

**Table 1 – Opinion of Probable Cost
City of Crandall
Drainage Master Plan
April 24, 2020**

project label and description	total preliminary opinion of probable cost per project
Project A - Mowry Street storm drain improvements	\$565,975
Project B - North Main Street storm drain improvements	\$351,460
Project C - South Main Street storm drain improvements	\$548,760
Project D - First Street storm drain improvements	\$106,390
Project E - Sixth Street storm drain improvements	\$87,490
Project F - Main & Holly Street storm drain improvements	\$57,880
Project G – Gillespie dam improvements	\$199,000
Project H – Briar Creek Drive storm drain improvements	\$181,990
Project I – Gleason Street storm drain improvements	\$100,720
Project J – Buffalo Creek Drive drainage improvements	\$388,630
Project K – Clearman & Adams Drive drainage improvements	\$326,890
Project L – North 6th street drainage improvements	\$146,710
Project M – Rolling Ridge Lane drainage improvements	\$81,820
Project N – Palomino street drainage improvements	\$455,057
Project O – South 2nd street drainage improvements	\$104,500
Project P – Creekview Lane drainage improvements – project 1	\$100,130
Project P – Creekview Lane drainage improvements – project 2	\$81,860
Project P – Creekview Lane drainage improvements – project 3	\$56,030

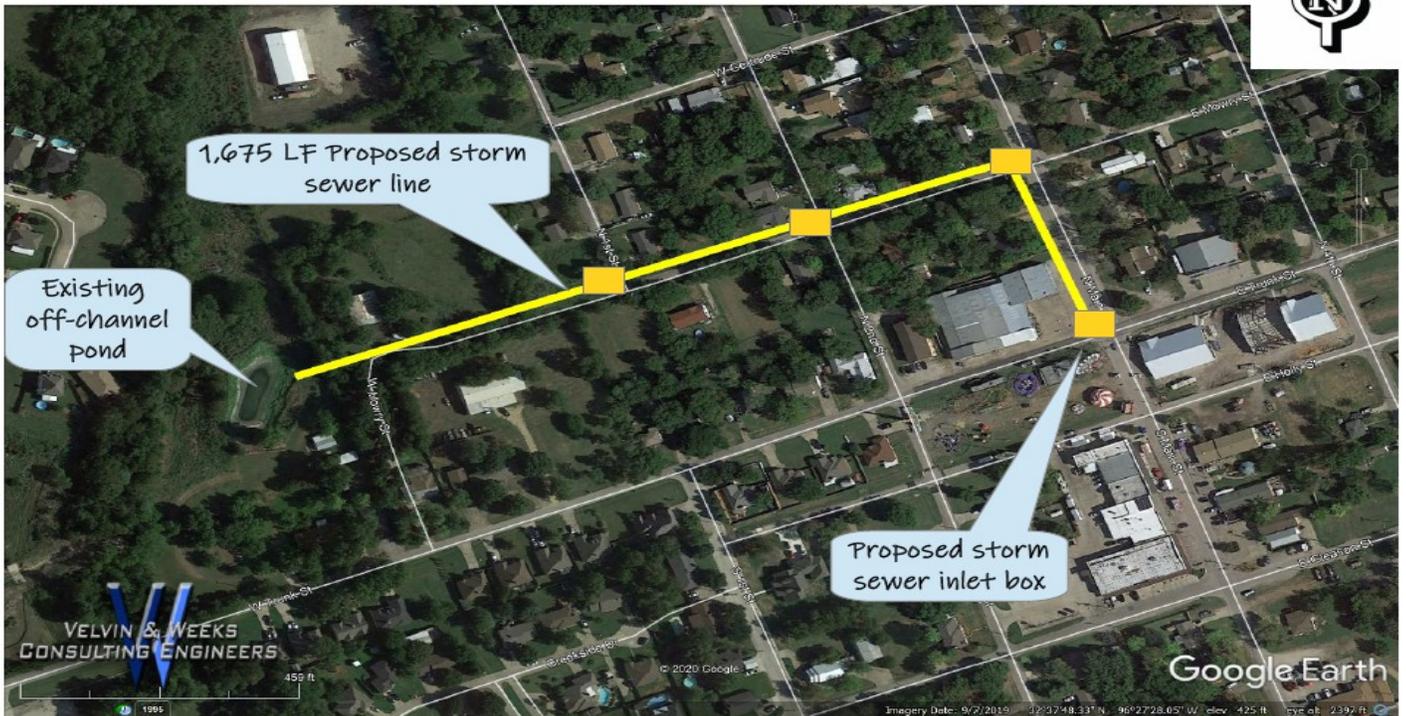
total preliminary opinion of probable cost of all recommended drainage projects - \$3,941,292

Project A - Mowry Street storm drain improvements

Item No.	Description	Estimated Quantity		Estimated Unit Cost	Total
1	storm sewer line	1,675 LF	LF	\$150	\$251,250
2	inlets	4 EA	EA	\$6,000	\$24,000
3	repair road	1,200 LF	LF	\$50	\$60,000
4	outlet structure	1 EA	EA	\$6,000	\$6,000
5	reshaping pond and out-fall structure	1 LS	LS	\$50,000	\$50,000
6	erosion control measures at out-fall pond	1 LS	LS	\$50,000	\$50,000

Total Estimated Construction Cost	\$441,250
Estimated Engineering	\$52,950
 surveying	\$10,000
 contingency	\$44,125
Estimated Observation	\$17,650

Total Estimated Project Cost \$565,975



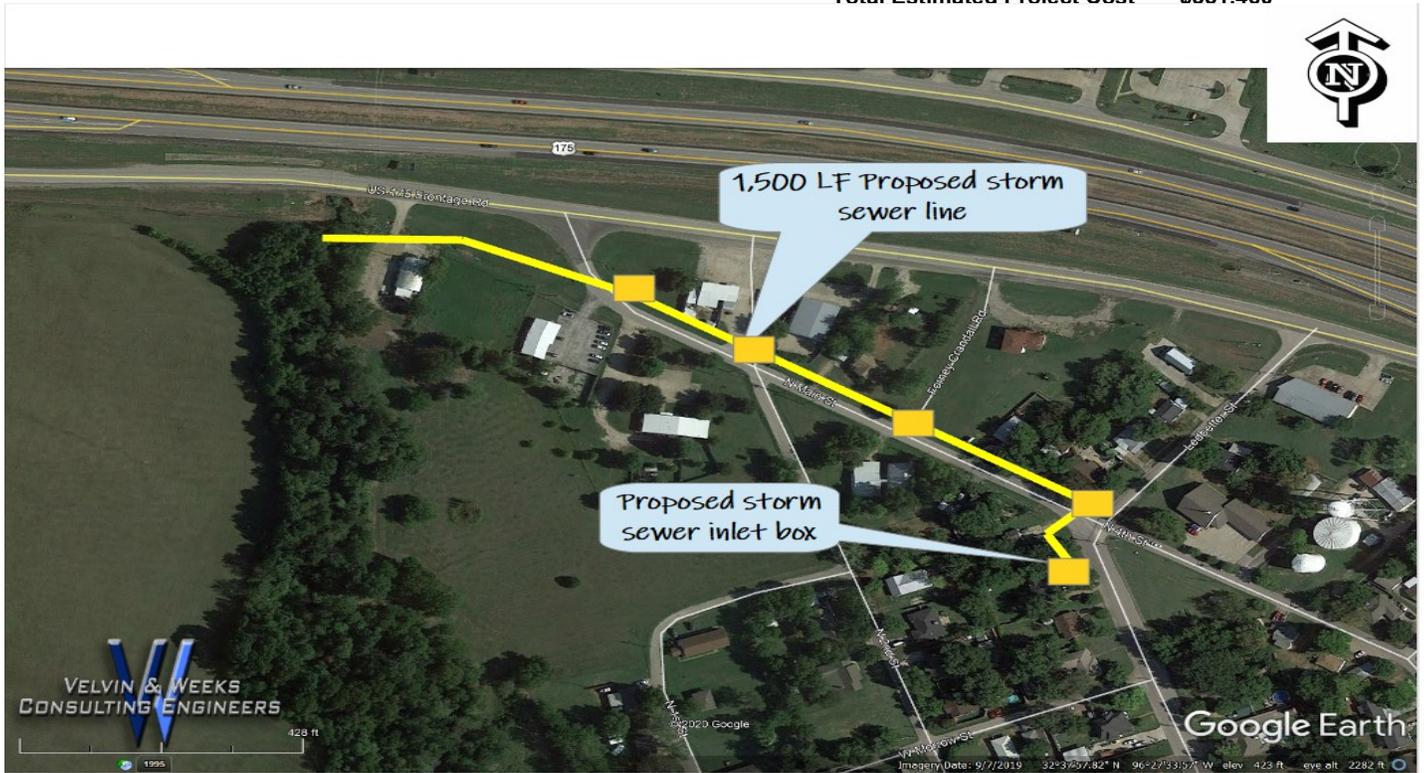
Recommended Main, Trunk, and Mowry storm sewer improvements

