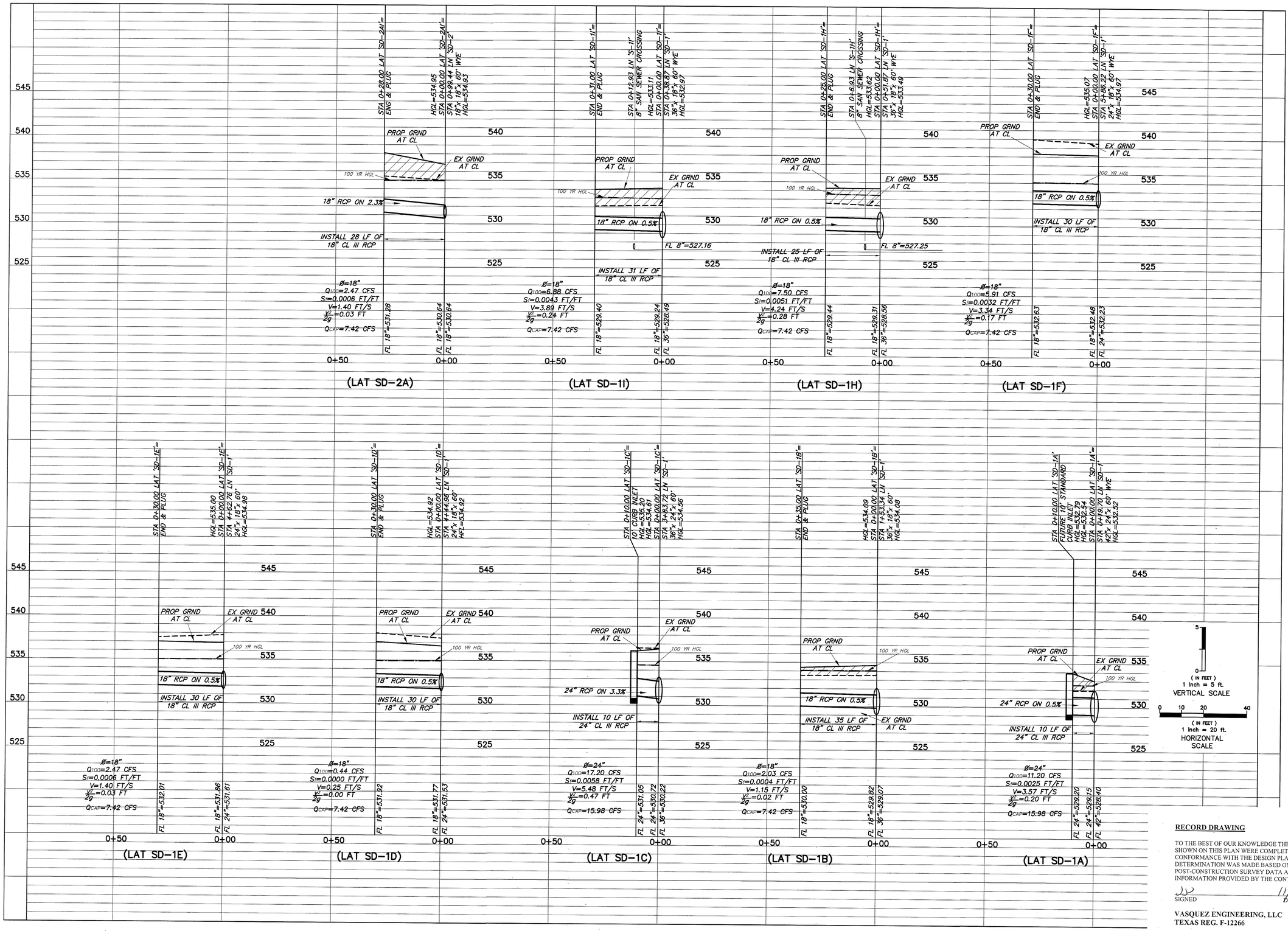
DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

# STORM SEWER PROFILES

DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: AS NOTED
Designed by: JJV
Drawn by:
Checked by: JJV
613-01\dwg\C5.2 STORM SEWER PROFILE.dwg
Date: 06/21/2016

SHEET
C5.2




**RECORD DRAWING**

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

SIGNED

11/6/17
DATE

VASQUEZ ENGINEERING, LLC
TEXAS REG. F-12266

| NO. | DATE | | APP. |
|---|---|---|---|
| 1 | 11/06/17 | RECORD DRAWINGS | |


VASQUEZ ENGINEERING, L.L.C.
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph: 972-278-2948
TX Registration # F-12266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STATE OF TEXAS
JUAN J. VASQUEZ
85852
LICENSED PROFESSIONAL ENGINEER

DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

# STORM SEWER PROFILES

DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: AS NOTED
Designed by: JJV
Drawn by: JJV
Checked by: JJV
613-01\dwg\C5.2 STORM SEWER PROFILE.dwg
Date: 06/21/2016

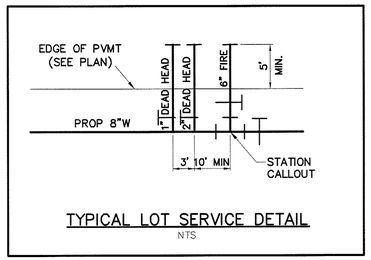
SHEET
C5.3

UTILITY CONTACTS:

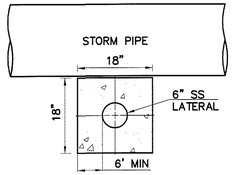
FARMERS ELECTRIC COOPERATIVE
FRANK SPATARO
2000 INTERSTATE 30 EAST
GREENVILLE, TX 75402
903-453-0583

ATMOS ENERGY
DINAH WOODS
1310 SH 66
GARLAND, TX 75010
972-465-6277

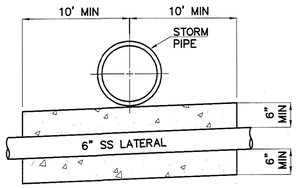
AT&T
SCOTT ULRICH
2702 WESLEY ST
GREENVILLE, TX 75401
903-457-2303




TYPICAL LOT SERVICE DETAIL
NTS




END VIEW




SECTION VIEW

LATERAL CONCRETE ENCASEMENT DETAIL
NTS

BENCHMARK:

MONUMENT 179.7' WEST OF WEST EDGE OF SH 205 PAVEMENT AND 6.8' NORTH OF BACK OF CURB DALTON ROAD.
ELEVATION = 541.57'

NOTES:

1. EXISTING TOPOGRAPHY BASED ON SURVEY PREPARED BY PEISER & MANKIN SURVEYING, LLC DATED 1/14/2016.
2. SEE SHEET C3 FOR GRADING PLAN.
3. SEE SHEET C5 FOR STORM SEWER DESIGN.

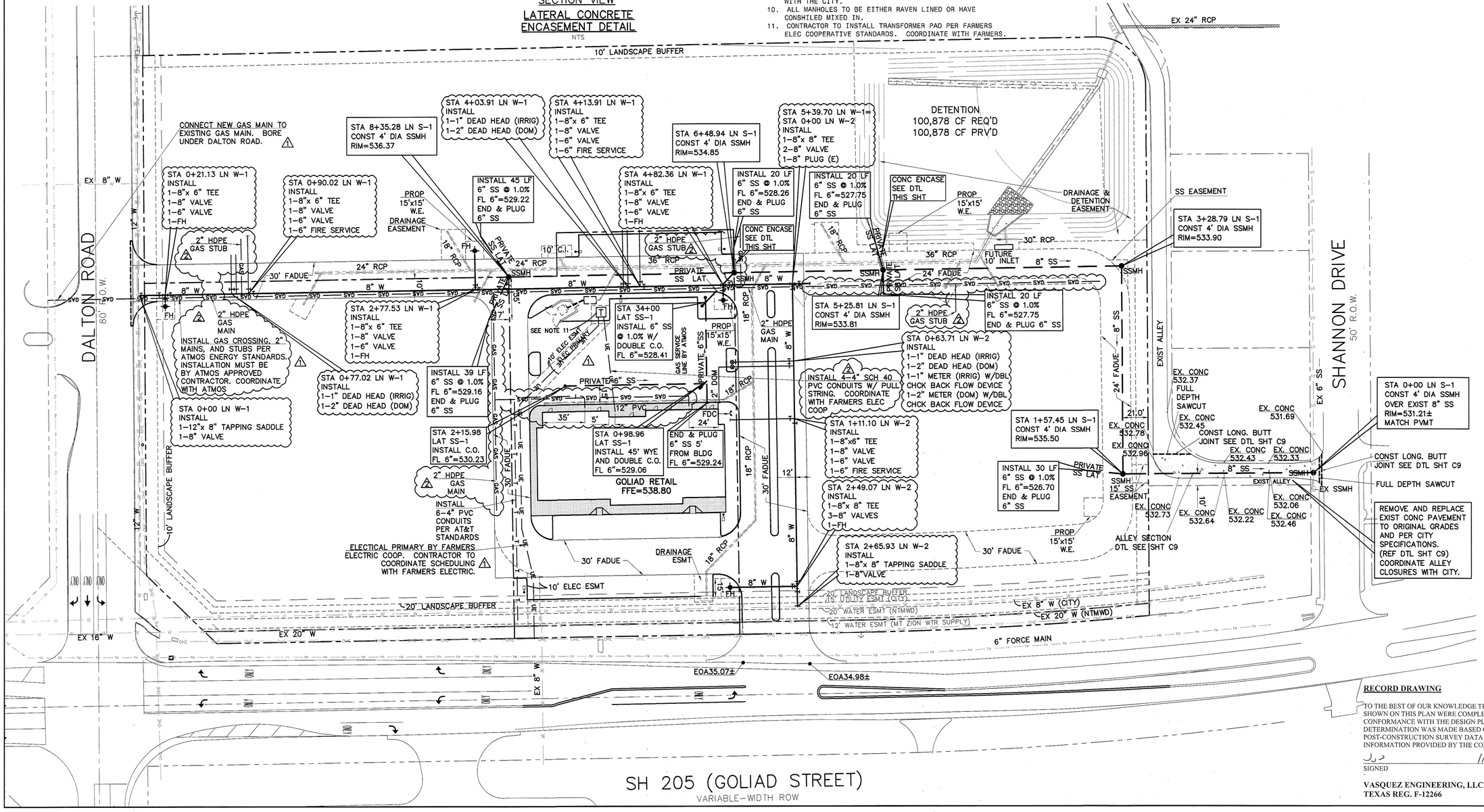
UTILITY NOTES:

