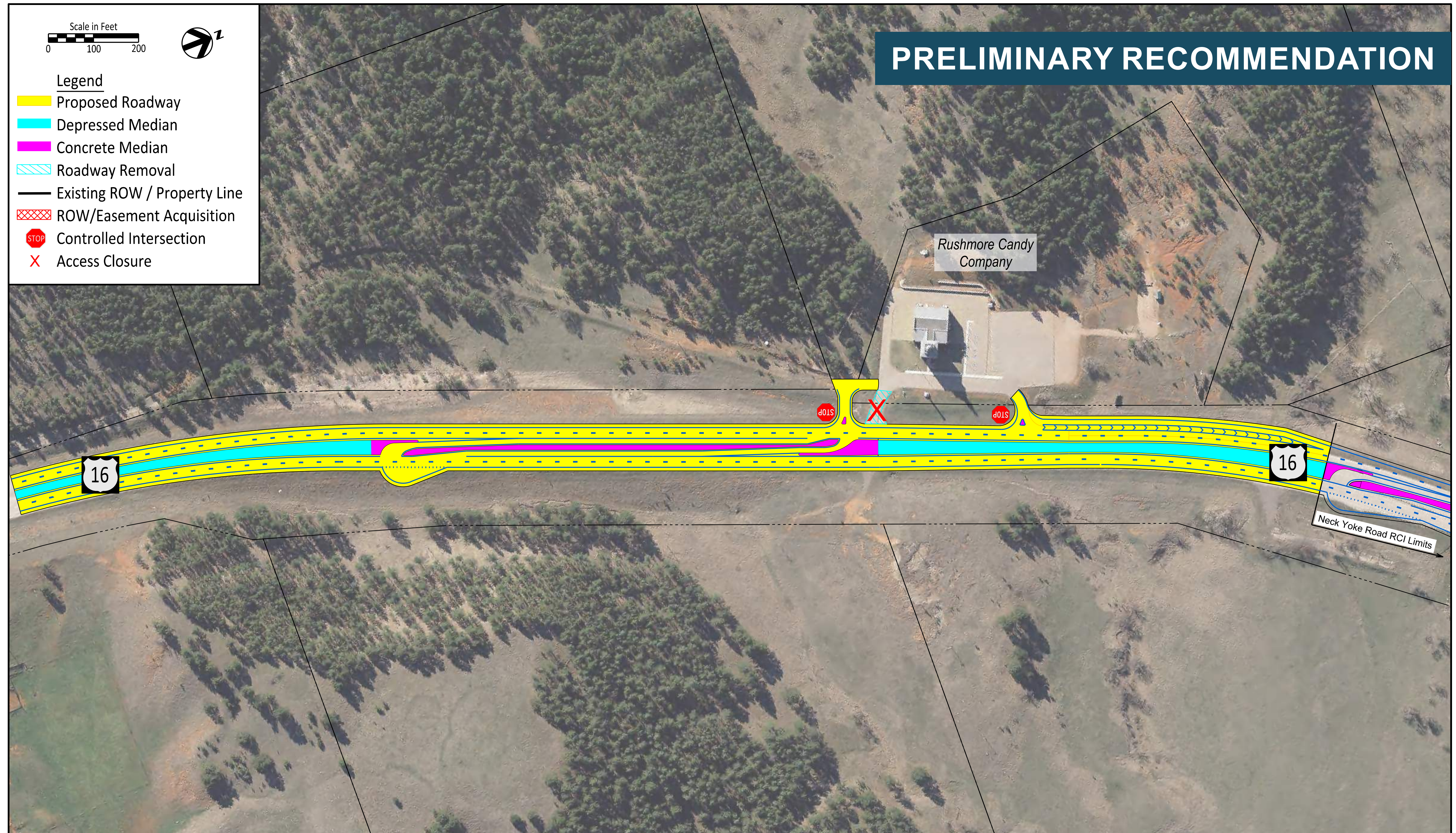


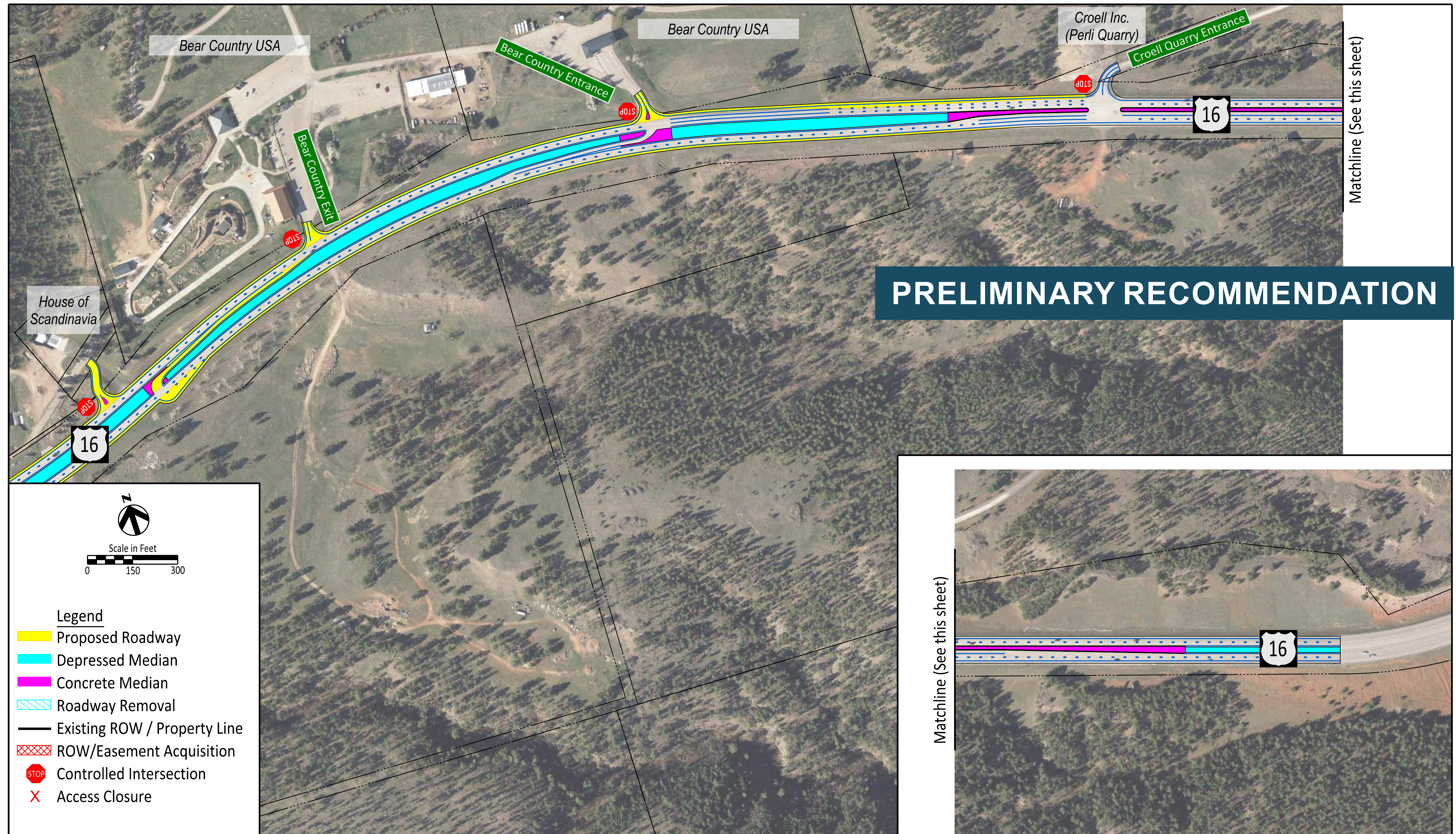
RUSHMORE CANDY COMPANY AREA

