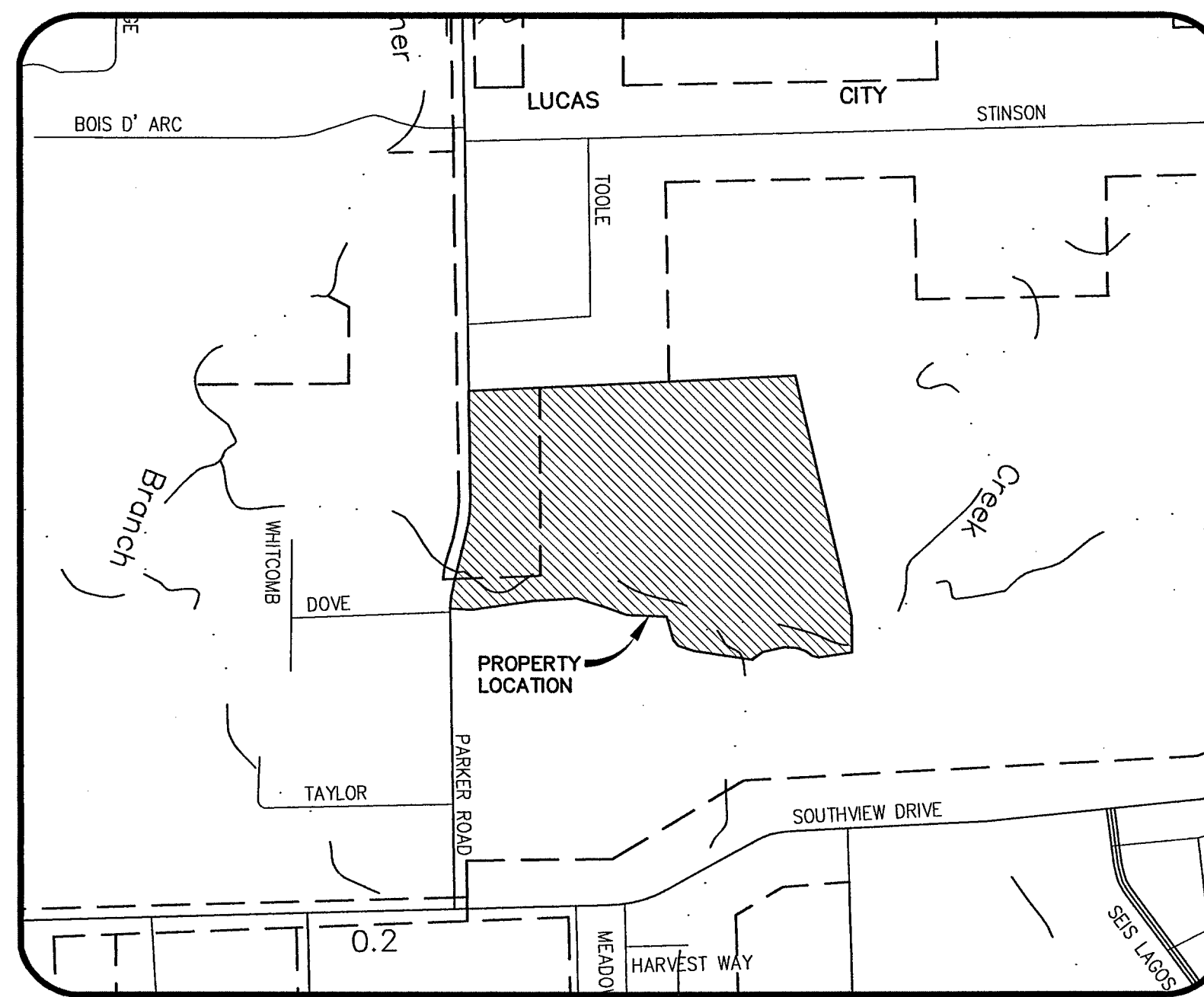


# CONSTRUCTION PLANS FOR ENCHANTED CREEK PHASE 1 CITY OF LUCAS COLLIN COUNTY, TEXAS



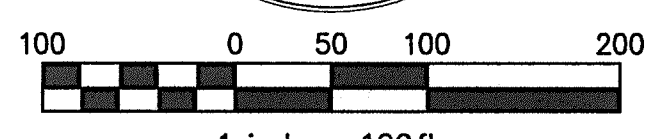
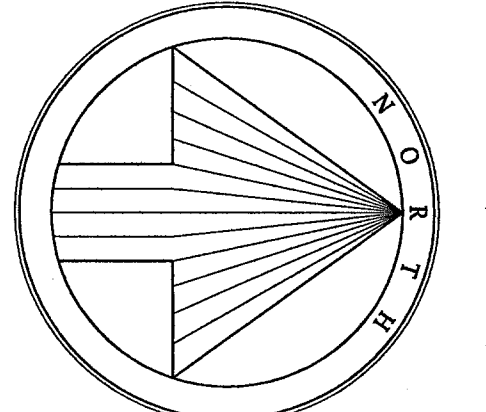
Vicinity Map  
N.T.S.

## Sheet List Table

| Sheet Number | Sheet Title                      |
|--------------|----------------------------------|
| 1            | Preliminary Plat                 |
| 2            | Preliminary Plat                 |
| 3            | General Notes                    |
| 4            | Paving Plan & Profile - Street A |
| 5            | Paving Plan & Profile - Street A |
| 6            | Paving Plan & Profile - Street A |
| 7            | Paving Plan & Profile - Street C |
| 8            | Paving Plan & Profile - Street D |
| 9            | Paving Plan & Profile - Street E |
| 10           | Paving Plan & Profile - Street F |
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| 17           | Culverts Plan & Profile          |
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| 19           | Erosion Control Plan & Details   |
| 20           | Grading Plan                     |
| 21           | Grading Plan                     |
| 22           | Grading Plan                     |
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Plotted by: Matthew M. Dorsett, R.E. 90912, Date: 2/20/15, Time: 11:28:03 AM  
 Plotted by: Matthew M. Dorsett, R.E. 90912, Date: 2/20/15, Time: 11:28:03 AM





1 inch = 100 ft.  
Basis of bearing, horizontal and vertical position derived from the Texas WDS RTK Network-Texas State Plane Coordinate System, NAD83, North Central Zone (4202).

**LEGEND**  
(Not all items may be applicable)

|            |  |
|------------|--|
| ○          | 1/2" IRON ROD WITH PLASTIC CAP STAMPED "SPARSSENS" SET, UNLESS OTHERWISE NOTED |
| IRF        | IRON ROD FOUND   |
| CRF        | CAPPED IRON ROD FOUND  |
| IPF        | IRON PIPE FOUND  |
| AMP        | ALUMINUM MONUMENT FOUND  |
| CM         | CONTROL MONUMENT   |
| Esm        | EASEMENT   |
| BL         | BUILDING LINE SETBACK  |
| UL         | UTILITY  |
| DE         | DRAINAGE EASEMENT  |
| DU         | DRAINAGE AND UTILITY EASEMENT  |
| UE         | UTILITY EASEMENT   |
| WE         | WATER EASEMENT   |
| SSE        | SANITARY SEWER EASEMENT  |
| SE         | SIDEWALK EASEMENT  |
| SE         | STREET EASEMENT  |
| FAUE       | FIRELANE, ACCESS, & UTILITY EASEMENT   |
| WWE        | WASTE WATER EASEMENT   |
| H.O.A.     | Home Owners Association  |
| WME        | WALL MAINTENANCE EASEMENT  |
| HBE        | HIKE & BIKE TRAIL EASEMENT   |
| VAM        | VISIBILITY, ACCESS & MAINTENANCE EASEMENT                                      |
| (BTP)      | BY THIS PLAT   |
| R.O.W.     | RIGHT-OF-WAY   |
| Min. FF    | MINIMUM FINISH FLOOR ELEVATION   |
| BL         | BUILDING LINE  |
| CL         | STREET NAME CHANGE   |
| CL         | CENTERLINE   |
| BD         | BLOCK DESIGNATION  |
| ST         | STREET FRONTAGE  |
| CB         | CABINET  |
| Vol.       | VOLUME   |
| Pg.        | PAGE   |
| No.        | NUMBER   |
| FEMA       | FEDERAL EMERGENCY MANAGEMENT AGENCY  |
| FIRM       | FLOOD INSURANCE RATE MAP   |
| NIS        | NOT TO SCALE   |
| Ord. No.   | ORDINANCE NUMBER   |
| Inst./Doc. | INSTRUMENT OR DOCUMENT   |
| (DRCT)     | DEED RECORDS, COLLIN COUNTY, TEXAS   |
| (PRCT)     | PLAT RECORDS, COLLIN COUNTY, TEXAS   |
| (OPRCT)    | OFFICIAL PUBLIC RECORDS, COLLIN COUNTY, TEXAS                                  |
| (DRCT)     | DEED RECORDS, DENTON COUNTY, TEXAS   |
| (PRCT)     | PLAT RECORDS, DENTON COUNTY, TEXAS   |
| (OPRCT)    | OFFICIAL PUBLIC RECORDS, DENTON COUNTY, TEXAS                                  |
| (DRCT)     | DEED RECORDS, DALLAS COUNTY, TEXAS   |
| (PRCT)     | PLAT RECORDS, DALLAS COUNTY, TEXAS   |
| (OPRCT)    | OFFICIAL PUBLIC RECORDS, DALLAS COUNTY, TEXAS                                  |
| ---        | BARBED WIRE FENCE  |
| ---        | OVERHEAD POWER LINE  |

- NOTES:**
1. Preliminary Plat - FOR INSPECTION PURPOSES ONLY.
  2. Any bar ditches less than 1% slope must be concrete lined 24" wide, 5" thick with a 15 inch rebar grid.
  3. During construction process, a 3rd party inspector must verify trench backfill within the public right of ways.
  4. No part of the subject property is located within a FEMA 100 year flood plain per FEMA map panel 48085C0415J dated June 2, 2009.
  5. Home owners are required to maintain grass and drainage ditches up to the edge of pavement.

**Robert G. Timmons**  
Called 1-818 Acres  
Vol. 4706, Pg. 756  
(LRCT)

**Walter H. Smith**  
Called 1,315 Acres  
Vol. 4296, Pg. 1204  
(DRCT)

**Matthew A. James ET UX**  
Called 1,018 Acres  
Vol. 4713, Pg. 2365  
(DRCT)

**Eddy F. Blankenship ET UX**  
Called 1,0014 Acres  
Vol. 3253, Pg. 362  
(DRCT)

**Thomas L. Sessums**  
Vol. 1269, Pg. 332  
(DRCT)

**CampbellWylie Partners**  
Called 47,8465 Acres  
Vol. 4571, Pg. 1058  
(DRCT)

**City of Wylie**

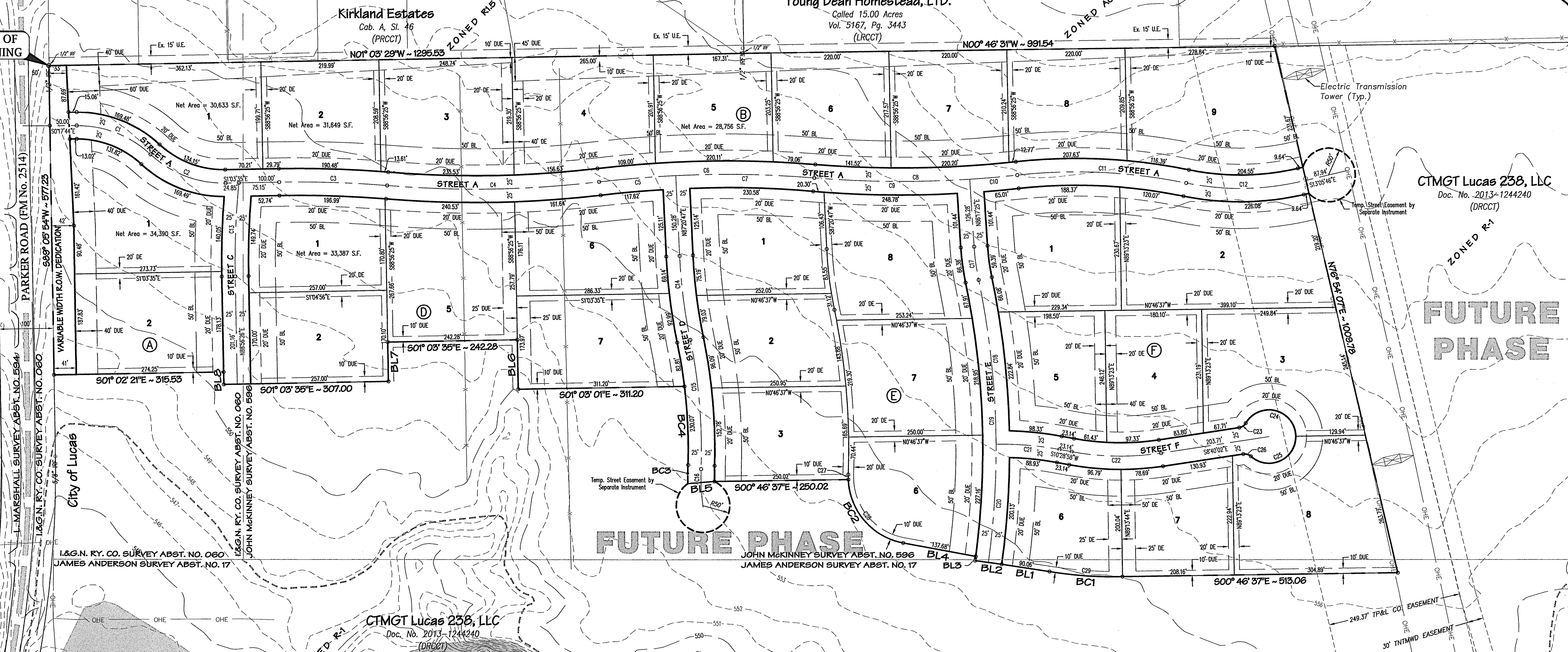
**City of Lucas**

**L&G-N. RY. CO. SURVEY ABST. NO. 060**  
**JAMES ANDERSON SURVEY ABST. NO. 17**

**L&G-N. RY. CO. SURVEY ABST. NO. 060**  
**JAMES ANDERSON SURVEY ABST. NO. 17**

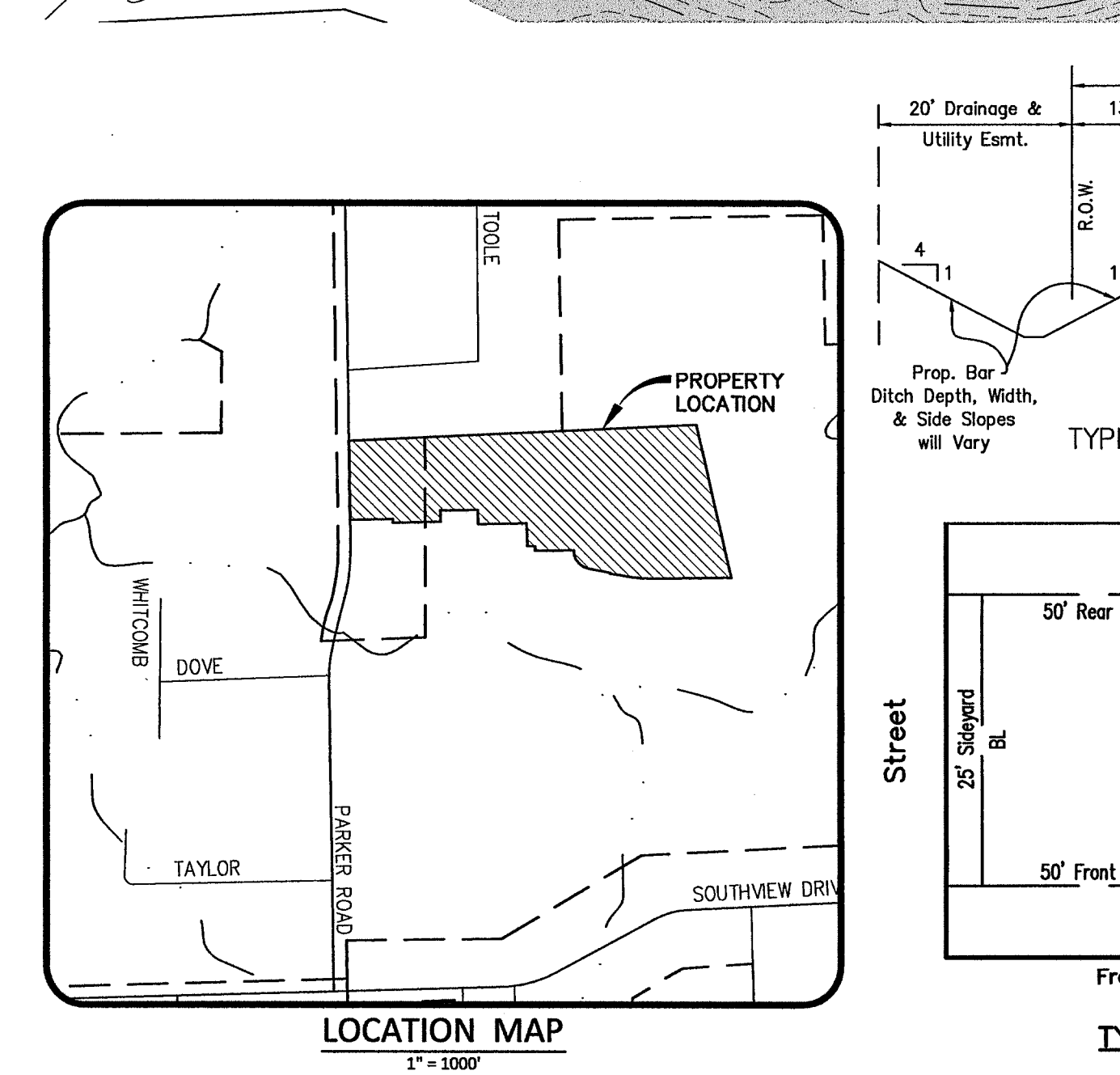
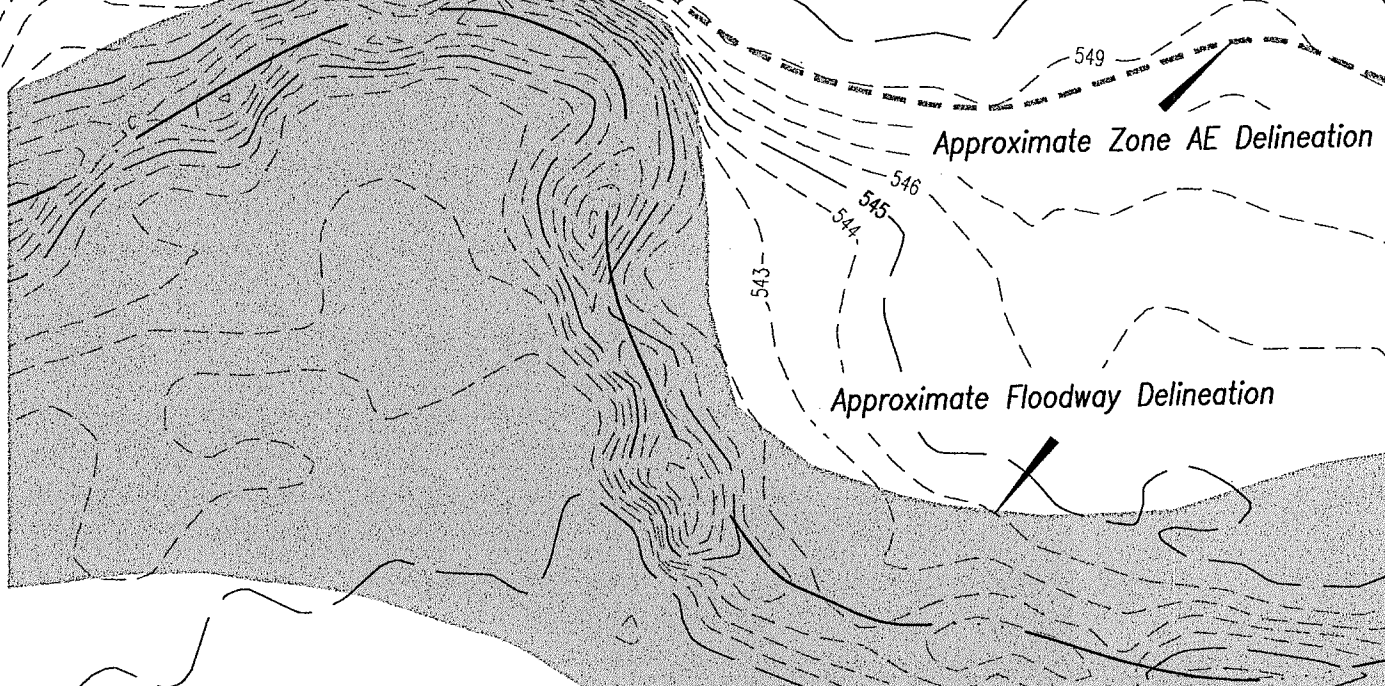
**L&G-N. RY. CO. SURVEY ABST. NO. 060**  
**JAMES ANDERSON SURVEY ABST. NO. 17**

**L&G-N. RY. CO. SURVEY ABST. NO. 060**  
**JAMES ANDERSON SURVEY ABST. NO. 17**



**Boundary Curve Table**

| Curve # | Length  | Radius   | Tangent | Chord   | Chord Bearing | Delta      |
|---------|---------|----------|---------|---------|---------------|------------|
| C1      | 150.65' | 200.00'  | 79.10'  | 147.11' | S21°17'01"W   | 43°09'30"  |
| C2      | 153.32' | 200.00'  | 80.65'  | 149.59' | S20°54'06"W   | 43°55'22"  |
| C3      | 201.58' | 2015.00' | 100.88' | 201.50' | S01°48'22"W   | 5°43'55"   |
| C4      | 397.17' | 1985.00' | 199.25' | 396.50' | S01°03'35"E   | 11°27'50"  |
| C5      | 403.17' | 2015.00' | 202.26' | 402.50' | S01°03'35"E   | 11°27'50"  |
| C6      | 403.17' | 2015.00' | 202.26' | 402.50' | S01°03'35"E   | 11°27'50"  |
| C7      | 403.17' | 2015.00' | 202.26' | 402.50' | S01°03'35"E   | 11°27'50"  |
| C8      | 379.28' | 1985.00' | 190.22' | 378.70' | S00°48'06"E   | 10°56'51"  |
| C9      | 290.39' | 1985.00' | 145.46' | 290.13' | S00°28'52"W   | 8°22'55"   |
| C10     | 88.88'  | 1985.00' | 44.45'  | 88.88'  | S04°59'33"E   | 2°33'56"   |
| C11     | 316.23' | 1015.00' | 159.41' | 314.95' | S02°39'00"W   | 17°51'03"  |
| C12     | 215.32' | 500.00'  | 109.35' | 213.66' | S00°45'41"E   | 24°40'25"  |
| C13     | 174.88' | 1500.00' | 87.54'  | 174.78' | S87°43'12"E   | 6°40'47"   |
| C14     | 158.17' | 1000.02' | 79.25'  | 158.01' | N82°48'54"E   | 9°03'45"   |
| C15     | 242.81' | 1000.01' | 122.00' | 242.21' | N85°14'22"E   | 13°54'42"  |
| C16     | 71.33'  | 399.93'  | 35.76'  | 71.23'  | N87°05'10"E   | 10°13'06"  |
| C17     | 62.88'  | 450.00'  | 31.49'  | 62.83'  | N82°17'13"E   | 8°00'24"   |
| C18     | 308.67' | 1550.00' | 154.85' | 308.16' | N83°59'19"E   | 11°24'36"  |
| C19     | 530.53' | 1550.00' | 267.88' | 527.94' | N88°05'21"E   | 19°36'39"  |
| C20     | 221.85' | 1550.00' | 111.12' | 221.66' | S86°12'21"E   | 8°12'03"   |
| C21     | 118.43' | 600.00'  | 59.41'  | 118.24' | S04°49'40"W   | 11°18'35"  |
| C22     | 167.11' | 500.00'  | 84.34'  | 166.34' | S00°54'28"W   | 19°09'00"  |
| C23     | 15.19'  | 17.00'   | 8.14'   | 14.69'  | S34°15'27"E   | 5°10'49"   |
| C24     | 246.41' | 50.00'   | -40.23' | 62.69'  | S81°19'57"W   | 282°21'42" |
| C25     | 246.41' | 50.00'   | -40.23' | 62.69'  | S81°19'57"W   | 282°21'42" |
| C26     | 15.19'  | 17.00'   | 8.14'   | 14.69'  | N16°55'23"E   | 5°10'51"   |
| C27     | 9.31'   | 125.00'  | 4.66'   | 9.31'   | S89°56'16"E   | 4°15'58"   |
| C28     | 178.27' | 125.00'  | 108.11' | 163.54' | N51°20'20"E   | 81°42'45"  |
| C29     | 136.39' | 694.02'  | 68.41'  | 136.17' | N03°55'43"E   | 11°15'35"  |



**Lot Area Table**

| Parcel # | Block # | Square Feet | Acreage |
|----------|---------|-------------|---------|
| 1        | A       | 54452.85    | 1.25    |
| 2        | A       | 51458.90    | 1.18    |

**Lot Area Table**

| Parcel # | Block # | Square Feet | Acreage |
|----------|---------|-------------|---------|
| 1        | B       | 54349.59    | 1.25    |
| 2        | B       | 44496.70    | 1.02    |
| 3        | B       | 53864.17    | 1.24    |
| 4        | B       | 56033.59    | 1.29    |
| 5        | B       | 44154.04    | 1.01    |
| 6        | B       | 46484.73    | 1.07    |
| 7        | B       | 47513.47    | 1.09    |
| 8        | B       | 45367.43    | 1.04    |
| 9        | B       | 69532.41    | 1.60    |

