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Cutblocks by L	and	dfo	orr	n											Alk	oreda	Cutble	cks by	Lanc	lform a	and V	iewpo	int			
Cutblock_No	Α	_		_	E							VP1	VP2	VP3	VP4			VP6**						VP11	VP12	VP13
AL7RB	Υ											NV?	V	V*	V	V?										
AL9PK	Υ																NV?	NV?	V*		NV?	NV	V			
AL9PU	Υ			┪																	NV?	NV	V			
AL7R1	Υ																		VS	G?	V	V*	V		VS	VS
AL8PT		Υ																			V	٧	V			
AL9PS		Υ																								
AL8PQ (in prog.)		Υ																			VS	VS	VS		VS	VS
AL787nonVEG		Υ																			V*	V*	V*		VS	VS
AL8PR (in prog.)			Υ																		V	V	V		VS	VS
AL8QB (in prog.)					Υ																V	VS	VS		V	V
AL7NF					Υ																NV	NV	NV		V	
					Do	min	ion C	utblo	cks l	oy La	ndfo	rm an	d View	point									•			
Cutblock_No	1		2		3	D1	X1	D2	X2	D3	VP0	VP1	VP2	VP3	VP4	VP5	VPX4									
DO9U7					Υ																					
A87597 (nonVEG)					Υ							NV?	NV?	NV?	NV?	NV?	NV?									
DO8M3			Υ																	,						
DO8M4			Υ																							
DO8M5			Υ							٧	V*															
DO2R0			Υ		١	٧V			V	V	V*	NV?	NV?	NV?												
DO62D			Υ		١	٧V		٧	V	V	V*															
D08TH			Υ		١	/	V	٧	٧																	
DO62C			Υ		١	/	V																			
DO9WQ	Υ				١	٧V	NV	NV	VS																	
DO6R2 (nonVEG)	Υ				١	/	V	٧	٧																	
DO6E7 (nonVEG)	Υ					/L*	V	V	V																	

*moderate to	large in sc	ale relative to	the landform.
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VP 10 is from Snowmobile Parking Lot

VS = Very Small

G = Glimpse

*moderate to large in scale relative to the landform.

**VPs X4, 6, 8, and 11: mainly screened

Dominion Cutblocks DO8M3 and DO8M4 lay low on the landform and most likely are not seen from any viewpoint.

Best View for Percent Alteration Calculation

Summary Table - Total Percent Alteration of Landforms in Perspective View, by Viewpoint												
1 16	Viewpoint											
Landform	D1	X2	VP0	VP3	VP7	VP10	VP12					
Dominion 1	15.48%	6.23%										
Dominion 2	5.55%	4.29%	5.40%		V							
Dominion 3*					V							
Albreda A				6.88%	6.38%	3.25%	1.12%					
Albreda B						3.71%	**7.51%					
Albreda C						4.48%	1.26%					
Albreda D						0.00%	0.00%					
Albreda E						2.29%	2.66%					

^{*} Dominion 3 contains existing cutblocks of A66453 and A87597 which may be seen clearly from Viewpoints X3, and 6-9, and Dominion cutblock DO9U7 (not likely seen from any viewpoint). Not measured for percent alteration due to no anticipated visual change to the landform from any potential viewpoint.

^{**} Landform B as seen from VP 12 exceeds PR limit by 0.5%. Not considered a critical rating point due to 6km viewing distance distance and oblique viewing angle leading to perspective foreshortening.

Introduction

Cutblock discussions and verification of landforms for the BCTS Albreda Operating Area were originally conducted during a field trip on October 8, 2015 by RDI with BCTS, and field resource people in attendance. RDI produced a Visual Impact Assessment report based on those discussions. A revised proposal was received from BCTS in 2018. RDI concluded its findings in a landscape level report dated July 27, 2018. At that time, RDI was not provided the opportunity to assess Viewpoints 1 through 9 on-site and could not verify the accuracy of the simulations from those viewpoints. On-site validation was recommended to determine roadside screening from all viewpoints.

On December 11, 2019, Ches Clem, Planning Forester, BCTS Kamloops Business Area, requested that RDI proceed with Visual Assessment of an update of the Albreda Operating Area, providing new data. Ches also provided new cutblock data for the Dominion Operating Area the next day. In his engagement letter e-mail, Ches also indicated that he would take new photographs. RDI provided a spreadsheet of viewpoints to guide the photography tour by Ches. RDI also provided a geo-tagged map of the viewpoints to facilitate viewpoint accuracy in the field for Ches. The two operating areas are contiguous and somewhat overlapping with Dominion to the southeast and Albreda to the northwest, on opposite sides of Highway 5. Combined viewing opportunities for the two areas stretch at total of 21km along Highway 5, 13km for Albreda and 8km for Dominion, including a 3km overlap where glimpses of the Dominion Operation may potentially be seen through the trees.

