THORNTON THEATER STUDY







MAY 2018

BARKER RINKER SEACAT ARCHITECTURE + CITY OF THORNTON TEAM









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^{*} The theater seating layouts proposed in this report were derived from a previous collaboration with Semple Brown Design.

PROCESS

Barker Rinker Seacat (BRS) Architecture in collaboration with the City of Thornton team, toured theater facilities throughout the Metro Denver area for design inspiration and to glean operations expertise from each of their managers. The facilities toured were Lone Tree Arts Center, Parker PACE Center, Parker Schoolhouse Theater, and the Lakewood Cultural Center.

BRS and the City of Thornton team had four workshop meetings. At the first workshop they developed a vision statement and list of goals to reference throughout this study. The second workshop was used to develop and refine the program. The third workshop was used to critique the first pass of site evaluation and floor plans. At final fourth workshop, BRS presented final floor plans, programming, site evaluation and introduced character studies and 3D renderings for each site.

A final presentation was made to the Thornton Arts Sciences & Humanities Council (TASHCO) for their input and comment. The following report is the result of all of these inputs.

VISION

Create an inclusive Arts & Culture gathering space with affordable programs that boost visibility of Cultural Arts in Thornton.

GOALS

- 1. Continued community growth, depth, and exposure of cultural arts programming opportunities.
- 2. Provide programs that are inclusive of ages, gender, cultural backgrounds & types of art expression.
- 3. Complement, not compete with neighboring community arts programs
- 4. Provide gathering space for all community artists (theater, music, art gallery etc.)
- 5. Create a facility that recognizes the evolution of the Arts in Thornton
- 6. Support multimodal community access.
- 7. Provide performance and/or rehearsal space for the Community Band and instrument storage.





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FINAL PROGRAM - LOW

 LOW OPTION

 Average Cost/ SF
 \$ 446

 Total Gross Area
 18,368

 Total Budget
 \$ 8,191,100

- GROSS AREA = 18,368 SF
- BLDG. BUDGET = \$7,860,000
- LEED PREMIUM = \$81,100
- <u>SOLAR ARRAY = \$250,000</u>

TOTAL = \$8,191,100

						Total Budget	\$ 8,191,100	
Program Space	Net Total	Net Detail	Grossing Factor	Ş	New \$ / NSF	Gross Area	Budget	Notes
300-Seat Performing Arts Theater Small	15,170		121%	\$	428	18,368	\$ 7,860,000	
x Theater Lobby Lounge / Gallery		2,090		\$	481			prefer bigger lobby
x Box Office and Administration		430		\$	359			(1) private office and 3-4 cubicles, front of house
x Public Restrooms		600		\$	493			Restrooms for the general public
x Audience Seating for 300		3,060		\$	511			
x Performance Area (Stage)		1,200		\$	511			56 piece band at 21.5 SF/ member = 1,200
x Orchestra Pit/ Forestage		350		\$	511			
x Crossover Corridor		300		\$	359			
x Control Room (Lighting)		100		\$	359			
x Control Room (Sound)		100		\$	359			
x Control Pit (Sound Mix)		80		\$	359			
x Costume Shop / Wardrobe & Prop Stor.		400		\$	359			
x Set Design Studio / Shop		900		\$	359			
x Rehearsal Room / Dance		1,720		\$	414			Multi-use space, acoustically separated, dividable in (2)
x Dressing Room A		300		\$	359			
x Dressing Room B		300		\$	359			
x Green Room		250		\$	359			
x Backstage Toilets		310		\$	493			
x Piano Storage		230		\$	298			
x Mechanical/Electrical		800		\$	298			
x General Storage		400		\$	298			
x Instrument Storage		200		\$	298			
x Janitor		100		\$	298			stackable washer/dryer
x Breakroom		150		\$	359			





FINAL PROGRAM - MEDIUM

 MEDIUM OPTION

 Average Cost/ SF
 \$ 427

 Total Gross Area
 25,882

 Total Budget
 \$ 11,057,480

•	GROSS	AREA =	25,882	SF
---	-------	--------	--------	----

- BLDG. BUDGET = \$10,698,000
- LEED PREMIUM = \$109,000
- <u>SOLAR ARRAY = \$250,000</u>

TOTAL = \$11,057,000

JIUM					Total Budget	\$ 11,057,480	
Program Space	Net Total	Net Detail Grossin		New \$ / NSF	Gross Area	Budget	Notes
400-Seat Performing Arts Theater Medium	21,390	121	%	\$ 413	25,882	\$ 10,698,000	
x Theater Lobby Lounge / Gallery		2,500		\$ 481			
x Box Office and Administration		460		\$ 359			
x Public Restrooms		700		\$ 493			Restrooms for the general public
x Audience Seating for 400		4,080		\$ 511			
x Performance Area (Stage)		1,400		\$ 511			65 piece band at 21.5 SF/ member = 1,400
x Side Stages		800		\$ 511			
x Orchestra Pit/ Forestage		350		\$ 511			
x Crossover Corridor		300		\$ 359			
x Control Room (Lighting)		100		\$ 359			
x Control Room (Sound)		100		\$ 359			
x Control Pit (Sound Mix)		80		\$ 359			
x Follow Spots				\$ 359			On catwalk
x Costume Shop / Wardrobe & Prop Stor.		400		\$ 359			
x Set Design Studio / Shop		900		\$ 359			
x Multi-use Events Hall / Dance		3,200		\$ 414			Multi-use space, seating for 200
x Dance Room		850		\$ 359			
x Catering Kitchen		480		\$ 463			
x Lighting and Sound Catwalks		600		\$ 359			
x Dressing Room A		560		\$ 359			
x Dressing Room B		560		\$ 359			
x Green Room		250		\$ 359			
x Backstage Toilets		350		\$ 493			
x Seating Platform Storage		500		\$ 298			
x Instrument Storage		200		\$ 298			
x General Storage		420		\$ 298			
x Recording Studio		200		\$ 359			
x Janitor		100		\$ 298			Stackable washer/dryer
x Breakroom		150		\$ 359			
x Mechanical/Electrical		800		\$ 298			

^{*}Added or expanded program spaces shown in yellow





FINAL PROGRAM - HIGH

• GROSS AREA = 31,346 SF

• BLDG. BUDGET = \$11,833,000

• LEED PREMIUM = \$120,830

• <u>SOLAR ARRAY = \$250,000</u>

TOTAL = \$12,203,830

				Total Budget	\$ 12,20	3,830	
Program Space	Net Total	Net Detail	Grossing Factor	Gross Area	Budg	jet	Notes
500-Seat Performing Arts Theater Large	25,906		121%	31.346	\$ 11,833	3.000	
x Theater Lobby Lounge / Gallery		2,500		ŕ			
x Box Office and Administration		600					
x Public Restrooms		825					Restrooms for the general public
x Audience Seating for 500		5,100					
x Performance Area (Stage)		1,720					Large enough for 85 piece band
x Side Stages		800					
x Orchestra Pit/ Forestage		600					
x Crossover Corridor		400					
x Control Room (Lighting)		80					
x Control Room (Sound)		100					
x Control Pit (Sound Mix)		100					
x Follow Spots							On catwalk
x Costume Shop / Wardrobe & Prop Stor.		400					
x Set Design Studio / Shop		900					
x Multi-use Events Hall / Dance		3,200					Multi-use space
x Recording Studio		200					
x Lighting and Sound Catwalks		600					
x Catering Kitchen		765					
x Dressing Room A		300					
x Dressing Room B		300					
x Individual Dressing Room		100					
x Individual Dressing Room		100					
x Green Room		400					
x Backstage Toilets		350					
x Loading Holding Area		500					
x Seating Platform Storage		500					
x Auditorium Seat Wagon Storage		300					
x Instrument Storage		200					
x General Storage		516					
x Arts Classroom		1,200					Multi-use space divisble into two rooms
x Dance Room		1,200					Multi-use space
x Janitor		100					stackable washer/dryer
x Breakroom		150					
x Mechanical/Electrical		800					

HIGH OPTION

31,346

Average Cost/ SF \$

Total Gross Area

^{*}Added or expanded program spaces shown in yellow





FINAL COMMUNITY CENTER PROGRAM

• GROSS AREA = 23,731 SF

• BLDG. BUDGET = \$3,850,000

• LEED PREMIUM (2%) = \$82,000

• SOLAR ARRAY = \$250,000

TOTAL =

\$4,182,000

CONVERS	SION	
Average Cost/ SF	\$	176
Gross SF		23,731
Building \$\$	\$	4,182,000

Program Space Net Total Net	let Detail	Grossing Factor	Minor Upgrade	Gross Area	Budget	Notes
			400/			
			40%			
300-Seat Performing Arts Theater 21,574		110%	\$ 162	23,731	\$ 3,850,000	
x Theater Lobby Lounge / Gallery	1,923					Lobby and Stair area
x Box Office and Administration	1,750					Reuse existing office spaces
x Public Restrooms	750					Reuse upper level facility & convert locker rooms to restrooms at lower level
x Audience Seating for 300	3,780					Repurpose Gymnasium to seating area for approximately 300
x Performance Area (Stage)	1,195					Build up stage in Gymnasium for performances and add ramp access
x Side Stages	650					Part of elevated stage in Gym - elevated 16"
x Orchestra Pit/ Forestage	200					Small forestage on adjustable riser system
x Crossover Corridor						No room for crossover hallway, but can use cyclorama to hide access aisle
x Control Room (Lighting)						Side Stage
x Control Room (Sound)						Within the seating area
x Control Pit (Sound Mix)						Within the seating area
x Costume Shop / Wardrobe & Prop Stor.	157					Storage area off of new Scene Shop addition
x Set Design Studio / Shop	361					New Scene Shop area with hydraulic dock
x Rehearsal Room / Dance	3,677					Repurpose existing Multi Use room on upper floor
x Recording Studio	133					Repurpose one of the Offices just off of the Rehearsal Room
x Catering Kitchen	663					Repurpose existing Classroom space off of the Rehearsal Room
x Dressing Room A	314					Repurpose the Mens Locker room for Dressing room space
x Dressing Room B	308					Repurpose the Mens Locker room for Dressing room space
x Green Room	250					Repurpose the Classroom for Green Room space
x Backstage Toilets	310					Repurpose the Classroom for Toilet space
x Classroom	675					Reuse existing Weight Room for General Classroom programs
x Art Classroom	1,134					Repurpose Billiards for Art Classroom
x Meeting Room	354					Reuse existing Meeting Room off of Rehearsal Room
x Dance Room	874					Repurpose Classroom for Dance Studio
x Piano Storage	42					Located just off of Stage
x Mechanical/Electrical	952					Existing Spaces to be reused
x General Storage	400					Existing spaces to be reused
x Instrument Storage	355					Repurpose existing Meeting room off of Rehearsal Room
x Janitor	100					Reuse existing space
x Breakroom	267					Reuse existing Break Room





SITE EVALUATIONS

PRELIM. SITE LOCATIONS

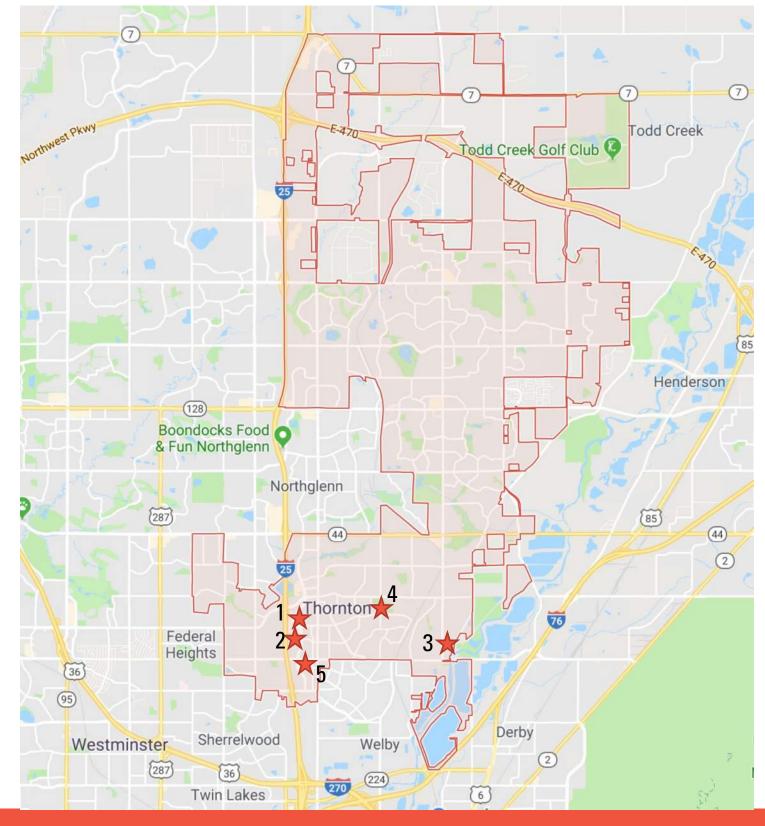
Site 1 – Grant St. by Brittany Hill

Site 2 - DELETED

Site 3 — Colorado and Riverdale Rd.

Site 4 – Community Center Park

Site 5 – Shopping Center 88th & Wash.

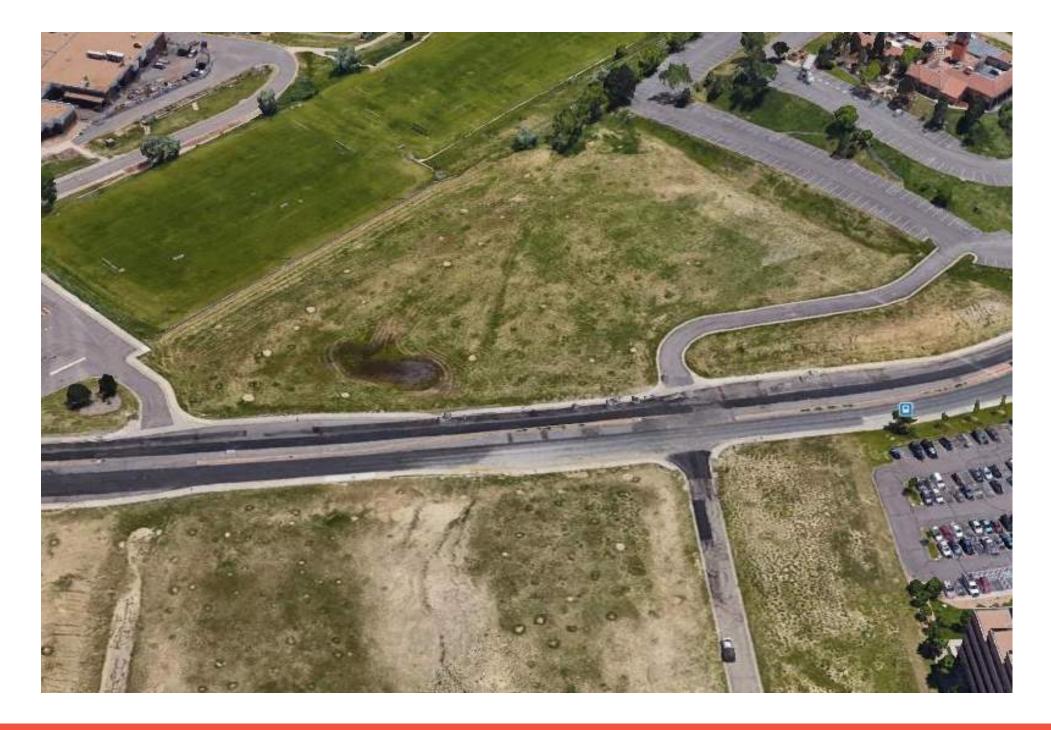






SITE 1 - EVALUATION CRITERIA

• Grant Street



	Rating Criteria	IMPORTANCE VALUE	SIT	E 1
See	attached criteria		Gran	nt St.
des	cription for each rating scale	1=low / 4=high		
			Rating	Total
Tota	al Value = Importance Value x Rating Scale	Scale	Scale	Value
I.	Site Features			
a.	Topography	1	2	2
b.	Drainage	1	2	2
c.	Wetlands	1	3	3
d.	Vegetation	1	1	1
e.	Property Configuration	1	1	1
f.	Size	1	2	2
g.	Views	1	2	2
h.	Visible Soils / Geology	1	1	1
i.	Visibility from Major Highway	1	1	1
	Subtotal			15
II.	Usability / Services			
a.	Access / Transportation	1	3	3
	Sanitary Sewer	1	3	3
	Water Service	1	3	3
	Electric / Telephone	1	3	3
	Gas Service	1	3	3
f.	Fire Protection	1	3	3
a.	Police Protection	1	3	3
_	Ambulance / Emergency Medical Service	1	3	3
	Subtotal			24
II.	Anticipated Cost			
a.	Site Preparation / Grading Costs	1	1	1
b.	Street & Utilty Costs	1	0	0
	Land Acquisition Costs	1	3	3
	Timing & Phasing of Adjacent Development	1	0	0
	Subtotal			4
II.	Community Planning Usability			
a.	Community Growth Patterns	1	3	3
b.	Distance from "Downtown"	1	3	3
C.	Adjacent Cultural Amenities	1	2	2
	Pedestrian Connectors / Trails	1	3	3
	Partnership Potential	1	0	0
f.	Potential for Revenue Generation	1	3	3
	Access to public transportation	1	3	3
9.	The passes transportation			17
	SITE SCORE			60
	RANKING ORDER			4

^{*}See Appendix for Rating Criteria

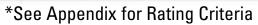




SITE 3 - EVALUATION CRITERIA Colo & Riverdale Rd.