**Lot Area Table**

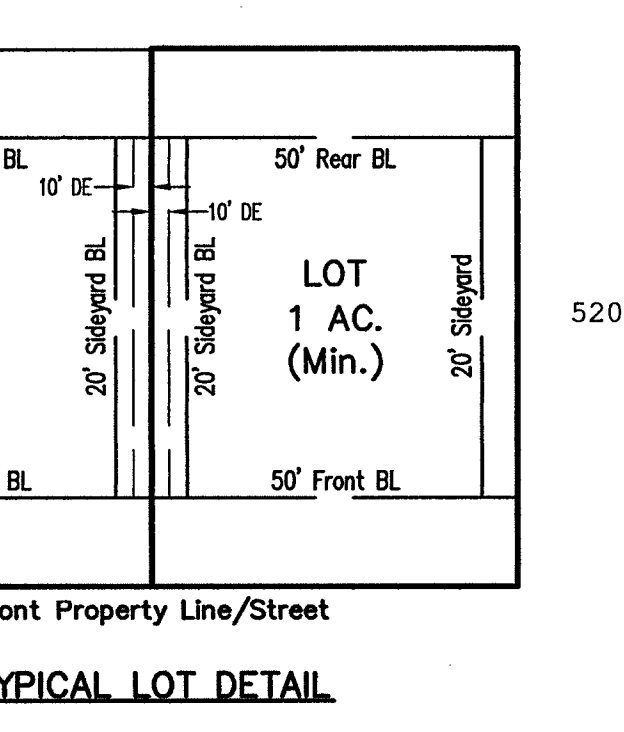
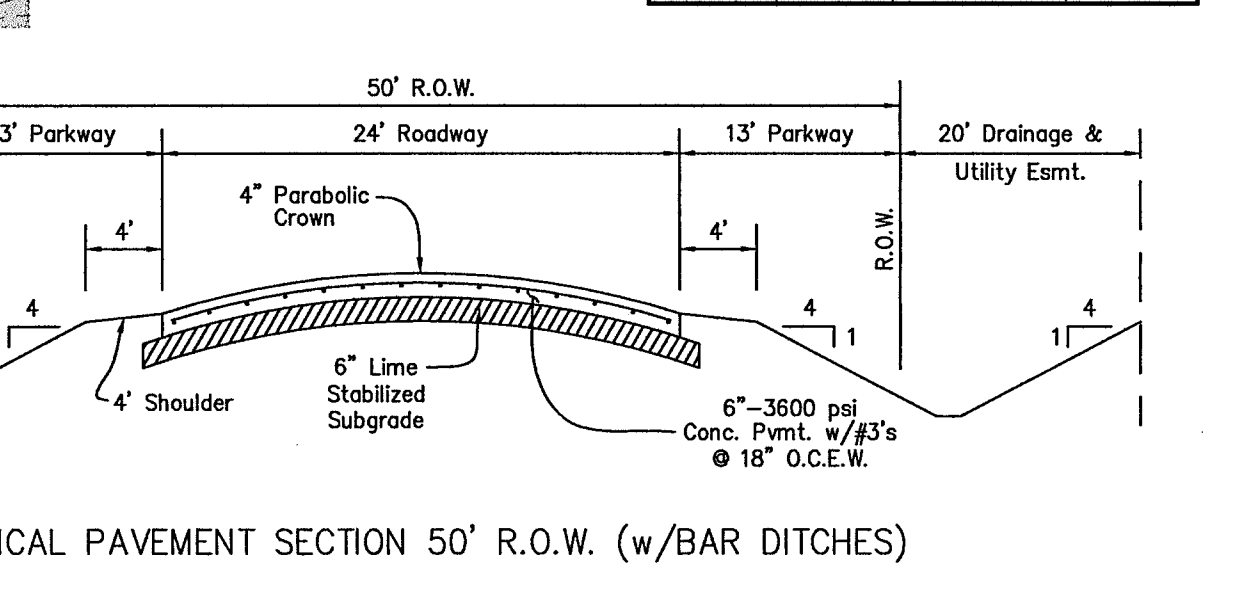
| Parcel # | Block # | Square Feet | Acreage |
|----------|---------|-------------|---------|
| 1        | D       | 45396.52    | 1.04    |
| 2        | D       | 43702.90    | 1.00    |
| 5        | D       | 63061.94    | 1.45    |
| 6        | D       | 51947.75    | 1.19    |
| 7        | D       | 51949.25    | 1.19    |

**Lot Area Table**

| Parcel # | Block # | Square Feet | Acreage |
|----------|---------|-------------|---------|
| 1        | E       | 49490.96    | 1.14    |
| 2        | E       | 43769.06    | 1.00    |
| 3        | E       | 43756.15    | 1.00    |
| 6        | E       | 48111.79    | 1.10    |
| 7        | E       | 54777.75    | 1.26    |
| 8        | E       | 58788.34    | 1.35    |

**Lot Area Table**

| Parcel # | Block # | Square Feet | Acreage |
|----------|---------|-------------|---------|
| 1        | F       | 56762.17    | 1.30    |
| 2        | F       | 79183.24    | 1.82    |
| 3        | F       | 61177.10    | 1.40    |
| 4        | F       | 43560.03    | 1.00    |
| 5        | F       | 43559.85    | 1.00    |
| 6        | F       | 43559.82    | 1.00    |
| 7        | F       | 43560.25    | 1.00    |
| 8        | F       | 66644.81    | 1.53    |



**Boundary Curve Table**

| Curve # | Length  | Radius  | Tangent | Chord   | Chord Bearing | Delta     |
|---------|---------|---------|---------|---------|---------------|-----------|
| BC1     | 136.39' | 694.02' | 68.41'  | 136.17' | S03°55'43"W   | 11°15'35" |
| BC2     | 168.96' | 125.00' | 100.23' | 156.39' | S49°12'21"W   | 77°26'47" |
| BC3     | 34.72'  | 441.83' | 17.37'  | 34.71'  | S89°29'56"E   | 4°30'07"  |
| BC4     | 147.26' | 975.00' | 73.77'  | 147.12' | S87°28'36"W   | 8°39'14"  |

**Boundary Line Table**

| Line # | Length  | Direction     |
|--------|---------|---------------|
| BL1    | 90.06'  | S08° 40' 35"W |
| BL2    | 50.00'  | S07° 53' 40"W |
| BL3    | 7.94'   | N82° 15' 17"W |
| BL4    | 137.68' | S10° 28' 58"W |
| BL5    | 49.99'  | S04° 27' 40"E |
| BL6    | 92.24'  | S88° 56' 25"W |
| BL7    | 73.24'  | N88° 56' 25"E |
| BL8    | 23.03'  | S88° 56' 25"W |

**PRELIMINARY PLAT**  
**ENCHANTED CREEK PHASE 1**

LOTS 30, BLOCK 5  
LOTS 1-2, BLOCK A  
LOTS 1-9, BLOCK B  
LOTS 1-2 & 5-7, BLOCK D  
LOTS 1-3 & 6-8, BLOCK E  
LOTS 1-8, BLOCK F  
41.545 ACRES OUT OF THE  
I&G-N. RY. CO. SURVEY - ABSTRACT NO. 1060  
JOHN MCKINNEY SURVEY - ABSTRACT NO. 596  
CITY OF LUCAS, COLLIN COUNTY, TEXAS  
ZONING DISTRICT R-1

**OWNER / APPLICANT**  
CTMGT Lucas 238, LLC  
520 Central Parkway East, Suite 104  
Plano, Texas 75074  
Telephone (972) 422-9880  
Contact: Steve Lenart

**ENGINEER / SURVEYOR**  
Spars Engineering, Inc.  
765 Custer Road, Suite 100  
Plano, TX 75075  
Telephone: (972) 422-0077  
TBPE No. F-2121  
Contact: Matt Dorsett



Legal Description

BEING part of a 232.162 acre tract of land, situated in the I&G.N. RY. CO. Survey, Abstract No. 1060, and the John McKinney Survey, Abstract No. 596, City of Lucas, Collin County, Texas, the subject tract being a portion of a tract of land conveyed to CTMGT Lucas 238, LLC according to the deed recorded in 2013-1244240 of the deed records of Collin County, Texas (D.R.C.C.T.), the subject tract being more particularly described as follows:

BEGINNING at a 1/2" iron rod found for corner at the southwest corner of said CTMGT LUCAS 238, LLC tract and being in the north right-of-way line of Parker Road (FM No. 2514) (100' Public R.O.W.), same being in the southeast corner of Lot 29 of KIRKLAND ESTATES, an addition to the City of Lucas, Collin County Texas, according to the plat thereof recorded in Cabinet A, Slide 46, Plat Records, Collin County, Texas (P.R.C.C.T.);

THENCE, N 01°03'29" W, departing said north right-of-way line of Parker Road, with the westerly line of said JCBR HOLDINGS, a distance of 1295.53 feet to a 1/2" iron rod found for corner;

THENCE, N 00°46'31" W, a distance of 991.54 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, N 76°54'07" E, a distance of 1009.78 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, S 00°46'37" E, a distance of 513.06 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE around a tangent curve to the right having a central angle of 111°5'35", a radius of 694.02 feet, a chord of S 03°55'43" W - 136.17 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set; an arc length of 136.39 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, S 08°40'35" W, a distance of 90.06 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, S 07°53'40" W, a distance of 50.00 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, N 82°15'17" W, a distance of 7.94 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, S 10°28'58" W, a distance of 137.68 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE around a tangent curve to the right having a central angle of 77°26'47", a radius of 129.00 feet, a chord of S 49°12'21" W - 156.39 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set; an arc length of 168.96 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, S 00°46'37" E, a distance of 250.02 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, S 04°27'40" E, a distance of 49.99 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE around a non-tangent curve to the right having a central angle of 04°30'07", a radius of 441.83 feet, a chord of S 89°29'56" E - 34.71 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set; an arc length of 34.72 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE around a non-tangent curve to the left having a central angle of 08°39'14", a radius of 975.00 feet, a chord of S 87°28'36" W - 147.12 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set; an arc length of 147.26 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, S 01°03'01" E, a distance of 311.20 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, S 88°56'25" W, a distance of 92.24 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, S 01°03'35" E, a distance of 242.28 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, N 88°56'25" E, a distance of 73.24 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, S 01°03'35" E, a distance of 307.00 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, S 88°56'25" W, a distance of 23.03 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set;

THENCE, S 01°02'21" E, a distance of 315.53 feet, to a 1/2" iron rod with a plastic cap stamped "SPIARSENG" set in said north right-of-way line;

THENCE, S 89°05'54" W, continuing along said right-of-way, a distance of 577.23 feet to the POINT OF BEGINNING with the subject tract containing 1,809,700 square feet or 41.545 acres of land.

DEDICATION

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT, CTMGT Lucas 238, LLC is the Owner of the above described project and does hereby adopt this plat designating the herein described property as Enchanted Creek Phase 1 Lots 1-2 Block A, Lots 1-9 Block B, Lots 1-2 and 5-7 Block D, Lots 1-3 and 6-8 Block E, Lots 1-8 Block F an addition to City of Lucas, Texas and does hereby dedicate to The City of Lucas the right-of-way, streets, and easements platted hereon.

This plat approved subject to all plotting ordinances, rules, regulations, and resolutions of the City of Lucas, Texas.

Authorized Representative  
CTMGT Lucas 238, LLC

Executed this the \_\_\_\_ day of \_\_\_\_\_, 2014.

STATE OF TEXAS §  
COUNTY OF COLLIN §

Before me, the undersigned authority, a Notary Public in and for said County and State, on this day personally appeared \_\_\_\_\_, Owner(s), known to me to be the person(s) whose names are subscribed to the foregoing instrument and acknowledged to me that they each executed the same for the purpose and considerations therein expressed.

Given under my hand and seal of office, this \_\_\_\_ day of \_\_\_\_\_, 2014.

Notary Public in and for  
the State of Texas

SURVEYOR'S CERTIFICATE

That I, Darren K. Brown, of Spiars Engineering, Inc., do hereby certify that I prepared this plat and the field notes made a part thereof from an actual and accurate survey of the land and that the corner monuments shown thereon were properly placed under my personal supervision, in accordance with the Subdivision Regulations of the City of Lucas, Texas.

Dated this \_\_\_\_ day of \_\_\_\_\_, 2014.

PRELIMINARY, NOT TO BE FILED

DARREN K. BROWN, R.P.L.S. NO. 5252



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 Darren K. Brown, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the \_\_\_\_ day of \_\_\_\_\_, 2014.

Notary Public, State of Texas

"The Preliminary Plat for ENCHANTED CREEK PHASE 1 as approved by the City Council for the City of Lucas on \_\_\_\_\_, 2014 is authorized for use with Engineering Plans for the

construction of public improvements as approved by the City Engineer. A Final Plat shall be approved by the Planning and Zoning Commission upon completion of all public improvements or the provision of an Improvement Agreement under the terms of the Subdivision and Development Ordinance and submission of a Final Plat in compliance with the Subdivision and Development Ordinance of the City of Lucas.

CITY APPROVAL CERTIFICATE

This plat is hereby approved by the Planning and Zoning Commission of the City of Lucas, Texas.

Chairman, Planning and Zoning Commission \_\_\_\_\_ Date \_\_\_\_\_

ATTEST: \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Print Name & Title \_\_\_\_\_

The Director of Public Works of the City of Lucas, Texas hereby certifies that to the best of his/her knowledge or belief, this subdivision plat conforms to all requirements of the Lucas Development Code and with engineering construction standards and processes adopted by the City of Lucas, Texas as to which his approval is required.

Director of Public Works \_\_\_\_\_ Date \_\_\_\_\_

The Director of Planning and Community Development of the City of Lucas, Texas hereby certifies that to the best of his/her knowledge or belief, this subdivision plat conforms to all requirements of the Lucas Development Code and with engineering construction standards and processes adopted by the City of Lucas, Texas as to which his approval is required.

Director of Planning and Community Development \_\_\_\_\_ Date \_\_\_\_\_

PRELIMINARY PLAT  
ENCHANTED CREEK PHASE 1

OWNER / APPLICANT  
CTMGT Lucas 238, LLC  
520 Central Parkway East, Suite 104  
Plano, Texas 75074  
Telephone (972) 422-9880  
Contact: Steve Lenart

ENGINEER / SURVEYOR  
Spiars Engineering, Inc.  
765 Custer Road, Suite 100  
Plano, TX 75075  
Telephone: (972) 422-0077  
TBPE No. F-2121  
Contact: Matt Dorsett

LOTS 30, BLOCK 5  
LOTS 1-2, BLOCK A  
LOTS 1-9, BLOCK B  
LOTS 1-2 & 5-7, BLOCK D  
LOTS 1-3 & 6-8, BLOCK E  
LOTS 1-8, BLOCK F  
41.545 ACRES OUT OF THE  
I&G.N. RY. CO. SURVEY ~ ABSTRACT NO. 1060  
JOHN MCKINNEY SURVEY ~ ABSTRACT NO. 596  
CITY OF LUCAS, COLLIN COUNTY, TEXAS  
ZONING DISTRICT R-1

WATER SYSTEM

General Notes

All work and materials shall be in accordance with City's standard specifications and general design standards.

- 1. All topping sleeves and valves shall be full body ductile iron.
2. Valves to be Mueller, Waterous, or Clow - 150 psi test.
3. Fittings shall be of the mechanical joint type, flanged where applicable, and be manufactured by US Pipe, American or other as approved by the City - Class 250.
4. Fire hydrants to be Mueller three-way standard thread with valve in lead or approved equal.
5. Water lines in the area of storm drain inlets shall be constructed behind the inlet by pulling the pipe using longitudinal bending...
6. Water lines crossing under storm drains and sanitary sewer lines shall have a minimum of 18" clearance below storm drains and two (2) feet clearance below sanitary sewer lines...
7. Water mains: All water lines shall have a minimum of 48" cover over the top of the pipe.
8. The Contractor shall install fire hydrants as the locations shown.
9. Fire Hydrants shall be painted as follows:
A. Tnemec Series 43-38H Diffused Aluminum, Silver for 6 inch mains.
B. Tnemec Series 2H Hi-Build Tnemec-Gloss, True Blue Safety for 8 inch mains.
C. Tnemec Series 2H Hi-Build Tnemec-Gloss, Yellow Safety for 12 inch or larger water mains.
10. All bolts and nuts used with mechanical joint fitting shall be "Cor-Ten: steel or approved equal.
11. The installation of a blue stemsonite (or equal) model 88-SSA fire hydrant marker will be installed opposite fire hydrants just off center to the side of the street adjacent to the hydrant.
12. Polyethylene encasement - The Contractor shall furnish and install polyethylene wrap around the ductile iron pipe, related fittings and valves.
13. Valve boxes shall be furnished at the required length in order to be set to final grade on each gate valve.
14. The Contractor shall coordinate operation of all existing valves with the City.
15. All water lines shall be pressure tested to 200 psi for a three-hour continuous period.
16. All residential water services shall be as follows:
A. Water services shall be normally located in the center of the lot.
B. The water service shall be a minimum of 1" inch diameter continuous type "K" soft copper pipe.
C. Contractor shall tie a 1" wide piece of blue plastic flagging to the water service meter setter and shall leave a minimum of 36" of flagging exposed after backfill.
D. The utility contractor shall install the water services to a point two (2) feet back of the curb line at a depth of 12 inches.
17. For non-residential water services, the meter box shall be furnished and installed by the Contractor after the paving Contractor has completed the final grading in the back of the curb.
18. Density testing requirements: Frequency of tests shall not be less than one every 300 linear feet of main pipe per 2.0' of lift until final grade, starting at 2.0' above top of pipe.
19. The Contractor shall be responsible for providing "As-Recorded" plans to the engineer of record showing the location of water services and valves by distance to lot lines.
20. The Contractor shall furnish maintenance bond of 10% (ten percent) of the total contract price to the City to run two years from the date of acceptance of the system by the City.

PAVING SYSTEM

General Notes

- 1. Absolutely no earthwork, lime application, or other preparation of the subgrade for paving of streets, alleys, or fire lanes shall be initiated without authorization from the City Construction Engineer.
2. All street, alley, and fire lane right-of-way or easement width shall be excavated full width in accordance with the street and sidewalk section to be constructed.
3. The subgrade for all streets, alleys and fire lanes shall be stabilized with hydrated lime material to a distance 12 inches beyond the back of curb or edge of paving as applicable.
4. Subgrade testing requirements: All fill shall be compacted to no less than 95% of standard proctor density at 0-4% above optimum moisture content.
5. Minimum design requirements: All street, alley and fire lane paving shall be designed to have a minimum compressive strength of 3500 psi at twenty-eight (28) days with a minimum of five (5) sacks of cement as verified by testing in an approved laboratory.
6. Any section of all existing public or private streets, alleys or fire lanes shall be replace within 72 hours of removal.

UTILITY CROSSINGS

General Notes

- 1. Tunneling and boring under City streets shall be accomplished by means of jacking, boring or tunneling equipment which is subject to the City approval prior to start of construction.
2. The voids outside of the carrier pipe or casing pipe shall be backfilled by hydraulically placed material so that there are no open voids over the roof of the funnel or bore.
3. All bore pits, trenches and inspection holes shall be backfilled within 48 hours of the installation of utility lines.
4. The street sections that are shown as typical sections shall apply to any alleys, driveways, roadways, etc. that will be within a City right-of-way of easement.
5. The Contractor shall be required to install necessary warning and safety devices that would protect the safety and health of the public until the work has been finished and accepted by the City.
6. The use of a casing pipe will be based upon specific project location and soil conditions.

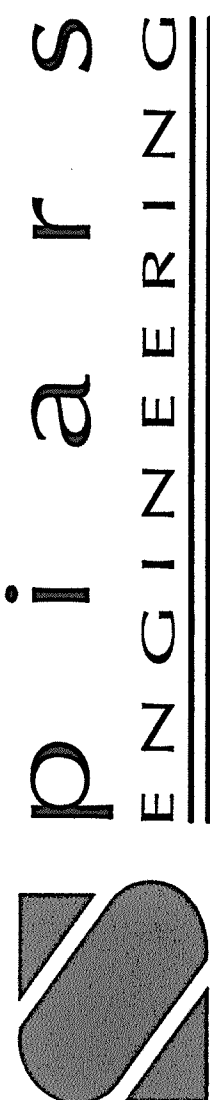
STORM SEWER SYSTEM

General Notes

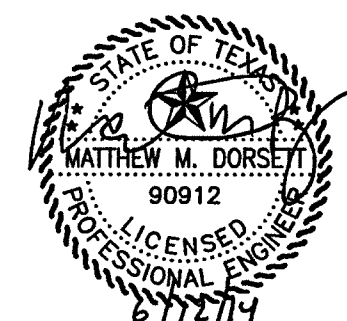
- 1. All storm sewer pipe or box culvert in right-of-way or fire lanes shall be reinforced concrete pipe as per City Specifications and shall be laid on a minimum of a compacted crushed stone or pea gravel cushion, four inches thick below the bottom of the pipe shall unless otherwise approved by the City.
2. Density testing requirements: Frequency of tests shall not be less than one every 300 linear feet of pipe per 2.0' of lift until final grade, starting at 2.0' above top of pipe.
3. The joints shall be constructed and jointed together in such a manner that no spill through of backfill will occur.
4. Storm drainage inlets shall be as indicated on the approved construction plans.
5. All precast box culverts or other special structures in any right-of-way or fire lane easement will require a certification from the manufacturer that the product meets the design dimensions and twenty-eight (28) day compressive strength.
6. The Contractor shall furnish a maintenance bond of 10% (ten percent) of the total contract price to the City to run two (2) years from the date of final acceptance of the system by the City.

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ENCHANTED CREEK PHASE 1
CITY OF LUCAS
COLLIN COUNTY, TEXAS
General Notes

Issue Dates:

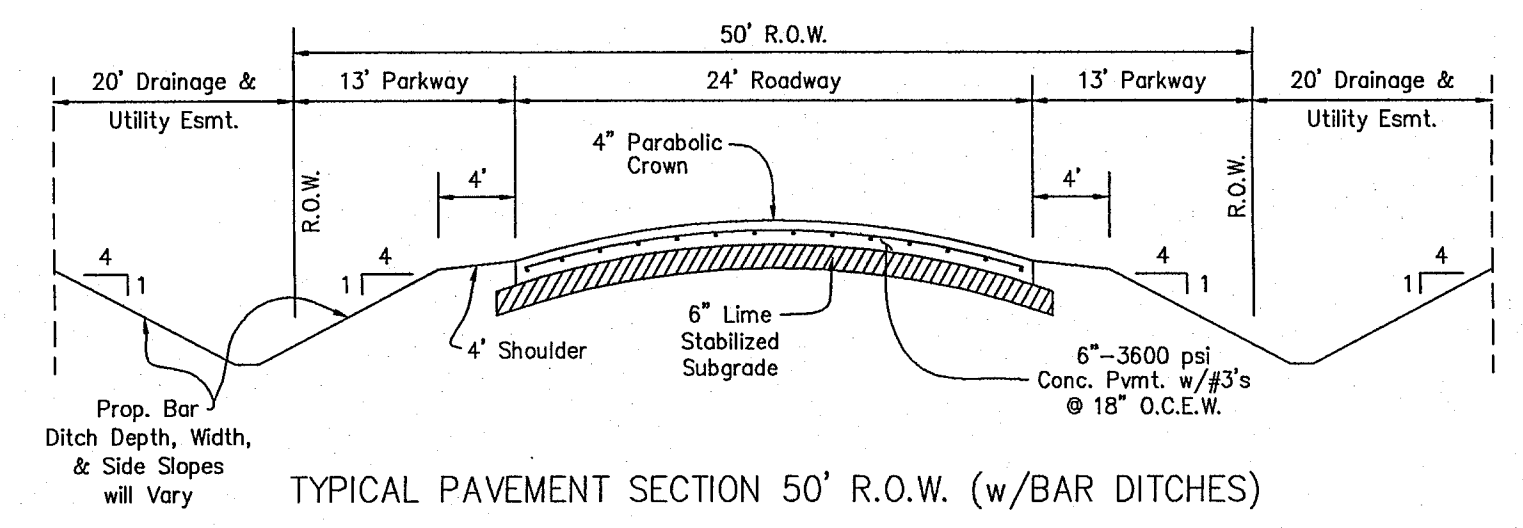
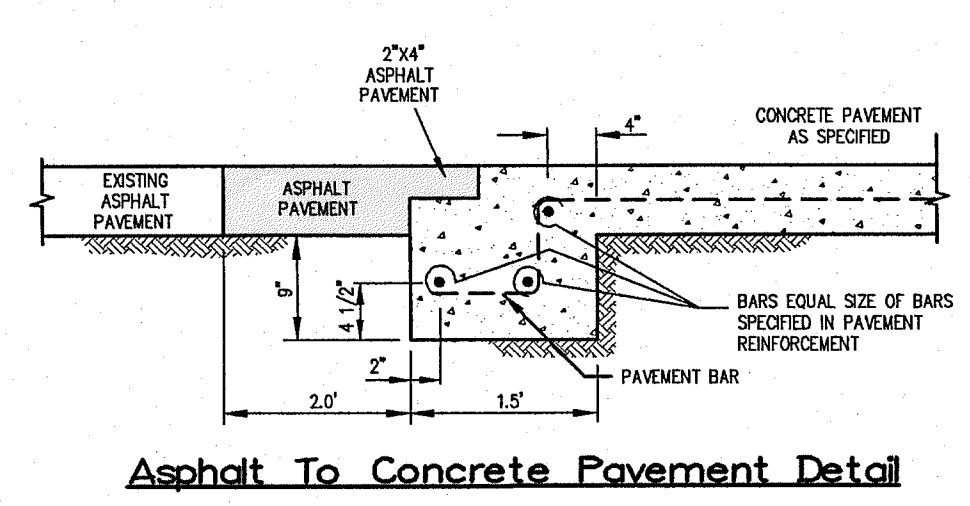
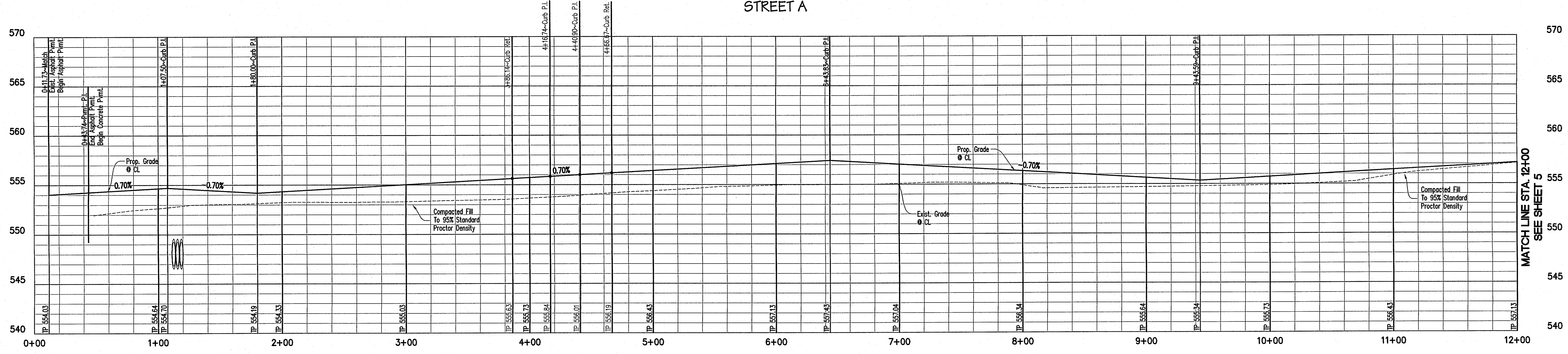
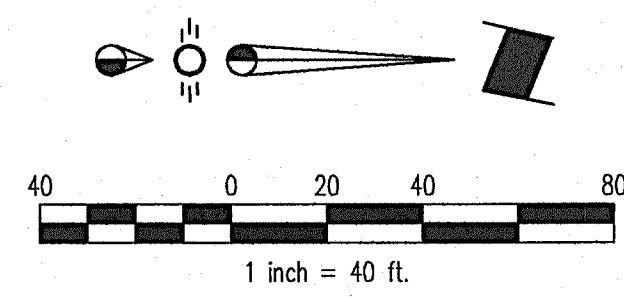
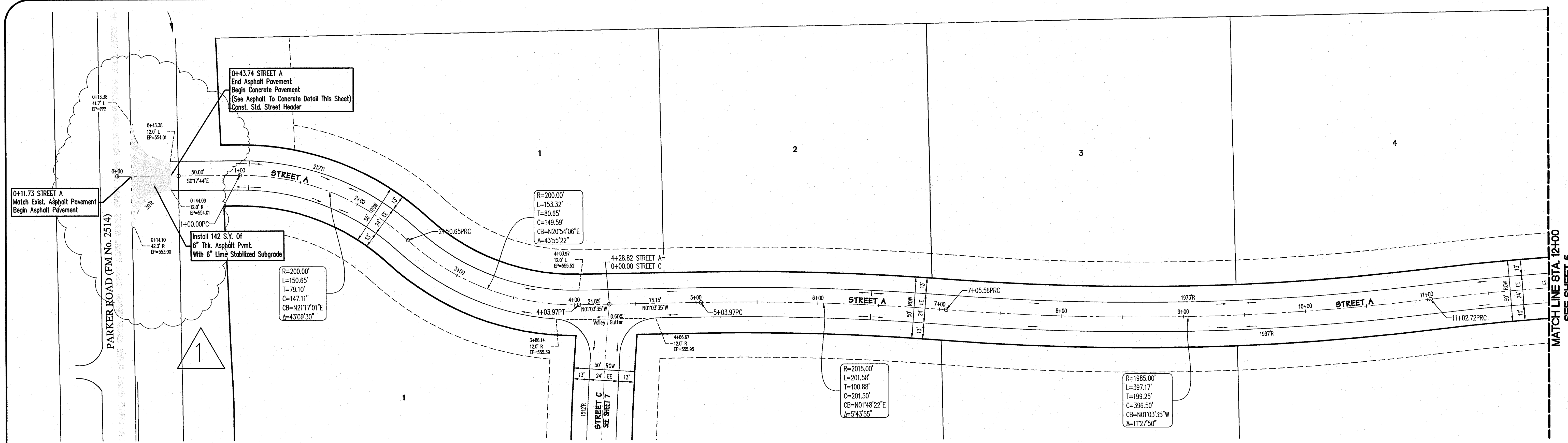
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Scale:
Drawn By: RCP
Checked By: MMD
Sheet 3 of 23
SEI No. 13-033

