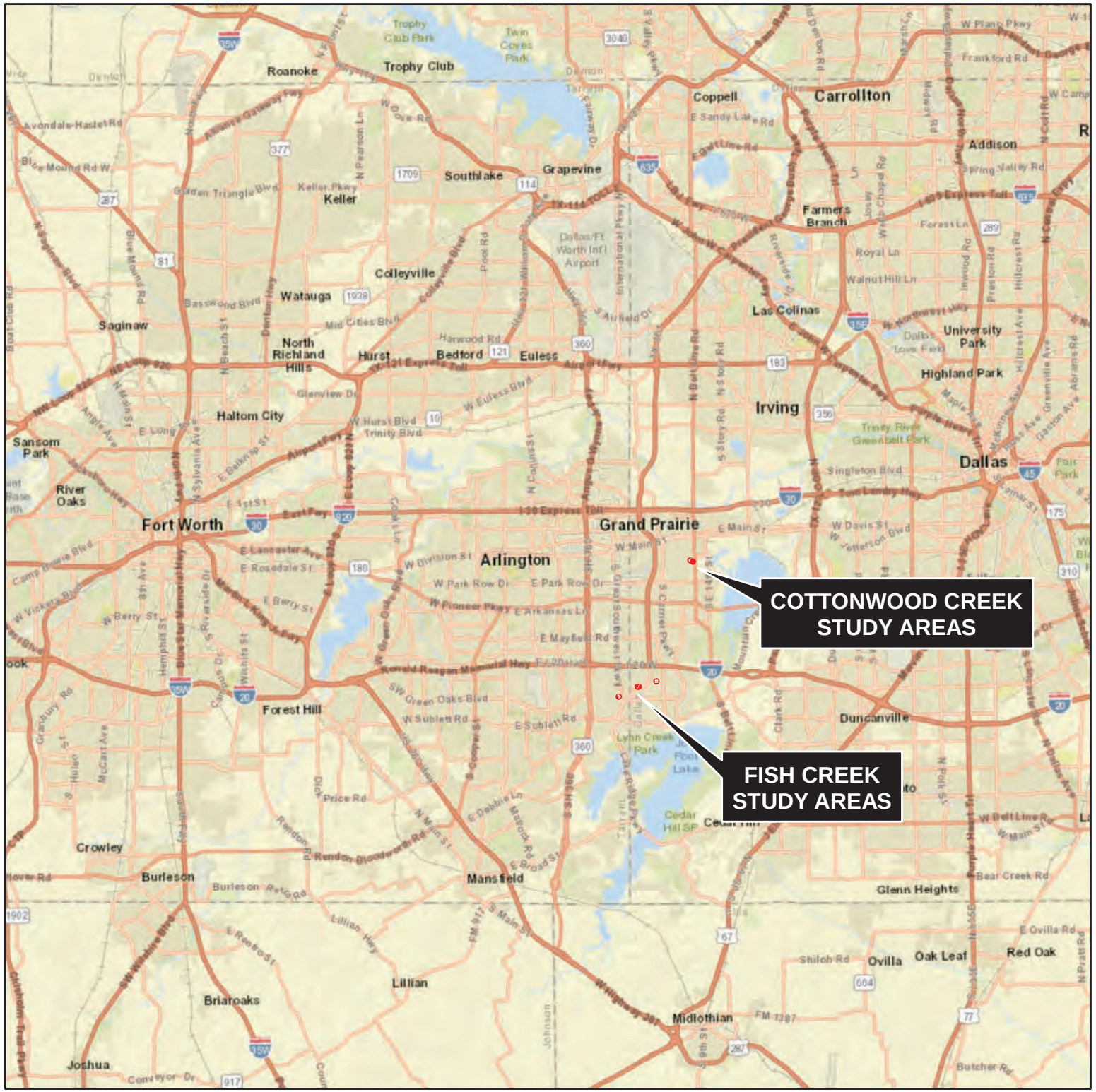

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0 2.5 5 10

SCALE IN MILES

LEGEND

STUDY AREAS

NOTES:
1. Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community
2.
3.

COTTONWOOD AND FISH CREEK STREAM STABILITY IMPROVEMENTS

Project Number: <USACE #>

Date: 11/2019 AVO: 35502

LOCATION MAP

FIGURE 1

HALFF

N

0 250 500 1,000

SCALE IN FEET

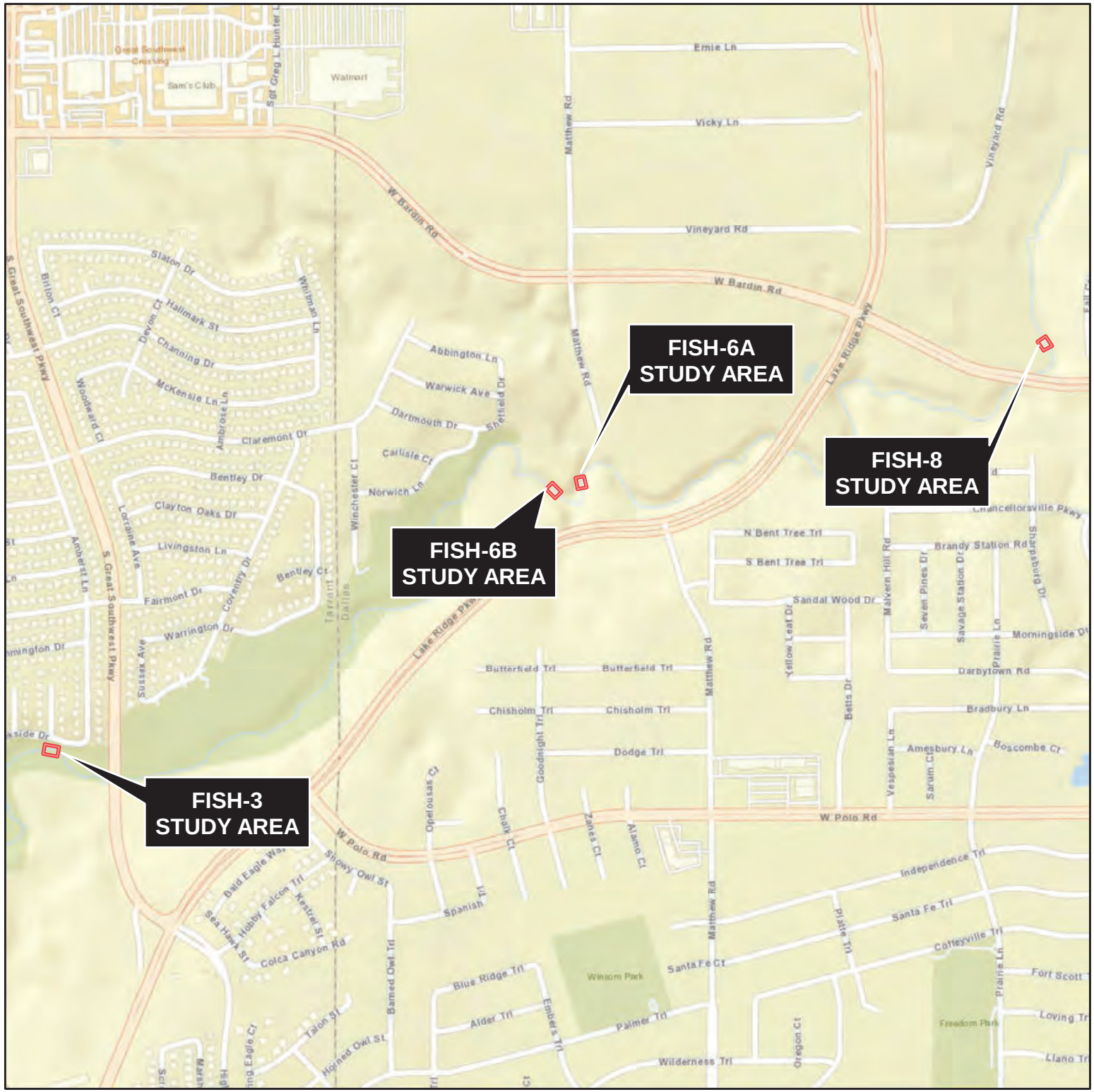
LEGEND

STUDY AREAS

NOTES:
1. Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community
2.
3.

COTTONWOOD AND FISH CREEK STREAM STABILITY IMPROVEMENTS
Project Number: <USACE #>
Date: 11/2019 AVO: 35502
COTTONWOOD CREEK VICINITY MAP
FIGURE 2

HALFF



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SCALE IN FEET

LEGEND

STUDY AREAS

NOTES:
1. Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community
2.
3.

COTTONWOOD AND FISH CREEK
STREAM STABILITY IMPROVEMENTS

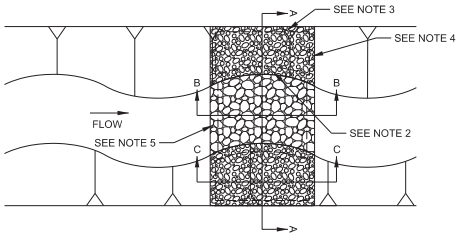
Project Number: <USACE #>

Date: 11/2019 AVO: 35502

FISH CREEK
VICINITY MAP

FIGURE 2

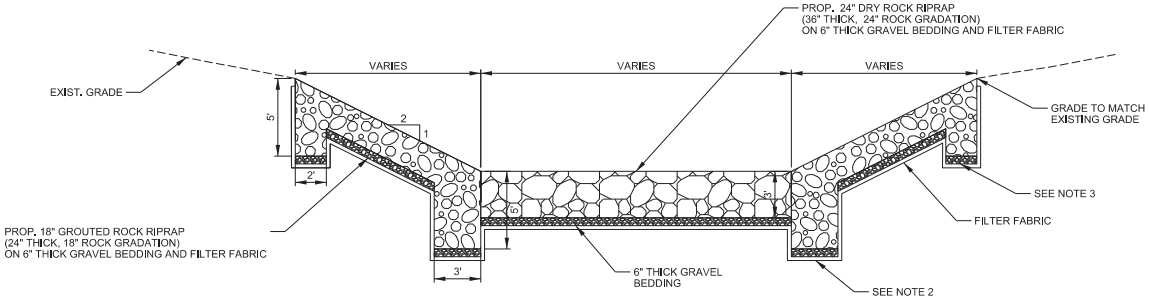
HALFF



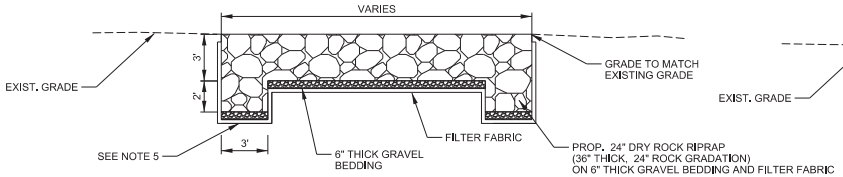
TYPICAL ROCK CHUTE
PLAN VIEW
N.T.S.

NOTES:

1. DISTURBED AREAS NOT STABILIZED BY RIPRAP SHALL BE GRADED AT MIN. SLOPE OF 1% AND MAX SLOPE OF 25% (4H TO 1V).
2. 3' WIDE, 5' DEEP 18" GROUTED ROCK TOE WALL REQUIRED ALONG ALL TOE OF SLOPE EXCEPT WHERE NOTED OTHERWISE.
3. 2' WIDE, 5' DEEP 18" GROUTED ROCK TOE WALL REQUIRED ALONG ALL TOP OF SLOPE EXCEPT WHERE OTHERWISE NOTED.
4. 2' WIDE, 4' DEEP 18" GROUTED ROCK TOE WALL REQUIRED ALONG ALL EDGE OF RIPRAP SLOPES EXCEPT WHERE OTHERWISE NOTED.
5. 3' WIDE, 5' DEEP 24" DRY ROCK TOE WALL REQUIRED ALONG UPSTREAM AND DOWNSTREAM EDGE OF RIPRAP IN BED OF CREEK EXCEPT WHERE OTHERWISE NOTED.