	Rating Criteria	IMPORTANCE VALUE	SIT	E 3
See	attached criteria		Colo & F	Riverdale
des	cription for each rating scale	1=low / 4=high		
			Rating	Total
Tota	al Value = Importance Value x Rating Scale	Scale	Scale	Value
I.	Site Features			
a.	Topography	1	3	3
b.	Drainage	1	3	3
c.	Wetlands	1	3	3
d.	Vegetation	1	1	1
e.	Property Configuration	1	3	3
f.	Size	1	3	3
g.	Views	1	2	2
h.	Visible Soils / Geology	1	1	1
i.	Visibility from Major Highway	1	0	0
	Subtotal			19
II.	Usability / Services			
	Access / Transportation	1	3	3
	Sanitary Sewer	1	3	3
	Water Service	1	3	3
d.		1	3	3
e.	Gas Service	1	3	3
f.	Fire Protection	1	2	2
g.	Police Protection	1	2	2
_	Ambulance / Emergency Medical Service	1	2	2
	Subtotal			21
II.	Anticipated Cost			
a.	Site Preparation / Grading Costs	1	3	3
	Street & Utilty Costs	1	1	1
C.	Land Acquisition Costs	1	3	3
	Timing & Phasing of Adjacent Development	1	0	0
	Subtotal	,		7
II.	Community Planning Usability			
a.	Community Growth Patterns	1	2	2
b.	Distance from "Downtown"	1	2	2
	Adjacent Cultural Amenities	1	2	2
	Pedestrian Connectors / Trails	1	3	3
	Partnership Potential	1	0	0
f.	Potential for Revenue Generation	1	3	3
g.	Access to public transportation	1	2	2
9-	part in the second seco			14
	SITE SCORE	T .		61
	OI IE GOOKE			٥,







SITE 4 - EVALUATION CRITERIA - COMMUNITY CENTER



	Rating Criteria	IMPORTANCE VALUE	SITE 4		
See	attached criteria		Commu	nity Ct	
des	cription for each rating scale	1=low / 4=high			
			Rating	Total	
Tota	al Value = Importance Value x Rating Scale	Scale	Scale	Value	
I.	Site Feetures				
	Site Features		_	_	
a.	Topography	1	2	2	
	Drainage	1	3	3	
	Wetlands	1	3	3	
	Vegetation	1	2	2	
e.	, , ,	1	2	2	
f.	Size	1	2	2	
_	Views	1	1	1	
	Visible Soils / Geology	1	1	1	
i.	Visibility from Major Highway	1	0	0	
100	Subtotal			16	
II.	Usability / Services	i de			
a.	Access / Transportation	1	1	1	
b.	Sanitary Sewer	1	3	3	
C.	Water Service	1	3	3	
d.	Electric / Telephone	1	3	3	
e.	Gas Service	1	3	3	
f.	Fire Protection	1	3	3	
g.	Police Protection	1	3	3	
h.	Ambulance / Emergency Medical Service	1	3	3	
	Subtotal			22	
II.	Anticipated Cost				
a.	Site Preparation / Grading Costs	1	3	3	
b.	Street & Utilty Costs	1	0	0	
	Land Acquisition Costs	1	3	3	
d.	Timing & Phasing of Adjacent Development	1	0	0	
	Subtotal			6	
II.	Community Planning Usability				
a.		1	3	3	
b.	Distance from "Downtown"	Ĩ	3	3	
C.	Adjacent Cultural Amenities	1	3	3	
d.	Pedestrian Connectors / Trails	1	3	3	
	Partnership Potential	1	0	0	
f.	Potential for Revenue Generation	1	3	3	
g.	Access to public transportation	1	3	3	
	·			18	
	SITE SCORE			62	
	RANKING ORDER			2	

^{*}See Appendix for Rating Criteria





SITE 5 - EVALUATION CRITERIA • SHOPPING CENTER



	Rating Criteria	IMPORTANCE VALUE	SIT	E 5
See	attached criteria		Shoppin	g Cente
des	cription for each rating scale	1=low / 4=high	88th &	
			Rating	Total
Tota	al Value = Importance Value x Rating Scale	Scale	Scale	Value
I.	Site Features		-	
a.	Topography	1	3	3
b.	Drainage	1	3	3
C.	Wetlands	1	3	3
d.	Vegetation	1	1	1
e.	Property Configuration	1	3	3
f.	Size	1	3	3
g.	Views	1	1	1
h.	Visible Soils / Geology	1	1	1
i.	Visibility from Major Highway	1	0	0
	Subtotal			18
II.	Usability / Services			
a.	Access / Transportation	1	3	3
b.	Sanitary Sewer	1	3	3
c.	Water Service	1	3	3
d.	Electric / Telephone	1	3	3
e.	Gas Service	1	3	3
f.	Fire Protection	1	3	3
g.	Police Protection	1	3	3
h.	Ambulance / Emergency Medical Service	1	3	3
	Subtotal			24
II.	Anticipated Cost			
a.	Site Preparation / Grading Costs	1	3	3
b.		1	1	1
c.	Land Acquisition Costs	1	3	3
d.	Timing & Phasing of Adjacent Development	1	0	0
	Subtotal			7
II.	Community Planning Usability			
a.	Community Growth Patterns	1	3	3
b.	Distance from "Downtown"	1	3	3
c.	Adjacent Cultural Amenities	1	2	2
d.	Pedestrian Connectors / Trails	1	2	2
e.	Partnership Potential	1	0	0
f.	Potential for Revenue Generation	1	3	3
	Access to public transportation	1	3	3
				16
	SITE SCORE			65
	RANKING ORDER			1*

*Assumes that contaminated soil mitigation and land acquisition costs were not consid





SITE EVALUATION SUMMARY

Site # 5 at 88th Ave and Washington St. was evaluated as the most promising site due to it's location in an established commercial area of the City with good transportation access, restaurant adjacency, proximate utilities, and little site preparation costs. It also assumed that soil contamination will be taken care of by others as well as no cost to acquire the land.

Site #4, the Community Center, was evaluated as the number 2 choice as a location. It ranked very high for its location and minimal costs associated with the site development. It does suffer from many compromises as a legitimate Theater facility option and was declared the least desirable by the Staff advisory group due to these shortcomings.

Site #3, at Colo. Blvd & Riverdale Rd was evaluated as the 3rd best choice due to its remoteness from the center of Thornton and the high cost of bringing utilities to the site. It does offer up the potential of sharing the expense of development with other facilities due to the large site at almost 19 acres.

Site #1 on Grant St adjacent to Brittany Hill, fell to last place due to the challenging sloping site and limited ability to fit the large theater option on it. Development costs will soar as the plan options get bigger due to the large retaining wall structures required to level the building pad.

*See Appendix for Rating Criteria

	Rating Criteria	IMPORTANCE VALUE	SIT	E 1	SIT	E 3	SIT	E 4	SIT	E 5
See attached criteria		Ì	Grant St.		Colo & F	Riverdale	Commu	nity Ctr.	Shopping Center	
des	cription for each rating scale	1=low / 4=high							88th &	Wash.
			Rating	Total	Rating	Total	Rating	Total	Rating	Total
Tota	al Value = Importance Value x Rating Scale	Scale	Scale	Value	Scale	Value	Scale	Value	Scale	Value
I.	Site Features				111111111111111111111111111111111111111					
a.	Topography	1	2	2	3	3	2	2	3	3
b.	Drainage	1	2	2	3	3	3	3	3	3
C.	Wetlands	1	3	3	3	3	3	3	3	3
d.	Vegetation	1	1	1	1	1	2	2	1	1
e.	Property Configuration	1	1	1	3	3	2	2	3	3
f.	Size	1	2	2	3	3	2	2	3	3
g.	Views	1	2	2	2	2	1	1	1	1
h.	Visible Soils / Geology	1	1	1	1	1	1	1	1	1
i.	Visibility from Major Highway	1	1	1	0	0	0	0	0	0
П	Subtotal	i i		15		19		16		18
II.	Usability / Services									
a.	10 L	1	3	3	3	3	1	1	3	3
b.	Sanitary Sewer	1	3	3	3	3	3	3	3	3
C.	Water Service	1	3	3	3	3	3	3	3	3
d.	Electric / Telephone	1	3	3	3	3	3	3	3	3
e.	Gas Service	1	3	3	3	3	3	3	3	3
f.	Fire Protection	i	3	3	2	2	3	3	3	3
g.	Police Protection	1	3	3	2	2	3	3	3	3
_	Ambulance / Emergency Medical Service	1	3	3	2	2	3	3	3	3
	Subtotal			24		21		22	Ů	24
II.	2.737.73.434			24		21				27
		4	4	4	2	2	2	2	2	2
a.	- Barrier De Breiter British (1997)	1	1	1	3	3	3	3	3	3
b.	Street & Utilty Costs Land Acquisition Costs	1	0	0	1	1	0	0	1	1
C.		1	3 0	0	0	0	0	3	0	0
d.			U		0	7	U	_	U	7
11	Subtotal			4	1	-		6		,
	Community Planning Usability		-	_		-	-	-		<u> </u>
a.		1	3	3	2	2	3	3	3	3
b.		1	3	3	2	2	3	3	3	3
C.		1	2	2	2	2	3	3	2	2
d.		1	3	3	3	3	3	3	2	2
e.		1	0	0	0	0	0	0	0	0
f.	Potential for Revenue Generation	1	3	3	3	3	3	3	3	3
g.	Access to public transportation	1	3	3	2	2	3	3	3	3
				17	-	14		18		16
	SITE SCORE			60		61		62		65
	RANKING ORDER			4		3		2		1*





SITE 1 - PHOTOS



• Grant Street









SITE 3 - PHOTOS

Colo & Riverdale Rd.











SITE 4 - PHOTOS

• COMMUNITY CENTER

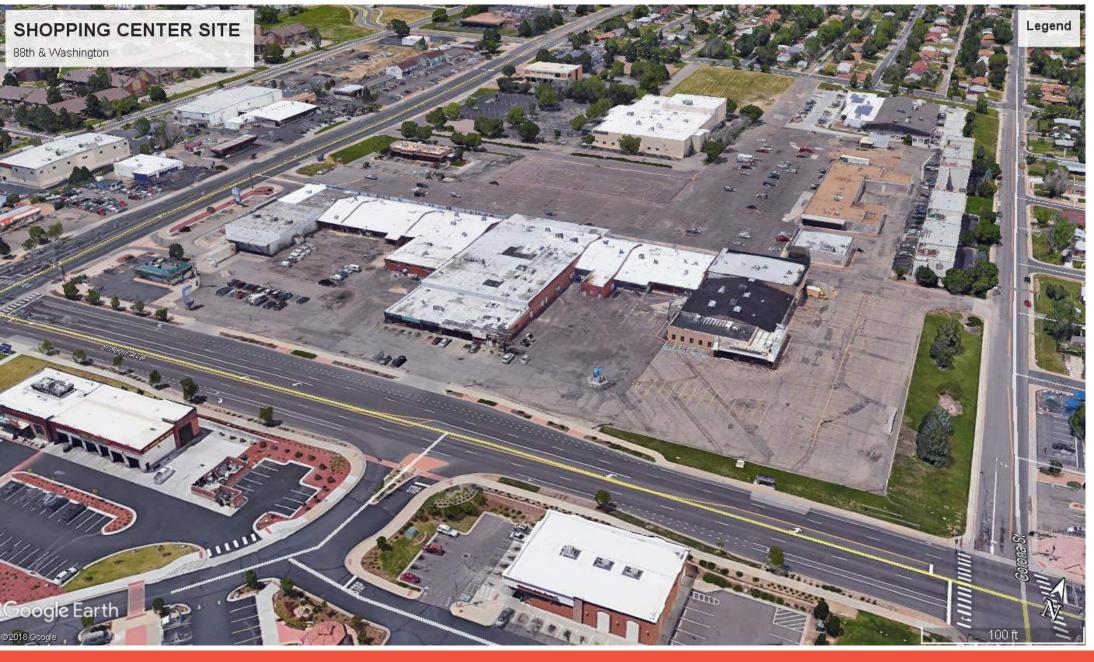






SITE 5 - PHOTOS

• SHOPPING CENTER











FINAL PLAN LAYOUTS

SITE 1 – SITE PLANS

This site on Brittany Hill features high visibility and views. The site's slope suggests a two-story plan that uses the grades could help minimize the building footprint and cut/fill costs. However, this site's triangular shape limits the area available for parking and water quality/detention without building significant retaining walls along the south and east sides. Therefore, The 'Medium' and 'High' program on this site may be cost prohibitive. Traffic may be a problem with limited room for stacking and turning onto Grant Street and potential overlapping of peak traffic times with the school nearby. Refer to Martin/Martin's Site Assessment in the Appendix for more information.







Low – 150 Parking Spaces

Medium – 215 Parking Spaces

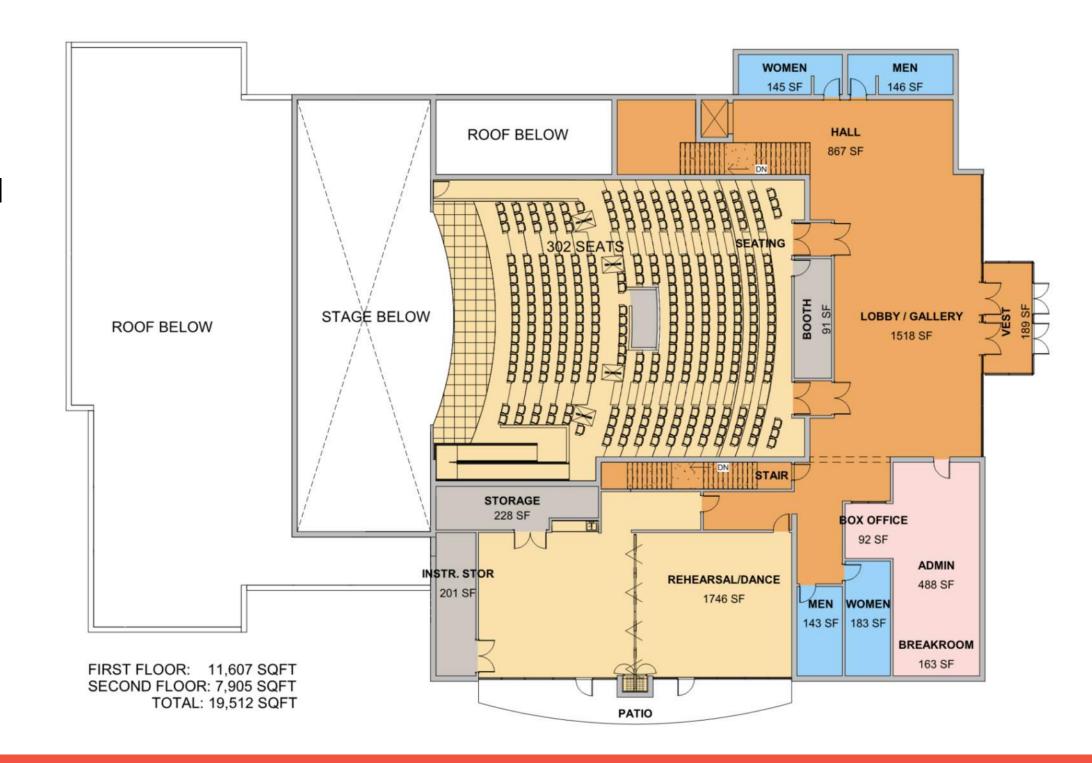
High – 260 Parking Spaces





SITE 1 - LOW

- Upper Level Plan
 - Split Rake w/ Cross Aisle
 - Formal, but not too formal
 - Good ADA access
 - No balcony

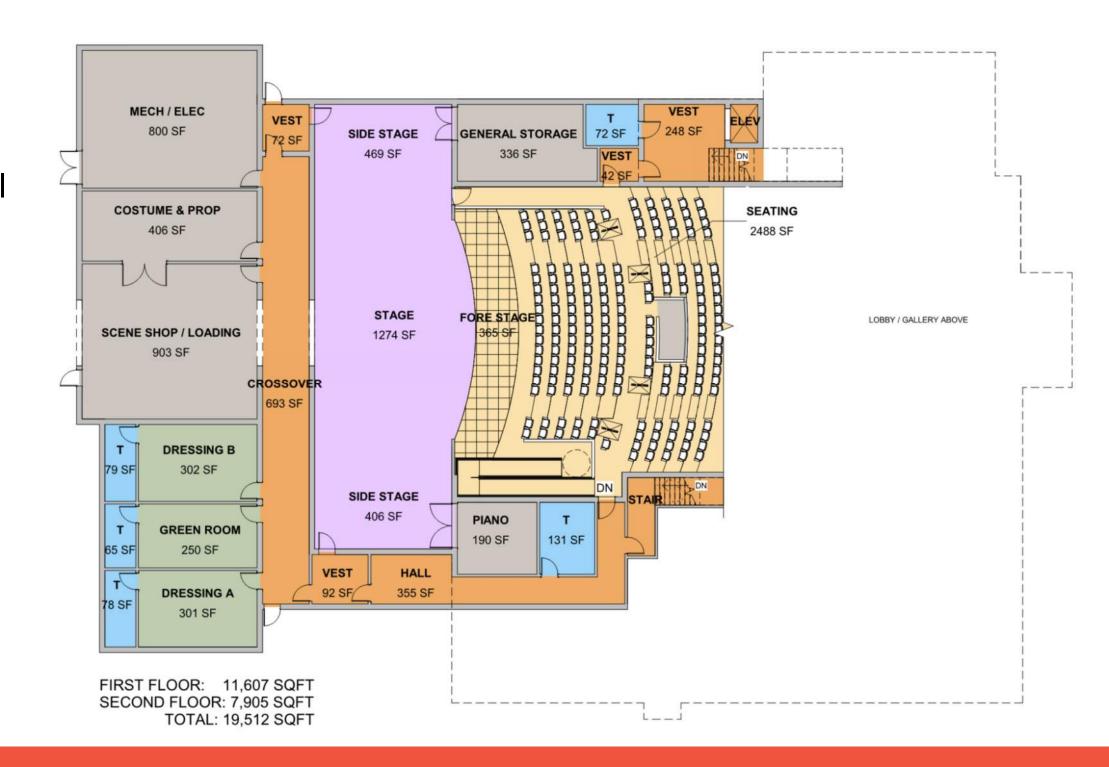






SITE 1 - LOW

- Lower Level Plan
 - Split Rake w/ Cross Aisle
 - Formal, but not too formal
 - Good ADA access
 - No balcony

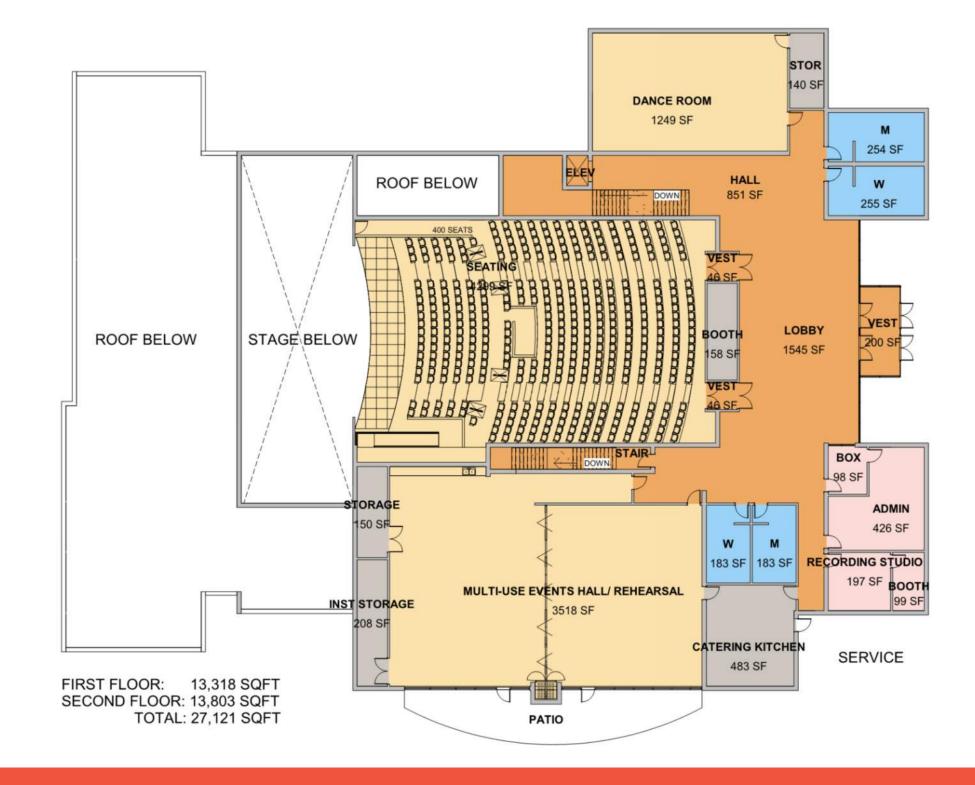






SITE 1 - MEDIUM

- Upper Level Plan
 - Split Rake w/ Cross Aisle
 - Formal, but not too formal
 - Good ADA access
 - No balcony