AS-BUILT DRAWINGS
THIS DRAWING HAS BEEN REVISED TO CONFORM TO THE CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR. ALIGNMENT AND GRADES SHOWN ON THIS DRAWING WERE NOT FIELD VERIFIED BY THE ENGINEER.
Matthew M. Dorsett
MATTHEW M. DORSETT, P.E. 90912
2/20/15
DATE



Drawing No. 13-033 (REVISED) Date: 2/20/15  
 Prepared by: [Name] Checked by: [Name] Date: 2/20/15  
 Scale: 1"=40' H 1"=5' V



**CAUTION !!!**  
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MATTHEW M. DORSETT, P.E. 00912  
 DATE: 2/20/15

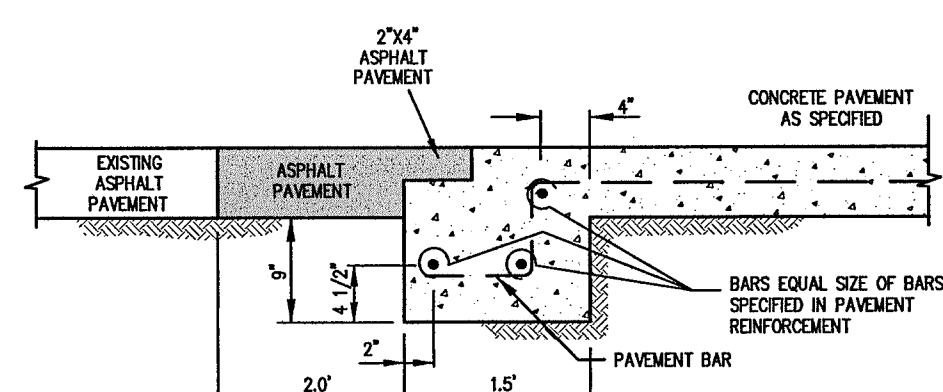
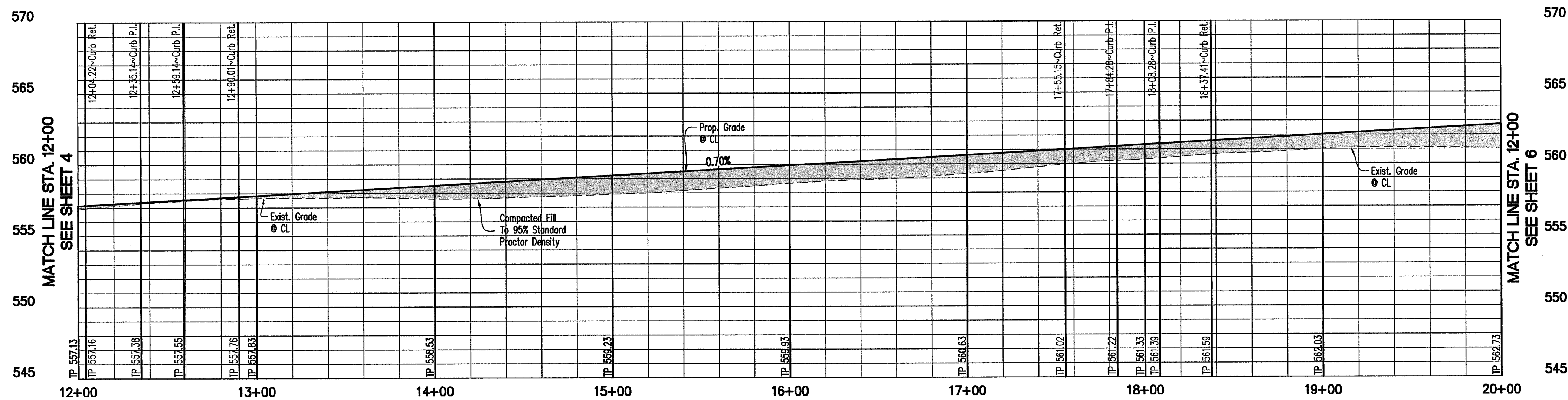
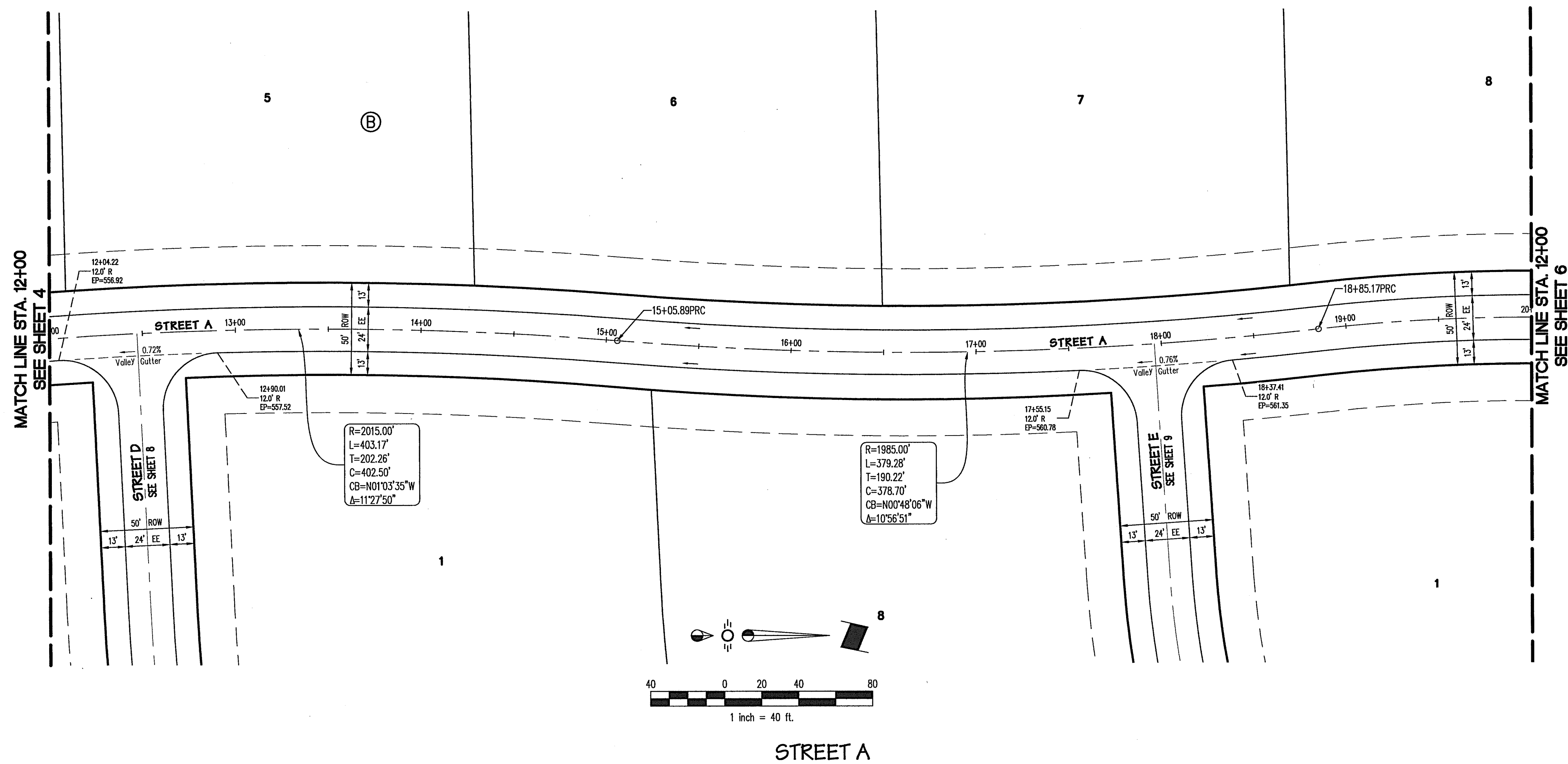
**BENCHMARKS:**  
 BM1 1/2" iron rod found at the southwest corner of the subject tract. Elevation = 554.15  
 BM2 5/8" iron rod found 729.5 feet east of the southwest corner of the subject tract. Elevation = 545.78

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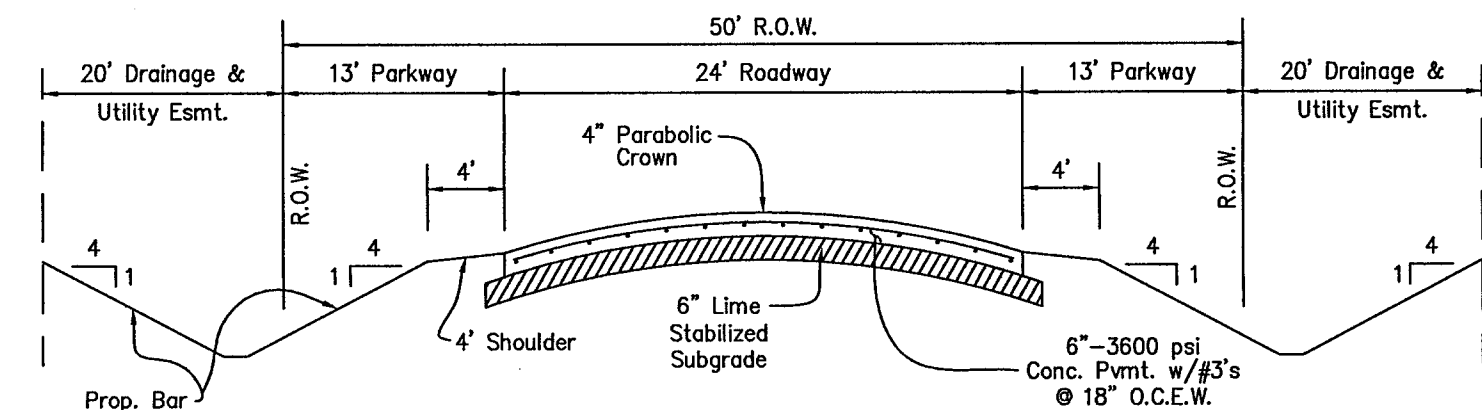
**ENCHANTED CREEK PHASE I**  
 CITY OF LUCAS  
 COLLIN COUNTY, TEXAS  
**PAVING PLAN & PROFILE**

| Issue Dates:   |  |
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| 1. Printing of connection to Parker Road not finished at time of record drawing. |  |

Scale: 1"=40' H 1"=5' V  
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 Checked By: MMD  
 Sheet **4**  
 of **23**  
 SEI No. 13-033



Asphalt To Concrete Pavement Detail



TYPICAL PAVEMENT SECTION 50' R.O.W. (w/BAR DITCHES)

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*Matthew M. Dorsett*  
MATTHEW M. DORSETT, P.E. 00912  
2/20/15  
DATE



**ENCHANTED CREEK PHASE I**  
CITY OF LUCAS  
COLLIN COUNTY, TEXAS  
PAVING PLAN & PROFILE

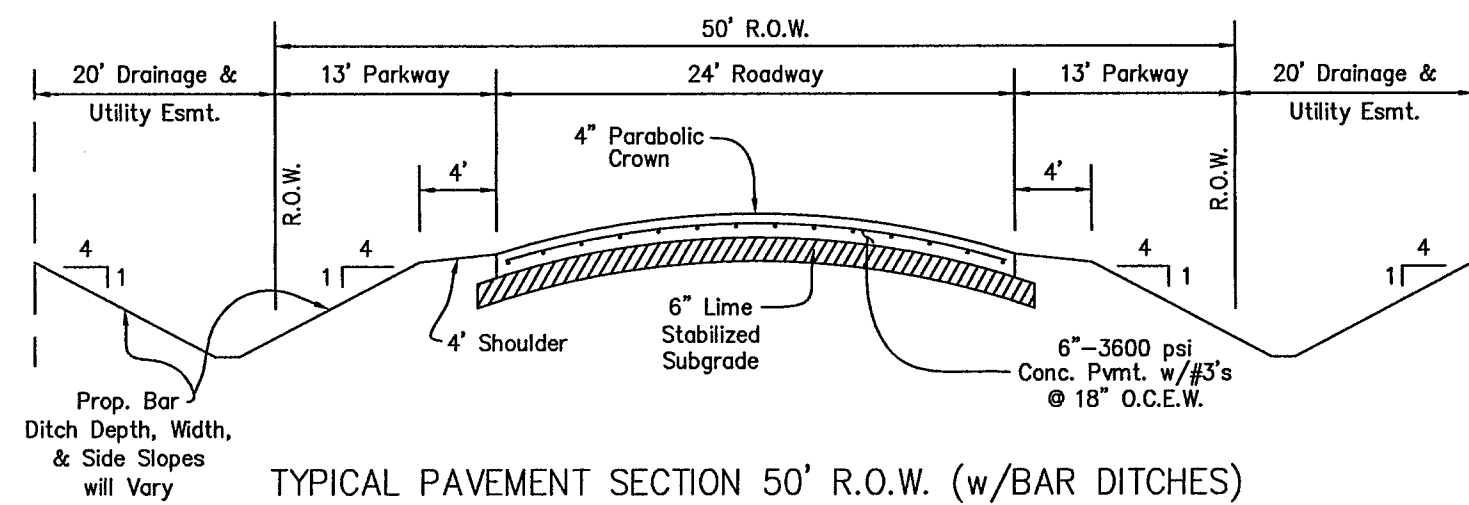
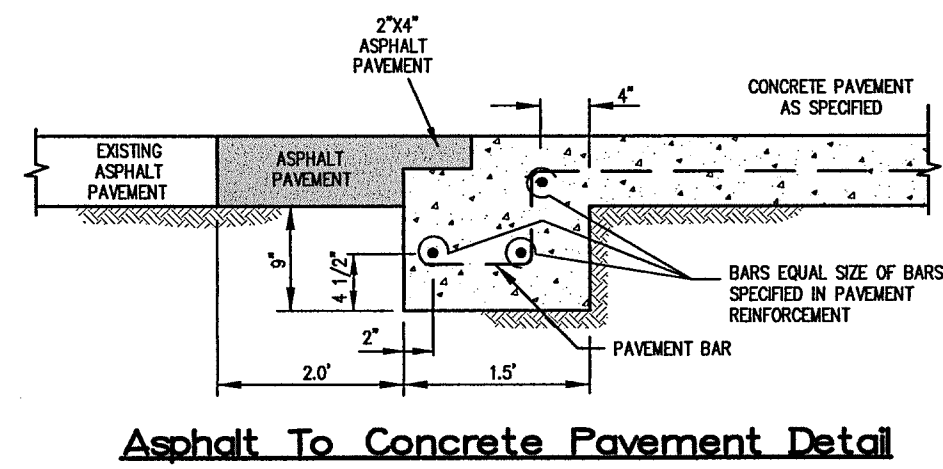
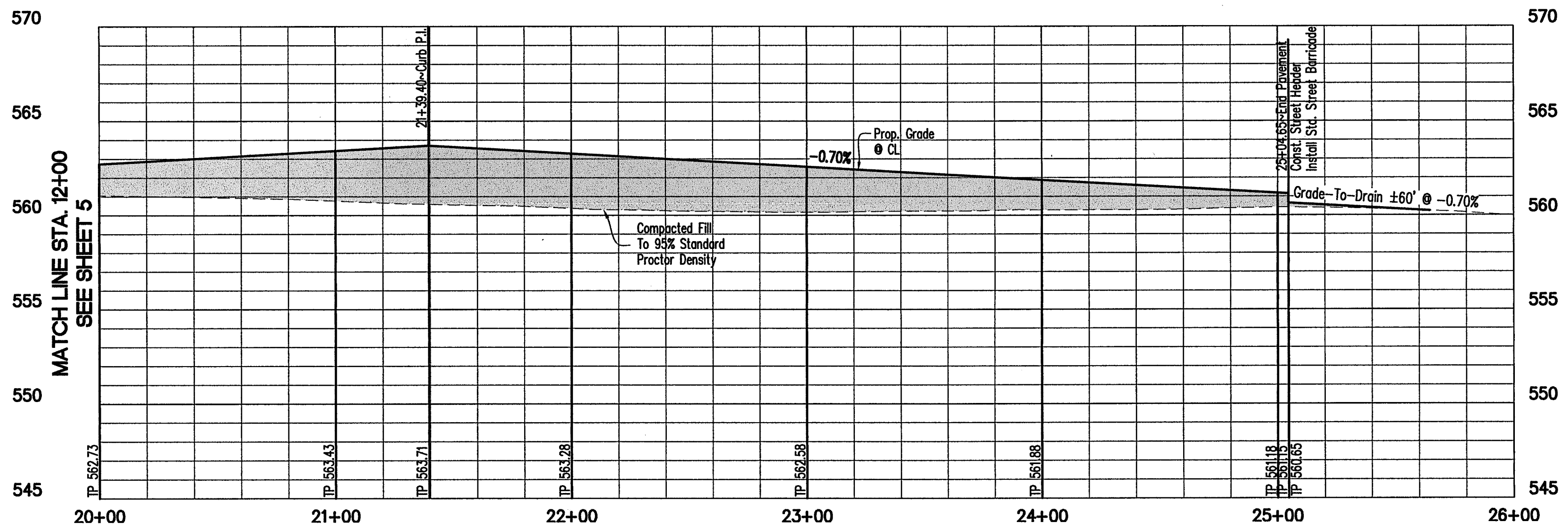
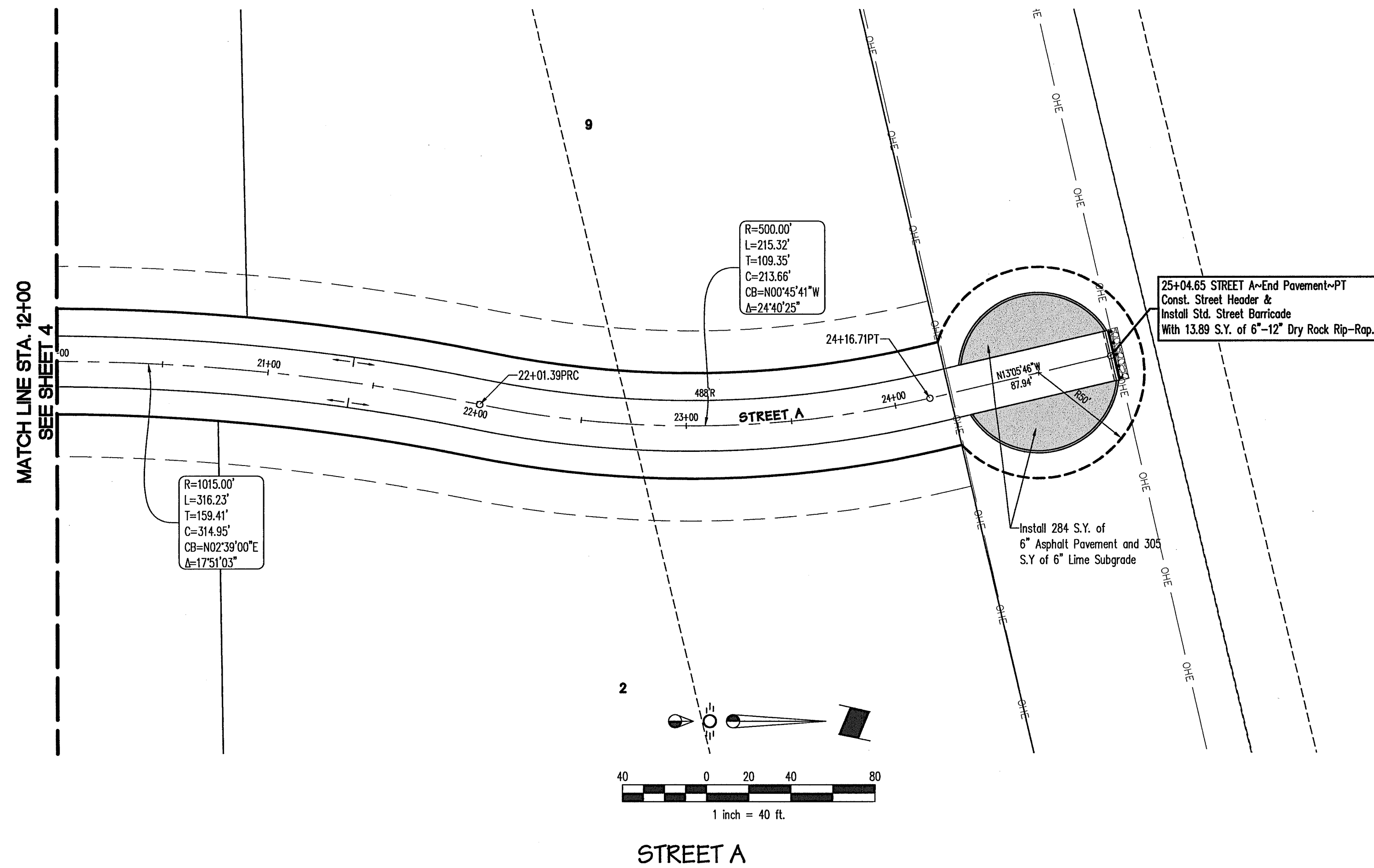
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 Matthew M. Dorsett, P.E. 09912  
 2/20/15  
 DATE

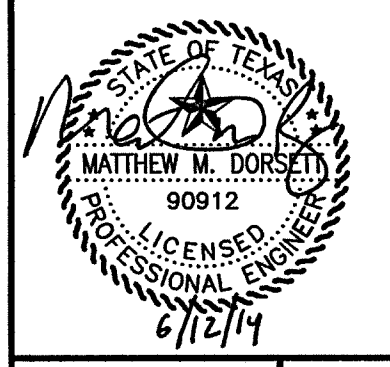
**ENCHANTED CREEK PHASE 1**  
**CITY OF LUCAS**  
**COLLIN COUNTY, TEXAS**  
**PAVING PLAN & PROFILE**

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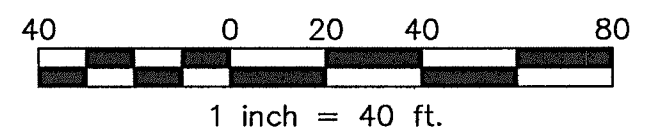
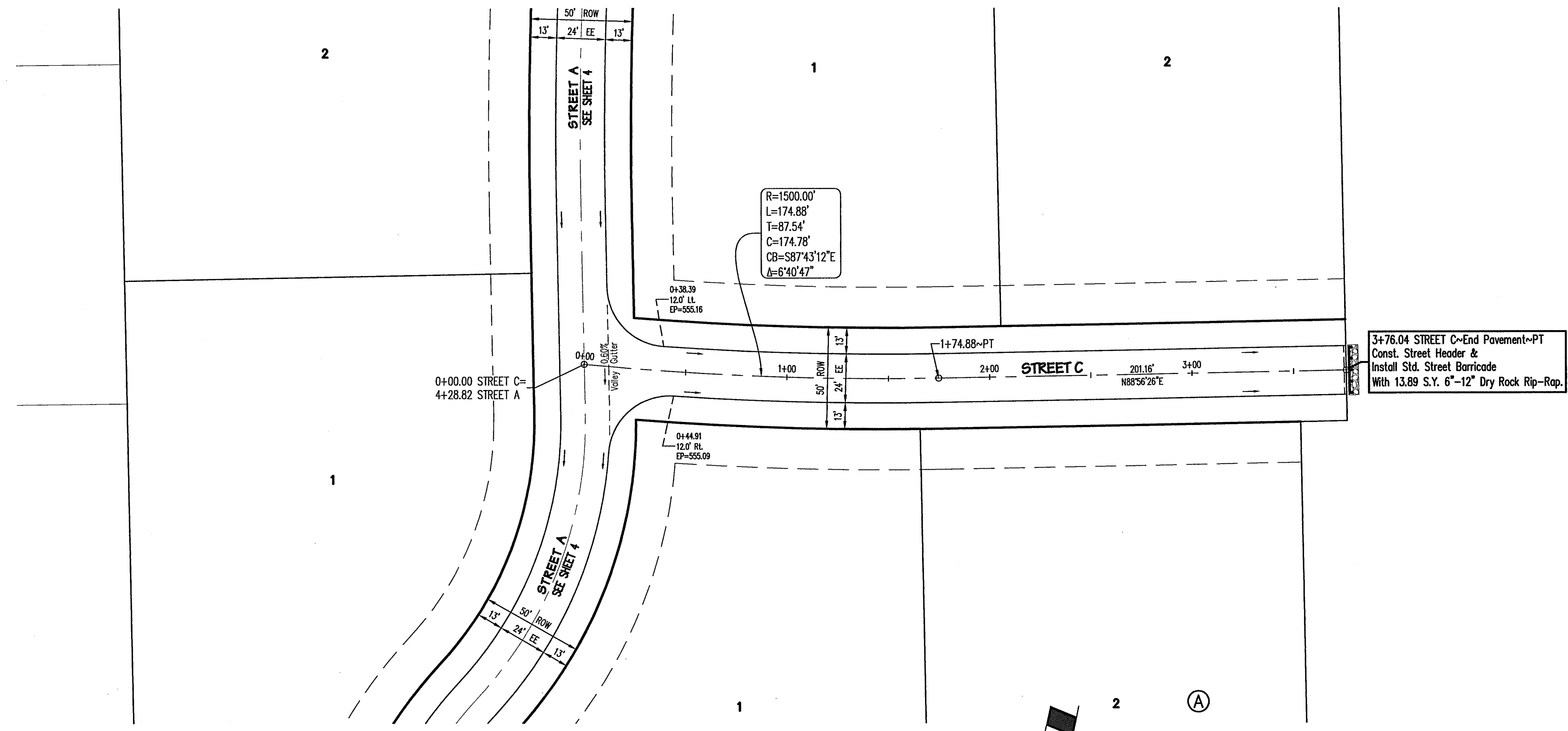
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 Sheet **6**  
 of **23**  
 SEI No. 13-033