CROSS SECTION "A"
N.T.S.



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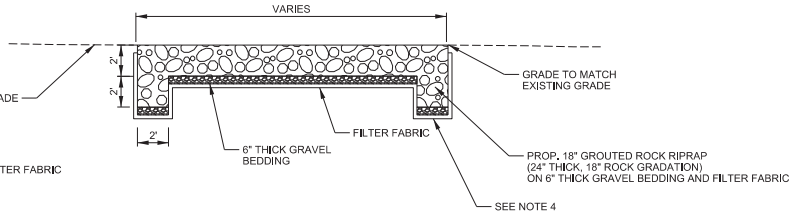

CROSS SECTION "C"
N.T.S.

LEGEND

PROPOSED DRY ROCK RIPRAP

PROPOSED GROUTED ROCK RIPRAP

FILE #SD-692

COTTONWOOD AND FISH CREEK
STREAM STABILITY
GRAND PRAIRIE, TEXAS

HALFF
201 NORTH ROWLETT ROAD
RICHARDSON, TEXAS 75081
TEL: 214.346.6200
TBPE FIRM #F-312

Revision No.	Date	Description

PRELIMINARY
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THESE DOCUMENTS ARE FOR INTERIM REVIEW AND NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

STEPHEN CRAWFORD — 89249
NAME — P.E. NO.
DATE — 9/27/2019
TBPE FIRM #F-312

Project No.:	35502
Issued:	9/27/2019
Drawn By:	NMM
Checked By:	SBC
Scale:	AS SHOWN

Sheet Title
COTTONWOOD AND FISH CREEK TYPICAL DETAILS

C0.03
Sheet Number

CITY OF GRAND PRAIRIE, TEXAS
COTTONWOOD CREEK

FILE #SD-692

COTTONWOOD AND FISH CREEK
STREAM STABILITY
GRAND PRAIRIE, TEXAS

HALFF
201 NORTH BOWSER ROAD
RICHARDSON, TEXAS 75081
TEL: 972.235.3031
TBPE FIRM #F-312

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NAME — P.E. NO.
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Project No.:	35502
Issued:	9/27/2019
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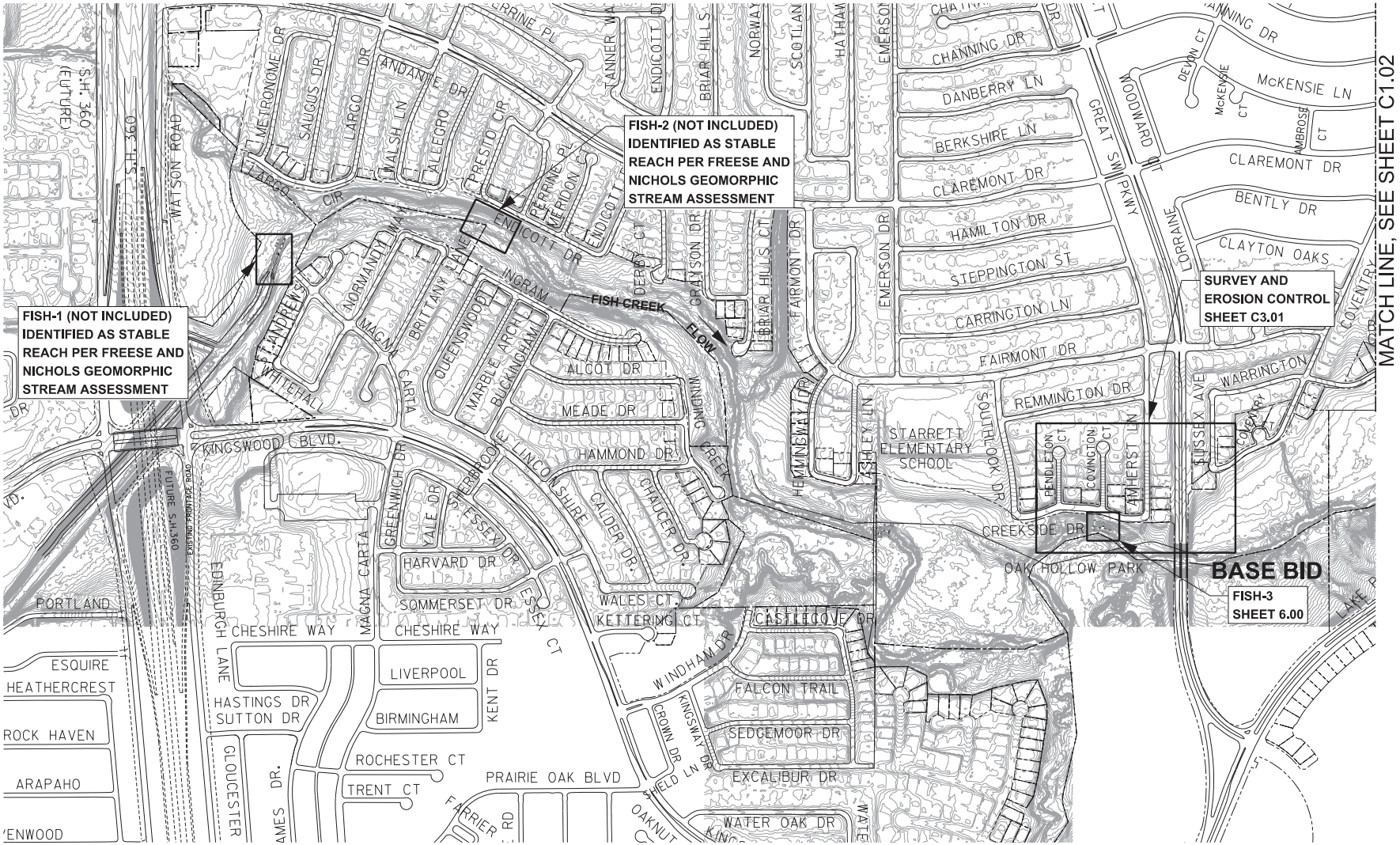
Sheet Title
COTTONWOOD CREEK
PROJECT LAYOUT

C1.00
Sheet Number



CITY OF GRAND PRAIRIE, TEXAS
FISH CREEK

N

0 150 300 450 600
SCALE: 1"=300'

FILE #SD-692

COTTONWOOD AND FISH CREEK
STREAM STABILITY
GRAND PRAIRIE, TEXAS

HALFF
201 NORTH BOWSER ROAD
RICHARDSON, TEXAS 75081
TEL: 972.235.3031
TBPE FIRM #F-312

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NAME P.E. NO.
DATE 9/27/2019
TBPE FIRM #F-312

Project No.:	35502
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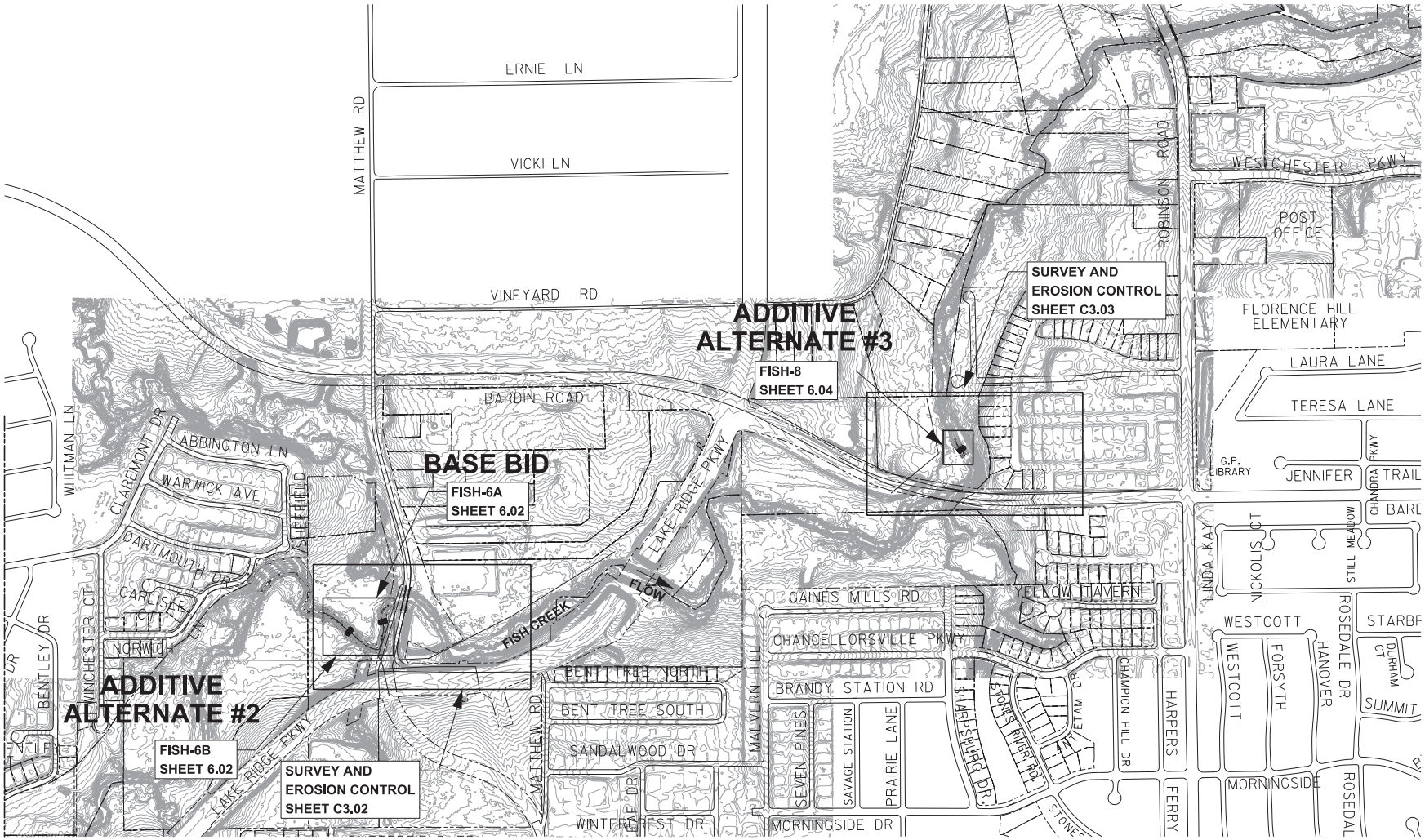
Drawn By:	NMM
Checked By:	SBC
Scale:	AS SHOWN