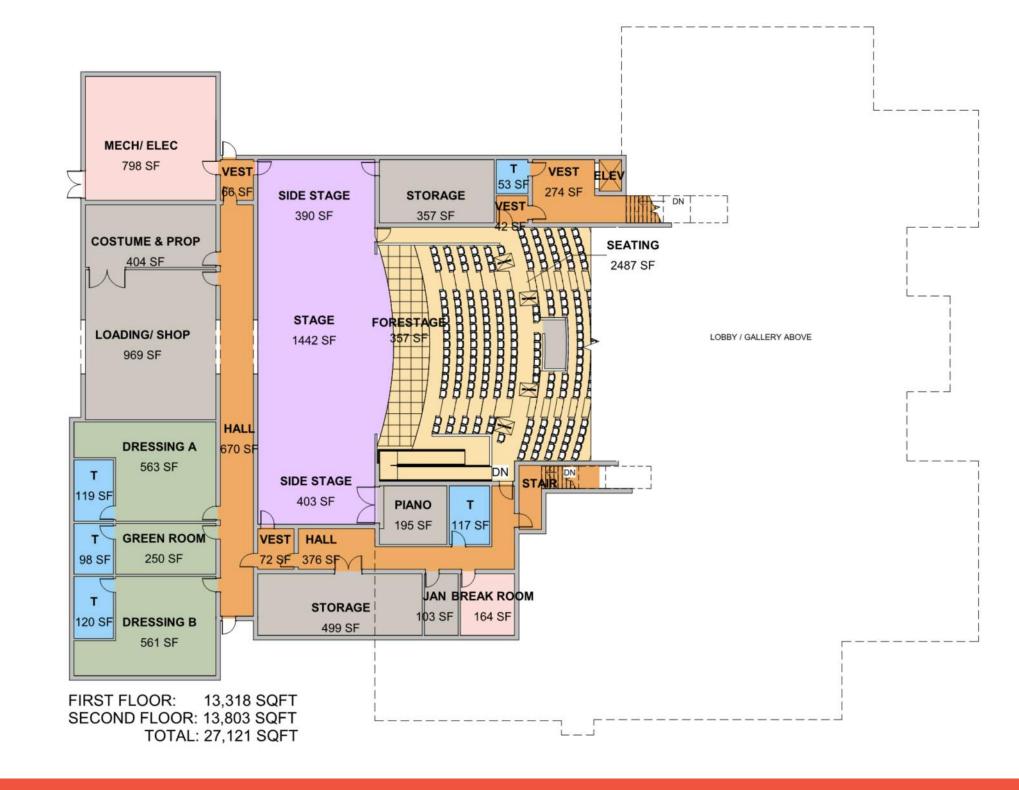






SITE 1 - MEDIUM

- Lower Level Plan
 - Split Rake w/ Cross Aisle
 - Formal, but not too formal
 - Good ADA access
 - No balcony

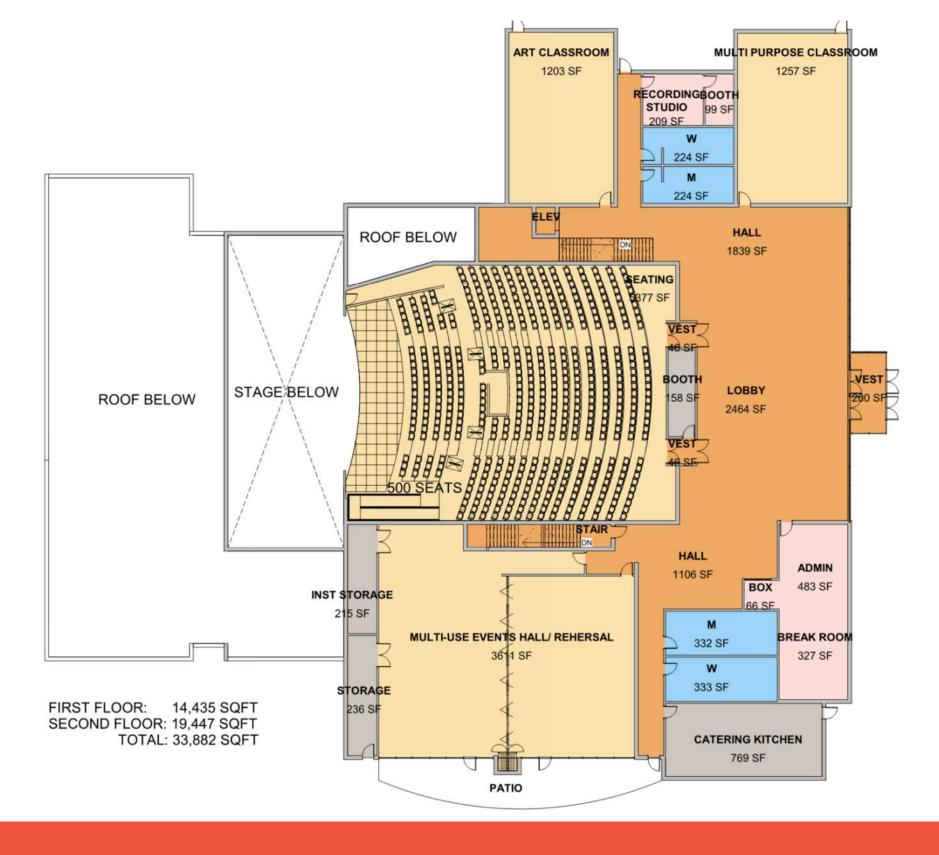






SITE 1 - HIGH

- Upper Level Plan
 - Split Rake w/ Cross Aisle
 - Formal, but not too formal
 - Good ADA access
 - No balcony

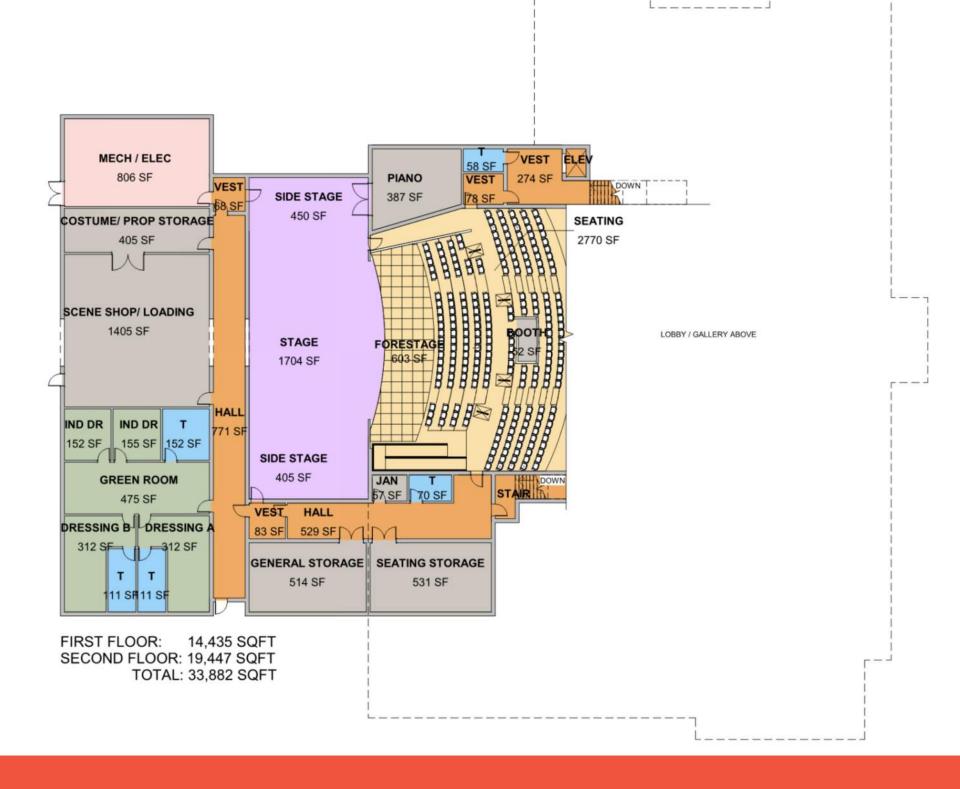






SITE 1 - HIGH

- Lower Level Plan
 - Split Rake w/ Cross Aisle
 - Formal, but not too formal
 - Good ADA access
 - No balcony







SITE 3 – SITE PLANS

This site is large and mostly flat making grades ideal for a building at all three levels of programming. There is plenty of room for water quality/detention and ideal traffic connections to both Riverdale and Colorado Boulevard. However, this site is the most remote from City services and may have high initial utility costs. There is potential for shared development costs on this site, so we located the Theater away from the corner which may be ideal for a retail use. The Theater is located 100' minimum away from neighbor's fences to minimize the impact of sound and views. Refer to Martin/Martin's Site Assessment in the Appendix for more information.







Low – 150 Parking Spaces

Medium – 215 Parking Spaces

High – 260 Parking Spaces





SITE 5 – SITE PLANS

This site, a large existing shopping center with paved asphalt parking lots, is close to City services and to the center of Thornton. It has good traffic access and existing curb cuts. It is largely flat, but it does not have access to storm sewer and would require onsite water quality/detention that would release storm water through curb chase or overflow weir into Corona Street. This site is ripe for urban revitalization, but has contaminated soils in the SE corner and would require extensive remediation, the cost of which is not included as part of this study. Refer to Martin/Martin's Site Assessment in the Appendix for more information.







Low – 150 Parking Spaces

Medium – 215 Parking Spaces

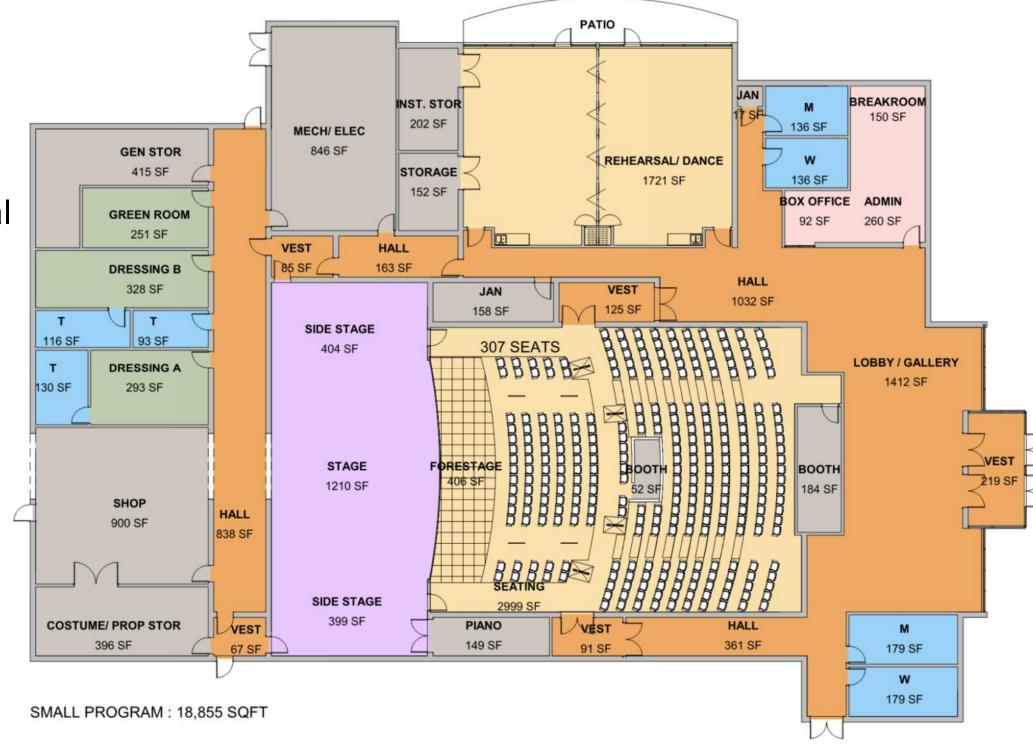
High – 260 Parking Spaces





SITE 3 & 5 - LOW

- Floor Plan
 - Split Rake w/ Cross Aisle
 - Formal, but not too formal
 - Good ADA access
 - No balcony

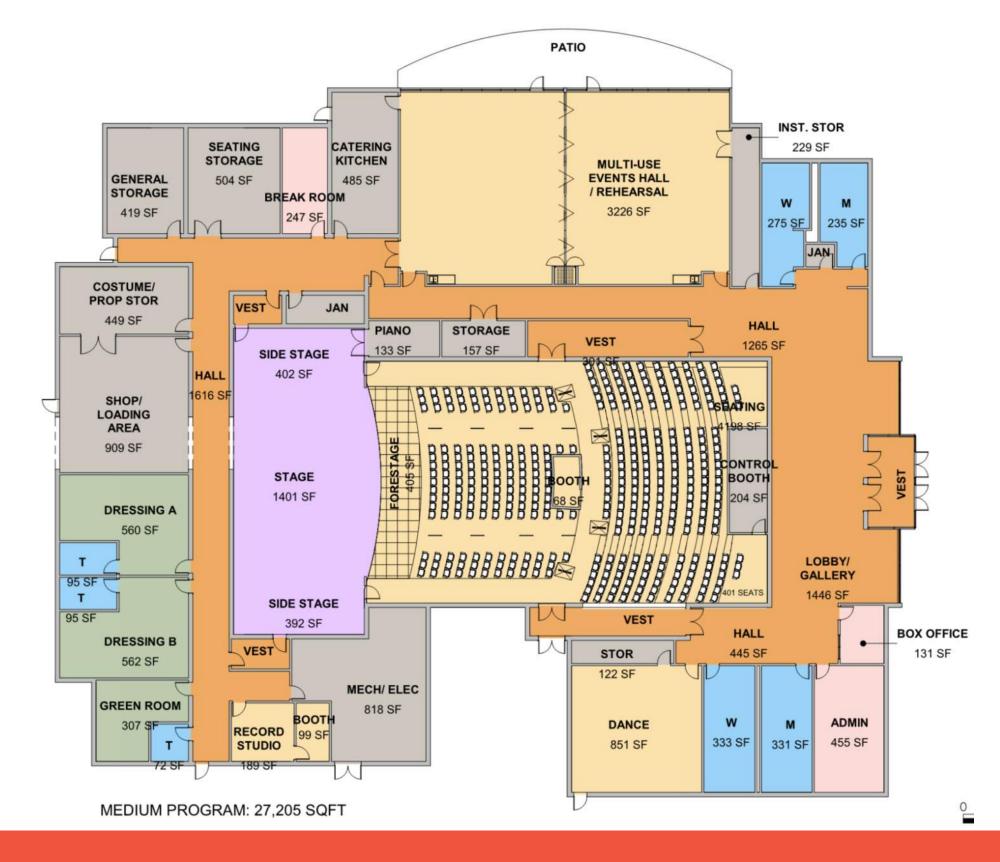






SITE 3 & 5 - MEDIUM

- Floor Plan
 - Split Rake w/ Cross Aisle
 - Formal, but not too formal
 - Good ADA access
 - No balcony

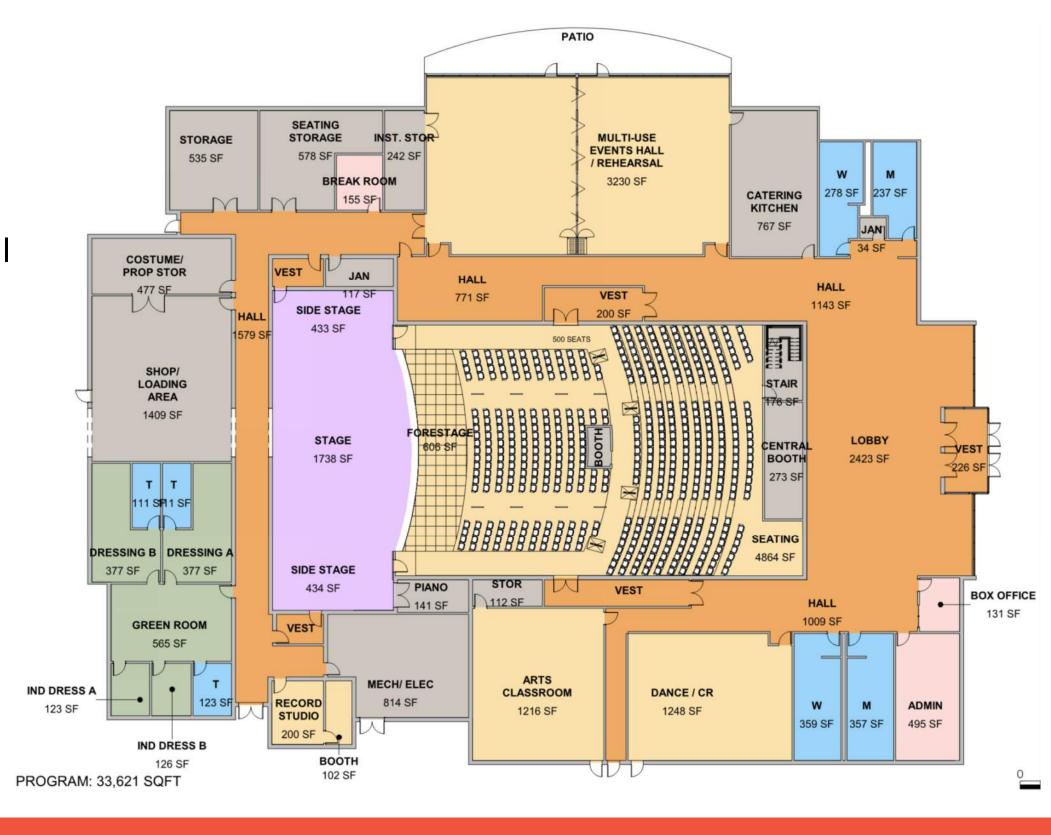






SITE 3 & 5 - HIGH

- Lower Level Plan
 - Split Rake w/ Cross Aisle
 - Formal, but not too formal
 - Good ADA access
 - No balcony







SITE 4 SITE PLAN

This site, an existing Community Center is close to City services and to the center of Thornton. The existing building is not ADA accessible or sprinklered but has adequate parking nearby. BRS is proposing adding an access drive to a loading dock addition as well as an elevator addition. Other upgrades would be made to repurpose interior spaces for a Theater function. Parking is somewhat limited, but could allow for some additional capacity as noted on the plan.