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**ENGINEERING**  
 765 Custer Road, Suite 100 • Plano, TX 75075 • (972) 422-0077 • TBPE No. F-2121

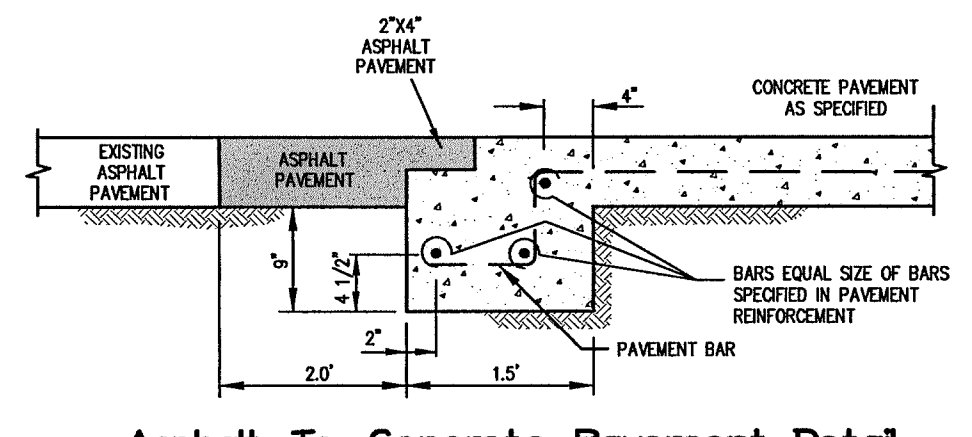
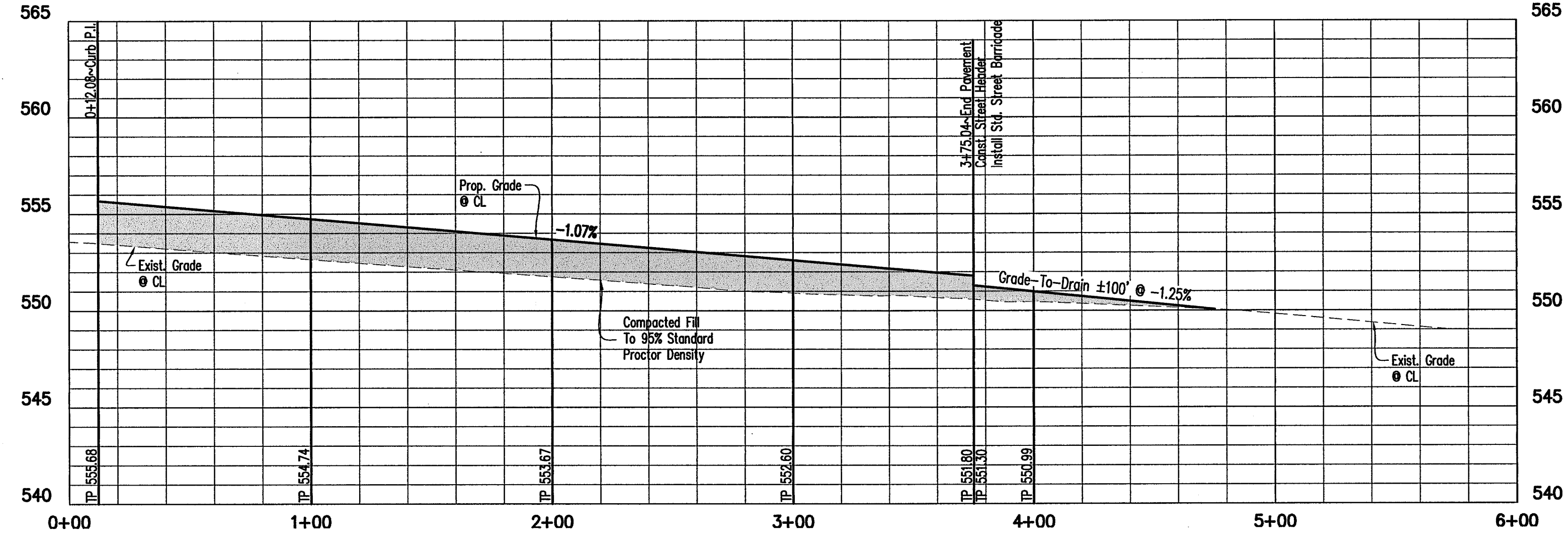


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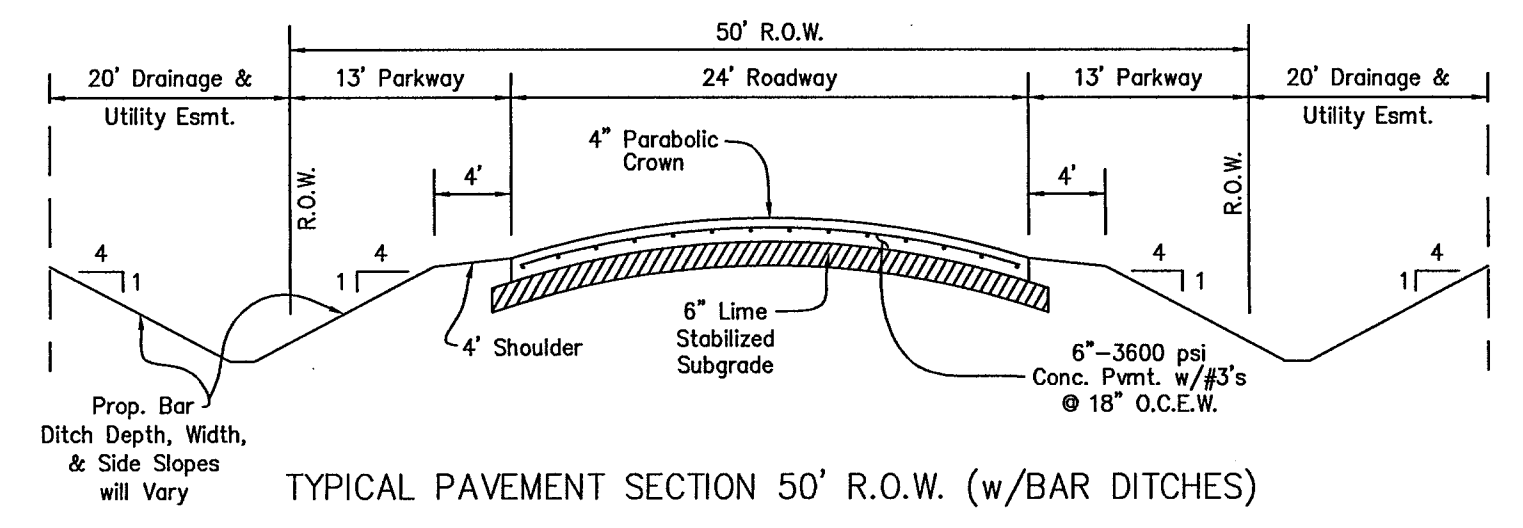
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STREET C



Asphalt To Concrete Pavement Detail



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*Matthew M. Dorsett*  
MATTHEW M. DORSETT, P.E. 090912  
2/20/15

**BENCHMARKS:**

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1/2" iron rod found at the southwest corner of the subject tract. Elevation = 554.15
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ENCHANTED CREEK PHASE 1  
CITY OF LUCAS  
COLLIN COUNTY, TEXAS  
PAVING PLAN & PROFILE

Issue Dates:

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Checked By: MMD

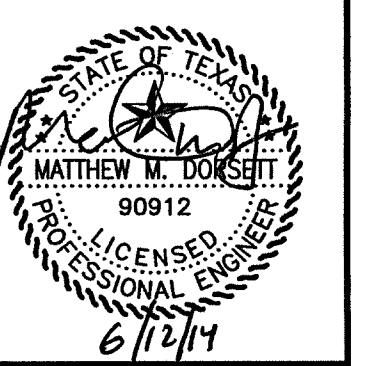
Sheet 7

of 23

SEI No. 13-033

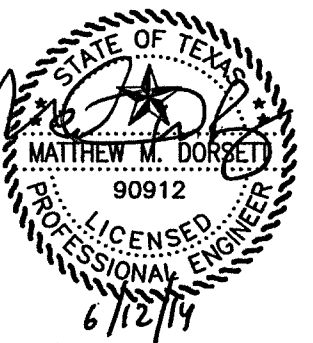
**p i a r s**  
ENGINEERING

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STREET C





**ENCHANTED CREEK PHASE 1**  
CITY OF LUCAS  
COLLIN COUNTY, TEXAS  
**PAVING PLAN & PROFILE**

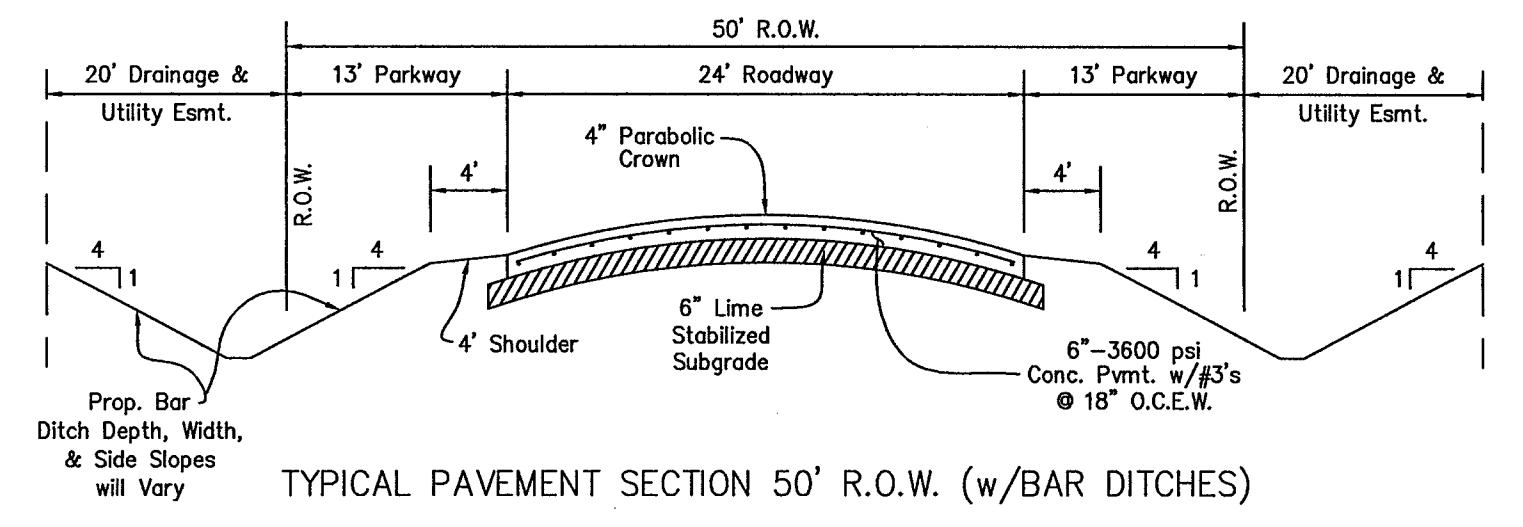
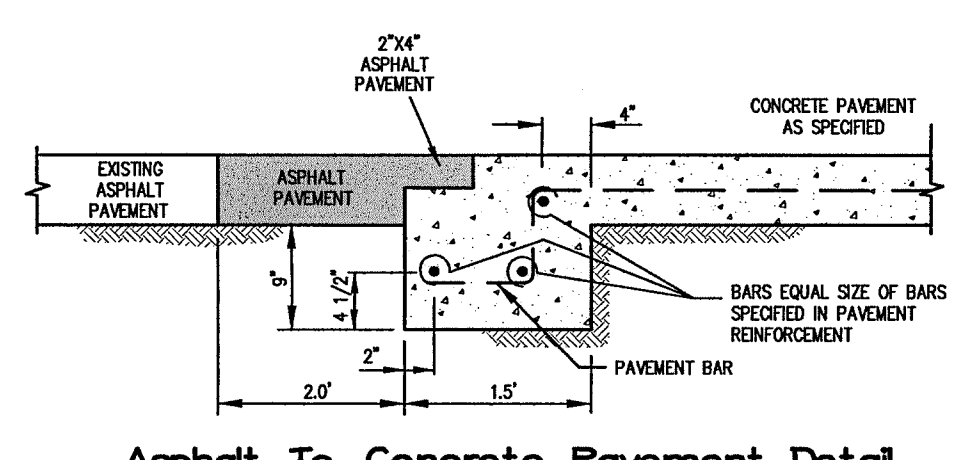
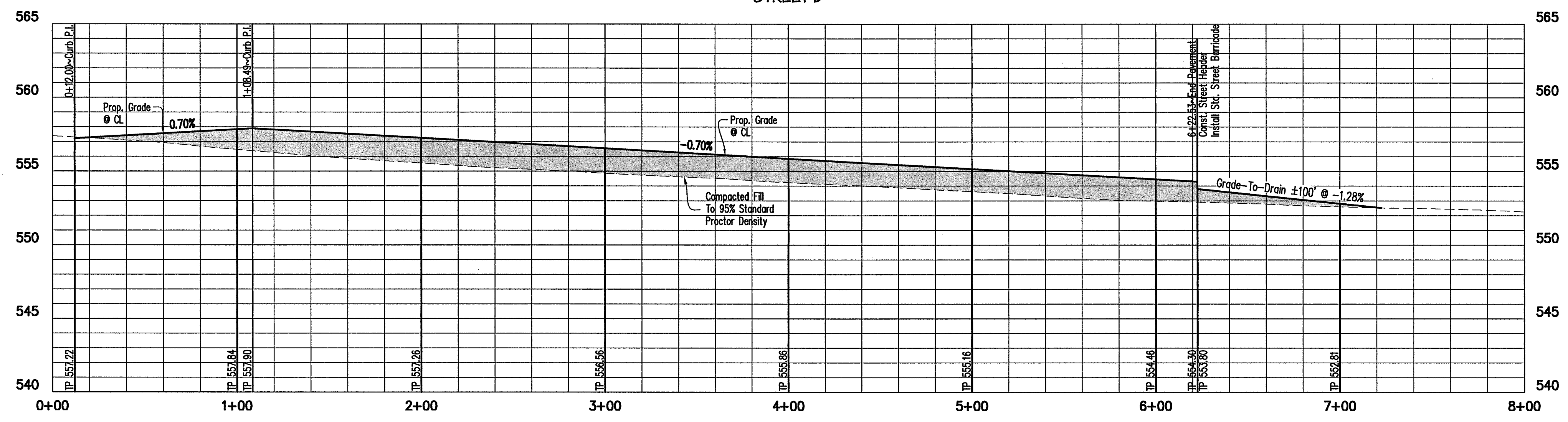
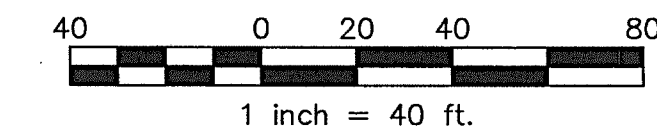
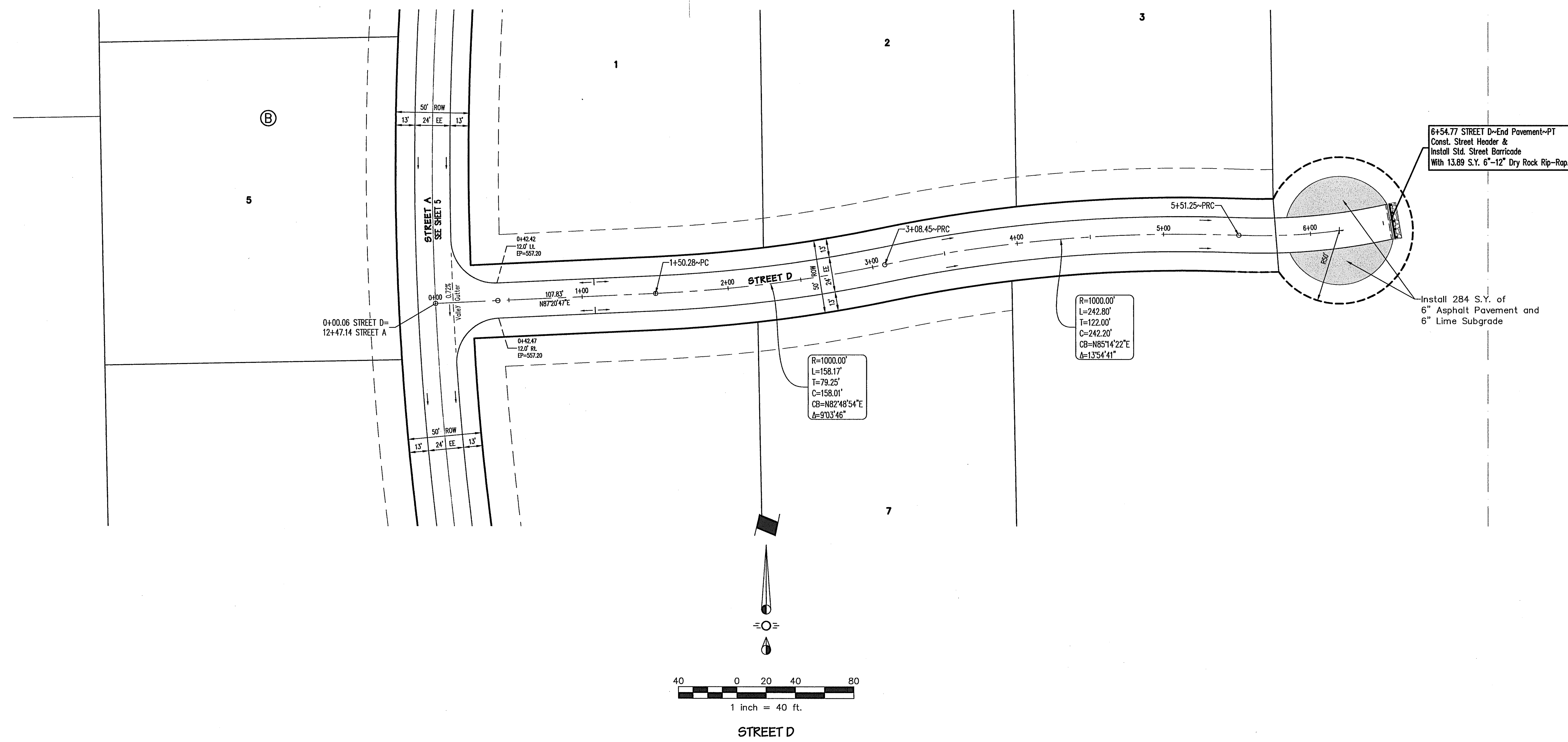
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Sheet **8**  
of **23**



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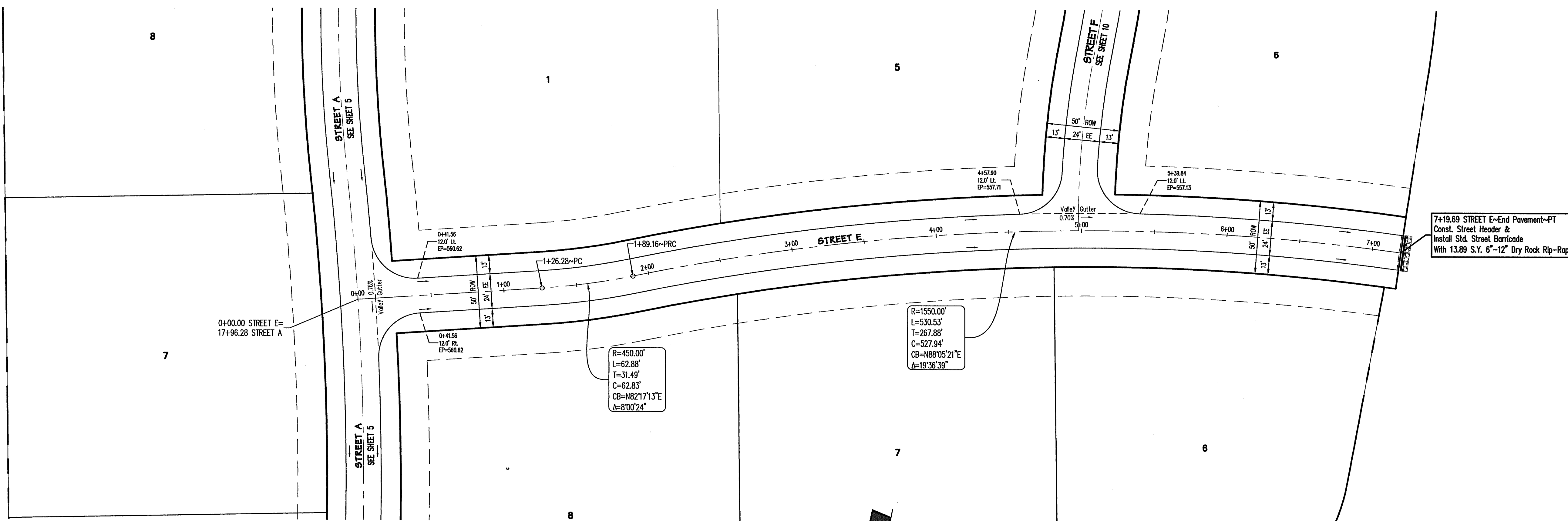
**AS-BUILT DRAWINGS**

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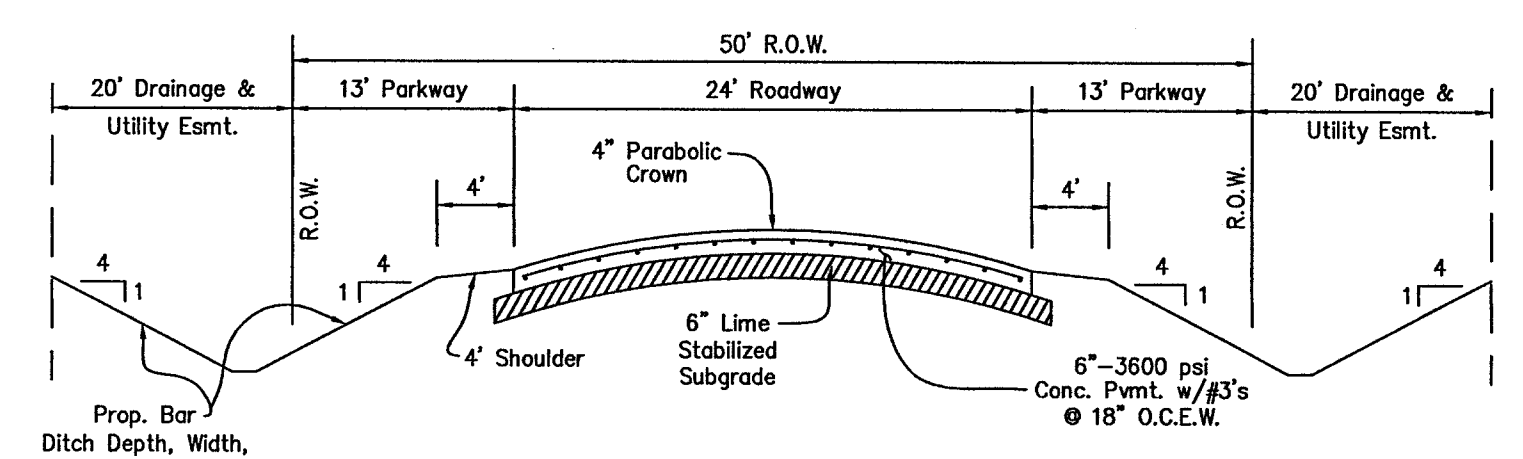
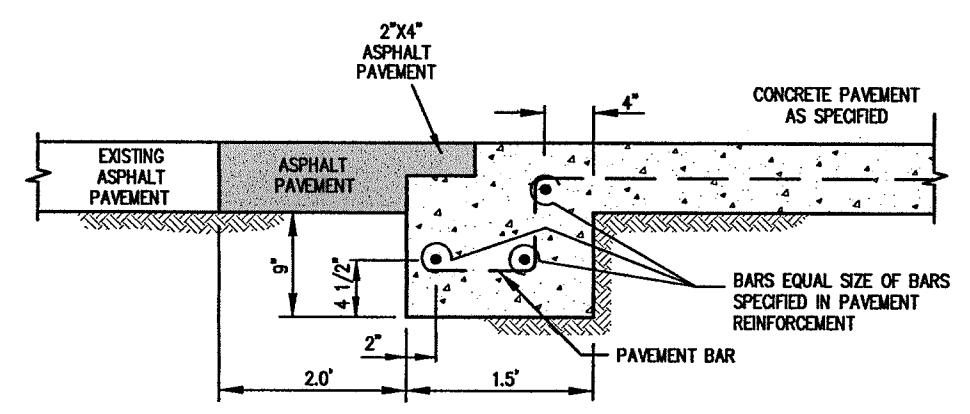
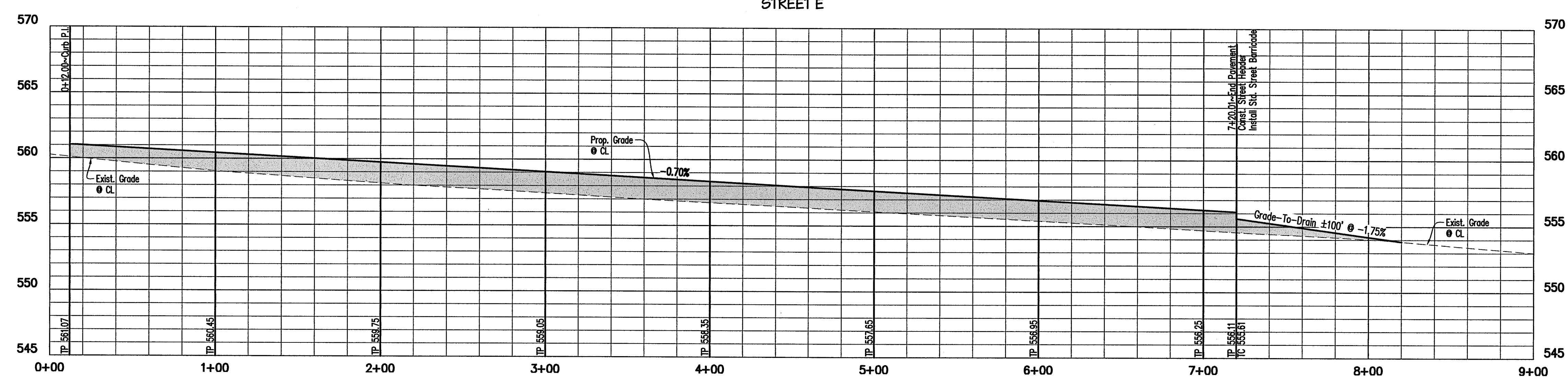
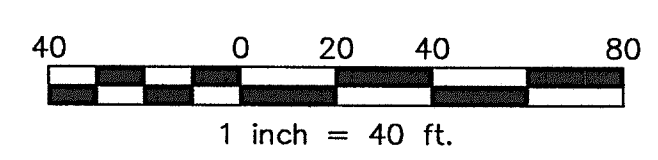
Matthew M. Dorsett, P.E. 90912  
2/20/15