U.S. HIGHWAY 16 CORRIDOR STUDY: RURAL SUB-AREA ANALYSIS



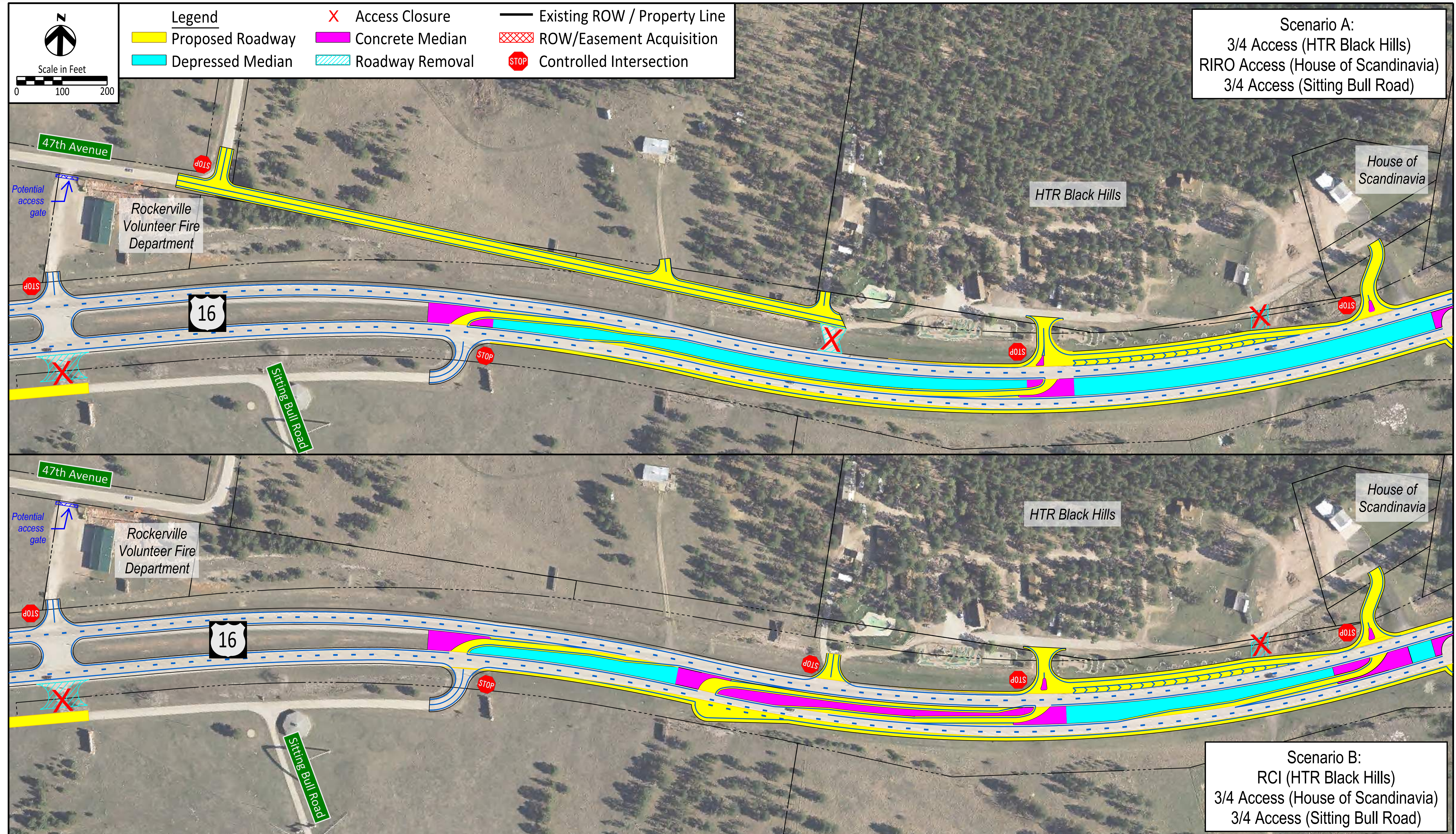
BEAR COUNTRY USA AREA

U.S. HIGHWAY 16 