Project B - North Main Street storm drain improvements

Item No.	Description	Estimated Quantity	Estimated Unit Cost	Total
1	storm sewer line	1,500 LF	\$150	\$225,000
2	inlets	5 EA	\$6,000	\$30,000
3	repair road	200 LF	\$50	\$10,000
4	outlet structure	1 EA	\$6,000	\$6,000

Total Estimated Construction Cost	\$271,000
Estimated Engineering	\$32,520
surveying	\$10,000
contingency	\$27,100
Estimated Observation	\$10,840

Total Estimated Project Cost \$351,460



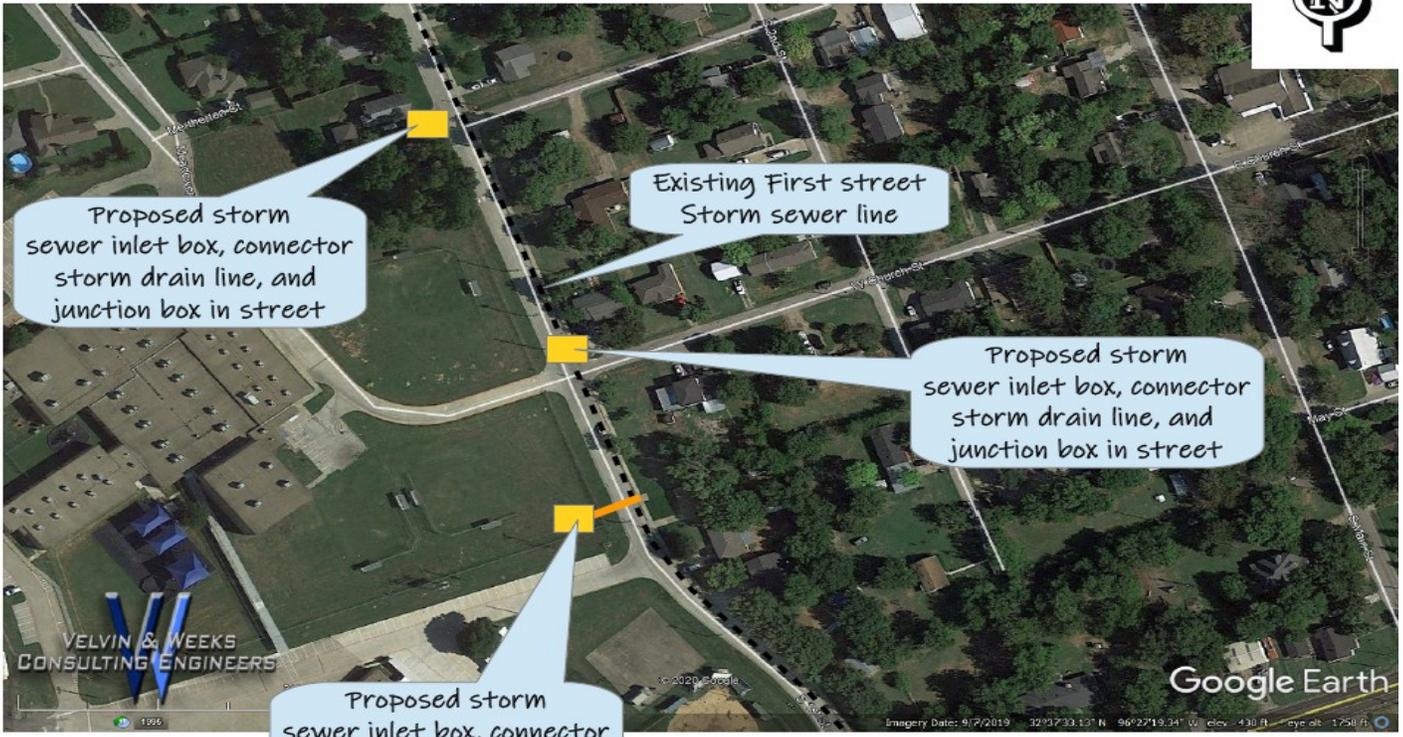
Recommended North Main street storm sewer improvements

Project D - First Street storm drain improvements

Item No.	Description	Estimated Quantity		Estimated Unit Cost	Total
1	storm sewer line	150	LF	\$150	\$22,500
2	Inlets & junction boxes	6	EA	\$6,000	\$36,000
3	repair road	180	LF	\$100	\$18,000

Total Estimated Construction Cost	\$76,500
Estimated Engineering	\$9,180
surveying	\$10,000
contingency	\$7,650
Estimated Observation	\$3,060