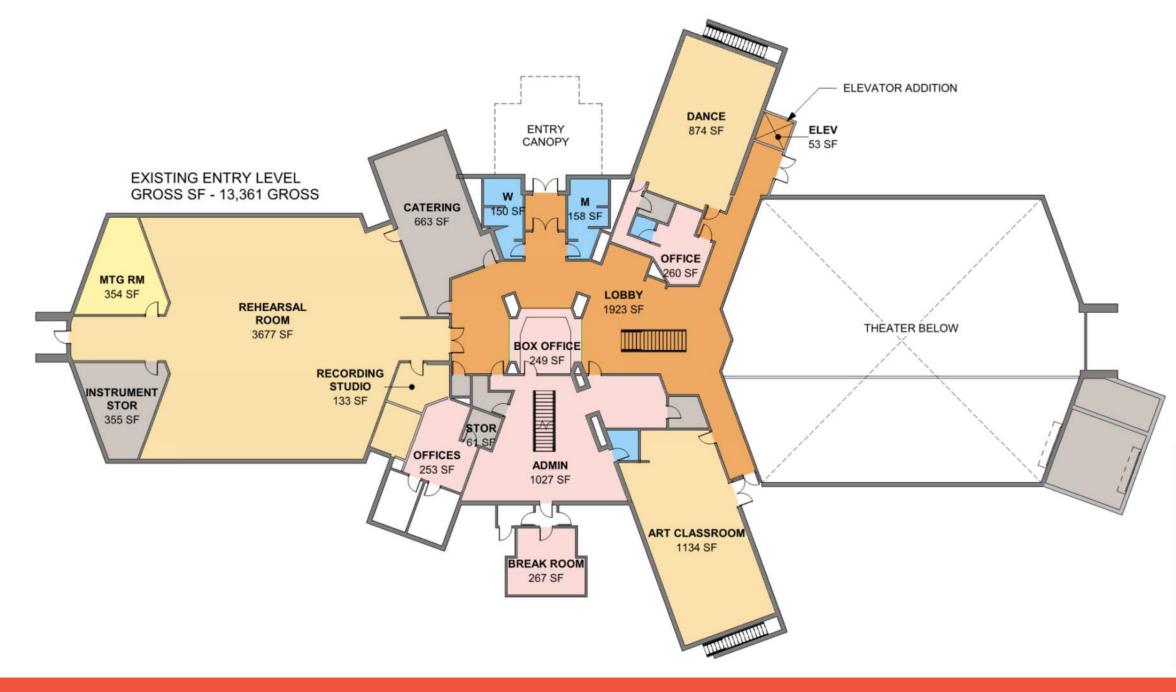






SITE 4 THEATER PLAN

- Upper Level Plan
 - Lots of opportunities for enhanced uses

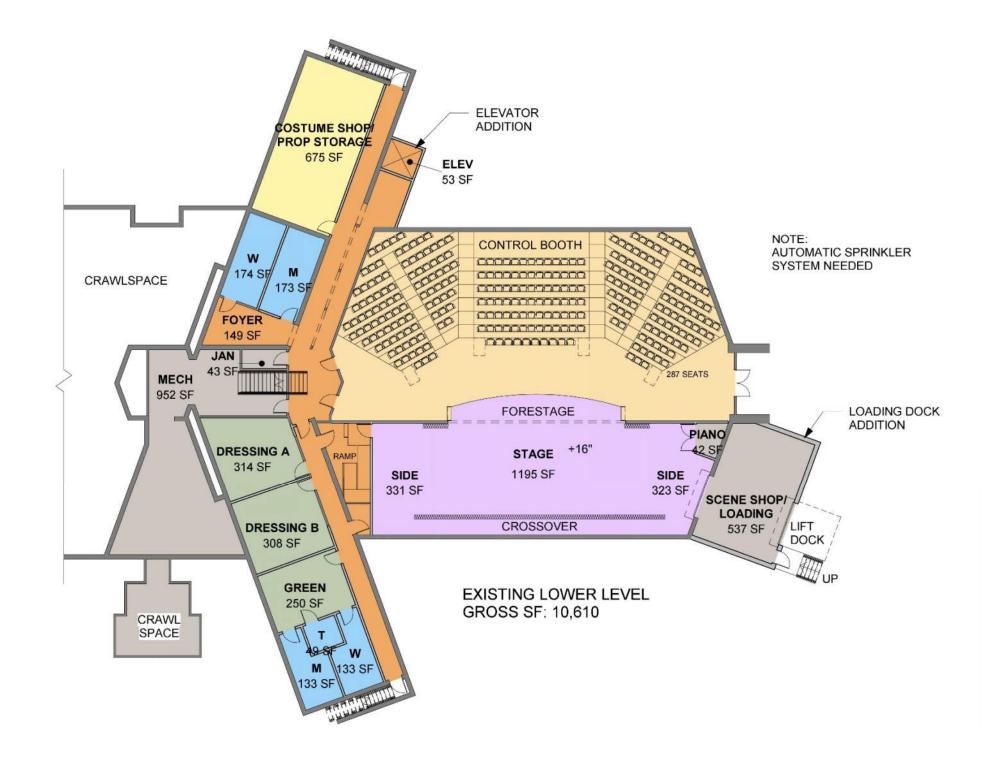






SITE 4 THEATER PLAN

- Lower Level Plan
 - Conversion of Gym
 - New HVAC
 - Fire Sprinkler
 - New Elevator Add.
 - New Scene Shop Add.







ARCHITECTURE CHARACTER STUDIES

HILLTOP CHARACTER STUDY

- COMPASSIONATE WITH BRITTANY HILL
- TRADITIONAL FORMS











HILLTOP DESIGN

The Hilltop site (Site #1) is visible from all angles so the design intends to be aesthetically pleasing from all sides. Traditional stone and modern metal and glass materials come together to create an impressive double height entry with exposed structure. The sloping roof creates large overhanging canopies to shelter the entry and define the lobby beyond.

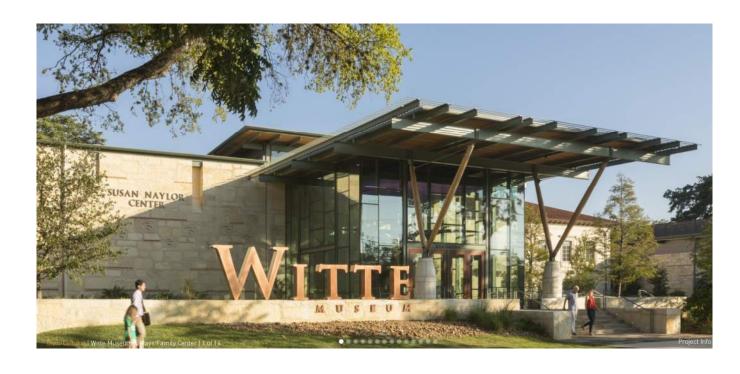






PRAIRIE CHARACTER STUDY

- LOW SLUNG STRUCTURE
- PITCHED ROOF FORMS
- LARGE OVERHANGS
- SYMPATHETIC TO LARGE OPEN SITE











PRAIRIE DESIGN

The Prairie site (Site #3) is large and undeveloped and close to the Platte River trails network. Pitched roofs reach out to the site from a central core and step down with the grade to allow natural light in from the west and south. Use of stone, warm tone masonry, wood simulated cement board siding, and deep overhangs completes the sculptural prairie forms.









URBAN CHARACTER STUDY

- MODERN FORMS
- FLAT ROOFS
- ASYMMETRICAL ORGANIZATION
- MODERN MATERIALS











URBAN DESIGN

The Urban site (Site #5) is large and flat in a rapidly redeveloping commercial area. A modern glass lobby visible from 88th Avenue with a brightly colored volume beyond helps identify the building's cultural use and opportunities for public art. Classic materials have been selected to fit in with the commercial context.









COST COMPARISON

COST COMPARISON

SITE 1

Site #1 - Grant St.					
Small					
Building Estimate	\$8,191,000				
Premium for Structured Flr & 0	\$301,235				
Premium to address site restri	ctions (1%)	\$81,910			
Site Civil		\$1,273,900			
Pavement over excavation allow	wance (3')	\$100,000			
Landscape	\$15	\$275,520			
Soft costs incl. 20% Cont.	35%	\$3,312,715			
Total		\$13,536,280			
Site #1 - Grant St.					
Medium	25,882 SF				
Building Estimate		\$11,057,000			
Premium for Structured Flr & 0	Crawl Space	\$424,465			
Premium to address site restri	ctions (3%)	\$331,710			
Site Civil		\$1,839,005			
Pavement over excavation allow	wance (3')	\$167,000			
Landscape	\$15	\$388,230			
Soft costs incl. 20% Cont.	35%	\$4,707,932			
Total		\$18,915,342			
Site #1 - Grant St.					
Large	31,346 SF				
Building Estimate		\$12,203,830			
Premium for Structured Flr & 0	Crawl Space	\$514,074			
Premium to address site restri	ctions (5%)	\$610,192			
Site Civil	\$2,049,545				
Pavement over excavation allow	\$184,000				
Landscape	\$15	\$470,190			
Soft costs incl. 20% Cont.	35%	\$5,217,648			
Total	\$21,249,479				

SITE 3

Site #3 - Colo & Riverdale					
Small					
Building Estimate	\$8,191,000				
Premium for Structured Flr & 0	Crawl Space	\$301,235			
Site Civil		\$1,448,100			
Pavement over excavation allo	wance (3')	\$144,000			
Landscape	\$15	\$275,520			
Soft costs incl. 20% Cont.	35%	\$3,520,517			
Total		\$13,880,372			
Site #3 - Colo & Riverdale					
Medium	25,882 SF				
Building Estimate		\$11,057,000			
Premium for Structured Flr & 0	Crawl Space	\$424,465			
Site Civil		\$1,614,665			
Pavement over excavation allo	wance (3')	\$188,000			
Landscape	\$15	\$388,230			
Soft costs incl. 20% Cont.	35%	\$4,636,763			
Total	\$18,309,123				
Site #3 - Colo & Riverdale					
Large	31,346 SF				
Building Estimate		\$12,203,830			
Premium for Structured Flr & 0	\$514,074				
Site Civil	\$1,783,655				
Pavement over excavation allo	wance (3')	\$229,000			
Landscape	\$15	\$470,190			
Soft costs incl. 20% Cont.	35%	\$5,140,336			
Total		\$20,341,086			

SITE 4

Site #4 - Community Center Conversion				
Small	23,731 SF			
Building Estimate		\$4,182,000		
Site Civil		\$600,000		
Landscape	\$5	\$118,655		
Soft costs incl. 30% Cont.	45%	\$2,151,900		
Total		\$7,052,555		

SITE 5

-		
Site #5 - Shopping Center	•	
Small	18,368 SF	
Building Estimate		\$8,191,000
Premium for Structured Flr & 0	Crawl Space	\$301,235
Site Civil		\$1,281,585
Pavement over excavation allow	wance (3')	\$137,000
Landscape	\$15	\$275,520
Soft costs incl. 20% Cont.	35%	\$3,315,405
Total		\$13,501,745
Site #5 - Shopping Center	•	
Medium	25,882 SF	
Building Estimate		\$11,057,000
Premium for Structured Flr & 0	Crawl Space	\$424,465
Site Civil	\$1,467,935	
Pavement over excavation allow	wance (3')	\$160,000
Landscape	\$15	\$388,230
Soft costs incl. 20% Cont.	35%	\$4,383,727
Total		\$17,881,357
Site #5 - Shopping Center	•	
Large	31,346 SF	
Building Estimate		\$12,203,830
Premium for Structured Flr & 0	Crawl Space	\$514,074
Site Civil	\$1,749,230	
Pavement over excavation allow	\$205,000	
Landscape	\$470,190	
Soft costs incl. 20% Cont.	\$4,883,571	
Total		\$20,025,895







CONCLUSIONS

There are several viable sites for a Theater in south central Thornton. Depending on the final program and budget, some sites may become more favorable than others. Each site has its own character which will influence the final design of the building. This study has helped highlight the unique potential and shortcomings of each site.

- 1. Site 5 ranked highest on the site evaluation criteria and in the Project Team's final remarks due to it's vibrant and central location. However, the contamination and land acquisition hurdles present some budget and timing challenges if is to be considered a viable option for this project in the future.
- 2. Site 3 ranked third highest on the site evaluation criteria. However, some Project Team members thought the site is too remote from the majority of the Thornton neighborhoods and lacks nearby amenities such as restaurants and emergency services. In spite of these challenges, it was the Project Teams second choice.
- 3. Site 1 ranked last on the site evaluation criteria due to it's size and slope. It may be a top contender for a low level program option, but may be cost prohibitive for a high level program. As the facility size increases, site development costs will rise disproportionately. The Project Team put this site as their third choice.
- 4. Renovation of the Community Center on Site 4 ranked second highest on the site evaluation criteria. Some Project Team members thought that while this option seems promising on paper, it may not meet the expectations of the Arts and Cutural community as well as a new building and the team deemed this option to be in last place.

APPENDIX

SOLAR EVALUATION

A budget of \$250,000 was assumed for each site. The array would offset building energy consumption by about 14% and save approximately \$10,000 of utility costs per year, roughly a 20-25 year payback. Three different types of installations are shown for comparison and suitability to each site.







SITE 1

- Carport canopy type array suitable for sites with limited area.
- 3,800 SF
- 57KW
- 86,080 KWH/year

SITE 3

- Ground Mounted Array suitable for large, open sites.
- 5,000 SF
- 75KW
- 113,262 KWH/year

SITE 4 & 5

- Roof Ballasted Array, good for flat roof areas.
- 5,000 SF
- 75KW
- 113,262 KWH/year





SITE EVALUATION CRITERIA

Below are the objective site evaluation criteria used in this study.

SI	TE FEATURES					
A.	Topograpi	hic				
	0 pts.	Prohibitive slopes (15%)				
	1 pt.	Severe slopes (7%-15%)				
	2 pts.	Moderate slopes (5%-7%)				
	3 pts.	Slight slopes (<5%)				
		3 · · · · · · · · · · · · · · · · · · ·				
B.	Drainage					
	0 pts.	All or portion of the site in the 100 year flood plain.				
	1 pt.	>10% in 500 year flood plain				
	2 pts.	<10% in 500 year flood plain				
	3 pts.	All of property out of flood plain zones				
C.	Wetlands					
	0 pts.	Undevelopable - 50% Wetlands				
	1 pt.	10 -20% Wetlands				
	2 pts.	> 10% Wetlands				
	3 pts.	No Wetlands				
D.	Vegetation					
٥.	0 pts.	No vegetation on site				
	1 pt.	Scrub brush and grasses throughout the site				
	2 pts.	Scrub brush and grasses with small stands of trees				
	3 pts.	Heavy vegetation and trees throughout site				
	o pis.	neavy regetation and trees throughout site				
E.	Property C	Configuration				
	0 pts.	Long & narrow, irregular width, multi-directional.				
	1 pt.	Triangular shaped				
	2 pts.	Long rectangle (length over 2.5 times width), open				
	3 pts.	Rectangular (length under 2.5 times width) or square, open				
F.	Size (Pote	ntial to Aquire)				
• •	0 pts.	Less than 1 acres				
	1 pt.	1 to 2 acres				
	2 pts.	2 to 4 acres				
	3 pts.	Greater than 4 acres				
G.	Views					
	0 pts.	No views				
	1 pt.	Foreground views only				
	2 pts.	Foreground views & Distant views				
	3 pts.	Foreground views, Distant Mountian views				
H.	Soils/Geol	logy				
. 1.	0 pts.	Multiple layers of exposed rock and/or a high water table throughout the site.				
	1 pt.	Isolated rock outcropping and/or inconsistent altered or leveled soil depth.				
	2 pts.	Little exposed rock and/or naturally inconsistent soil depths.				
	3 pts.	No exposed rock outcroppings, soils at natural consistent depth.				
		PROVINCE CONTROL OF THE PROPERTY OF THE PROPER				
I.	A Property of Challe State Sta	om Major Highway				
	0 pts.	Building will not be visible from a major highway				
	1 pt.	Portions of building will be visible from a major highway				
	2 pts.	Building will be visible from a major highway in one direction of travel				
	3 pts.	Building will be visible from a major highway in both directions of travel				

٨	FRASTRUCTURE / SERVICES					
A.						
	0 pts.	No existing streets to site. No public transportation.				
	1 pt.	Existing local streets adjacent to site w/ no public transportation nearby				
	2 pts.	Existing collector streets adjacent to site w/ public transportation nearby				
	3 pts.	Existing minor or major arterial streets adjacent to site w/ public transportation nearb				
В.	Sanitary Sewer					
	0 pts.	Currently not serviceable by City and system				
	1 pt.	Site is serviceable, force main required, no system with 1/2 mile.				
	2 pts.	Existing service requires extension (1/8 to 1/2 mile) to site.				
	3 pts.	Existing service is adjacent to or within 1/8 mile of site.				
C.	Water Service					
	0 pts.	Currently not serviceable by city system.				
	1 pt.	Site is serviceable, but no existing system adjacent to site.				
	2 pts.	Existing service is adjacent to site but inadequate supply and pressure.				
	3 pts.	Sufficient supply, pressure and service exists adjacent to site.				
D.	Electrica	nl/Telephone/Data Service				
	0 pts.	No existing 3-phase electrical or phone/data service within 1/2 mile.				
	1 pt.	Existing 3-phase electrical and phone service within 1/2 to 1/8 mile.				
	2 pts.	Existing 3-phase and phone service within 1/8 mile.				
	3 pts.	Existing 3-phase electrical and phone service adjacent to site.				
E.	Gas Service					
	0 pts.	No existing service within 1.2 mile of site.				
	1 pt.	Existing service with adequate supply within 1/2 to 1/8 mile.				
	2 pts.	Existing service with adequate supply within 1/8 mile.				
	3 pts.	Existing service with adequate supply adjacent to site				
F.	Fire Protection					
	0 pts.	Response time >15 min, inappropriate level of protection.				
	1 pt.	Response time 10-15 minutes, questionable level of protection.				
	2 pts.	Response time 5-10 minutes, adequate level of protection.				
	3 pts.	Response time < 5 minutes, adequate tere of protection.				
G.	Police Protection					
No.	0 pts.	Response time >12 minutes, irregular nighttime surveillance.				
	1 pt.	Response time 8-10 minutes, regular nighttime surveillance.				
	2 pts.	Response time 3-7 minutes, regular daytime and nighttime surveillance.				
	3 pts.	Response time, 3 minutes, multiple units, regular daytime and nighttime surveillance.				
H.	Ambulance/Emergency Medical Service					
	0 pts.	Response time >12 minutes.				
	1 pt.	Response time 8-12 minutes.				
	2 pts.	Response time 3-7 minutes.				

Α.		aration Costs					
	0 pts.	Clearing and regrading of prohibitive slopes and or extensive demolition or relocation of utilities.					
	1 pt.	Some clearing/regrading of severe slopes and or moderate demolition or relocation of utilities					
	2 pts.	Re-grading of moderate slopes, slight demolition or relocation of utilities.					
	3 pts.	Slight re-grading, no demolition.					
3.		Utility Development Costs					
	0 pts.	Costs not shared with other parties					
	1 pt.	Costs shared with other parities					
Э.	Land Acc	uisition Costs					
,.	0 pts.						
	1 pt.	Condemnation likely involving one or more multiple "non-agreeable owners. Purchases required with multiple agreeable owners at market rate.					
	2 pts.	Purchase required with number agreeable owner at market rate.					
	3 pts.	Entire property to be donated or is currently owned by City					
	o pis.	Entire property to be definited or is duriently owned by only					
D.	Timing &	Timing & Phasing of Adjacent Development					
	-1 pt.	Timing and Phasing of adjacent development negatively impacts schedule					
	0 pts.	Timing and Phasing of adjacent development has no impact to schedule					
	1 pt.	Timing and Phasing of adjacent development positively impact schedule					
		TY PLANNING ISSUES					
۹.		nity Growth Patterns					
	0 pts.	Decentralized to existing and projected population centers.					
	1 pt.	Located in areas planned for projected population growth, not immediately adjacent to existing					
		population center.					
	2 pts.	Located in area immediately adjacent to existing population centers.					
	3 pts.	Centralized to existing and projected population centers.					
3.	Distanc	e from "Downtown"					
10.50	0 pts.	Greater that four miles					
	1 pt.	Two to four miles					
	2 pts.	One to Two Miles					
	3 pts.	Less than One Mile					
C.	Adjacen	t Cultural Amenities (museums, parks, playing fields, etc)					
	0 pts.	No adjacent cultural amenities					
	1 pt.	Cultural amenities within 1/4 mile of site.					
	2 pts.	Cultural amenities within 1/8 mile of site.					
	3 pts.	Cultural amenities immediately adjacent to site					
D.	Pedestr	ian Connectors/Trails					
	0 pts.	No Trails and/or local designated connector streets currently exist to site.					
	1 pt.	Non-dedicated, unimproved trails and no local designated connector streets exist with no					
	10-11-15-15-15-15-15-15-15-15-15-15-15-15-	improvement plans					
	2 pts.	Non-dedicated, unimproved trails and/or local designated connector streets					
	3 pts.	Existing improved trails and/or local connector streets exist to the site.					
	Contribute.						
E.	Partners	Partnership potential					
	0 pts.	This site is remote from potential "teaming" partners.					
	1 pt.	This site is adjacent or close to the citizens' 4th partnership preference.					
	2 pts.	This site is adjacent or close to the citizens" 2nd and 3rd partnership preference.					
	3 pts.	This site is adjacent to the citizens' 1st partnership preference.					
F.	Potentia	Potential for Revenue Generation					
	0 pts.	Site has access to compatible client market within 1/2 mile.					
	1 pt.	Site has access to compatible client markets within 1/8 mile.					
	2 pts.	Site is adjacent to one facility with existing compatible client markets.					
	3 pts.	Site is adjacent to one facility with existing compatible client markets.					
	o pro.	one is aspective to 2 or more recinited with existing compatible elicit market.					
G.	Access	to Public Transportation					
٠.	0 pts.	Site has no access to public transportation					
	1 pt.	Site has access to public transportation within 1/2 mile					
	2 pts.	Site has access to public transportation within 1/8 mile					

Site has access to public transportation imediately adjacent to site

THORNTON PERFORMING ARTS THEATER

SITE(S) ASSESSMENT THORNTON, COLORADO

Martin/Martin, Inc. Project No.: 18.0315

May 11, 2018

Prepared For: Barker Rinker Seacat Architecture

3457 Ringsby Ct #200 Denver, CO. 80216 303.455.1366

Prepared By: Martin/Martin, Inc.