CORRIDOR STUDY: RURAL SUB-AREA ANALYSIS



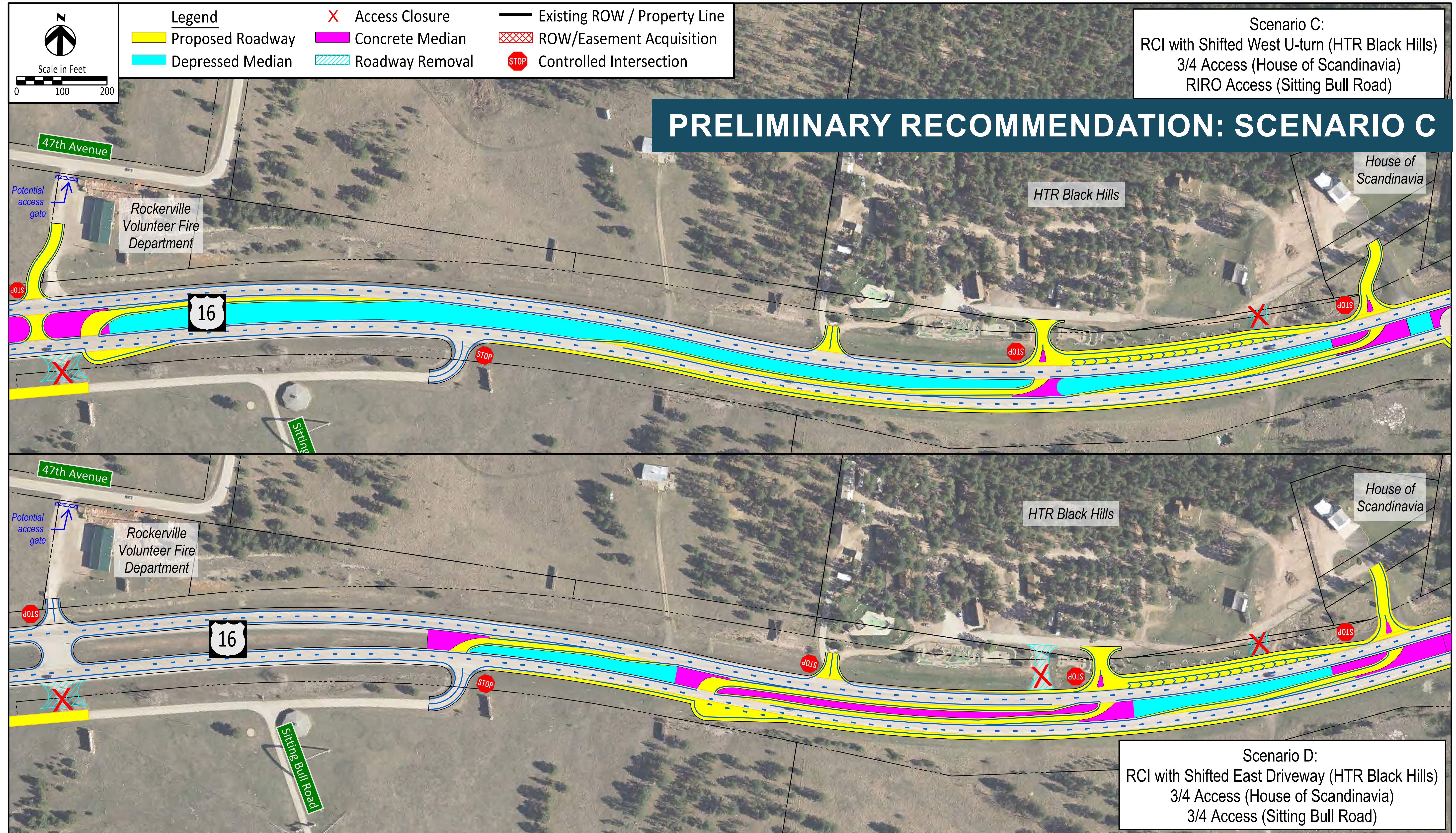
HTR BLACK HILLS RESORT AREA | SCENARIOS A & B