Total Estimated Project Cost \$106,390



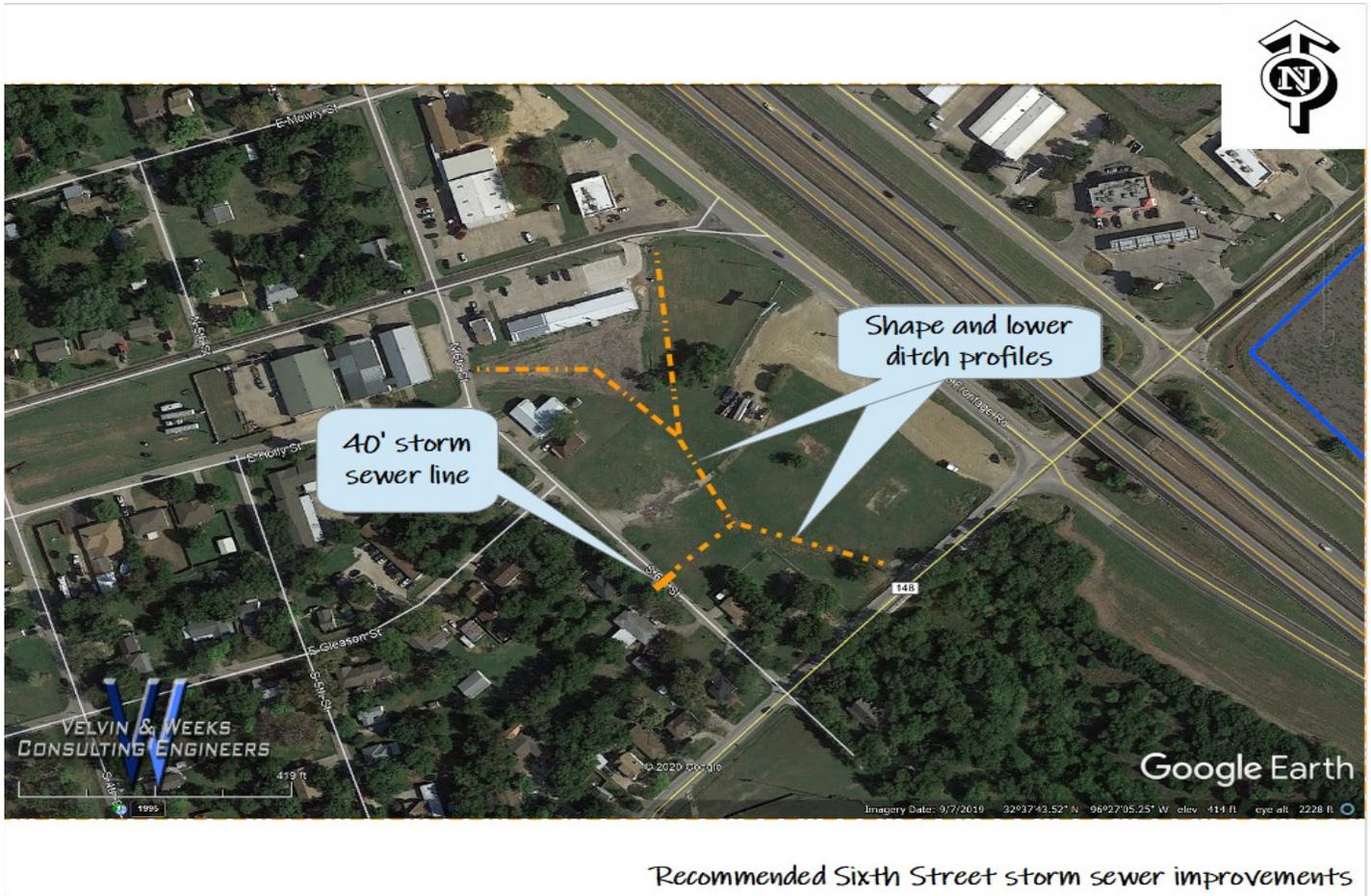
Recommended First Street storm sewer improvements

Project E - Sixth Street storm drain improvements

Item No.	Description	Estimated Quantity	Estimated Unit Cost	Total
1	storm sewer line	60 LF	\$150	\$9,000
3	repair road	50 LF	\$50	\$2,500
4	ditch improvements	1 LS	\$50,000	\$50,000

Total Estimated Construction Cost	\$61,500
Estimated Engineering	\$7,380
surveying	\$10,000
contingency	\$6,150
Estimated Observation	\$2,460

Total Estimated Project Cost \$87,490

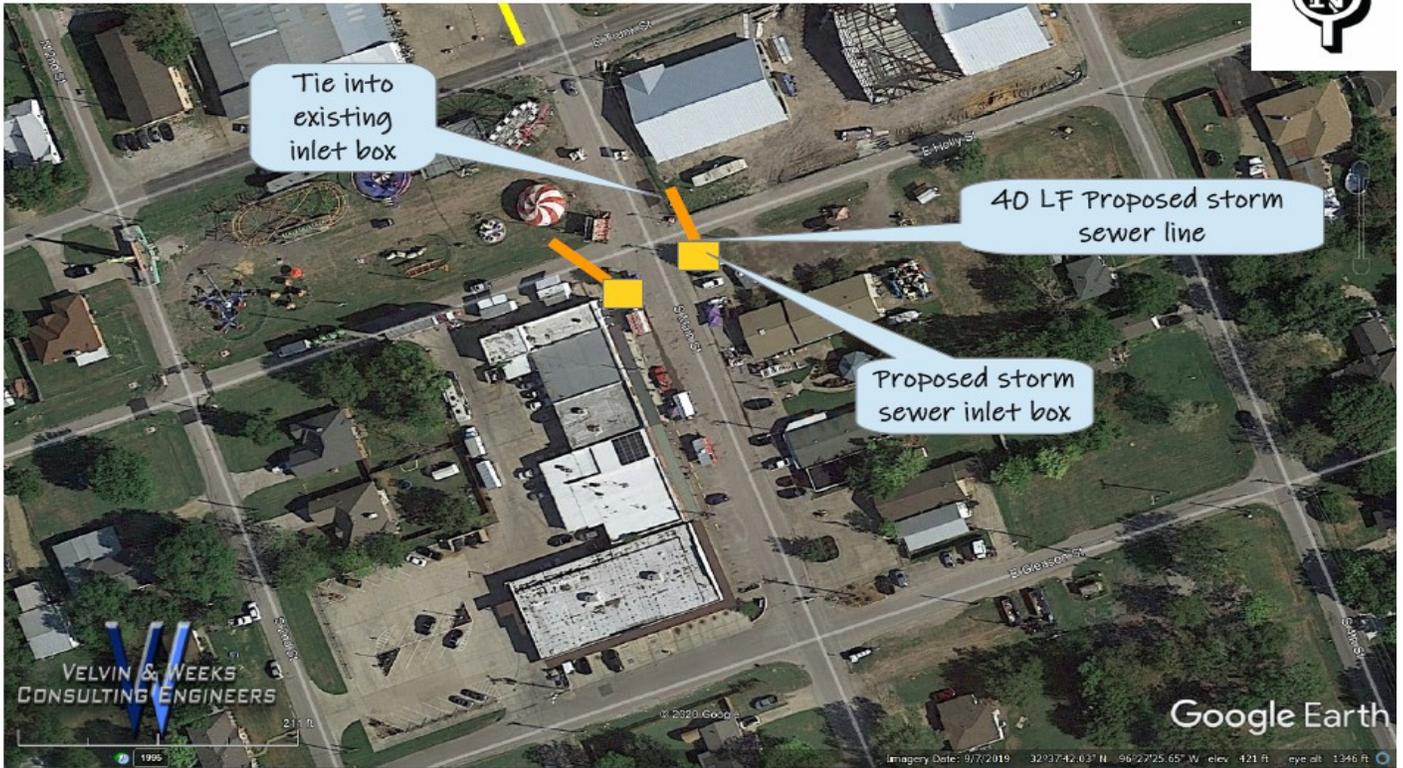


Recommended Sixth Street storm sewer improvements

Project F - Main & Holly Street storm drain improvements

Item No.	Description	Estimated Quantity	Estimated Unit Cost	Total
1	storm sewer line	100 LF	\$150	\$15,000
2	inlets	2 EA	\$6,000	\$12,000
3	repair road	100 LF	\$50	\$5,000
4	outlet structure	1 EA	\$6,000	\$6,000

Total Estimated Construction Cost	\$38,000
Estimated Engineering	\$4,560
surveying	\$10,000
contingency	\$3,800
Estimated Observation	\$1,520
Total Estimated Project Cost	\$57,880



