CITY OF LEON VALLEY
SPECIAL CITY COUNCIL WORKSHOP

Leon Valley Conference Center
6421 Evers Road, Leon Valley, Texas 78238
Tuesday, February 02, 2016

AGENDA

1. **6:00 P.M.** Call to order, Determine a Quorum is Present, Pledge of Allegiance.

2. Discussion and possible action regarding flooding/drainage solution options for Huebner Creek and Monte Robles Park Subdivision. **M&C # 2016-02-02-01 (M. Moritz)**

3. Adjournment

Executive Session. The City Council of the City of Leon Valley reserves the right to adjourn into Executive Session at any time during the course of this meeting to discuss any of the matters listed on the posted agenda, above, as authorized by the Texas Government Code, Sections 551.071 (consultation with attorney), 551.072 (deliberations about real property), 551.073 (deliberations about gifts and donations), 551.074 (personnel matters), 551.076 (deliberations about security devices), and 551.087 (economic development).

Attendance by Other Elected or Appointed Officials: It is anticipated that members other City boards, commissions and/or committees may attend the open meeting in numbers that may constitute a quorum. Notice is hereby given that the meeting, to the extent required by law, is also noticed as a meeting of any other boards, commissions and/or committees of the City, whose members may be in attendance in numbers constituting a quorum. These members of other City boards, commissions, and/or committees may not deliberate or take action on items listed on the agenda. [Attorney General Opinion – No. GA-0957 (2012)].

I hereby certify that the above **NOTICE OF PUBLIC MEETING(S) AND AGENDA OF THE LEON VALLEY CITY COUNCIL** was posted at the Leon Valley Public Library, 6425 Evers Road, Leon Valley, Texas, on January 29, 2016 at 12:40 p.m. and remained posted until after the meeting(s) hereby posted concluded. This notice is posted on the City website at www.leonvalleytexas.gov. This building is wheelchair accessible. Any request for sign interpretive or other services must be made 48 hours in advance of the meeting. To make arrangements, call (210) 684-1391, Extension 216.

Saundra Passailaigue

SAUNDRA PASSAILAIGUE, TRMC
City Secretary

ITEM 2

MAYOR AND COUNCIL COMMUNICATION

M&C #2016-02-02-01

DATE: February 02, 2016

TO: Mayor and City Council

THROUGH: Kelly Kuenstler, City Manager

FROM: Melinda Moritz, Director of Public Works

SUBJECT: Flood Remediation Workshop – Consider Alternatives for Flood and Drainage Remediation at Huebner Creek and at Monte Robles Park

PURPOSE

This M & C is to present options and provide opportunity for discussion for alleviating the flooding of Huebner Creek and to present a solution for the flooding and drainage concerns in the Monte Robles Park neighborhood.

During the neighborhood discussions for the City's Master Plan revisions in past years, citizens stated their desire to alleviate flooding in the Grass Valley and Monte Robles Park neighborhoods. The City Council budgeted $200,000 in FY 2016 to perform studies of the flooding and drainage in these areas.

Huebner Creek

Huebner Creek runs parallel to Poss Road and frequently floods, affecting both the Canterfield and Grass Valley neighborhoods, with the most severe being Grass Valley. The flooding is occurring with greater frequency and higher levels, due to development upstream and channels that become smaller as the creek reaches Leon Valley. To contain the creek inside its banks, the channel needs to be widened or another solution found. City Council has asked that we provide several options for consideration, which are attached. Other options may be found after a more detailed study is performed.

Option 1 widens the existing creek alignment from Evers to Bandera Road, from 30 ft. to 100 ft. in width. The consequences of choosing this option include:

- Takes out large pavilion
- Takes out most of the athletic fields
- Takes out portion of large parking lot
- Takes out portion of properties on way to Natural Area Park
- Installs new parking area

Option 2 also widens the existing creek alignment from Evers to Bandera Road, from 30 ft. to 100 ft. in width, with the following consequences:

- Takes out portion of Poss Road
- Takes out large pavilion

- Takes out portion of athletic field
- Takes out portion of large parking lot
- Takes outs portion of properties on way to Natural Area Park
- Installs new parking areas and new bridge

Option 3 leaves the existing creek width, but provides an alternative drainage channel on the south side of Raymond Rimkus Park, with the following consequences:

- Will have to move existing playground
- Will have to move tennis and basketball courts
- Takes out several picnic areas
- Takes out “quiet area” walking path
- Takes out portion of large parking lot
- Installs new parking areas and 2 new bridges
- Installs new picnic areas

Monte Robles Park

Monte Robles Park Subdivision was platted in 1947. The streets are not curbed and the existing roadside drainage swales have filled in over the years. Minor additional runoff has occurred from the expansion of John Marshall High School and from new development in the subdivision. An engineering company was hired, drainage areas were calculated, and a feasibility study has been prepared.

In this plan, the water is to be directed from the neighborhood, down Huebner Road, to an existing drainage structure, and then finally to the newly constructed detention pond near the Steurenthaler - Silo Park and Huebner well site. The detention pond would slowly drain the water into Huebner Creek. The detention pond has enough capacity to handle the flows.

FISCAL IMPACT

Huebner Creek

The costs for all three options must still be determined; however, there are grant opportunities through the Corp of Engineers and other sources. The City would pay a portion of the costs, but this could include in-kind services, such as real estate and right-of-way acquisition. A detailed cost estimate must be calculated, once a final option is selected.

Monte Robles Park

The firm of Kimley-Horn was hired at a cost of $24,700 to perform the feasibility study. Estimates of options that cost between $815,000 and $1,500,000 have been prepared. The project is not currently funded, but could be considered in the FY 2017 budget from the Stormwater Fund.

RECOMMENDATION

It is recommended the City Council authorize the City Manager to pursue an engineering study of Huebner Creek with the Corp of Engineers, and then report findings to City Council; and to fund the drainage remediation of Monte Robles Park in FY 2017.