12499 West Colfax Avenue Lakewood, Colorado 80215

303.431.6100

Principal-in-Charge: Bill Willis, PE Project Manager: Bill Willis, PE

Project Engineer: Kayla Fochtman, EIT

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- A. GIS Maps
- B. Xcel Maps Gas and Electric
- C. Site Exhibits
- D. Engineer's Opinion for Probable Cost

I. INTRODUCTION

This civil narrative is provided as documentation of existing site conditions and infrastructure of five (5) potential sites proposed by the City of Thornton to accommodate construction of a performing arts theater. Civil evaluation of each site outlines opportunities and constraints related to site grading, drainage, site circulation, access, and utilities to facilitate construction. Consideration has been given to various sized development programs and associated occupancy number. The primary occupancy number for the "large" program (1633 people) has been used when assessing utility capacity and preliminary conversation related to traffic. The basis of the investigation includes GIS mapping provided by the City of Thornton, interviews with City personnel related to streets, utilities and drainage, Xcel mapping of gas and electric utilities, site observations and on-line geospatial data.

This narrative is not intended to be all inclusive; but is intended to provide an overall summary of current site conditions and site findings if chosen for the performing arts theater location. Jurisdictional requirements may change between the time of this narrative and development of the sites, therefore updates to the investigation should be considered if project delays are encountered.

II. SITE 1 – Grant Street South of Thornton Parkway

A. Site Description

Site 1 consists of two lots with a total area of approximately 5.39 acres in the City of Thornton, Colorado in Adams County. It is bounded to the northwest by Grant Street, to the south by Wedgewood Weddings Brittany Hill, and to the east by Thornton High School soccer fields. The site is currently undeveloped with exception of two asphalt drives: an access road for the High School soccer field parking lot at the northeast corner of the site and an access road for Brittany Hill on the southwest side of the site.

The theater is planned to be a two-story building, with a small, medium, or large program. Evaluation of the wet utilities to determine adequate capacities of the site assumed the large program, with an anticipated peak attendance of 1633 people.

B. Site Access

There are currently two drives that provide access to adjacent properties: an approximately 24 feet wide access road to the High School soccer field parking in the northeast corner of the site, and an approximately 20 feet wide access road to Brittany Hill on the southwest side of the site.

Access to the site is recommended as two access points while utilizing existing curb cuts on Grant Street. One access point will connect to the access road for the soccer field parking lot at the north of the site, while still allowing space for stacking cars prior to exiting onto Grant Street. However, this access point will need to be coordinated further with the school district to verify routine school dismissal will not be an issue and determine if any other routine school events will significantly increase traffic to and from this parking lot conflicting with the theater's typical peak periods. The second access point will connect to the entry road for Brittany Hill in



the southwest of the site. This road is approximately 20 feet wide and is anticipated to require widening to provide adequate access to both Brittany Hill and the proposed theater.

C. Grading and Drainage

The natural slope of the site is approximately 5% to the north, with a slight crown such that the eastern side of the site slopes down towards the east and an existing wall that separates the site from the school fields. The western side of the site slopes down toward Grant Street. The City desires that the site be generally graded towards the west, so storm water may eventually drain to Grant Street storm inlets and be directed to a regional water quality detention pond to the southwest.

Runoff from the site will be collected and piped underground to a detention and water quality pond on the northwest side of the property. An outlet in the detention pond will convey flows to the storm system in Grant Street. Runoff that is not captured on site will flow towards Grant Street, to be collected by curb inlets in the street. The sum of runoff not captured on site and stormwater released from the detention pond will remain at historic flows. At the time of this evaluation, sufficient space for on-site detention, including excess urban runoff volume and water quality, has been allocated (approximately 6820 - square feet surface area assuming a maximum depth of 4 feet). This square footage is assuming 80% imperviousness and utilizes the Simplified Equations method of detention volume from UDFCD's Storm Drainage Criteria Manual.

Pending design grading, a portion of the east side of the site may require its historic flow to be conveyed to the east, but no more than the undeveloped site currently allows.

D. Utilities

Existing utility information is based on Geographical Information Systems (GIS) maps provided by the City of Thornton and information attained from City personnel.

1. Sanitary

On the north end of the site there is an existing sanitary line running west to east within the access entry drive to parking for the High School soccer fields. The 8" sanitary line conveys waste to the east, where Thornton High School's sanitary system connects, and flows are transmitted further east through the City's collection system. A 15" sanitary main also runs within the northwest side of Grant Street, opposite the site. Sanitary flow in this main is conveyed to the southwest through the City's collection system. Service for the theater is anticipated to connect to the existing 8-inch sanitary line located in the northeast corner of the site, although either main can be used if sufficient capacity exists. Further capacity investigation will be necessary prior to design of the facilities.

2. Water

A 12" water main exists in Grant Street with a water service line and a fire hydrant extending onto the site, north of the access drive for Brittany Hill. GIS mapping also represents that the end of the water service line has a blow off valve. The service line size is



unknown but may be an opportunity for connection of a water line loop to serve fire suppression and domestic demand around the proposed theater building. Looping of the watermain through the site is anticipated to be 8-inch in size and provide water supply for at least 3 new fire hydrants. Service for the building is also anticipated to be connected to the 8" water loop.

Pressures in the water system are understood to range from 65 to 125 psi and should be adequate for domestic and fire supply demands. However, water pressure and flow are to be verified during design.

3. Gas

A 3" gas main with pressure range of 26-66 psig exists on the southeast side of Grant Street where service for the theater is anticipated to be connected.

Upon definition of theater project loadings during design, the gas main adequacy can be verified and further coordinated with Xcel Energy. Gas loadings needed should be provided early in the design phase and coordinated by calling Xcel's Builder Call Line at 1-800-628-2121 and having an engineer or designer assigned to the project.

4. Electric

An existing three-phase electric main in Grant Street is available for servicing the theater. Upon definition of electrical loads during the design phase, Xcel Energy will require contact as noted above to verify that adequate capacity and / or what loads can be accommodated.

III. SITE 2 – Russel Boulevard West of Grant Street

A. Site Description

Site 2 is a single lot with an area of approximately 9.75 acres in the City of Thornton, Colorado in Adams County. It is bounded to the west by Interstate 25. Immediate north of the site is the North Suburban Medical Center, and the Park 88 apartment complex bounds the site to the south. To the east of the site are several buildings: Alterius Career Colleges and Arapahoe House. The site is currently undeveloped with the north third of the site (approximately 3.22 acres) being an existing detention pond.

After some evaluation, it was noted that the property was being looked at by another development and this site was removed from consideration.

IV. SITE 3 – Colorado Boulevard and Riverdale Road

A. Site Description

Site 3 is a lot of approximately 18.8 acres in the City of Thornton, Colorado in Adams County. It is bounded to the west by Colorado Boulevard, to the east and south by Riverdale Road, and to the north by a subdivision. The site is about 500 feet northwest of the South Platte River and is currently undeveloped.



Programming for the theater on this site is planned to be a one-story building, with a small, medium, or large program. Determining adequate capacities for utilities and roadways on the site assumed a large program, with an anticipated peak attendance of 1633 people.

The site is large enough that consideration can be given to subdividing the parcel for the Theater and selling or lease purchase concept for another development. Cost sharing associated with other future developments should be considered related to infrastructure costs such as off-site water, sanitary sewer, extension of storm drainage and street access. Value of cost sharing is not included in the opinion of estimated costs. However, the City could consider some value of cost recovery when making final decisions.

B. Site Access

There are currently no access roads onto the site. Access to the site is anticipated to include two points of ingress/egress. One access is anticipated to be off Riverdale Road, opposite the intersection connection to Old Riverdale Road. The Riverdale Road access will require widening of Riverdale Road for a left turn lane and deceleration lane onto the site. The second access is anticipated to be a right in/right out or a ¾ movement access off Colorado Boulevard, to the northwest of the site providing sufficient offset space to the north of the Riverdale Road intersection. The Colorado Boulevard access (right in/right out or ¾ movement) will depend on results of an impact study performed early in design. A channelizing island must also be constructed for the Colorado Boulevard access drive regardless of the access's design.

C. Grading and Drainage

The site gradually slopes toward the southeast at approximately 1% for a majority of the site. It then slopes down to form a ditch adjacent to Riverdale Road on the south and east areas of the site. There is a slight swale and low point on the southeast corner of the site, where a culvert conveys runoff to wetlands on the south side of Riverdale Road. Overflow is conveyed to the South Platte River.

Stormwater will be collected on site and similarly conveyed to the southeast edge of the property, north of Riverdale Road. The existing low point and swale at this location will be utilized to create an onsite detention pond. At the time of this evaluation, sufficient space for on-site detention, including excess urban runoff volume and water quality, has been allocated (approximately 36670 - square feet surface area assuming a maximum depth of 2 feet). The existing culvert will be replaced with a 36" culvert for adequate capacity.

D. Utilities

Existing utility information is based on Geographical Information Systems (GIS) maps provided by the City of Thornton and interviews with City personnel.

1. Sanitary

The closest sanitary line to the site is the Metropolitan Wastewater Reclamation District (Metro) Interceptor in Colorado Boulevard to the west of the site. It is anticipated that a



sanitary main can be connected to this Metro Interceptor and a service extended off the new main. Coordination with metro to determine the connection and necessity of metering this line would be required. If this connection is found to not be feasible or unacceptable, a sanitary main extension will need to be designed to the site from one of a few optional locations.

A 21" sanitary main exists in Gypress Drive within the Newport Village Apartment complex west of the site. This line conveys waste to the southeast of the apartment complex but does not extend into Colorado Boulevard. A sanitary connection could be made here but it would require approximately 330LF of additional pipeline crossing several large utility pipes in Colorado Boulevard to bring a sanitary main from this location.

South of the site near the existing 7-11 is an 8" sanitary main that conveys waste west, across Colorado Boulevard. A sanitary connection here would require approximately 570LF of additional pipe to bring a sanitary main to the site.

As a final option, there is an 8" sanitary main in East 91st Drive within the subdivision north of the site that conveys waste to the east to a manhole at the intersection of E 91st Drive and Bellaire Street. A connection to the manhole is possible, however, due to the elevations of the subdivision being significantly higher than the site, a lift station would be required for this option.

2. Water

There are several existing water mains around the site: two (2) - 36" water mains in Colorado Boulevard and a 42" water main in Riverdale Road. However, the water mains in Colorado Boulevard have an approximate pressure of 101 psi, while the water main in Riverdale Road is at approximately 110 psi. There is also an 8" water main in the subdivision north of the site, in E 91st Drive. Due to two PRVs at connections points from the subdivision's water system to surrounding water mains, the pressure within this line is approximately 93 psi.

A water loop is anticipated to be needed through the site to provide domestic and fire service to the facility. These connections can be made to the 42" pipe on the southeast side of Riverdale Road or 30" pipe in Old Riverdale Road to the south but due to the pressure zones of the area, each connection would require a PRV and vault. Therefore, it is anticipated that one connection of this loop will be made to the 42" line with a PRV and vault while the other connection being made to the 8" water line in E 91st Drive north of the site (therefore only requiring one PRV, minimizing cost, additional long-term maintenance and better circulation within the subdivision).

Another possible water alignment includes one connection for the new water loop can be made in E 91st Drive north of the site, and the second connection extended to the 7-11 water main further south of the site. However, this option would require an additional



570LF of pipe across Riverdale Road and under a drainage area. The 7-11 water main has pressures about 125 psi, however, which would still require a PRV at this connection.

Looping of the watermain through the site is anticipated to be 8-inch in size and provide water supply for at least 3 new fire hydrants. Service for the building is also anticipated to be connected to the 8" water loop.

3. Gas

There is currently a 6" gas main at at a pressure of 26-66 psig that travels through Old Riverdale Road (south of the site) and continues north through Riverdale Road. However, this line has two control fittings, with a stretch of gas line to the east of the site removed. Any connection made to gas will need to be made north or south of the abandoned line: in the northeast corner of the property in Riverdale Road or in the southeast corner of the property near the intersection of Riverdale and Old Riverdale roads.

Upon definition of theater project loadings during design, the gas main adequacy can be verified and further coordinated with Xcel Energy. Early in the design phase gas loadings need to be relayed and coordinated by calling Xcel's Builder Call Line at 1-800-628-2121 and having an engineer or designer assigned to the project.

In the northeast corner of the site, there is a high-pressure gas regulator that will need to be avoided. Ownership of this gas regulator is currently unknown. Typically, high pressure gas mains will not allow grading above the area of the line (cut or fill). At this time, preliminary layouts appear to avoid conflict with the main.

4. Electric

There is an existing overhead three-phase electric line on the southeast side of Riverdale Road; future electric connections are anticipated to connect to this line. Upon definition of electrical loads during the design phase, Xcel Energy will require contact as noted above to verify that adequate capacity and / or what loads can be accommodated.

V. SITE 5 – 88th and Washington Re-development

A. Site Description

Site 5 is the existing Thornton Shopping Center in the City of Thornton, Colorado in Adams County. It is a site of approximately 15.8 acres and is bounded to the west by Washington Street, south by East 88th Avenue, and to the east by Corona Street. North of the site is the Sunrise Village Shopping Center.

Most of the site is paved in asphalt with several existing buildings. There is a 45 feet wide tree lawn at the northwest side of the site along Washington Street and a 55 feet tree lawn on the southeast corner of the street along Corona Street. An approximately 8 feet attached sidewalk



is adjacent to Washington Street and Corona Street, and an approximately 8 feet detached sidewalk with small tree lawn is adjacent to East 88th Avenue. Six buildings exist on the site, four of which are less than 5000 square feet. The rest of the site is asphalt parking.

There are several existing access drives for the site: three off Washington Street (two of which are right in/right out), two on East 88TH Avenue, and one on Corona Street.

For purposes of this evaluation, it is understood that demolition and required environmental remediation will be completed prior to the beginning of any re-development.

On this site, the theater is planned to be a one-story building with a small, medium, or large program. Utility and roadway capacities on the site assumed a large program, with an anticipated peak attendance of 1633 people.

B. Site Access

There are currently several existing access drives for the site. There are three on Washington Street; the southern two are both right in/right out, one just south and one just north of the existing building. The third Washington access drive is a larger access drive further north with a channelizing island. The two access drives on East 88TH Avenue include one in the middle of the block, and one further to the west. There is also an access drive on Corona Street, just north of the existing building. Each of these drives are approximately 36 feet wide, with the exception of the north access drive on Washington Street, which is about 66 feet wide including the island.

The middle access on Washington Street and access on Corona Street are just north of the existing building; they connect in a drive that crosses the site. The theater will be placed central to the site and south of this access drive. The theater site will utilize the two existing access drives off E 88th Avenue, both of which will be right-in/right-out. There will be two additional access connections north of the theater to the drive that crosses the site (connecting Washington and Corona Streets). An access drive will be used to connect to an existing business on the southwest corner of the property, as well.

C. Grading and Drainage

The site is largely flat, with a slight slope away from the existing building at about 1%. The site gradually slopes to the southeast corner of the property, in which runoff flows into the intersection of Corona Street and E 88th Avenue.

To improve drainage from the building, the building and surrounding finished grade will be raised 2-2.5 feet and surrounding parking lots will slope away from the building.

On-site stormwater will be collected on site from parking lots around the building and similarly conveyed by piping underground to the southeast corner of the property, discharging to a water quality and detention pond. This pond will release stormwater via curb chase or overflow weir into Corona Street at appropriate release rates. At the time of this evaluation, sufficient space for on-site detention of the disturbed area, including excess urban runoff volume and water quality, has been allocated (approximately 10440 - square feet surface area assuming a maximum depth of 3 feet). This square footage is assuming 90% imperviousness and utilizes the



Simplified Equations method of detention volume from UDFCD's Storm Drainage Criteria Manual.

D. Utilities

Existing utility information is based on Geographical Information Systems (GIS) maps provided by the City of Thornton and City personnel interviews.

Sanitary

There is an existing 8" sanitary line that serves the existing building by wrapping around the south side of the building. It is recommended to use this sanitary line as it extends onto the property but create a new connection to realign the sanitary service to the north side of the theater.

If this service is unacceptable, a new service should be routed from the service line currently being utilized in Corona.

2. Water

There is currently 8" water lines along the property line on Washington Street, 88th Avenue, and Corona Street. There is also an 8" water line that connects the water services near Washington Street and Corona Street by cutting across the property through an access drive just north of the intended theater location. As these lines create a water loop, domestic and fire service lines can be extended off the water line in the access drive just north of the intended theater site. Two fire hydrants and their service lines will also be added in addition to two existing fire hydrants just north of East 88th Avenue.

3. Gas

There is currently a 10" gas main at 67-125 psig in E 88th Avenue, with existing services to the site. It is recommended to utilize the existing service if they are adequate and acceptable. If the existing service on the site is unacceptable, it is recommended that a new connection be made to the 10" gas main in E 88th Avenue.

If this pressure is too high, there is a 1" gas line to the east of the site, near Corona St, which runs at pressures of 2-25 psig.

The need for expansion or replacement of these lines are not included in this assessment; further coordination with Xcel is required during the design phase. Next steps include calling Xcel's Builder Call Line at 1-800-628-2121 and having an engineer or designer assigned to the project.

4. Electric

THORNTON PERFORMING ARTS THEATER May 11, 2018



There is an existing overhead three-phase electric main north of East 88th Avenue, on the south side of the property, with existing overhead three-phase electric services extending to the existing building. It is recommended that the existing main and service be utilized if these are acceptable, however, they would need to be buried. If these lines are unacceptable, future electric service lines can be connected to an existing underground three-phase electric main in East 88th Avenue in the west half of the block, closer to Washington Street.

If needed, there is also an existing three-phase overhead electric main on the east side of the property, near Corona Street, in which new electric services could be connected.

Upon definition of electrical loads during the design phase, Xcel Energy will require contact as noted above to verify that adequate capacity and / or what loads can be accommodated.



REFERENCES

<u>City of Thornton – Standards and Specifications</u>, City of Thornton City Development, Thornton, Colorado, October 2012.