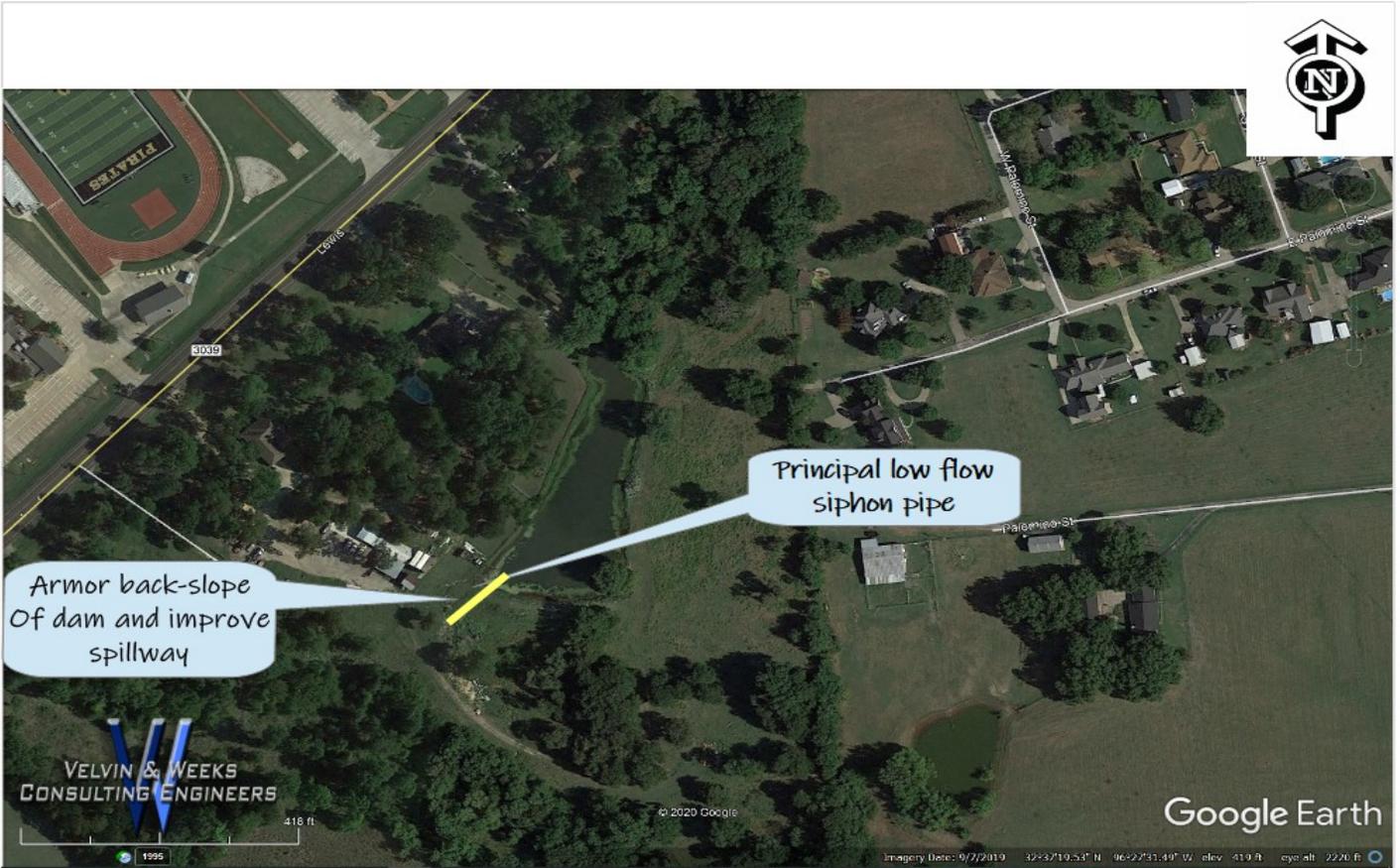
Recommended Main and Holly Street storm sewer improvements

Project G – Gillespie dam improvements

Item No.	Description	Estimated Quantity		Estimated Unit Cost	Total
1	reshaping pond and out-fall structure	1	LS	\$50,000	\$50,000
2	erosion control measures at out-fall pond	1	LS	\$100,000	\$100,000

Total Estimated Construction Cost	\$150,000
Estimated Engineering	\$18,000
 surveying	\$10,000
 contingency	\$15,000
Estimated Observation	\$6,000

Total Estimated Project Cost \$199,000



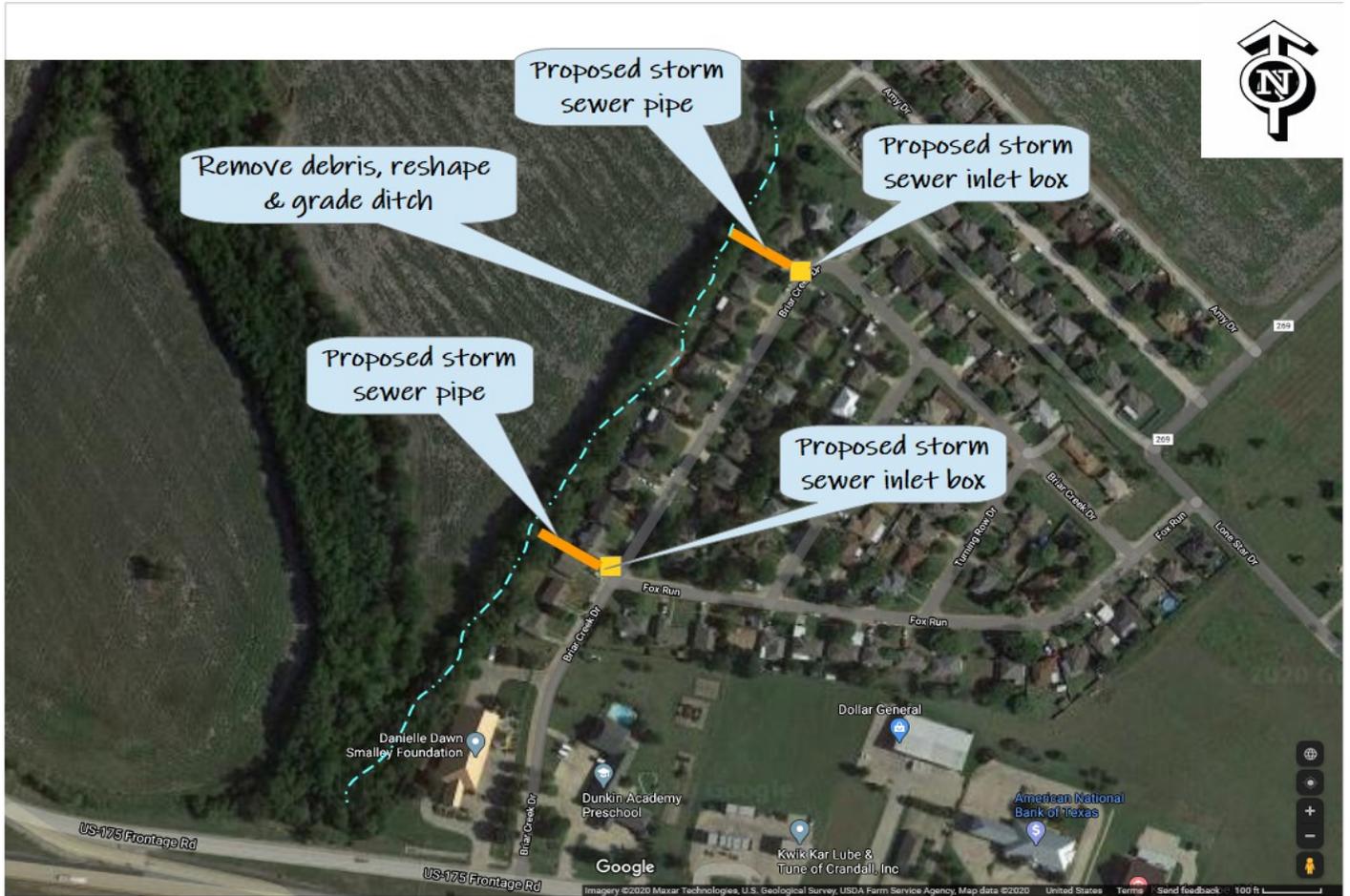
Recommended improvements to the Gillespie dam

