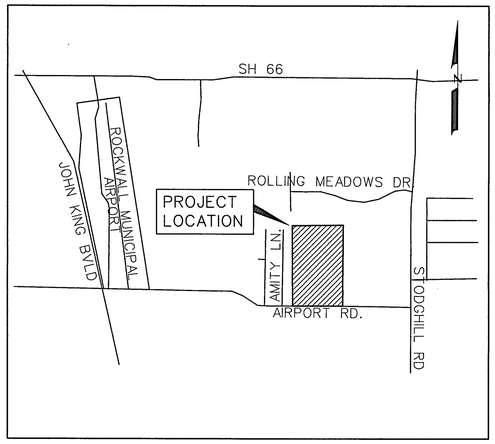
16021

RIDGECREST

DEVELOPMENT PLANS
FOR
RIDGECREST
CITY OF ROCKWALL, TEXAS



VICINITY MAP
NOT TO SCALE

INDEX

PREPARED FOR

RIDGECREST SF, LTD.

8214 WESTCHESTER DRIVE, SUITE 710 DALLAS, TEXAS 75225

CORWIN ENGINEERING, INC. — CONSULTING ENGINEERS

200 W. BELMONT, SUITE E — TBPE FIRM #5951 — ALLEN, TEXAS 75013

NOTE:

CITY OF ROCKWALL STANDARDS
AND NCTCOG 3rd ADDITION STANDARDS
SHALL BE USED FOR REFERENCE.

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/14/17

AS-BUILT DECEMBER 2017
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

NO.	REVISIONS	DATE
1	CITY COMMENTS	7/21/16

JUNE 2016

...\dgn\16021_titl.dgn 12/14/2017 7:58:11 AM

20160000022744 1/2 PLAT 12/22/2016 01:37:15 PM

ROLLING MEADOWS ESTATES
CAB. D, SLIDE 59

CITY OF ROCKWALL GRID SYSTEM COORDINATES

X	Y
2605015.83	7027187.53

ELEV = 572.3

S89° 18'40"E 954.47'

10' LANDSCAPE ESMT.

PARTIALLY ABANDON EX. SAN. SWR. ESMT.

10' LANDSCAPE ESMT. LOT 23 BLOCK A

15' SAN. SWR. ESMT. - CAB. F, PG. 72

CYPRESS DRIVE (50' R.O.W.)

AMITY LANE (60' R.O.W.)

LIMITS OF 100-YR WATER SURFACE ELEVATION

GREENLEE ADDITION
CAB. A, SLIDE 151

N01° 05'03"E 1325.57'

LOT 1 BLOCK A
ROCKWALL LAKESIDE CHURCH OF CHRIST ADDITION
CAB. F, SLIDE 72

JAMES DEVOLL
VOL. 1967, PG. 79

S01° 09'28"W 1328.97'

LOT 14 BLOCK A OPEN SPACE/DRAINAGE EASEMENT

DETENTION/DRAINAGE ESMT.

LOT 23 BLOCK A OPEN SPACE/DRAINAGE ESMT.

FOX HOLLOW DRIVE (50' R.O.W.)

PRAIRIE VIEW ROAD (50' R.O.W.)

COYOTE CROSSING (50' R.O.W.)

7.5' TP&L CO. ESMT. VOL. 63, PG. 260

JEREMY EPTON
DOC.# 20150000014429

WHO FAMILY TRUST
VOL. 4768, PG. 282

CITY OF ROCKWALL GRID SYSTEM COORDINATES

X	Y
2605979.23	7025872.53

ELEV = 590.8

POINT OF BEGINNING

½" IRF (C.M.) N88° 50'39"W 88.07' ½" IRF S88° 58'08"W 341.01' ½" IRF ½" IRF N87° 46'13"W 482.31' ½" IRF (C.M.)

AIRPORT ROAD

Δ= 03°15'38"
R= 732.50'
T= 20.85'
L= 41.69'
C= 41.68'
B= N89°24'02"W

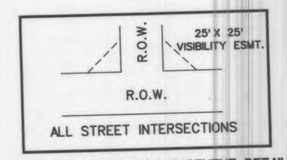
CURVE TABLE

CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT	CHORD	BEARING
1.	89°10'11"	60.00'	283.61'	----'	84.24'	N43°30'02"W
2.	25°37'24"	295.00'	131.93'	67.09'	130.83'	N13°58'10"E
3.	44°58'05"	305.00'	239.38'	126.24'	233.28'	N04°17'49"E
4.	18°52'33"	250.00'	82.36'	41.56'	81.99'	N08°44'57"W
5.	89°10'11"	60.00'	283.61'	----'	84.24'	S44°43'35"E
6.	111°00'18"	250.00'	484.35'	363.79'	412.08'	S70°40'43"E
7.	90°49'49"	9.00'	14.27'	9.13'	12.82'	N45°16'25"E
8.	90°49'49"	9.00'	14.27'	9.13'	12.82'	N46°29'58"E
9.	45°29'46"	82.00'	65.11'	34.38'	63.42'	N32°22'35"W
10.	33°43'03"	152.00'	89.45'	46.06'	88.16'	N71°59'00"W

LINE TABLE

LINE NO.	BEARING	DISTANCE
1.	N 46°05'03" E	58.86'
2.	N 46°05'03" E	73.50'
3.	N 58°36'31" E	13.85'
4.	N 00°41'20" E	26.35'
5.	N 00°41'20" E	1.35'
6.	S 88°50'32" E	47.59'
7.	S 01°09'28" W	28.62'
8.	N 88°50'32" W	28.62'
9.	S 33°05'46" E	39.85'

0 50 100 200
SCALE: 1" = 100'



VISIBILITY & SIDEWALK EASEMENT DETAIL
N.T.S.

NOTES

1. Bearing are referenced to Greenlee Addition (Cab. A, Slide 151).
2. All lot lines are radial or perpendicular to the street unless otherwise noted by bearing.
3. ½" iron rods with "CORWIN ENGR. INC." caps set at all boundary corners, block corners, points of curvature, points of tangancy, and angle points in public right-of-way unless otherwise noted.
4. B.L. - Building Line.
   U.E. - Utility Easements.
   C.M. - Controlling Monument.
   D.E. - Drainage Easement
   F.F. - Finished Floor
   S.S.E. - Sanitary Sewer Easement
   V.A.M.S. - Visibility, Maintenence & Sidewalk Easement
5. No fences or structures allowed in any Drainage Easements.
6. H.O.A. to maintain all Drainage Easements.

LOCATION MAP
N.T.S.

FINAL PLAT J 063
OF

RIDGECREST

45 LOTS, BEING 28.941 ACRES
BEING A REPLAT
LOT 1 & 2 BLOCK A
OF
ROCKWALL LAKESIDE CHURCH OF CHRIST ADDITION
SITUATED IN THE
E.M. ELLIOTT SURVEY, ABSTRACT NO. 77
IN THE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS
PREPARED BY
CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013
972-396-1200
OWNER
RIDGECREST SF, LTD.
8214 WESTCHESTER DRIVE, SUITE 710
DALLAS, TEXAS 75225

DECEMBER 2016 SCALE 1" = 100'

CASE # P2016-045

Ridgecrest
Lots & 2, Block A

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OWNER'S CERTIFICATE

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:
STATE OF TEXAS
COUNTY OF ROCKWALL
We the undersigned owners of the land shown on this plat, and designated herein as the RIDGECREST, 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. We further certify that all other parties who have a mortgage or lien interest in the RIDGECREST, subdivision have been notified and signed this plat.

We 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. We 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. The detention drainage system is to be maintained, repaired and owned by the subdivision/HOA. The drainage easments shall be maintained, repaired, and replaced to approved plan conditions by the subdivision/HOA.

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.

We 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; we, our successors and assigns hereby waive any claim, damage, or cause of action that we may have as a result of the dedication of exactions made herein.

RIDGECREST, SF, LTD.
a Texas limited partnership
By: RIDGECREST SF, GP Corporation,
a Texas corporation, its General Partner

Richard M. Skorburg
President

PATRICIA SNYDER
Notary Public, State of Texas
Comm. Expires 06-30-2019
Notary ID 128660037

STATE OF TEXAS
COUNTY OF
Before me, the undersigned authority, on this day personally appeared RICHARD M. SKORBURG, 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 therein stated. Given upon my hand and seal of office this 15th day of December, 2016.

Notary Public in and for the State of Texas My Commission Expires: 6-30-2019

NOTE: It shall be the policy of the City of Rockwall to withhold issuing building permits until all streets, water, sewer and storm drainage systems have been accepted by the City. The approval of a plat by the City does not constitute any representation, assurance or guarantee that any building within such plat shall be approved, authorized or permit therefore issued, nor shall such approval constitute any representation, assurance or guarantee by the City of the adequacy and availability for water for personal use and fire protection within such plat, as required under Ordinance 83-54.

LEGAL DESCRIPTION

WHEREAS, RIDGECREST SF, LTD., is the owner of a tract of land situated in the E.M. Elliott Survey, Abstract No. 77 in Rockwall County, Texas, being all of Lot 2 Block A and a portion of Lot 1 Block A, out of Rockwall Lakeside Church of Christ Addition, an addition to the City of Rockwall, as described in Cabinet F, Slide 72-78, in the Plat Records of Rockwall County, Texas, being more particularly described as follows:

BEGINNING, at a ½ inch iron rod found at the southwest corner of said Rockwall Lakeside Church of Christ Addition and being the southeast corner of Greenlee Addition, an addition to the City of Rockwall, as described in Cab. A, Slide 151, in said Plat Records;

THENCE, North 01° 05'03" East, along the west line of said Rockwall Lakeside Church of Christ Addition and along the east line of said Greenlee Addition, for a distance of 1325.57 feet, to a ½ inch iron rod found at the northwest corner of said Rockwall Lakeside Church Addition, being in the south line of Rolling Meadows Estates, an addition to the City of Rockwall, as described in Cab. D, Slide 59 in said Plat Records;

THENCE, South 89° 18'40" East, along the north line of said Rockwall Lakeside Church Addition and the south line of siad Rolling Meadows Estates, at 894.47 feet, passing the northeast corner of said Lot 2 Block A and the northwest corner of said Lot 1 Block A, for a total distance of 954.47 feet, to a ½ inch iron rod set with a yellow cap stamped "Corwin Eng. Inc.";

THENCE, South 01° 09'28" West, departing said north and south lines, for a distance of 1328.97 feet, to a ⅜ inch iron rod found being in the north line of Airport Road (75' R.O.W.), and being the most southerly southeast corner of said Lot 1 Block A;

THENCE, North 87° 46'13" West, along the south line of said Lot 1 Block A at 60.00 feet, passing the most southerly southwest corner of said Lot 1 Block A and the southeast corner of said Lot 2 Block A and with the north line of Airport Road, and continuing for a total distance of 482.31 feet, to a ½ inch iron rod found, at the point of curvature of a curve to the left, having a radius of 732.50 feet, a central angle of 03° 15'38", and a tangent of 20.85 feet;

THENCE, along the north line of said Airport Road and the south line of said Lot 2 Block A with said curve to the left for an arc distance of 41.69 feet (Chord Bearing North 89° 24'02" West - 41.68 feet), to a ½ inch iron rod found at the point of tangency;

THENCE, South 88° 58'08" West, continuing along said lines, for a distance of 341.01 feet, to a ½ inch iron rod found;

THENCE, North 88° 50'39" West, continuing along said lines, for a distance of 88.07 feet, to the POINT OF BEGINNING and containing 28.941 acres of land.

SURVEYOR CERTIFICATE

I, WARREN L. CORWIN, do hereby certify that the plat shown hereon accurately represents the results of an on-the-ground survey made under my direction and supervision and all corners are as shown thereon and there are no encroachments, conflicts, protrusions or visible utilities on the ground except as shown and said plat has been prepared in accordance with the platting rules and regulations of the City Plan Commission of the City of Rockwall, Texas.

DATED the this 15 day of Dec., 2016.

WARREN L. CORWIN
R.P.L.S. No. 4621

STATE OF TEXAS
REGISTERED
WARREN L. CORWIN
4621
PROFESSIONAL
LAND SURVEYOR

THE STATE OF TEXAS
COUNTY OF COLLIN

BEFORE ME, the undersigned, a Notary Public in and for the State of Texas, on this day personally appeared WARREN L. CORWIN, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same in the capacity therein stated and for the purposes and considerations therein expressed.

WITNESS MY HAND AND SEAL OF OFFICE, this the 15 day of Dec., 2016.

MARIA ELIZABETH HALLFORD
MY COMMISSION EXPIRES
January 27, 2020

Notary Public in and for the State of Texas

11/15/2016
Planning & Zoning Commission Date

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 21 day of Nov, 2016.

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

WITNESS OUR HANDS, this 20th day of Dec., 2016.

Mayor, City of Rockwall
Kristy Cole, City Secretary
Amy Williams, City Engineer

CITY OF ROCKWALL TEXAS
SEAL

Filed and Recorded
Official Public Records
Shelli Miller, County Clerk
Rockwall County, Texas
12/22/2016 01:37:15 PM
$100.00
20160000022744

COPY

FINAL PLAT J 064
OF

RIDGECREST

45 LOTS, BEING 28.941 ACRES
BEING A REPLAT
LOT 1 & 2 BLOCK A
OF
ROCKWALL LAKESIDE CHURCH
OF CHRIST ADDITION
SITUATED IN THE
E.M. ELLIOTT SURVEY, ABSTRACT NO. 77
IN THE
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ROCKWALL COUNTY, TEXAS
PREPARED BY
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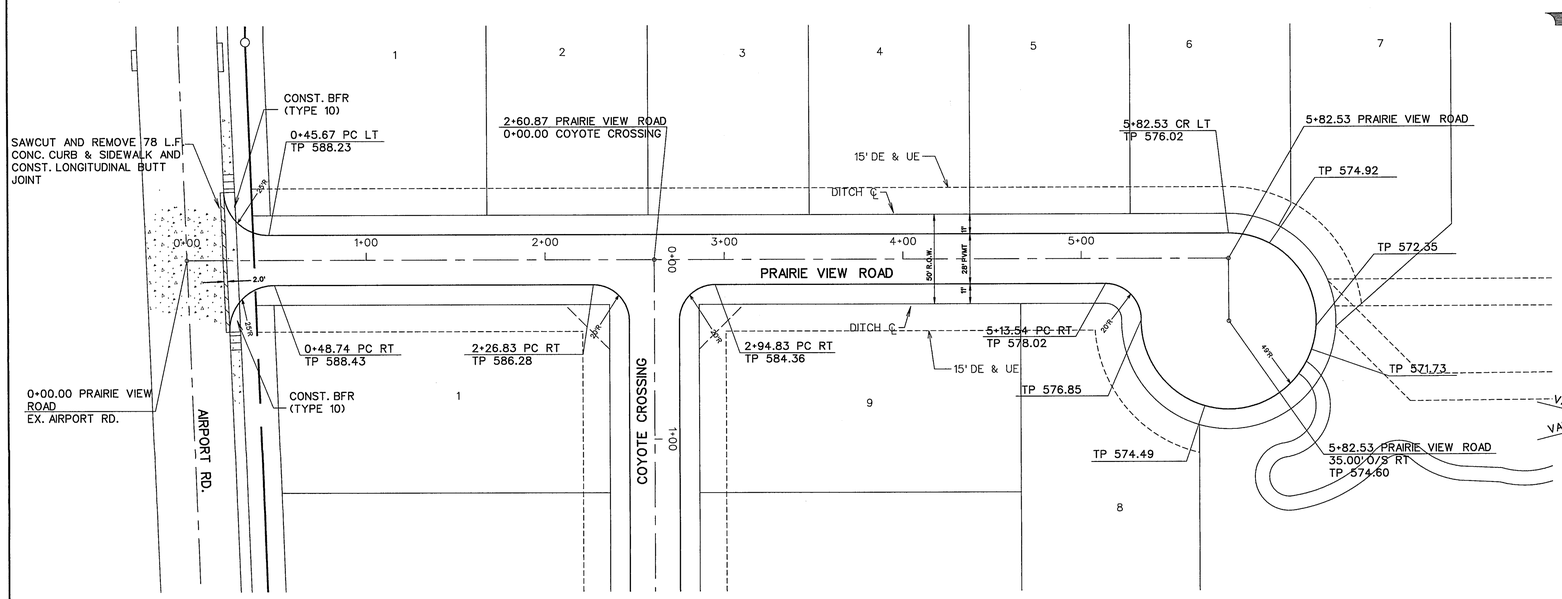
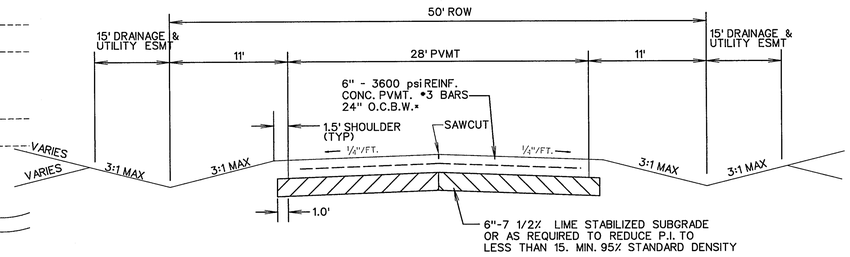
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013
972-396-1200
OWNER
RIDGECREST SF, LTD.
8214 WESTCHESTER DRIVE, SUITE 710
DALLAS, TEXAS 75225