1. 8" & 6" WATER DR14 PIPE WILL BE C900 PVC WATER PIPE.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY'S STANDARDS AND SPECIFICATIONS.
3. CONTRACTOR SHALL COORDINATE ALL CONNECTIONS TO PUBLIC MAINS WITH THE CITY.
4. ALL TRENCHING SHALL BE IN ACCORDANCE WITH LATEST OSHA STANDARDS AND SPECIFICATIONS.
5. CONTRACTOR SHALL CALL FOR UTILITY LOCATES AT LEAST 48 HRS PRIOR TO BEGINNING CONSTRUCTION.
6. CONTRACTOR SHALL ADJUST ALL UTILITY APPURTENANCES TO FINAL GRADE.
7. WATER AND SEWER CROSSINGS SHALL BE PER THE LATEST TCEQ REQUIREMENTS.
8. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY UTILITY CONFLICTS AS SOON AS POSSIBLE.
9. CONTRACTOR SHALL COORDINATE ALL INSPECTIONS AND TESTING WITH THE CITY.
10. ALL MANHOLES TO BE EITHER RAVEN LINED OR HAVE CONSHILED MIXED IN.
11. CONTRACTOR TO INSTALL TRANSFORMER PAD PER FARMERS ELEC COOPERATIVE STANDARDS. COORDINATE WITH FARMERS.

LEGEND

| EXISTING | | PROPOSED |
|---|---|---|
| | PROPERTY LINE | |
| | PAVEMENT | |
| W | WATER LINE | |
| S EX.6"SS | SAN. SEW. LINE | |
| OHE | OVERHEAD ELEC. LINE | |
| | STORM SEWER | |
| | FIRE LANE, PUBLIC ACCESS DRAINAGE & UTILITY ESMT | FADUE |

GRAPHIC SCALE
0 20 40 80
( IN FEET )
1 inch = 40 ft.




SH 205 (GOLIAD STREET)
VARIABLE-WIDTH ROW

**RECORD DRAWING**

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

SIGNED DATE 11/6/17

VASQUEZ ENGINEERING, LLC
TEXAS REG. F-12266

| NO. | DATE | | APP. |
|---|---|---|---|
| 1 | 8/9/16 | REV ON-SITE UTIL CONNS | |
| 2 | 9/1/16 | REV NO. CONDUITS, GAS LINES | |
| 3 | 11/06/17 | RECORD DRAWINGS | |


VASQUEZ ENGINEERING, L.L.C.
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph: 972-278-2948
TX Registration # F-12266


THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUAN J. VASQUEZ, P.E. 85852, ON 04/28/2016

STATE OF TEXAS
JUAN J. VASQUEZ
85852
LICENSED PROFESSIONAL ENGINEER

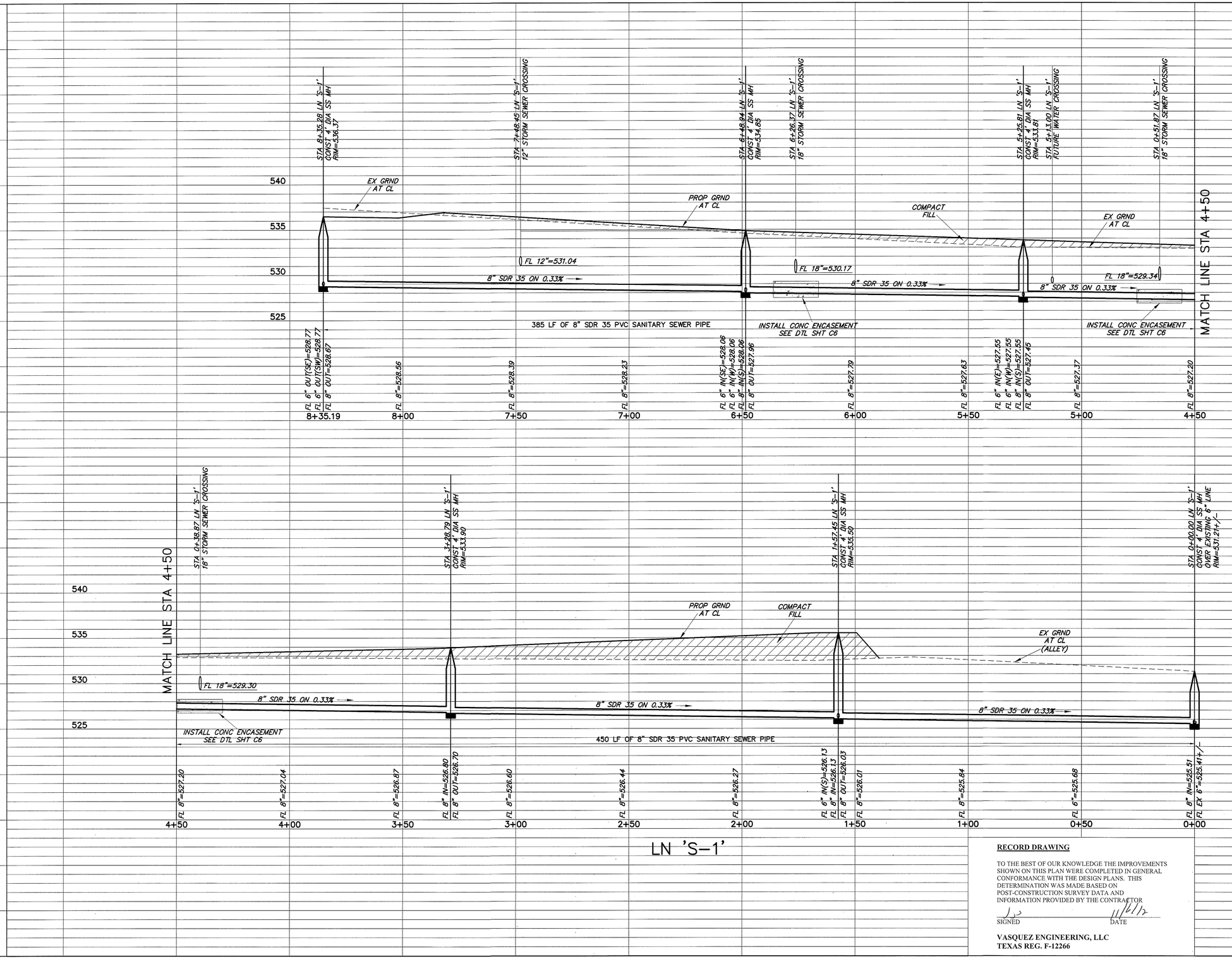
DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

UTILITY PLAN

DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

| | |
|---|---|
| Scale: | 1" = 40' |
| Designed by: | JJV |
| Drawn by: | JJV |
| Checked by: | JJV |
| 613-01dwg\C6 UTILITY PLAN.dwg | |
| Date: | 09/01/2016 |