Project H – Briar Creek Drive storm drain improvements

Item No.	Description	Estimated Quantity	Estimated Unit Cost	Total
1	storm sewer line	250 LF	\$150	\$37,500
2	inlets/outlet structure	4 EA	\$6,000	\$24,000
3	Reshaping and grade ditch	1 LS	\$75,000	\$75,000

Total Estimated Construction Cost	\$136,500
Estimated Engineering	\$16,380
surveying	\$10,000
contingency	\$13,650
Estimated Observation	\$5,460

Total Estimated Project Cost \$181,990



Recommended Briar Creek Drive storm sewer improvements

Project I – Gleason Street storm drain improvements

Item No.	Description	Estimated Quantity		Estimated Unit Cost	Total
1	storm sewer line	350	LF	\$150	\$52,500
2	driveway repair	50	LF	\$50	\$2,500
3	inlets	2	EA	\$6,000	\$12,000
4	concrete street repair	50	LF	\$100	\$5,000

Total Estimated Construction Cost	\$72,000
Estimated Engineering	\$8,640
surveying	\$10,000
contingency	\$7,200
Estimated Observation	\$2,880

Total Estimated Project Cost \$100,720



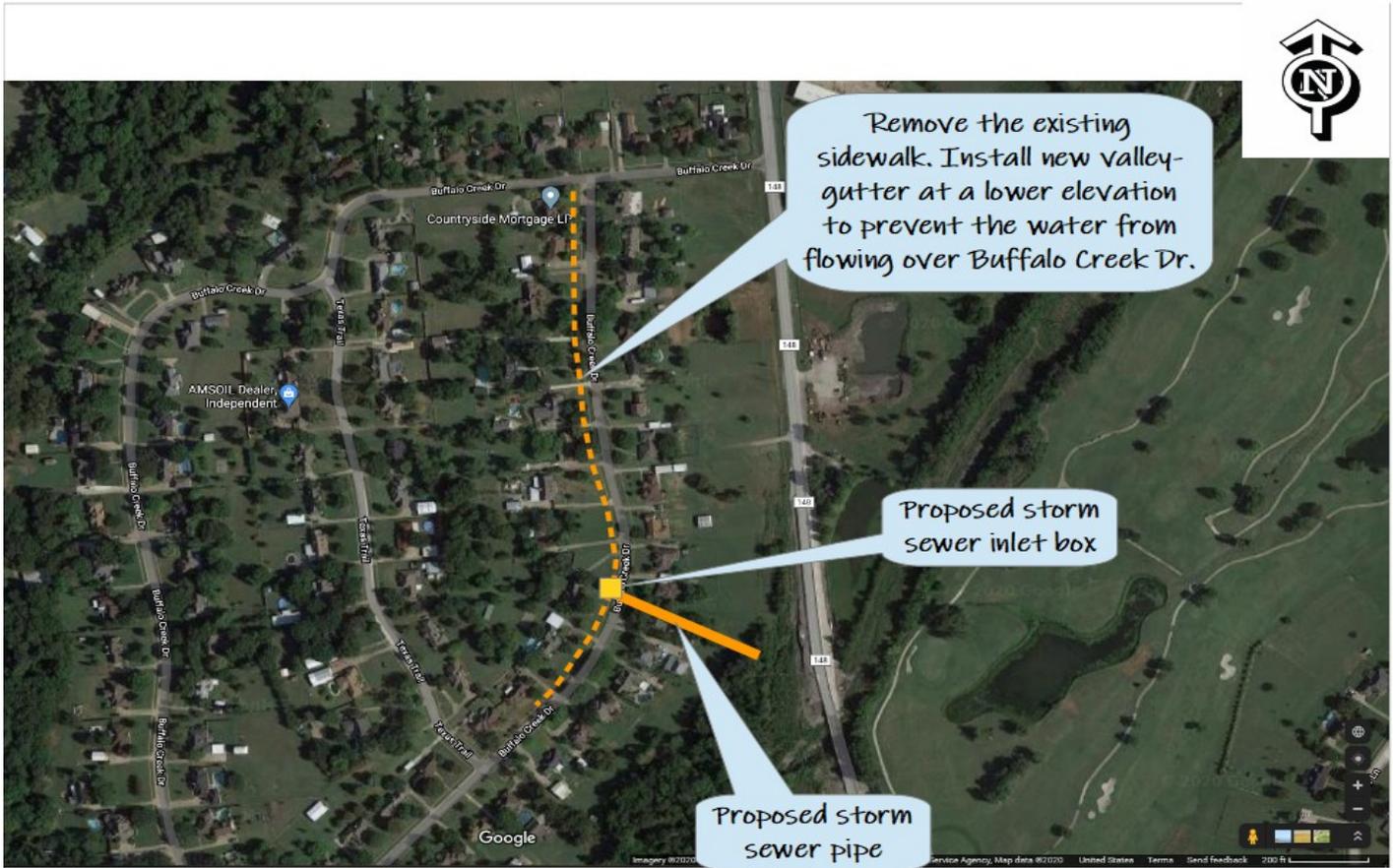
Recommended Gleason Street storm sewer improvements

Project J – Buffalo Creek Drive drainage improvements

Item No.	Description	Estimated Quantity		Estimated Unit Cost	Total
1	remove existing sidewalk	1,700	LF	\$50	\$85,000
2	install new concrete valley gutter/sidewalk	1,700	LF	\$50	\$85,000
3	replace concrete driveways @ Valley Gutter	12	EA	\$5,000	\$60,000
4	storm sewer line	350	LF	\$150	\$52,500
5	inlets/outlet structure	2	EA	\$6,000	\$12,000
6	concrete street repair	60	LF	\$100	\$6,000

Total Estimated Construction Cost	\$300,500
Estimated Engineering	\$36,060
surveying	\$10,000
contingency	\$30,050
Estimated Observation	\$12,020