**BENCHMARKS:**  
BM1  
1/2" iron rod found at the southwest corner of the subject tract. Elevation = 554.15  
BM2  
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Drawing: 13-0001-0001-01-001 13-0001-01-001.dwg (Sheet 1) Date: 4/22/2014 1:32:53 PM  
 Plotted by: operator Job Date: 4/22/2014 10:32 AM



7+19.89 STREET E-End Pavement-PT  
 Const. Street Header &  
 Install Std. Street Barricade  
 With 13.89 S.Y. 6"-12" Dry Rock Rip-Rap



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 DATE 2/20/15

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STREET E

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Scale: 1"=40'H 1"=5'V  
 Drawn By: RCP  
 Checked By: MMD

Sheet **9**  
 of **23**

SEI No. 13-0033

**ENCHANTED CREEK PHASE 1**  
**CITY OF LUCAS**  
**COLLIN COUNTY, TEXAS**  
**PAVING PLAN & PROFILE**

Issue Dates:

| Revisions | Date |
|-----------|------|
|           |      |
|           |      |
|           |      |
|           |      |

Scale: 1"=40'H 1"=5'V  
 Drawn By: RCP  
 Checked By: MMD

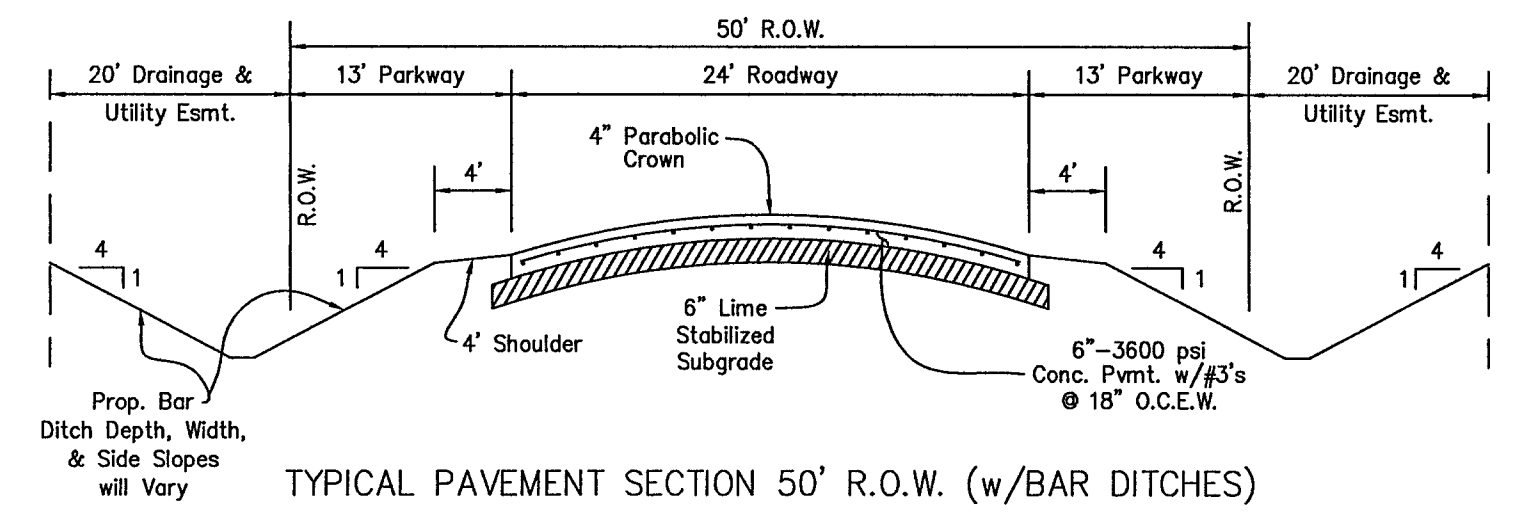
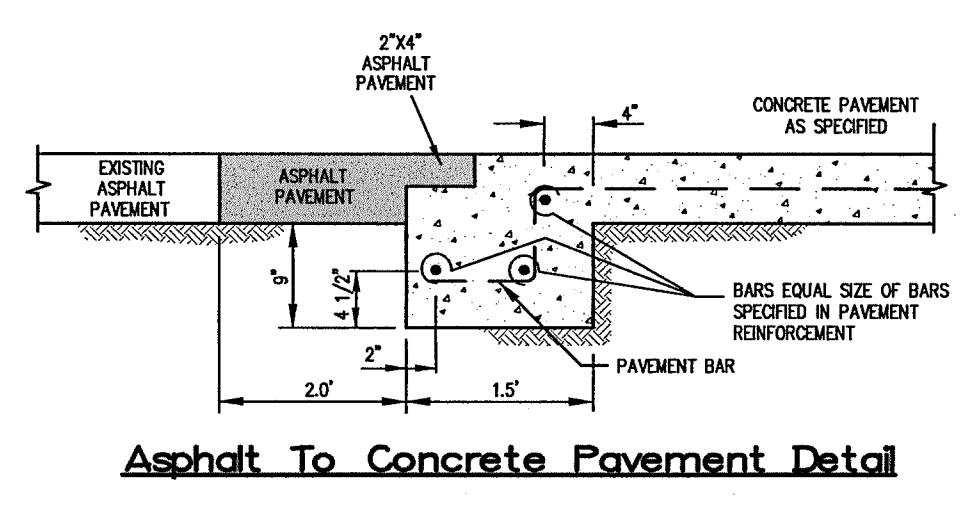
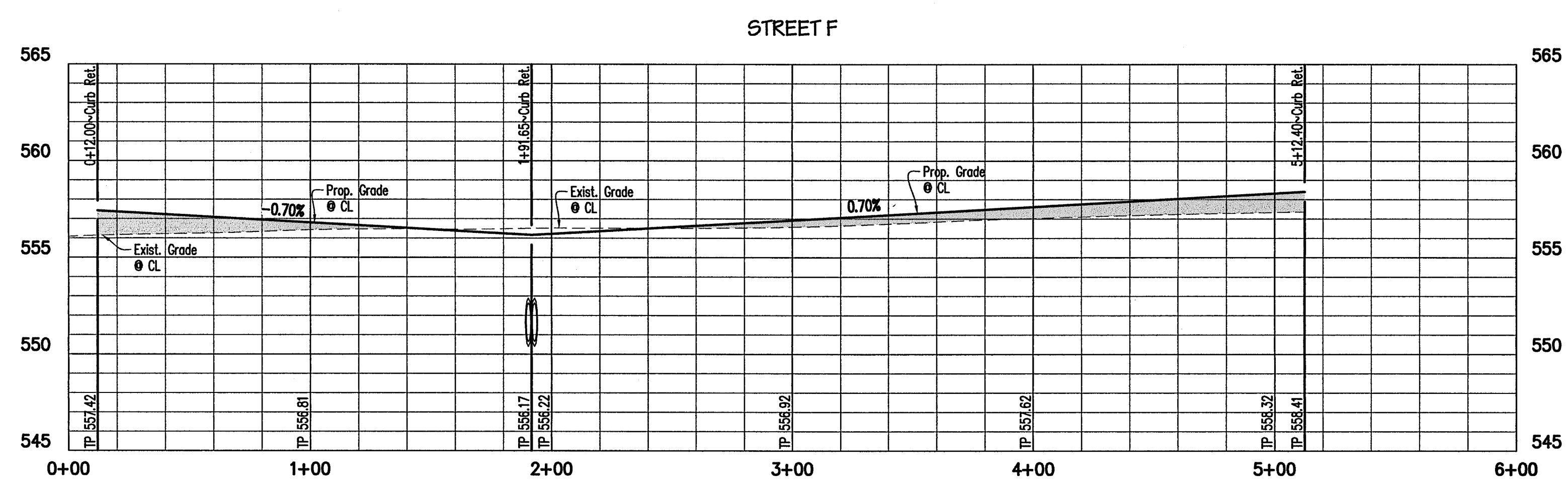
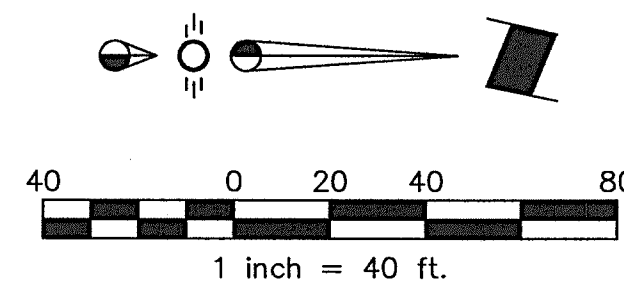
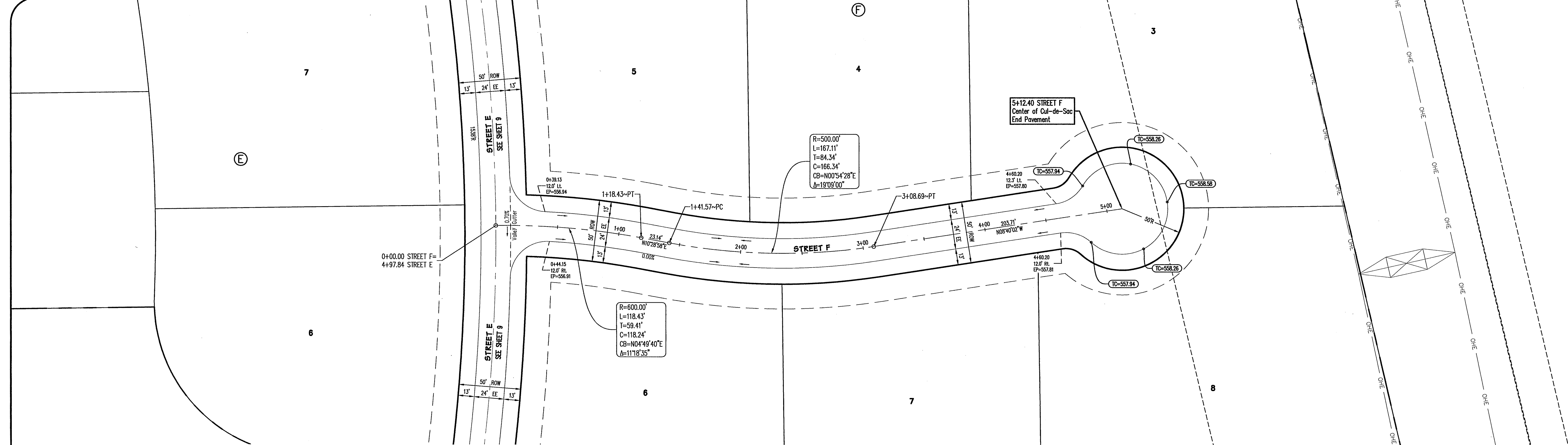
Sheet **9**  
 of **23**

SEI No. 13-0033

MATTHEW M. DORSETT  
 90912  
 LICENSED PROFESSIONAL ENGINEER  
 State of Texas

**p i l a r s**  
 ENGINEERING  
 765 Custer Road, Suite 100 • Plano, TX 75075 • (972) 422-0077 • TBPE No. F-2121





**CAUTION !!!  
EXISTING UTILITIES**

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**AS-BUILT DRAWINGS**

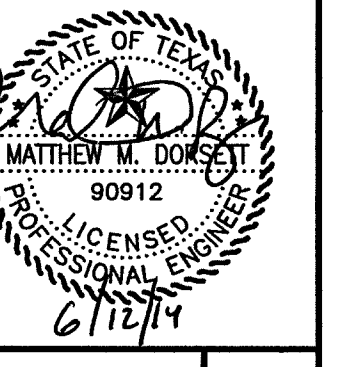
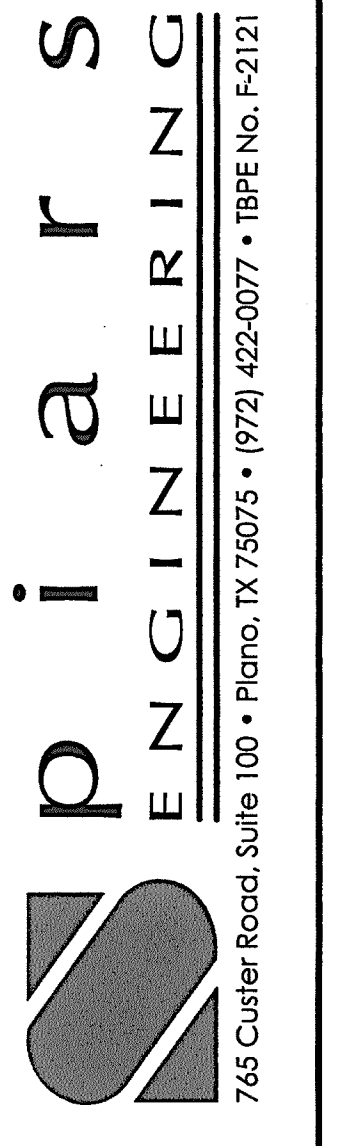
THIS DRAWING HAS BEEN REVISED TO CONFORM TO THE CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR. ALIGNMENT AND GRADES SHOWN ON THIS DRAWING WERE NOT FIELD VERIFIED BY THE ENGINEER.

*Matthew M. Dorsett*  
MATTHEW M. DORSETT, P.E. 90912  
2/20/15  
DATE

**BENCHMARKS:**

BM1  
1/2" iron rod found at the southwest corner of the subject tract. Elevation = 554.15

BM2  
5/8" iron rod found 729.5 feet east of the southwest corner of the subject tract. Elevation = 545.78



**ENCHANTED CREEK PHASE 1  
CITY OF LUCAS  
COLLIN COUNTY, TEXAS  
PAVING PLAN & PROFILE**

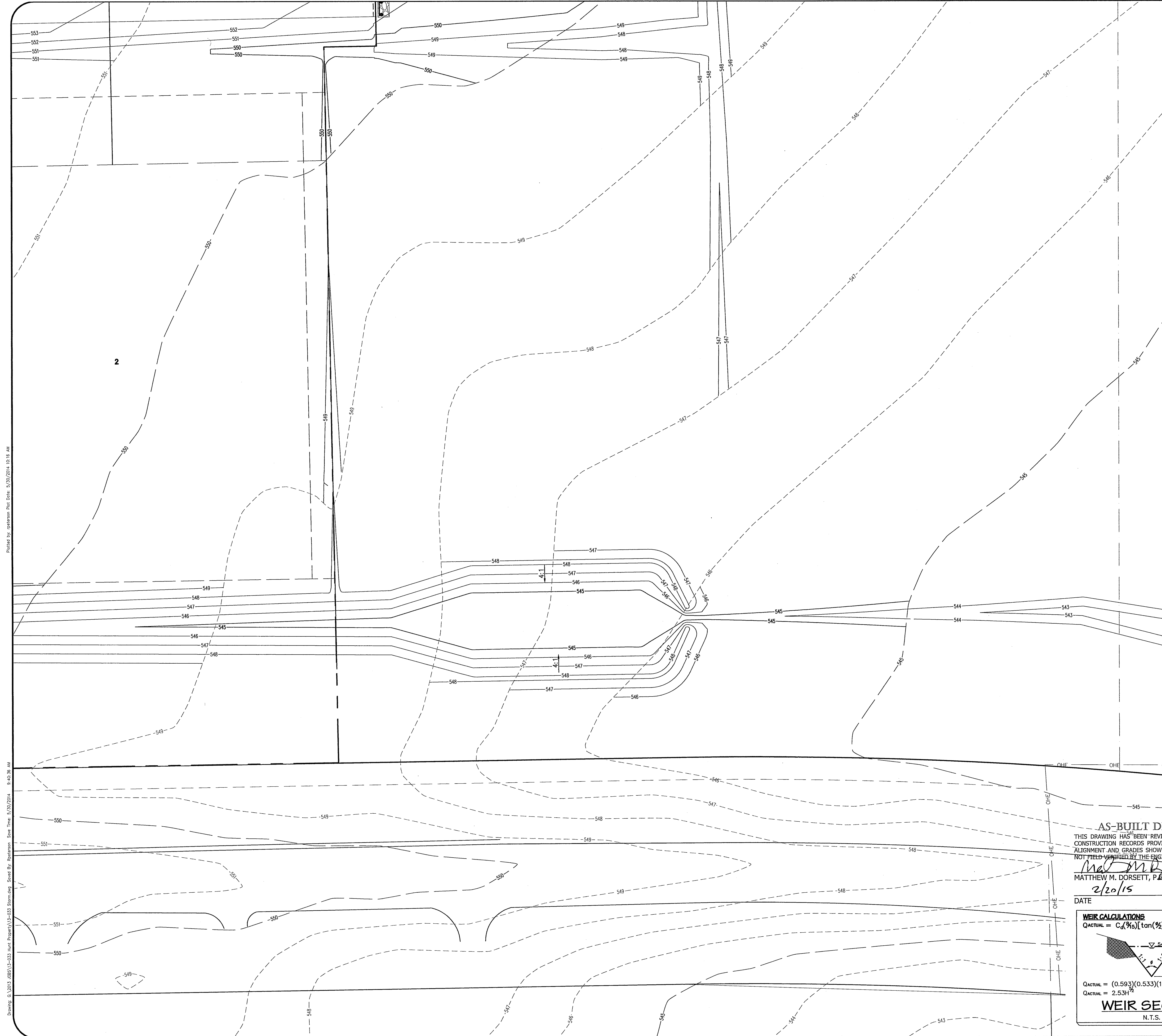
Issue Dates:

| Date | Revisions |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |

Scale: 1"=40'H 1"=5'V  
Drawn By: RCP  
Checked By: MMD  
**Sheet 10  
of 23**

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Drawing: C:\GIS\2015\2533\Draw\Plan\15-233\_PAV\Sheet\_P1.dwg Scale: By: RCP Date: 2/17/2015 12:02:24 PM



**Modified Rational Method Detention Basin Design, 100-year  
Enchanted Creek Detention Area 1**  
11-Apr-14

|   |       |
|---|-------|
| Runoff Coefficient, C =                     | 0.3   |
| Weighted Runoff Coefficient, C <sub>w</sub> | 0.324 |
| Drainage Area, A (Ac)                       | 32.92 |
| Time of Concentration (mins)                | 15.00 |
| Max Outflow Rate, Q <sub>allow</sub> (cfs)  | 74.27 |

| Duration (mins) | Intensity (In/hr) | Inflow Rate (cfs)<br>Q <sub>100-CIA</sub> | Inflow Volume (CF) | Outflow Duration (mins) | Outflow Volume (CF) | Storage Volume (CF) |
|-----------------|-------------------|---|--------------------|-------------------------|---------------------|---------------------|
| 5               | 10.49             | 111.9                                     | 33,566             | 20                      | 44,562              | (10,996)            |
| 10              | 8.74              | 93.2                                      | 55,933             | 25                      | 55,703              | 230                 |
| 15              | 7.52              | 80.2                                      | 72,188             | 30                      | 66,843              | 5,345               |
| 30              | 5.75              | 61.3                                      | 110,394            | 45                      | 100,265             | 10,129              |
| 40              | 5.14              | 54.8                                      | 131,577            | 55                      | 122,546             | 9,031               |
| 50              | 4.52              | 48.2                                      | 144,632            | 65                      | 144,827             | (194)               |
| 60              | 3.91              | 41.7                                      | 150,136            | 75                      | 167,108             | (16,972)            |
| 120             | 2.62              | 27.9                                      | 201,205            | 135                     | 300,794             | (99,589)            |
| 180             | 1.91              | 20.4                                      | 220,020            | 195                     | 434,480             | (214,460)           |
| 360             | 1.15              | 12.3                                      | 264,945            | 375                     | 835,538             | (570,592)           |

Required Storage Volume = 10,129

DETENTION AREA #1

| Elevation | Incremental Area (ft <sup>2</sup> ) | Average Area (ft <sup>2</sup> ) | Incremental Depth (ft) | Incremental Volume (ft <sup>3</sup> ) | Cumulative Volume (ft <sup>3</sup> ) |
|-----------|-------------------------------------|---------------------------------|------------------------|---------------------------------------|--------------------------------------|
| 544.00    | 0                                   | 938                             | 1.00                   | 938                                   | 938                                  |
| 545.00    | 1,875                               | 2,307                           | 1.00                   | 2,307                                 | 3,245                                |
| 546.00    | 2,739                               | 3,235                           | 1.00                   | 3,235                                 | 6,480                                |
| 547.00    | 3,731                               | 4,291                           | 1.00                   | 4,291                                 | 10,771                               |
| 548.00    | 4,851                               |                                 |                        |                                       |                                      |

Storage Volume = 10129 at 547.85

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**BENCHMARKS:**

- BM1**  
1/2" iron rod found at the southwest corner of the subject tract. Elevation = 554.15
- BM2**  
5/8" iron rod found 729.5 feet east of the southwest corner of the subject tract. Elevation = 545.78

**Areas Draining To Pond**

| Area                      | Runoff Coefficient | Acreage      |
|---------------------------|--------------------|--------------|
| OS-1                      | 0.3                | 25.02        |
| A-1                       | 0.4                | 2.58         |
| A-2                       | 0.4                | 2.62         |
| A-3                       | 0.4                | 0.36         |
| A-4                       | 0.4                | 2.34         |
| <b>Total Area To Pond</b> |                    | <b>32.92</b> |

| Areas By C: | Runoff Coefficient | Acreage |
|-------------|--------------------|---------|
|             | 0.3                | 25.02   |
|             | 0.4                | 7.90    |

Q<sub>ALLOW</sub> = 0.3(7.52)(32.92) = 74.27cfs

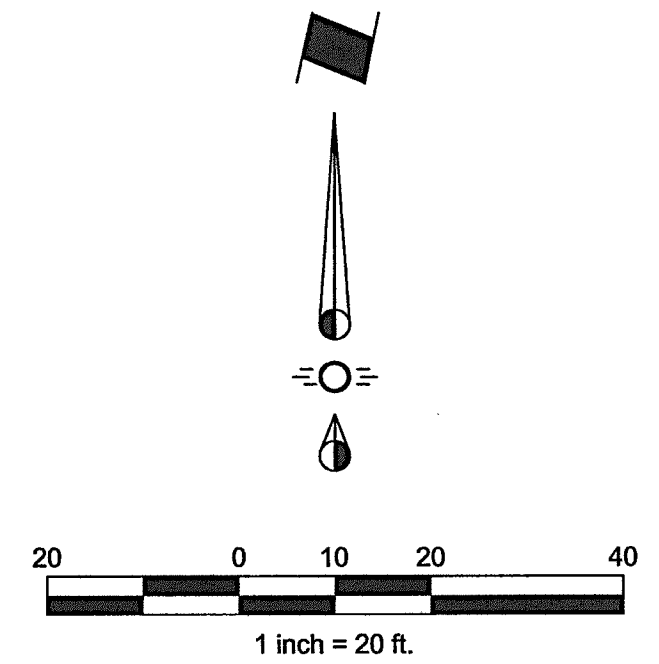
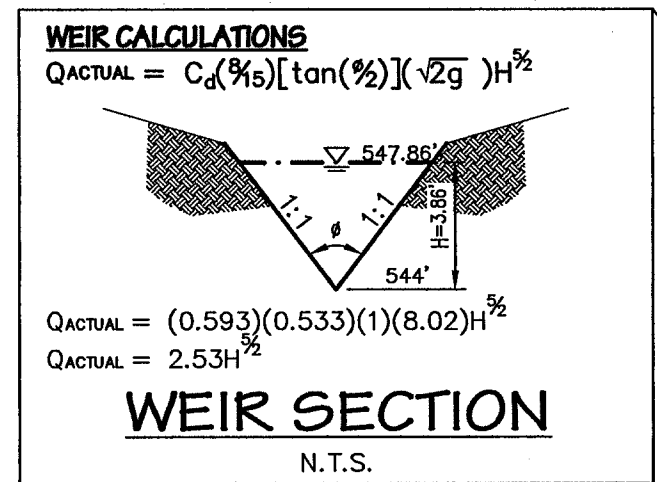
**Q Actual**  
Q<sub>100</sub> = 2.53(3.86)<sup>3/2</sup> = 74.06cfs

**Q Allowed**  
Q<sub>100</sub> 74.27cfs

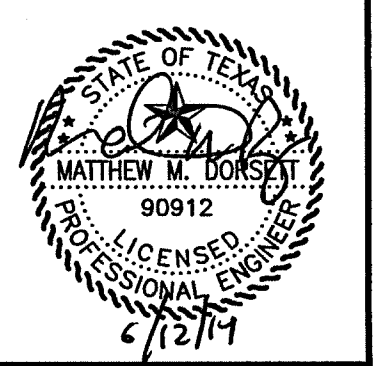
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*Mat M.D.*  
MATTHEW M. DORSETT, P.E. 90912  
2/20/15

DATE



Drawing: 03/15/14 (085) Co-033 (Sheet) (Project) 13-033 (Drawings) - Enchanted Creek Detention Area - 5/25/2014 - 9:40:38 AM  
 Plotted by: mcdorsett Date: 5/20/2014 10:18 AM











**MODIFIED RATIONAL METHOD DETENTION BASIN DESIGN**  
 PROJECT: Enchanted Creek, Detention Area #4  
 March 7, 2014

Runoff Coefficient C = 0.30  
 New Runoff Coefficient, C = 0.40  
 Drainage Area - A = 10.67 acres  
 Time of Concentration - tc = 15.00 mins  
 Maximum Outflow Rate - Q = 24.06 cfs

| Duration (minutes)      | Intensity (inches/hr) | Depth (inches) | Inflow Discharge Q=CIA | Inflow Volume Cu. Ft. | Outflow Duration (minutes) | Outflow Volume Cu. Ft. | Storage Volume Cu. Ft. |
|-------------------------|-----------------------|----------------|------------------------|-----------------------|----------------------------|------------------------|------------------------|
| 5                       | 10.49                 | 0.87           | 44.8                   | 13,431                | 20                         | 14,436                 | (1,005)                |
| 10                      | 8.74                  | 1.46           | 37.3                   | 22,381                | 25                         | 18,045                 | 4,336                  |
| 15                      | 7.52                  | 1.88           | 32.1                   | 28,886                | 30                         | 21,654                 | 7,232                  |
| 30                      | 5.75                  | 2.88           | 24.5                   | 44,174                | 45                         | 32,481                 | 11,693                 |
| 40                      | 5.14                  | 3.43           | 21.9                   | 52,650                | 55                         | 39,699                 | 12,951                 |
| 50                      | 4.52                  | 3.77           | 19.3                   | 57,874                | 65                         | 46,917                 | 10,957                 |
| 60                      | 3.91                  | 3.91           | 16.7                   | 60,076                | 75                         | 54,135                 | 5,941                  |
| 120                     | 2.62                  | 5.24           | 11.2                   | 80,512                | 135                        | 97,443                 | (16,931)               |
| 180                     | 1.91                  | 5.73           | 8.2                    | 88,040                | 195                        | 140,751                | (52,711)               |
| 360                     | 1.15                  | 6.90           | 4.9                    | 106,017               | 375                        | 270,675                | (164,658)              |
| Required Storage Volume |                       |                |                        |                       |                            | 12,951                 | cubic feet             |