SHEET
C6




**RECORD DRAWING**

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

SIGNED DATE 11/21/17

VASQUEZ ENGINEERING, LLC
TEXAS REG. F-12266

5
0
( IN FEET )
1 inch = 5 ft.
VERTICAL SCALE

0 10 20 40
( IN FEET )
1 inch = 20 ft.
HORIZONTAL SCALE

| NO. | DATE | APP. |
|---|---|---|
| 1 | 11/06/17 | RECORD DRAWINGS |

VASQUEZ ENGINEERING, L.L.L.C.
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph: 972-278-2948
TX Registration # F-12266

STATE OF TEXAS
JUAN J. VASQUEZ
85852
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUAN J. VASQUEZ, P.E. 85852, ON 04/28/2016

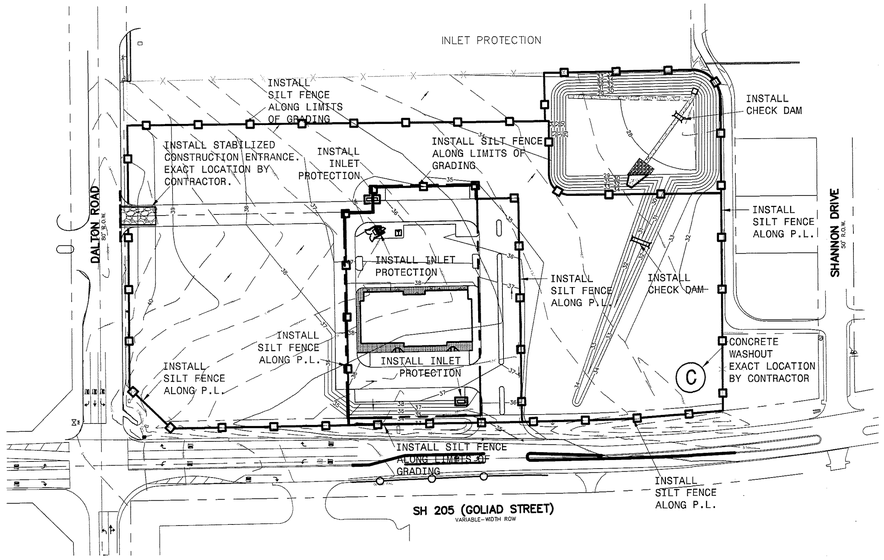
DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

# SANITARY SEWER PROFILE

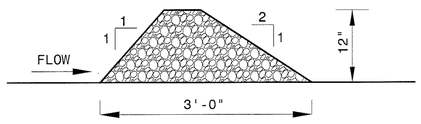
DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: AS NOTED
Designed by: JJV
Drawn by: JJV
Checked by: JJV
613-01dwg/C7 SEWER PROFILE.dwg
Date: 06/21/2016

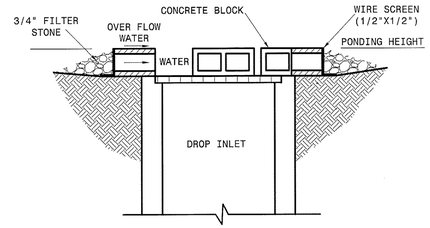
SHEET
C7



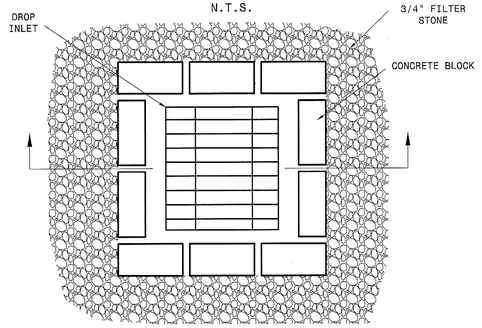

1. STONE SHALL BE WELL GRADED WITH SIZE RANGE FROM 1-1/2" TO 3-1/2" INCHES IN DIAMETER DEPENDING ON EXPECTED FLOWS.
2. THE CHECK DAM SHALL BE INSPECTED AS SPECIFIED IN THE SWPPP AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
3. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD OF THE HEIGHT OF THE CHECK DAM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
4. WHEN THE SITE HAS ACHIEVED FINAL STABILIZATION OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED, THE CHECK DAM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.



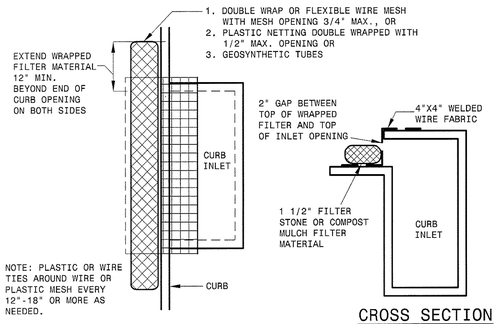

ROCK CHECK DAM
N.T.S.




CROSS SECTION
N.T.S.



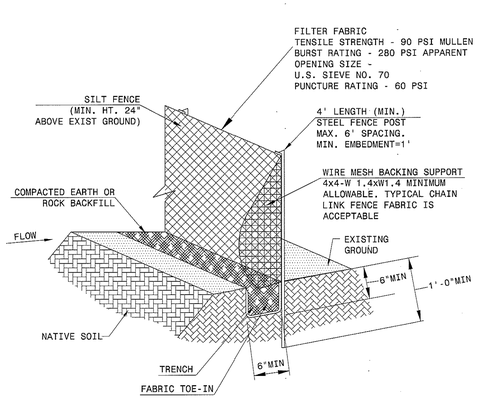

INLET PROTECTION
N.T.S.




PLAN VIEW
N.T.S.

CROSS SECTION
N.T.S.

INLET PROTECTION
N.T.S.




SILT FENCE
N.T.S.

SILT FENCE NOTES:

1. STEEL POST WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWN SLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
5. INSPECTION SHALL BE MADE WEEKLY AND AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

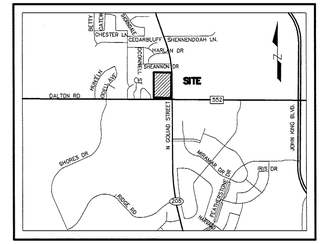
LEGEND

- 583 EXIST. CONTOUR
- 39 PROP. CONTOUR
- SILT FENCE
- DIRECTION OF FLOW
- CONST ENTRANCE
- INLET PROTECTION
- ROCK CHECK DAM
- C CONCRETE WASHOUT

NOTES:

1. EXISTING TOPOGRAPHY BASED ON SURVEY PREPARED BY PEISER & MANKIN, LLC., DATED 1/14/2016.
2. SEE SHEETS C3.1 & C3.2 FOR GRADING PLAN.
3. SEE SHEET C5.1 FOR STORM SEWER PLAN.
4. SEE SWPPP FOR ADDITIONAL INFORMATION.

   TOTAL AREA = 9.19 ACRES
   DISTURBED AREA = 8.32 ACRES
5. DETENTION POND MUST BE FULLY INSTALLED AND FUNCTIONING WITH THE SIDES AND BOTTOM ANCHORED WITH EITHER SOD OR SEEDED CURLEX PRIOR TO ANY PAVING INCLUDING SLAB.




LOCATION MAP
N.T.S.

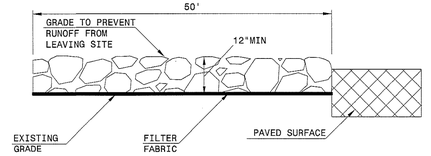
GRAPHIC SCALE
0 50 100 200
( IN FEET )
1 inch = 100 ft.

EROSION CONTROL NOTES

A. THE SPECIFIC PLANT MATERIALS PROPOSED TO PROTECT FILL AND EXCAVATED SLOPES SHALL BE AS INDICATED ON THE PLANS. PLANT MATERIALS MUST BE SUITABLE FOR USE UNDER LOCAL CLIMATE AND SOIL CONDITIONS. IN GENERAL, HYDROSEEDING OR SODDING BERMUDA GRASS IS ACCEPTABLE DURING THE SUMMER MONTHS (MAY 1, TO AUGUST 30). WINTER RYE OR FESCUE GRASS MAY BE PLANTED DURING TIMES OTHER THAN THE SUMMER MONTHS AS A TEMPORARY MEASURE UNTIL SUCH TIME AS THE PERMANENT PLANTING CAN BE MADE.
B. PRIOR TO COMMENCING ANY CONSTRUCTION, A CONSTRUCTION ENTRANCE AND PERIMETER SILT FENCE SHALL BE INSTALLED AT THE LOCATION(S) SHOWN.
C. AS INLETS ARE COMPLETED, TEMPORARY SEDIMENT BARRIERS SHALL BE INSTALLED.
D. AT THE COMPLETION OF THE PAVING AND FINAL GRADING, THE DISTURBED AREA(S) SHALL BE REVEGETATED IN ACCORDANCE WITH THE PLANS.
E. SILT FENCE AND INLET SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL REVEGATATION HAS BEEN COMPLETED.
F. DISTURBED AREAS THAT ARE SEEDED OR SODDED SHALL BE CHECKED PERIODICALLY TO SEE THAT GRASS COVERAGE IS PROPERLY MAINTAINED. DISTURBED AREAS SHALL BE WATERED, FERTILIZED, AND RESEEDED OR RESODDED, IF NECESSARY.