Sheet Title
FISH CREEK
PROJECT LAYOUT
1 OF 2

C1.01
Sheet Number



CITY OF GRAND PRAIRIE, TEXAS
FISH CREEK

FILE #SD-692

COTTONWOOD AND FISH CREEK
STREAM STABILITY
GRAND PRAIRIE, TEXAS

HALFF
201 NORTH ROBINSON ROAD
RICHARDSON, TEXAS 75081
TEL: 214.346.6200
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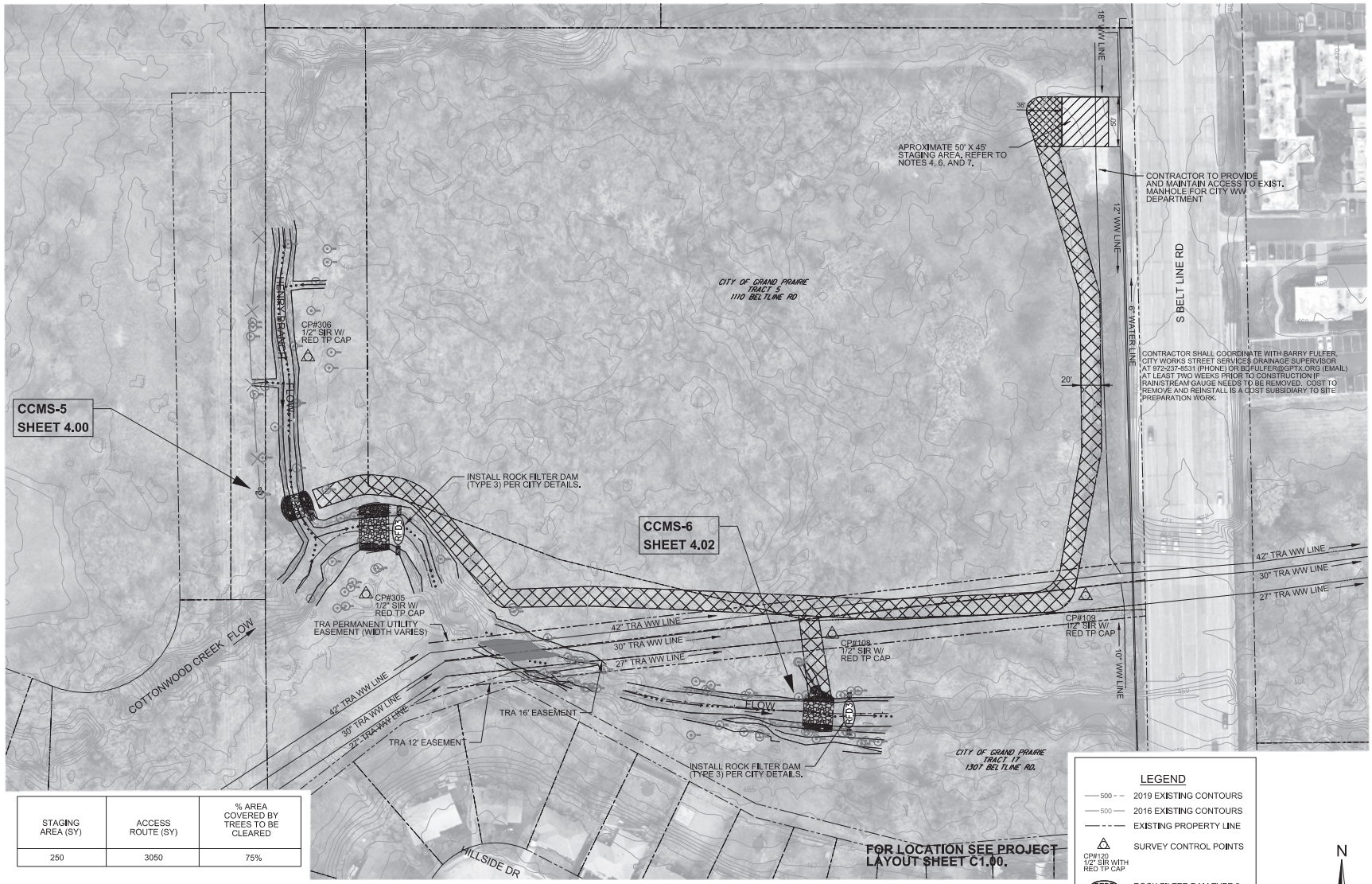
Scale:	AS SHOWN

Sheet Title
FISH CREEK
PROJECT LAYOUT
2 OF 2

C1.02
Sheet Number



STAGING AREA (SY)	ACCESS ROUTE (SY)	% AREA COVERED BY TREES TO BE CLEARED
250	3050	75%

2016 contours generated from 2016 City of Grand Prairie LIDAR by Mckim & Creed.

2019 contours are from on-the-ground survey was performed by Halff Associates, Inc.

The Basis of Bearing for the 2019 contours is the Texas Coordinate System, North Central Zone 4202, North American Datum of 1983, 2011 adjustment. All distances are surface distances. Surface Adjustment Scale Factor; 1.000136506

1. PROPOSED ACCESS ROUTE IS APPROXIMATE. CONTRACTOR SHALL MODIFY THE ACCESS ROUTE SUCH THAT 6" CALIPER TREES AND LARGER ARE PRESERVED. CONTRACTOR SHALL CLEAR BRUSH AND PRUNE TREES AS REQUIRED FOR ACCESS. CLEARING AND PRUNING SHALL BE COORDINATED WITH THE CITY.
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5. EXISTING WATER AND WASTEWATER LINES SHOWN ARE BASED ON GIS DATA PROVIDED BY THE CITY AND LIMITED SURVEY OF APPURTENANCES WITHIN TOPGRAPHIC SURVEY LIMITS.
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7. CONTRACTOR SHALL PREPARE AND PROVIDE TO THE CITY EMERGENCY OPERATION AND EVACUATION PLAN FOR EACH STAGING AREA IN FLOODPLAIN/FLOODWAY PRIOR TO IMPLEMENTATION.

SURVEY CONTROL POINTS

POINT NO.	NORTHING	EASTING	DESCRIPTION	ELEVATION
108	6953483.43	2431474.58	SIRTP4	462.26
109	6953522.30	2431731.00	SIRTP4	463.12
305	6953523.93	2431002.78	SIRTP4	464.76
306	6953523.93	2431002.78	SIRTP4	464.76

LEGEND

- 500 — 2019 EXISTING CONTOURS
- 500 — 2016 EXISTING CONTOURS
- EXISTING PROPERTY LINE
- SURVEY CONTROL POINTS (CP#120 1/2" SIR WITH RED TP CAP)
- RFD3 ROCK FILTER DAM TYPE 3
- PROPOSED STAGING AREA
- ACCESS ROUTE
- STABILIZED CONSTRUCTION ENTRANCE/EXIT

N

0 25 50 75 100
SCALE: 1"=50'

FILE #SD-692

COTTONWOOD AND FISH CREEK
STREAM STABILITY
GRAND PAIRIE, TEXAS

Grand Prairie Texas

HALFF
201 NORTH ROWLETT ROAD
RICHARDSON, TEXAS 75081
TBPE FIRM #F-312
TBPLS FIRM #F-312

Revision No.	Date	Description

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STEPHEN CRAWFORD — 88049
NAME — P.E. NO.
DATE — 9/27/2019
TBPE FIRM #F-312

Project No.:	35502
Issued:	9/27/2019
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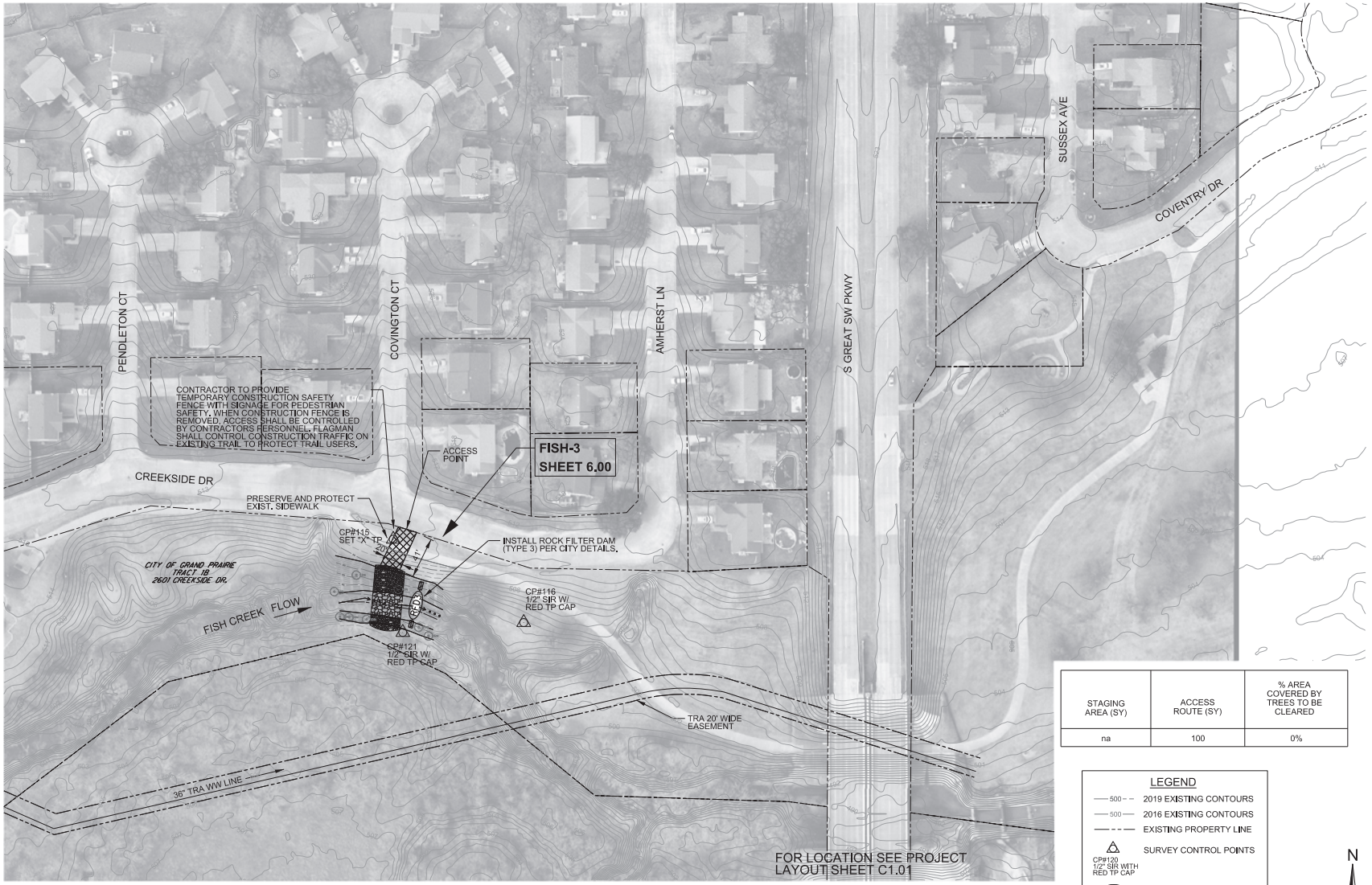
Checked By:	SBC
Scale:	AS SHOWN

Sheet Title
COTTONWOOD CREEK
SURVEY AND EROSION

C3.00
Sheet Number



STAGING AREA (SY)	ACCESS ROUTE (SY)	% AREA COVERED BY TREES TO BE CLEARED
na	100	0%

LEGEND

- 500 — 2019 EXISTING CONTOURS
- 500 — 2016 EXISTING CONTOURS
- EXISTING PROPERTY LINE
- SURVEY CONTROL POINTS
- CP#100 1/2" SIR WITH RED TP CAP
- RFD3 ROCK FILTER DAM TYPE 3
- ACCESS ROUTE
- STABILIZED CONSTRUCTION ENTRANCE/EXIT

N

0 25 50 75 100

SCALE: 1"=50'

2016 contours generated from 2016 Clty of Grand Prairie LIDAR by Mcklm & Greed.