DETENTION AREA #4

| Elevation | Incremental Area (ft <sup>2</sup> ) | Average Area (ft <sup>2</sup> ) | Incremental Depth (ft) | Incremental Volume (ft <sup>3</sup> ) | Cumulative Volume (ft <sup>3</sup> ) |
|-----------|-------------------------------------|---------------------------------|------------------------|---------------------------------------|--------------------------------------|
| 547.00    | 654                                 | 989                             | 1.00                   | 989                                   | 989                                  |
| 548.00    | 1,323                               | 1,691                           | 1.00                   | 1,691                                 | 2,680                                |
| 549.00    | 2,059                               | 2,491                           | 1.00                   | 2,491                                 | 5,171                                |
| 550.00    | 2,923                               | 3,419                           | 1.00                   | 3,419                                 | 8,590                                |
| 551.00    | 3,915                               | 4,475                           | 1.00                   | 4,475                                 | 13,065                               |
| 552.00    | 5,035                               |                                 |                        |                                       |                                      |

Storage Volume = 12951 at 551.97

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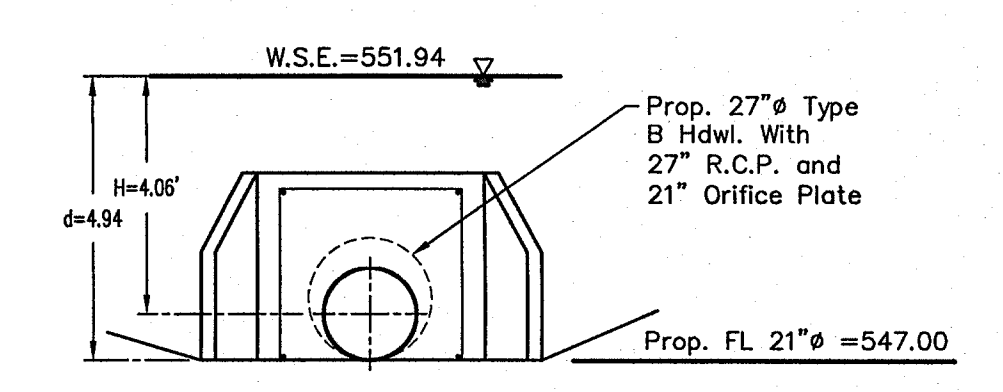
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- BM2  
5/8" iron rod found 729.5 feet east of the southwest corner of the subject tract. Elevation = 545.78

**Areas Draining To Pond**

| Area                      | Runoff Coefficient | Acreage      |
|---------------------------|--------------------|--------------|
| D-1                       | 0.4                | 7.13         |
| D-2                       | 0.4                | 3.54         |
| <b>Total Area To Pond</b> |                    | <b>10.67</b> |
| Areas By C:               | Runoff Coefficient | Acreage      |
|                           | 0.4                | 10.67        |

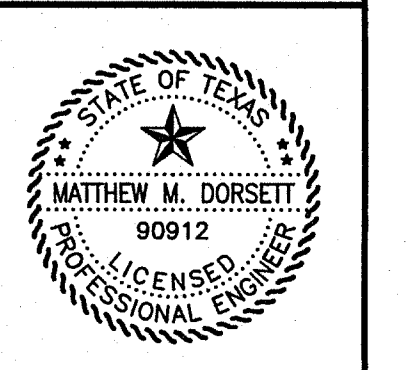
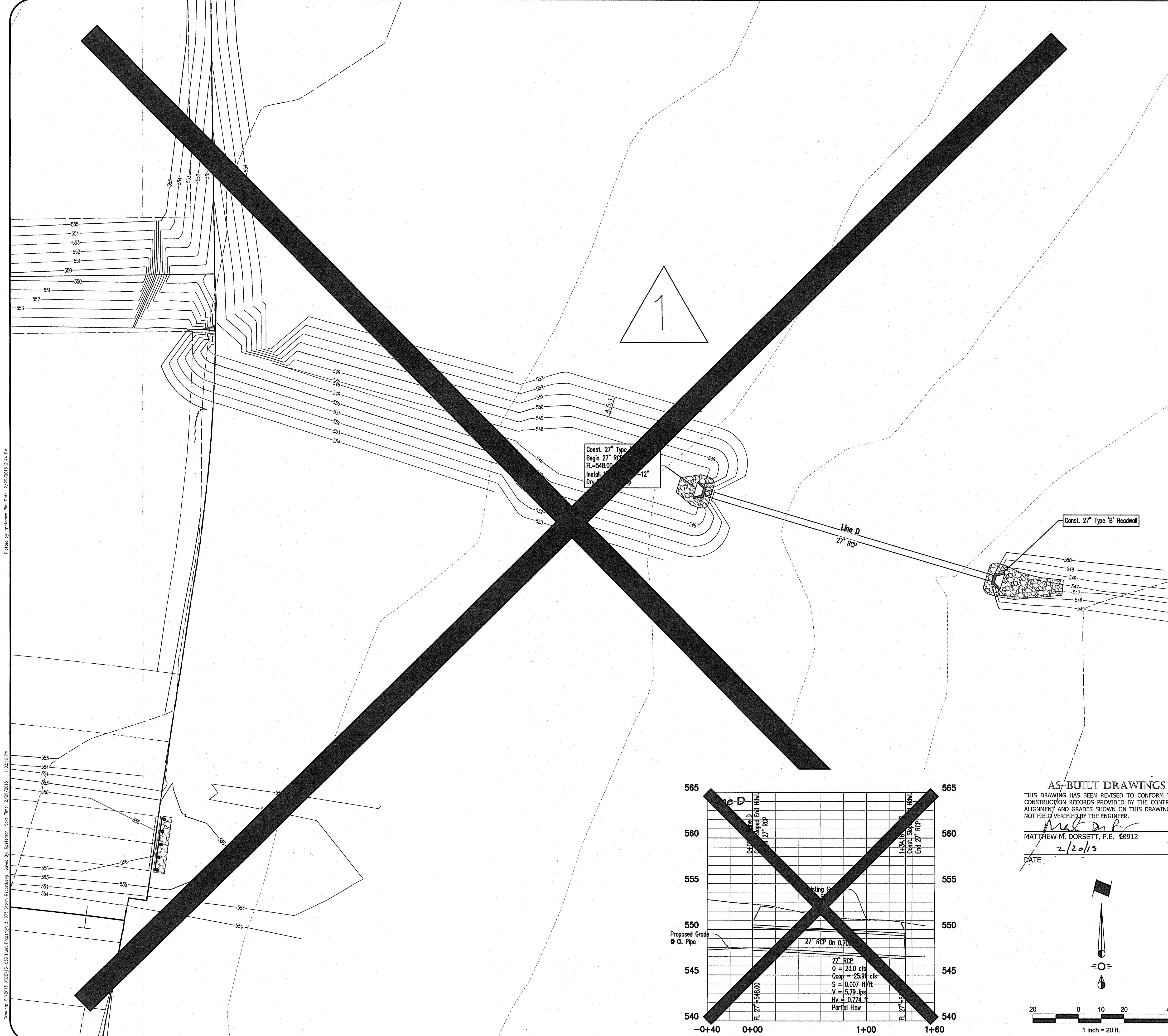
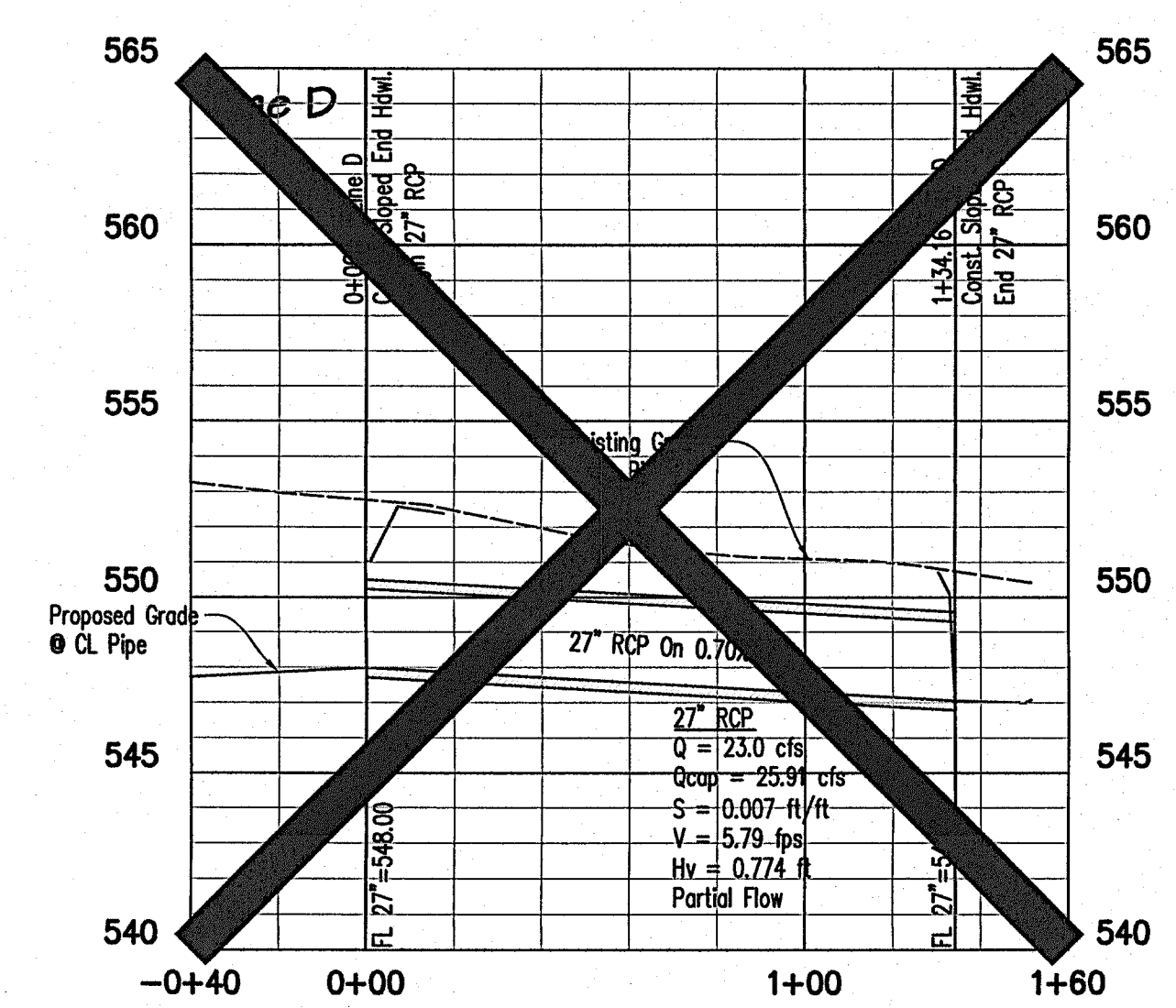
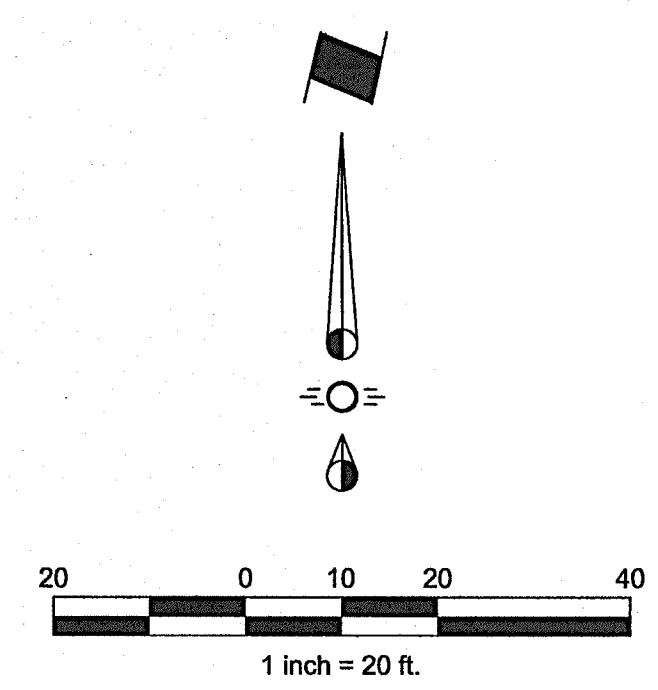
$Q_{ALLOW} = 0.3(7.52)(10.67) = 24.07\text{cfs}$

$Q_{100} = 0.62(2.40\text{ft}^2)\sqrt{(64.34)(4.064\text{ft})} = 24.06\text{cfs}$        $Q_{100} = 24.07\text{cfs}$



**Orifice Calculations**  
 $Q = 0.62A\sqrt{2(32.2)(H)}$

**AS-BUILT DRAWINGS**  
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 MATTHEW M. DORSETT, P.E. 00912  
 2/20/15  
 DATE



**ENCHANTED CREEK PHASE 1  
 CITY OF LUCAS  
 COLLIN COUNTY, TEXAS  
 DETENTION POND CALCULATIONS**

Issue Dates:

| Date    | Revisions   |
|---------|---|
| 1/20/15 | Detention Area was not included. A different detention area in the Phase 1B plans to be included instead. |

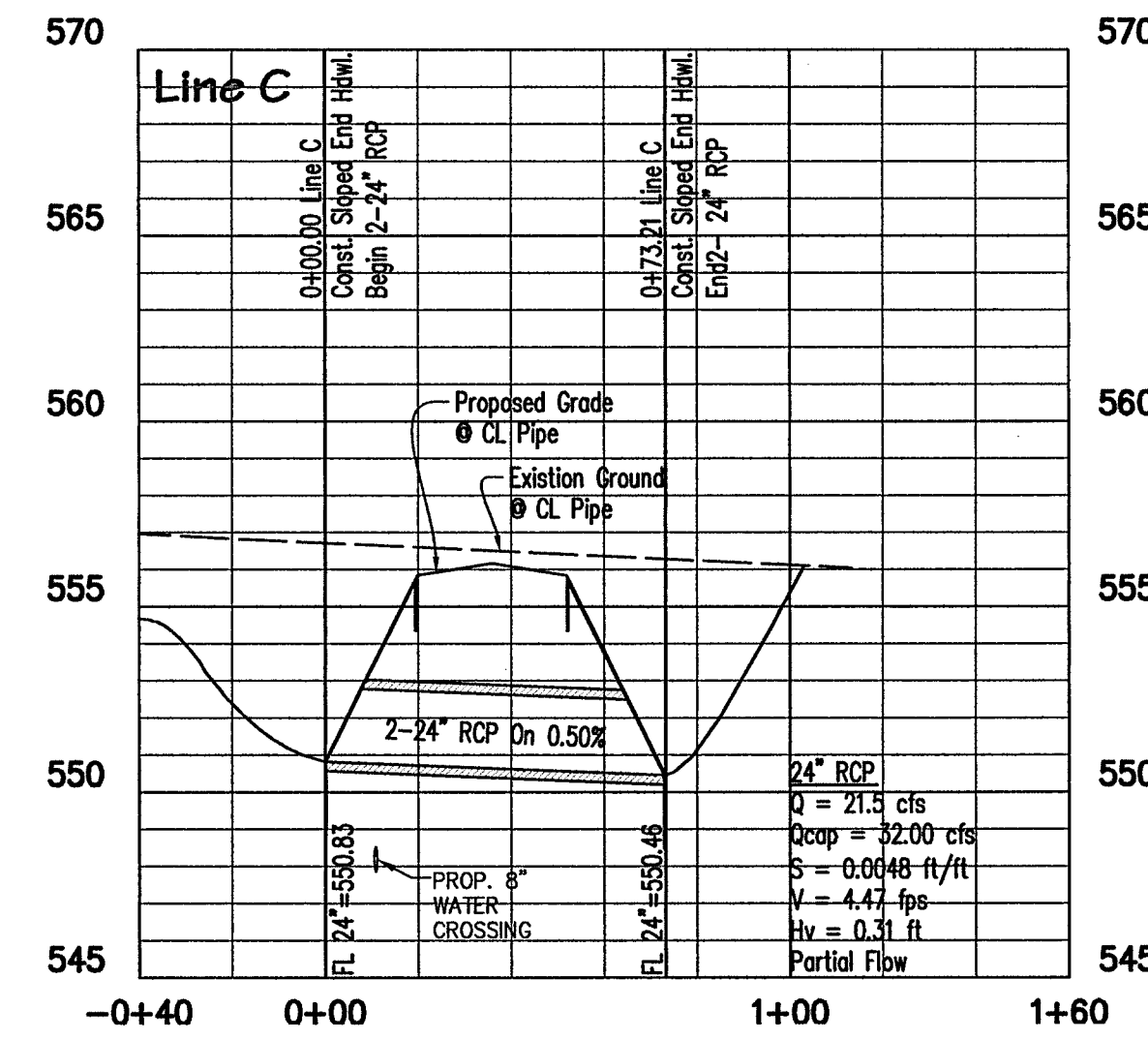
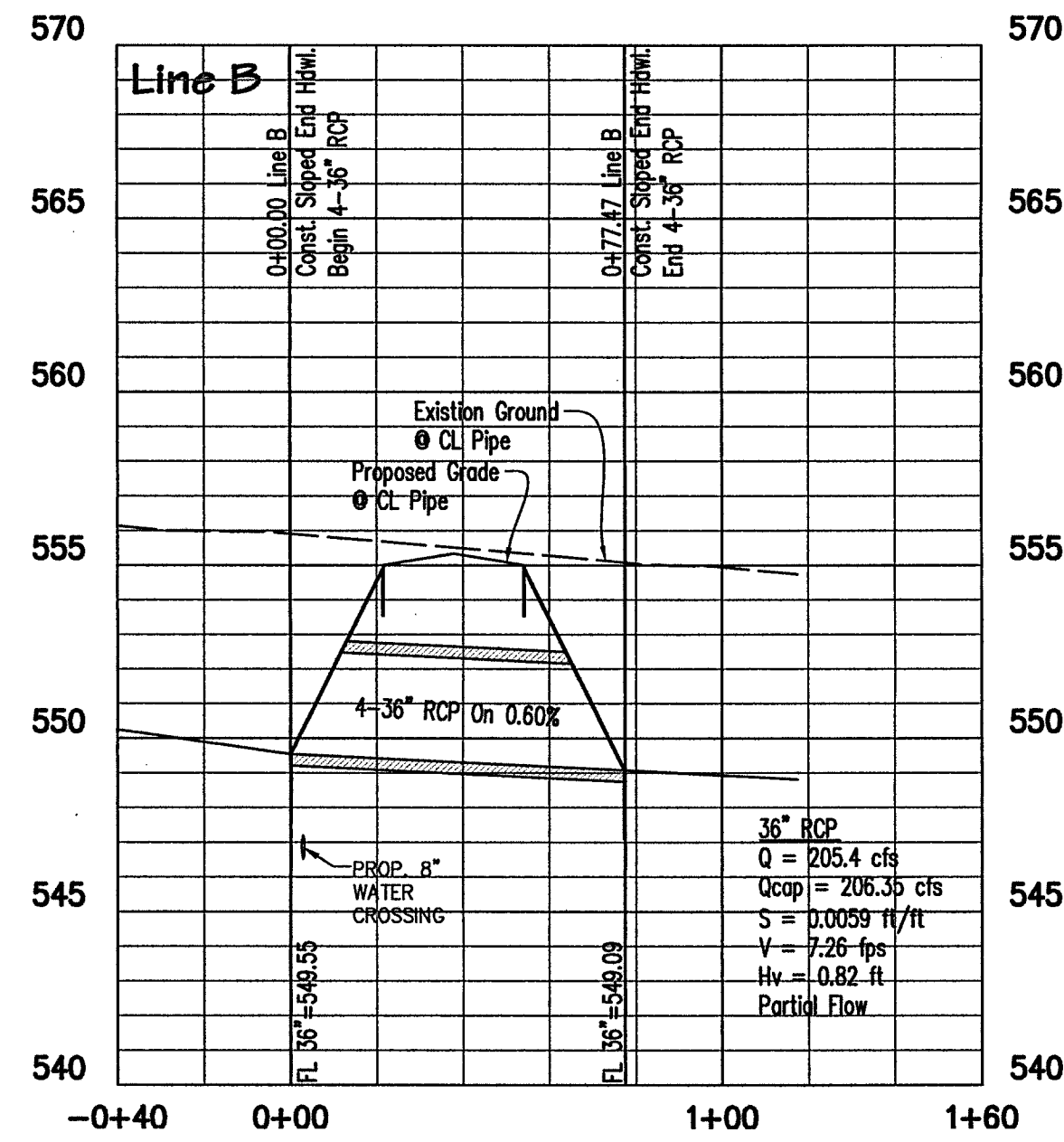
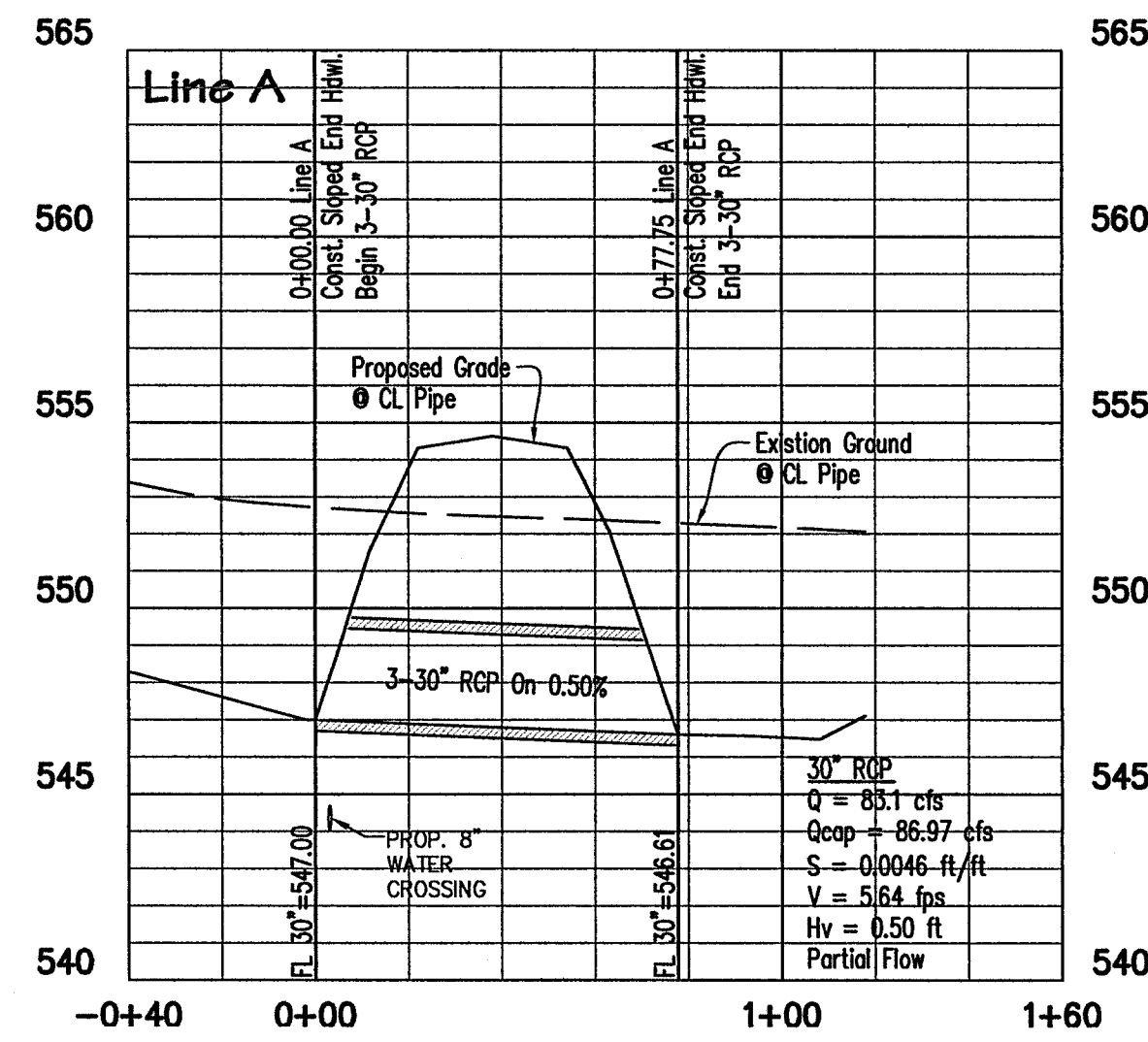
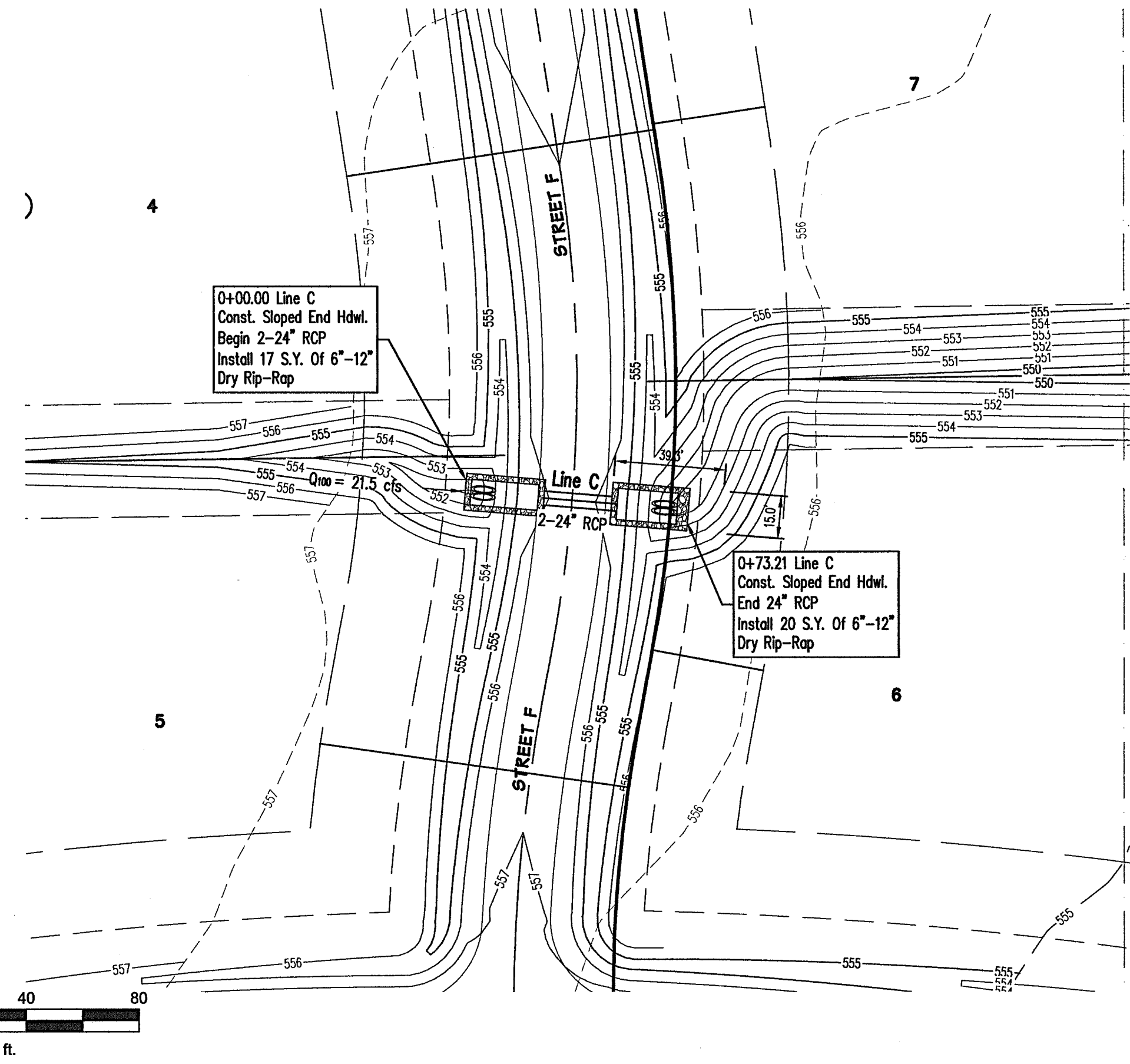
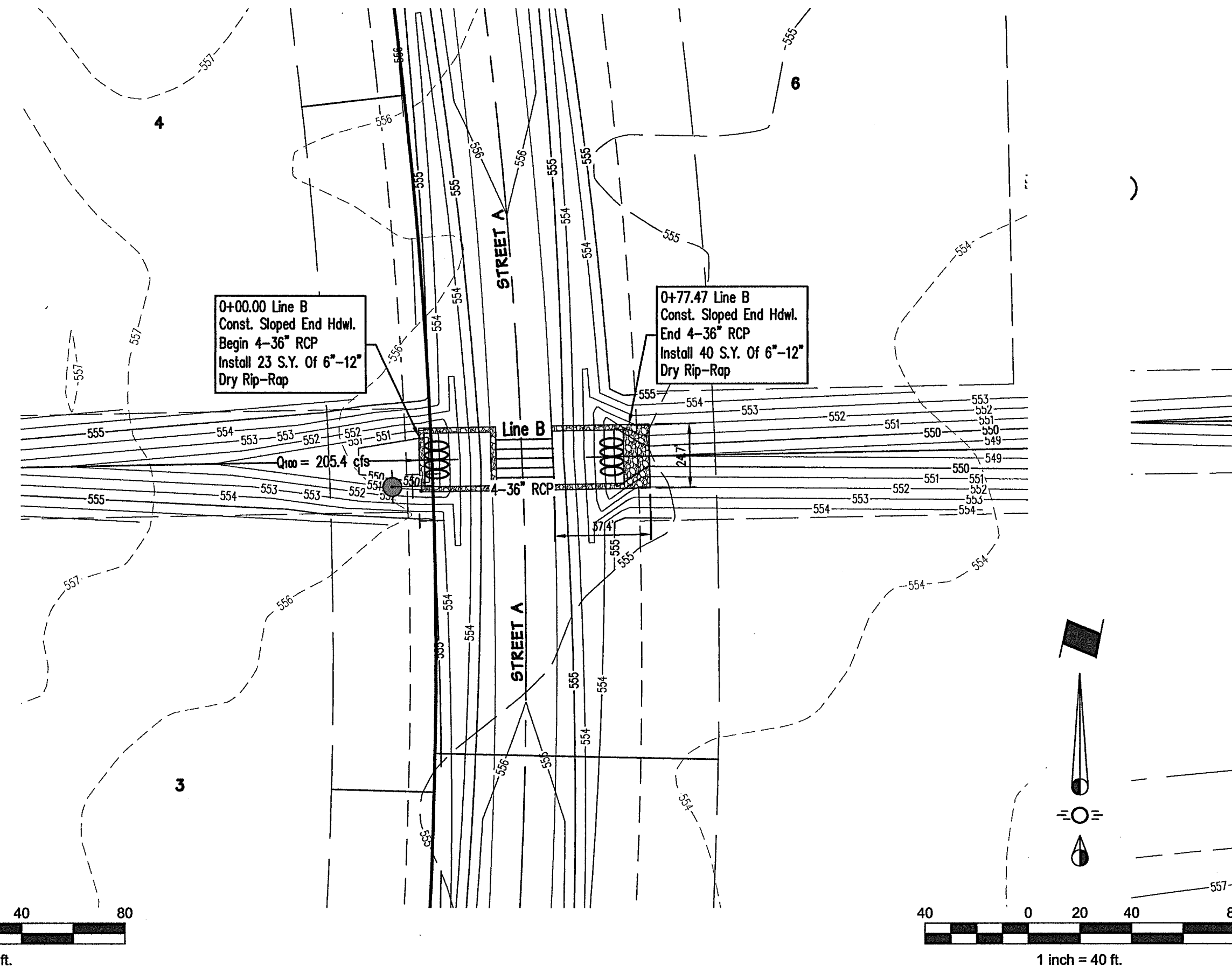
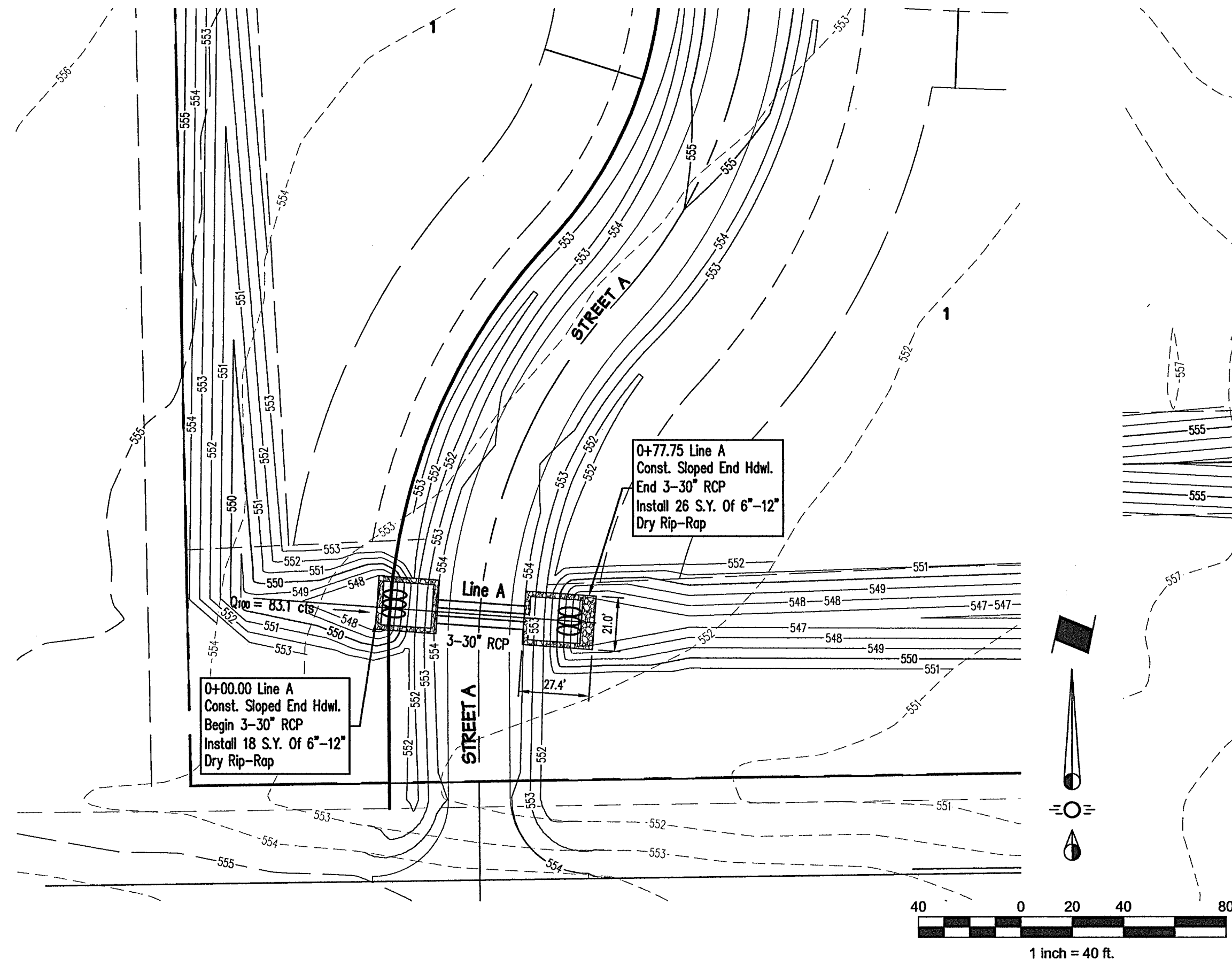
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 Checked By: MMD  
**Sheet 16**  
 of **23**  
 SEI No. 13-033