DECEMBER 2016 SCALE 1" = 100'

CASE • P2016-045

Ridgecrest
Lots & 2, Block A
Final Plat





TYPICAL PAVEMENT SECTION

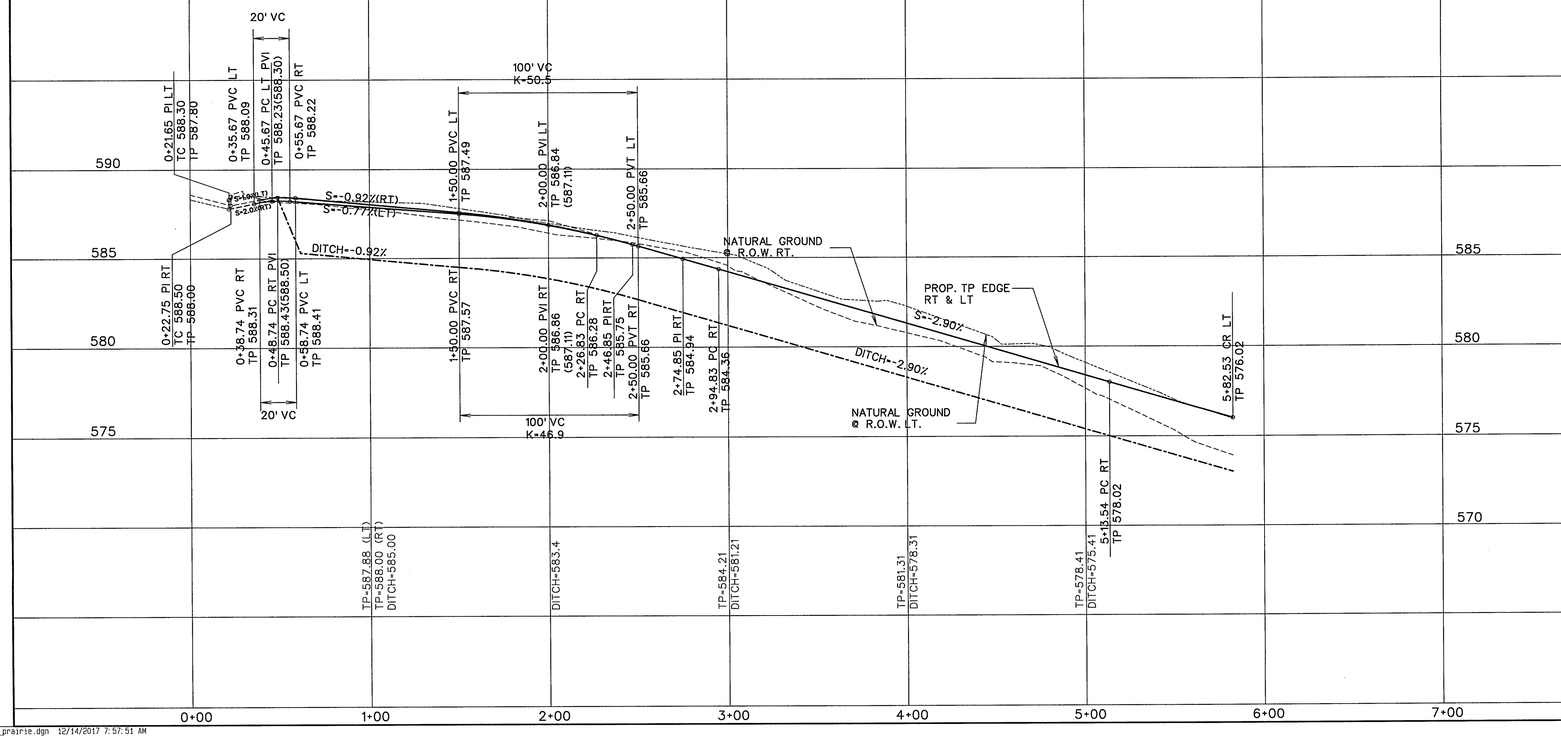
N.T.S.

*MIN. 6.5 SACK MIX IF HAND PLACED
6.0 SACK IF MACHINE PLACED

BENCHMARK:

" X " Cut on inlet on the south side of Airport Rd. approx. 670' east of the centerline of Amity Ln.

ELEVATION = 589.96



AS-BUILT DECEMBER 2017
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/14/17

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR

RIDGECREST

ROCKWALL, TEXAS

PRAIRIE VIEW ROAD

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: HOR: 1"=40' VER: 1"=4'	3 OF 19

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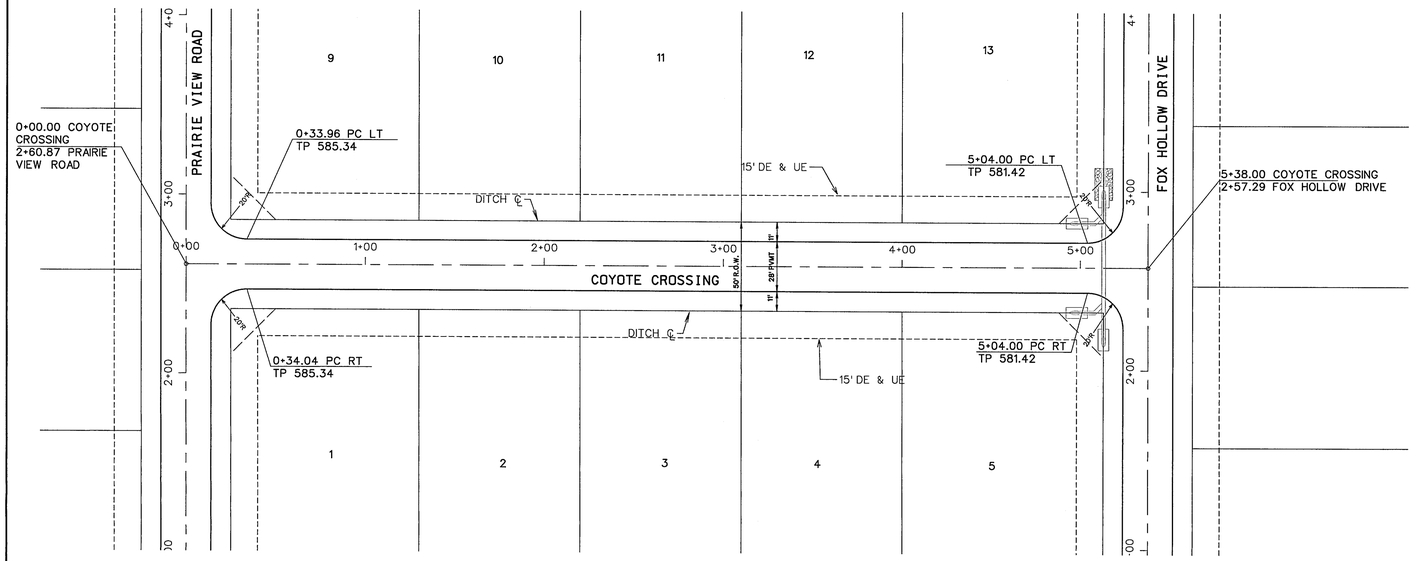

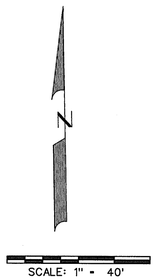

SCALE: 1" = 40'

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approx. 670' east of the centerline of Amity Ln.

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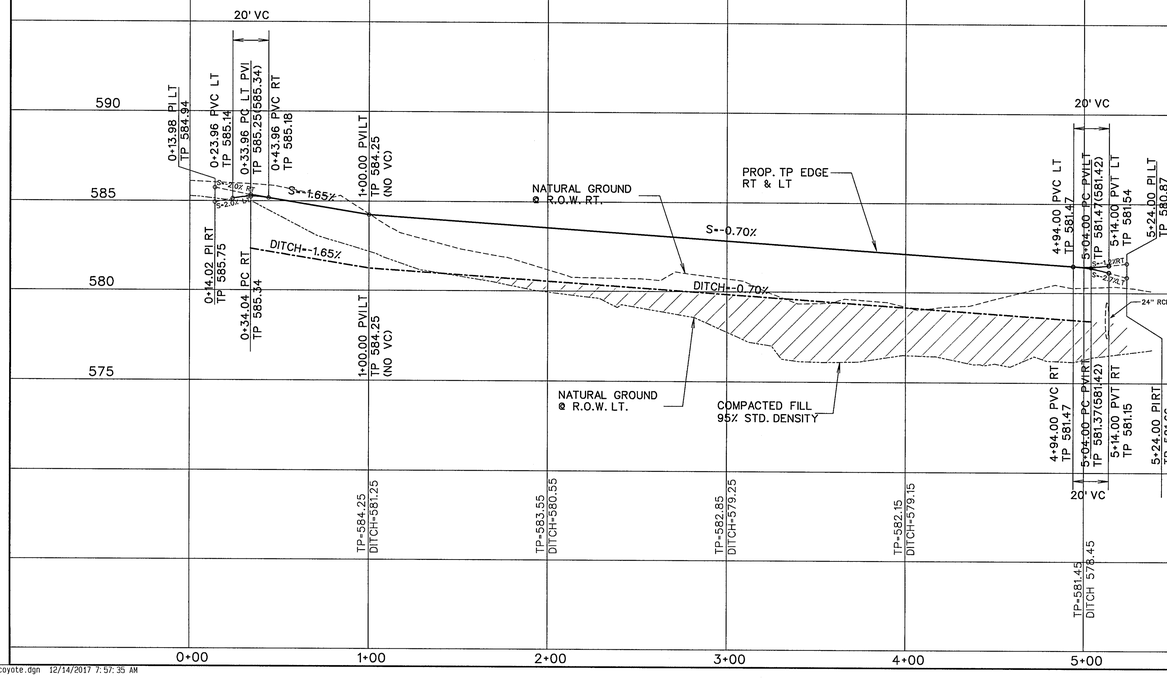

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STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/14/17

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR

RIDGECREST

ROCKWALL, TEXAS

COYOTE CROSSING

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: HOR: 1"=40' VER: 1"=4'	4 OF 19

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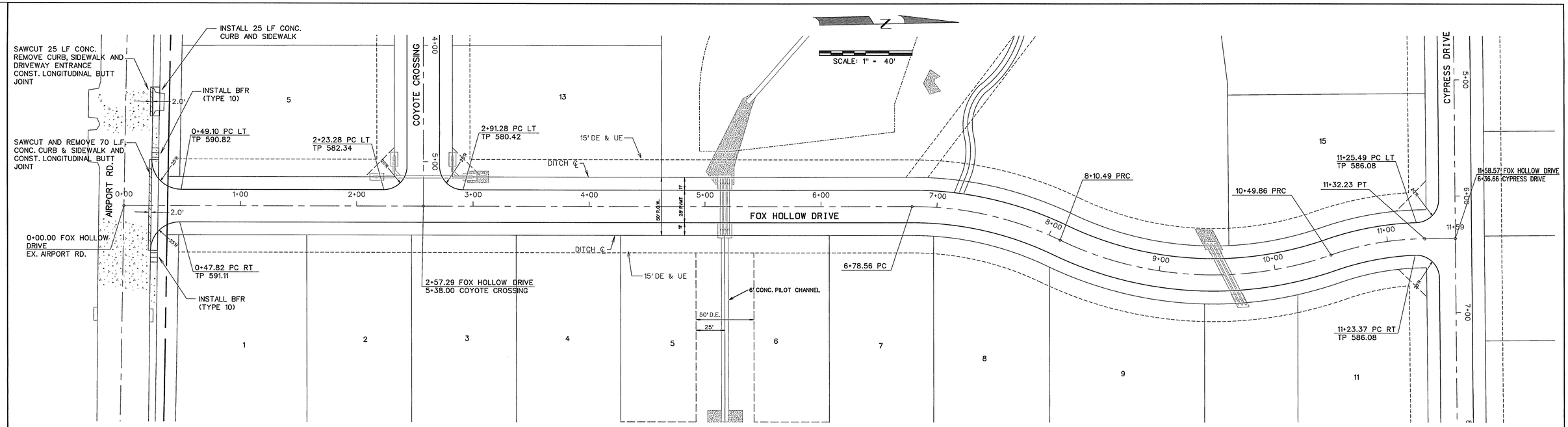

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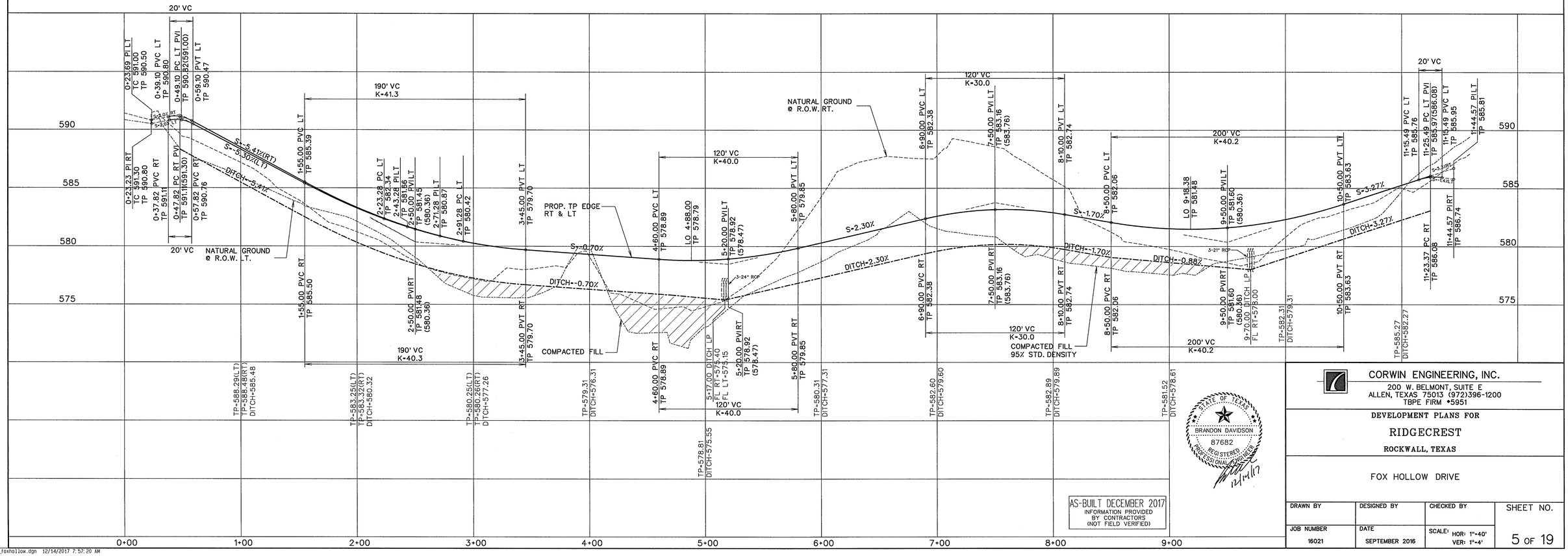

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STATE OF TEXAS
BRANDON DAVIDSON
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REGISTERED PROFESSIONAL ENGINEER
12/14/17

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

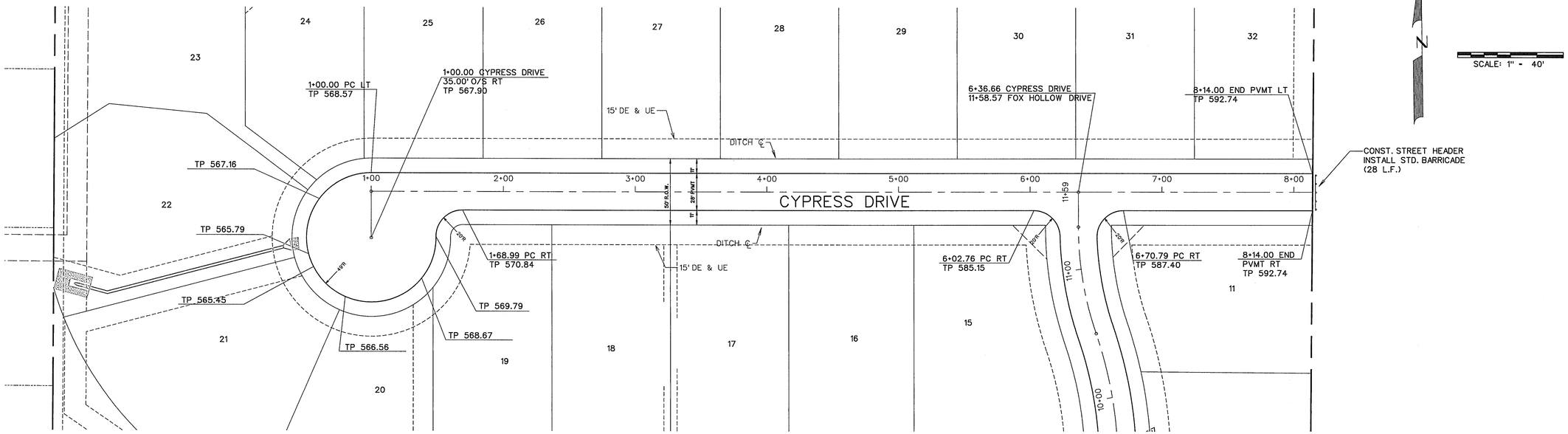
DEVELOPMENT PLANS FOR

RIDGECREST

ROCKWALL, TEXAS

FOX HOLLOW DRIVE

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: HOR: 1"=40' VER: 1"=4'	5 OF 19