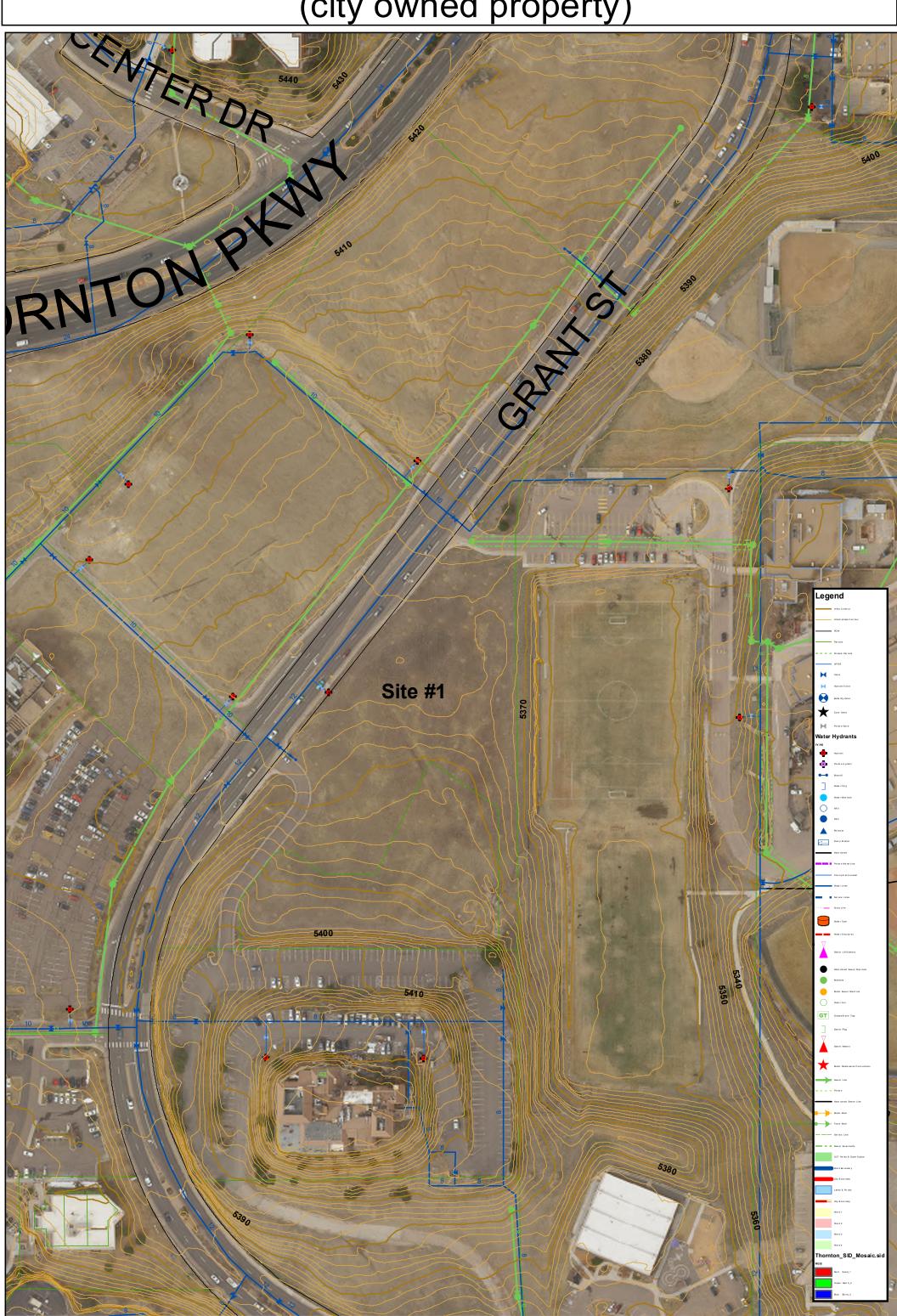
<u>Urban Storm Drainage Criteria Manual</u>, Denver Regional Council of Governments, Denver, Colorado,
September 2017.

THORNTON PERFORMING ARTS THEATER May 11, 2018

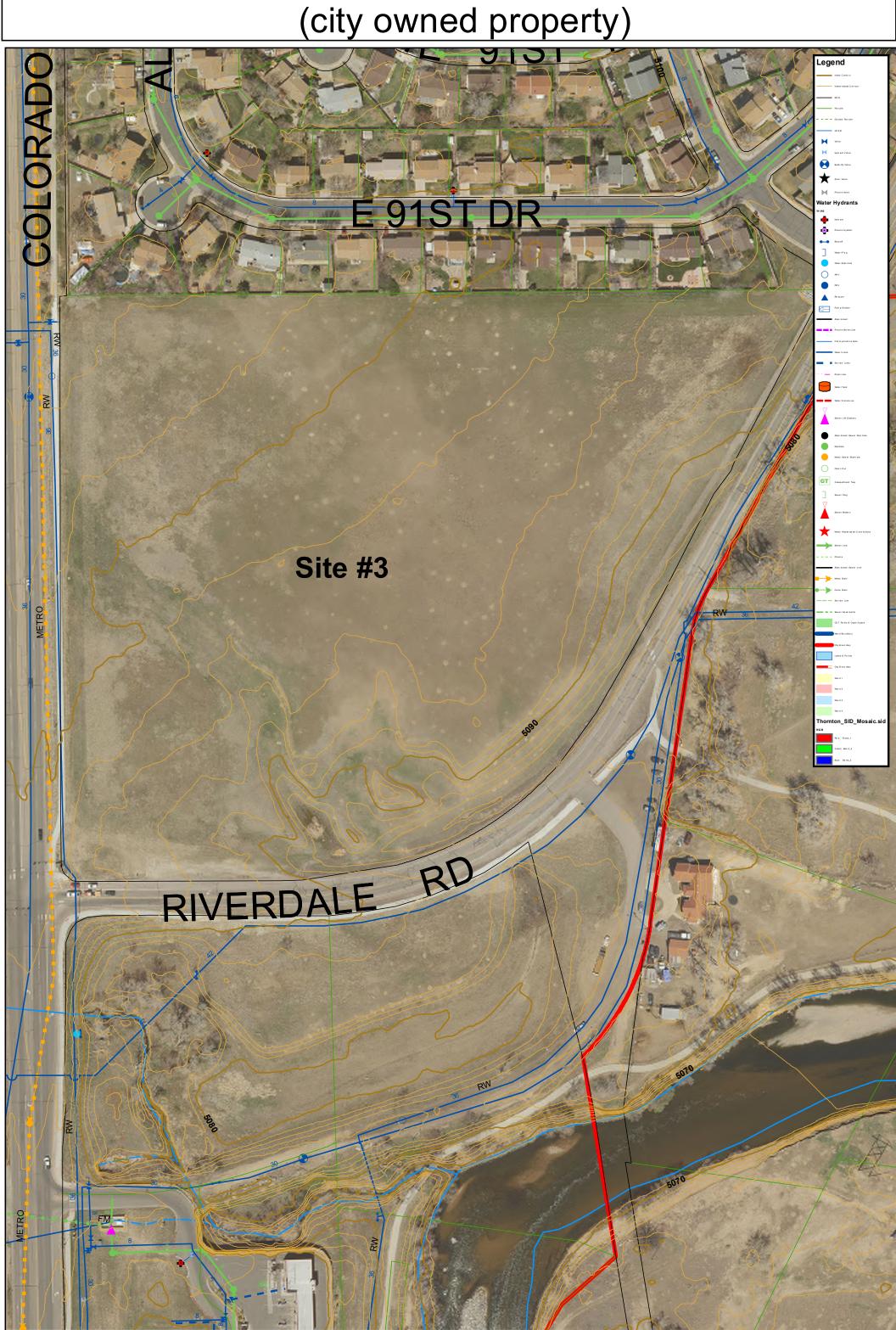
APPENDIX A

GIS Maps

Site Alternatives for Theater (city owned property)



Site Alternatives for Theater







Post Secondary City Boundary

High School

Ward Boundary

Ward 1

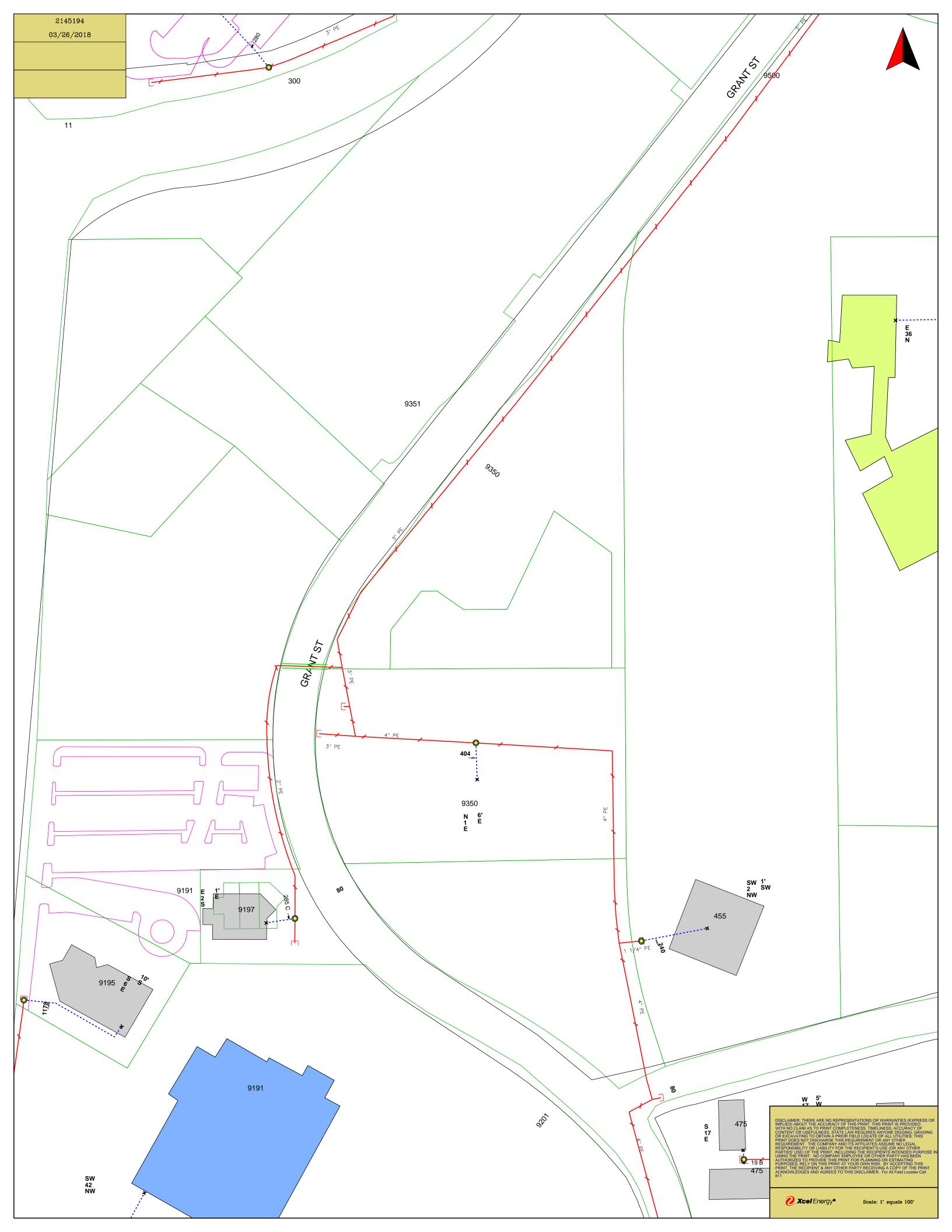
Ward 2

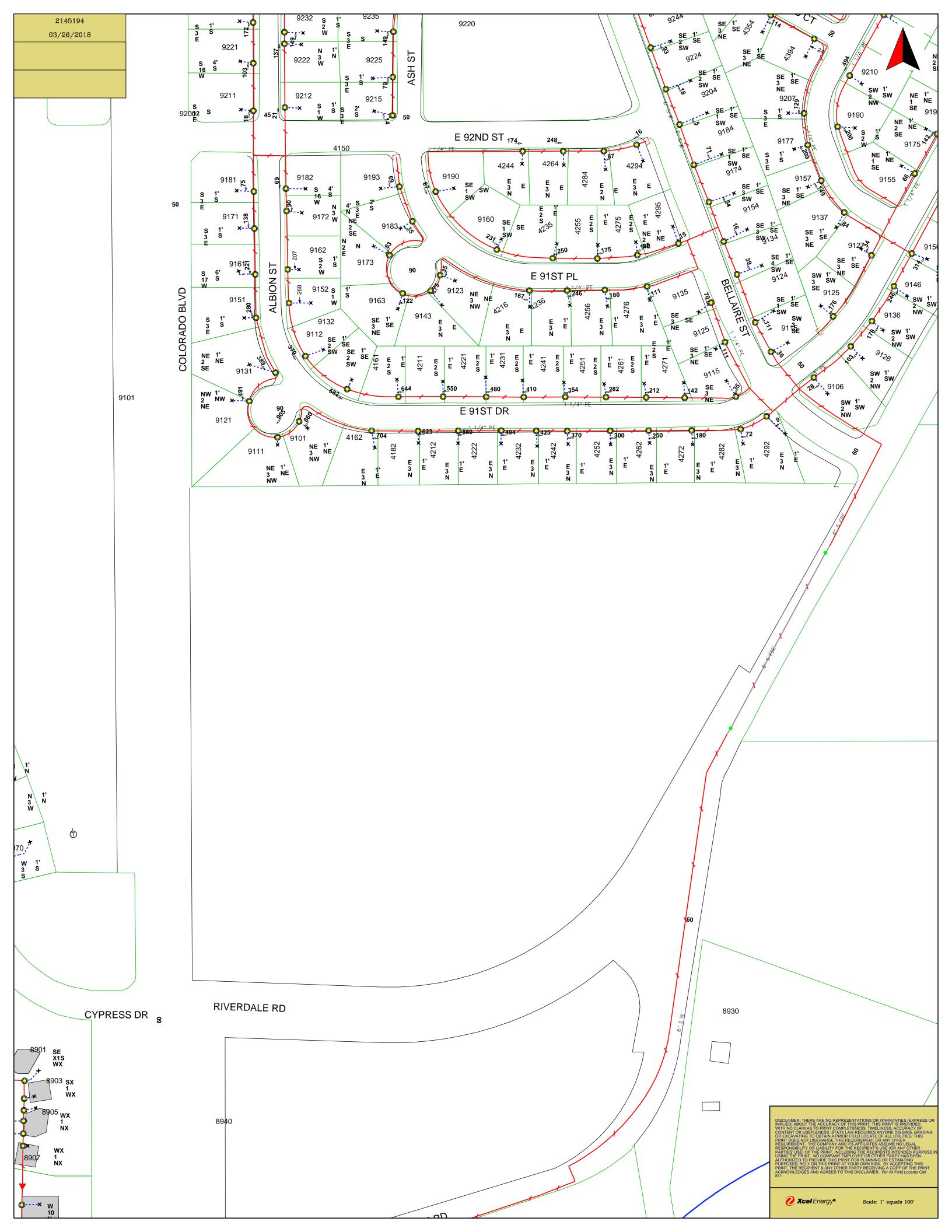
Parks & Open Space

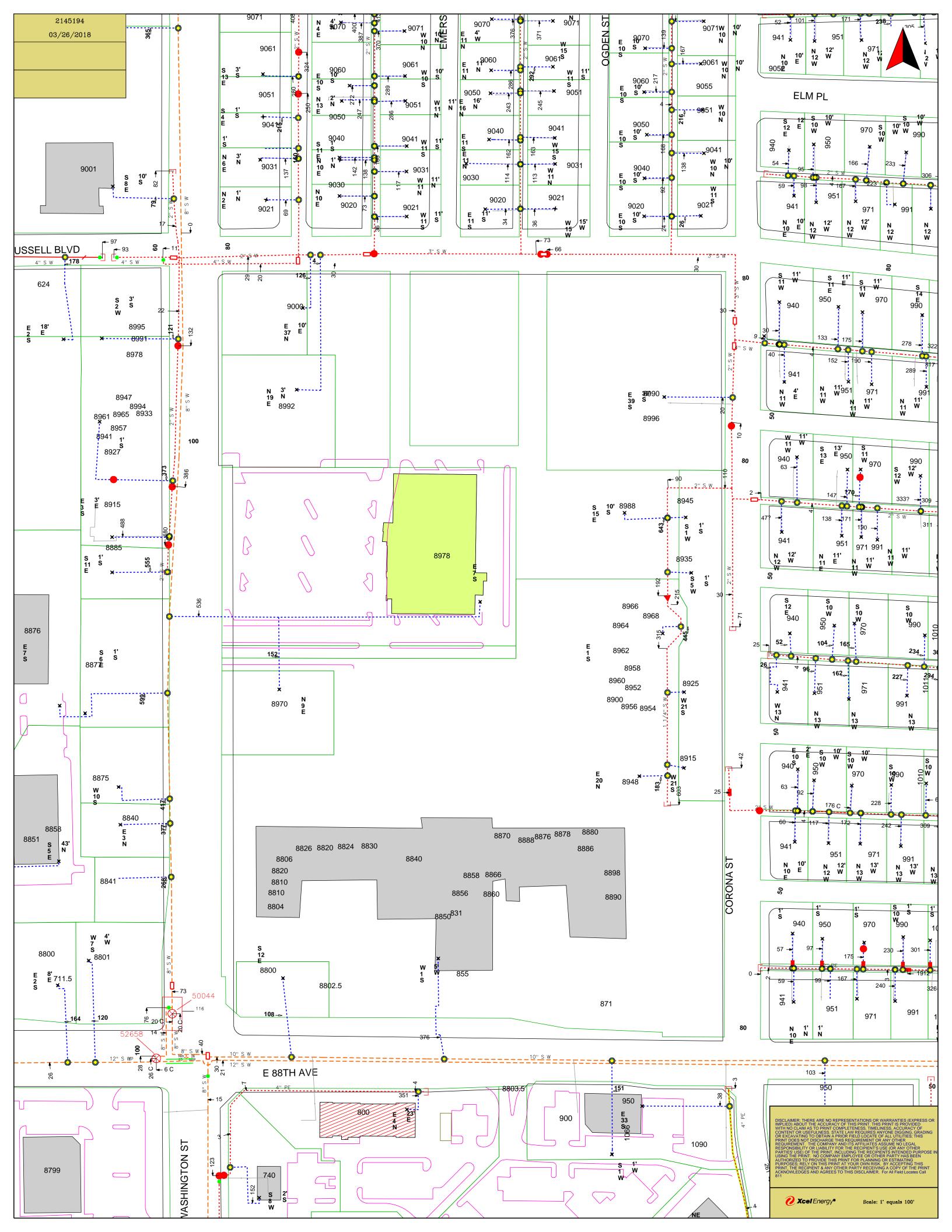


APPENDIX B

Xcel Maps – Gas and Electric







Service

Excess Flow Valve

 \mathbf{E}

Valves Service Valve Blowoff, Bypass, Emergency, Fire, Isolation, Main Line, Operating & Unknown Distribution and Control Check Valve **Fittings** ChangeWeldFusion, Transition Control Fitting High Volume Tapping Tee Three Way Tee Full Flow Tee End Cap Reducer Coupling (Non-insulated) **Insulated Coupling** Misc (D) Drip Box Casing Vent Locator Locate Wire Box **Utility Marker** Pipeline Marker

ш

Pressure Monitoring Device

Misc Gas Landmark Point

Error Symbol: Error with

Attributes; Unable to

Symbolize Correctly

Lot Centroid

Cathodic Protection Anode Rectifier Rectifier Wire Accidental CP Block Bondwire Test Points TN/A or Unknown 10 Percent Annual Mitigation AC Mitigation DC Testlead **Distribution Event History** Class 1 Leak