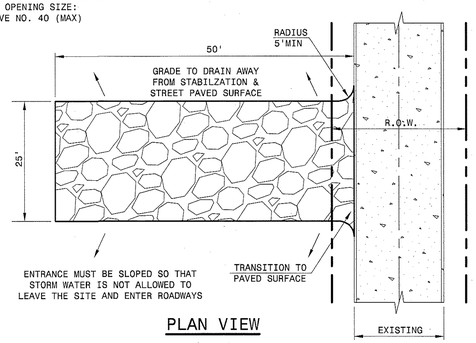
EROSION PROTECTION DURING CONSTRUCTION

1. CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING EROSION CONTROL TECHNIQUES AND METHODS TO STOP EROSION OF ONSITE SOILS AND PROTECT ADJACENT PROPERTIES FROM POTENTIAL SILT MIGRATION. SILT FENCING SHALL BE INSTALLED AT THE LOCATIONS SHOWN PRIOR TO THE START OF CONSTRUCTION AND SITE GRADING.
2. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PER CITY AND TCEQ REQUIREMENTS. ALL APPLICABLE FEES AND SUBMITTALS SHALL BE MADE PRIOR TO THE START OF CONSTRUCTION.
3. SINCE DISTURBED AREA IS GREATER THAN 5.0 ACRES A SWPPP & NOI WILL BE REQUIRED.




PROFILE VIEW
N.T.S.

FILTER FABRIC SPEC
TENSILE STRENGTH: 300 LBS
PUNCTURE STRENGHT: 120 LBS
MULLEN BURST RATING: 600 PSI
APPARENT OPENING SIZE:
U.S. SIEVE NO. 40 (MAX)




PLAN VIEW
N.T.S.

NOTE:
INSTALL SILT FENCE, CONSTRUCTION SAFETY FENCING, OR SIMILAR BARRIER ALONG THE EXIT TO DIRECT TRAFFIC INTO THE EXIT.

STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

STABILIZED CONSTRUCTION ENTRANCE NOTES:

1. STONE SIZE - 4 TO 6 INCHES STONE. NO RECYCLED CONCRETE ALLOWED.
2. LENGTH-AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.
3. THICKNESS-NOT LESS THAN 12-INCHES.
4. WIDTH-NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WASHING-WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURCE USING APPROVED METHODS.
6. MAINTENANCE-THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE-ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.
8. PREVENT SHORTCUTTING OF THE FULL LENGTH OF THE CONSTRUCTION ENTRANCE BY INSTALLING BARRIERS AS NECESSARY.

**RECORD DRAWING**

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR

SIGNED DATE

**VASQUEZ ENGINEERING, LLC**
**TEXAS REG. F-12266**

| NO. | DATE | APP. |
|---|---|---|
| 1 | 11/06/17 | RECORD DRAWINGS |

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUAN J. VASQUEZ, P.E. 85852, ON 04/28/2016

STATE OF TEXAS
JUAN J. VASQUEZ
85852
LICENSED
PROFESSIONAL ENGINEER


VASQUEZ ENGINEERING, L.L.C.
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph: 972-278-2948
TX Registration # F-12266

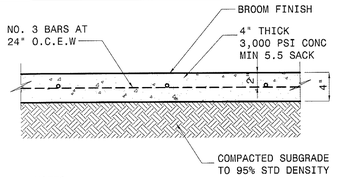

DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

EROSION CONTROL PLAN

DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: 1" = 100'
Designed by: JJV
Drawn by: JJV
Checked by: JJV
613-01\dwg\C8 EROSION CONTROL PLAN.dwg
Date: 06/21/2016

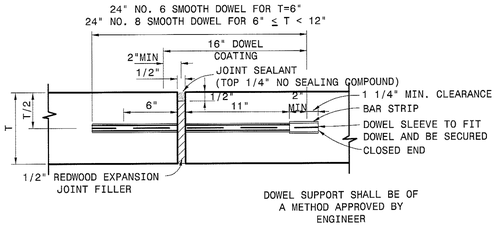
SHEET
C8



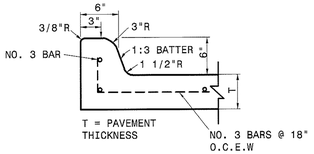

NOTES:

1. TOOLED JOINTS AT 5' MAXIMUM SPACING.
2. EXPANSION JOINTS AT 90' MAXIMUM SPACING.
3. 2% MAXIMUM CROSS SLOPE.

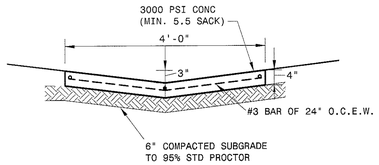
## ON-SITE SIDEWALK DETAIL
NTS



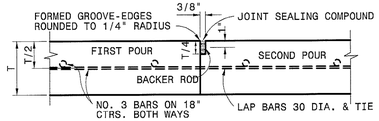

## EXPANSION JOINT
NTS



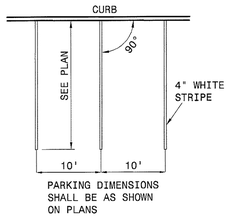

## INTEGRAL CURB
NTS



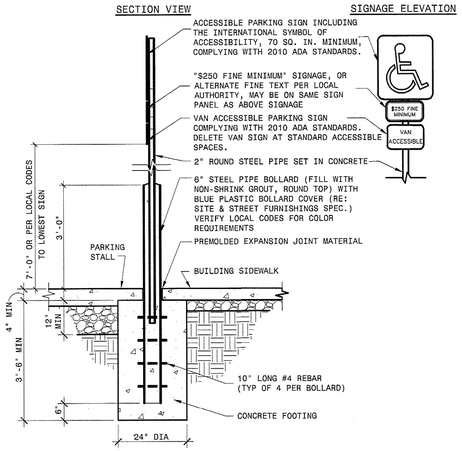

## DETENTION POND CONCRETE FLUME DETAIL
NTS




## CONSTRUCTION JOINT
NTS



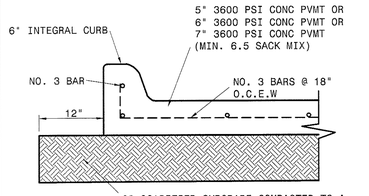

## STANDARD PARKING STALL DETAIL
NTS




## ACCESSIBLE SIGN DETAIL
NTS

GENERAL NOTES

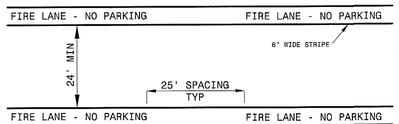
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BEING FAMILIAR WITH THE PLANS AND SPECIFICATIONS FOR THIS PROJECT, THE PROJECT AREA, AND ALL CODES, REGULATIONS OR LAWS APPLICABLE TO THE PROJECT.
2. ALL CONSTRUCTION SHALL BE PER CITY OF ROCKWALL (CITY) STANDARDS FOR CONSTRUCTION.
3. OWNER SHALL DESIGNATE A STAGING AREA FOR THE CONTRACTOR. NO STORAGE OF EQUIPMENT OR MATERIALS SHALL BE PERMITTED WITHOUT PERMISSION OF THE OWNER.
4. CONTRACTOR SHALL MAINTAIN THE SITE IN A NEAT AND ORDERLY FASHION AND DISPOSE OF EXCESS MATERIALS AND DEBRIS BY LEGAL MEANS OFF SITE. NO DEBRIS SHALL BE BURIED ON SITE.
5. WORK IN THE RIGHT-OF-WAY SHALL BE COORDINATED WITH THE CITY. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRAFFIC FLOW IN A SAFE MANNER IN ACCORDANCE WITH CITY REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING APPROPRIATE PERMITS AND FOR PROVIDING ALL NECESSARY WARNING AND SAFETY DEVICES AS REQUIRED BY THE CITY OR TXDOT.
6. UTILITIES SHOWN ARE AT APPROXIMATE LOCATIONS BASED ON AVAILABLE PLANS AND NOT ALL UTILITIES MAY BE SHOWN. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE CITY AND ENGINEER OF POTENTIAL CONFLICTS WITH THE PLANS PRIOR TO CONSTRUCTION.
7. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF EXISTING UTILITIES AND SITE FEATURES DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR ANY DAMAGED UTILITIES OR SITE FEATURES TO A LIKE NEW CONDITION AT CONTRACTORS EXPENSE PRIOR TO FINAL APPROVAL OF THE CONSTRUCTION BY OWNER.
8. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ALL UTILITIES TO FINISHED GRADE.