Photography

The Visibility Summary Chart provided on Page 3 of this report indicates the array of viewing opportunities towards the cutblocks in each plan. The photos provided by Ches greatly assisted visibility determination. He captured 126 individual photos of the snowy textures and roadside screening from a very comprehensive 20 viewpoints, having added 4 discovered by him while on the highway tour. RDI placed the series of photos into photopanoramas. The photos were instrumental for RDI to more accurately determine roadside screening effects. The Vegetation Resource Inventory used by RDI to populate the Visual Nature Studio (VNS) simulations at stated stand heights proved to be inadequate along the roadside when compared to the photos (very low or nil stand heights). As such, RDI used interpreted the information in the photos to construct custom screening roadside tree "ecosystems" (as meant by VNS) as seen from each viewpoint for use in VNS. RDI's best-guess selection of roadside screening "ecosystems" may indicate more or less screening than actually present.

Viewpoints

The 2020 analysis viewpoints were those identified in the prior VIA's and additionally refined to capture each proposed cutblock for both the Albreda and Dominion Operating Areas. For simplicity, the viewpoints were numbered sequentially, and the Dominion Viewpoints given a "D" prefix for ease of differentiation. The furthest south viewpoint on Highway 5 is Viewpoint D1 at the bridge, while the furthest north is Albreda Viewpoint 13. The 4 viewpoints added by Ches discovered by him on his photography expedition were assigned an "X" prefix by RDI.

Analysis - Albreda Landforms

RDI combined VSUs into landforms for the 2015 Albreda Visual Assessment,, which are most apparent along the west side of the highway as one travels past the broadest portion of each landform. The landforms are delineated by fairly obvious breaks in topography up creeks to divides between the peaks. The landform delineation constitutes visual force analysis at the same time. The landforms may become lest distinct from each other the more distant and oblique the view towards them (perspective foreshortening). The 5 identified Albreda landforms extend along the full north-south length of VSU 1142 which has a VSC of 2 and an established VQO of Partial Retention. The landforms extend uphill to the visible heights of land in VSU 1144 which has the same ratings. These combine both VSUs, visually. Each landform is seen tangentially in the view from Highway 5 except when the viewpoint is directly perpendicular, opposite each landform, such as from Viewpoint 10 at the Snowmobile Parking Lot. Each landform is addressed separately, and summarized in the Visibility Table on Page 4. Full panoramic views were produced as 180 degree composites of 45 degree field of view/42mm camera lens each rendering from the majority of viewpoints covering all of the visible landforms. Each visible cutblock was identified in the simulations and labelled in the CorelDraw! Document. Later converted to a pdf document. Percent alteration was calculated from 4 Viewpoints for Albreda: Viewpoints 3, 7, 10, and 12. Results are provided in the Percent Alteration Summary Table, also on Page 4 of this document.

Landform A - Landform A is the first landform starting from Viewpoint A. It contains Cutblocks AL7RB, AL7R1, Al9PK and AL9PU. Several cutblocks are immediately adjacent to the highway, behind intermittent roadside screening. These are AL7RB (potentially and/or variously seen from VP's 1-5 and X4), AL7PK. AL7R1 and AL9PU also may be seen immediately above AL7PK. Percent Alteration in perspective view calculations were produced from Viewpoints 3 (6.88%), 7 (6.38%), and for a more oblique and distant view from VP 10 (3.25%) all within the limits of the Partial Retention VQO. As stated, RDI's custom treatment of roadside screening attempted to emulate the photography. Specific variations in actual roadside screening may increase or decrease cutblock visibility. Addenda: See Ches Clem's February 18 comments regarding Viewpoint 3 on pages 16 and 17, and Viewpoint 7 on Pages 22 and 23.

Landform B - Landform B: Existing Large AL787 in Landform B is still considered non-effectively-greened-up (nonVeg). Communication with BCTS provided the following information by Tyson Leudtke furthered to RDI by Ches Clem:

"Last survey in 2018, inventory across both stratum is listing 1.2m heights, with the Sx at 1.6m (70% composition), so this year they might approach 2m with this season's growth. FG survey planned for 2021 - it should achieve that metric at that time."