S.E.E. IMPACT STATEMENT

Social Equity – Protects citizens in older, substandard subdivisions from the threat of flooding.

Economic Development – Removing the threat of flooding increases property values.

Environmental Stewardship – Improving drainage channels and directing floodwaters protects the environment from pollutants found in floodwaters, which improves water quality and protects wildlife and native vegetation.

APPROVED: N/A DISAPPROVED: _____

APPROVED WITH THE FOLLOWING AMENDMENTS:

_____

_____

_____

ATTEST:

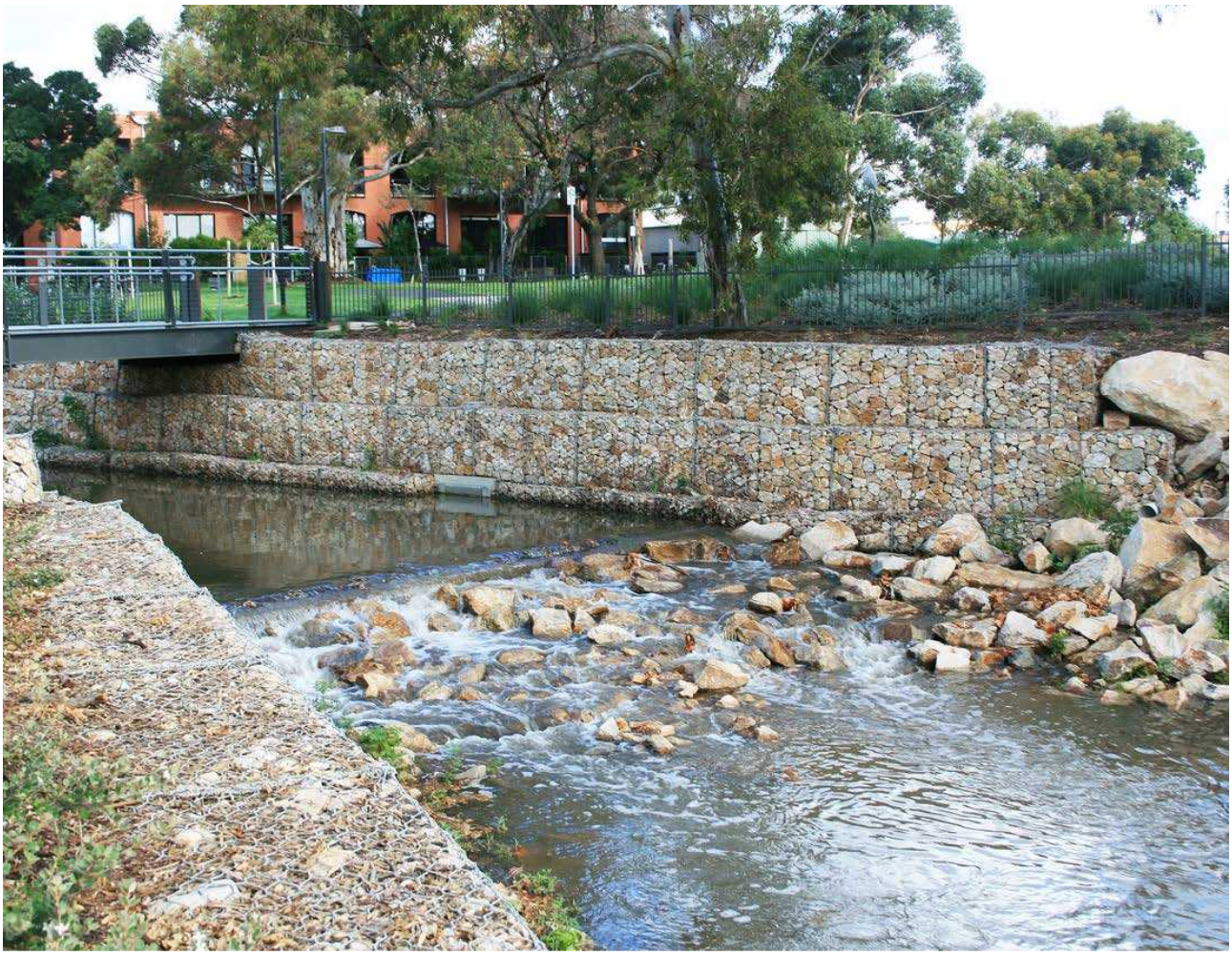
_____
SAUNDRA PASSAILAGUE, TRMC
City Secretary