NOTES:

1. AREAS TO BE PAVED SHALL EXCAVATED BELOW THE PROPOSED FINISHED SUBGRADE REFER TO GEOTECHNICAL REPORT FOR RECOMMENDATIONS.
2. CONCRETE TO BE AIR ENTRAINED BETWEEN 3 AND 6%.
3. SAW JOINTS TO BE AT 15' O.C. MAX.
4. EXPANSION JOINTS SHALL BE AS NOTED ON PLAN.

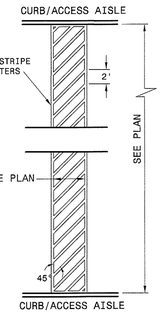
## ON-SITE CONCRETE PVMT SECTION
NTS



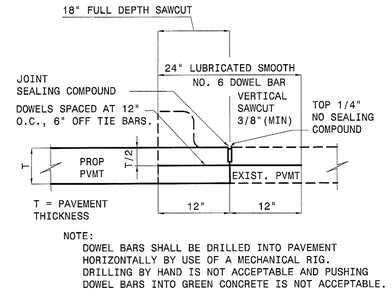

FIRE LANE NOTES:

1. STRIPE SHALL BE SIX(6) INCHES WIDE PAINTED "TRAFFIC RED". PAINT TO BE PER CITY SPECIFICATIONS.
2. LETTERS SHALL BE FOUR(4) INCHES HIGH PAINTED "TRAFFIC WHITE". PAINT TO BE PER CITY SPECIFICATIONS.
3. STRIPE MAY BE BRUSHED OR SPRAYED, ONE COAT TO FINISH.
4. LETTERS SHALL BE STENCIL FORMED, BRUSH APPLIED AND SPACED AS DETAILED ON THIS SHEET.
5. WHERE IS AVAILABLE, THE STRIPPING SHALL BE ON BOTH THE VERTICAL AND HORIZONTAL FACES OF THE CURB.
6. COORDINATE WITH CITY FIRE DEPARTMENT PRIOR TO STRIPING.

## FIRE LANE STRIPING DETAIL
NTS

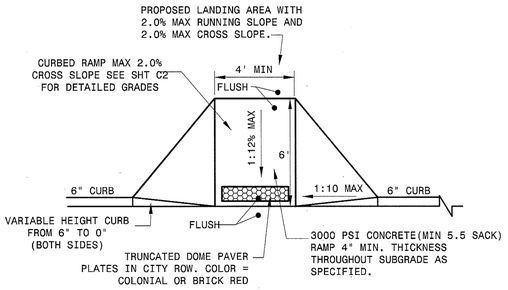



## CROSSWALK STRIPING DETAIL
NTS

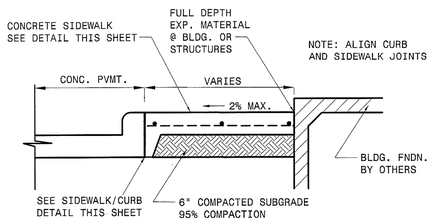



NOTE:
DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG. DRILLING BY HAND IS NOT ACCEPTABLE AND PUSHING DOWEL BARS INTO GREEN CONCRETE IS NOT ACCEPTABLE.

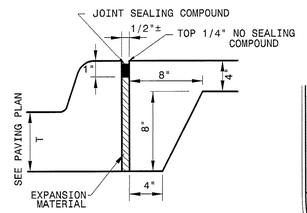
## LONGITUDINAL BUTT JOINT
NTS



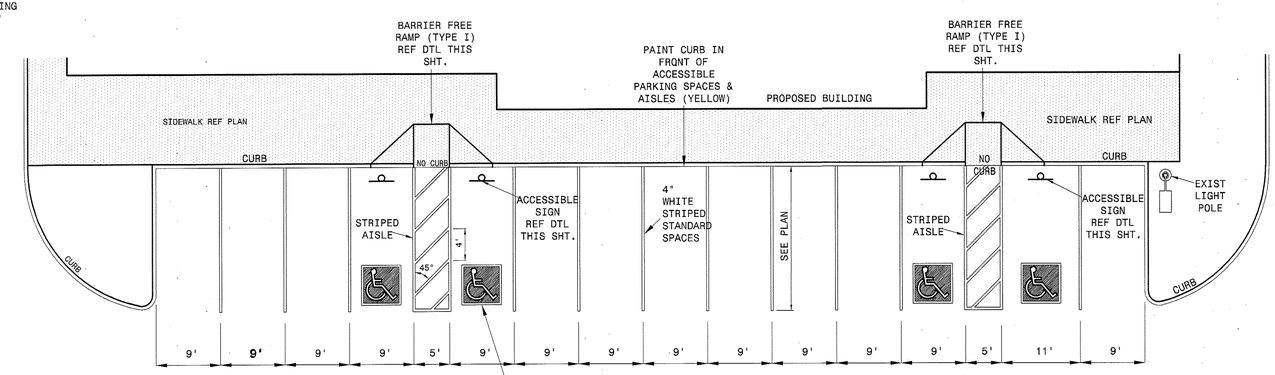

## BARRIER FREE RAMP TYPEI
NTS




## PRIVATE SIDEWALK ADJACENT TO CURB DETAIL
NTS



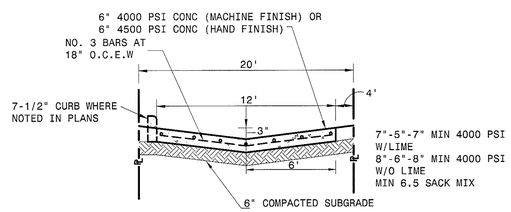

## SIDEWALK/CURB DETAIL
NTS




SYMBOLS, STRIPING, SIGNAGE AND BARRIER FREE RAMPS SHALL MEET CURRENT TDLR/TAS STANDARDS.

INTERNATIONAL HANDICAP SYMBOL

## ACCESSIBLE PARKING STALL DETAIL
NTS




## ALLEY SECTION DETAIL
NTS

**RECORD DRAWING**

TO THE BEST OF OUR KNOWLEDGE THE IMPROVEMENTS SHOWN ON THIS PLAN WERE COMPLETED IN GENERAL CONFORMANCE WITH THE DESIGN PLANS. THIS DETERMINATION WAS MADE BASED ON POST-CONSTRUCTION SURVEY DATA AND INFORMATION PROVIDED BY THE CONTRACTOR.

SIGNED DATE 11/6/17

**VASQUEZ ENGINEERING, LLC**
**TEXAS REG. F-12266**

| NO. | DATE | RECORD DRAWINGS | APP. |
|---|---|---|---|
| 1 | 11/06/17 | | |


VASQUEZ ENGINEERING, L.L.C.
1919 S. Shiloh Road
Suite 440, LB 44
Garland, Texas 75042
Ph. 972-278-2948
TX Registration # F-12266


THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JUAN J. VASQUEZ, P.E. 85852, ON 04/28/2016