The most open view of Albreda is from VP 10, the snowmobile parking lot. Percent alteration for Landform B keeps within PR at 3.71% in perspective view including the newly proposed cutblock AL8PT and in-progress cutblock AL8PQ. When viewed from Viewpoint 12 further north along the highway, Landform B just exceeds PR at 7.51%, but is seen in distant oblique, perspective foreshortened view from VP 12 and therefore should not be considered a critical rating point. The array of cutblocks proposed and underway (AL8PQ) provide a well-designed visual result in form and scale, are fairly subtle in their influence in the landform as compared to the existing cutblock AL787, and are respective of visual forces as mainly defined by the landform lines identified by RDI.

Landform C - Landform C contains only the in-progress cutblock AL8PR, presenting a well-designed visual result in form and scale, and a fairly subtle in influence in the landform in conformity with visual forces (landform lines). The most open view is from Viewpoint 10 where Percent Alteration would be 4.48% in perspective view, meeting PR.

Landform D - Landform D has no in-progress or planned cutblocks will be present in Landform D.

Landform E - Landform E is at the north end of the VSU is seen most directly from Viewpoint 12, and contains AL7NF, and in-progress cutblock AL8QB. Percent Alteration from VP 12 is well within PR at 2.66% Percent Alteration in perspective view. presenting a well-designed visual result in form and scale, are more noticeable in their influence in the landform, but remain in conformity with visual forces (landform lines).

Analysis - Dominion Landforms

RDI has delineated 3 landforms, numbering them Dominion 1, 2, and 3 consecutively from south to north. The landforms are all located within the same Visual Sensitivity Unit VLI No #1143 which has an established VQO of Partial Retention.

Dominion 1 - The Dominion 1 landform contains the excessively large existing cutblock DO6E7 and its smaller and narrower companion DO2R2, representing in total 15.48% alteration of the landform in perspective view. Proposed cutblock DO9WQ in its February 7, 2020 configuration is predicted to be unseen from VP's D1, X1, D2, and D3. It is likely to be seen only from a single viewpoint, VPX2, a viewpoint selected by Ches Clem during his photography expedition.

Dominion 2 - The Dominion 2 landform is seen prominently and focally from Viewpoints D1, X1, and X2, laterally from VP D3, and focally from VP 0, at the Allen Creek parking lot. From VP D1, DO8TH and DO62C are prominent and would create 5.55% alteration in perspective view, within the limits of Partial Retention. DO8TH is horizontally elongated on the vertically dominating landform, and may benefit from a break or two to reduce that linearity and allow it to mimic or emphasize the strongly vertical, slide-tracked landform. The focal cutblock will be particularly evident in winter snow-cover contrasting with adjacent dark forest. The southern portion (right side) of DO8TH does show that downward flow, as does DO62C and the gap between the two cutblocks strengthens the visual forces. The power line comes into more influence from VP D2 as it separates DO8TH and DO62D. DO2RO comes into view from VP X2 where the total Percent Alteration in perspective view will be approximately 4.29% total for the landform, meeting Partial Retention with all cutblocks of small in scale, and with shapes conforming very well with the landform. DO2RO, DO62D, and DO8M5 will be in prominent view from the Allen Creek parking lot, contributing upwards of 5.40% alteration in perspective view, meeting Partial Retention. The openings will present a well-designed visual result in form and scale, noticeable in their influence in the landform, but remaining in conformity with visual forces (landform lines). The cutblocks may be laterally more narrowly screened to some extent as depicted in the photos, although movement around the parking lot may introduce broader views. Not likely seen from the Dominion viewpoints are cutblocks DO8M3 and DO8M4 which are low on the landform and subject to dense roadside screening. Some glimpses may occur in reality.

Dominion 3 - The Dominion 3 landform contains DO9U7 which was not revealed to be visible in any viewpoint tests. It lays low on the landform beneath the large existing cutblock composite of A66453-A87597 which were previously harvested and was also known as the "Rehab Blocks". RDI had considerable participation in their ultimate design, along with Peter Rennie, Cascades Regional Landscape Specialist (now retired). There may be some potential visibility towards Dominion 3 from viewpoints V1-V5 and X4, and is fairly prominent from several of the more northern Albreda viewpoints as seen in the visual simulations and photos on the viewpoint pages in this document (Viewpoints X3, and 6 through 9). The unit has no influence on either the Dominion or Albreda Visual Assessments.