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Drawn by: MMD Date: 6/12/2015 8:32:53 AM



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*Matthew M. Dorsett*  
MATTHEW M. DORSETT, P.E. 90912  
2/20/15  
DATE

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LINE A THRU C

Revisions

Scale: 1"=40'H 1"=5'V  
Drawn By: RCP

Checked By: MMD

Sheet 17  
of 23

SEI No. 13-033

**ENCHANTED CREEK PHASE 1**  
CITY OF LUCAS  
COLLIN COUNTY, TEXAS  
**CULVERTS PLAN & PROFILE**

Issue Dates:

Date

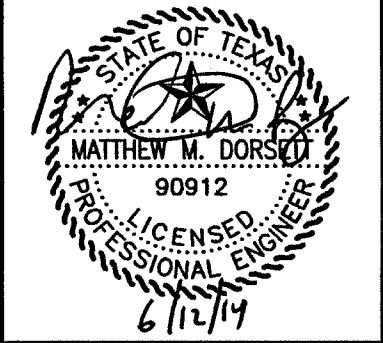
Revisions

Scale: 1"=40'H 1"=5'V

Checked By: MMD

Sheet 17  
of 23

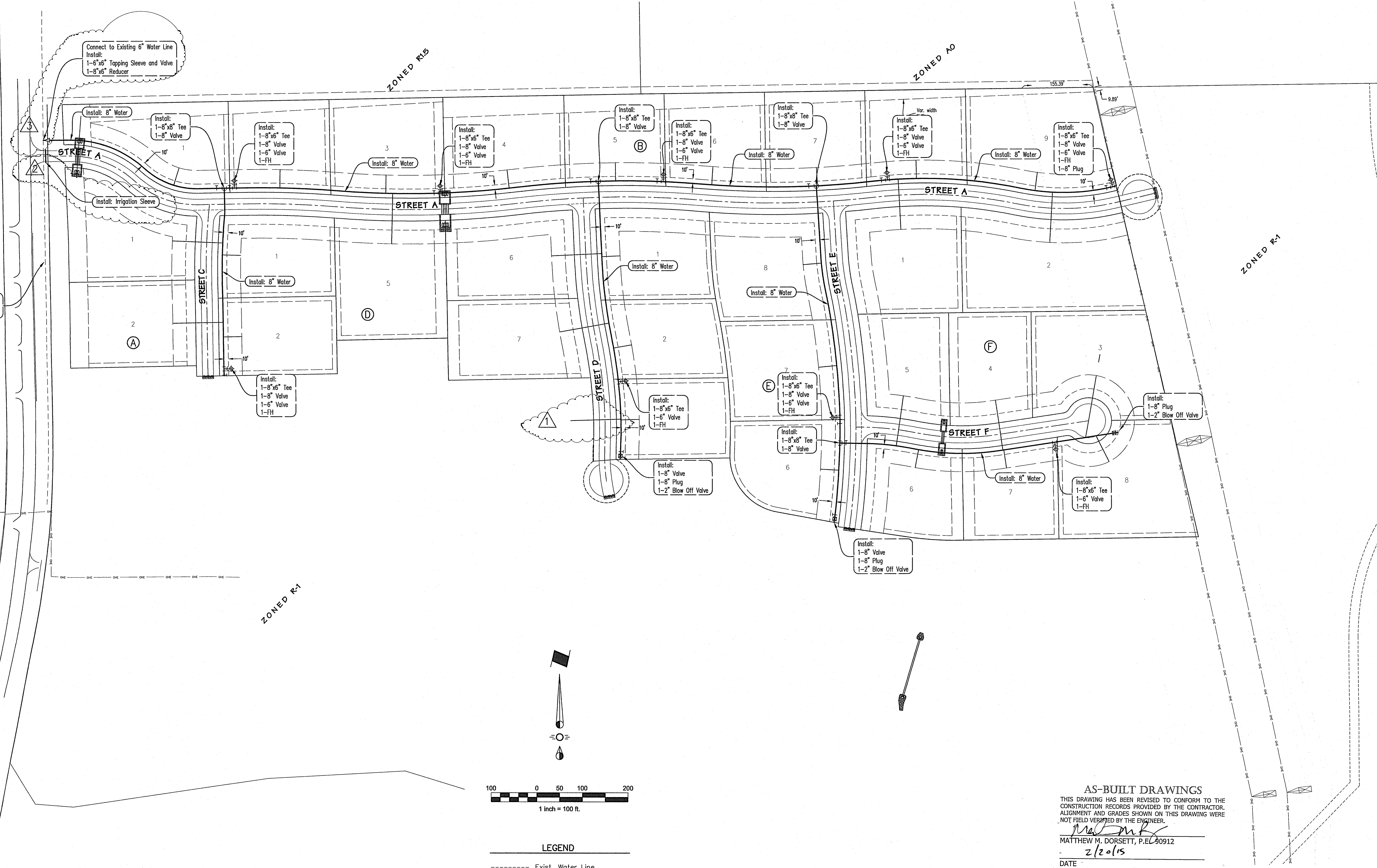
SEI No. 13-033



**piars**  
ENGINEERING  
765 Custer Road, Suite 100 • Plano, TX 75075 • (972) 422-0077 • TBPE No. F-2121



Drawing: © 2014, 08514-033 Auto Property\13-033 Water Recording Saved By: Barbara.S. Save Time: 2/20/2015 2:31:18 PM  
 Printed by: gerson@rcp.com Plot Date: 2/20/2015 2:43 PM  
 ROBERT G. TIMMONS  
 13000 W. PARKWAY, SUITE 100, FORT WORTH, TEXAS 76134



Approximate Location of Existing 6" Water Line Contractor to Field Locate

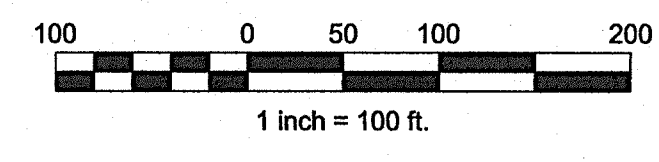
Connect to Existing 6" Water Line  
 Install:  
 1-6"x6" Tapping Sleeve and Valve  
 1-8"x6" Reducer

ROBERT G. TIMMONS

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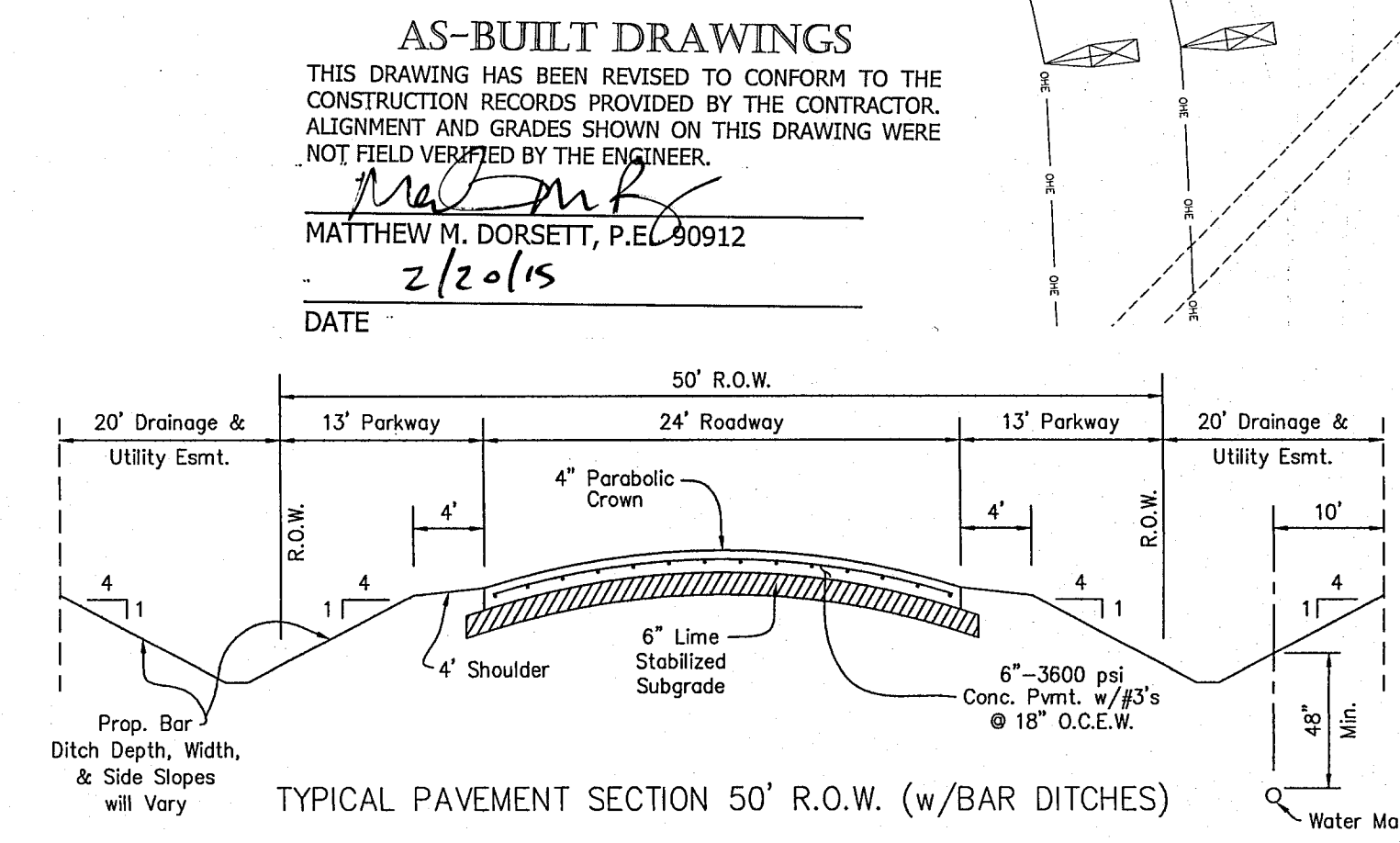
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**LEGEND**

- Exist. Water Line
- Exist. Fire Hydrant
- Prop. Water Line and Valve
- Prop. Fire Hydrant

| Service Schedule |      |     |
|------------------|------|-----|
| Type             | Size | No. |
| Water            | 1"   | 27  |
| Irrigation       | 1.5" | 1   |



**ENCHANTED CREEK PHASE 1**  
 CITY OF LUCAS  
 COLLIN COUNTY, TEXAS  
 Water Plan

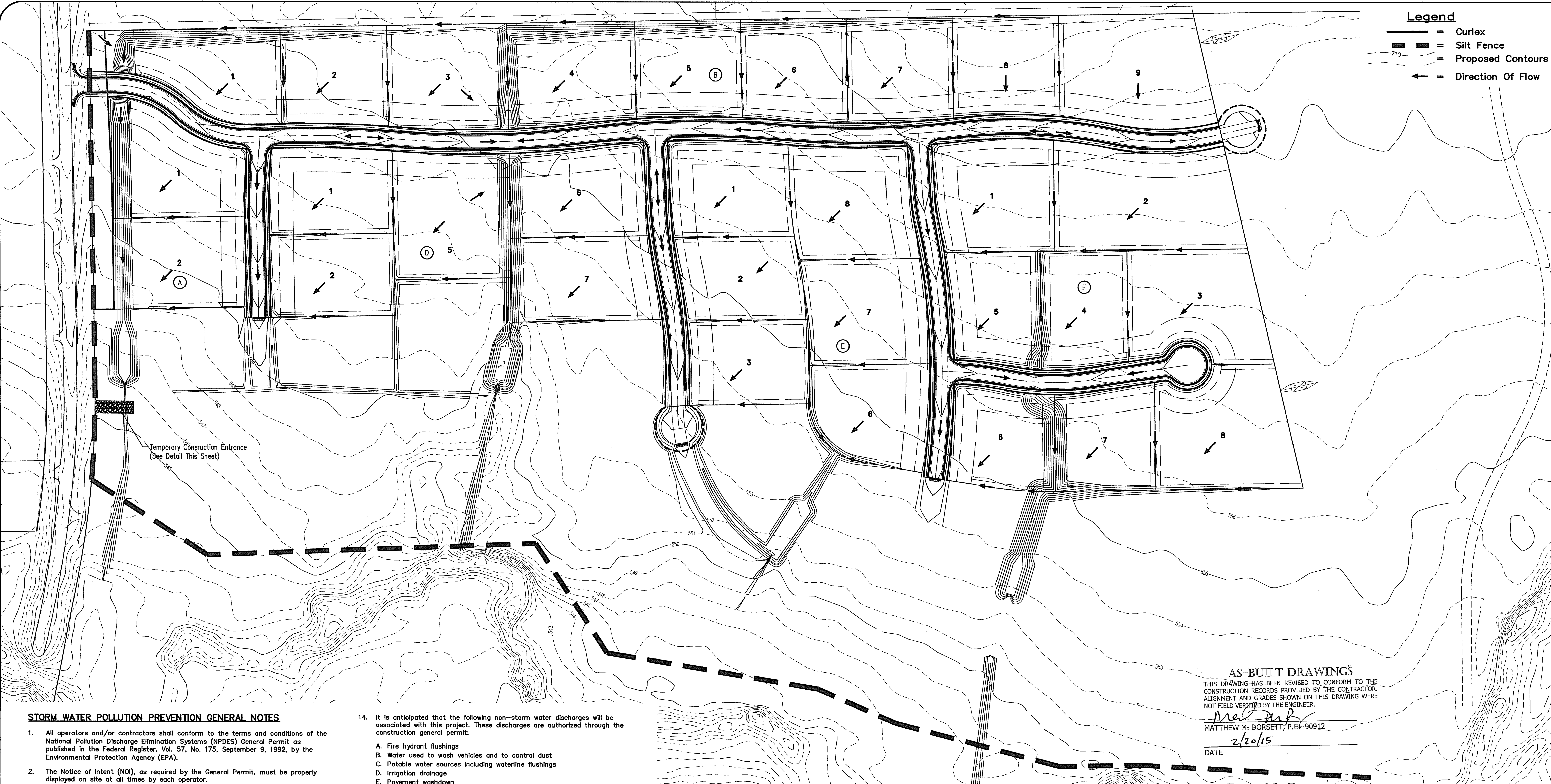
Issue Dates:

| Date    | Revisions                                   |
|---------|---|
| 1/20/15 | Add water service for future Phase 1B lot.  |
| 1/20/15 | Add irrigation service above under parking. |
| 1/20/15 | Add tapping sleeve and reducer.             |

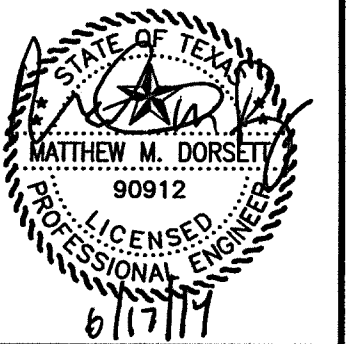
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 Sheet 18  
 of 23  
 SEI No. 13-033



Printed by: erenman Plot Date: 6/17/2014 7:29 AM  
 Sheet: 6/23/14 08:53:43 User: erenman\j... 133 12502.dwg Saved By: erenman Plot Time: 6/17/2014 7:28:14 AM



- Legend**
- = Curlex
  - = Silt Fence
  - = Proposed Contours
  - = Direction Of Flow



**ENCHANTED CREEK PHASE 1**  
 CITY OF LUCAS  
 COLLIN COUNTY, TEXAS  
**Erosion Control Plan & Details**

**STORM WATER POLLUTION PREVENTION GENERAL NOTES**

1. All operators and/or contractors shall conform to the terms and conditions of the National Pollution Discharge Elimination System (NPDES) General Permit as published in the Federal Register, Vol. 57, No. 175, September 9, 1992, by the Environmental Protection Agency (EPA).
2. The Notice of Intent (NOI), as required by the General Permit, must be properly displayed on site at all times by each operator.
3. All releases of reportable quantities of hazardous substances shall be reported immediately to the facility operator and EPA.
4. Qualified operator personnel must inspect the site at least once every fourteen days and within 24 hours of a 1/2 - inch or greater rainfall event. The Inspector shall document the results.
5. Modifications to the Storm Water Pollution Prevention Plan shall be implemented and be in-place within a seven calendar day period.
6. If any contractor sees a violation by an operator or another contractor, he shall notify the operator and contractor in violation, as well as the facility operator.
7. Erosion control shall be installed prior to any grading.
8. Accumulated silt deposits shall be removed from silt fences and hay bale dikes when silt depth reaches six inches. Removal of silt deposits by the contractor shall be incidental to the performance of the contract and a separate bid item shall not be included.
9. The contractor shall add or delete erosion protection at the request and direction of the Operator or the City.
10. After installation of pavement, final lot benching and general cleanup, the Paving Contractor shall establish grass groundcover in all street parkways, lots and all other disturbed areas. Materials shall be as specified in Item 2.15 and seeding shall be in accordance with Item 3.10 of the NCTCOG Standard Specifications.
11. It shall be the contractor's responsibility to control and limit silt and sediment leaving the site. Specifically, the contractor shall protect all public streets, alleys, streams and storm drainage systems from erosion deposits.
12. It shall be the contractor's responsibility to provide a dumpster (or equal) to collect solid waste materials during construction.
13. The attached Drainage Area Map, as prepared by Spilars Engineering, Inc., specifically for this project, shall be made part of the Storm Water Pollution Prevention Plan.

14. It is anticipated that the following non-storm water discharges will be associated with this project. These discharges are authorized through the construction general permit:
  - A. Fire hydrant flushings
  - B. Water used to wash vehicles and to control dust
  - C. Potable water sources including waterline flushings
  - D. Irrigation drainages
  - E. Pavement washdown
  - F. Uncontaminated ground water
  - G. Construction water
15. Construction waste disposal containers shall be provided on the site for disposal of all non-hazardous construction waste materials.
16. The containers shall be hauled to landfill by the Contractor. All hazardous materials shall be handled and disposed of by the Contractor in accordance with Federal, State and Local regulations.