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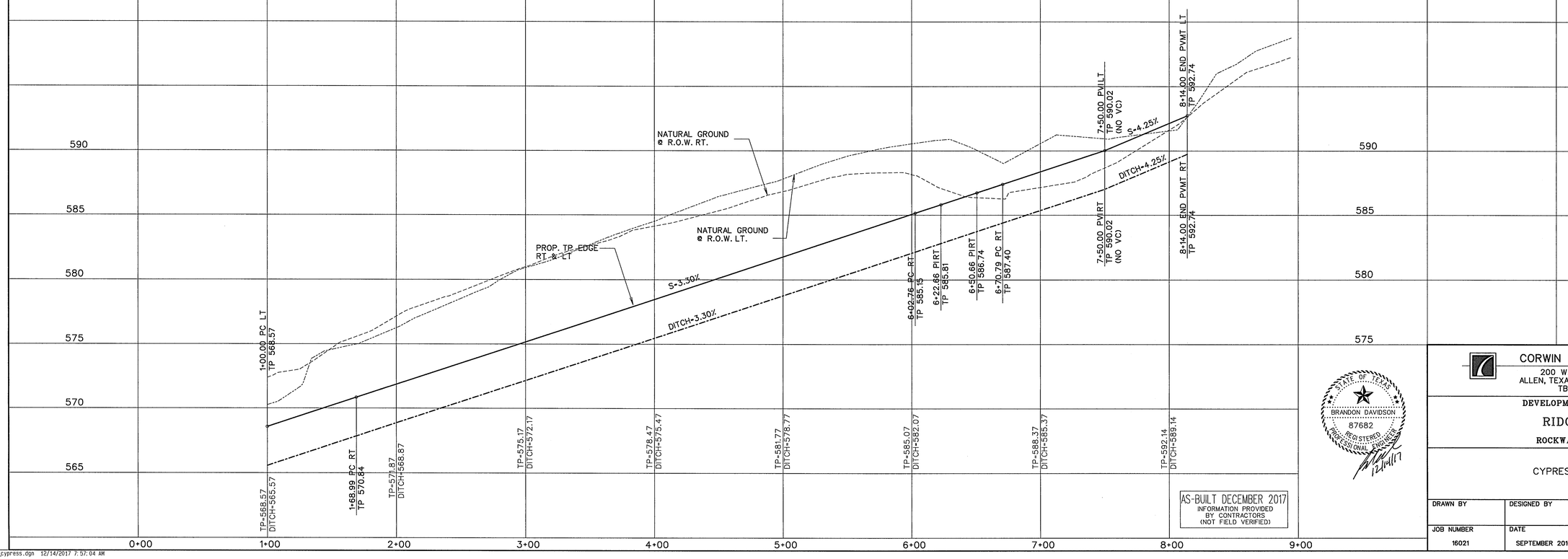

AS-BUILT DECEMBER 2017
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STATE OF TEXAS
BRANDON DAVIDSON
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PROFESSIONAL ENGINEER

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM •5951

DEVELOPMENT PLANS FOR

RIDGECREST

ROCKWALL, TEXAS

CYPRESS DRIVE

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: HOR: 1"=40' VER: 1"=4'	6 OF 19

N

1+18.96 LINE 'S-1'
CONST. STD. 4' DIA. M.H.
T. RIM = 560.50

0+00.00 LINE 'S-1'
TIE TO EX. M.H.
EX T. RIM = 559.20

EX. 8" SS

8" SS

REMOVE EXIST. MANHOLE AFTER LINE 'S-2' IS INSTALLED AND IN SERVICE

0+55.34 LINE 'S-1'
0+00.00 LINE 'S-2'
CONST. STD. 4' DIA. M.H.
T. RIM = 560.20

REVISION #1

INSTALL:
1" IRRIG. SERVICE

EXTEND 8" WL
1 JOINT PAST TEE

INSTALL:
1-8"X8" TEE
1-8"X6" TEE
2-8" VALVES
1-6" VALVE
1-F.H.
1-8" PLUG

INSTALL:
1-12"X8" TAPPING SLEEVE
1-8" VALVE

INSTALL:
1-8"X8" TEE
1-8"X6" TEE
1-8" VALVES
1-6" VALVE
1-F.H.

INSTALL: 8" WATER

INSTALL:
1-8"X6" TEE
1-45° BEND
1-8" VALVE
1-6" VALVE
1-F.H.

EX. 12" WATER

PRAIRIE VIEW ROAD

LINE 'S-1'

LINE 'S-2'

10+95.00 LINE 'S-1'
CONST. STD. 4' DIA. M.H.
T. RIM = 586.75

6+00.00 LINE 'S-1'
CONST. STD. 4' DIA. M.H.
T. RIM = 573.90

3+76.22 LINE 'S-1'
0+00.00 LINE 'S-3'
CONST. STD. 4' DIA. M.H.
T. RIM = 562.80

1+81.29 PC

4+25.00 LINE 'S-4'
CONST. STD. 4' DIA. M.H.
T. RIM = 584.15

INSTALL:
1-45° BEND

CONC. ENCASE UNDER SWALE 50 LF

CONC. ENCASE UNDER SWALE 15 LF

CONC. ENCASE UNDER SWALE 20 LF

15' SAN SWR ESMT.

15' WL ESMT.

7.5'

2-68.33 LINE 'S-2'
PVC STA 1+29.57
CONST. STD. 4' DIA. M.H.
T. RIM = 569.40

INSTALL: 8" WATER

INSTALL:
1-8"X6" TEE
1-8" VALVE
1-6" VALVE
1-F.H.

COYOTE CROSSING

LINE 'S-3'

LINE 'S-4'

LINE 'S-2'

AIRPORT RD.

INSTALL: 8" WATER

CYPRESS DRIVE

REMOVE EXIST. MANHOLE AFTER LINE 'S-2' IS INSTALLED AND IN SERVICE

3+00.00 LINE 'S-3'
CONST. STD. 4' DIA. M.H.
T. RIM = 570.00

PROPOSED DETENTION

9+91.99 LINE 'S-3'
0+00.00 LINE 'S-4'
PVC STA 2+37.78
CONST. STD. 4' DIA. M.H.
T. RIM = 581.90

5+51.67 LINE 'S-3'
0+00.00 LINE 'S-5'
PVC STA 6+78.56
CONST. 4' DIA. INTERNAL DROP M.H.
T. RIM = 581.40

INSTALL:
1-8"X6" TEE
1-8" VALVE
1-6" VALVE
1-F.H.

ABANDON EXIST. SAN. SWR LINE AFTER LINE 'S-2' IS INSTALLED AND IN SERVICE

REVISION #1
INSTALL:
1" IRRIG. SERVICE
EXISTING POND

7+45.79 LINE 'S-2'
CONST. STD. 4' DIA. M.H.
T. RIM = 585.00

11+27.00 LINE 'S-3'
CONST. STD. C.O.

3+90.00 LINE 'S-5'
CONST. STD. 4' DIA. M.H.
T. RIM = 584.10

1+40.65 PRC

3+70.83 PRC

LINE 'S-5'

FOX HOLLOW DRIVE

INSTALL:
1-8"X8" TEE
1-8"X6" TEE
2-8" VALVES
1-6" VALVE
1-F.H.

INSTALL:
1-8"X6" TEE
1-8" VALVE
1-6" VALVE
1-F.H.

INSTALL:
1-8" PLUG
1-TAPPED SERVICE CONNECTION

CUT AND PLUG EX. 8" SAN. SEW.

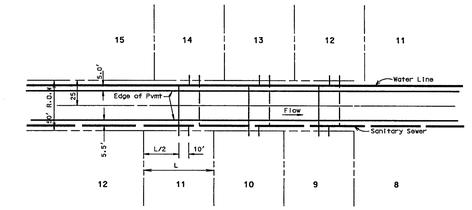
REMOVE EXIST WESTERN CONNECTION AND GROUT MANHOLE TO DIRECT FLOW TO LINE 'S-2' AFTER LINE 'S-2' IS INSTALLED AND IN SERVICE

9+45.32 LINE 'S-2'
CONST. STD. 4' DIA. M.H.
T. RIM = 591.85

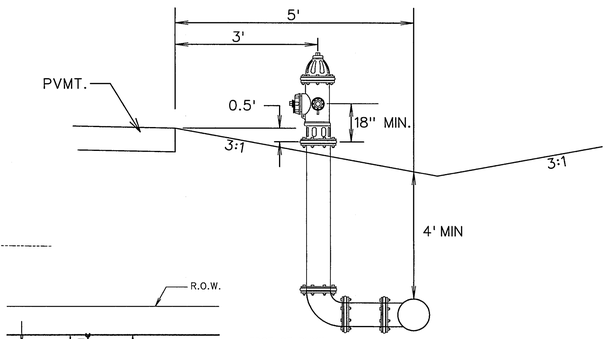
11+65.06 LINE 'S-2'
TIE TO EX. M.H.
EX T. RIM = 598.07

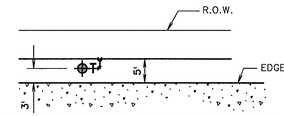
11+04.76 PC

15' SAN SWR ESMT.



TYPICAL WATER & SEWER SERVICE LAYOUT
N.T.S.





FIRE HYDRANT LOCATION DETAIL
N.T.S.

LEGEND

- PROP. WATER LINE
- PROP. FIRE HYDRANT AND VALVE
- PROP. GATE VALVE
- PROP. FLUSH VALVE
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT AND VALVE
- PROP. SANITARY SEWER
- PROP. MANHOLE
- PROP. CLEANOUT
- EXIST. SANITARY SEWER
- EXIST. MANHOLE
- PROP. STORM SEWER
- PROP. CURB INLETS
- PROP. CONC. HEADWALL

NOTE:

ALL WATER LINES TO BE CLASS 200 PIPE DR-14 C-900.

ALL SANITARY SEWER PIPE TO BE SDR 35 FOR 5-10' DEEP AND SDR 26 FOR 10' AND GREATER.

INSTALL BLUE "EMS" DISK ON WATER LINE AT EVERY 250' AND CHANGE IN DIRECTION, VALVE, AND SERVICE.

INSTALL GREEN "EMS" DISK ON SANITARY SEWER LINE EVERY 250' AND AT EVERY CHANGE IN DIRECTION, MANHOLE, CLEANOUT, AND SERVICE.

ALL MANHOLES TO BE RAVEN EPOXY LINED AND SEALED OR APPROVED EQUAL. TO BE SPARK AND PRESSURE TESTED.

SERVICE SCHEDULE		
TYPE	SIZE	NO.
SANITARY	4"	46
WATER	1"	46
IRRIGATION	1"	3

CURVE TABLE

CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT
1.	25°37'24"	314.50'	140.65'	71.52'
2.	46°11'36"	285.50'	230.18'	121.76'
3.	05°22'20"	204.50'	19.72'	9.59'
4.	19°56'54"	250.00'	87.04'	43.97'
5.	13°49'11"	250.00'	60.30'	30.30'

AS-BUILT DECEMBER 2017
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/14/17

NO.	REVISIONS	DATE
1	ADDED 3- 1" IRRIGATION SERVICES	1-3-17

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR

RIDGECREST

ROCKWALL, TEXAS

WATER AND SANITARY SEWER PLAN

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: 1"=60'	7 OF 19

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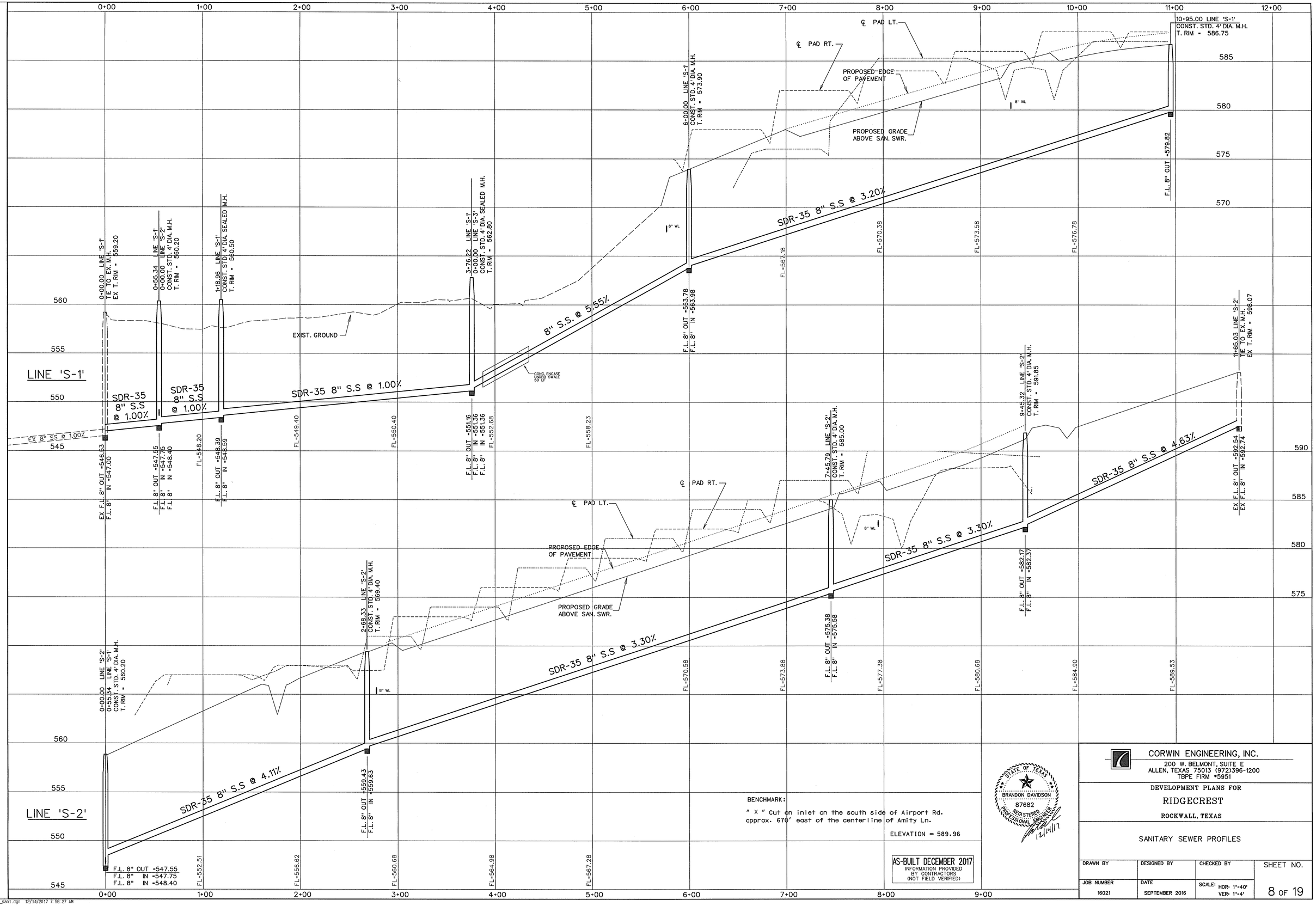

BENCHMARK:

" X " Cut on inlet on the south side of Airport Rd. approx. 670' east of the centerline of Amity Ln.