2019 contours are from on-the-ground survey performed by Halff Associates, Inc.

The Basis of Bearing for the 2019 contours is the Texas Coordinate System, North Central Zone 4202, North American Datum of 1983, 2011 adjustment. All distances are surface distances. Surface Adjustment Scale Factor: 1.000136506

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4. EXISTING WATER AND WASTEWATER LINES SHOWN ARE BASED ON GIS DATA PROVIDED BY THE CITY AND LIMITED SURVEY OF APPURTENANCES WITHIN TOPGRAPHIC SURVEY LIMITS.
5. CONTRACTOR SHALL TAKE PHOTOS AND VIDEO OF SITE INCLUDING STAGING AREAS, PRIOR TO CONSTRUCTION.

SURVEY CONTROL POINTS

POINT NO.	NORTHING	EASTING	DESCRIPTION	ELEVATION
115	6927112.06	2417014.15	SXTP	513.2
116	6927028.65	2417144.67	SIRTP4	502.77
121	6927018.75	2417023.63	SIRTP4	501.01

FILE #SD-692

COTTONWOOD AND FISH CREEK STREAM STABILITY

GRAND PRAIRIE, TEXAS

HALFF
201 NORTH BOWSER ROAD
RICHARDSON, TEXAS 75081
TEL: 972.235.3031
TBPE FIRM #F-312

Revision No.	Date	Description

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STEPHEN CRAWFORD — 89349 (NAME — P.E. NO.)

DATE 9/27/2019

TBPE FIRM #F-312

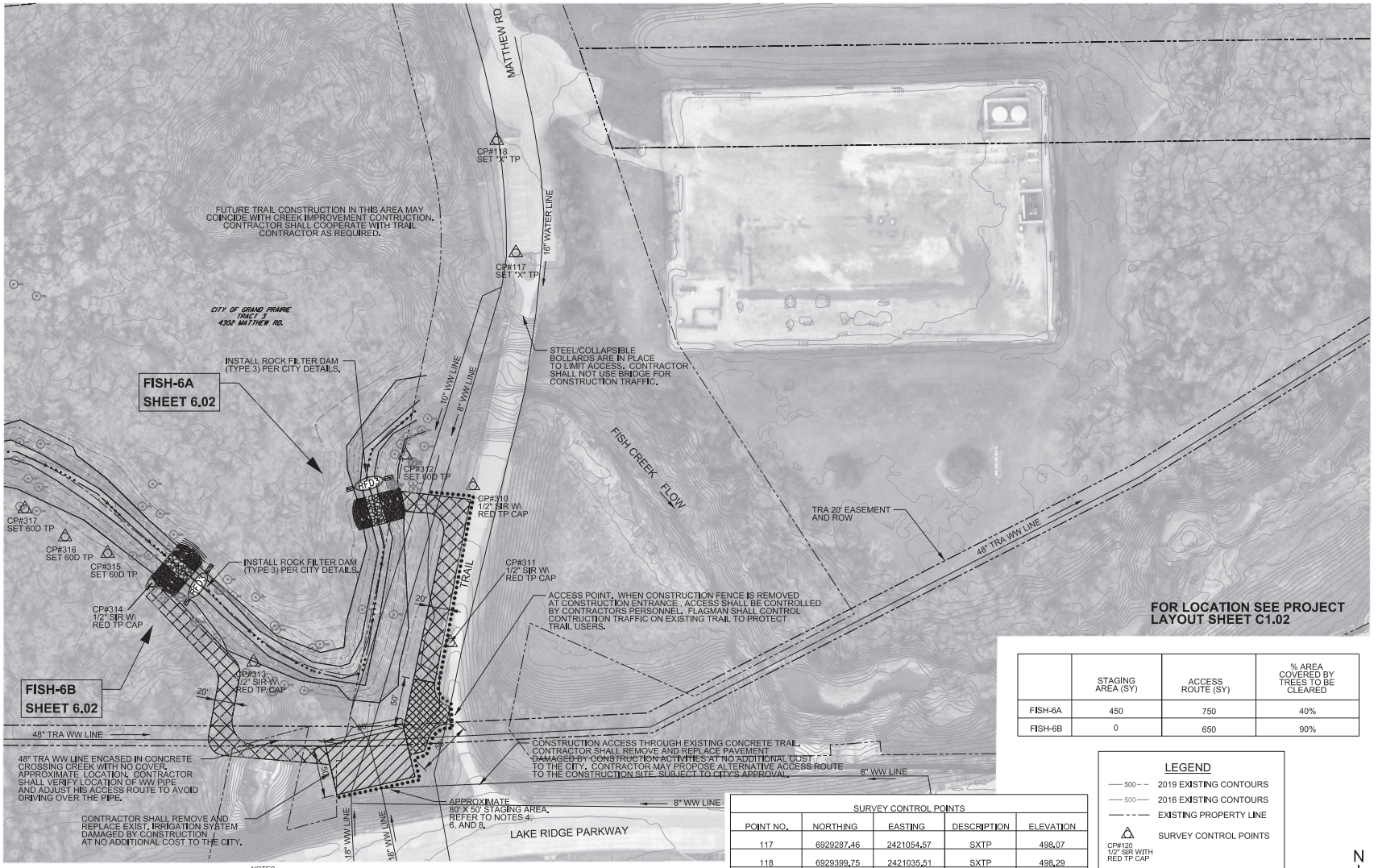
Project No.:	35502
Issued:	9/27/2019
Drawn By:	NMM
Checked By:	SBC
Scale:	AS SHOWN

Sheet Title

FISH CREEK SURVEY AND EROSION CONTROL 1 OF 3

C3.01

Sheet Number



	STAGING AREA (SY)	ACCESS ROUTE (SY)	% AREA COVERED BY TREES TO BE CLEARED
FISH-6A	450	750	40%
FISH-6B	0	650	90%

NOTES:

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6. CONTRACTOR SHALL TAKE PHOTOS AND VIDEO OF SITE, INCLUDING STAGING AREAS, PRIOR TO CONSTRUCTION.
7. CONTRACTOR SHALL COORDINATE WITH CITY PARKS DEPARTMENT TO LOCATE ANY SPRINKLERS AND IRRIGATION SYSTEM AND REPAIR ANY DAMAGES AT NO ADDITIONAL COST TO THE CITY.
8. CONTRACTOR SHALL PREPARE AND PROVIDE TO THE CITY EMERGENCY OPERATION AND EVACUATION PLAN FOR EACH STAGING AREA IN FLOODPLAIN/FLOODWAY PRIOR TO IMPLEMENTATION.

2016 contours generated from 2016 Clty of Grand Prairie LIDAR by Mcklm & Greed.

2019 contours are from on-the-ground survey was performed by Halff Associates, Inc.

The Basis of Bearing for the 2019 contours is the Texas Coordinate System, North Central Zone 4202, North American Datum of 1983, 2011 adjustment. All distances are surface distances.
Surface Adjustment Scale Factor: 1.000136506

SURVEY CONTROL POINTS

POINT NO.	NORTHING	EASTING	DESCRIPTION	ELEVATION
117	6929287.46	2421054.57	SXTP	498.07
118	6929399.75	2421035.51	SXTP	498.29
310	6929054.99	2421011.68	SIRTP4	498.57
311	6928898.28	2420989.26	SIRTP4	503.53
312	6929085.50	2420944.38	SNTP	492.12
313	6928878.82	2420792.75	SIRTP4	491.57
314	6928958.02	2420691.22	SIRTP4	493.55
315	6928987.41	2420646.86	SNTP	495.98
316	6929003.97	2420604.33	SNTP	497.68
317	6929031.82	2420564.24	SNTP	497.83

LEGEND

- 500 2019 EXISTING CONTOURS
- 500 2016 EXISTING CONTOURS
- EXISTING PROPERTY LINE
- SURVEY CONTROL POINTS (CP#120 1/2" SIR WITH RED TP CAP)
- RFD3 ROCK FILTER DAM TYPE 3
- PROPOSED STAGING AREA
- ACCESS ROUTE
- STABILIZED CONSTRUCTION ENTRANCE/EXIT
- TEMPORARY CONSTRUCTION SAFETY FENCE

N

0 25 50 75 100
SCALE: 1"=50'

FILE #SD-692

COTTONWOOD AND FISH CREEK STREAM STABILITY

GRAND PRAIRIE, TEXAS

HALFF
201 NORTH BOWSER ROAD
RICHARDSON, TEXAS 75081
TEL: 972.235.3031
TBPE FIRM #F-312

Revision No.	Date	Description

PRELIMINARY

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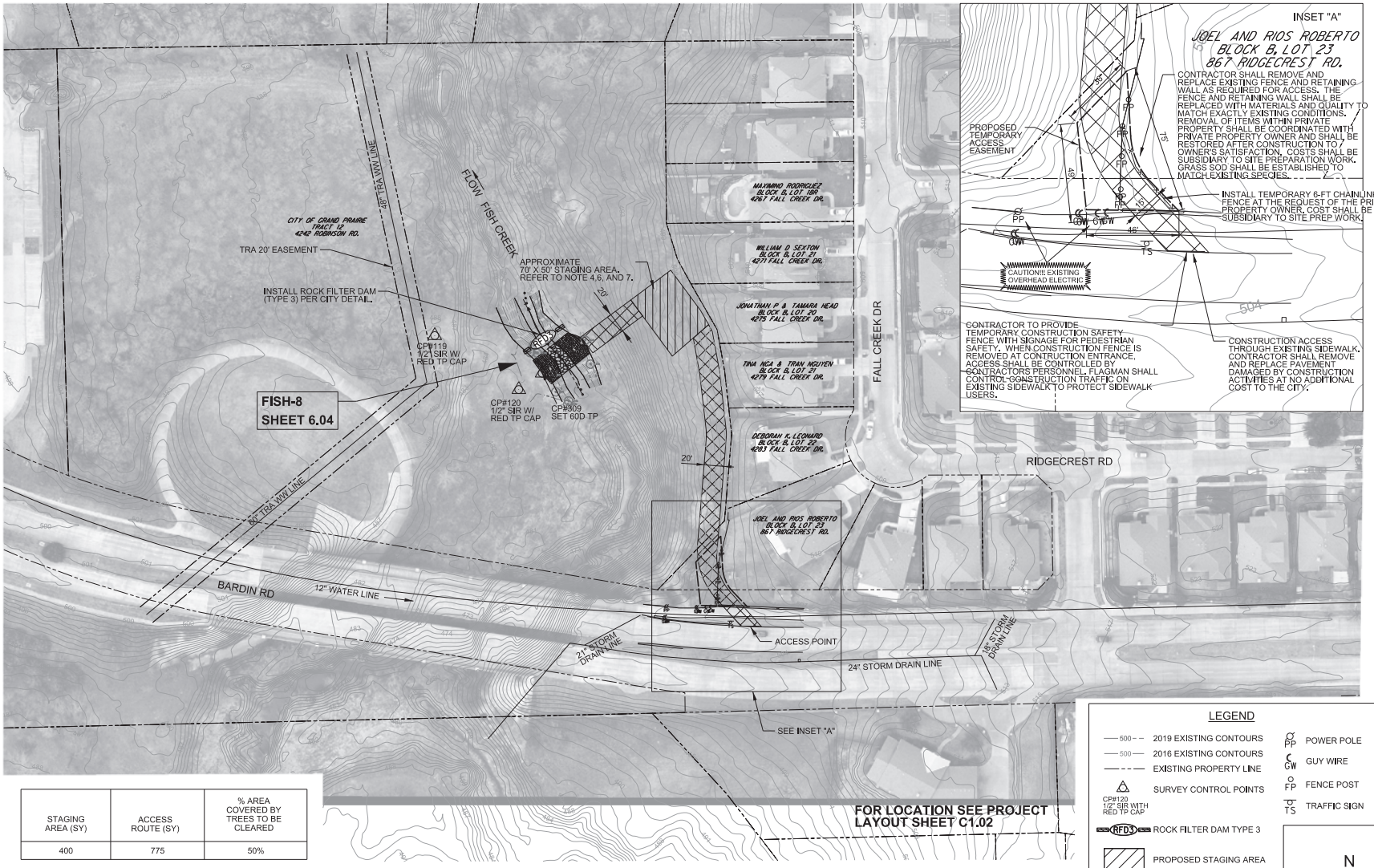
STEPHEN CRAWFORD — 89049 (NAME — P.E. NO.)
DATE 9/27/2019
TBPE FIRM #F-312