U.S. HIGHWAY 16 CORRIDOR STUDY: RURAL SUB-AREA ANALYSIS



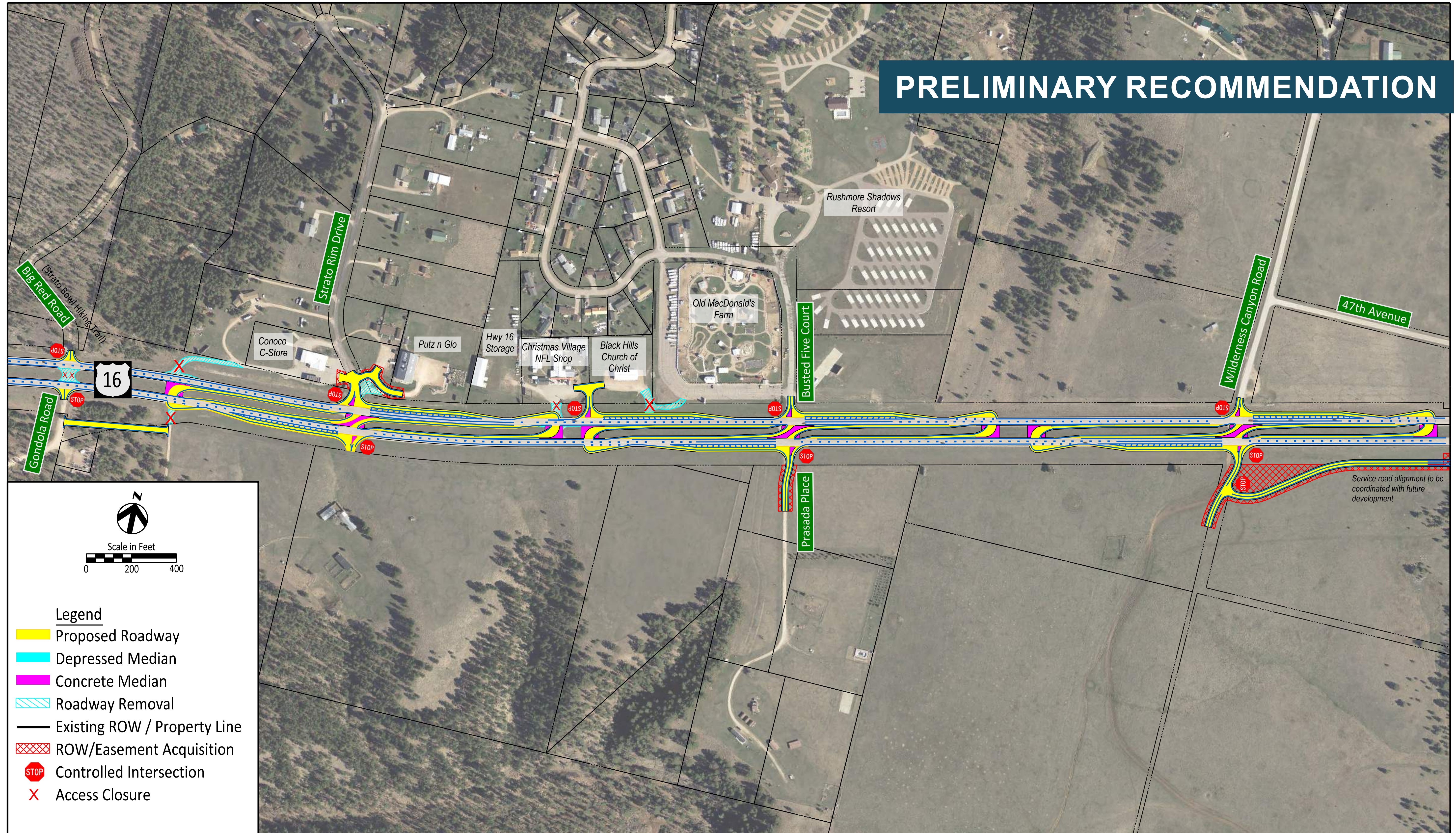
HTR BLACK HILLS RESORT AREA | SCENARIOS C & D