Huebner Creek Option 1

Huebner Creek Option 2

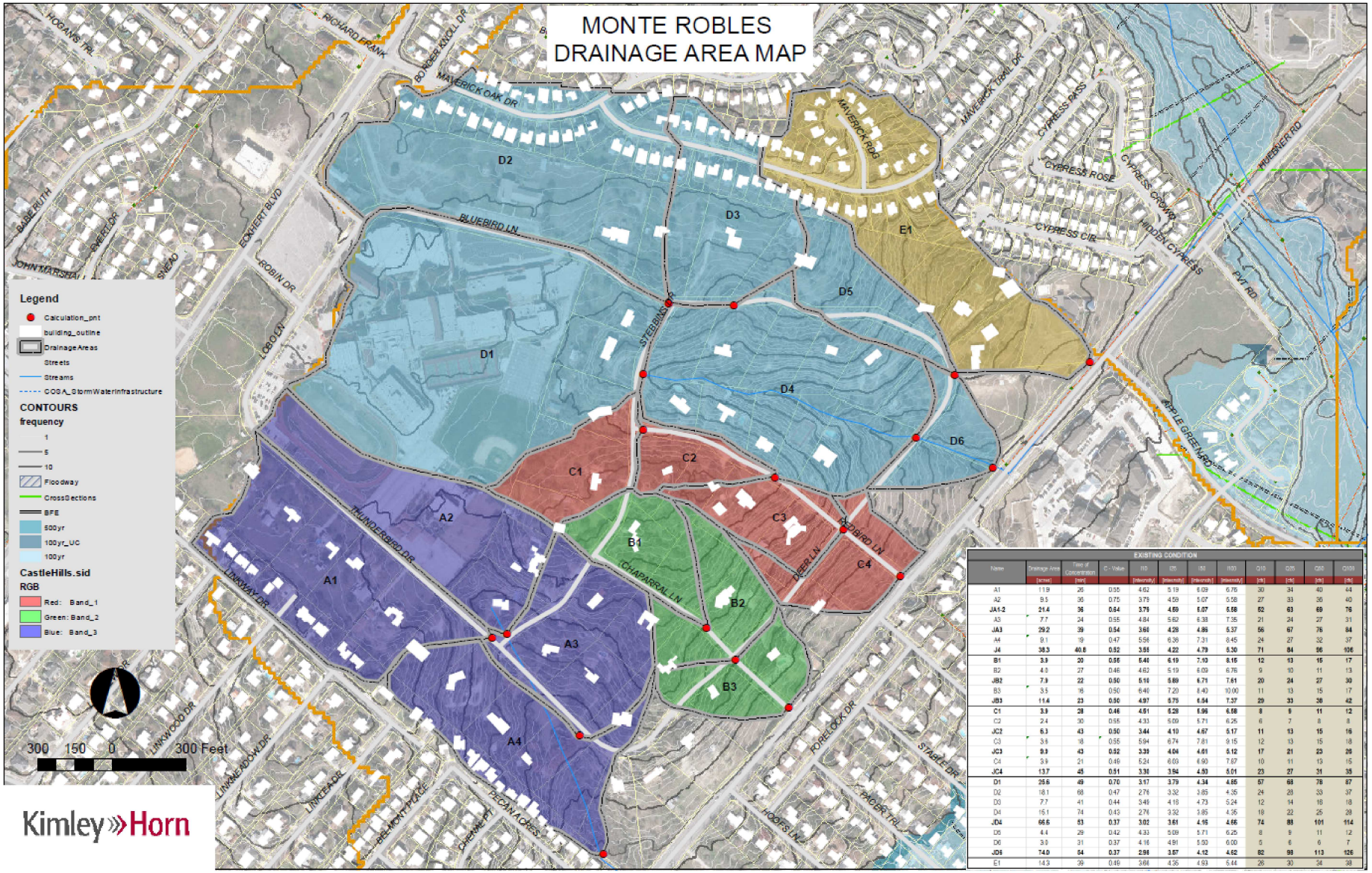
Huebner Creek Option 3

Huebner Creek Bank Shoring Option



Huebner Creek Bank Shoring Options

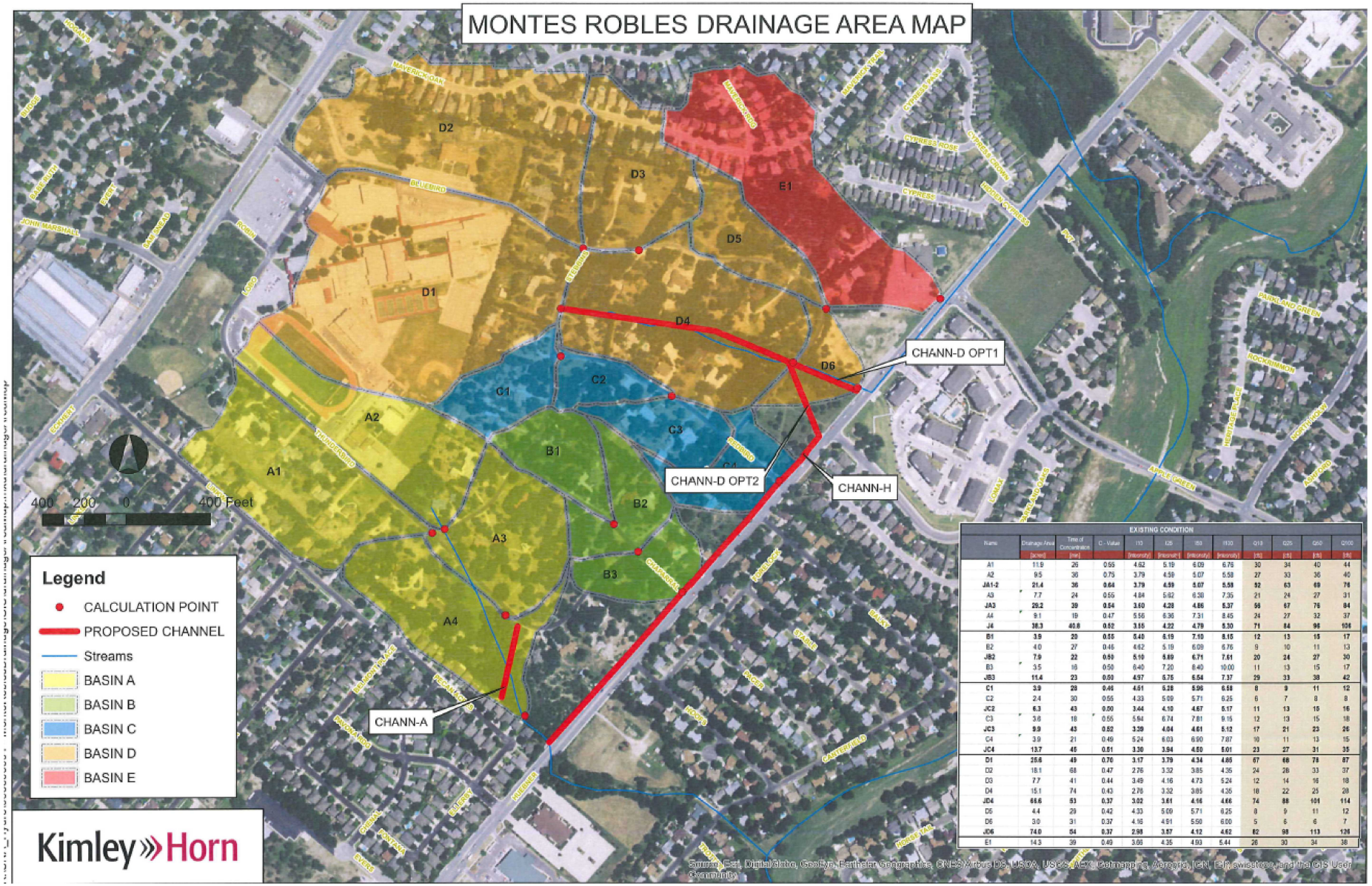
Monte Robles Park Drainage Area Calculations