Project No.:	35502
Issued:	9/27/2019
Drawn By:	NMM
Checked By:	SBC
Scale:	AS SHOWN

Sheet Title: FISH CREEK SURVEY AND EROSION CONTROL 2 OF 3

C3.02
Sheet Number



STAGING AREA (SY)	ACCESS ROUTE (SY)	% AREA COVERED BY TREES TO BE CLEARED
400	775	50%

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SURVEY CONTROL POINTS

POINT NO.	NORTHING	EASTING	DESCRIPTION	ELEVATION
119	6930071.80	2424211.26	SIRTP4	488.24
120	6930017.64	2424295.58	SIRTP4	480.09
309	6930034.13	2424319.04	SNTP	479.20

LEGEND

- 500 2019 EXISTING CONTOURS
- 500 2016 EXISTING CONTOURS
- EXISTING PROPERTY LINE
- SURVEY CONTROL POINTS (CP#120 1/2" SIR WITH RED TP CAP)
- ROCK FILTER DAM TYPE 3
- PROPOSED STAGING AREA
- ACCESS ROUTE
- STABILIZED CONSTRUCTION ENTRANCE/EXIT
- PROPOSED TEMPORARY ACCESS EASEMENT
- TEMPORARY CHAINLINK FENCE
- POWER POLE
- GUY WIRE
- FENCE POST
- TRAFFIC SIGN

N

0 25 50 75 100

SCALE: 1"=50'

FILE #SD-692

COTTONWOOD AND FISH CREEK STREAM STABILITY

GRAND PRAIRIE, TEXAS

HALFF
201 NORTH BOWSER ROAD
RICHARDSON, TEXAS 75081
TEL: 972.235.3031
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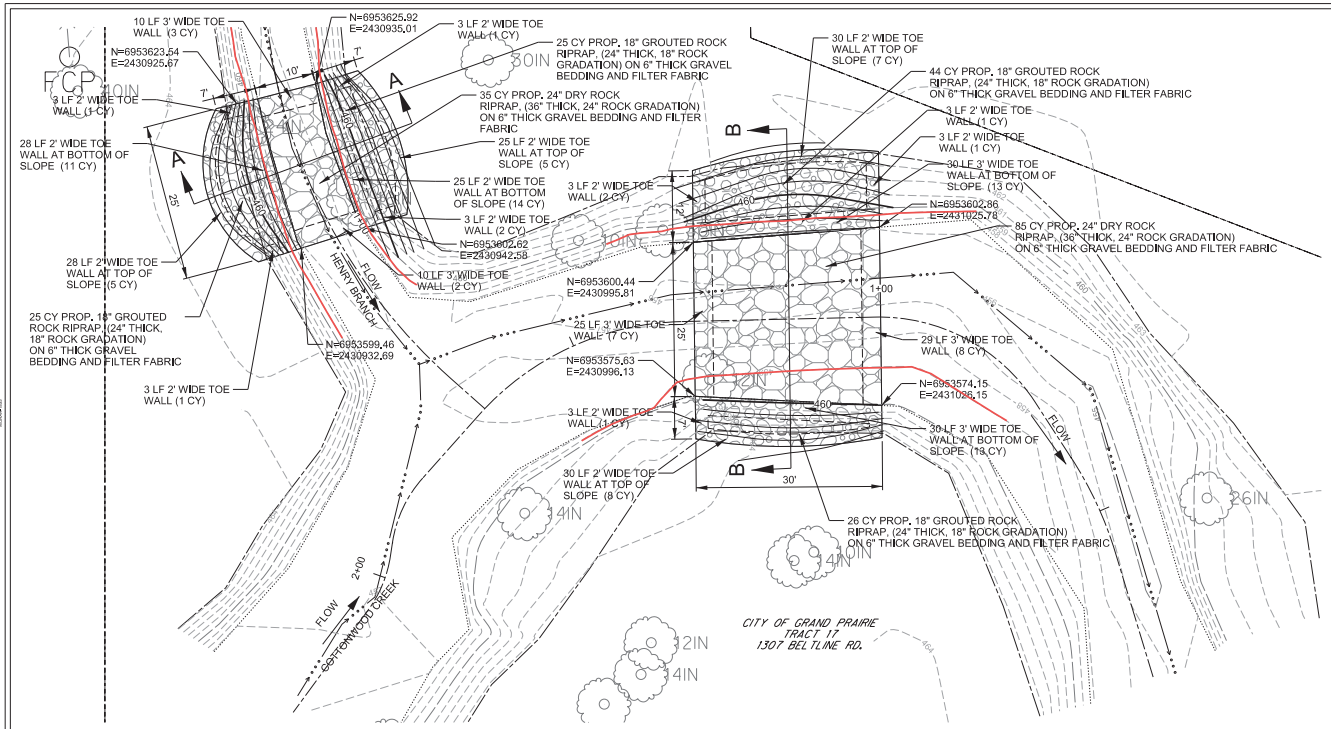
Sheet Title: FISH CREEK SURVEY AND EROSION CONTROL 3 OF 3

C3.03

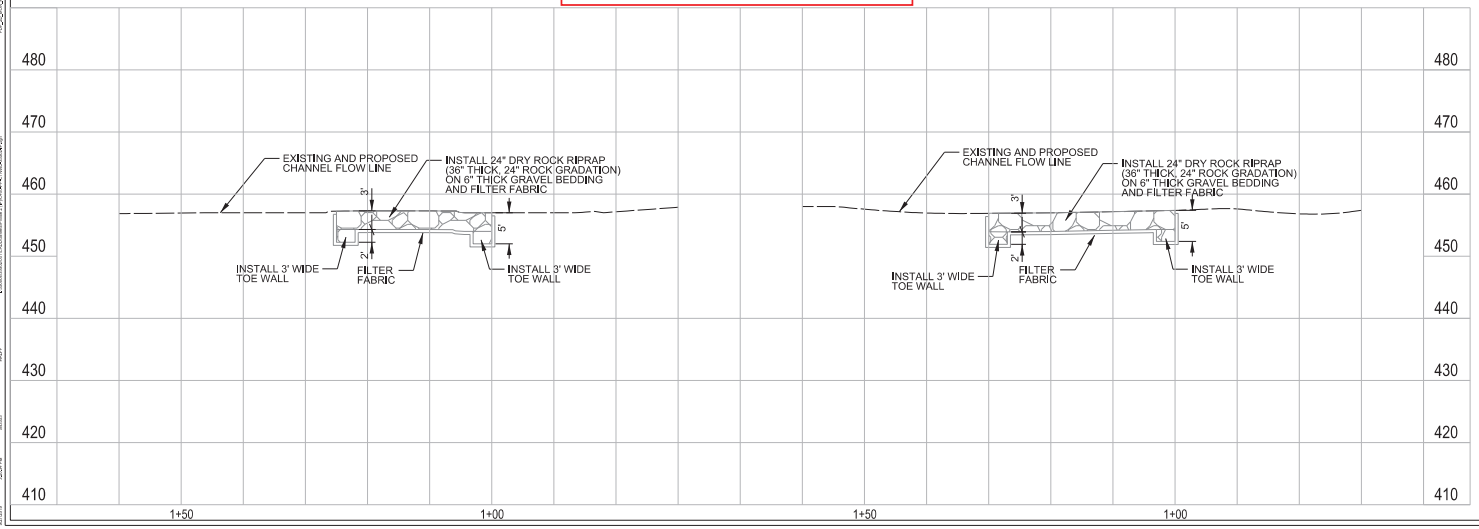
Sheet Number



CCMS-5 HENRY BRANCH
ADDITIVE ALTERNATE #1

Notes have been added to provide clarity for permit review and are not part of the design drawings for construction.

CCMS-5 FISH CREEK
BASE BID



NOTES:

1. SEE SHEET C1.00 FOR PROJECT LAYOUT.
2. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE TO CHANNEL WITH MINIMUM SLOPES OF 1%.
3. PROPOSED ROCK RIPRAP ADJACENT TO UTILITIES SHALL BE PLACED BY HAND.
4. DISTURBED AREAS NOT STABILIZED BY RIPRAP SHALL BE GRADED AT MIN. SLOPE OF 1% AND MAX SLOPE OF 25% (4H TO 1V) UNLESS INDICATED ON THE PLANS.
5. VOLUME OF TOE WALLS CALCULATED FROM BOTTOM OF RIPRAP.

GENERAL UTILITY NOTES:

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LEGEND

- 500 — 2019 EXIST. CONTOUR (MAJOR)
- 502 — 2019 EXIST. CONTOUR (MINOR)
- 500 — 2016 EXIST. CONTOURS
- 500 — PROPOSED CONTOUR (MAJOR)
- 502 — PROPOSED CONTOUR (MINOR)
- FLOWLINE
- FENCE
- TOP OF SLOPE
- TOE OF SLOPE
- TOE WALL
- SSMH — SANITARY SEWER MANHOLE
- EXISTING TREE
- PROPOSED GROUTED ROCK RIPRAP
- PROPOSED DRY ROCK RIPRAP

ALL IMPROVEMENTS ARE WITHIN FLOODPLAIN AND FLOODWAY. REFER TO FIRM MAP #48113C0455M EFF. 3/21/2019

FILE #SD-692

COTTONWOOD AND FISH CREEK STREAM STABILITY

GRAND PRAIRIE, TEXAS

HALFF
201 NORTH BOWSER ROAD
RICHARDSON, TEXAS 75081
(214) 346-6200
TBPE FIRM #F-312

Revision No.	Date	Description

PRELIMINARY
FOR INTERIM REVIEW ONLY

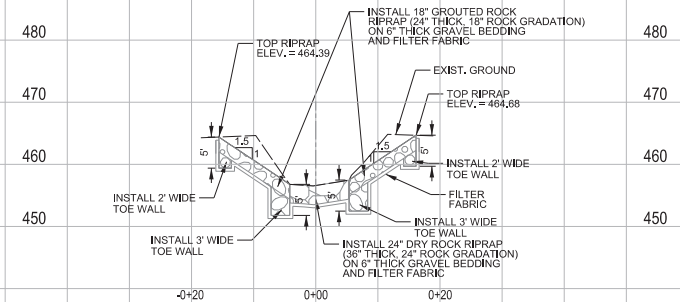
THESE DOCUMENTS ARE FOR INTERIM REVIEW AND NOT INTENDED FOR REGULATORY APPROVAL, PERMIT, BIDDING OR CONSTRUCTION PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

STEPHEN CRAWFORD — 88249
NAME — P.E. NO.
DATE — 9/27/2019
TBPE FIRM #F-312

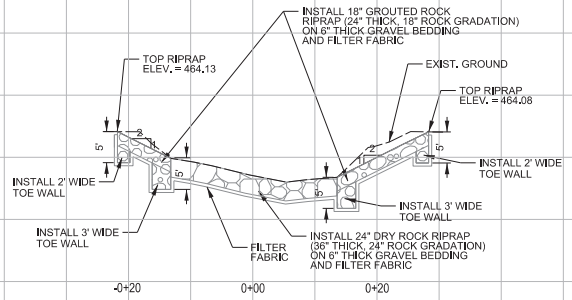
Project No.:	35502
Issued:	9/27/2019
Drawn By:	NMM
Checked By:	SBC
Scale:	AS SHOWN

Sheet Title
COTTONWOOD CREEK
PLAN AND PROFILE
CCMS-5

C4.00
Sheet Number



CCMS-5 HENRY BRANCH
CROSS SECTION A-A



CCMS-5 FISH CREEK
CROSS SECTION B-B

0 5 10 15 20
SCALE: 1"=10'

NOTES:

1. ALL CROSS-SECTIONS FACE UPSTREAM.

2. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE TO CHANNEL WITH MINIMUM SLOPES OF 1%.