Class 2 Leak

Class 3 Leak

Class 4 Leak

Pipe Condition

Damage

Unknown

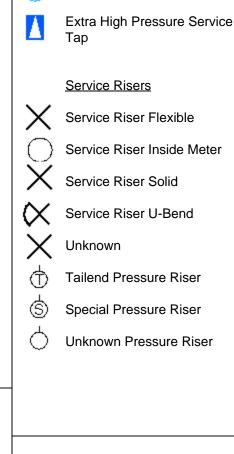
Repaired

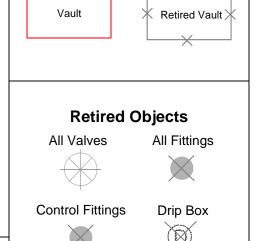
Locate Ticket

NGF

(P)

Œ





Vault

TBS Town Border Station

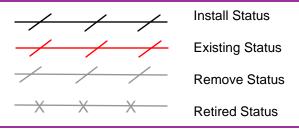


Symbol Status:
Black Symbol denotes "Install" status
Symbol with an X denotes "Remove" status

Annotation Rules

The following are **NOT** annotated:

- All gas services are 5/8"PE or 3/4"C unless otherwise noted.
- Gas Service length annotation is not displayed on maps. (information available in GIS)



				Transmission Pipe Segment
				Abandoned Transmission Pipe Segment
				Main: 176 and above (psig)
4.1. 4.11 14.0 4.1. 4.11 14.0 4.1. 4.11 14.0	ov ale. alen eado ale. alen eado ale. a			Main: 67-175 (psig)
	-		_	
	,			Main: 26-66 (psig)
				Main: 2-25 (psig)
				Main: 0-100 (inches w.c)
X	X	×	X	Retired Main
				Existing Gas Service
V	×	×	V	-
^	^	^	^	Retired Gas Service
				Casing without Protective Enclosure
				Casing with Protective Enclosure
X	X		X	Retired Casing
				Sniffer
				Joint Trench Line
				Inserted Area
				Other Pipeline* (Company Owned)
				Other Pipeline* (Other Company Owned, Private, Unknown)
			- -	Error Symbol: Error with Attribute – unable to symbolize correctly

*Other Pipeline Annotation (Size + Type)

BDB (Biodiesel Blend)

CRD (Crude Oil) ETB (Ethanol Blended Gasoline) ETH (Fuel Grade Ethanol)

HPC (HVL Petrochemical)

HVL (Highly Volatile Liquid) LNG (Liquid Propane Gas) NG (Natural Gas)

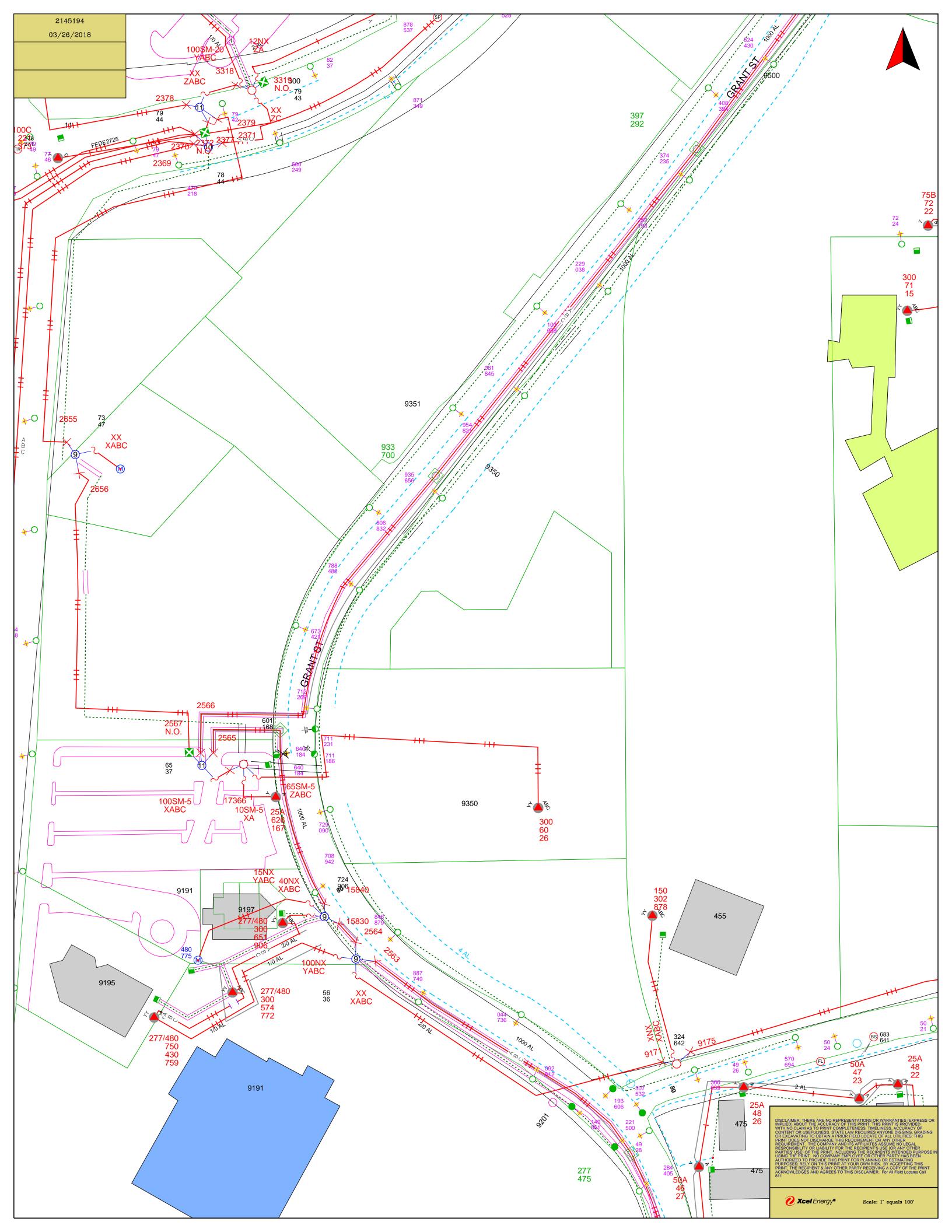
NPC (Non-HVL Petrochemical) PEG (Liquefied Petroleum Gas)

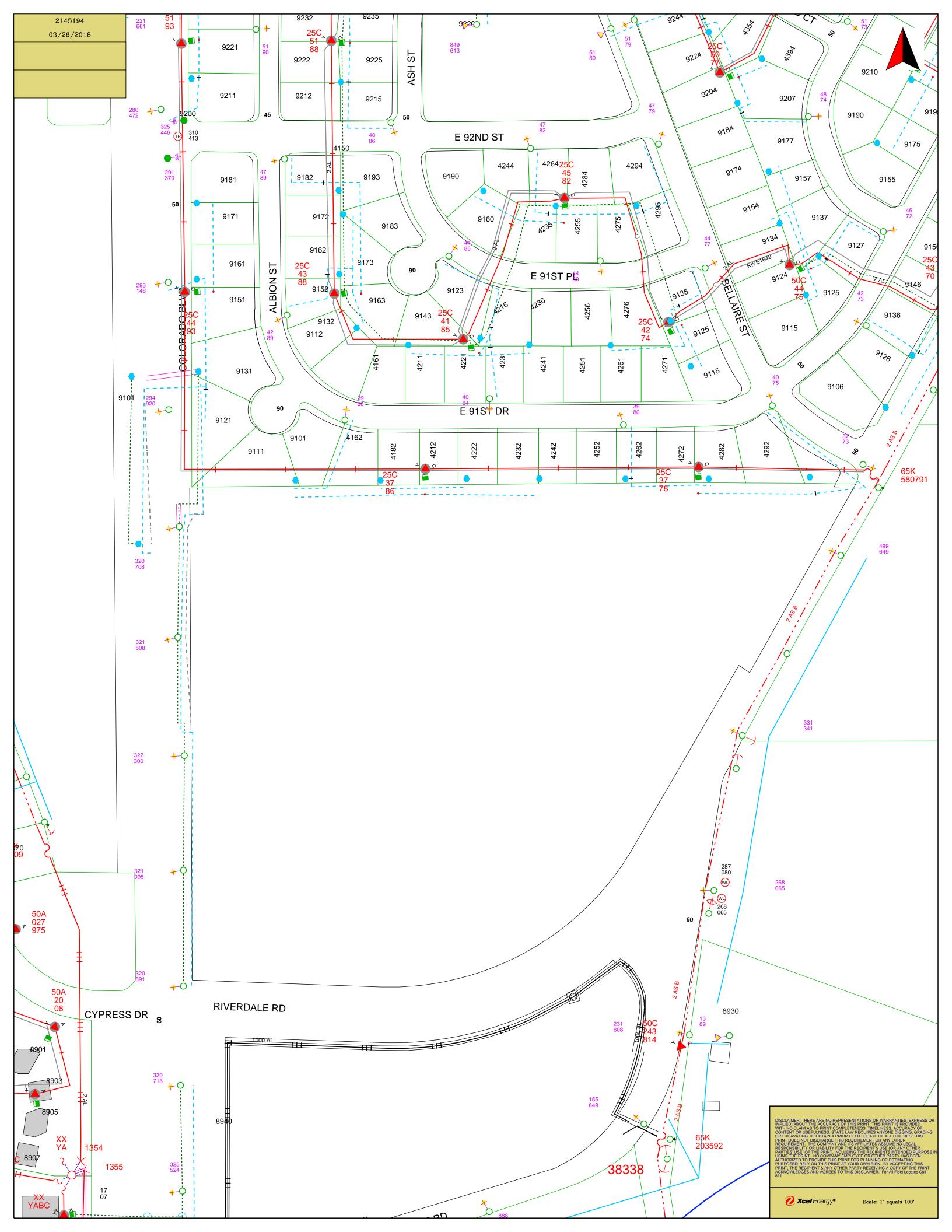
PG (Propane Gas)

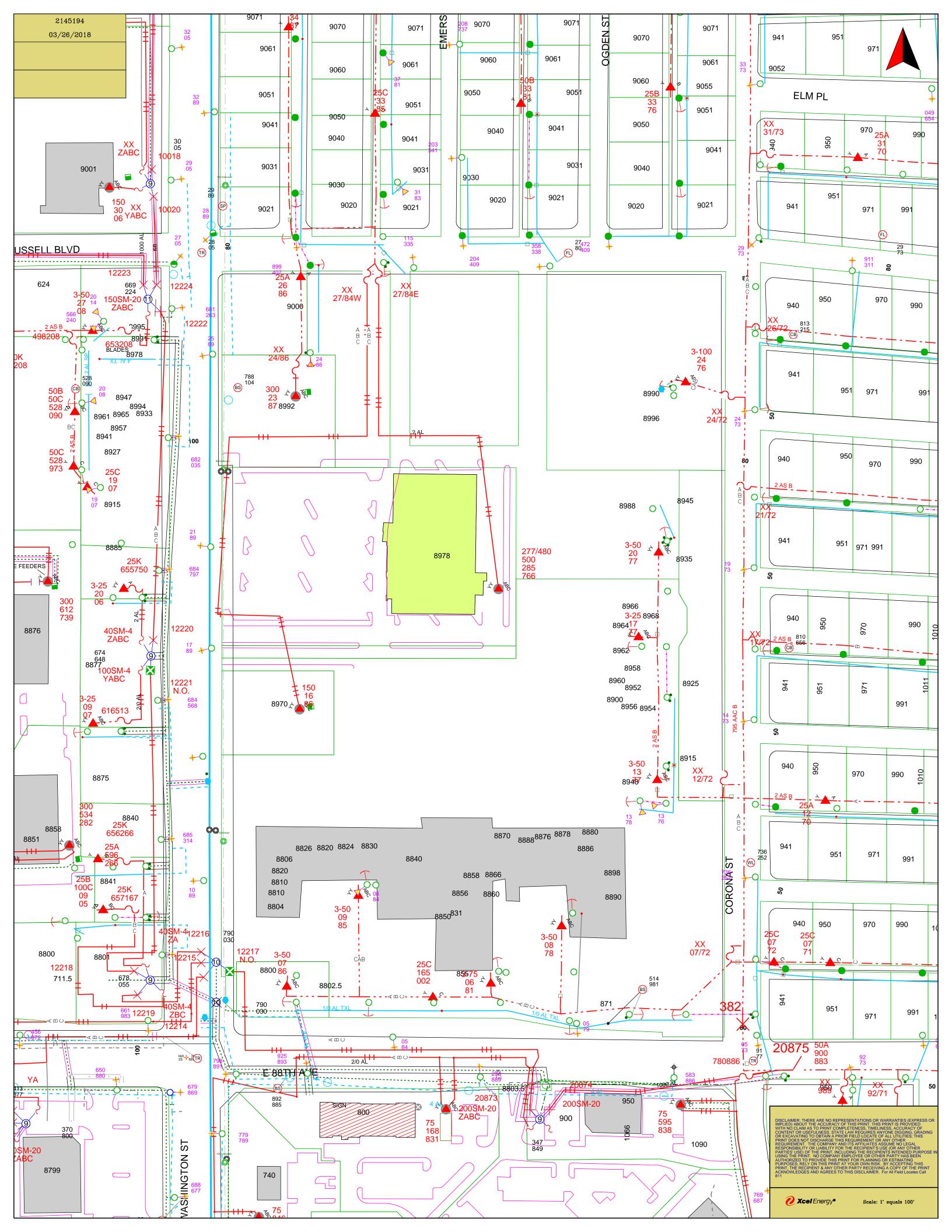
RFD (Refined Fuel Oil, Diesel) RGS (Refined Non-Ethanol Blended Gasoline)

RKJ (Refined Kerosene, Jet Fuel)

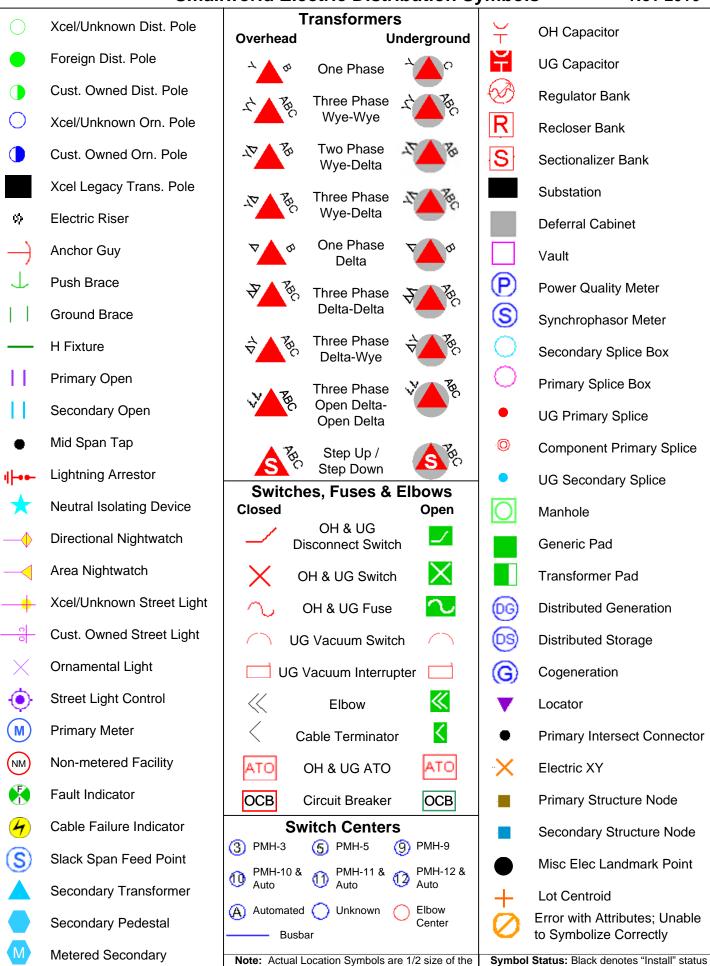
Unknown



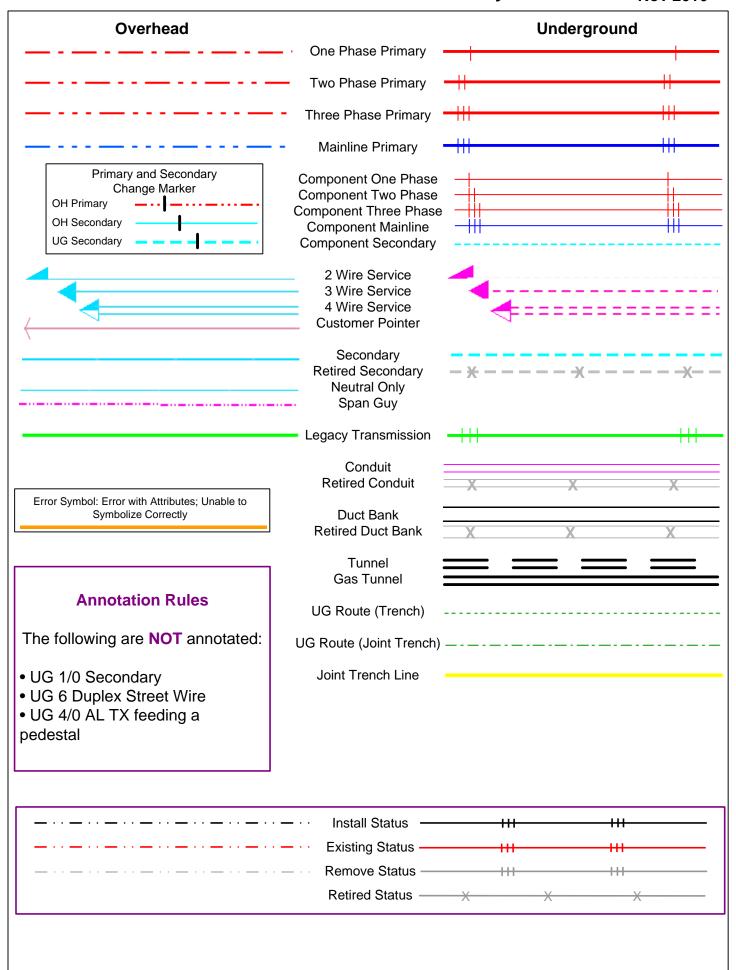




Symbol with an X denotes "Remove" status



normal symbols and are gray.





APPENDIX C

Site Exhibits (Medium Program)

THORNTON PERFORMING ARTS THEATER SITE ASSESSMENT

MARTIN/MARTIN CONSULTING ENGINEERS

Sheet Number:

Sheet Number:



APPENDIX D

Engineer's Opinion for Probable Cost





Project:Thornton Performing Arts Theater Site AssessmentDate:04.25.2018Location:SITE 1: GRANT STProject No.:18.0315Subject:Small Program EOPCPrepared By:KFClient:Barker Rinker Seacat ArchitectureChecked By:BW

Note: Any opinions of price, probable project costs or construction costs rendered by Martin/Martin, Inc. represent its best judgment and are furnished for general guidance. Martin/Martin, Inc. makes no warranty of guarantee, either expressed or implied as to the accuracy of such opinions as compared to bid or actual costs.