ELEVATION = 589.96

AS-BUILT DECEMBER 2017
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/14/17

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR

RIDGECREST

ROCKWALL, TEXAS

SANITARY SEWER PROFILES

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: HOR: 1"=40' VER: 1"=4'	8 OF 19

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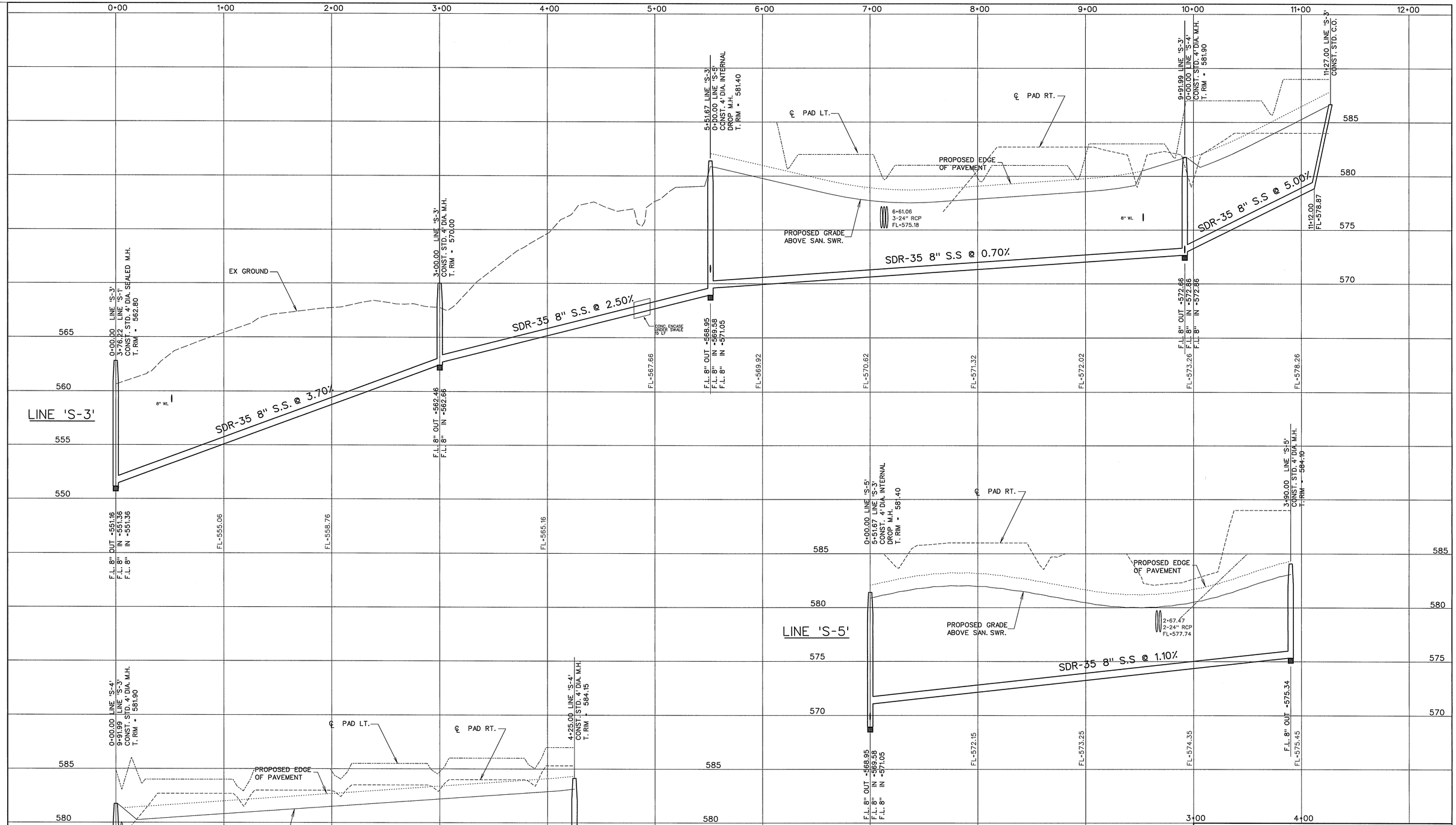

BENCHMARK:

" X " Cut on inlet on the south side of Airport Rd. approx. 670' east of the centerline of Amity Ln.

ELEVATION = 589.96

AS-BUILT DECEMBER 2017
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CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR

RIDGECREST

ROCKWALL, TEXAS

SANITARY SEWER PROFILES

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: HOR: 1"=40' VER: 1"=4'	9 OF 19

N

0 50 100 200

SCALE: 1" = 100'

RUNOFF COMPUTATIONS

Area #	Area (sf)	Area (acres)	Runoff Coefficient	CA	Tc (min)	I(100) (in/hr)	Q(100) (cfs)
EX	1260692	28.9	0.35	10.13	20	8.30	84.1
OS1	409276	9.40	0.50	4.70	10	9.80	46.0
OS2	479004	11.0	0.35	3.85	20	8.30	31.9
OS3	641464	14.7	0.35	5.15	20	8.30	42.8

LEGEND

- PROP. STORM SEWER
- PROP. CURB INLETS
- PROP. CONC. HEADWALL
- EXIST. STORM SEWER
- DRAINAGE AREA DIVIDE
- FLOW ARROW
- AC. / Q — DRAINAGE AREA NO.

STATE OF TEXAS
BRANDON DAVIDSON
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AS-BUILT DECEMBER 2017
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CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR

RIDGECREST

ROCKWALL, TEXAS

EXISTING CONDITIONS DRAINAGE AREA MAP

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: 1"=100'	10 OF 19

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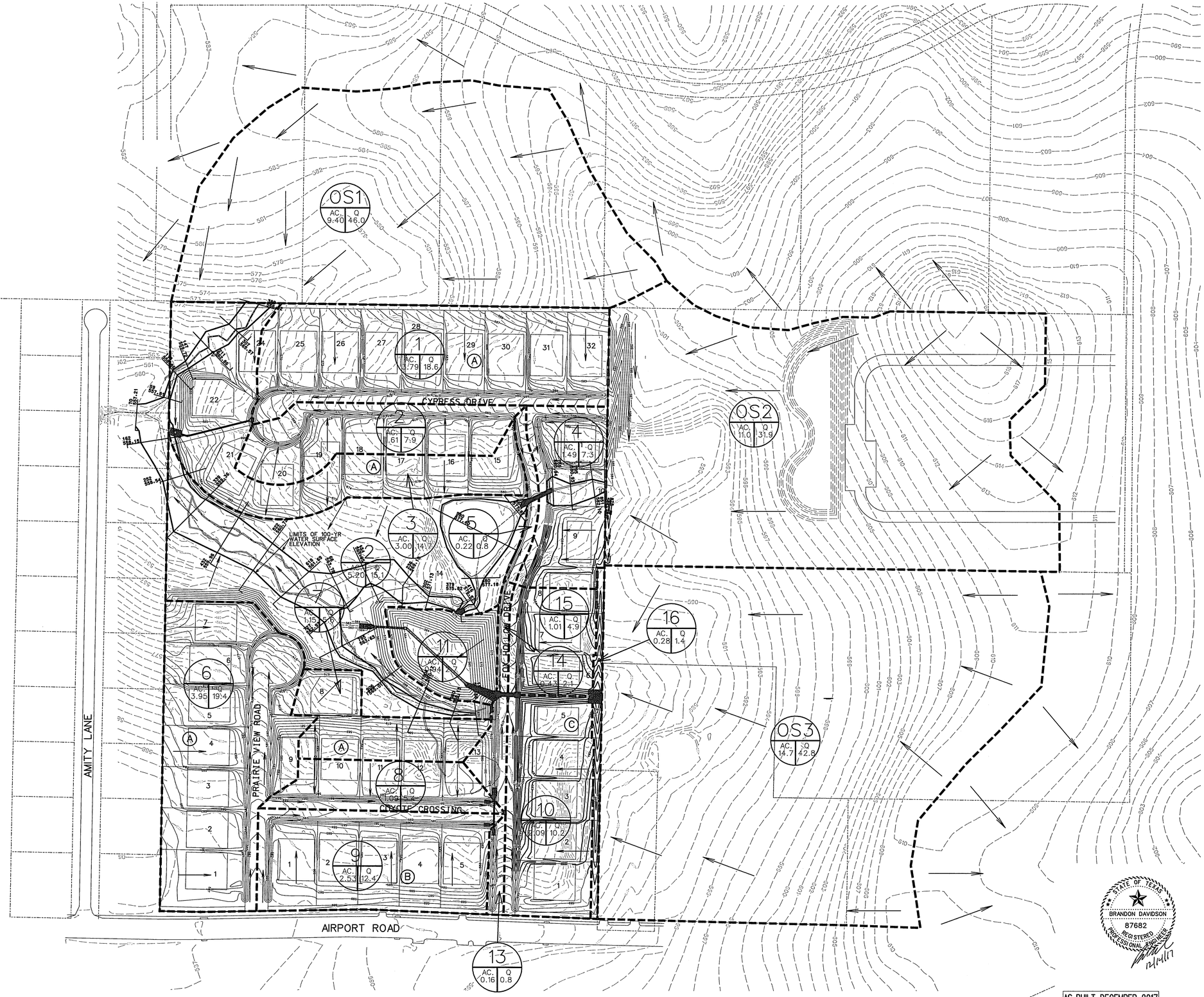

N

0 50 100 200

SCALE: 1" = 100'

RUNOFF COMPUTATIONS

Area #	Area (sf)	Area (ac/ea)	Runoff Coefficient	CA	Tc (min)	I(100) (in/hr)	Q(100) (cfs)
1	165276	3.79	0.50	1.90	10	9.80	18.6
2	70099	1.61	0.50	0.80	10	9.80	7.9
3	130744	3.00	0.50	1.50	10	9.80	14.7
4	64955	1.49	0.50	0.75	10	9.80	7.3
5	9612	0.22	0.35	0.08	20	9.80	0.8
6	172090	3.95	0.50	1.98	10	9.80	19.4
7	50136	1.15	0.50	0.58	10	9.80	5.6
8	47648	1.09	0.50	0.55	10	9.80	5.4
9	110062	2.53	0.50	1.26	10	9.80	12.4
10	91009	2.09	0.50	1.04	10	9.80	10.2
11	40952	0.94	0.35	0.33	20	8.30	2.7
12	226943	5.20	0.35	1.82	20	8.30	15.1
13	7076	0.16	0.50	0.08	10	9.80	0.8
14	18913	0.43	0.50	0.22	10	9.80	2.1
15	43821	1.01	0.50	0.50	10	9.80	4.9
16	12348	0.28	0.50	0.14	10	9.80	1.4
OS1	409276	9.40	0.50	4.70	10	9.80	46.0
OS2	479004	11.0	0.35	3.85	20	8.30	31.9
OS3	641464	14.7	0.35	5.15	20	8.30	42.8

LEGEND

- PROP. STORM SEWER
- PROP. CURB INLETS
- PROP. CONC. HEADWALL
- EXIST. STORM SEWER
- DRAINAGE AREA DIVIDE
- FLOW ARROW
- DRAINAGE AREA NO. (AC. / Q)

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/14/17

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200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR

RIDGECREST

ROCKWALL, TEXAS

DRAINAGE AREA MAP

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: 1"=100'	11 OF 19

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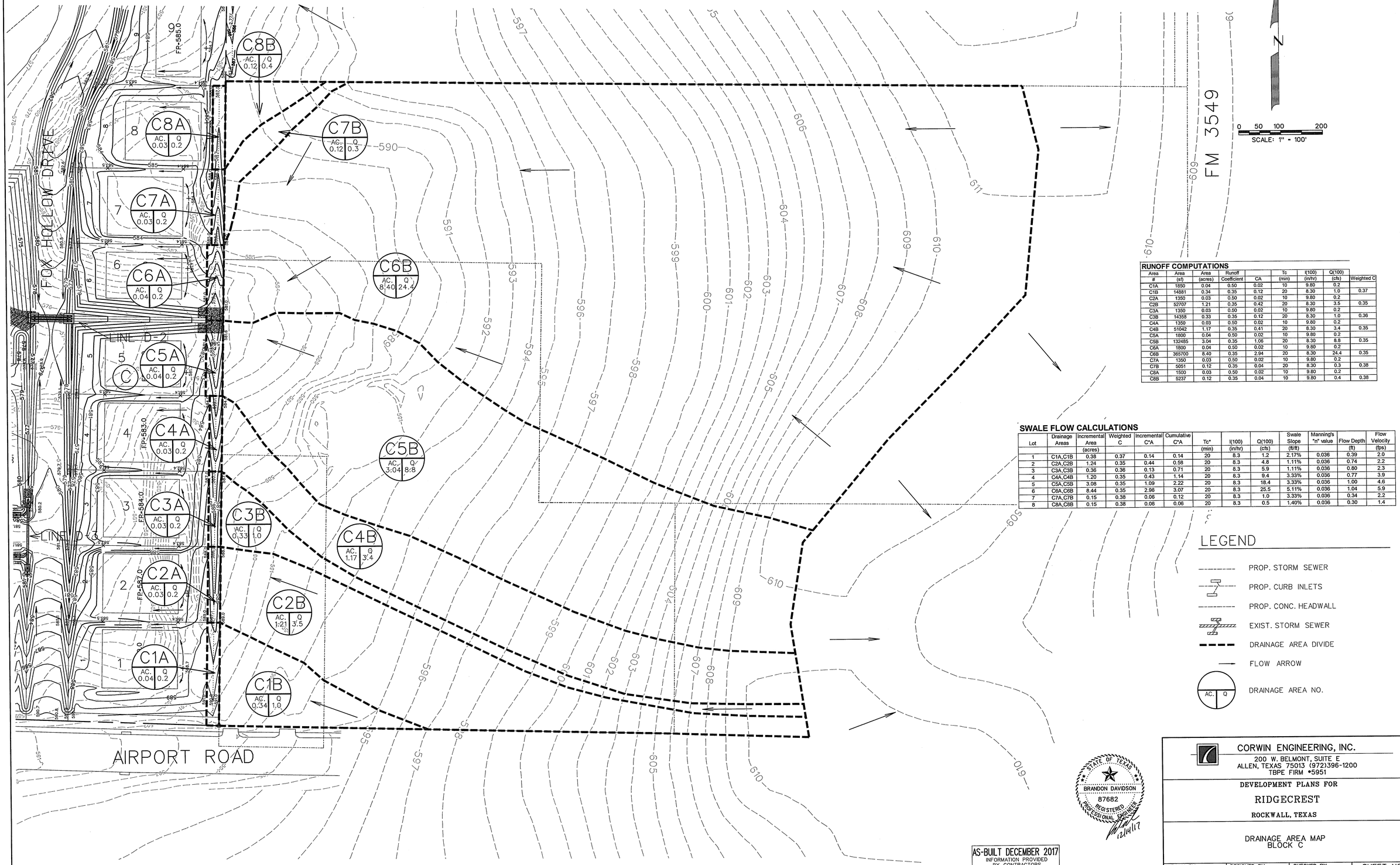

RUNOFF COMPUTATIONS

Area #	Area (sf)	Area (acres)	Runoff Coefficient	CA	Tc (min)	I(100) (in/hr)	Q(100) (cfs)	Weighted C
C1A	1850	0.04	0.50	0.02	10	9.80	0.2	
C1B	14881	0.34	0.35	0.12	20	8.30	1.0	0.37
C2A	1350	0.03	0.50	0.02	10	9.80	0.2	
C2B	52707	1.21	0.35	0.42	20	8.30	3.5	0.35
C3A	1350	0.03	0.50	0.02	10	9.80	0.2	
C3B	14358	0.33	0.35	0.12	20	8.30	1.0	0.36
C4A	1350	0.03	0.50	0.02	10	9.80	0.2	
C4B	51042	1.17	0.35	0.41	20	8.30	3.4	0.35
C5A	1800	0.04	0.50	0.02	10	9.80	0.2	
C5B	132485	3.04	0.35	1.06	20	8.30	8.8	0.35
C6A	1800	0.04	0.50	0.02	10	9.80	0.2	
C6B	365700	8.40	0.35	2.94	20	8.30	24.4	0.35
C7A	1350	0.03	0.50	0.02	10	9.80	0.2	
C7B	5051	0.12	0.35	0.04	20	8.30	0.3	0.38
C8A	1500	0.03	0.50	0.02	10	9.80	0.2	
C8B	5237	0.12	0.35	0.04	10	9.80	0.4	0.38

SWALE FLOW CALCULATIONS

Lot	Drainage Areas	Incremental Area (acres)	Weighted C	Incremental C*A	Cumulative C*A	Tc* (min)	I(100) (in/hr)	Q(100) (cfs)	Swale Slope (ft/ft)	Manning's "n" value	Flow Depth (ft)	Flow Velocity (fps)
1	C1A,C1B	0.38	0.37	0.14	0.14	20	8.3	1.2	2.17%	0.036	0.39	2.0
2	C2A,C2B	1.24	0.35	0.44	0.58	20	8.3	4.8	1.11%	0.036	0.74	2.2
3	C3A,C3B	0.36	0.36	0.13	0.71	20	8.3	5.9	1.11%	0.036	0.80	2.3
4	C4A,C4B	1.20	0.35	0.43	1.14	20	8.3	9.4	3.33%	0.036	0.77	3.9
5	C5A,C5B	3.08	0.35	1.09	2.22	20	8.3	18.4	3.33%	0.036	1.00	4.6
6	C6A,C6B	8.44	0.35	2.98	3.07	20	8.3	25.5	5.11%	0.036	1.04	5.9
7	C7A,C7B	0.15	0.38	0.06	0.12	20	8.3	1.0	3.33%	0.036	0.34	2.2
8	C8A,C8B	0.15	0.38	0.06	0.06	20	8.3	0.5	1.40%	0.036	0.30	1.4

LEGEND

- PROP. STORM SEWER
- PROP. CURB INLETS
- PROP. CONC. HEADWALL
- EXIST. STORM SEWER
- DRAINAGE AREA DIVIDE
- FLOW ARROW
- AC. / Q — DRAINAGE AREA NO.