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LEGEND

PROPOSED DRY ROCK RIPRAP

EXISTING CONCRETE RIPRAP

FILE #SD-692

COTTONWOOD AND FISH CREEK STREAM STABILITY

GRAND PRAIRIE, TEXAS

HALFF
201 NORTH ROWLETT ROAD
RICHARDSON, TEXAS 75081
TEL: (214) 346-6200
TBPE FIRM #F-312

Revision No.	Date	Description

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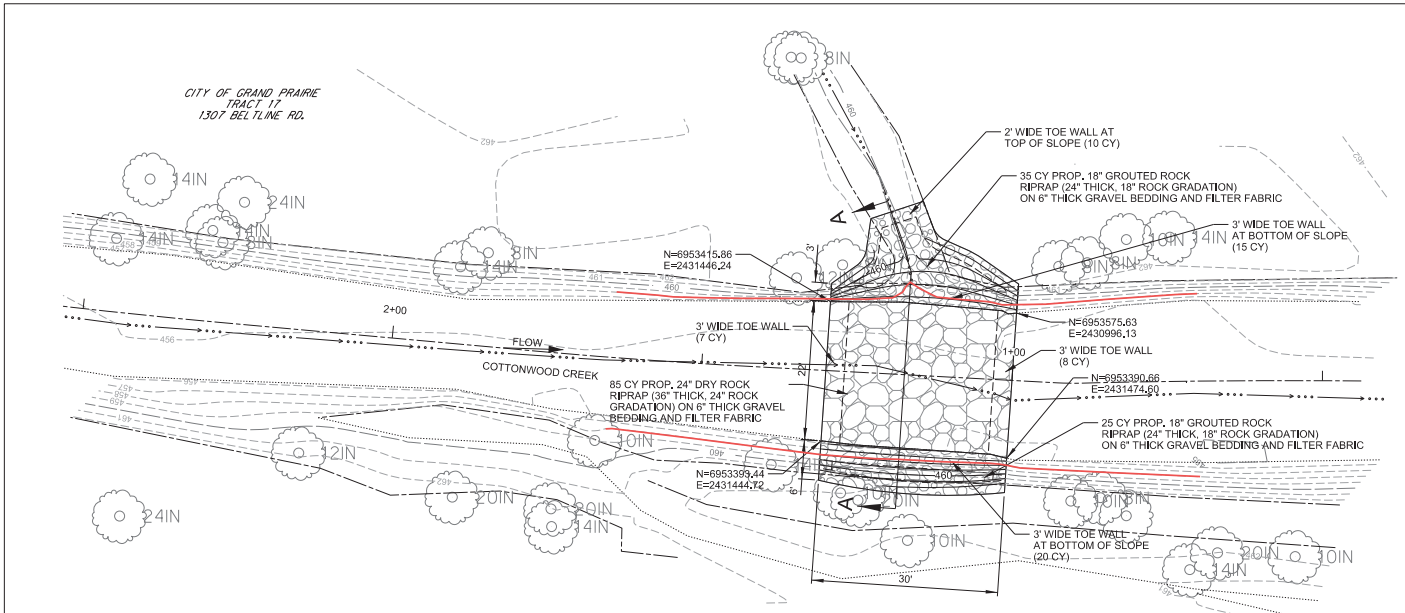
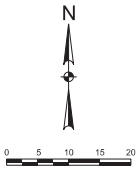
STEPHEN CRAWFORD — 83249
NAME — P.E. NO.
DATE — 9/27/2019
TBPE FIRM #F-312

Project No.:	35502
Issued:	9/27/2019
Drawn By:	NMM
Checked By:	SBC
Scale:	AS SHOWN

Sheet Title
COTTONWOOD CREEK
CCMS-5
CROSS SECTIONS

C4.01
Sheet Number





NOTES:

1. SEE SHEET C1.00 FOR PROJECT LAYOUT.

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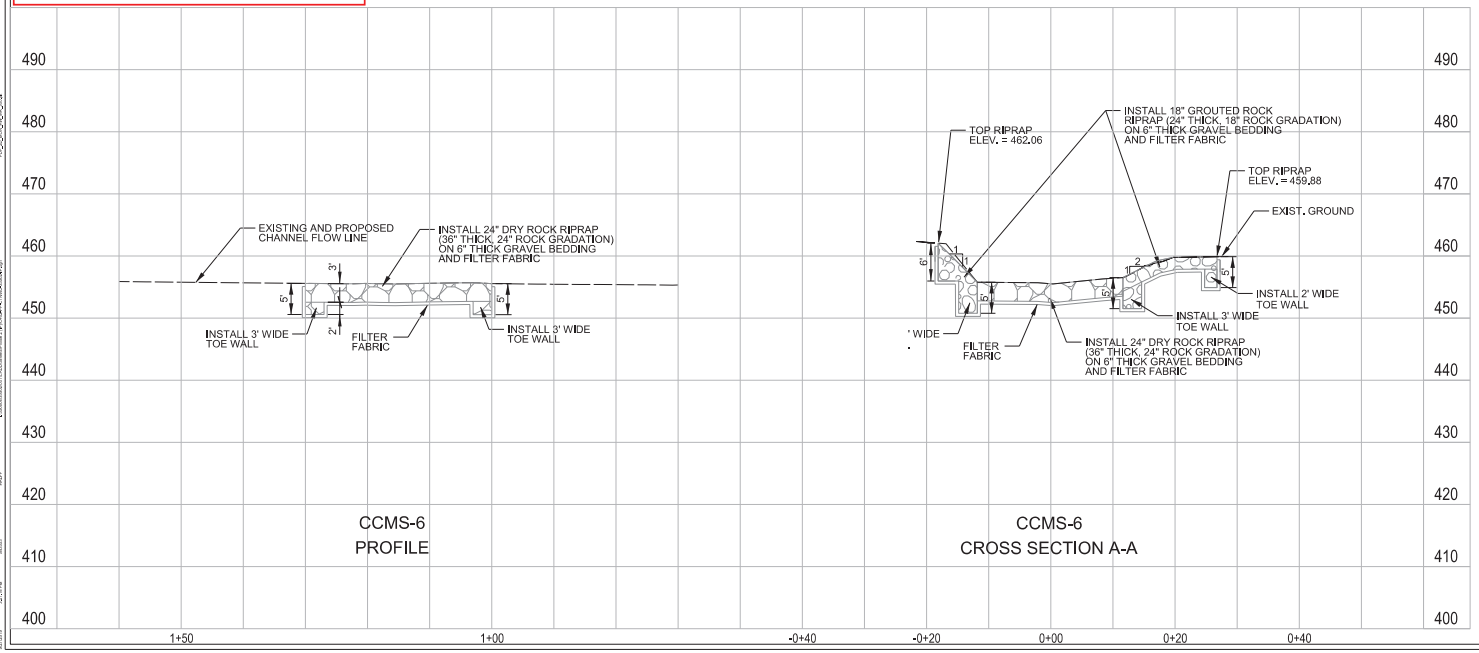
COTTONWOOD CREEK - CCMS-6
BASE BID



CCMS-6
PROFILE

CCMS-6
CROSS SECTION A-A

LEGEND

- 500 — 2019 EXIST. CONTOUR (MAJOR)
- 502 — 2019 EXIST. CONTOUR (MINOR)
- 500 — 2016 EXIST. CONTOURS
- 500 — PROPOSED CONTOUR (MAJOR)
- 502 — PROPOSED CONTOUR (MINOR)
- FLOWLINE
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- EXISTING TREE
- PROPOSED GROUTED ROCK RIPRAP
- PROPOSED DRY ROCK RIPRAP

ALL IMPROVEMENS ARE WITHIN FLOODPLAIN AND FLOODWAY. REFER TO FIRM MAP 48113C0455M

FILE #SD-692

COTTONWOOD AND FISH CREEK
STREAM STABILITY
GRAND PRAIRIE, TEXAS

HALFF
201 NORTH ROWLETT ROAD
RICHARDSON, TEXAS 75081
TBPE FIRM #F-312

Revision No.	Date	Description

PRELIMINARY
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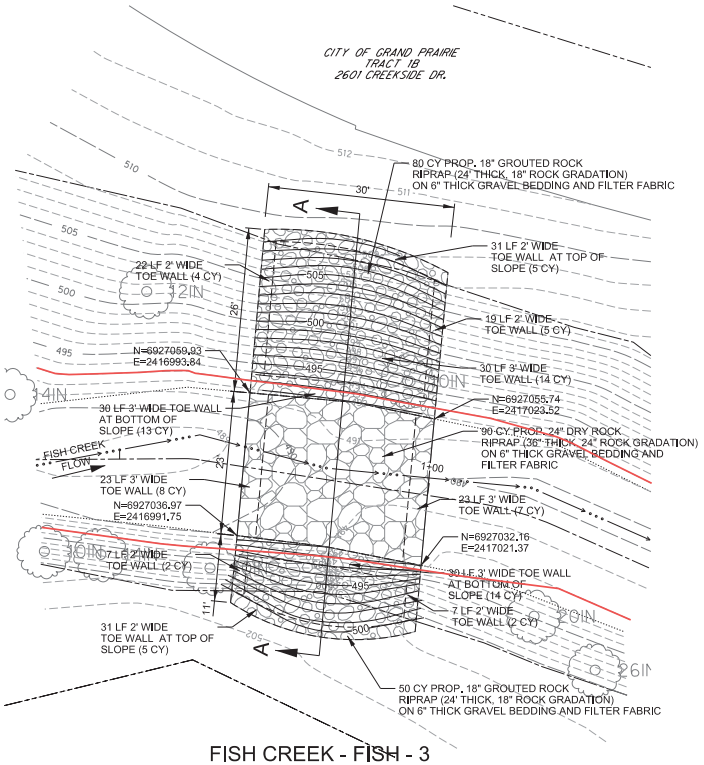
STEPHEN CRAWFORD — 88249
NAME — P.E. NO.
DATE — 9/27/2019
TBPE FIRM #F-312

Project No.:	35502
Issued:	9/27/2019
Drawn By:	NMM
Checked By:	SBC
Scale:	AS SHOWN