Conclusions and Recommendations

The Albreda and Dominion cutblock plans each meet the established VQO of Partial Retention. Frequent roadside screening breaks up or obscures much visual apparency along the combined 21km route along Highway 5. Changes introduced in the current Albreda plan greatly improve the capability of meeting the VQO. The cutblocks, if seen, all exhibit good design with frequent, well-placed retention of WTRAs added which break up the scale and add shape complexity.

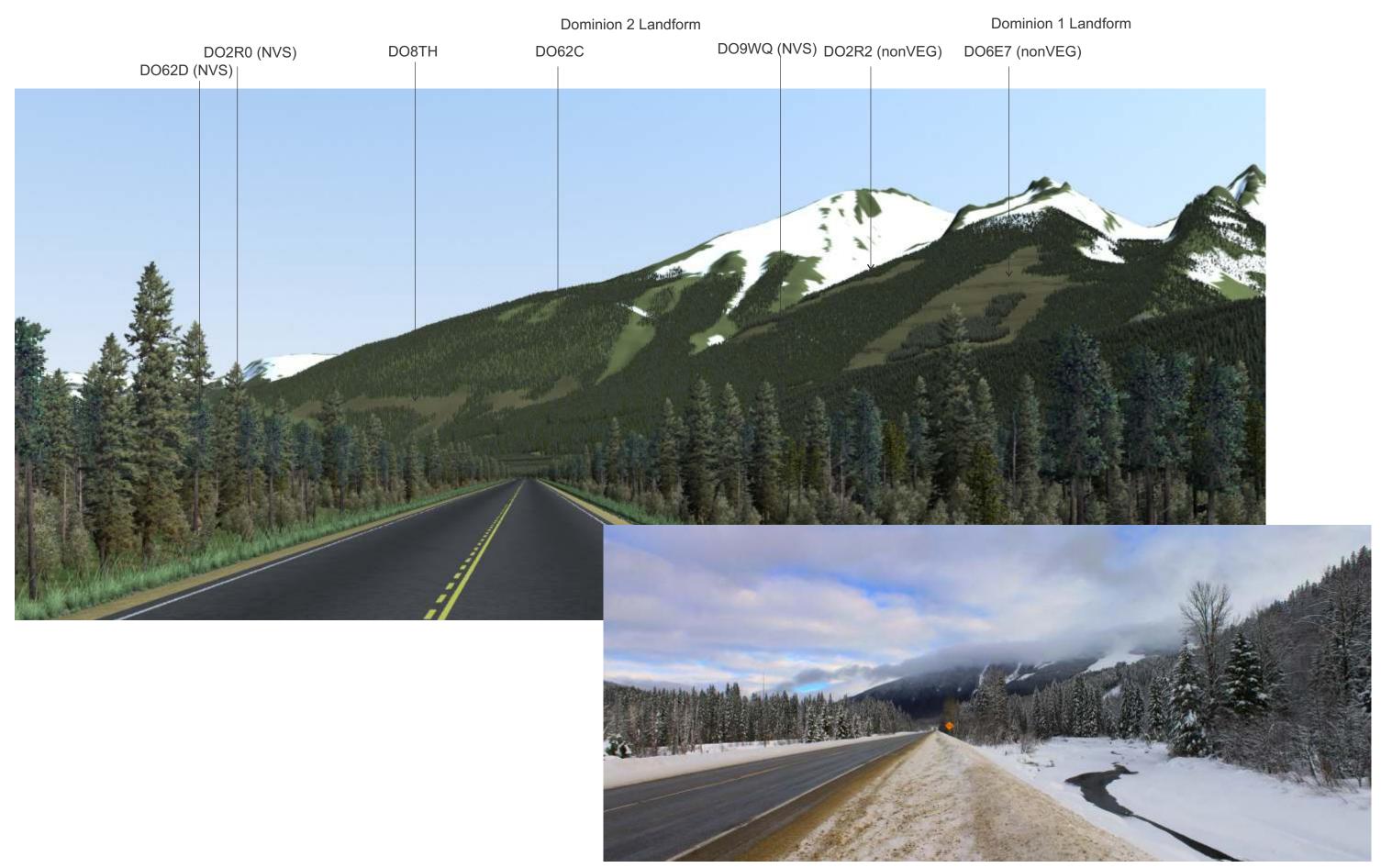
A modest change to Dominion cutblock DO8TH is encouraged in order to break up the strong horizontal linearity of the cutblock and to provide for strengthened visual forces through the cutblock. The cutblock is focal along the highway travelling north and would be particularly evident in winter contrast with adjacent forest.