AS-BUILT DECEMBER 2017
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STATE OF TEXAS
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87682
REGISTERED PROFESSIONAL ENGINEER
12/14/17

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
RIDGECREST
ROCKWALL, TEXAS

DRAINAGE AREA MAP
BLOCK C

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: 1"=100'	12 OF 19

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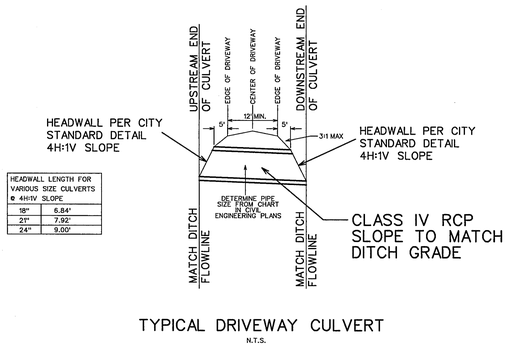
DRIVEWAY CULVERT CALCULATIONS

									OUTLET CONTROL									INLET CONTROL									
		Receives	Drainage			Ditch			Area	Full Flow	Velocity	Hydraulic	Outlet	Ditch Flow	Starting	Length @	Headwater	Headwater	Upstream	Headwater	Inlet	Headwater	Headwater	Inlet		U/S Elev.
		Drainage	Area	Flow	Ditch	Capacity	Pipe Size	No. of	(per barrel)	Velocity	Head	Slope	Flowline	Depth	Tailwater	Flowline	Elevation	Depth	Soffit Elev.	Required	Flowline	Elevation	Depth	or Outlet	U/S	vs. Soffit
Block	Lot	From Lots	(sf)	(cfs)	Slope	(cfs)	(in)	Barrels	(sf)	(fps)	(ft)	(ft/ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	Control?	Elev.	(ft)
A	1	1	27981	3.1	0.92%	232	18	1	1.7671	1.8	0.05	0.0009	0.00	0.73	1.50	36	1.56	1.23	1.83	0.14	0.33	1.22	0.89	Outlet Control	1.56	-0.27
A	2	1-2	46881	5.3	0.92%	102	18	1	1.7671	3.0	0.14	0.0025	0.00	0.89	1.50	36	1.66	1.33	1.83	0.38	0.33	1.47	1.13	Outlet Control	1.66	-0.17
A	3	1-3	65781	7.4	2.90%	463	18	1	1.7671	4.2	0.27	0.0050	0.00	0.82	1.50	36	1.81	0.77	2.54	0.76	1.04	2.55	1.51	Inlet Control	2.55	0.01
A	4	1-4	84681	9.5	2.90%	316	21	1	2.4053	4.0	0.24	0.0036	0.00	0.90	1.75	38	2.01	0.91	2.85	0.68	1.10	2.65	1.55	Outlet Control	2.65	-0.20
A	5	1-5	103581	11.7	2.90%	316	21	1	2.4053	4.8	0.36	0.0054	0.00	0.97	1.75	38	2.14	1.04	2.85	1.01	1.10	2.99	1.89	Inlet Control	2.99	0.14
A	6	1-6	122568	13.8	2.90%	316	24	1	3.1416	4.4	0.30	0.0037	0.00	1.03	2.00	40	2.30	1.14	3.16	0.83	1.16	2.99	1.83	Outlet Control	2.99	-0.17
A	7	1-7	144251	16.2	2.90%	463	24	1	3.1416	5.2	0.41	0.0051	0.00	1.09	2.00	40	2.41	1.25	3.16	1.15	1.16	3.31	2.15	Inlet Control	3.31	0.15
A	8	8-9	24606	2.8	2.90%	463	18	1	1.7671	1.6	0.04	0.0007	0.00	0.57	1.50	36	1.54	0.50	2.54	0.11	1.04	1.90	0.86	Outlet Control	1.90	-0.64
A	9 (Both)	9	26644	3.0	1.65%	463	18	1	1.7671	1.7	0.04	0.0008	0.00	0.65	1.50	36	1.55	0.96	2.09	0.12	0.59	1.47	0.87	Outlet Control	1.55	-0.54
A	10	9-10	17842	2.0	0.70%	232	18	1	1.7671	1.1	0.02	0.0004	0.00	0.65	1.50	36	1.52	1.27	1.75	0.06	0.25	1.06	0.81	Outlet Control	1.52	-0.23
A	11	9-11	27743	3.1	0.70%	232	18	1	1.7671	1.8	0.05	0.0009	0.00	0.77	1.50	36	1.56	1.30	1.75	0.13	0.25	1.14	0.88	Outlet Control	1.56	-0.20
A	12	9-12	37645	4.2	0.70%	232	18	1	1.7671	2.4	0.09	0.0016	0.00	0.86	1.50	36	1.60	1.35	1.75	0.25	0.25	1.25	1.00	Outlet Control	1.60	-0.15
A	13 (Front)	9-13	47648	5.4	0.70%	232	18	1	1.7671	3.0	0.14	0.0026	0.00	0.95	1.50	36	1.67	1.41	1.75	0.40	0.25	1.40	1.15	Outlet Control	1.67	-0.09
A	13 (Side)	9-13,Block B	175779	19.8	0.70%	232	21	2	2.4053	4.1	0.26	0.0039	0.00	1.54	1.75	38	2.03	1.76	2.02	0.73	0.27	1.87	1.60	Outlet Control	2.03	0.01
A	14	N/A	Open Space																							
A	15 (Both)	15	12830	1.4	3.27%	232	18	1	1.7671	0.8	0.01	0.0002	0.00	0.43	1.50	36	1.51	0.33	2.68	0.03	1.18	1.96	0.78	Outlet Control	1.96	-0.72
A	16	15-16	19744	2.2	3.30%	232	18	1	1.7671	1.3	0.02	0.0004	0.00	0.50	1.50	36	1.53	0.34	2.69	0.07	1.19	2.01	0.82	Outlet Control	2.01	-0.68
A	17	15-17	29644	3.3	3.30%	232	18	1	1.7671	1.9	0.06	0.0010	0.00	0.59	1.50	36	1.56	0.38	2.69	0.15	1.19	2.09	0.90	Outlet Control	2.09	-0.60
A	18	15-18	39545	4.4	3.30%	232	18	1	1.7671	2.5	0.10	0.0018	0.00	0.66	1.50	36	1.61	0.43	2.69	0.27	1.19	2.21	1.02	Outlet Control	2.21	-0.48
A	19	15-19	52442	5.9	3.30%	232	18	1	1.7671	3.3	0.17	0.0032	0.00	0.73	1.50	36	1.70	0.51	2.69	0.48	1.19	2.42	1.23	Outlet Control	2.42	-0.27
A	20	15-20	64441	7.2	3.30%	232	18	1	1.7671	4.1	0.26	0.0048	0.00	0.79	1.50	36	1.80	0.61	2.69	0.73	1.19	2.66	1.48	Outlet Control	2.66	-0.02
A	21	15-21	70096	7.9	3.30%	232	18	1	1.7671	4.5	0.31	0.0056	0.00	0.82	1.50	36	1.86	0.67	2.69	0.86	1.19	2.80	1.61	Inlet Control	2.80	0.11
A	22	22-32	221705	24.9	3.30%	232	21	2	2.4053	5.2	0.42	0.0062	0.00	1.25	1.75	38	2.19	0.94	3.00	1.16	1.25	3.29	2.03	Inlet Control	3.29	0.28
A	23	N/A	Open Space																							
A	24	24-32	173576	19.5	3.30%	232	21	2	2.4053	4.1	0.26	0.0038	0.00	1.15	1.75	38	2.02	0.77	3.00	0.71	1.25	2.84	1.59	Outlet Control	2.84	-0.16
A	25	25-32	155728	17.5	3.30%	232	21	2	2.4053	3.6	0.21	0.0031	0.00	1.10	1.75	38	1.97	0.72	3.00	0.57	1.25	2.70	1.45	Outlet Control	2.70	-0.30
A	26	26-32	135549	15.2	3.30%	232	18	2	1.7671	4.3	0.29	0.0053	0.00	1.04	1.50	36	1.83	0.65	2.69	0.80	1.19	2.74	1.55	Inlet Control	2.74	0.05
A	27	27-32	116199	13.1	3.30%	232	18	2	1.7671	3.7	0.21	0.0039	0.00	0.98	1.50	36	1.75	0.56	2.69	0.59	1.19	2.53	1.34	Outlet Control	2.53	-0.16
A	28	28-32	98849	11.1	3.30%	232	21	1	2.4053	4.6	0.33	0.0049	0.00	0.93	1.75	38	2.10	0.85	3.00	0.92	1.25	3.05	1.80	Inlet Control	3.05	0.05
A	29	29-32	77498	8.7	3.30%	232	21	1	2.4053	3.6	0.20	0.0030	0.00	0.85	1.75	38	1.97	0.71	3.00	0.57	1.25	2.70	1.44	Outlet Control	2.70	-0.31
A	30	30-32	58148	6.5	3.30%	232	18	1	1.7671	3.7	0.21	0.0039	0.00	0.76	1.50	36	1.75	0.56	2.69	0.59	1.19	2.53	1.34	Outlet Control	2.53	-0.16
A	31	31-32	38798	4.4	3.30%	232	18	1	1.7671	2.5	0.09	0.0017	0.00	0.66	1.50	36	1.61	0.42	2.69	0.26	1.19	2.20	1.01	Outlet Control	2.20	-0.49
A	32	32	19448	2.2	3.30%	232	18	1	1.7671	1.2	0.02	0.0004	0.00	0.50	1.50	36	1.53	0.34	2.69	0.07	1.19	2.00	0.82	Outlet Control	2.00	-0.68
B	1 (Both)	1	28739	3.2	0.70%	232	18	1	1.7671	1.8	0.05	0.0009	0.00	0.78	1.50	36	1.56	1.31	1.75	0.14	0.25	1.15	0.89	Outlet Control	1.56	-0.19
B	2	1-2	48239	5.4	0.70%	232	18	1	1.7671	3.1	0.15	0.0027	0.00	0.95	1.50	36	1.67	1.42	1.75	0.41	0.25	1.41	1.16	Outlet Control	1.67	-0.08
B	3	1-3	67574	7.6	0.70%	232	18	1	1.7671	4.3	0.29	0.0052	0.00	1.07	1.50	36	1.83	1.58	1.75	0.80	0.25	1.80	1.55	Inlet Control	1.83	0.08
B	4	1-4	87046	9.8	0.70%	232	21	1	2.4053	4.1	0.26	0.0038	0.00	1.18	1.75	38	2.02	1.76	2.02	0.71	0.27	1.86	1.59	Outlet Control	2.02	0.01
B	5 (Front)	1-5	101644	11.4	0.70%	232	21	1	2.4053	4.8	0.35	0.0052	0.00	1.25	1.75	38	2.12	1.86	2.02	0.97	0.27	2.12	1.85	Inlet Control	2.12	0.11
B	5 (Side)	5	15495	1.7	5.41%	232	18	1	1.7671	1.0	0.02	0.0003	0.00	0.42	1.50	36	1.52	-0.43	3.45	0.04	1.95	2.74	0.79	Outlet Control	2.74	-0.71
C	1	1,C1-2B	52552	5.9	5.41%	232	18	1	1.7671	3.3	0.17	0.0032	0.00	0.67	1.50	36	1.70	-0.25	3.45	0.48	1.95	3.18	1.23	Outlet Control	3.18	-0.27
C	2	1-2,C1-3B	132168	14.9	3.00%	232	18	2	1.7671	4.2	0.27	0.0050	0.00	1.05	1.50	36	1.82	0.74	2.58	0.76	1.08	2.59	1.51	Inlet Control	2.59	0.01
C	3	1-3,C1-4B	156373	17.6	0.70%	232	21	2	2.4053	3.7	0.21	0.0031	0.00	1.47	1.75	38	1.97	1.70	2.02	0.58	0.27	1.72	1.45	Outlet Control	1.97	-0.05
C	4	1-4,C1-5B	239679	27.0	0.70%	232	24	2	3.1416	4.3	0.29	0.0036	0.00	**1.73**	2.00	40	2.28	2.00	2.28	0.79	0.28	2.07	1.79	Outlet Control	2.28	0.00
C	5	1-5,C1-5B	258131	29.0	0.70%	232	24	2	3.1416	4.6	0.33	0.0041	0.00	**1.77**	2.00	40	2.33	2.05	2.28	0.92	0.28	2.20	1.92	Outlet Control	2.33	0.05
C	6	6-8,C7-8B	125947	14.2	2.30%	232	18	2	1.7671	4.0	0.25	0.0045	0.00	1.09	1.50	36	1.79	0.96	2.33	0.69	0.83	2.27	1.44	Outlet Control	2.27	-0.06
C	7	7-8,C8B	28233	3.2	2.30%	232	18	1	1.7671	1.8	0.05	0.0009	0.00	0.62	1.50	36	1.56	0.73	2.33	0.14	0.83	1.72	0.89	Outlet Control	1.72	-0.61
C	8	8	10874	1.2	2.30%	232	18	1	1.7671	0.7	0.01	0.0001	0.00	0.43	1.50	36	1.51	0.68	2.33	0.02	0.83	1.60	0.77	Outlet Control	1.60	-0.73
C	9	8-9	29706	3.3	0.88%	232	18	1	1.7671	1.9	0.06	0.0010	0.00	0.75	1.50	36	1.56	1.25	1.82	0.15	0.32	1.22	0.90	Outlet Control	1.56	-0.25
C	10	N/A	Open Space																							
C	11	11 (Both)	23327	2.6	3.27%	232	18	1	1.7671	1.5	0.03	0.0006	0.00	0.54	1.50	36	1.54	0.36	2.68	0.10	1.18	2.02	0.85	Outlet Control	2.02	-0.65

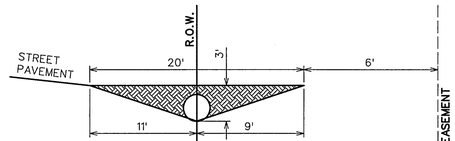
Inlet Control vs. Outlet Control

		Elevation					
		Outlet	Inlet	Governing	Headwater	Headwater	U/S Elev.
Block	Lot	Control	Control	Control	Elevation	Depth	vs. Soffit
		(ft)	(ft)		(ft)	(ft)	(ft)
A	1	1.56	1.22	Outlet Control	1.56	1.23	-0.27
A	2	1.66	1.47	Outlet Control	1.66	1.33	-0.17
A	3	1.81	2.55	Inlet Control	2.55	1.51	0.01
A	4	2.01	2.65	Inlet Control	2.65	1.55	-0.20
A	5	2.14	2.99	Inlet Control	2.99	1.89	0.14
A	6	2.30	2.99	Inlet Control	2.99	1.83	-0.17
A	7	2.41	3.31	Inlet Control	3.31	2.15	0.15
A	8	1.54	1.90	Inlet Control	1.90	0.86	-0.64
A	9 (Both)	1.55	1.47	Outlet Control	1.55	0.96	-0.54
A	10	1.52	1.06	Outlet Control	1.52	1.27	-0.23
A	11	1.56	1.14	Outlet Control	1.56	1.30	-0.20
A	12	1.60	1.25	Outlet Control	1.60	1.35	-0.15
A	13 (Front)	1.67	1.40	Outlet Control	1.67	1.41	-0.09
A	14	0.00	0.00	Inlet Control	0.00	1.60	0.00
A	15 (Both)	1.51	1.96	Inlet Control	1.96	0.00	-0.72
A	16	1.53	2.01	Inlet Control	2.01	0.78	-0.68
A	17	1.56	2.09	Inlet Control	2.09	0.82	-0.60
A	18	1.61	2.21	Inlet Control	2.21	0.90	-0.48
A	19	1.70	2.42	Inlet Control	2.42	1.02	-0.27
A	20	1.80	2.66	Inlet Control	2.66	1.23	-0.02
A	21	1.86	2.80	Inlet Control	2.80	1.48	0.11
A	22	2.19	3.29	Inlet Control	3.29	1.61	0.28
A	23	0.00	0.00	Inlet Control	0.00	2.03	0.00
A	24	2.02	2.84	Inlet Control	2.84	0.00	-0.16
A	25	1.97	2.70	Inlet Control	2.70	1.59	-0.30
A	26	1.83	2.74	Inlet Control	2.74	1.45	0.05
A	27	1.75	2.53	Inlet Control	2.53	1.55	-0.16
A	28	2.10	3.05	Inlet Control	3.05	1.34	0.05
A	29	1.97	2.70	Inlet Control	2.70	1.80	-0.31
A	30	1.75	2.53	Inlet Control	2.53	1.44	-0.16
A	31	1.61	2.20	Inlet Control	2.20	1.34	-0.49
A	32	1.53	2.00	Inlet Control	2.00	1.01	-0.68
B	1 (Both)	1.56	1.15	Outlet Control	1.56	0.34	-0.19
B	2	1.67	1.41	Outlet Control	1.67	1.31	-0.08
B	3	1.83	1.80	Outlet Control	1.83	1.42	0.08
B	4	2.02	1.86	Outlet Control	2.02	1.58	0.01
B	5 (Front)	2.12	2.12	Outlet Control	2.12	1.76	0.11
C	1	1.70	3.18	Inlet Control	3.18	1.85	-0.27
C	2	1.82	2.59	Inlet Control	2.59	0.79	0.01
C	3	1.97	1.72	Outlet Control	1.97	-0.25	-0.05
C	4	2.28	2.07	Outlet Control	2.28	0.74	0.00
C	5	2.33	2.20	Outlet Control	2.33	1.70	0.05
C	6	1.79	2.27	Inlet Control	2.27	1.79	-0.06
C	7	1.56	1.72	Inlet Control	1.72	1.92	-0.61
C	8	1.51	1.60	Inlet Control	1.60	1.44	-0.73
C	9	1.56	1.22	Outlet Control	1.56	0.73	-0.25
C	10	0.00	0.00	Inlet Control	0.00	0.77	0.00
C	11	1.54	2.02	Inlet Control	2.02	0.90	-0.65

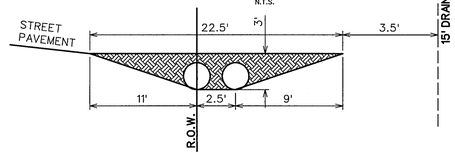


HEADWALL LENGTH FOR VARIOUS SIZE CULVERTS @ 4H:1V SLOPE	
18"	6.84'
21"	7.92'
24"	9.00'

TYPICAL DRIVEWAY CULVERT
N.T.S.



SINGLE CULVERT
N.T.S.



DOUBLE CULVERT
N.T.S.