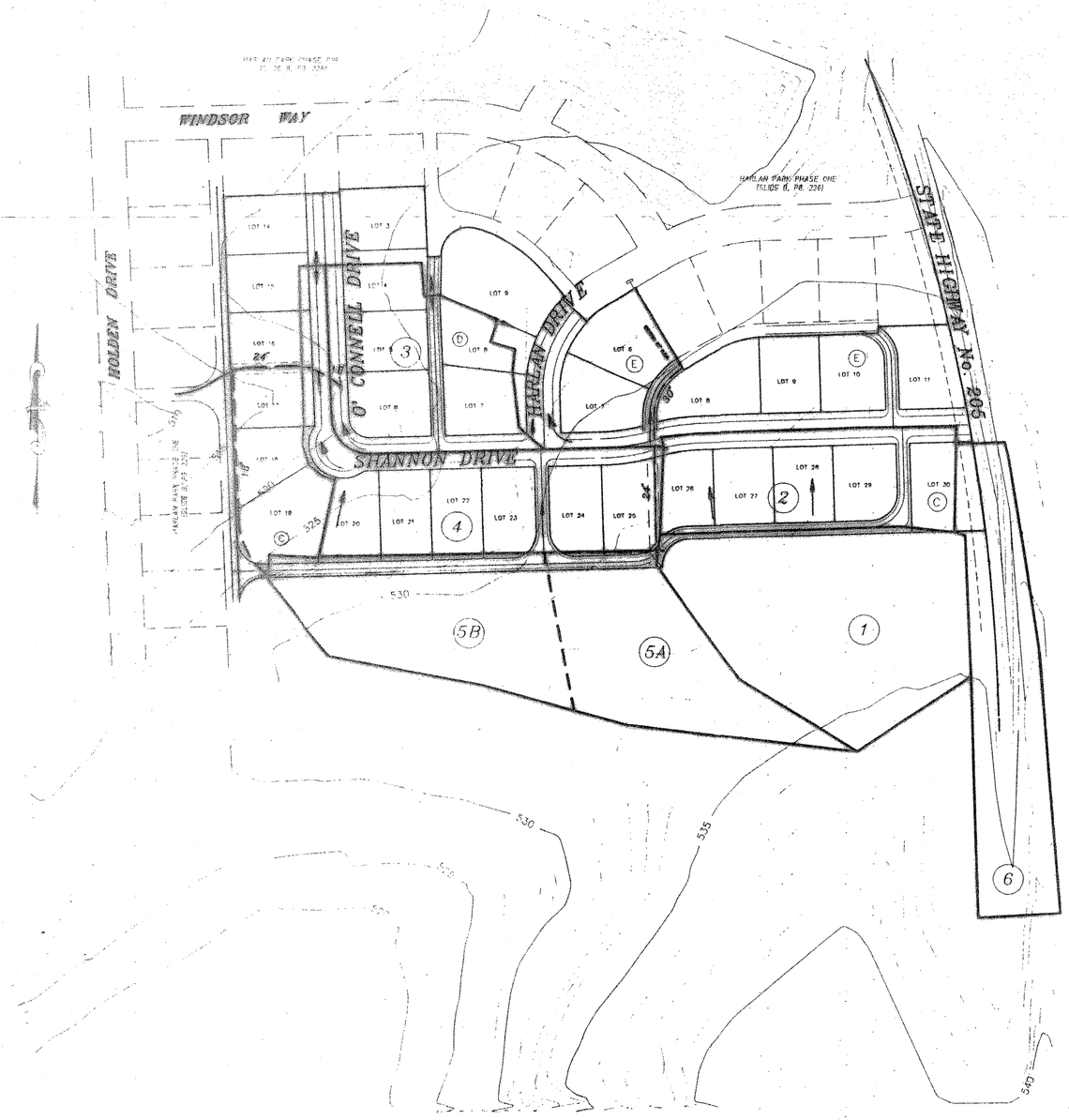
DEVELOPER:
ROCKWALL 205-552, LLC
1408 QUORUM DRIVE
SUITE 160
Dallas, TX 75254

# DETAILS AND GENERAL NOTES

DALTON GOLIAD ADDITION
CITY OF ROCKWALL, TEXAS

Scale: AS NOTED
Designed by: JJV
Drawn by: JJV
Checked by: JJV
613-01dwg\C9 DETAILS & GENERAL NOTES.dwg
Date: 06/21/2016

SHEET
C9




## DRAINAGE DATA

| D.A. No. | AREA ( ACRES ) | C | I ( 100 ) | Q ( CFS ) | SUM Q 100 (CFS) |
|---|---|---|---|---|---|
| 1 | 2.52 | .80 | 9.8 | 19.76 | 19.76 |
| 2 | 1.49 | .50 | 9.8 | 7.30 | 27.06 |
| 3 | 1.55 | .50 | 9.8 | 7.60 | |
| 4 | 2.01 | .50 | 9.8 | 9.85 | 17.45 |
| 5A | 1.43 | .50 | 9.8 | 7.01 | |
| 5B | 1.57 | .50 | 9.8 | 7.69 | 32.15 |
| 6 | 1.24 | .50 | 9.8 | 6.07 | 6.07 |

B.M.

SQUARE ON TOP OF CONC. HDWL. 200' SOUTH OF SOUTHEAST ADDITION CORNER ON WEST SIDE ST. HWY. 205.

ELEVATION = 532.95

B.M.

R.R. SPIKE IN P.P. ON WEST SIDE ST. HWY. 205, 280' +/- NORTH OF NORTHEAST ADDITION CORNER.

ELEVATION = 530.36

FOR INFORMATION ONLY

STATE OF TEXAS
HAROLD L. EVANS
29355
REGISTERED
1-95

| REVISION DESCRIPTION | DATE |
|---|---|
| REV. PER CITY REVIEW | 12/29/94 |
| | 93144DRA |

HAROLD L. EVANS
CONSULTING ENGINEER
P.O. BOX 28365
2331 GUS THOMASSON ROAD, SUITE 102
DALLAS, TEXAS 75228, ( 214 ) 328-8133

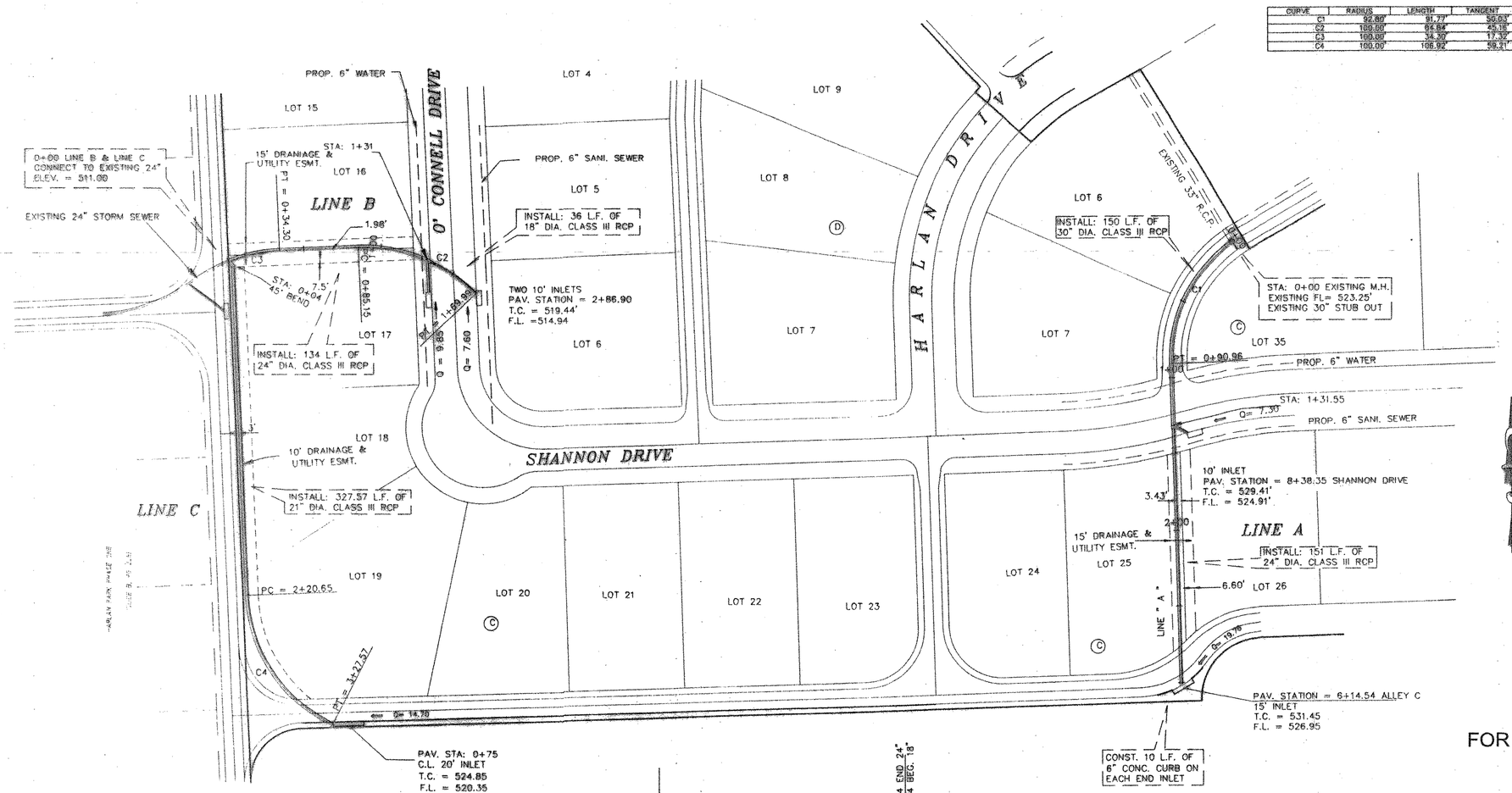
| DATE | SCALE | DESIGN | DRAWN |
|---|---|---|---|
| 11/16/94 | 1" = 100' HORZ | H.L.E. | K.E.D. |