Total Estimated Project Cost \$388,630



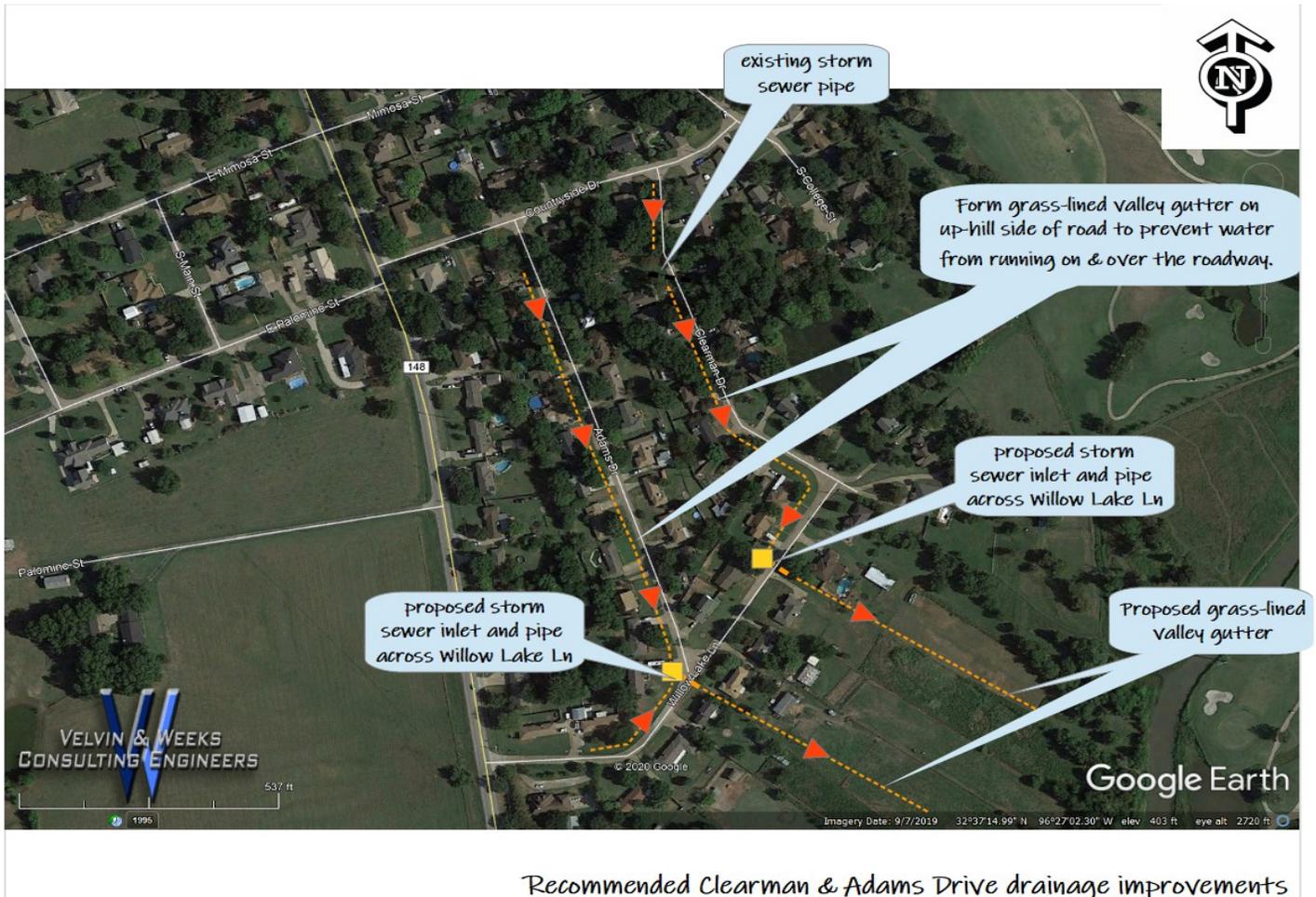
Recommended Buffalo Creek Drive storm sewer improvements

Project K – Clearman & Adams Drive drainage improvements

Item No.	Description	Estimated Quantity		Estimated Unit Cost	Total
1	Grass-lined valley gutter	3,100	LF	\$25	\$77,500
2	storm sewer head wall	2	EA	\$6,000	\$12,000
3	replace concrete driveways @ Valley Gutter	24	EA	\$5,000	\$120,000
4	storm sewer line	120	LF	\$150	\$18,000
5	inlets	2	EA	\$6,000	\$12,000
6	concrete street repair	120	LF	\$100	\$12,000

Total Estimated Construction Cost	\$251,500
Estimated Engineering	\$30,180
 surveying	\$10,000
 contingency	\$25,150
Estimated Observation	\$10,060

Total Estimated Project Cost \$326,890

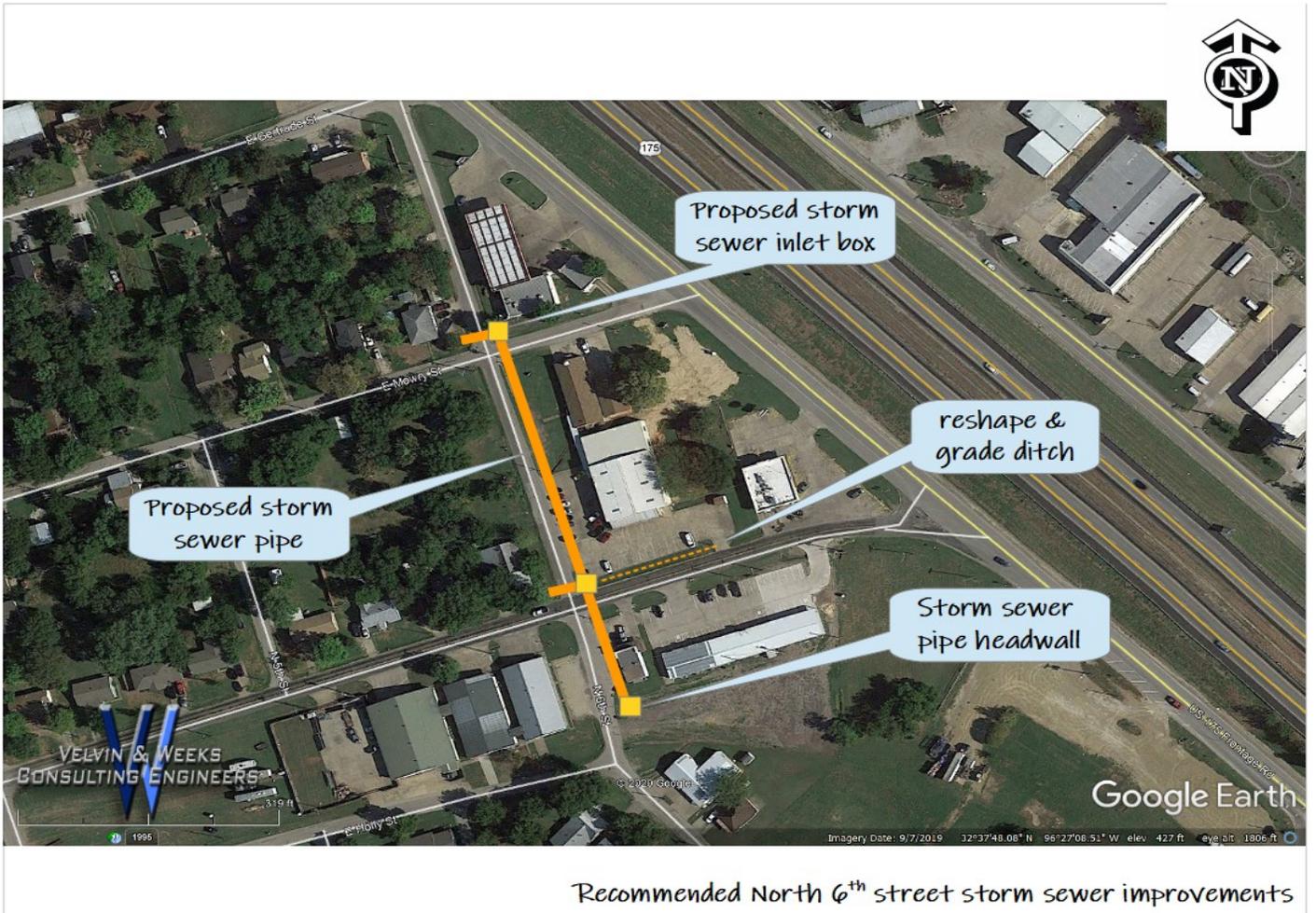


Project L – North 6th street drainage improvements

Item No.	Description	Estimated Quantity	Estimated Unit Cost	Total
1	headwall	1 EA	\$6,000	\$6,000
2	storm sewer line	510 LF	\$150	\$76,500
3	inlets	2 EA	\$6,000	\$12,000
4	street/driveway repair	280 LF	\$50	\$14,000

Total Estimated Construction Cost	\$108,500
Estimated Engineering	\$13,020
surveying	\$10,000
contingency	\$10,850
Estimated Observation	\$4,340