U.S. HIGHWAY 16 CORRIDOR STUDY: RURAL SUB-AREA ANALYSIS



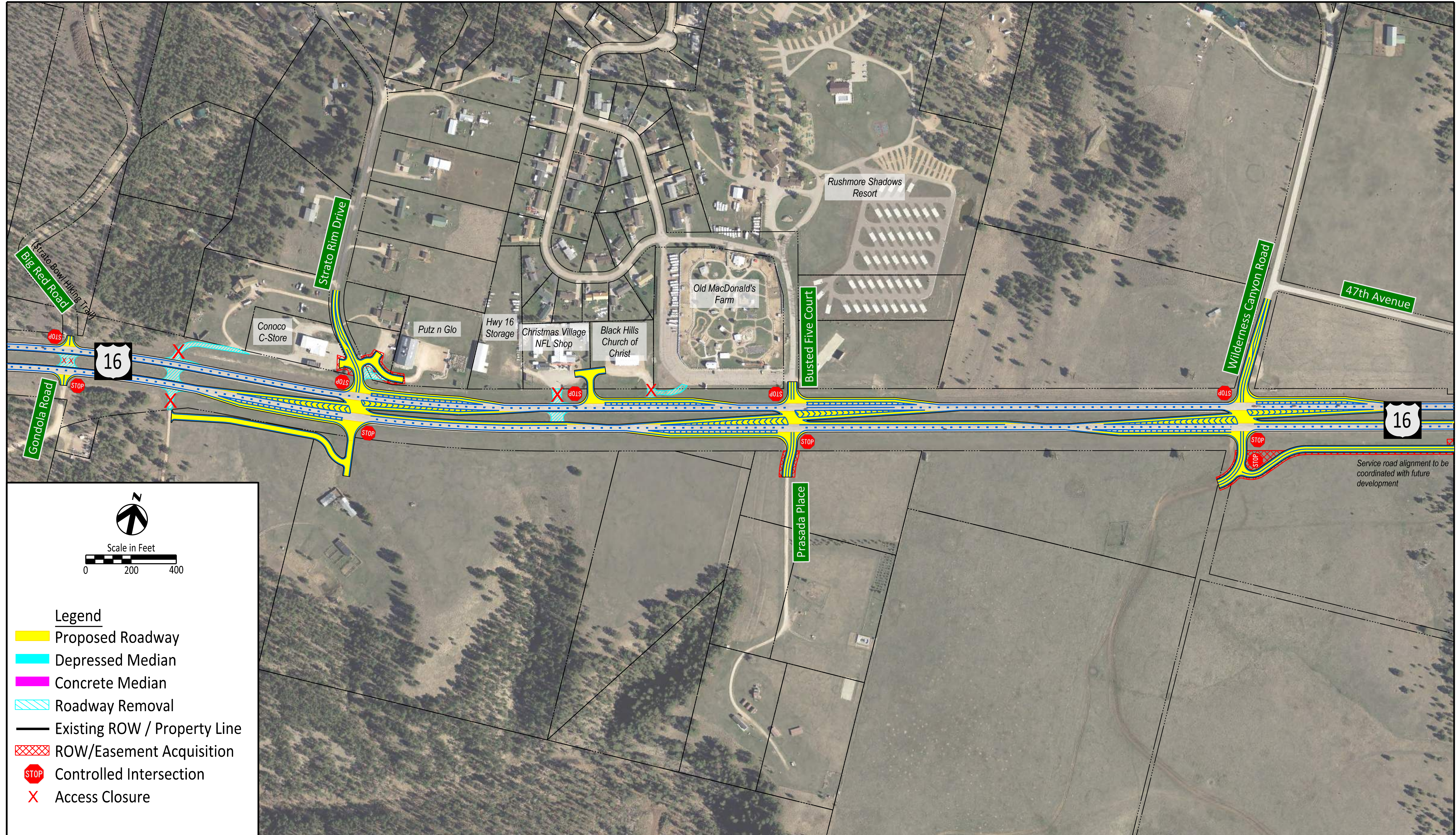
STRATO RIM – BUSTED FIVE – WILDERNESS CANYON AREA | SCENARIO A

U.S. HIGHWAY 16 CORRIDOR STUDY: RURAL SUB-AREA ANALYSIS



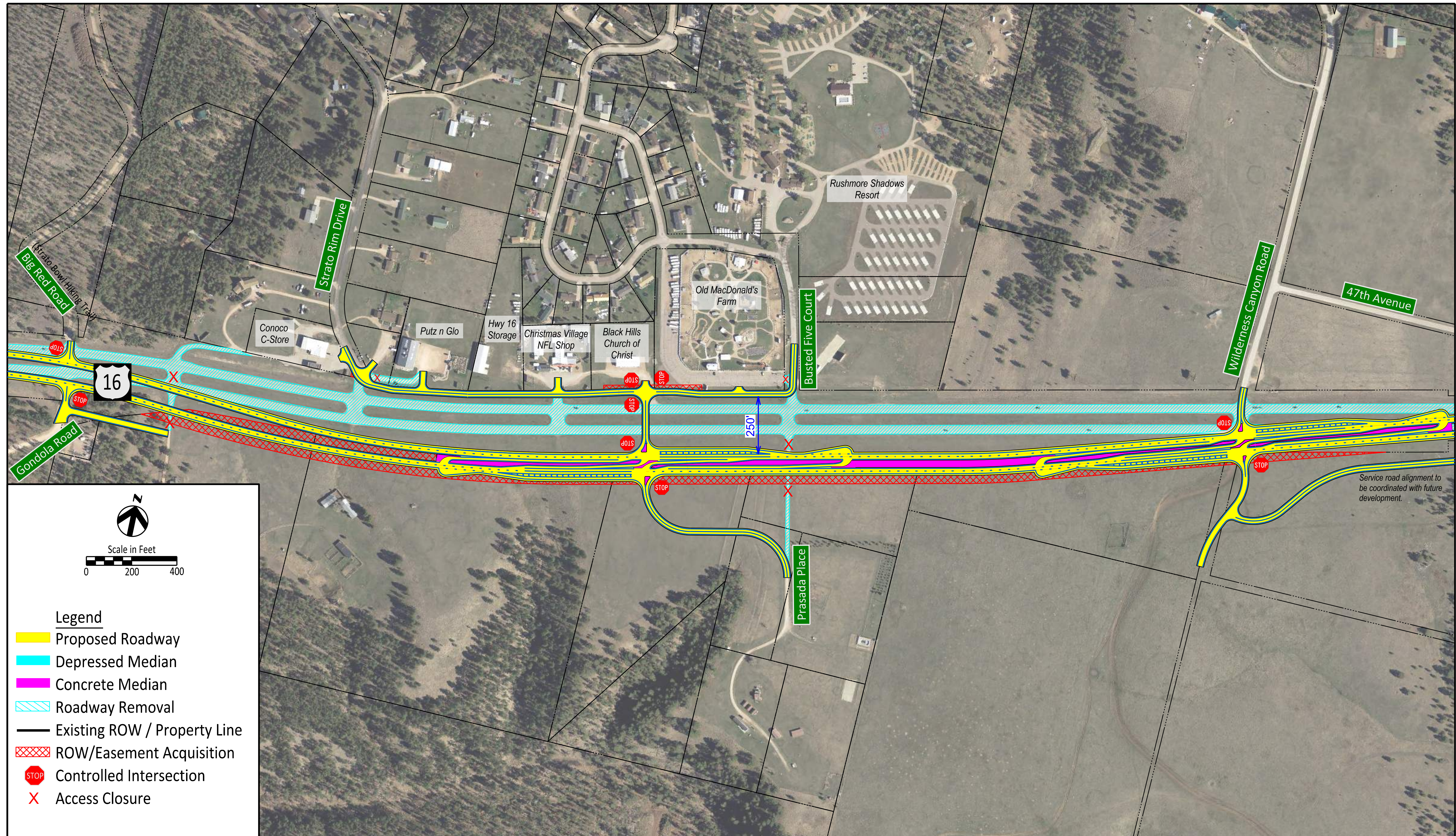