AS-BUILT DECEMBER 2017
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

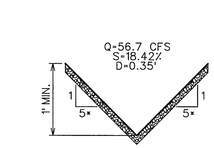
STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/14/17

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR
RIDGECREST
ROCKWALL, TEXAS

DRIVEWAY CULVERT CALCULATIONS

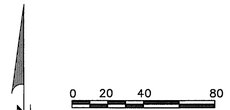
DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE:	13 OF 19

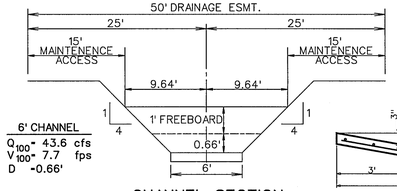


*SIDE SLOPES VARY, MAXIMUM SLOPE USED FOR CALCULATION PURPOSES

SECTION 'A-A'

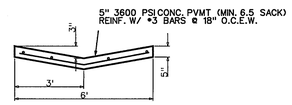
N.T.S.



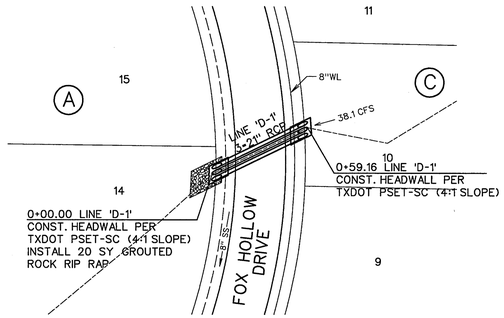


CHANNEL SECTION

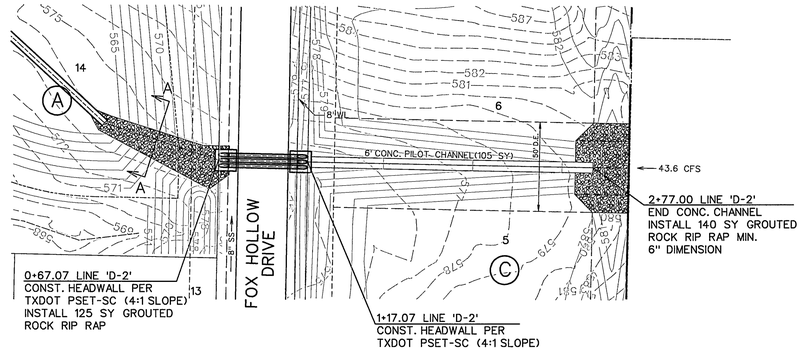
N.T.S.



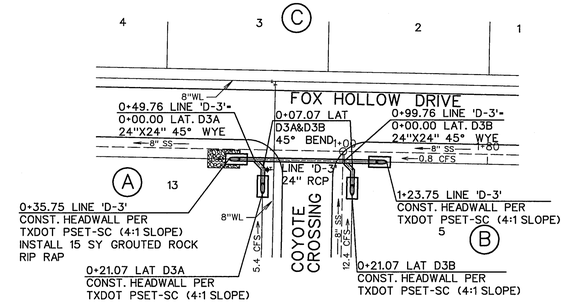
PILOT CHANNEL DETAIL



LINE 'D-1'



LINE 'D-2'



LINE 'D-3'

NOTE:

1. No fences or structures allowed in any Drainage Easements.
2. H.O.A. to maintain all Drainage Easements.

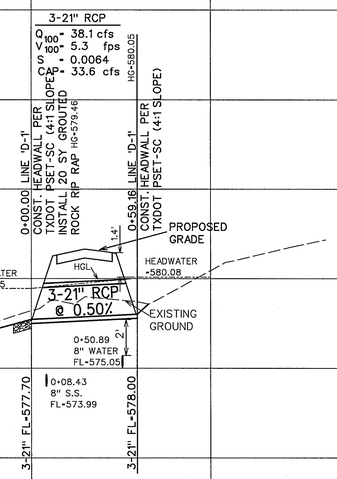
NOTE ALL STORM SEWER PIPE SHALL BE CLASS IV RCP UNLESS NOTED OTHERWISE.

LEGEND

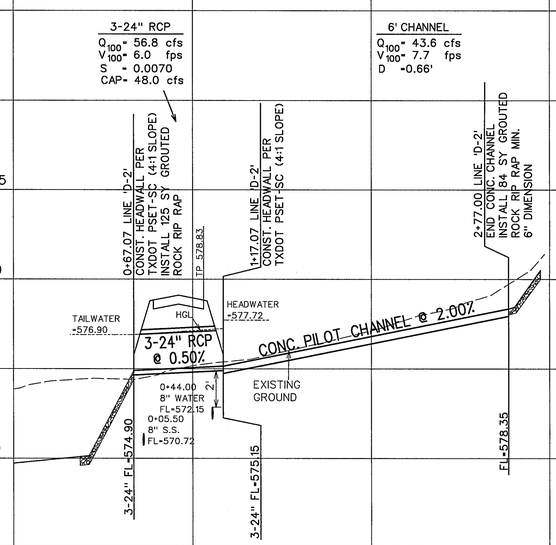
- (B) - BLOCK LABEL
- (19) - INLET NUMBER
- (1) - CURVE NUMBER
- SANITARY SEWER
- WATER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER

CULVERT CALCULATIONS

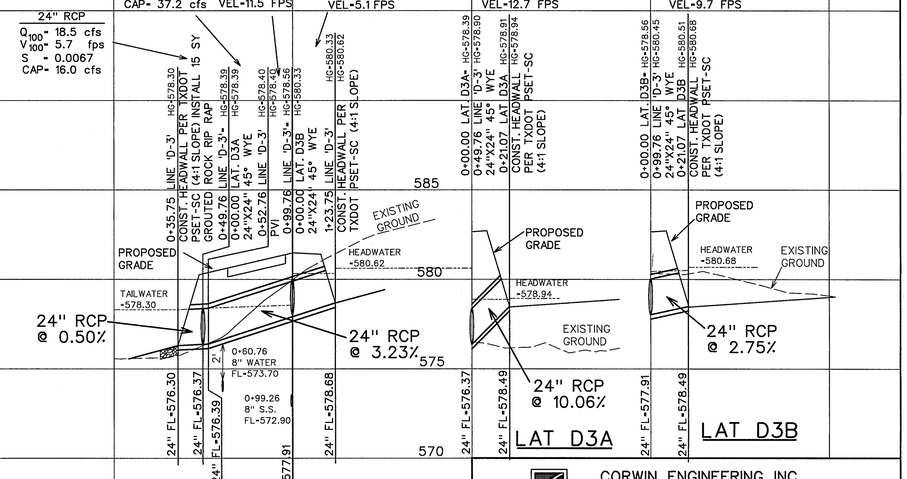
													OUTLET CONTROL				INLET CONTROL								
	AREA	Total Area		Tc	I(100)	Flow	Culvert	Pipe Size	No. of	Area (per barrel)	Full Flow Velocity	Velocity Head	Hydraulic Slope	Outlet Flowline	Starting Tailwater	Length @ Flowline	Headwater Elevation	Upstream Soffit Elev.	Headwater Required	Inlet Flowline	Headwater Elevation	Inlet or Outlet	U/S	U/S Elev. vs. Soffit	Edge of Pavement	Freeboard
	NO.	(Acres)	C	(min)	(in/hr)	(cfs)	Slope	(in)	Barrels	(sf)	(fps)	(ft)	(ft/ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	Control?	Elev.	(ft)	(ft)	(ft)
Line D-1	4,OS2	12.5	0.37	20.0	8.3	38.1	0.50%	21	3	2.4053	5.3	0.43	0.0064	577.70	579.45	59.16	580.05	579.75	1.20	578.00	580.08	Inlet Control	580.08	0.33	581.48	1.40
Line D-2	10,15,16,OS3	18.1	0.38	20.0	8.3	56.8	0.50%	24	3	3.1416	6.0	0.56	0.0070	574.90	576.90	50	577.53	577.15	1.57	575.15	577.72	Inlet Control	577.72	0.57	578.79	1.07



LINE 'D-1'



LINE 'D-2'



LINE 'D-3'

AS-BUILT DECEMBER 2017
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/14/17

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

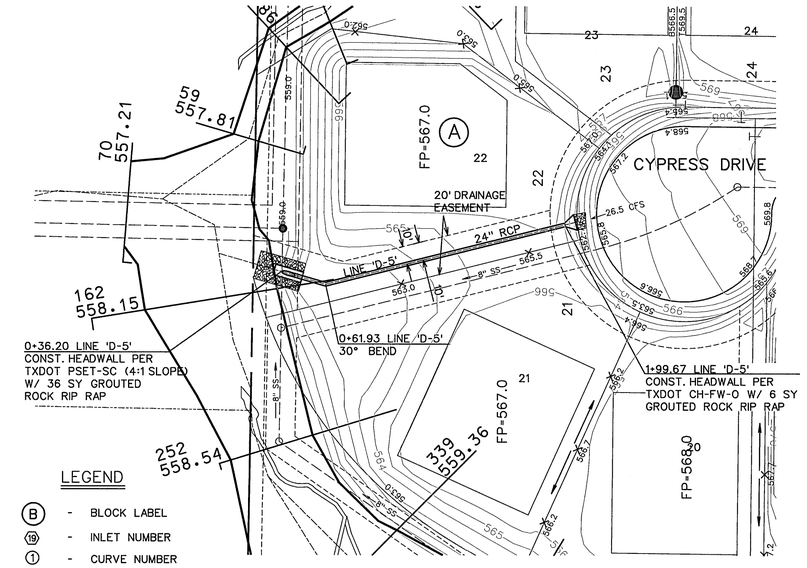
DEVELOPMENT PLANS FOR

RIDGECREST

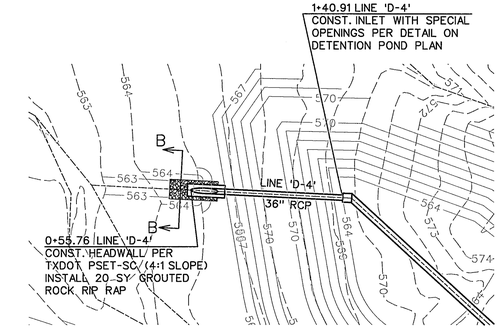
ROCKWALL, TEXAS

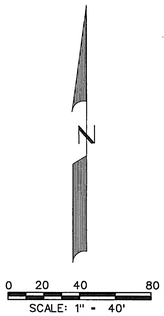
STORM SEWER PLAN AND PROFILE
LINES 'D-1', 'D-2' & 'D-3'

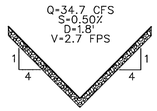
DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: HOR: 1"=40' VER: 1"=4'	14 OF 19



LINE 'D-5'





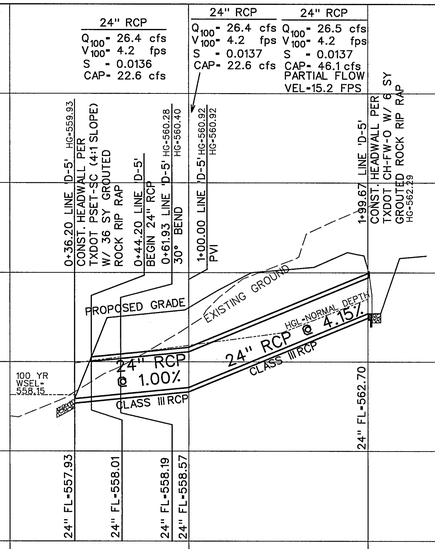


SECTION 'B-B'
N.T.S.

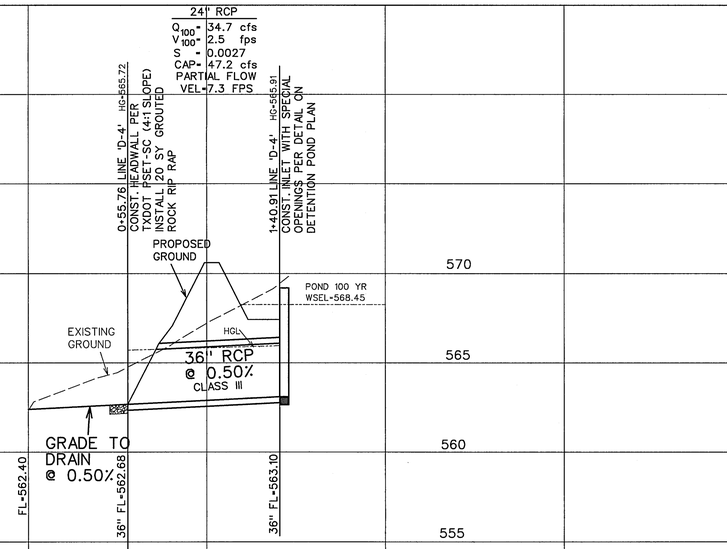
LINE 'D-4'

STORM SEWER CALCULATIONS

Upstream Station	Downstream Station	Distance (ft)	AREA NO.	Total Area (Acres)	Picked Up (Acres)	C		Accumulated CA	Tc (Min)	Design Storm (Years)	I (in/hr)	Q (CFS)	S (ft/ft)	Pipe Size (in)	Velocity (fps)	Velocity Head (ft)	K	Flow Time (Min)	Time at D/S (Min)	ΔVelocity Head (ft)	Hydraulic Grade Upstream	Hydraulic Grade Downstream
Line D3																						
1+23.75	0+99.76	23.99	13	0.16	0.16	0.50	0.08	0.08	10.00	100	9.80	0.8	0.0000	24	5.1	0.40	0.70	0.08	10.08	0.28	580.62	580.33
0+99.76	0+52.76	47.00	D3B	2.53	2.53	0.50	1.26	1.34	10.08	100	9.79	13.2	0.0034	24	11.5	2.05	0.50	0.07	10.15	1.77	580.33	578.56
0+52.76	0+49.76	3.00	PVI	0.00	0.00	0.50	0.00	1.34	10.15	100	9.78	13.1	0.0034	24	4.2	0.27	1.00	0.01	10.16	0.00	578.40	578.40
0+49.76	0+35.75	14.01	D3A	1.09	1.09	0.50	0.55	1.89	10.15	100	9.78	18.5	0.0067	24	5.9	0.54	0.50	0.04	10.19	0.00	578.39	578.39
0+35.75																					578.30	
Lat D3A																						
0+21.07	0+00.00	21.07	8	1.09	1.09	0.50	0.55	0.55	10.00	100	9.80	5.4	0.0006	24	1.7	0.05	0.70	0.21	10.21	0.03	578.94	578.91
0+00.00		0.00													5.9	0.54	1.00	0.00	0.00	0.51	578.90	578.39
Lat D3B																						
0+21.07	0+00.00	21.07	9	2.53	2.53	0.50	1.26	1.26	10.00	100	9.80	12.4	0.0030	24	3.9	0.24	0.70	0.09	10.09	0.17	580.68	580.51
0+00.00		0.00													11.5	2.05	1.00	0.00	0.00	1.88	580.45	578.56
Line D4																						
1+45.91	0+64.57	81.34	Pond	23.26	23.26			Flow Value From Detention Calculations				35.3	0.0028	36	2.5	0.10	1.00	0.54	0.54	0.10		565.91
0+64.57																					565.68	
Line D5																						
1+99.67	1+00.00	99.67	1,2	5.40	5.40	0.50	2.70	2.70	10.00	100	9.80	26.5	0.0137	24	15.2	3.59	1.00	0.11	10.11			562.29
1+00.00	0+61.93	38.07	PVI	0.00	0.00	0.50	0.00	2.70	10.11	100	9.78	26.4	0.0137	24	4.2	0.27	1.00	0.15	10.26	0.00	560.92	560.92
0+61.93	0+36.20	25.73	Bend	0.00	0.00	0.50	0.00	2.70	10.26	100	9.76	26.4	0.0136	24	4.2	0.27	0.45	0.10	10.36	0.12	560.40	560.28
0+36.20																					559.93	



LINE 'D-5'



LINE 'D-4'

AS-BUILT DECEMBER 2017
INFORMATION PROVIDED
BY CONTRACTORS
(NOT FIELD VERIFIED)