Total Estimated Project Cost \$146,710

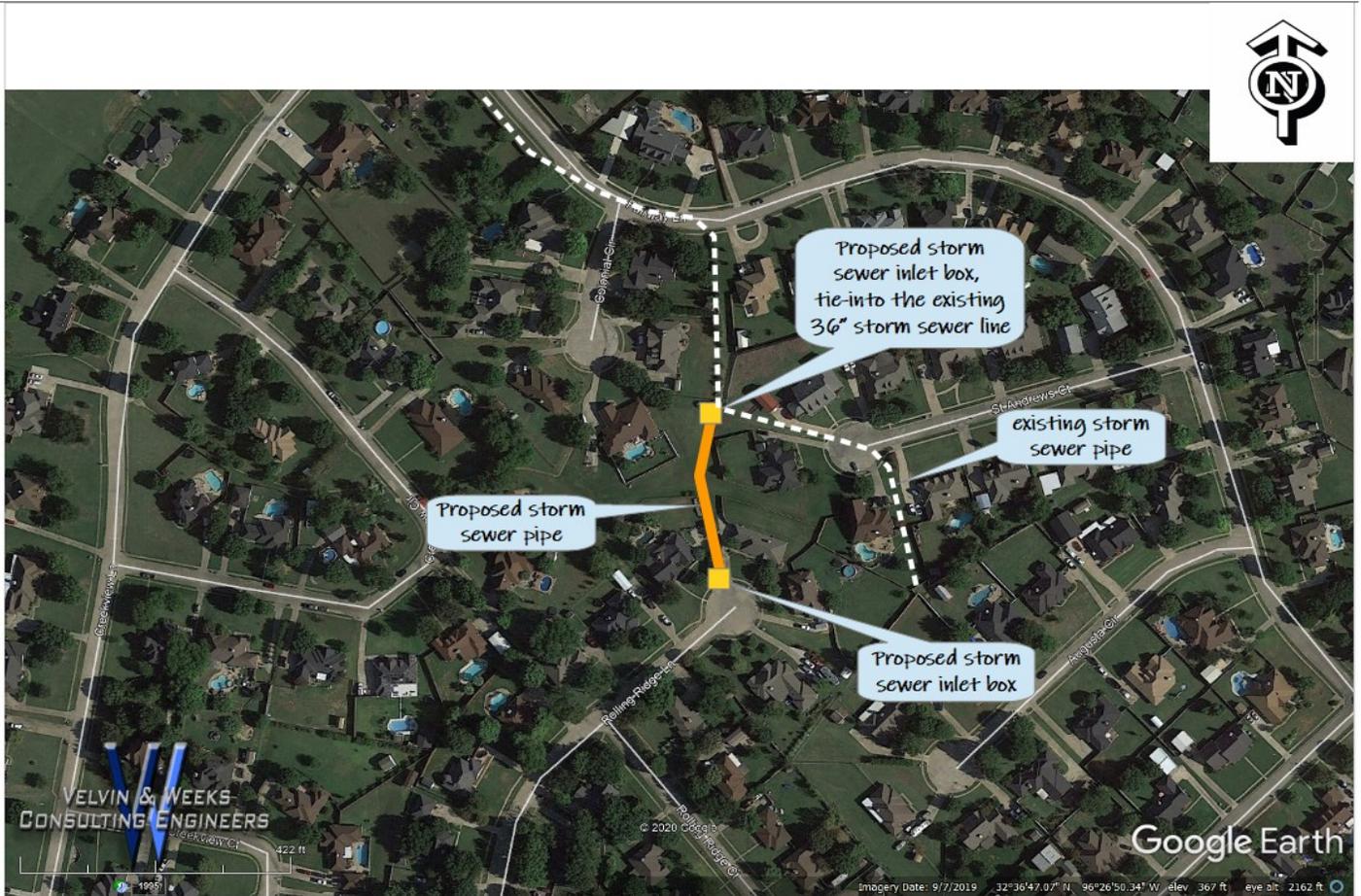


Project M – Rolling Ridge Lane drainage improvements

Item No.	Description	Estimated Quantity	Estimated Unit Cost	Total
1	storm sewer line	300 LF	\$150	\$45,000
2	inlets	2 EA	\$6,000	\$12,000

Total Estimated Construction Cost	\$57,000
Estimated Engineering	\$6,840
surveying	\$10,000
contingency	\$5,700
Estimated Observation	\$2,280

Total Estimated Project Cost \$81,820



Recommended Rolling Ridge Lane storm sewer improvements

Project N – Palomino street drainage improvements

Item No.	Description	Estimated Quantity		Estimated Unit Cost	Total
1	headwall	4	EA	\$6,000	\$24,000
2	storm sewer line	160	LF	\$150	\$24,000
3	Grass-lined valley gutter	4,074	LF	\$30	\$122,220
4	driveway repair	30	EA	\$6,000	\$180,000
6	street/driveway repair	60	LF	\$50	\$3,000

Total Estimated Construction Cost	\$353,220
Estimated Engineering	\$42,386
surveying	\$10,000
contingency	\$35,322
Estimated Observation	\$14,129

Total Estimated Project Cost \$455,057



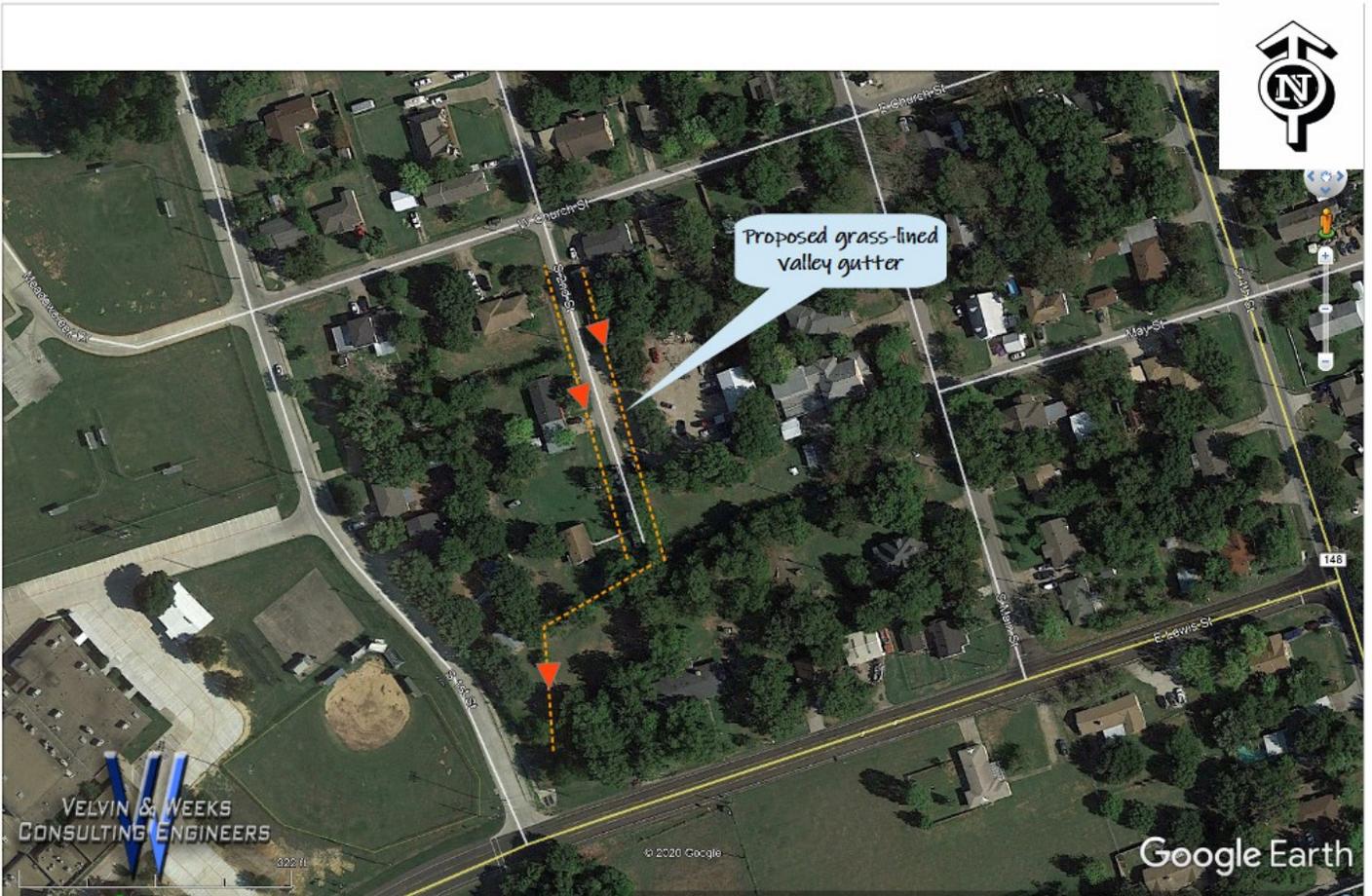
Recommended Palomino Street drainage improvements