# DRAINAGE AREA MAP
## HARLAN PARK PHASE TWO
## CITY OF ROCKWALL
## ROCKWALL COUNTY, TEXAS

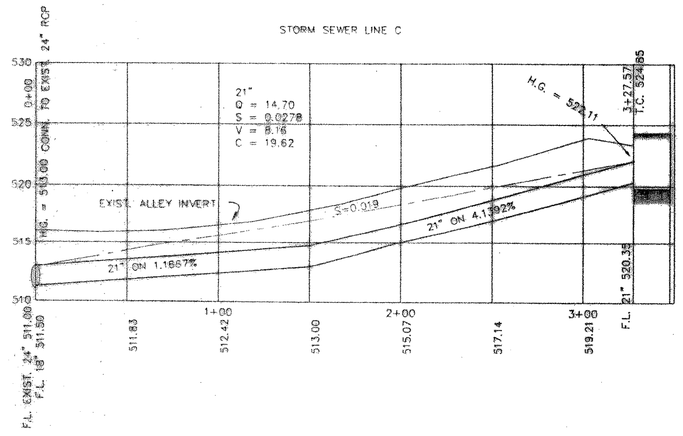
SHEET NO. 7 / 9

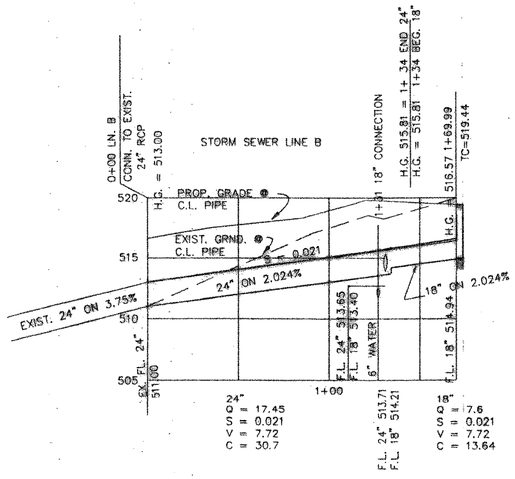
JOB NO. 93144

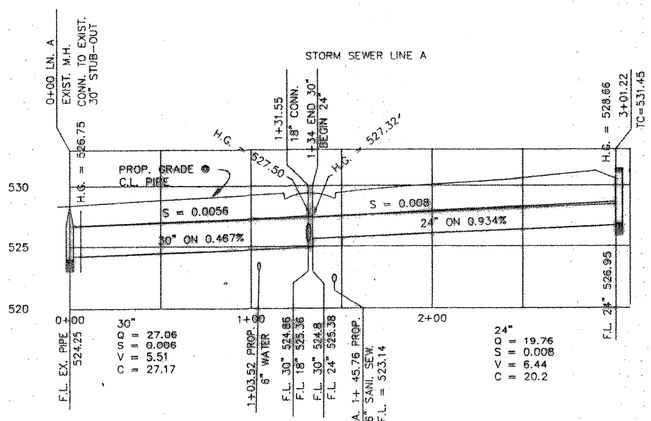
| CURVE | RADIUS | LENGTH | TANGENT | CHORD | BEARING | DELTA |
|---|---|---|---|---|---|---|
| C1 | 92.88' | 91.71' | 50.53' | 88.08' | S26°31'57"W | 56°39'54" |
| C2 | 100.00' | 64.84' | 33.18' | 82.32' | N68°03'43"W | 46°26'35" |
| C3 | 100.00' | 34.30' | 17.32' | 34.13' | S77°48'25"W | 19°39'09" |
| C4 | 100.00' | 106.92' | 59.21' | 101.90' | S32°38'30"E | 61°15'39" |




FOR INFORMATION ONLY




B.M.

SQUARE ON TOP OF CONC. MONM. 200' SOUTH OF SOUTHEAST ADDITION CORNER ON WEST SIDE ST. HWY. 205.

ELEVATION = 532.95

B.M.

R.R. SPIKE IN P.P. ON WEST SIDE ST. HWY. 205, 280' +/- NORTH OF NORTHEAST ADDITION CORNER.

ELEVATION = 530.36

STATE OF TEXAS
HAROLD L. EVANS
23155
REGISTERED PROFESSIONAL ENGINEER
1-85

| REVISION DESCRIPTION | DATE |
|---|---|
| | 93144STA |
| REV. PER FINAL CITY REVIEW | 1/20/95 |
| REV. PER CITY REVIEW | 12/29/94 |

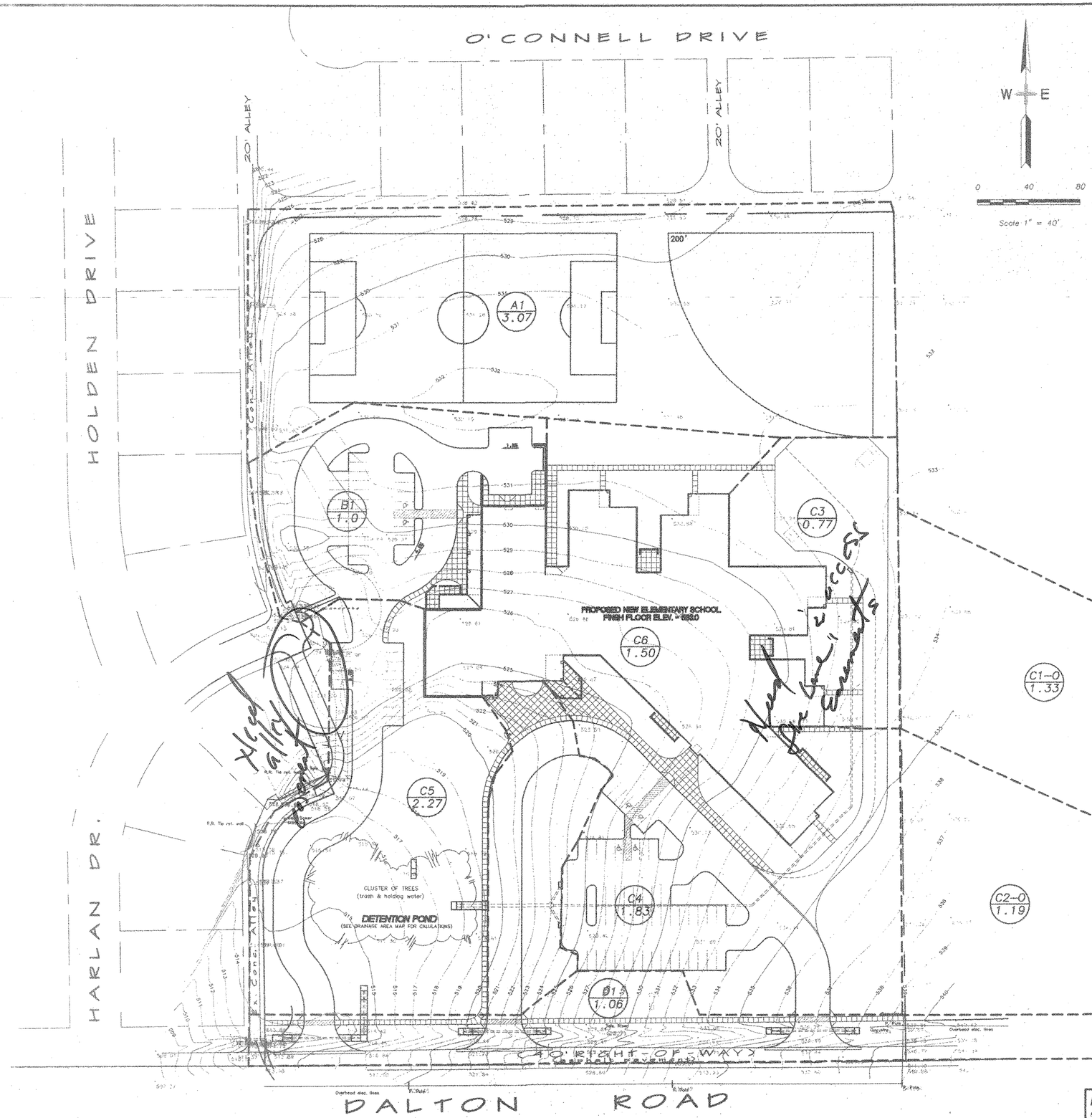

HAROLD L. EVANS
CONSULTING ENGINEER
P.O. BOX 28355
2331 GUS THOMASSON ROAD, SUITE 102
DALLAS, TEXAS 75228. ( 214 ) 328-8133