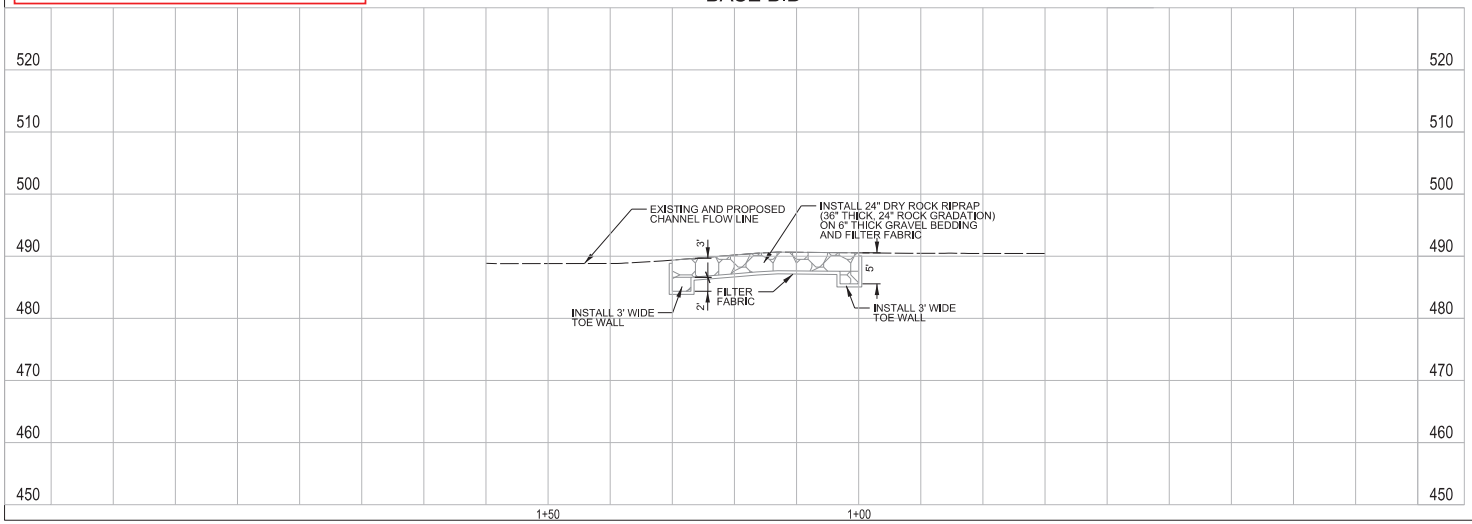
Sheet Title
COTTONWOOD CREEK
PLAN AND PROFILE
CCMS-6

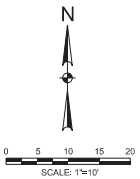
C4.02
Sheet Number



Notes have been added to provide clarity for permit review and are not part of the design drawings for construction.

FISH CREEK - FISH - 3
BASE BID





NOTES:

1. SEE SHEET C1.01 FOR PROJECT LAYOUT.

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- PROPOSED DRY ROCK RIPRAP

ALL IMPROVEMENTS ARE WITHIN FLOODPLAIN AND FLOODWAY. REFER TO FIRM MAP 48439C0370L EFF. 3/21/2019.

FILE #SD-692

COTTONWOOD AND FISH CREEK STREAM STABILITY

GRAND PRAIRIE, TEXAS

Grand Prairie TEXAS

HALFF
ONE HALFF PLAZA
1201 NORTH BOWSER ROAD
RICHARDSON, TEXAS 75081
TEL: 214.346.6200
FAX: 214.739.0924

Revision No.	Date	Description

PRELIMINARY

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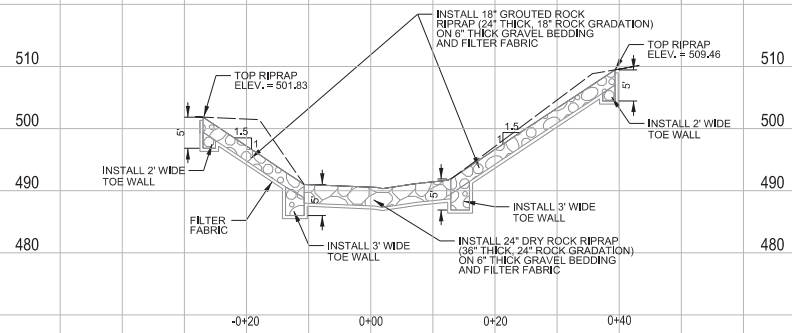
STEPHEN CRAWFORD — 93249
NAME — P.E. NO.
DATE — 9/27/2019
TBPE FIRM #F-312

Project No.:	35502
Issued:	9/27/2019
Drawn By:	NMM
Checked By:	SBC
Scale:	AS SHOWN

Sheet Title
FISH CREEK
PLAN AND PROFILE
FISH-3

C6.00
Sheet Number



FISH-3
CROSS SECTION A-A

0 5 10 15 20
SCALE: 1"=10'

NOTES:

1. ALL CROSS-SECTIONS FACE UPSTREAM.

2. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE TO CHANNEL WITH MINIMUM SLOPES OF 1%.

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LEGEND

PROPOSED DRY ROCK RIPRAP

EXISTING CONCRETE RIPRAP

FILE #SD-692

COTTONWOOD AND FISH CREEK STREAM STABILITY

GRAND PRAIRIE, TEXAS

HALFF
201 NORTH ROWLETT ROAD
ROWLETT, TEXAS 75089
TBPE FIRM #F-312

Revision No.	Date	Description

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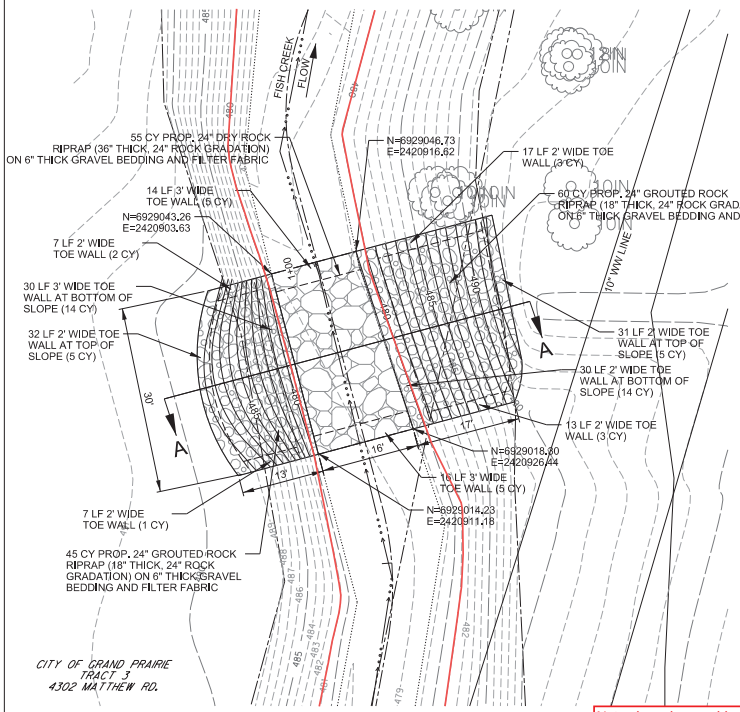
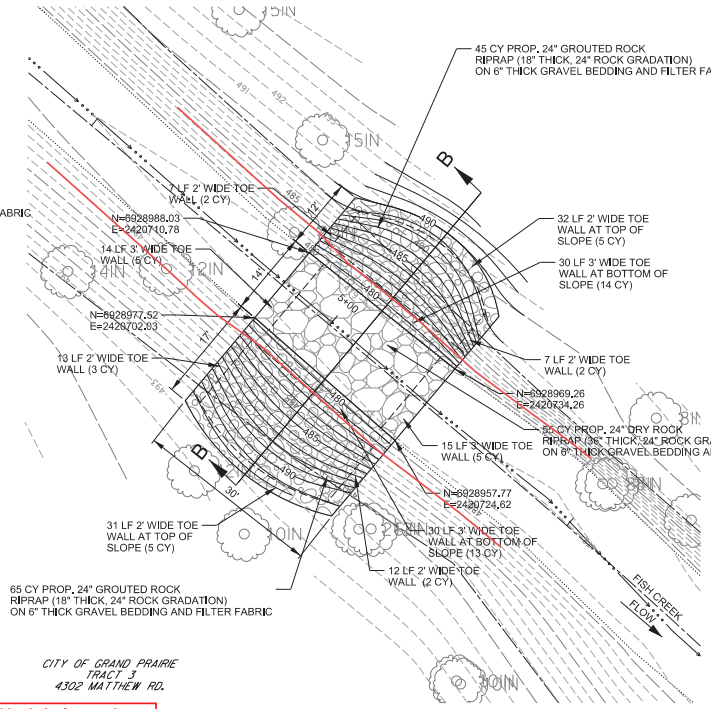
NAME P.E. NO.
DATE 9/27/2019
TBPE FIRM #F-312

Project No.:	35502
Issued:	9/27/2019
Drawn By:	NMM
Checked By:	SBC
Scale:	AS SHOWN

Sheet Title
FISH CREEK
CROSS SECTIONS
FISH-3

C6.01
Sheet Number





N

0 5 10 15 20

SCALE: 1"=10'

NOTES:

1. SEE SHEET C1.02 FOR PROJECT LAYOUT.
2. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE TO CHANNEL WITH MINIMUM SLOPES OF 1%.
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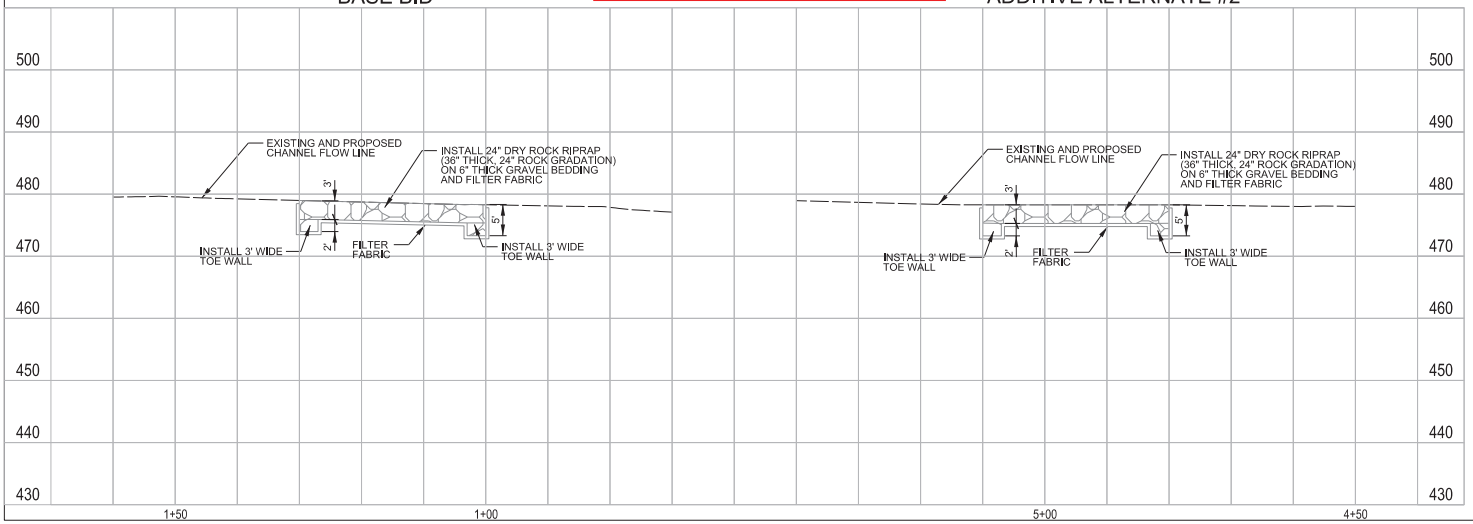
FISH CREEK - FISH - 6A BASE BID

Notes have been added to provide clarity for permit review and are not part of the design drawings for construction.