STATE OF TEXAS
WARREN L. CORWIN
57875
REGISTERED
PROFESSIONAL ENGINEER
12/14/17

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

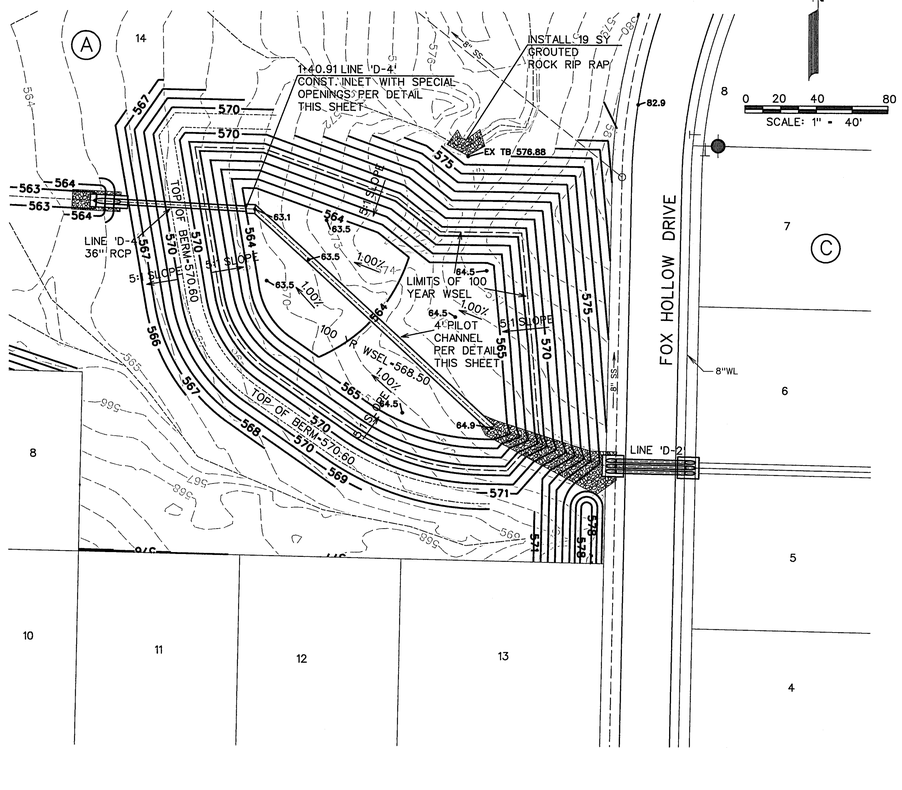
DEVELOPMENT PLANS FOR

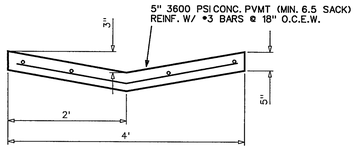
RIDGECREST

ROCKWALL, TEXAS

STORM SEWER PLAN AND PROFILE
LINE 'D-4' & 'D-5'

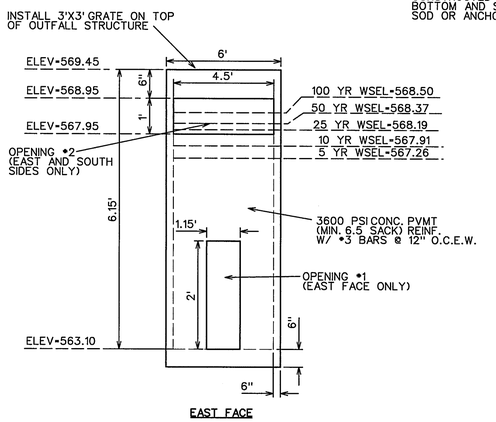
DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: HOR: 1"=40' VER: 1"=4'	15 OF 19





PILOT CHANNEL DETAIL

NOTE:
NO PAVING TO BE INSTALLED UNTIL THE DETENTION SYSTEM IS CONSTRUCTED AND FULLY FUNCTIONING ALONG WITH THE BOTTOM AND SIDES OF THE DETENTION POND TO HAVE EITHER SOD OR ANCHORED SEEDED CURLEX INSTALLED.



EAST FACE

SPECIAL INLET OPENINGS DETAIL
N.T.S.

Elevation Calculations

Event	Maximum Release Rate	Actual Release Rate	Storage Requiremen	Occurs at Elevation
5-year	19.6	19.7	49352	567.26
10-year	25.4	21.6	62721	567.91
25-year	25.7	25.9	68251	568.19
50-year	32.5	31.1	72073	568.37
100-year	37.2	35.3	76227	568.50

THIS PROPERTY WILL OVERDETAIN RUNOFF FROM AREAS 8,9,10, 11 AND OS3 TO ACCOUNT FOR THE FREE RELEASE OF AREAS 1-7 AND 12 SO THAT TOTAL DEVELOPED CONDITIONS RUNOFF FROM THE SITE DOES NOT EXCEED THE RUNOFF UNDER EXISTING CONDITIONS.

Ridgecrest

5-Year Storm

Pre-Project Runoff Calculations

	Area	Area	Existing Runoff		Tc - Existing	Rainfall Intensity	Q - Undeveloped
Area #	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	(cfs)
EX	1260692	28.94	0.35		20	4.9	49.6
						Allowed Release=	**49.6**

Post-Project Runoff Calculations

	Area	Area	Runoff		Tc - Existing	Rainfall Intensity	Q - Post Development
Area #	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	(cfs)
1-10,13-16	993786	22.81	0.50		10	6.1	69.6
11-12	267595	6.14	0.35		20	4.9	10.5
						Proposed Release	**80.1**
						Flow Recution Required=	**30.5**

Inflow to Pond

Drainage	Area	Area	Runoff		Tc	Rainfall Intensity	
Areas	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	Q
8-10,13-16	330877	7.60	0.50	3.80	10	6.1	23.2
11,OS3	682416	15.67	0.35	5.48	20	4.9	26.9
	Weighted C Value	0.39898045				**Proposed Inflow to Pond**	**50.0**
						Allowed Release	**19.6**

10-Year Storm

Pre-Project Runoff Calculations

	Area	Area	Existing Runoff		Tc - Existing	Rainfall Intensity	Q - Undeveloped
Area #	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	(cfs)
1	1260692	28.94	0.35		20	5.9	59.8
						Allowed Release=	**59.8**

Post-Project Runoff Calculations

	Area	Area	Runoff		Tc - Existing	Rainfall Intensity	Q - Post Development
Area #	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	(cfs)
1-10,13-16	993786	22.81	0.50		10	7.1	81.0
11-12	267595	6.14	0.35		10	5.9	12.7
						Proposed Release	**93.7**
						Flow Recution Required=	**33.9**

Inflow to Pond

Drainage	Area	Area	Runoff		Tc	Rainfall Intensity	
Areas	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	Q
8-10,13-16	330877	7.60	0.50	3.80	10	7.1	27.0
11,OS3	682416	15.67	0.35	5.48	20	5.9	32.4
	Weighted C Value	0.40				**Proposed Inflow to Pond**	**59.3**
						Allowed Release	**25.4**

25-Year Storm

Pre-Project Runoff Calculations

	Area	Area	Existing Runoff		Tc - Existing	Rainfall Intensity	Q - Undeveloped
Area #	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	(cfs)
1	1260692	28.94	0.35		20	6.6	66.9
						Allowed Release=	**66.9**

Post-Project Runoff Calculations

	Area	Area	Existing Runoff		Tc - Existing	Rainfall Intensity	Q - Post Development
Area #	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	(cfs)
1-10,13-16	993786	22.8	0.50		10	8.3	94.7
11-12	267595	6.14	0.35		20	6.6	14.2
						Proposed Release	**108.9**
						Flow Recution Required=	**42.0**

Inflow to Pond

Drainage	Area	Area	Runoff		Tc	Rainfall Intensity	
Areas	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	Q
8-10,13-16	330877	7.60	0.50	3.80	10	8.3	31.5
11,OS3	682416	15.67	0.35	5.48	20	6.6	36.2
	Weighted C Value	0.40				**Proposed Inflow to Pond**	**67.7**
						Allowed Release	**25.7**

50-Year Storm

Pre-Project Runoff Calculations

	Area	Area	Existing Runoff		Tc - Existing	Rainfall Intensity	Q - Undeveloped
Area #	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	(cfs)
1	1260692	28.94	0.35		20	7.5	76.0
							76.0

Post-Project Runoff Calculations

	Area	Area	Existing Runoff		Tc - Existing	Rainfall Intensity	Q - Post Development
Area #	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	(cfs)
1-10,13-16	993786	22.8	0.50		10	9	102.7
11-12	267595	6.14	0.35		10	7.5	16.1
						Proposed Release	**118.8**
						Flow Recution Required=	**42.8**

Inflow to Pond

Drainage	Area	Area	Runoff		Tc	Rainfall Intensity	
Areas	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	Q
8-10,13-16	330877	7.60	0.50	3.80	10	9	34.2
11,OS3	682416	15.67	0.35	5.48	20	7.5	41.1
	Weighted C Value	0.40				**Proposed Inflow to Pond**	**75.3**
						Allowed Release	**32.5**

100-Year Storm

Pre-Project Runoff Calculations

	Area	Area	Runoff		Tc - Existing	Rainfall Intensity	Q - Undeveloped
Area #	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	(cfs)
1	1260692	28.94	0.35		20	8.3	84.1
						Allowed Release=	**84.1**

Post-Project Runoff Calculations

	Area	Area	Runoff		Tc - Existing	Rainfall Intensity	Q - Post Development
Area #	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	(cfs)
1-10,13-16	993786	22.8	0.50		10	9.8	111.8
11-12	267595	6.14	0.35		20	8.3	17.8
						Proposed Release	**129.6**
						Flow Recution Required=	**45.6**

Inflow to Pond

Drainage	Area	Area	Runoff		Tc	Rainfall Intensity	
Areas	(sf)	(acres)	Coefficient	CA	(min)	(in/hr)	Q
8-10,13-16	330877	7.60	0.50	3.80	10	9.8	37.2
11,OS3	682416	15.67	0.35	5.48	20	8.3	45.5
	Weighted C Value	0.40				**Proposed Inflow to Pond**	**82.7**
						Allowed Release	**37.2**

Detention Pond Stage Discharge Calculations

Weir Equation - Q=3.33*H^(3/2)*L
Orifice Equation - Q=0.6*A*(2*g*H)^0.5

		Flowline (ft)	Area (sf)	Total Length (ft)	Centroid	g=32.2 ft/s/s
Opening #1	1.15' wide x 2' tall square opening	563.10	2.3000		564.1	
Opening #2	2-4.5' wide x 1' tall openings	567.95	8.0000	9	568.45	

		Opening #1						Opening #2						
		Weir Flow			Orifice Flow							Orifice Flow			Total
Stage (ft)	Flow Type	Weir Length (L)	Head (H)	Release (cfs)	Area (sf)	Head (H)	Release (cfs)	Flow Type	Weir Length (L)	Head (H)	Release (cfs)	Area (sf)	Head (H)	Release (cfs)	Release (cfs)
563.10	Weir	1.18	0.00	0.0	N/A			N/A				N/A			0.0
563.50	Weir	1.18	0.40	1.0	N/A			N/A				N/A			1.0
564.00	Weir	1.18	0.90	3.4	N/A			N/A				N/A			3.4
564.50	Weir	1.18	1.40	6.5	N/A			N/A				N/A			6.5
565.00	Weir	1.18	1.90	10.3	N/A			N/A				N/A			10.3
565.50	Orifice	N/A			2.3	1.40	13.1	N/A				N/A			13.1
566.00	Orifice	N/A			2.3	1.90	15.3	N/A				N/A			15.3
566.50	Orifice	N/A			2.3	2.40	17.2	N/A				N/A			17.2
567.00	Orifice	N/A			2.3	2.90	18.9	N/A				N/A			18.9
567.26	Orifice	N/A			**2.3**	**3.15**	**19.7**	N/A				N/A			**19.7**
567.50	Orifice	N/A			2.3	3.40	20.4	N/A				N/A			20.4
567.91	Orifice	N/A			**2.3**	**3.81**	**21.6**	N/A				N/A			21.6
567.90	Orifice	N/A			**2.3**	**3.80**	**21.6**	N/A				N/A			21.6
568.00	Orifice	N/A			2.3	3.90	21.9	Weir	9	0.05	0.3	N/A			22.2
568.19	Orifice	N/A			**2.3**	**4.09**	**22.4**	Weir	9	0.24	3.5	N/A			25.9
568.37	Orifice	N/A			**2.3**	**4.27**	**22.9**	Weir	9	0.42	8.2	N/A			31.1
568.50	Orifice	N/A			**2.3**	**4.40**	**23.2**	Weir	9	0.55	12.1	N/A			35.3
568.50	Orifice	N/A			2.3	4.40	23.2	Weir	9	0.55	12.2	N/A			35.5
569.00	Orifice	N/A			2.3	4.90	24.5	Orifice				9	0.55	32.1	56.7
569.50	Orifice	N/A			2.3	5.40	25.7	Orifice				9	1.05	44.4	70.1
570.00	Orifice	N/A			2.3	5.90	26.9	Orifice				9	1.55	54.0	80.9

5 year
10 Year
25 Year
50 Year
100 Year

DETENTION CALCULATIONS - 5 Year

Storm Duration	Outflow Duration	Area (AC.)	Future "C"	Future "Kf"	Future "CA"	Rainfall intensity	Inflow (cfs)	Volume (cubic ft.)	Volume (cubic ft.)	Volume (cubic ft.)	Volume (acre-ft.)	Outflow (cfs)
10	20	23.26	0.40	1.00	9.28	6.10	56.6	33969	11802	**22166**	**0.51**	19.7
20	30	23.26	0.40	1.00	9.28	4.90	45.5	54573	17704	**36869**	**0.85**	19.7
30	40	23.26	0.40	1.00	9.28	4.10	38.1	68494	23605	**44889**	**1.03**	19.7
40	50	23.26	0.40	1.00	9.28	3.40	31.6	75734	29506	**46227**	**1.06**	19.7
50	60	23.26	0.40	1.00	9.28	2.80	26.0	77961	35407	**42554**	**0.98**	19.7
60	70	23.26	0.40	1.00	9.28	2.60	24.1	86871	41309	**45562**	**1.05**	19.7
70	80	23.26	0.40	1.00	9.28	2.40	22.3	93553	47210	**46343**	**1.06**	19.7
80	90	23.26	0.40	1.00	9.28	2.30	21.3	102463	53111	**49352**	**1.13**	19.7
90	100	23.26	0.40	1.00	9.28	2.10	19.5	105248	59012	**46235**	**1.06**	19.7
100	110	23.26	0.40	1.00	9.28	1.90	17.6	105804	64914	**40891**	**0.94**	19.7
										49352		

DETENTION CALCULATIONS - 10 Year

Storm Duration	Outflow Duration	Area (AC.)	Future "C"	Future "Kf"	Future "CA"	Rainfall intensity	Inflow (cfs)	Volume (cubic ft.)	Volume (cubic ft.)	Volume (cubic ft.)	Volume (acre-ft.)	Outflow (cfs)
10	20	23.26	0.40	1.00	9.28	7.10	65.9	39537	12977	**26561**	**0.61**	21.6
20	30	23.26	0.40	1.00	9.28	5.90	54.8	65710	19465	**46245**	**1.06**	21.6
30	40	23.26	0.40	1.00	9.28	4.80	44.5	80189	25953	**54235**	**1.25**	21.6
40	50	23.26	0.40	1.00	9.28	4.00	37.1	89098	32442	**56657**	**1.30**	21.6
50	60	23.26	0.40	1.00	9.28	3.50	32.5	97451	38930	**58521**	**1.34**	21.6
60	70	23.26	0.40	1.00	9.28	3.00	27.8	100236	45418	**54817**	**1.26**	21.6
70	80	23.26	0.40	1.00	9.28	2.80	26.0	109146	51907	**57239**	**1.31**	21.6
80	90	23.26	0.40	1.00	9.28	2.60	24.1	115828	58395	**57433**	**1.32**	21.6
90	100	23.26	0.40	1.00	9.28	2.50	23.2	125295	64883	**60411**	**1.39**	21.6
100	110	23.26	0.40	1.00	9.28	2.40	22.3	133648	71372	**62276**	**1.43**	21.6
110	120	23.26	0.40	1.00	9.28	2.30	21.3	140581	77860	**62721**	**1.44**	21.6
										62721		

DETENTION CALCULATIONS - 25 Year

Storm Duration	Outflow Duration	Area (AC.)	Future "C"	Future "Kf"	Future "CA"	Rainfall intensity	Inflow (cfs)	Volume (cubic ft.)	Volume (cubic ft.)	Volume (cubic ft.)	Volume (acre-ft.)	Outflow (cfs)
10	20	23.26	0.40	1.00	9.28	8.30	77.0	46220	15523	**30697**	**0.70**	25.9
20	30	23.26	0.40	1.00	9.28	6.60	61.3	73506	23284	**50222**	**1.15**	25.9
30	40	23.26	0.40	1.00	9.28	5.50	51.0	91883	31045	**60838**	**1.40**	25.9
40	50	23.26	0.40	1.00	9.28	4.60	42.7	102463	38806	**63657**	**1.46**	25.9
50	60	23.26	0.40	1.00	9.28	4.00	37.1	111373	46568	**64805**	**1.49**	25.9
60	70	23.26	0.40	1.00	9.28	3.50	32.5	116942	54329	**62613**	**1.44**	25.9
70	80	23.26	0.40	1.00	9.28	3.30	30.6	126636	62090	**66545**	**1.53**	25.9
80	90	23.26	0.40	1.00	9.28	3.10	28.8	138103	69852	**68251**	**1.57**	25.9
90	100	23.26	0.40	1.00	9.28	2.90	26.9	145342	77613	**67729**	**1.55**	25.9
100	110	23.26	0.40	1.00	9.28	2.70	25.1	150354	85374	**64979**	**1.49**	25.9
										68251		

DETENTION CALCULATIONS - 50 Year

Storm Duration	Outflow Duration	Area (AC.)	Future "C"	Future "Kf"	Future "CA"	Rainfall intensity	Inflow (cfs)	Volume (cubic ft.)	Volume (cubic ft.)	Volume (cubic ft.)	Volume (acre-ft.)	Outflow (cfs)
10	20	23.26	0.40	1.00	9.28	9.00	83.5	50118	18663	**31455**	**0.72**	31.1
20	30	23.26	0.40	1.00	9.28	7.50	69.6	83530	27995	**55535**	**1.27**	31.1
30	40	23.26	0.40	1.00	9.28	6.10	56.6	101906	37327	**64580**	**1.48**	31.1
40	50	23.26	0.40	1.00	9.28	5.20	48.3	115828	46658	**69170**	**1.59**	31.1
50	60	23.26	0.40	1.00	9.28	4.50	41.8	125295	55990	**69305**	**1.59**	31.1
60	70	23.26	0.40	1.00	9.28	3.90	36.2	130306	65321	**64985**	**1.49**	31.1
70	80	23.26	0.40	1.00	9.28	3.70	34.3	144228	74653	**69575**	**1.60**	31.1
80	90	23.26	0.40	1.00	9.28	3.50	32.5	155922	83985	**71937**	**1.65**	31.1
90	100	23.26	0.40	1.00	9.28	3.30	30.6	165389	93316	**72073**	**1.65**	31.1
100	110	23.26	0.40	1.00	9.28	3.00	27.8	167060	102648	**64411**	**1.48**	31.1
										72073		