STRATO RIM – BUSTED FIVE – WILDERNESS CANYON AREA | SCENARIO B

U.S. HIGHWAY 16 CORRIDOR STUDY: RURAL SUB-AREA ANALYSIS



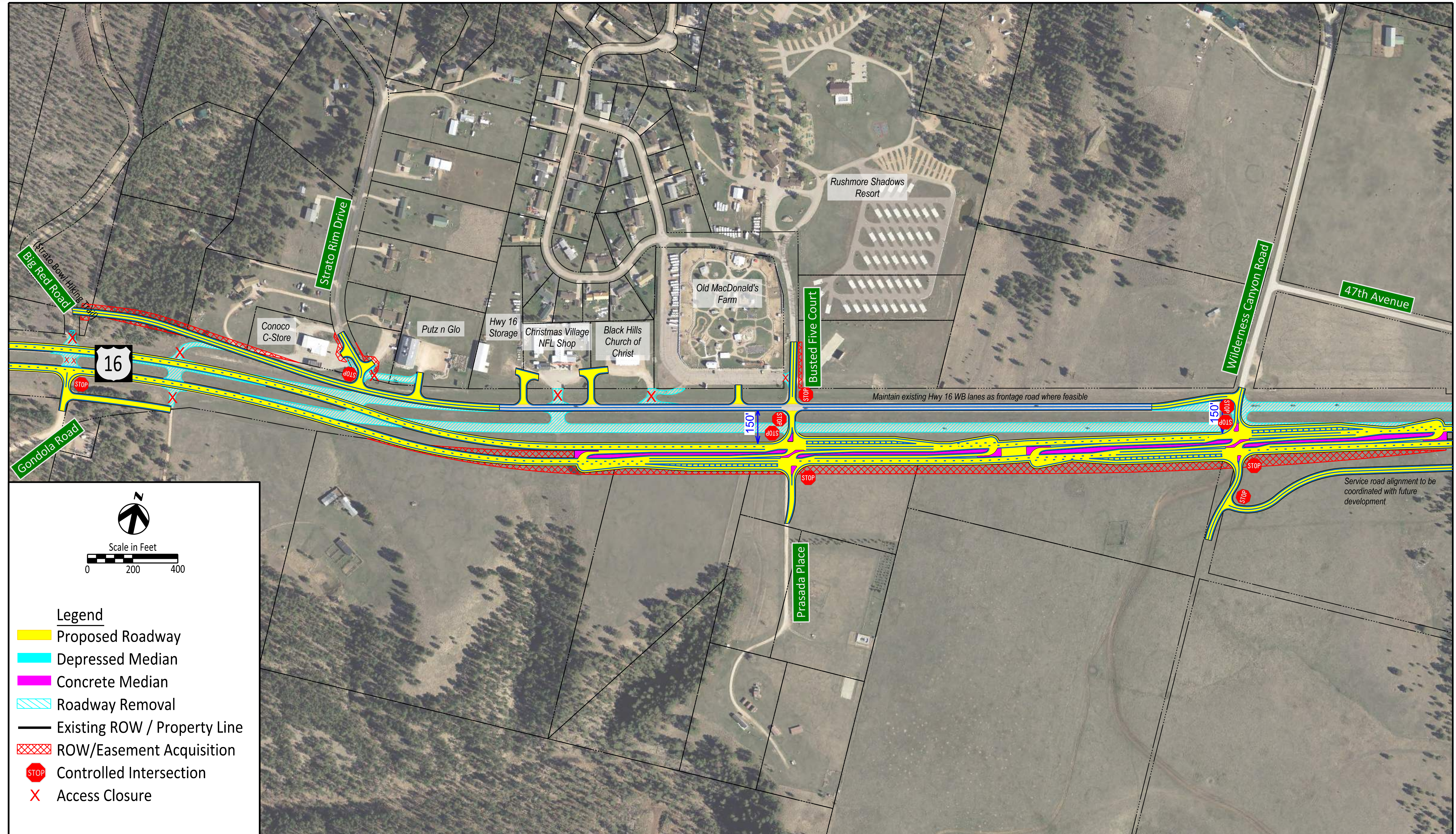
STRATO RIM – BUSTED FIVE – WILDERNESS CANYON AREA | SCENARIO C

U.S. HIGHWAY 16 CORRIDOR STUDY: RURAL SUB-AREA ANALYSIS



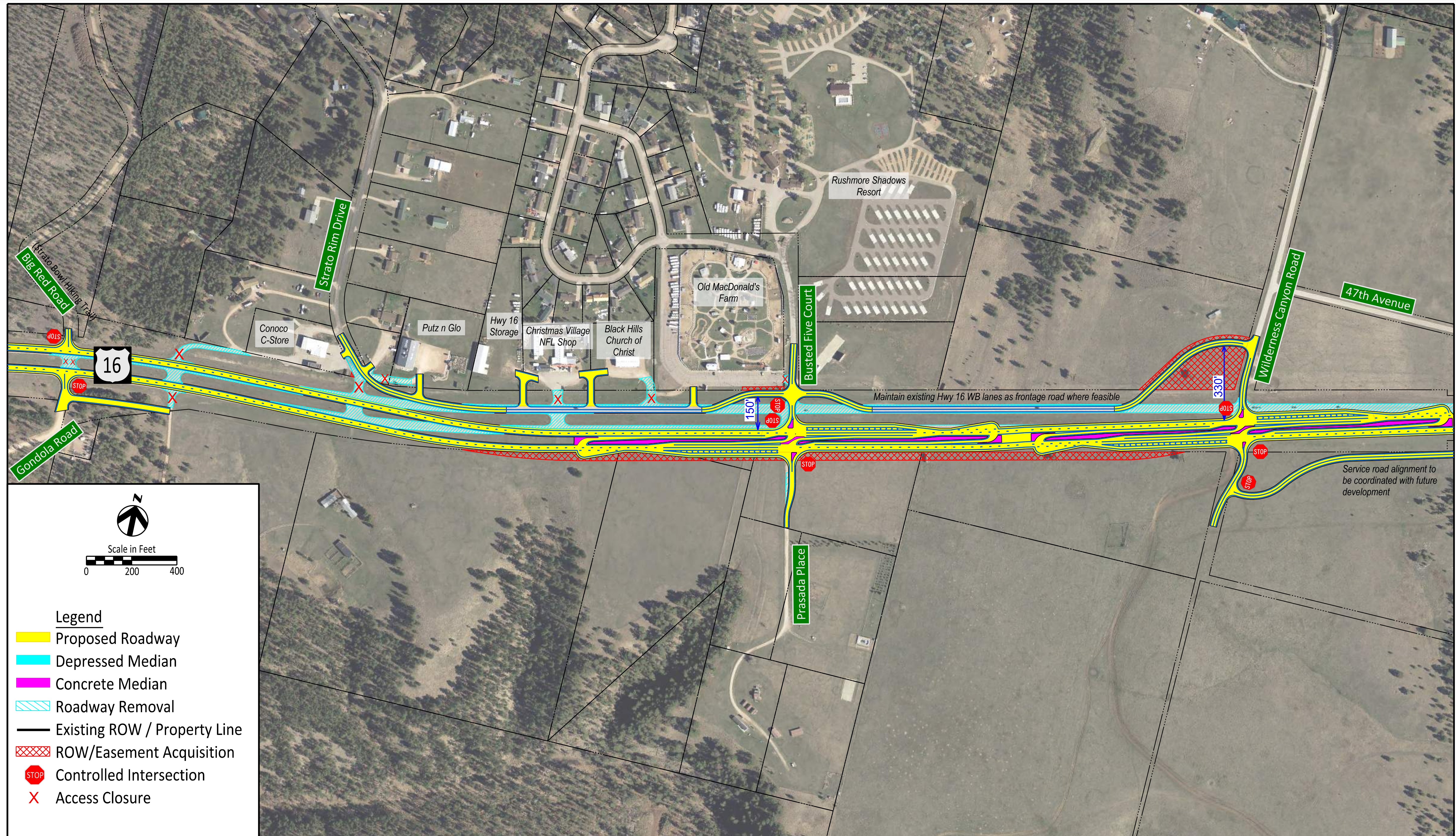