FISH CREEK - FISH - 6B ADDITIVE ALTERNATE #2



LEGEND

- 2019 EXIST. CONTOUR (MAJOR)
- 2019 EXIST. CONTOUR (MINOR)
- 2016 EXIST. CONTOURS
- PROPOSED CONTOUR (MAJOR)
- PROPOSED CONTOUR (MINOR)
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- PROPOSED DRY ROCK RIPRAP

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FILE #SD-692

COTTONWOOD AND FISH CREEK STREAM STABILITY

GRAND PRAIRIE, TEXAS

HALFF
201 NORTH ROWLETT ROAD
ROWLETT, TEXAS 75089
TEL: (214) 346-6200
TBPE FIRM #F-312

Revision No.	Date	Description

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STEPHEN CRAWFORD — 88249
NAME — P.E. NO.
DATE — 9/27/2019
TBPE FIRM #F-312

Project No.:	35502
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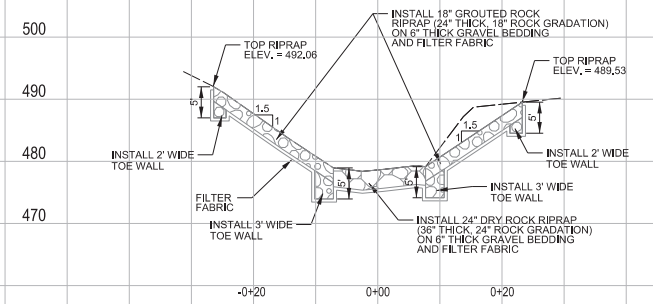
Checked By:	SBC
Scale:	AS SHOWN

Sheet Title: FISH CREEK PLAN AND PROFILE FISH-6

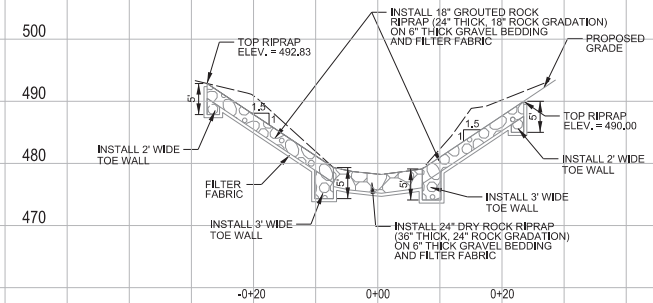
C6.02

Sheet Number



FISH-6A

CROSS SECTION A-A



FISH-6B

CROSS SECTION B-B

0 5 10 15 20

SCALE: 1"=10'

NOTES:

1. ALL CROSS-SECTIONS FACE UPSTREAM.

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LEGEND

PROPOSED DRY ROCK RIPRAP

EXISTING CONCRETE RIPRAP

FILE #SD-692

COTTONWOOD AND FISH CREEK
STREAM STABILITY

GRAND PRAIRIE, TEXAS

HALFF
201 NORTH ROWLETT ROAD
ROWLETT, TEXAS 75089
TBPE FIRM #F-312
TBPLS FIRM #LF-312

Revision No.	Date	Description

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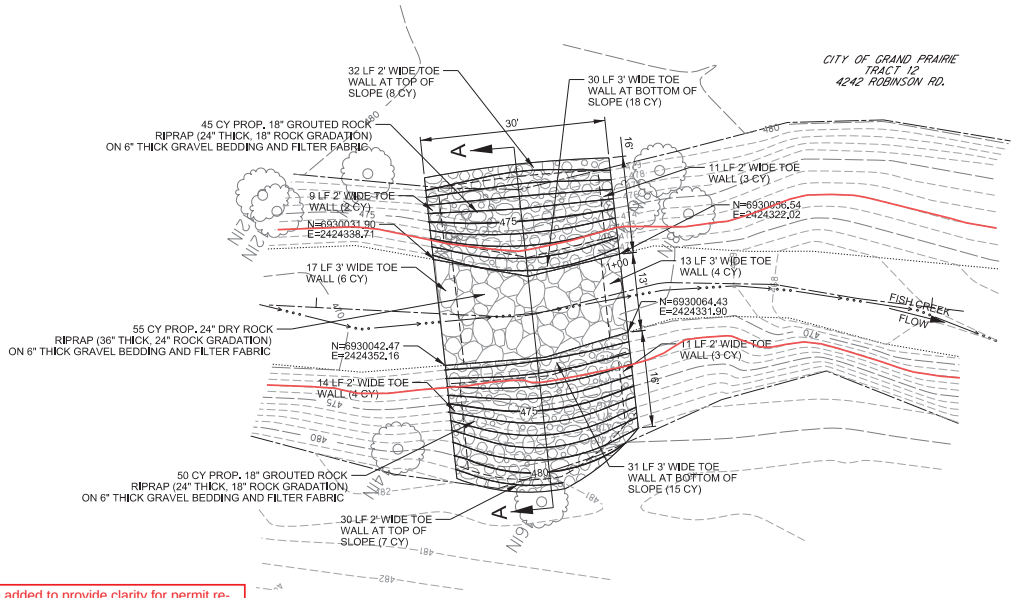
Scale:	AS SHOWN

Sheet Title

FISH CREEK
FISH-6
CROSS SECTIONS

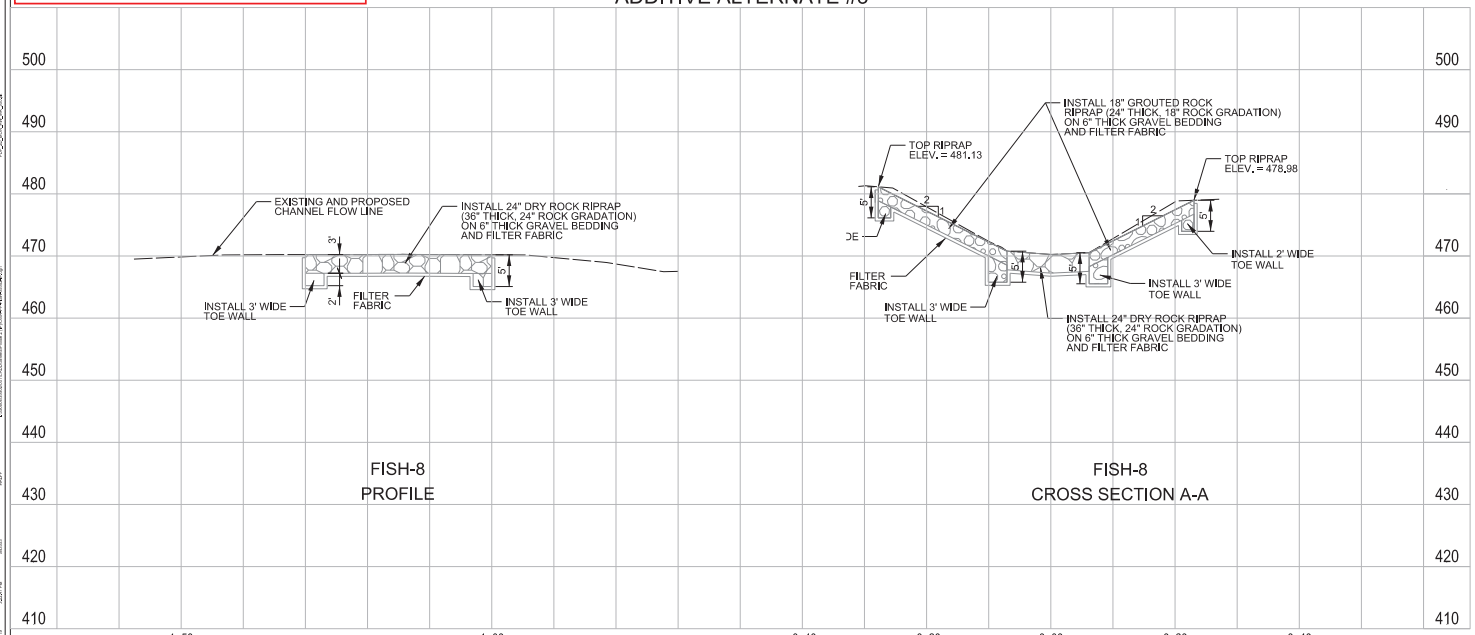
C6.03

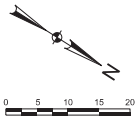
Sheet Number



Notes have been added to provide clarity for permit review and are not part of the design drawings for construction.

FISH CREEK - FISH-8
ADDITIVE ALTERNATE #3





NOTES:

1. SEE SHEET C1.02 FOR PROJECT LAYOUT.

2. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE TO CHANNEL WITH MINIMUM SLOPES OF 1%.

3. PROPOSED ROCK RIPRAP ADJACENT TO UTILITIES SHALL BE PLACED BY HAND.

4. DISTURBED AREAS NOT STABILIZED BY RIPRAP SHALL BE GRADED AT MIN. SLOPE OF 1% AND MAX SLOPE OF 25% (4H TO 1V).

5. VOLUME OF TOE WALLS CALCULATED FROM BOTTOM OF RIPRAP.

GENERAL UTILITY NOTES:

THE LOCATIONS, ELEVATIONS, AND SIZES OF EXISTING UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM AVAILABLE CITY AND UTILITY COMPANY RECORDS AND PLANS, AND ARE CONSIDERED APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION IN ORDER THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL PRESERVE AND PROTECT PUBLIC UTILITIES AT ALL TIMES DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES RESULTING FROM CONTACTOR'S OPERATION SHALL BE RESTORED AT HIS EXPENSE. THE ENGINEER SHALL BE NOTIFIED WHEN PROPOSED IMPROVEMENTS CONFLICT WITH EXISTING UTILITIES.

LEGEND

- 500 — 2019 EXIST. CONTOUR (MAJOR)
- 502 — 2019 EXIST. CONTOUR (MINOR)
- 500 — 2016 EXIST. CONTOURS
- 500 — PROPOSED CONTOUR (MAJOR)
- 502 — PROPOSED CONTOUR (MINOR)
- FLOWLINE
- FENCE
- TOP OF SLOPE
- TOE OF SLOPE
- TOE WALL
- SSMH — SANITARY SEWER MANHOLE
- EXISTING TREE
- PROPOSED GROUTED ROCK RIPRAP
- PROPOSED DRY ROCK RIPRAP

ALL IMPROVEMENTS ARE WITHIN FLOODPLAIN AND FLOODWAY. REFER TO FIRM MAP 48113C0445L EFF. 3/21/19

FILE #SD-692

COTTONWOOD AND FISH CREEK STREAM STABILITY

GRAND PRAIRIE, TEXAS

HALFF
201 NORTH ROWLETT ROAD
RICHARDSON, TEXAS 75081
TEL: 214.346.6200
TBPE FIRM #F-312

Revision No.	Date	Description

PRELIMINARY

FOR INTERIM REVIEW ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND NOT INTENDED FOR REGULATORY APPROVAL PERMIT, BIDDING OR CONSTRUCTION PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

STEPHEN CRAWFORD 86043
NAME P.E./R.L.A.
DATE 9/27/2019
TBPE FIRM #F-312

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Issued:	9/27/2019
Drawn By:	NMM
Checked By:	SBC
Scale:	AS SHOWN

Sheet Title
FISH CREEK
PLAN AND PROFILE
FISH-8

C6.04
Sheet Number