Name	Drainage Area [acres]	Time of Concentration [min]	C - Value	I10 [inches/hr]	I25 [inches/hr]	I50 [inches/hr]	I100 [inches/hr]	Q10 [cfs]	Q25 [cfs]	Q50 [cfs]	Q100 [cfs]
EXISTING CONDITION											
A1	11.9	26	0.55	4.62	5.19	6.09	6.76	30	34	40	44
A2	9.5	36	0.75	3.79	4.59	5.07	5.58	27	33	36	40
JA1-2	21.4	36	0.64	3.79	4.59	5.07	5.58	52	63	69	76
A3	7.7	24	0.55	4.84	5.62	6.38	7.35	21	24	27	31
JA3	29.2	39	0.54	3.66	4.28	4.86	5.37	56	67	76	84
A4	9.1	19	0.47	5.56	6.36	7.31	8.45	24	27	32	37
J4	38.3	40.6	0.52	3.55	4.22	4.79	5.30	71	84	96	106
B1	3.9	20	0.55	5.46	6.19	7.10	8.15	12	13	15	17
B2	4.0	27	0.46	4.62	5.19	6.09	6.76	9	10	11	13
JB2	7.9	22	0.50	5.16	5.89	6.75	7.61	20	24	27	30
B3	3.5	16	0.50	6.46	7.20	8.40	10.00	11	13	15	17
JB3	11.4	23	0.50	4.97	5.75	6.54	7.37	29	33	38	42
C1	3.9	28	0.46	4.61	5.28	5.96	6.58	8	9	11	12
C2	2.4	30	0.55	4.33	5.09	5.71	6.25	6	7	8	8
JC2	6.3	43	0.50	3.44	4.10	4.67	5.17	11	13	15	16
C3	3.6	18	0.55	5.94	6.74	7.81	9.15	12	13	15	18
JC3	9.9	43	0.52	3.39	4.04	4.61	5.12	17	21	23	26
C4	3.9	21	0.49	5.24	6.09	6.90	7.67	10	11	13	15
JC4	13.7	45	0.51	3.38	3.94	4.50	5.01	23	27	31	35
D1	25.6	49	0.70	3.17	3.79	4.34	4.85	57	68	78	87
D2	18.1	68	0.47	2.76	3.32	3.85	4.35	24	28	33	37
D3	7.7	41	0.44	3.49	4.18	4.73	5.24	12	14	16	18
D4	15.1	74	0.43	2.76	3.32	3.85	4.35	18	22	25	28
JD4	66.6	53	0.37	3.02	3.61	4.16	4.66	74	88	101	114
D5	4.4	29	0.42	4.33	5.09	5.71	6.25	8	9	11	12
D6	3.0	31	0.37	4.16	4.91	5.50	6.00	5	6	6	7
JD5	74.0	54	0.37	2.96	3.57	4.12	4.62	82	98	113	126
E1	14.3	39	0.49	3.66	4.36	4.93	5.44	26	30	34	38

Kimley»Horn

Monte Robles Park Drainage Area Plan



EXISTING CONDITION

Name	Drainage Area [acres]	Time of Concentration [min]	C - Value	I10 [Intensity]	I25 [Intensity]	I50 [Intensity]	I100 [Intensity]	Q10 [cfs]	Q25 [cfs]	Q50 [cfs]	Q100 [cfs]
A1	11.9	26	0.55	4.62	5.19	6.09	6.76	30	34	40	44
A2	9.5	36	0.75	3.79	4.59	5.07	5.58	27	33	36	40
JA1-2	21.4	36	0.64	3.79	4.59	5.07	5.58	52	63	69	76
A3	7.7	24	0.55	4.84	5.82	6.38	7.35	21	24	27	31
JA3	29.2	39	0.54	3.60	4.28	4.86	5.37	56	67	76	84
A4	9.1	19	0.47	5.56	6.36	7.31	8.45	24	27	32	37
J4	38.3	40.8	0.52	3.55	4.22	4.79	5.30	71	84	96	106
B1	3.9	20	0.55	5.40	6.19	7.10	8.15	12	13	15	17
B2	4.0	27	0.46	4.62	5.19	6.09	6.76	9	10	11	13
JB2	7.9	22	0.50	5.10	5.89	6.71	7.61	20	24	27	30
B3	3.5	16	0.50	6.40	7.20	8.40	10.00	11	13	15	17
JB3	11.4	23	0.50	4.97	5.75	6.54	7.37	29	33	38	42
C1	3.9	28	0.46	4.61	5.28	5.96	6.58	8	9	11	12
C2	2.4	30	0.55	4.33	5.09	5.71	6.25	6	7	8	8
JC2	6.3	43	0.50	3.44	4.10	4.67	5.17	11	13	15	16
C3	3.6	18	0.55	5.94	6.74	7.81	9.15	12	13	15	18
JC3	9.9	43	0.52	3.39	4.04	4.61	5.12	17	21	23	26
C4	3.9	21	0.49	5.24	6.03	6.90	7.87	10	11	13	15
JC4	13.7	45	0.51	3.30	3.94	4.60	5.01	23	27	31	35
D1	25.6	49	0.70	3.17	3.79	4.34	4.85	57	68	78	87
D2	18.1	68	0.47	2.76	3.32	3.85	4.35	24	28	33	37
D3	7.7	41	0.44	3.49	4.16	4.73	5.24	12	14	16	18
D4	15.1	74	0.43	2.76	3.32	3.85	4.35	18	22	25	28
JD4	66.6	53	0.37	3.02	3.61	4.16	4.66	74	88	101	114
D5	4.4	29	0.42	4.33	5.09	5.71	6.25	8	9	11	12
D6	3.0	31	0.37	4.16	4.91	5.50	6.00	5	6	6	7
JD6	74.0	84	0.37	2.98	3.57	4.12	4.62	82	98	113	126
E1	14.3	39	0.49	3.66	4.35	4.93	5.44	26	30	34	38