| DATE | SCALE | DESIGN | DRAWN |
|---|---|---|---|
| 11/16/94 | 1" = 40' HOR. 1" = 8' VERT. | H.L.E. | K.E.D. |

# STORM SEWER
## ROCKWALL COUNTY, TEXAS
## HARLAN PARK PHASE TWO
## CITY OF ROCKWALL

SHEET NO. 8 / 9

JOB NO. 93144




## STORM WATER RUNOFF CALCULATIONS

| AREA NO. | DRAINAGE AREA "A" (ACRES) | TIME OF CONCENTRATION (IN MINUTES) | RUNOFF COEFFICIENT "C" | INTENSITY T 5" (IN/HR) | DESIGN FLOW Q "Q5" | INTENSITY T 100" (IN/HR) | DESIGN FLOW Q "Q100" |
|---|---|---|---|---|---|---|---|
| A1 | 3.07 | 10 | 0.50 | 6.2 | 9.5 | 9.8 | 15.0 |
| B1 | 1.0 | 10 | 0.50 | 6.2 | 3.1 | 9.8 | 4.9 |
| C1-O | 1.33 | 10 | 0.75 | 6.2 | 6.2 | 9.8 | 9.8 |
| C2-O | 1.19 | 10 | 0.75 | 6.2 | 5.5 | 9.8 | 8.7 |
| C3 | 0.77 | 10 | 0.50 | 6.2 | 2.3 | 9.8 | 3.8 |
| C4 | 1.83 | 10 | 0.50 | 6.2 | 5.7 | 9.8 | 9.0 |
| C5 | 2.27 | 10 | 0.50 | 6.2 | 7.0 | 9.8 | 11.1 |
| C6 | 1.5 | 10 | 0.90 | 6.2 | 4.7 | 9.8 | 13.2 |
| D1 | 1.06 | 10 | 0.50 | 6.2 | 3.3 | 9.8 | 5.2 |

## DETENTION POND CALCULATIONS

POST DEVELOPMENT DRAINAGE AREAS C1 THRU C6 (8.89 AC.) = 62.90 c.f.s.
PREDEVELOPMENT 8.89AC x 0.30 x 11.6 = 30.94 c.f.s.
TOTAL C.F.S. TO DETAIN = 31.96 c.f.s.

DOWN STREAM RESTRAINTS - 18" RCP UNDER ALLEY -- FULL FLOW CAP. @ 1.00% = 11.38
11.38 USED FOR ALLOWABLE RELEASE RATE

RECORD NUMBER : 2 HYDROGRAPH REPORT
TYPE : RESER MOD. PULS
DESCRIPTION : outflow 1

[HYDROGRAPH INFORMATION]

Peak Discharge = 9.73 (cfs)
Volume = 0.72 (acft)
Time Interval = 2.50 (min)
Time to Peak = 17.50 (min)
Time of Base = 2377.50 (min)
Peak Elevation = 516.05 (ft)

[RESERVOIR STRUCTURE INFORMATION]

Reservoir # = 1
Description = pond
Storage type = RECT VAULT
Max storage = 28958.24 Cuft
Discharge type = COMP STAGE/DIS
Max discharge = 11.41 cfs

| INTV# | TIME (min) | INFLOW (cfs) | (I1+I2) | EQUATION | 2(S2)/dt+O2 | OUTFLOW O2(cfs) | STORAGE (cuft) | ELEVATION (ft) |
|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | 13.01 | 13.01 | + 0.00 = | 13.01 | 0.04 | 973.12 | 514.04 |
| 2 | 5.0 | 26.02 | 39.04 | + 12.96 = | 51.97 | 0.25 | 3879.11 | 514.16 |
| 3 | 7.5 | 39.04 | 65.06 | + 51.47 = | 116.53 | 1.15 | 8653.88 | 514.38 |
| 4 | 10.0 | 52.05 | 91.09 | + 114.24 = | 205.33 | 3.36 | 15144.18 | 514.81 |
| 5 | 12.5 | 39.04 | 91.09 | + 198.63 = | 289.71 | 6.41 | 21247.65 | 514.68 |
| 6 | 15.0 | 26.02 | 65.06 | + 276.89 = | 341.95 | 8.68 | 24985.39 | 515.00 |
| 7 | 17.5 | 13.01 | 39.04 | + 324.59 = | 363.63 | 9.73 | 26842.64 | 515.05 |
| 8 | 20.0 | 0.00 | 13.01 | + 344.18 = | 357.19 | 9.42 | 26283.05 | 515.04 |
| 9 | 22.5 | 0.00 | 0.00 | + 338.36 = | 338.36 | 8.52 | 24737.20 | 514.99 |
| 10 | 25.0 | 0.00 | 0.00 | + 321.32 = | 321.32 | 7.76 | 23516.98 | 514.94 |
| 11 | 27.5 | 0.00 | 0.00 | + 305.80 = | 305.80 | 7.07 | 22408.67 | 514.90 |
| 12 | 30.0 | 0.00 | 0.00 | + 291.66 = | 291.66 | 6.49 | 21387.92 | 514.86 |
| 13 | 32.5 | 0.00 | 0.00 | + 278.68 = | 278.68 | 5.96 | 20484.25 | 514.83 |
| 14 | 35.0 | 0.00 | 0.00 | + 266.77 = | 266.77 | 5.49 | 19695.59 | 514.79 |
| 15 | 37.5 | 0.00 | 0.00 | + 255.78 = | 255.78 | 5.08 | 18902.44 | 514.75 |
| 16 | 40.0 | 0.00 | 0.00 | + 245.61 = | 245.61 | 4.71 | 18066.02 | 514.72 |
| 17 | 42.5 | 0.00 | 0.00 | + 236.20 = | 236.20 | 4.36 | 17387.60 | 514.70 |
| 18 | 45.0 | 0.00 | 0.00 | + 227.47 = | 227.47 | 4.08 | 16784.45 | 514.67 |
| 19 | 47.5 | 0.00 | 0.00 | + 219.31 = | 219.31 | 3.81 | 16162.88 | 514.65 |
| 20 | 50.0 | 0.00 | 0.00 | + 211.70 = | 211.70 | 3.86 | 15610.10 | 514.63 |
| 21 | 52.5 | 0.00 | 0.00 | + 204.58 = | 204.58 | 3.33 | 15093.78 | 514.60 |
| 22 | 55.0 | 0.00 | 0.00 | + 197.92 = | 197.92 | 3.13 | 14606.60 | 514.58 |
| 23 | 57.5 | 0.00 | 0.00 | + 191.67 = | 191.67 | 2.95 | 14143.84 | 514.57 |
| 24 | 60.0 | 0.00 | 0.00 | + 185.76 = | 185.76 | 2.78 | 13703.39 | 514.55 |
| 25 | 62.5 | 0.00 | 0.00 | + 180.19 = | 180.19 | 2.63 | 13317.71 | 514.53 |
| 26 | 65.0 | 0.00 | 0.00 | + 174.94 = | 174.94 | 2.48 | 12935.09 | 514.52 |
| 27 | 67.5 | 0.00 | 0.00 | + 169.99 = | 169.99 | 2.34 | 12574.24 | 514.50 |
| 28 | 70.0 | 0.00 | 0.00 | + 165.32 = | 165.32 | 2.22 | 12232.73 | 514.49 |
| 29 | 72.5 | 0.00 | 0.00 | + 160.88 = | 160.88 | 2.11 | 11907.90 | 514.48 |
| 30 | 75.0 | 0.00 | 0.00 | + 156.66 = | 156.66 | 2.01 | 11596.53 | 514.46 |
| 31 | 77.5 | 0.00 | 0.00 | + 152.63 = | 152.63 | 1.92 | 11303.60 | 514.45 |
| 32 | 80.0 | 0.00 | 0.00 | + 148.80 = | 148.80 | 1.83 | 11023.27 | 514.44 |
| 33 | 82.5 | 0.00 | 0.00 | + 145.15 = | 145.15 | 1.74 | 10755.60 | 514.43 |
| 34 | 85.0 | 0.00 | 0.00 | + 141.67 = | 141.67 | 1.66 | 10501.45 | 514.42 |
| 35 | 87.5 | 0.00 | 0.00 | + 138.36 = | 138.36 | 1.59 | 10259.02 | 514.41 |

## DRAINAGE AREA MAP

Scale 1"=40'

BENCHMARK:
FLOW LINE OF THE UPSTREAM END OF THE 18" RCP RUNNING UNDER THE ALLEY AT THE SOUTHWEST CORNER OF THIS TRACT.
ELEVATION: 511.50

FOR INFORMATION ONLY

GLENN ENGINEERING
PHONE 214-717-0151 Fax 214-717-0229
100 DECKER COURT - SUITE 250 IRVING, TEXAS 75062

DATE JUNE 27, 1995
DRAWN BY R.A.H.
CHECKED C.M.G.
COMM NO 0485417
REVISED 8-17-95

# NEBBIE WILLIAMS ELEMENTARY SCHOOL
## ROCKWALL INDEPENDENT SCHOOL DISTRICT
## ROCKWALL, TEXAS

SHW Group Inc
ARCHITECTS ENGINEERS

SHEET NUMBER C 2.5
OF 13
SET NUMBER