Item No.	Item Description	Units	Quantity	Unit Price	Item Cost
1	Curb and Gutter	LF	2375	\$35.00	\$83,125.00
2	Asphalt (Parking Lot and Drives)	SF	56750	\$5.00	\$283,750.00
3	6" PVC Pipe (Sanitary)	LF	210	\$80.00	\$16,800.00
4	8" PVC Pipe (Water Loop)	LF	900	\$95.00	\$85,500.00
5	6" DIP Pipe (Fire Service)	LF	105	\$80.00	\$8,400.00
6	2" Copper Pipe (Water Service)	LF	30	\$60.00	\$1,800.00
7	Fire Hydrant Assembly	EA	3	\$9,000.00	\$27,000.00
8	Gas	LF	80	\$70.00	\$5,600.00
9	Electric	LF	115	\$65.00	\$7,475.00
10	18" RCP Storm	LF	720	\$85.00	\$61,200.00
11	5' Type R Curb Inlet	EA	4	\$9,000.00	\$36,000.00
12	24" Nyloplast Inlet	EA	3	\$3,000.00	\$9,000.00
13	18" Flared-End Section	EA	2	\$2,000.00	\$4,000.00
14	Retaining Wall	SF	2400	\$50.00	\$120,000.00
15	Earthwork	CY	15850	\$12.00	\$190,200.00
16	Import	CY	6890	\$45.00	\$310,050.00
17	Sidewalk	LF	800	\$30.00	\$24,000.00
18	Storm: detention pond to Grant storm	LS	1	\$52,000.00	\$52,000.00
Remarks: Does not include special, expansive soil		Cost of Items:			\$1,325,900.00
mitigation such as 3' over excavation in parking lots or		20% Contingencies:			\$265,180.00
under building.		Subtotal:			\$1,591,080.00
-		10% Const. Engineering/Observation:			\$159,108.00
· · · · · · · · · · · · · · · · · · ·		5 5 7			

TOTAL: \$1,750,188.00





Project:Thornton Performing Arts Theater Site AssessmentDate:04.25.2018Location:SITE 1: GRANT STProject No.:18.0315Subject:Medium Program EOPCPrepared By:KFClient:Barker Rinker Seacat ArchitectureChecked By:BW

Note: Any opinions of price, probable project costs or construction costs rendered by Martin/Martin, Inc. represent its best judgment and are furnished for general guidance. Martin/Martin, Inc. makes no warranty of guarantee, either expressed or implied as to the accuracy of such opinions as compared to bid or actual costs.

Item No.	Item Description	Units	Quantity	Unit Price	Item Cost
1	Curb and Gutter	LF	2820	\$35.00	\$98,700.00
2	Asphalt (Parking Lot and Drives)	SF	94850	\$5.00	\$474,250.00
3	6" PVC Pipe (Sanitary)	LF	210	\$80.00	\$16,800.00
4	8" PVC Pipe (Water Loop)	LF	900	\$95.00	\$85,500.00
5	6" DIP Pipe (Fire Service)	LF	105	\$80.00	\$8,400.00
6	2" Copper Pipe (Water Service)	LF	30	\$60.00	\$1,800.00
7	Fire Hydrant Assembly	EA	3	\$9,000.00	\$27,000.00
8	Gas	LF	80	\$70.00	\$5,600.00
9	Electric	LF	115	\$65.00	\$7,475.00
10	18" RCP Storm	LF	720	\$85.00	\$61,200.00
11	5' Type R Curb Inlet	EA	4	\$9,000.00	\$36,000.00
12	24" Nyloplast Inlet	EA	3	\$3,000.00	\$9,000.00
13	18" Flared-End Section	EA	2	\$2,000.00	\$4,000.00
14	Retaining Wall	SF	2800	\$50.00	\$140,000.00
15	Earthwork	CY	26390	\$12.00	\$316,680.00
16	Import	CY	11440	\$45.00	\$514,800.00
17	Sidewalk	LF	1060	\$30.00	\$31,800.00
18	Storm: detention pond to Grant storm	LS	1	\$52,000.00	\$52,000.00
Remarks: Does not include special, expansive soil		Cost of Items:			\$1,891,005.00
mitigation s	mitigation such as 3' over excavation in parking lots or		20% Contingencies:		
under building.		Subtotal:			\$2,269,206.00
-		10% Const. Engineering/Observation:			\$226,920.60
		2070 0011001 2116111001 00001 10010111			· · ·

TOTAL: \$2,496,126.60





Project:Thornton Performing Arts Theater Site AssessmentDate:04.25.2018Location:SITE 1: GRANT STProject No.:18.0315Subject:Large Program EOPCPrepared By:KFClient:Barker Rinker Seacat ArchitectureChecked By:BW

Note: Any opinions of price, probable project costs or construction costs rendered by Martin/Martin, Inc. represent its best judgment and are furnished for general guidance. Martin/Martin, Inc. makes no warranty of guarantee, either expressed or implied as to the accuracy of such opinions as compared to bid or actual costs.

n Cost
700.00
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800.00
00.00
1,545.00
20,309.00
21,854.00
2,185.40
000000000000000000000000000000000000000

TOTAL: \$2,774,039.40





Project: Thornton Performing Arts Theater Site Assessment

Location: SITE 3: COLORADO BLVD AND RIVERDALE RD

Subject: Small Program EOPC
Client: Barker Rinker Seacat Architecture

Project No.: 18.0315

Prepared By: KF
Checked By: BW

Note: Any opinions of price, probable project costs or construction costs rendered by Martin/Martin, Inc. represent its best judgment and are furnished for general guidance. Martin/Martin, Inc. makes no warranty of guarantee, either expressed or implied as to the accuracy of such opinions as compared to bid or actual costs.

Item No.	Item Description	Units	Quantity	Unit Price	Item Cost
1	Curb and Gutter	LF	3270	\$35.00	\$114,450.00
2	Asphalt (Parking Lot and Drives)	SF	81980	\$5.00	\$409,900.00
3	8" PVC Pipe (Sanitary)	LF	390	\$120.00	\$46,800.00
4	4' Manhole (Sanitary)	EA	1	\$8,000.00	\$8,000.00
5	Metro Connect	LS	1	\$40,000.00	\$40,000.00
6	8" PVC Pipe (Water Loop)	LF	1915	\$120.00	\$229,800.00
7	Pressure Reducing Valve	EA	1	\$120,000.00	\$120,000.00
8	6" DIP Pipe (Fire Service)	LF	135	\$80.00	\$10,800.00
9	2" Copper Pipe (Water Service)	LF	25	\$60.00	\$1,500.00
10	Fire Hydrant Assembly	EA	3	\$9,000.00	\$27,000.00
11	Electric	LF	650	\$65.00	\$42,250.00
12	Gas	LF	600	\$70.00	\$42,000.00
13	18" RCP Storm	LF	1100	\$85.00	\$93,500.00
14	5' Type R Curb Inlet	EA	3	\$9,000.00	\$27,000.00
15	18" Flared-End Section	EA	1	\$2,000.00	\$2,000.00
16	24" Nyloplast Inlet	EA	3	\$3,000.00	\$9,000.00
17	Earthwork	CY	9075	\$12.00	\$108,900.00
18	Haul/Import	CY	970	\$45.00	\$43,650.00
19	Sidewalk	LF	1685	\$30.00	\$50,550.00
20	Off-Site Culvert ±36"	LS	1	\$24,000.00	\$24,000.00
21	Widening of Riverdale Road	LS	1	\$150,000.00	\$150,000.00
Remarks: Does not include special, expansive soil		Cost of Items:			\$1,601,100.00
mitigation such as 3' over excavation in parking lots or		20% Contingencies:			\$320,220.00
under building.		Subtotal:			\$1,921,320.00
		10% Co	nst. Engineerir	ng/Observation:	\$192,132.00

TOTAL: \$2,113,452.00





Project: Thornton Performing Arts Theater Site Assessment

Location: SITE 3: COLORADO BLVD AND RIVERDALE RD

Subject: Medium Program EOPC
Client: Barker Rinker Seacat Architecture

Project No.: 18.0315

Prepared By: KF
Checked By: BW

Note: Any opinions of price, probable project costs or construction costs rendered by Martin/Martin, Inc. represent its best judgment and are furnished for general guidance. Martin/Martin, Inc. makes no warranty of guarantee, either expressed or implied as to the accuracy of such opinions as compared to bid or actual costs.

Item No.	Item Description	Units	Quantity	Unit Price	Item Cost
1	Curb and Gutter	LF	3410	\$35.00	\$119,350.00
2	Asphalt (Parking Lot and Drives)	SF	106795	\$5.00	\$533,975.00
3	8" PVC Pipe (Sanitary)	LF	390	\$120.00	\$46,800.00
4	4' Manhole (Sanitary)	EA	1	\$8,000.00	\$8,000.00
5	Metro Connect	LS	1	\$40,000.00	\$40,000.00
6	8" PVC Pipe (Water Loop)	LF	1915	\$120.00	\$229,800.00
7	Pressure Reducing Valve	EA	1	\$120,000.00	\$120,000.00
8	6" DIP Pipe (Fire Service)	LF	135	\$80.00	\$10,800.00
9	2" Copper Pipe (Water Service)	LF	25	\$60.00	\$1,500.00
10	Fire Hydrant Assembly	EA	3	\$9,000.00	\$27,000.00
11	Electric	LF	650	\$65.00	\$42,250.00
12	Gas	LF	600	\$70.00	\$42,000.00
13	18" RCP Storm	LF	1100	\$85.00	\$93,500.00
14	5' Type R Curb Inlet	EA	3	\$9,000.00	\$27,000.00
15	18" Flared-End Section	EA	1	\$2,000.00	\$2,000.00
16	24" Nyloplast Inlet	EA	3	\$3,000.00	\$9,000.00
17	Earthwork	CY	11420	\$12.00	\$137,040.00
18	Haul/Import	CY	1180	\$45.00	\$53,100.00
19	Sidewalk	LF	1685	\$30.00	\$50,550.00
20	Off-Site Culvert ±36"	LS	1	\$24,000.00	\$24,000.00
21	Widening of Riverdale Road	LS	1	\$150,000.00	\$150,000.00
Remarks: Does not include special, expansive soil				Cost of Items:	\$1,767,665.00
mitigation such as 3' over excavation in parking lots or		20% Contingencies:			\$353,533.00
under building.		Subtotal:			\$2,121,198.00
		10% Co	nst. Engineerir	ng/Observation:	\$212,119.80

TOTAL: \$2,333,317.80





Project: Thornton Performing Arts Theater Site Assessment

Location: SITE 3: COLORADO BLVD AND RIVERDALE RD

Subject: Large Program EOPC
Client: Barker Rinker Seacat Architecture

Project No.: 18.0315

Prepared By: KF
Checked By: BW

Note: Any opinions of price, probable project costs or construction costs rendered by Martin/Martin, Inc. represent its best judgment and are furnished for general guidance. Martin/Martin, Inc. makes no warranty of guarantee, either expressed or implied as to the accuracy of such opinions as compared to bid or actual costs.

Item No.	Item Description	Units	Quantity	Unit Price	Item Cost
1	Curb and Gutter	LF	3930	\$35.00	\$137,550.00
2	Asphalt (Parking Lot and Drives)	SF	130045	\$5.00	\$650,225.00
3	8" PVC Pipe (Sanitary)	LF	390	\$120.00	\$46,800.00
4	4' Manhole (Sanitary)	EA	1	\$8,000.00	\$8,000.00
5	Metro Connect	LS	1	\$8,000.00	\$8,000.00
6	8" PVC Pipe (Water Loop)	LF	1915	\$120.00	\$229,800.00
7	Pressure Reducing Valve	EA	1	\$120,000.00	\$120,000.00
8	6" DIP Pipe (Fire Service)	LF	135	\$80.00	\$10,800.00
9	2" Copper Pipe (Water Service)	LF	25	\$60.00	\$1,500.00
10	Fire Hydrant Assembly	EA	3	\$9,000.00	\$27,000.00
11	Electric	LF	650	\$65.00	\$42,250.00
12	Gas	LF	600	\$70.00	\$42,000.00
13	18" RCP Storm	LF	1100	\$85.00	\$93,500.00
14	5' Type R Curb Inlet	EA	3	\$9,000.00	\$27,000.00
15	18" Flared-End Section	EA	1	\$2,000.00	\$2,000.00
16	24" Nyloplast Inlet	EA	3	\$3,000.00	\$9,000.00
17	Earthwork	CY	16140	\$12.00	\$193,680.00
18	Haul/Import	CY	1400	\$45.00	\$63,000.00
19	Sidewalk	LF	1685	\$30.00	\$50,550.00
20	Off-Site Culvert ±36"	LS	1	\$24,000.00	\$24,000.00
21	Widening of Riverdale Road	LS	1	\$150,000.00	\$150,000.00
Remarks: Does not include special, expansive soil		Cost of Items:			\$1,936,655.00
mitigation such as 3' over excavation in parking lots or		20% Contingencies:			\$387,331.00
under building.		Subtotal:			\$2,323,986.00
			10% Const. Engineering/Observation:		

TOTAL: \$2,556,384.60



TOTAL:

\$1,692,352.20



Project:Thornton Performing Arts Theater Site AssessmentDate:04.25.2018Location:SITE 5: 88TH AVE AND WASHINGTON STProject No.:18.0315Subject:Small Program EOPCPrepared By:KFClient:Barker Rinker Seacat ArchitectureChecked By:BW

Note: Any opinions of price, probable project costs or construction costs rendered by Martin/Martin, Inc. represent its best judgment and are furnished for general guidance. Martin/Martin, Inc. makes no warranty of guarantee, either expressed or implied as to the accuracy of such opinions as compared to bid or actual costs.

Item No.	Item Description	Units	Quantity	Unit Price	Item Cost
1	Curb and Gutter	LF	2165	\$35.00	\$75,775.00
2	Asphalt (Parking Lot and Drives)	SF	77684	\$5.00	\$388,420.00
3	6" PVC Pipe (Sanitary)	LF	265	\$80.00	\$21,200.00
4	6" DIP Pipe (Fire Service)	LF	320	\$90.00	\$28,800.00
5	2" Copper Pipe (Water Service)	LF	115	\$70.00	\$8,050.00
6	Fire Hydrant Assembly	EA	2	\$9,000.00	\$18,000.00
7	Gas (if necessary)	LF	320	\$95.00	\$30,400.00
8	Electric (if necessary)	LF	360	\$95.00	\$34,200.00
9	18" RCP Storm	LF	980	\$100.00	\$98,000.00
10	5' Type R Curb Inlet	EA	3	\$9,000.00	\$27,000.00
11	24" Nyloplast Inlet	EA	4	\$3,000.00	\$12,000.00
12	4' Manhole (Storm)	EA	1	\$8,000.00	\$8,000.00
13	18" Flared-End Section	EA	2	\$2,000.00	\$4,000.00
14	Earthwork	CY	8020	\$12.00	\$96,240.00
15	Import/Haul	CY	7600	\$45.00	\$342,000.00
16	Sidewalk	LF	1300	\$30.00	\$39,000.00
17	Access Realignment (if necessary)	LS	1	\$51,000.00	\$51,000.00
					\$0.00
Remarks: Does not include special, expansive soil		Cost of Items:			\$1,282,085.00
mitigation such as 3' over excavation in parking lots or		20% Contingencies:			\$256,417.00
under building.		Subtotal:			\$1,538,502.00
		10% Const. Engineering/Observation:			\$153,850.20

^{*}Does not include burial of overhead electric line.



TOTAL: \$1,938,334.20



Project: Thornton Performing Arts Theater Site Assessment

Location: SITE 5: 88TH AVE AND WASHINGTON ST
Subject: Medium Program EOPC
Client: Barker Rinker Seacat Architecture

Project No.: 18.0315

Prepared By: KF
Checked By: BW

Note: Any opinions of price, probable project costs or construction costs rendered by Martin/Martin, Inc. represent its best judgment and are furnished for general guidance. Martin/Martin, Inc. makes no warranty of guarantee, either expressed or implied as to the accuracy of such opinions as compared to bid or actual costs.

Item No.	Item Description	Units	Quantity	Unit Price	Item Cost
1	Curb and Gutter	LF	3200	\$35.00	\$112,000.00
2	Asphalt (Parking Lot and Drives)	SF	90895	\$5.00	\$454,475.00
3	6" PVC Pipe (Sanitary)	LF	265	\$80.00	\$21,200.00
4	6" DIP Pipe (Fire Service)	LF	320	\$90.00	\$28,800.00
5	2" Copper Pipe (Water Service)	LF	110	\$70.00	\$7,700.00
6	Fire Hydrant Assembly	EA	2	\$9,000.00	\$18,000.00
7	Gas (if necessary)	LF	320	\$95.00	\$30,400.00
8	Electric (if necessary)	LF	360	\$95.00	\$34,200.00
9	18" RCP Storm	LF	980	\$100.00	\$98,000.00
10	5' Type R Curb Inlet	EA	3	\$9,000.00	\$27,000.00
11	24" Nyloplast Inlet	EA	4	\$3,000.00	\$12,000.00
12	4' Manhole (Storm)	EA	1	\$8,000.00	\$8,000.00
13	18" Flared-End Section	EA	2	\$2,000.00	\$4,000.00
14	Earthwork	CY	9380	\$12.00	\$112,560.00
15	Import/Haul	CY	8900	\$45.00	\$400,500.00
16	Sidewalk	LF	1620	\$30.00	\$48,600.00
17	Access Realignment (if necessary)	LS	1	\$51,000.00	\$51,000.00
Remarks: Does not include special, expansive soil		Cost of Items:			\$1,468,435.00
mitigation such as 3' over excavation in parking lots or		20% Contingencies:			\$293,687.00
under building.		Subtotal:			\$1,762,122.00
		10% Const. Engineering/Observation:			\$176,212.20

^{*}Does not include burial of overhead electric line.



TOTAL: \$2,309,643.60



Project:Thornton Performing Arts Theater Site AssessmentDate:04.25.2018Location:SITE 5: 88TH AVE AND WASHINGTON STProject No.:18.0315Subject:Large Program EOPCPrepared By:KFClient:Barker Rinker Seacat ArchitectureChecked By:BW

Note: Any opinions of price, probable project costs or construction costs rendered by Martin/Martin, Inc. represent its best judgment and are furnished for general guidance. Martin/Martin, Inc. makes no warranty of guarantee, either expressed or implied as to the accuracy of such opinions as compared to bid or actual costs.

Item No.	Item Description	Units	Quantity	Unit Price	Item Cost
1	Curb and Gutter	LF	4130	\$35.00	\$144,550.00
2	Asphalt (Parking Lot and Drives)	SF	116680	\$5.00	\$583,400.00
3	6" PVC Pipe (Sanitary)	LF	265	\$80.00	\$21,200.00
4	6" DIP Pipe (Fire Service)	LF	320	\$90.00	\$28,800.00
5	2" Copper Pipe (Water Service)	LF	115	\$70.00	\$8,050.00
6	Fire Hydrant Assembly	EA	2	\$9,000.00	\$18,000.00
7	Gas (if necessary)	LF	320	\$95.00	\$30,400.00
8	Electric (if necessary)	LF	360	\$95.00	\$34,200.00
9	18" RCP Storm	LF	1080	\$100.00	\$108,000.00
10	5' Type R Curb Inlet	EA	4	\$9,000.00	\$36,000.00
11	24" Nyloplast Inlet	EA	4	\$3,000.00	\$12,000.00
12	4' Manhole (Storm)	EA	1	\$8,000.00	\$8,000.00
13	18" Flared-End Section	EA	2	\$2,000.00	\$4,000.00
14	Earthwork	CY	12040	\$12.00	\$144,480.00
15	Import/Haul	CY	10210	\$45.00	\$459,450.00
16	Sidewalk	LF	1940	\$30.00	\$58,200.00
17	Access Realignment (if necessary)	LS	1	\$51,000.00	\$51,000.00
Remarks: Does not include special, expansive soil		Cost of Items: \$1,749,7			\$1,749,730.00
mitigation such as 3' over excavation in parking lots or		20% Contingencies:			\$349,946.00
under building.		Subtotal:			\$2,099,676.00
		10% Const. Engineering/Observation:			\$209,967.60

^{*}Does not include burial of overhead electric line.