Flooding / Drainage Options
Huebner Creek & Monte Robles Park

City Council Meeting

February 02, 2016

Purpose

- To present options and provide opportunity for discussion for alleviating flooding of Huebner Creek
- To present a solution for the flooding and drainage concerns in the Monte Robles Park neighborhood

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Background

- During the neighborhood discussions for the City's Master Plan revisions in past years, citizens stated their desire to alleviate flooding in the Grass Valley and Monte Robles Park neighborhoods
- City Council budgeted $200,000 in FY 2016 to perform studies of the drainage in these areas

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Huebner Creek

- Huebner Creek runs parallel to Poss Rd & frequently floods, affecting Canterfield & Grass Valley - most severe along Poss
- 9.5 sq. mi. watershed area upstream
  - developed without mandatory detention
  - feeding into increasingly smaller channels
- To contain creek, channel needs to be widened or another solution found
- City Council has asked that we provide several options for consideration, but other options may be found after more detailed studies

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Huebner Creek Watershed Area

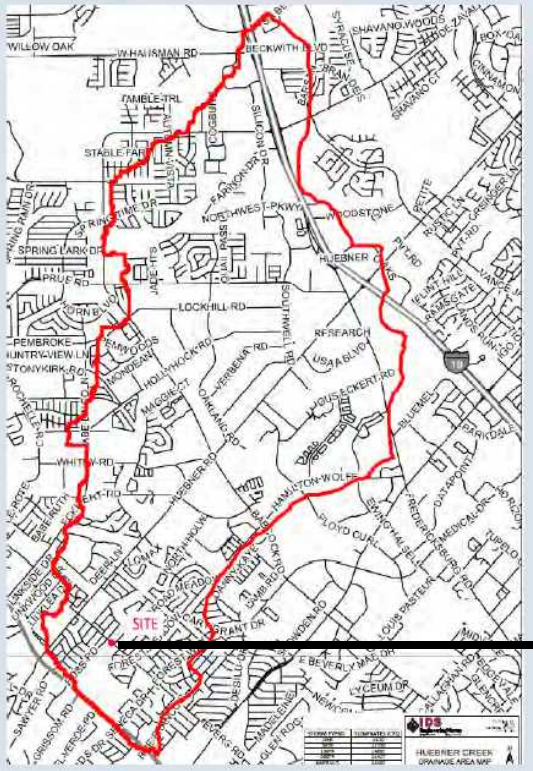
IDS Engineering Group

Drainage Analysis

Drainage Area (SQ Mi)	9.5

Storm Event (YR)	Flow Rate (cfs)
100	14892
50	12793
10	8120
5	6988
2	5434

Existing Culverts	800



Evers Rd Bridge

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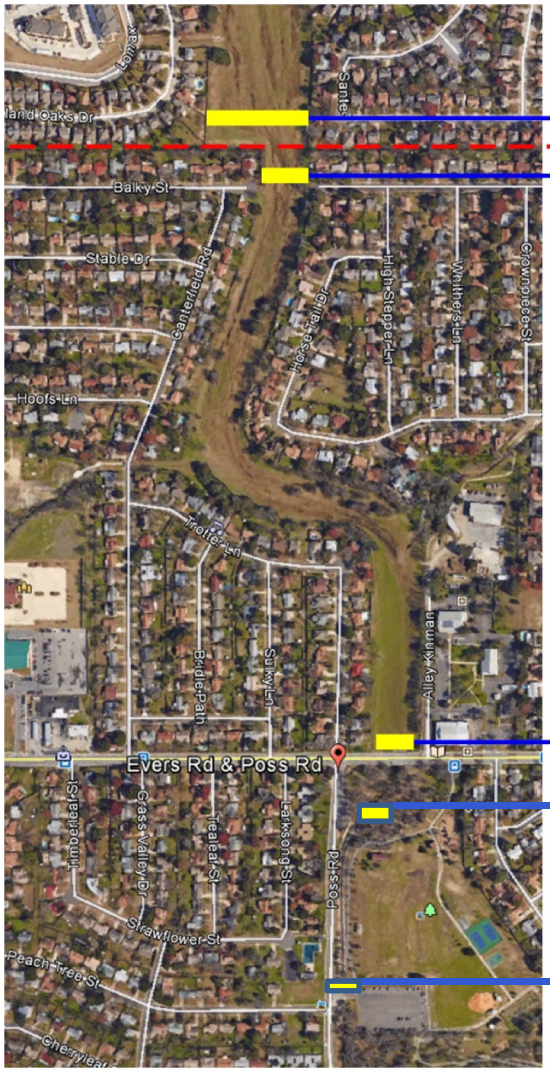
Huebner Creek Width



440 ft.

170 ft.

San Antonio

Leon Valley

160 ft.

44 ft.