STRATO RIM – BUSTED FIVE – WILDERNESS CANYON AREA | SCENARIO D

U.S. HIGHWAY 16 CORRIDOR STUDY: RURAL SUB-AREA ANALYSIS



STRATO RIM – BUSTED FIVE – WILDERNESS CANYON AREA | SCENARIO E

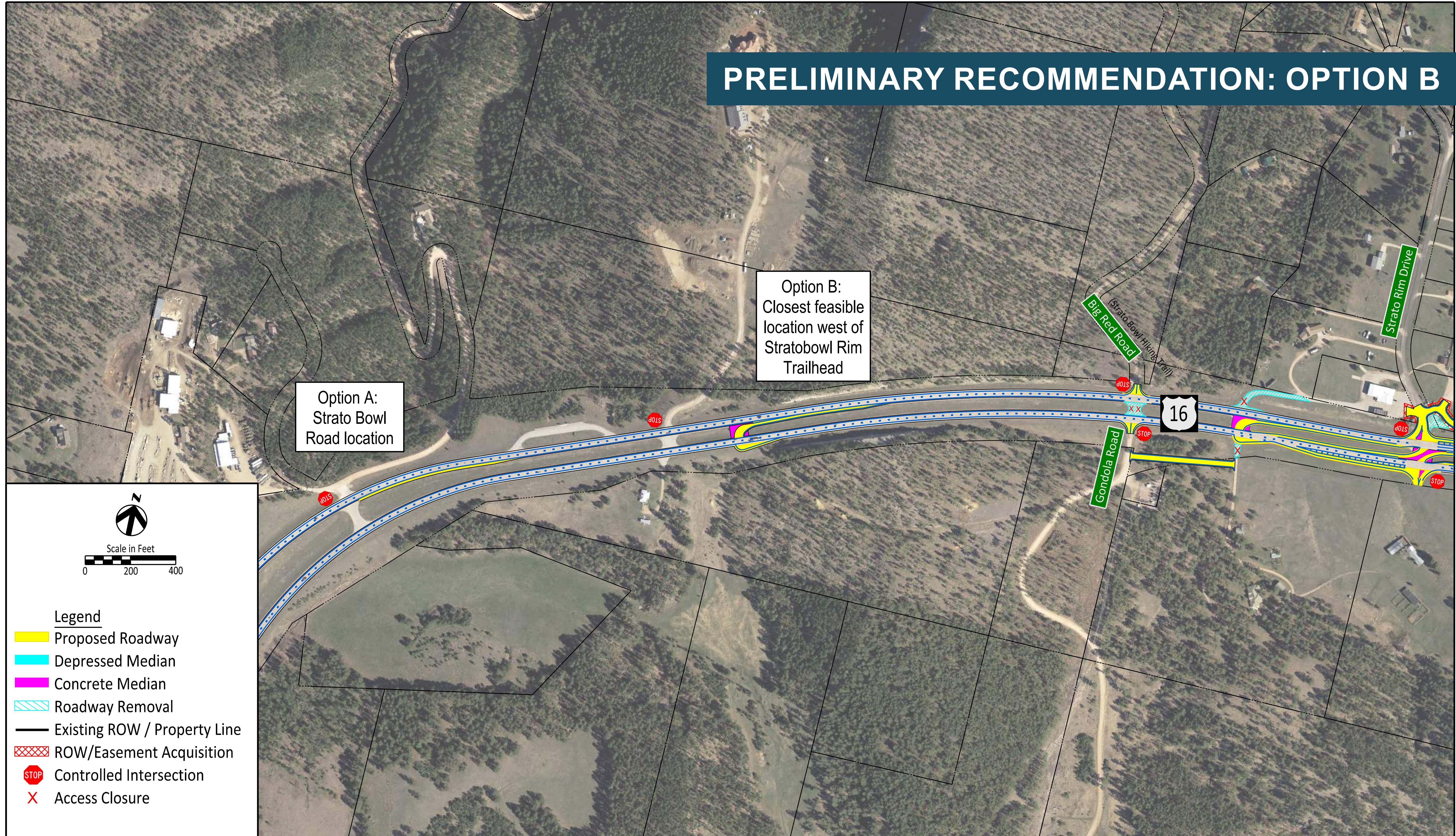
U.S. HIGHWAY 16 CORRIDOR STUDY: RURAL SUB-AREA ANALYSIS