DETENTION CALCULATIONS - 100 Year

Storm Duration	Outflow Duration	Area (AC.)	Future "C"	Future "Kf"	Future "CA"	Rainfall intensity	Inflow (cfs)	Volume (cubic ft.)	Volume (cubic ft.)	Volume (cubic ft.)	Volume (acre-ft.)	Outflow (cfs)
10	20	23.26	0.40	1.00	9.28	9.80	91.0	54573	21186	**33386**	**0.77**	35.3
20	30	23.26	0.40	1.00	9.28	8.30	77.0	92449	31780	**60660**	**1.39**	35.3
30	40	23.26	0.40	1.00	9.28	6.90	64.0	115271	42373	**72898**	**1.67**	35.3
40	50	23.26	0.40	1.00	9.28	5.80	53.8	129193	52966	**76227**	**1.75**	35.3
50	60	23.26	0.40	1.00	9.28	5.00	46.4	139216	63559	**75657**	**1.74**	35.3
60	70	23.26	0.40	1.00	9.28	4.50	41.8	150354	74153	**76201**	**1.75**	35.3
70	80	23.26	0.40	1.00	9.28	4.00	37.1	155922	84746	**71176**	**1.63**	35.3
80	90	23.26	0.40	1.00	9.28	3.70	34.3	164832	95339	**69493**	**1.60**	35.3
90	100	23.26	0.40	1.00	9.28	3.50	32.5	175413	105932	**69480**	**1.60**	35.3
100	110	23.26	0.40	1.00	9.28	3.40	31.6	180334	116526	**72809**	**1.67**	35.3
										76227		

Elevation-Storage Table

Elevation	Area	Incremental Volume	Cumulative Volume
563.1	0	(cf)	(cf)
564	5238	2357	2357
565	13596	9417	11774
566	16145	14871	26645
567	18874	17510	44154
568	21788	20331	64485
569	24886	23337	87822
570	28158	26522	114344

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/14/17

AS-BUILT DECEMBER 2017
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

CORWIN ENGINEERING, INC.
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR

RIDGECREST

ROCKWALL, TEXAS

DETENTION POND PLAN

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: HOR: 1"=40' VER: 1"=4'	16 OF 19

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NOTE:

RETAINING WALLS 3' IN HEIGHT AND OVER NEED A ENGINEERED SEALED PLAN. (PLANS TO BE SUBMITTED PRIOR TO ENGINEERING APPROVAL)

ⓧ DRIVEWAY LOCATION SO MAXIMUM 14% SLOPE OR UNDER IS MAINTAINED, OR AS TO AVOID INLET. (DRIVEWAY MAY BE PLACED AT ALTERNATE LOCATION WITH USE OF A DROP GARAGE AS LONG AS MAXIMUM SLOPE IS 14% OR UNDER)

LEGEND

SPOT ELEVATION 706.2

EXIST. CONTOUR —700—

PROP. CONTOUR —704—

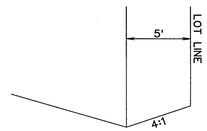
RETAINING WALL -------

Note:

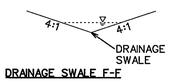
Each lot will need a detailed grading plan with building permit submittal. This is a general grading plan for site work only.

NOTES:

1. Finish Floor Elevation to be 0.70 Feet above Finished Pad.(FP)
2. Additional Erosion Control to be installed in Parkways as determined by the City Inspector.
3. Finished Pad Elevations are within ± 0.3 Feet.
4. All fill compacted to min 95% std. density using sheeps foot roller.

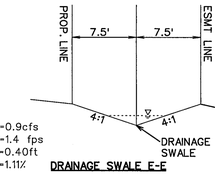


SECTION G-G



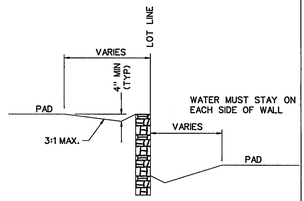
Q=31.9cfs
V=5.7 fps
D=1.2ft
S=4.07%

DRAINAGE SWALE F-F



Q=0.9cfs
V=1.4 fps
D=0.40ft
S=1.11%

DRAINAGE SWALE E-E



TYPICAL SIDEYARD RETAINING WALL

N.T.S.

NO.	REVISIONS	DATE
1	ADDED SIDE YARD RETAINING WALLS	9/6/17

CORWIN ENGINEERING, INC.
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ALLEN, TEXAS 75013 (972)396-1200
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DEVELOPMENT PLANS FOR

RIDGECREST

ROCKWALL, TEXAS

GRADING PLAN

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: 1"=50'	17 OF 19

PRAIRIE VIEW ROAD

FOX HOLLOW DRIVE

AIRPORT RD.

COYOTE CROSSING

CYPRESS DRIVE

REVISION •1

INSTALL 45 SY GROUTED RIPRAP TYPE 'A' PER NCTCOG ITEM •803.3.3.4

INSTALL 55 SY GROUTED RIPRAP TYPE 'A' PER NCTCOG ITEM •803.3.3.4

LIMITS OF 100-YR WATER SURFACE ELEVATION

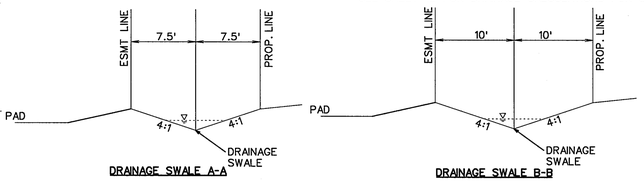
PROP. RETAINING WALL

PROP. DETENTION

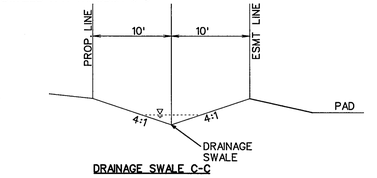
EXIST. POND

LOT 14 BLOCK A OPEN SPACE/DRAINAGE EASEMENT

SEE SHEET 12 FOR DRAINAGE CALCULATIONS FOR SWALES A-A THROUGH D-D

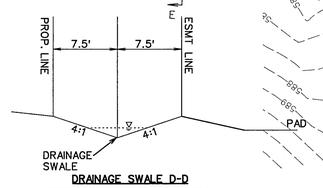


DRAINAGE SWALE A-A



DRAINAGE SWALE B-B

DRAINAGE SWALE C-C



DRAINAGE SWALE D-D

AS-BUILT DECEMBER 2017
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

STATE OF TEXAS
BRANDON DAVIDSON
87682
REGISTERED PROFESSIONAL ENGINEER
12/14/17

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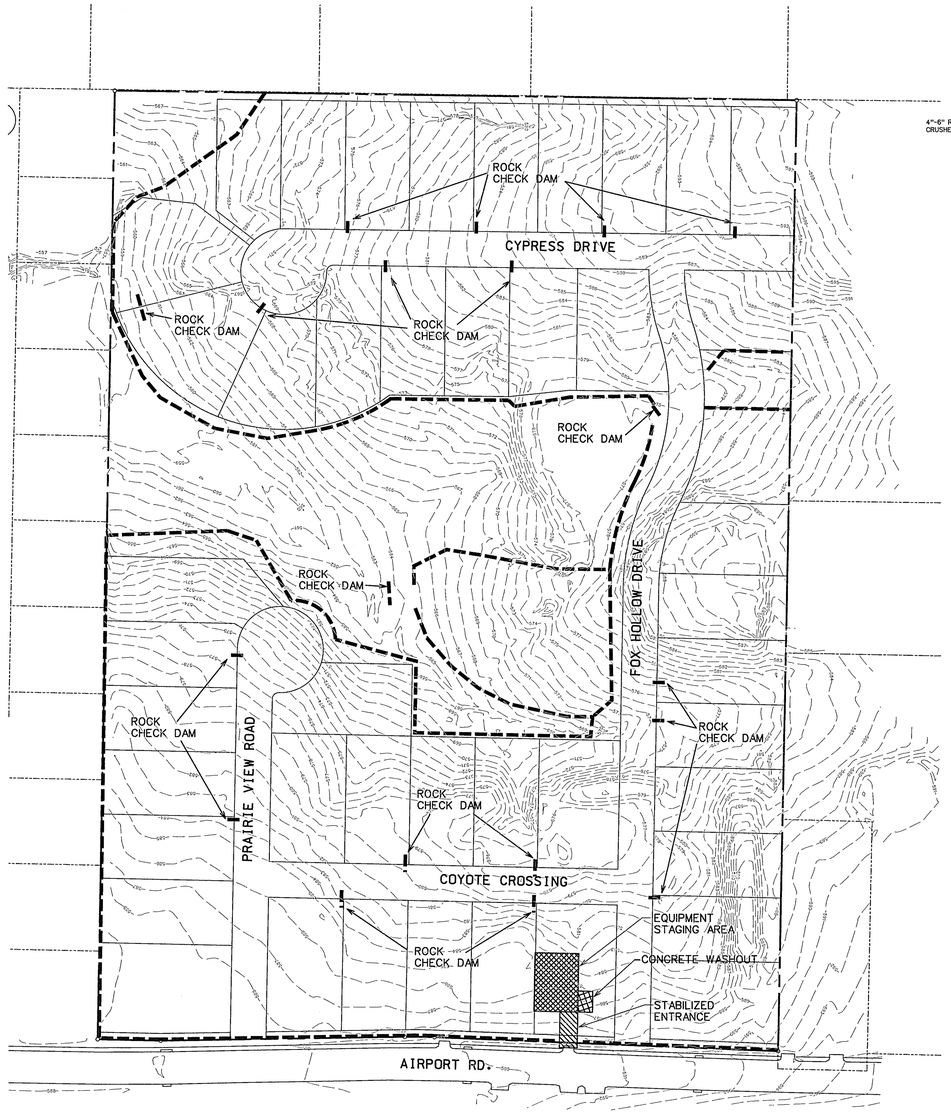
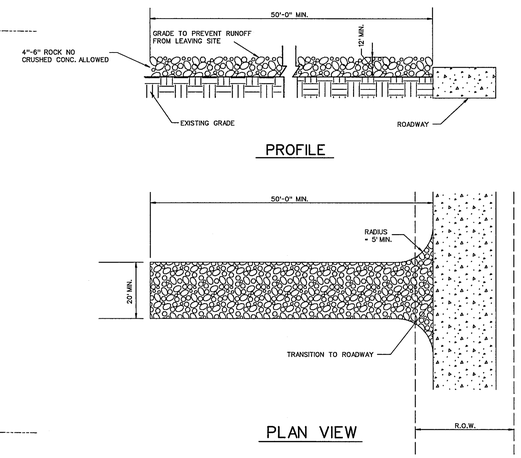
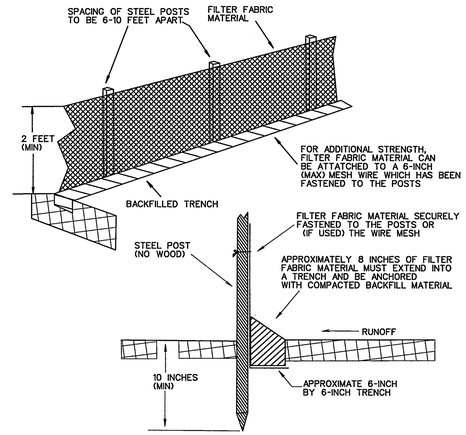




STABILIZED ENTRANCE DETAIL

CONSTRUCTION SEQUENCE

1. GRADING CONTRACTOR TO INSTALL TEMPORARY STABILIZED ENTRANCE.
2. INSTALL SILT FENCE AS SHOWN, (TS-600 POLY FELT) PER C.O.G. SPECIFICATIONS.
3. CONSTRUCT SEDIMENT BASIN
4. PERFORM GRADING AND UTILITY CONSTRUCTION.
5. AFTER THE INLET BOTTOMS ARE CONSTRUCTED, THE INLETS SHALL BE FILLED WITH STONE AND COVERED WITH A FILTER FABRIC (TS-600 POLY FELT OR EQUIVALENT) BY UTILITY CONTRACTOR.
6. PRIOR TO CITY RELEASING PAVING, SOD OR SEEDED CURLEX SHALL BE INSTALLED ON SIDES AND BOTTOM OF ALL DETENTION PONDS AND ALL DETENTION PONDS MUST BE FUNCTIONING.
7. AFTER PAVING AND COMPLETION OF INLETS, INLET FILTERS SHALL BE INSTALLED IN ALL INLETS AND MAINTAINED UNTIL RE-VEGETATION HAS BEEN COMPLETED BY PAVING CONTRACTOR.
8. SILT FENCE SHALL REMAIN IN PLACE UNTIL RE-VEGETATION HAS BEEN COMPLETED.
9. PAVING CONTRACTOR SHALL REMOVE TEMPORARY STABILIZED ENTRANCE.
10. PRIOR TO CITY ACCEPTANCE THE PAVING CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY MUD OR SILT WHICH COLLECTS ON THE EXISTING AND NEW PAVEMENT AND INSTALLING A 4-FOOT STRIP OF CURLEX ALONG THE EDGE OF PAVEMENT THROUGHOUT THE ENTIRE SITE.
11. 75%-80% OF ALL DISTURBED AREA TO HAVE A MINIMUM 1" STAND OF GRASS PRIOR TO ENGINEERING ACCEPTANCE.
12. AT TIME OF ACCEPTANCE, ALL INLET PROTECTION IS TO BE REMOVED



FILTER FABRIC FENCE DETAIL

LEGEND

SILT FENCE (BEFORE CONSTRUCTION) - - - - -

AS-BUILT DECEMBER 2017
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ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR

RIDGECREST

ROCKWALL, TEXAS

EROSION CONTROL PLAN

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: 1"=100'	18 OF 19

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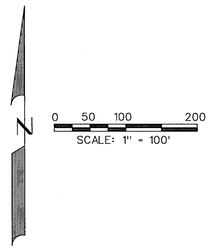
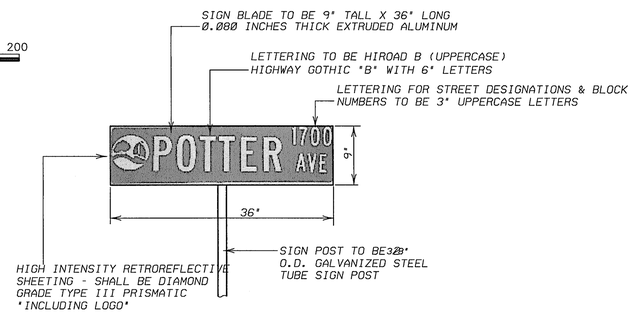


NOTE: STREET NAME SIGNS SHALL CONSIST OF A WHITE LEGEND 'INCLUDING LOGO' ON A GREEN BACKGROUND.



STREET SIGN DETAIL
NOT TO SCALE

STREET SIGN NOTES

All signage installed shall comply with the current "Texas Manual on Uniform Traffic Control Devices" and the "Standard Highway Sign Designs for Texas".

The developer shall be responsible for furnishing and installing all regulatory, warning and street name signs and sign mounts in accordance with the approved engineering plans.

Block Numbers are required on all street name blades.

Street Name Blades shall be nine inch (9") tall extruded aluminum. The blades shall be 0.080 inches thick.

High Intensity Retro reflective Sheeting for Street, Regulatory, and Warning Signs - shall be high intensity diamond grade type III prismatic.

The Lettering for the street blades shall be HIROAD B with all uppercase fonts. "Highway Gothic B" with six- inch letters. Letters for abbreviated street designations shall be three inches (3") tall with all uppercase fonts (i.e., LN, PKWY, CT, etc.). Block numbers shall be three- inches (3") tall.

The street sign background shall be green and the legend shall be white.

The street sign blade must incorporate the current City of Rockwall logo.

For a street with a cul-de-sac end, a standard W 14-2a shall be mounted over the street name blade.

Sign posts shall Be 2⅜" O.D. galvanized steel tube sign post with a galvanized finish.

Sign clamps and brackets shall be high strength aluminum.

For a street with a cul-de-sac end, a standard W 14-2a shall be mounted over the street name blade, if the cul-de-sac is not cleary visible from the adjoining roadway, or is located in excess of 400 linear feet from the adjoining roadway.

LEGEND
- STREET LIGHT
- STOP SIGN
- STREET NAME BLADE
- 30 MPH SPEED LIMIT SIGN

AS-BUILT DECEMBER 2017
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200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013 (972)396-1200
TBPE FIRM #5951

DEVELOPMENT PLANS FOR

RIDGECREST

ROCKWALL, TEXAS

SIGN AND LIGHT PLAN

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER 16021	DATE SEPTEMBER 2016	SCALE: 1"=100'	19 OF 19

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