Raymond Rimkus Park

28.5 ft

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Huebner Creek Option 1

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Huebner Creek Option 1

- Option 1 widens existing creek path from Evers to Bandera Road, from 30 ft to 100 ft in width
  - Takes out large pavilion
  - Takes out most of the athletic fields
  - Takes out portion of large parking lot
  - Takes out portion of properties on way to Natural Area Park
  - Installs new parking area

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Huebner Creek Option 2

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Huebner Creek Option 2

- Option 2 also widens existing creek path from Evers to Bandera Road, from 30 ft to 100 ft in width
  - Takes out portion of Poss Road
  - Takes out large pavilion
  - Takes out portion of athletic field
  - Takes out portion of large parking lot
  - Takes out portion of properties on way to Natural Area Park
  - Installs new parking areas and new bridge

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Huebner Creek Option 3

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Huebner Creek Option 3

- Option 3 leaves existing width, but provides alternative drainage channel on back side of park
  - Will have to move existing playground
  - Will have to move tennis and basketball courts
  - Takes out several picnic areas
  - Takes out “quiet area” walking path
  - Takes out portion of large parking lot
  - Installs new parking areas and 2 new bridges
  - Installs new picnic areas

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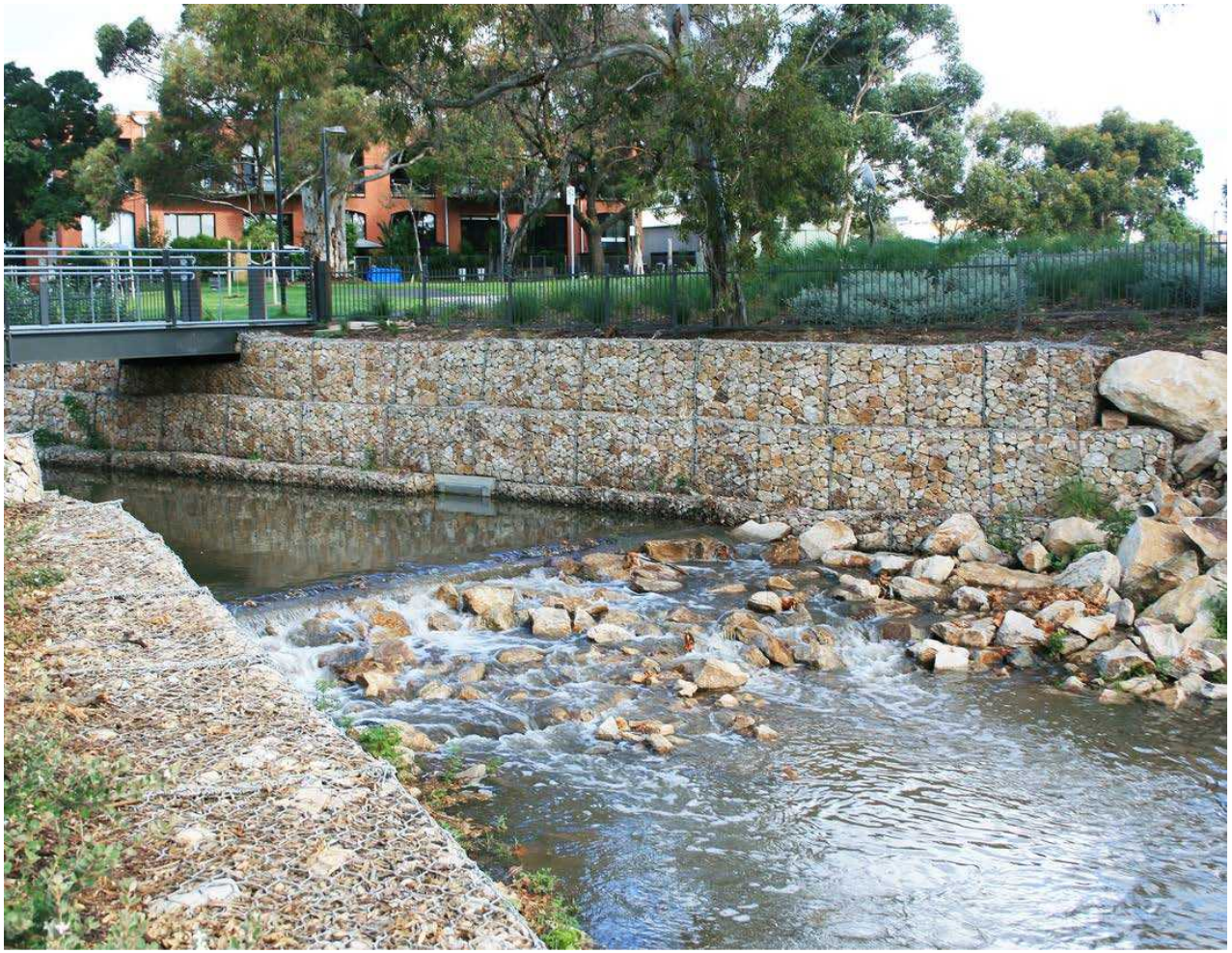
Huebner Creek Bank Shoring

Huebner Creek Bank Shoring



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Huebner Creek Bank Shoring

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Monte Robles Park

- Monte Robles Park platted in 1947
- Streets are not curbed & existing roadside drainage swales filled in over years
- Minor additional runoff occurring from John Marshall High School and new residential development
- Engineering company hired, drainage areas calculated, feasibility study prepared

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Monte Robles Park

- Water to be directed from the neighborhood, down Huebner Road, to existing drainage structure, and then to newly constructed detention pond near Steurenthaler - Silo Park and Huebner well site
- Detention pond would slowly drain the water into Huebner Creek
- Detention pond has enough capacity to handle flows