**CONSTRUCTION NOTES - SILT FENCE**

1. Posts which support the silt fence shall be installed on a slight angle toward the anticipated runoff source. The post must be embedded a minimum of 18 inches.
2. The toe of the silt fence shall be trenched in with a spade or mechanical trencher, so that the downslope 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 washed gravel on the uphill side to prevent flow 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 shall be securely fastened to each support post or to woven wire, which is in turn attached to the support post. There shall be a 6 inch double overlap, securely fastened where ends of fabric meet.
5. Inspection shall be made weekly or 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 reached a depth of 6 inches. The silt shall be disposed of at an approved site and in such a manner as to not contribute to additional siltation.

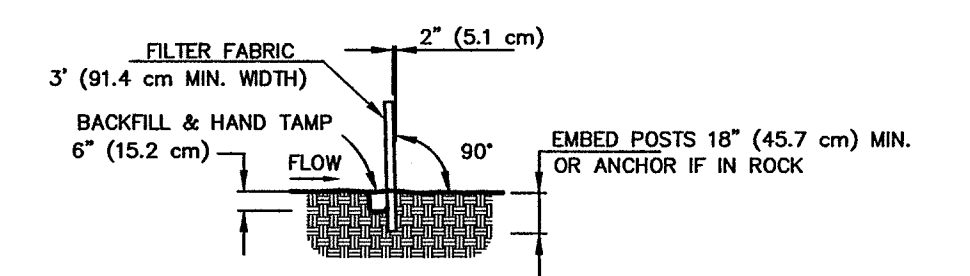
**CONSTRUCTION NOTES:**

1. Silt fence shall be installed as per detail.
2. Contractor will install additional erosion control where erosion protection is needed as per the owners engineers, or the City Inspector.
3. The existing vegetation along existing parkways and medians shall be replaced to its original condition or better.
4. All drainage swales shall be grassed as per City Standards, prior to the City acceptance of project.
5. All construction erosion control shall meet City Ordinance.
6. Erosion construction shall be completed in the following PHASES:
  - PHASE 1 (Prior To Start Of Rough Grading)**
    1. Silt fence shall be placed as shown on plan, per detail.
    2. Install temporary stone construction entrance.
  - PHASE 2 (After grading & prior to utility construction)**
    1. Install rock check dam.
  - PHASE 3 (After utility construction & prior to paving const.)**
    1. Install rip-rap
  - PHASE 4 (After paving construction)**
    1. Curlex or Ground Cover shall be installed as shown on plan, as per detail.
    2. All parkways and disturbed area in street R.O.W. to be seeded with grass as per city standards.
    3. Vegetation to be established in all disturbed areas.

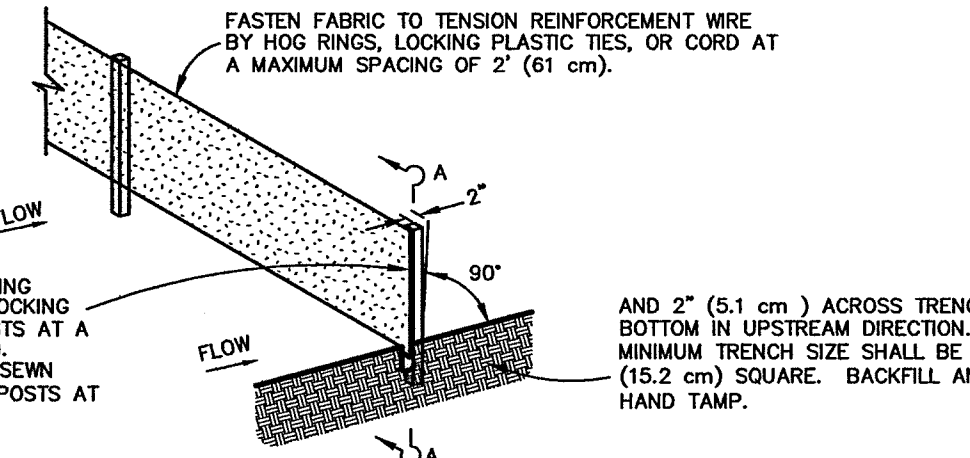
**AS-BUILT DRAWINGS**

THIS DRAWING HAS BEEN REVISED TO CONFORM TO THE CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR. ALIGNMENT AND GRADES SHOWN ON THIS DRAWING WERE NOT FIELD VERIFIED BY THE ENGINEER.

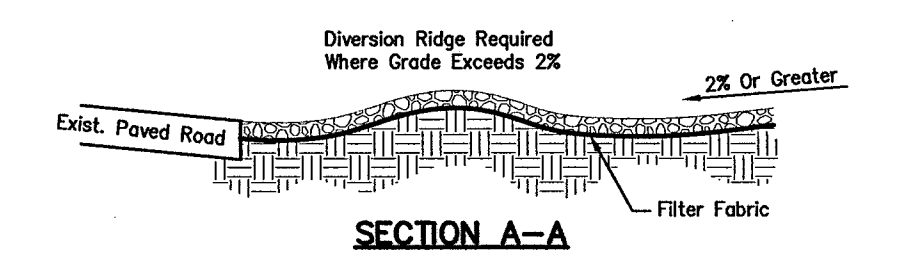
*Matthew M. Dorsett*  
 MATTHEW M. DORSETT, P.E. 90912  
 DATE 2/20/15



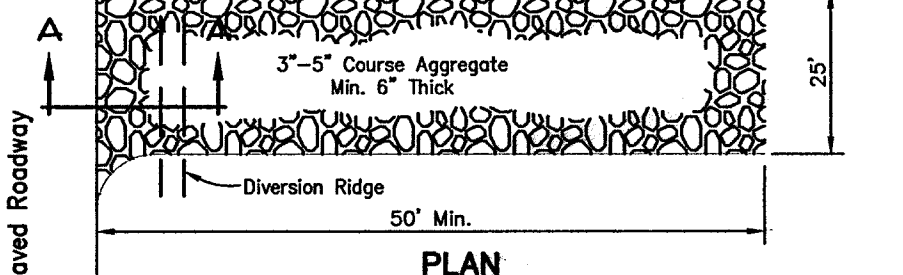
**SECTION A-A**  
 4' (1.2 m) MIN. STEEL OR WOOD POSTS SPACED AT 5' (1.8 m) TO 8' (2.4 m) SOFTWOOD POSTS SHALL BE 3\"/>



**SILT FENCE DETAIL**  
 Not to Scale  
 Diversion Ridge Required Where Grade Exceeds 2%



**SECTION A-A**  
 3'-5\"/>

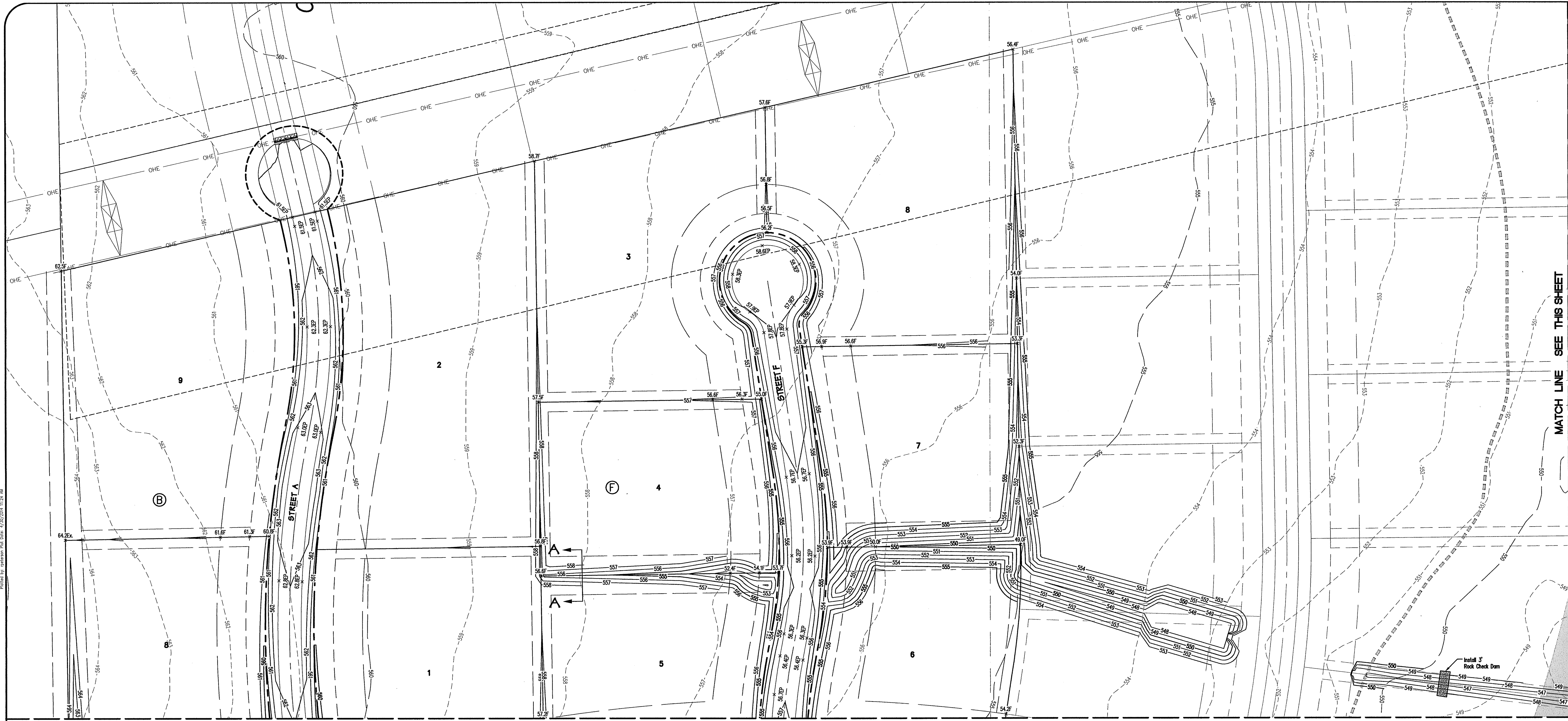


**TEMPORARY STONE**  
 Not to Scale  
**CONSTRUCTION ENTRANCE / EXIT**

**Issue Dates:**

| Date | Revisions |
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MATCH LINE SEE THIS SHEET

MATCH LINE SEE SHEET 21

**Legend**

- 00.0P ~ Prop. Edge of Pavement Elevation
- 00.0F ~ Prop. Finished Grade
- ~ Direction Of Flow
- ~ Proposed Grading Contours
- ~ Existing Grading Contours

**CAUTION !!!**  
**EXISTING UTILITIES**

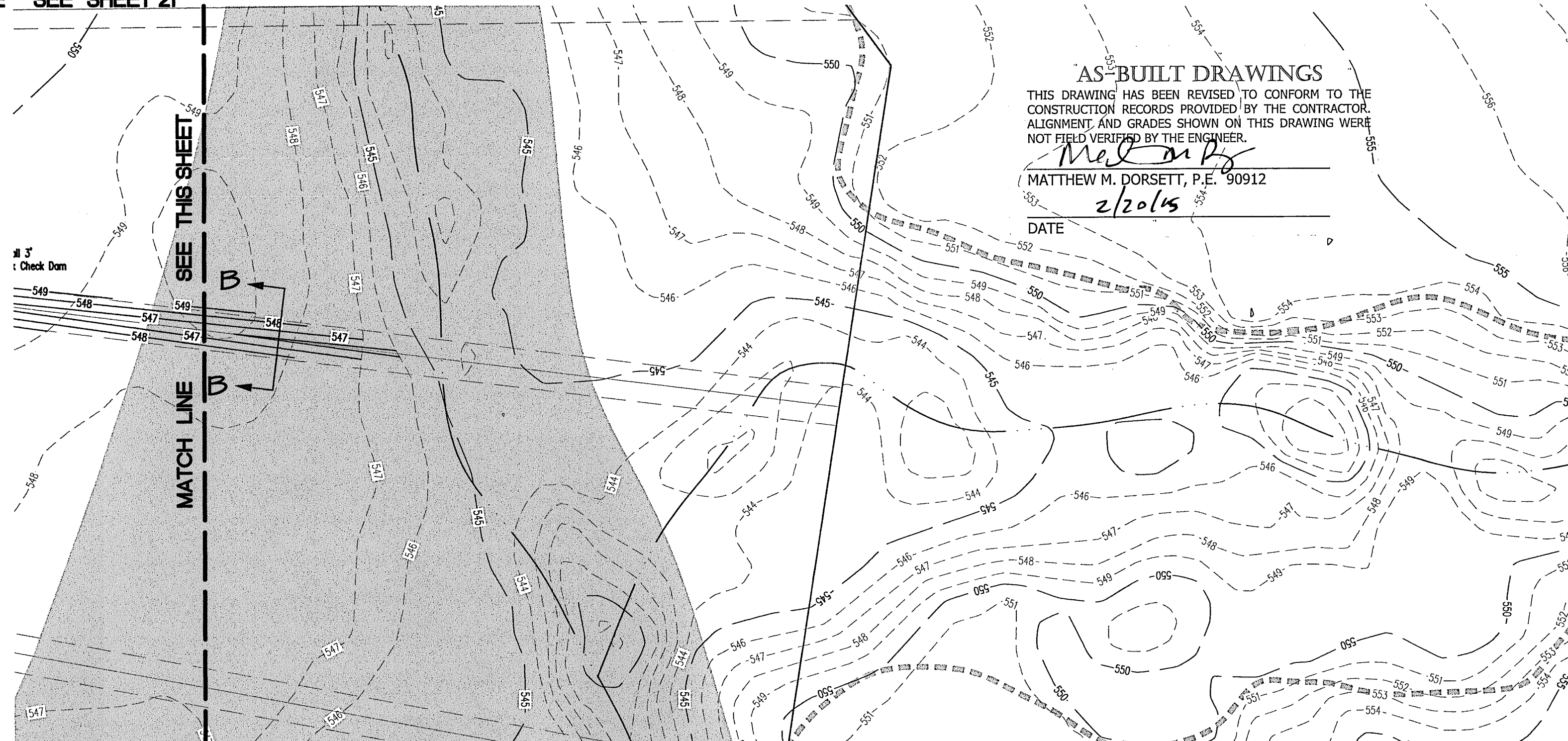
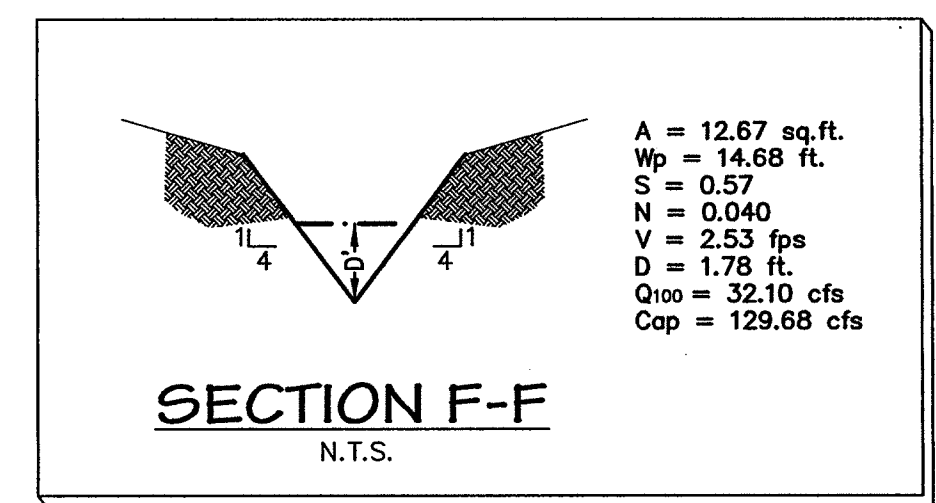
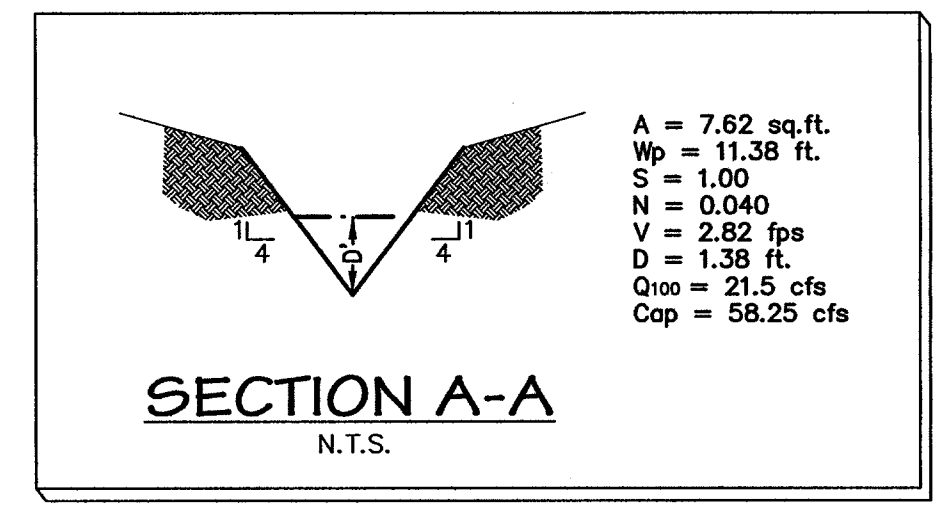
EXISTING UTILITIES AND UNDERGROUND FACILITIES INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY BOTH HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL EXISTING UTILITIES AND UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION AND TO TAKE NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION.

**BENCHMARKS:**

**BM1**  
1/2" iron rod found at the southwest corner of the subject tract. Elevation = 554.15

**BM2**  
5/8" iron rod found 729.5 feet east of the southwest corner of the subject tract. Elevation = 545.78

Scale: 1 inch = 50 ft.



**P i a r s**  
ENGINEERING

765 Custer Road, Suite 100 • Plano, TX 75075 • (972) 422-0077 • (BP) No. F-2121

STATE OF TEXAS  
 MATTHEW M. DORSETT  
 90912  
 LICENSED PROFESSIONAL ENGINEER  
 07171

**ENCHANTED CREEK PHASE I**  
 CITY OF LUCAS  
 COLLIN COUNTY, TEXAS  
 GRADING PLAN

Issue Dates:

| Date | Revisions |
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Scale: 1" = 50'

Drawn By: RCP

Checked By: MMD

Sheet **20**  
of **23**

SEI No. 13-033





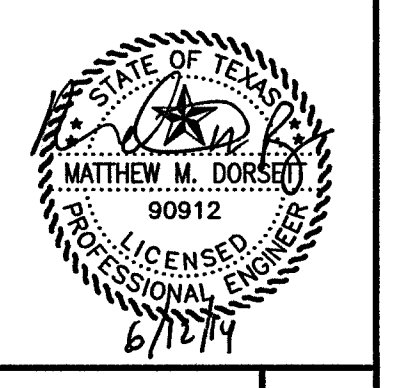


MATCH LINE SEE SHEET 21



Prepared by: Matthew Dorsett, P.E. Date: 02/20/15, 8:37 AM

Drawing: 13-033-003 (Rev. 02/20/15) Date: 02/20/15



**ENCHANTED CREEK PHASE 1**  
**CITY OF LUCAS**  
**COLLIN COUNTY, TEXAS**  
**GRADING PLAN**

Issue Dates:

| Date | Revisions |
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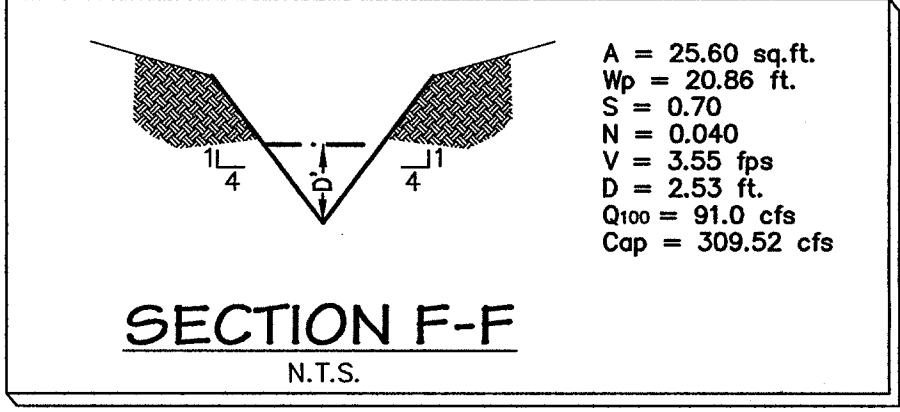
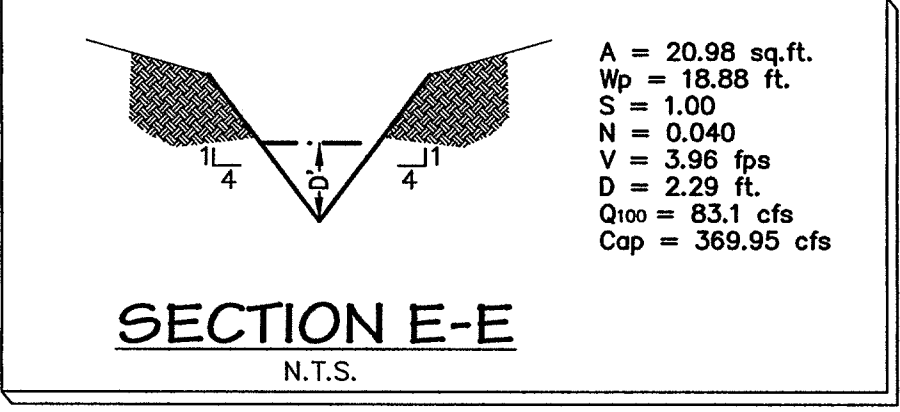
Scale: 1" = 50' XREF

Drawn By: RCP

Checked By: MMD

Sheet **22**  
of **23**

SEI No. 13-033



**AS-BUILT DRAWINGS**  
THIS DRAWING HAS BEEN REVISED TO CONFORM TO THE CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR. ALIGNMENT AND GRADES SHOWN ON THIS DRAWING WERE NOT FIELD VERIFIED BY THE ENGINEER.

*Matthew M. Dorsett*  
MATTHEW M. DORSETT, P.E. 90912  
2/20/15

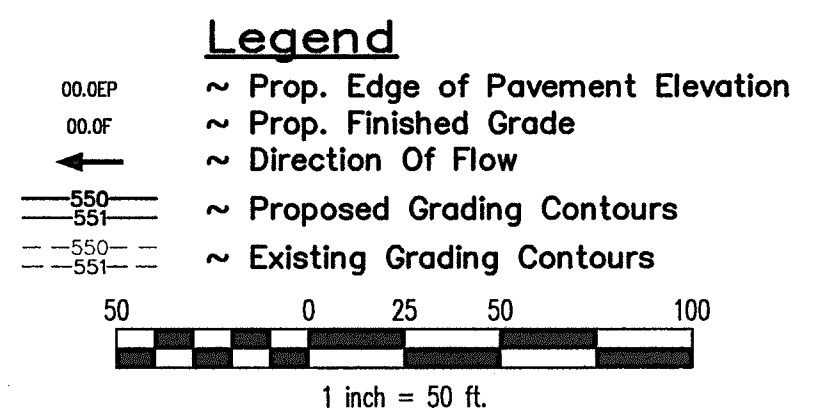
**BENCHMARKS:**  
DATF

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**BM2**  
5/8" Iron rod found 729.5 feet east of the southwest corner of the subject tract. Elevation = 545.78

**CAUTION !!!**  
**EXISTING UTILITIES**

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Drawing: 01013-0013-033 (encl. Property) 13-033 (2) 2013, Sheet: By: J. Graham, Date: 8/22/2014, Scale: 1"=100', Date: 8/22/2014, 11:51:06 AM

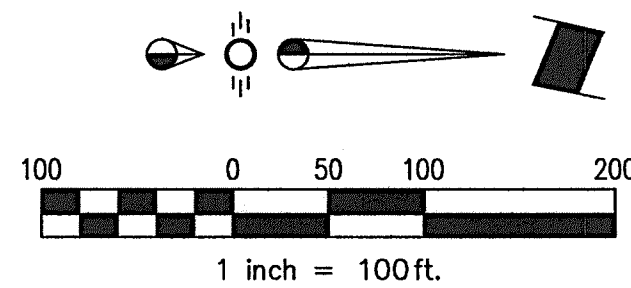
City of Wylie  
City of Lucas  
PARKER ROAD (FM No. 2514)  
Called 47.8265 Acres  
Vol. 4571, Pg. 1058  
(DRCC)

Kirkland Estates  
Cab. A, Sl. 46  
(PRCCT)

Young Dean Homestead, LTD.  
Called 15.00 Acres  
Vol. 5167, Pg. 3443  
(LRCCT)

CTMGT Lucas 238, LLC  
Doc. No. 2013-1244240  
(DRCC)

CTMGT Lucas 238, LLC  
Doc. No. 2013-1244240  
(DRCC)



**BENCHMARKS:**

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BM2  
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**Legend**

- = STOP SIGN
- = STREET NAME SIGN
- = PROPOSED LIGHT & POLE LOCATION

**CAUTION !!!  
EXISTING UTILITIES**

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**AS-BUILT DRAWINGS**

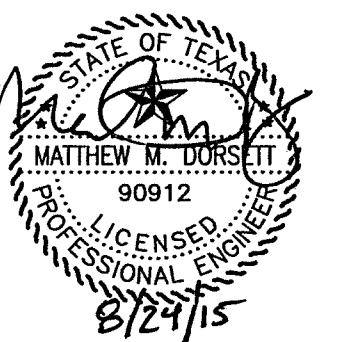
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MATTHEW M. DORSETT, P.E. 90912  
2/2015

DATE

**TRAFFIC CONTROL NOTES:**

- ALL SIGNAGE, BARRICADES, AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- LOCATIONS SHOWN FOR SIGNAGE AND PAVEMENT MARKINGS ARE APPROXIMATE; FINAL LOCATIONS MAY CHANGE DUE TO POST CONSTRUCTION CONDITIONS AND PRESENCE OF OTHER PHYSICAL FEATURES. FINAL LOCATION OF ALL TRAFFIC CONTROL DEVICES SHALL BE FIELD VERIFIED WITH CITY PRIOR TO INSTALLATION.
- ALL PAVEMENT MARKINGS OTHER THAN BUTTONS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
- ALL SIGNS SHALL BE HIGH INTENSITY AND THE SIZES SHALL BE STANDARD UNLESS OTHERWISE NOTED.
- FOR STOP SIGNS THAT WILL ACCEPT FUTURE STREET SIGNS, EXTEND POST ABOVE STOP SIGN SO THAT 2 HOLES ARE AVAILABLE FOR MOUNTING.
- SIGN POST SHALL BE 3' FROM EDGE OF PAVEMENT FOR ALL SIGNS SMALLER THAN 30"x30" AND 4' FROM EDGE OF PAVEMENT FOR ALL SIGNS GREATER THAN 30"x30".



**ENCHANTED CREEK PHASE 1**  
CITY OF LUCAS  
COLLIN COUNTY, TEXAS  
Street Lights & Signage Plan

Issue Dates:

| Date | Revisions |
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Scale: 1"=100'

Drawn By: RCP

Checked By: MMD

Sheet **23**  
of **23**

SEI No. 13-033