Project O – South 2nd street drainage improvements

Item No.	Description	Estimated Quantity		Estimated Unit Cost	Total
1	Grass-lined valley gutter	1,000	LF	\$30	\$30,000
2	driveway repair	5	EA	\$6,000	\$30,000
3	Long driveway repair	150	LF	\$100	\$15,000

Total Estimated Construction Cost	\$75,000
Estimated Engineering	\$9,000
 surveying	\$10,000
 contingency	\$7,500
Estimated Observation	\$3,000

Total Estimated Project Cost \$104,500



Recommended South 2nd Street drainage improvements

Project P – Creekview Lane drainage improvements – project 1

Item No.	Description	Estimated Quantity	Estimated Unit Cost	Total
1	concrete-lined valley gutter	1,010 LF	\$50	\$50,500
2	sod and erosion control	1 LS	\$25,000	\$25,000

Total Estimated Construction Cost	\$75,500
Estimated Engineering	\$9,060
surveying	\$5,000
contingency	\$7,550
Estimated Observation	\$3,020

Total Estimated Project Cost \$100,130



Recommended Creekview Lane drainage improvements (project 1)

Project P – Creekview Lane drainage improvements – project 2

Item No.	Description	Estimated Quantity	Estimated Unit Cost	Total
1	culvert under golf path	20 LF	\$100	\$2,000
2	concrete-lined valley gutter	680 LF	\$50	\$34,000
3	sod and erosion control	1 LS	\$25,000	\$25,000

Total Estimated Construction Cost	\$61,000
Estimated Engineering	\$7,320
 surveying	\$5,000
 contingency	\$6,100
Estimated Observation	\$2,440

Total Estimated Project Cost \$81,860



Recommended Creekview Lane drainage improvements (project 2)

Project P – Creekview Lane drainage improvements – project 2

Item No.	Description	Estimated Quantity	Estimated Unit Cost	Total
1	culvert under golf path	20 LF	\$100	\$2,000
2	concrete-lined valley gutter	680 LF	\$50	\$34,000
3	sod and erosion control	1 LS	\$25,000	\$25,000

Total Estimated Construction Cost	\$61,000
Estimated Engineering	\$7,320
 surveying	\$5,000
 contingency	\$6,100
Estimated Observation	\$2,440

Total Estimated Project Cost \$81,860



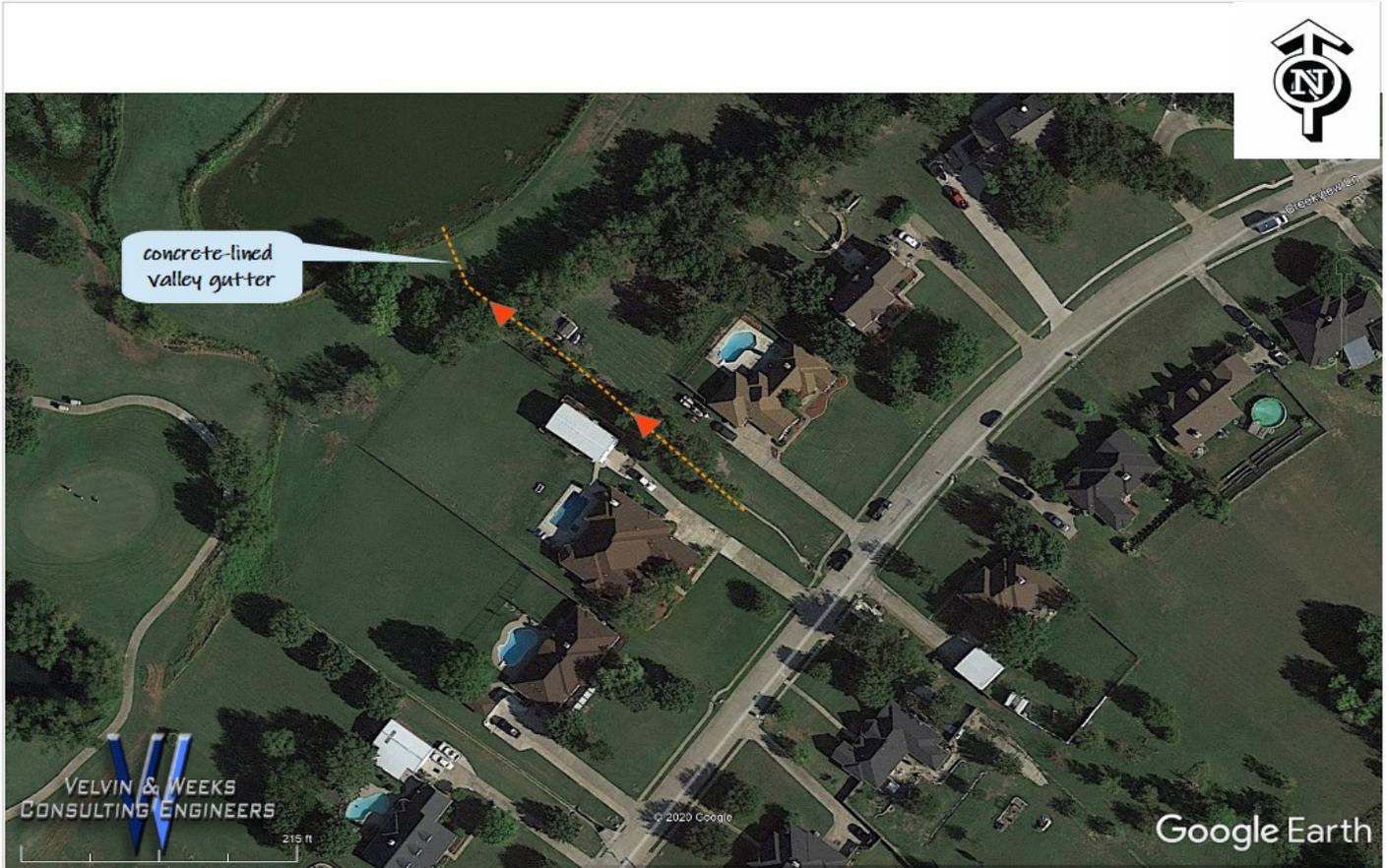
Recommended Creekview Lane drainage improvements (project 2)

Project P – Creekview Lane drainage improvements – project 3

Item No.	Description	Estimated Quantity	Estimated Unit Cost	Total
1	concrete-lined valley gutter	310 LF	\$50	\$15,500
2	sod and erosion control	1 LS	\$25,000	\$25,000

Total Estimated Construction Cost	\$40,500
Estimated Engineering	\$4,860
surveying	\$5,000
contingency	\$4,050
Estimated Observation	\$1,620

Total Estimated Project Cost \$56,030



Recommended Creekview Lane drainage improvements (project 3)