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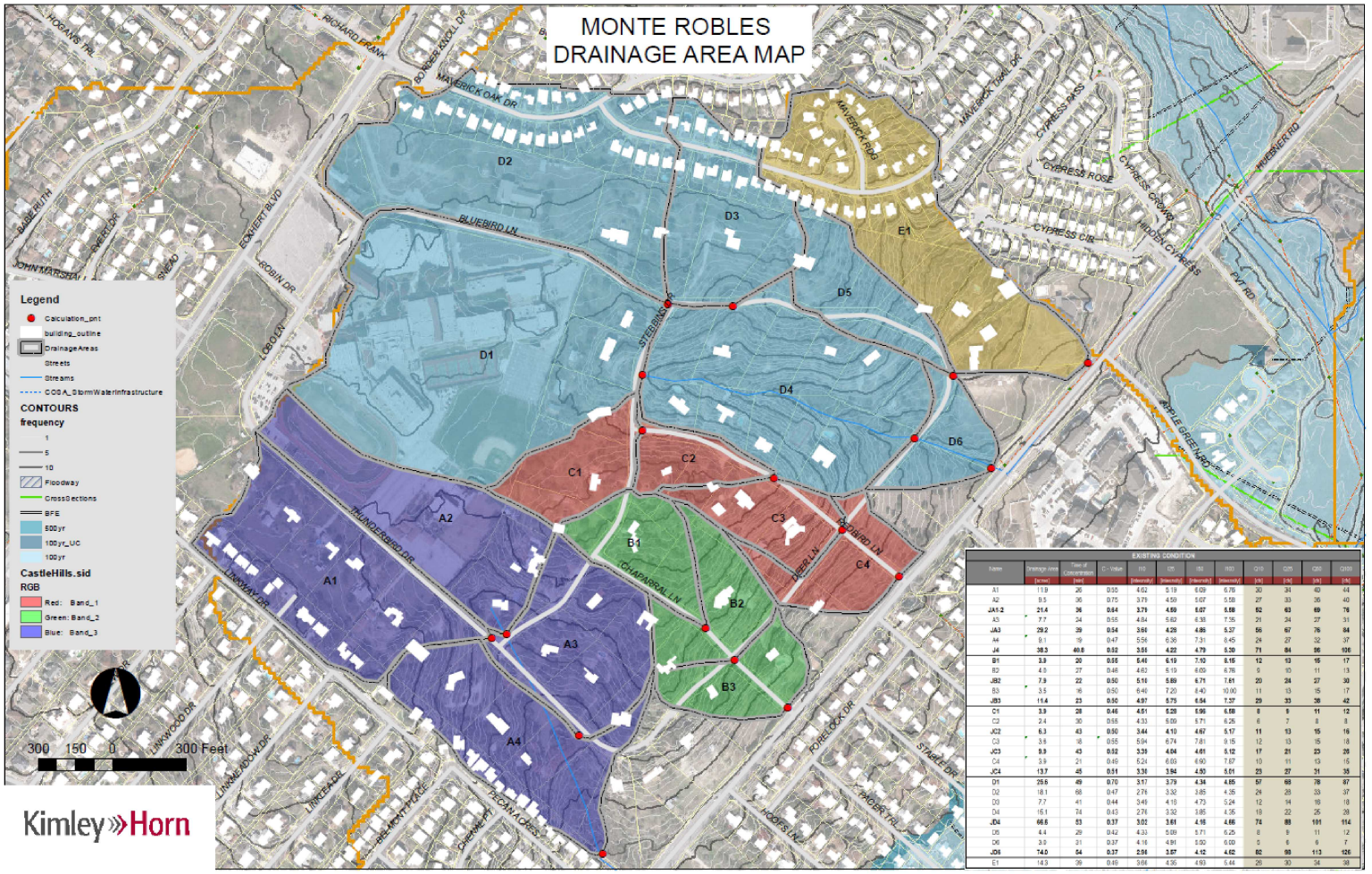
Monte Robles Drainage Calculations



EXISTING CONDITION

Name	Drainage Area [acres]	Time of Concentration [min]	C - Value	10 [Intensity]	25 [Intensity]	50 [Intensity]	100 [Intensity]	Q10 [cfs]	Q25 [cfs]	Q50 [cfs]	Q100 [cfs]
A1	11.9	26	0.55	4.62	5.19	6.09	6.76	30	34	40	44
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JA3	29.2	39	0.54	3.64	4.29	4.86	5.37	56	67	76	84
A4	9.1	19	0.47	5.56	6.36	7.31	8.45	24	27	32	37
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B1	3.9	20	0.55	5.41	6.19	7.10	8.15	12	13	15	17
B2	4.9	27	0.48	4.82	5.15	6.09	6.76	9	10	11	13
JB2	7.9	22	0.50	5.14	5.89	6.71	7.61	20	24	27	30
B3	3.5	16	0.50	6.40	7.20	8.40	10.00	11	13	15	17
JB3	11.4	23	0.50	4.97	5.75	6.54	7.37	29	33	36	42
C1	3.9	28	0.46	4.51	5.20	5.96	6.68	8	9	11	12
C2	2.4	30	0.55	4.33	5.00	5.71	6.25	6	7	8	8
JC2	6.3	43	0.50	3.44	4.10	4.67	5.17	11	13	15	16
C3	3.8	18	0.55	5.94	6.74	7.81	9.15	12	13	15	18
JC3	9.9	43	0.52	3.35	4.04	4.61	5.12	17	21	23	26
C4	5.9	21	0.49	5.24	6.05	6.90	7.67	10	11	13	15
JC4	13.7	45	0.51	3.30	3.94	4.50	5.01	23	27	31	35
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E1	14.9	39	0.49	3.84	4.35	4.93	5.44	28	30	34	38