STRATOBOWL RIM TRAILHEAD U-TURN CONCEPTS

U.S. HIGHWAY 16 CORRIDOR STUDY: RURAL SUB-AREA ANALYSIS

PRELIMINARY RECOMMENDATION: OPTION B



STRATO RIM – BUSTED FIVE – WILDERNESS CANYON AREA | EVALUATION MATRIX

U.S. HIGHWAY 16 CORRIDOR STUDY: RURAL SUB-AREA ANALYSIS

	2050 Operations		Predicted Safety (2026 – 2050)	Access vs. Mobility Priority		ROW Impact	Cost
	Long-Range Intersection Operations	Worst-Case Experienced Travel Time		Highest level of (managed) access	Highest levels of mobility	Acres	Considerations
Scenario A	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	4	<3	<ul style="list-style-type: none"> • Potential to overlay existing lanes
Scenario B	3	3	3	4	3	<3	<ul style="list-style-type: none"> • Potential to overlay existing lanes
Scenario C	<u>5</u>	4	<u>5</u>	4	<u>5</u>	>10	<ul style="list-style-type: none"> • Full reconstruction required
Scenario D	<u>5</u>	4	<u>5</u>	4	<u>5</u>	>10	<ul style="list-style-type: none"> • Full reconstruction required • Existing Hwy 16 lanes as frontage road
Scenario E	<u>5</u>	4	<u>5</u>	4	<u>5</u>	3-5	<ul style="list-style-type: none"> • Full reconstruction required • Existing Hwy 16 lanes as frontage road
No Build	2	2	2	2	1	-	-

1 (worst) – 5 (best)

3 or better meets study baseline criteria

4 and 5 are key differentiators

STRATO RIM – BUSTED FIVE – WILDERNESS CANYON AREA | SUMMARY

U.S. HIGHWAY 16 CORRIDOR STUDY: RURAL SUB-AREA ANALYSIS

Scenario	2050 Planning Horizon Traffic Operations						Predicted Safety (2026 – 2050)	
	Strato Rim Drive Intersection		Busted Five Court Intersection		Wilderness Canyon Road Intersection		Fatal & Injury Crashes	Total Crashes
	Experienced Travel Time (sec)* AM / PM	RCI Stop-Controlled Delay (sec)* AM / PM	Experienced Travel Time (sec)* AM / PM	RCI Stop-Controlled Delay (sec)* AM / PM	Experienced Travel Time (sec)* AM / PM	RCI Stop-Controlled Delay (sec)* AM / PM	% Increase (+) or Decrease (-) from No Build	% Increase (+) or Decrease (-) from No Build
Scenario A <i>RCIs (3) on Existing Alignment</i>	35 / 39	14 / 18	32 / 39	15 / 17	38 / 35	16 / 17	-29%	-22%
Scenario B <i>Full Access Intersection Improvements (3) on Existing Alignment</i>	27-28 / 53-68	-	27-31 / 52- 75	-	43- 60 / 58-75	-	-14%	-12%
Scenarios C, D, and E <i>RCIs (2) on New Alignment</i>	-	-	34 / 52	18 / 28	38 / 35	16 / 17	-33%	-29%
No Build	29 / 49	-	31 / 67	-	64 / 145	-	Baseline	Baseline

* Reflects the worst-case condition, typically a vehicle turning left from the side-street (Strato Rim Drive, Busted Five Court, or Wilderness Canyon Road) to head towards Rapid City.

Experienced Travel Time (ETT) considers intersection delay plus extra distance travel time of the entire origin-destination path through the multiple intersections of an RCI. For a traditional intersection, ETT only reflects the intersection delay.

RCI stop-controlled delay reflects the time a motorist would wait at the side-street stop sign before finding an acceptable gap to turn into the RCI's median U-turn lane.