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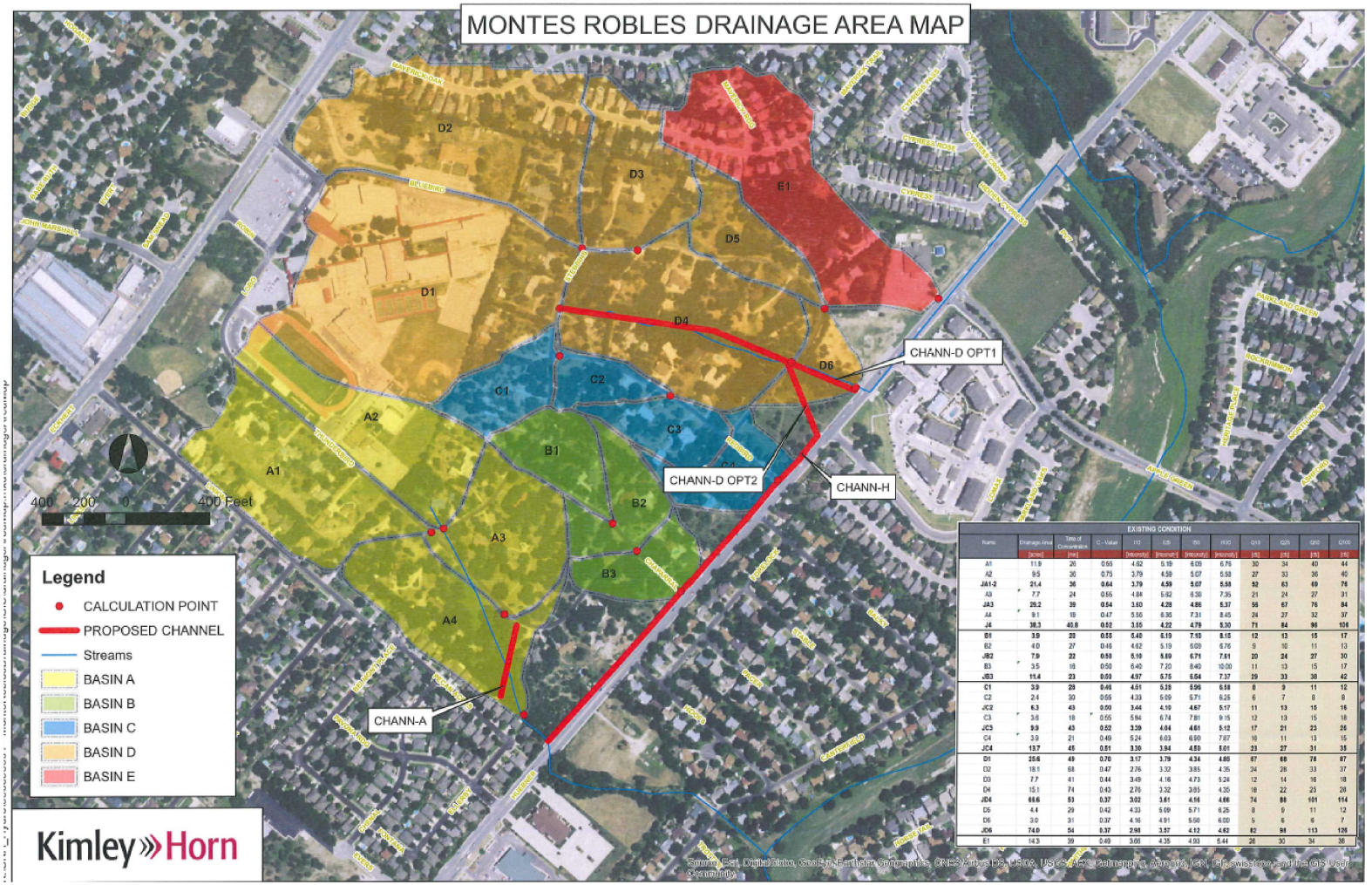
Monte Robles Drainage Plan



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C4	3.9	21	0.49	5.24	6.03	6.90	7.87	10	11	13	15
JC4	13.7	45	0.51	3.30	3.94	4.50	5.01	23	27	31	35
D1	25.6	49	0.70	3.17	3.79	4.34	4.85	57	68	78	87
D2	18.1	68	0.47	2.76	3.32	3.85	4.35	24	28	33	37
D3	7.7	41	0.44	3.49	4.16	4.73	5.24	12	14	16	18
D4	15.1	74	0.43	2.76	3.32	3.85	4.35	18	22	25	28
JD4	66.6	53	0.37	3.02	3.61	4.16	4.66	74	88	101	114
D5	4.4	29	0.42	4.33	5.09	5.71	6.25	8	9	11	12
D6	3.0	31	0.37	4.16	4.91	5.50	6.00	5	6	6	7
JD6	74.0	54	0.37	2.98	3.57	4.12	4.62	82	98	113	126
E1	14.3	39	0.49	3.66	4.35	4.93	5.44	26	30	34	38

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Fiscal Impact Huebner Creek

- Costs to be determined; however, there are grant opportunities through the Corp of Engineers and other sources
- City would pay portion of the costs, but this could include in-kind services, such as real estate and right-of-way acquisition
- A detailed cost estimate must be calculated, once final option is selected

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Fiscal Impact - Monte Robles Park

- Estimates giving options that cost between $815,000 and $1,500,000 have been prepared
- Project not currently funded
- Potential funding source, other than General or Stormwater Funds, not identified

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Recommendation

- Huebner Creek - recommend City Council direct Staff to work with Corp of Engineers to finalize a plan for the flooding remediation of Huebner Creek and then report back to the City Council their findings & cost estimates
- Monte Robles Park - recommend budgeting for drainage project in next fiscal year, through the Stormwater Fund

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S.E.E. IMPACT STATEMENT

- Social Equity – Protects citizens in older, substandard neighborhoods from the threat of flooding.
- Economic Development – Removing the threat of flooding increases property valuations.
- Environmental Stewardship – Improving drainage channels & directing floodwaters protects the environment from pollutants found in floodwaters, which improves water quality and protects wildlife and native vegetation.

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Flooding / Drainage Options
Huebner Creek & Monte Robles Park

City Council Meeting

February 02, 2016