RDI has been involved since 2012 in the development of visually acceptable plans for the Albreda and Dominion areas. The planners, field team, and layout technicians can be congratulated for deriving plans that are now readily meeting the VQOs. Special credit goes to Ches Clem for his photography initiative which provided clear evidence of roadside screening and see-through to visible landforms, making the RDI project more reliable in its findings.

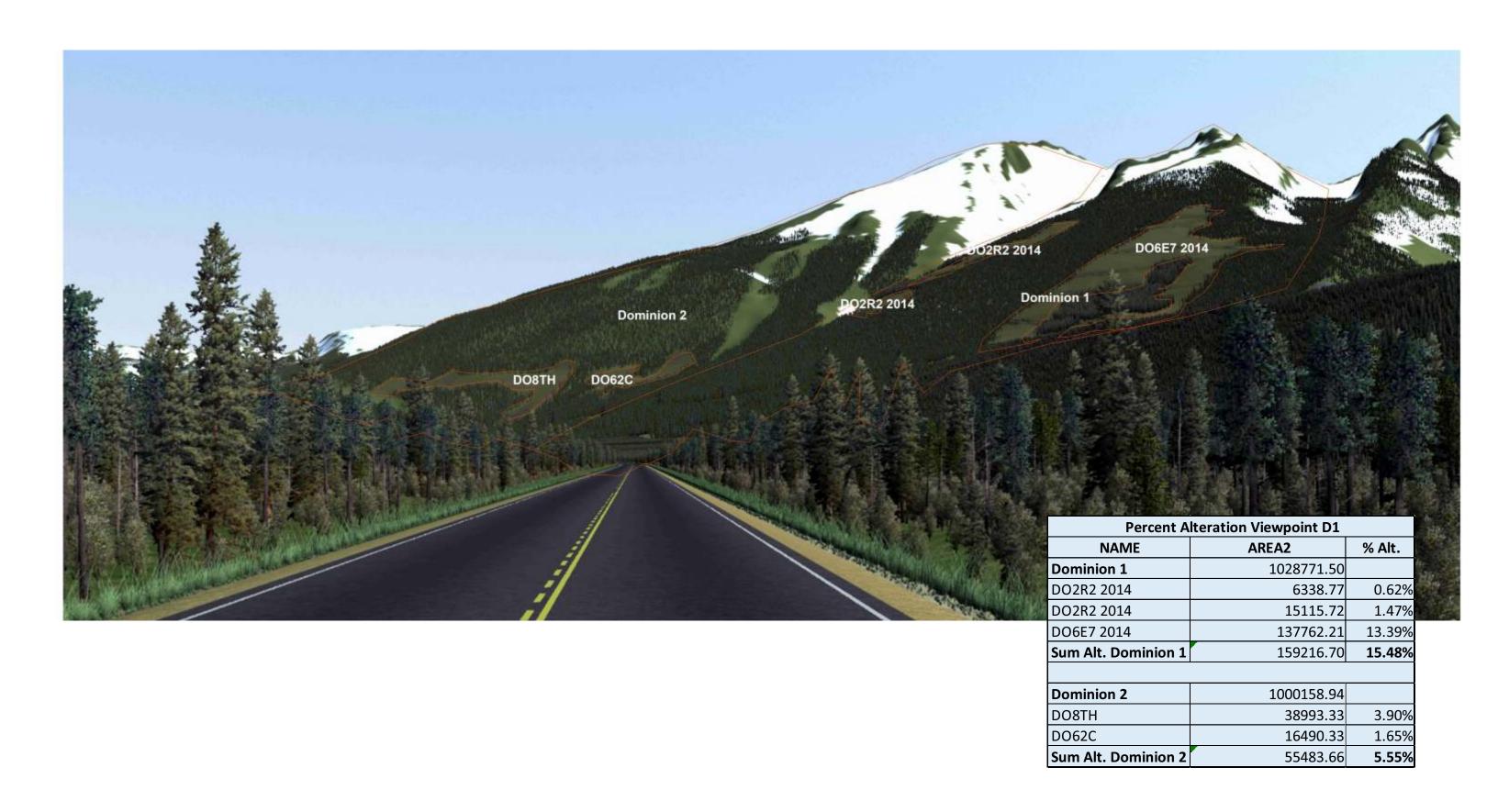
Dr. Kenneth B. Fairhurst, PhD, RPF

Ka B. Fair hunt

RDI Resource Design Inc

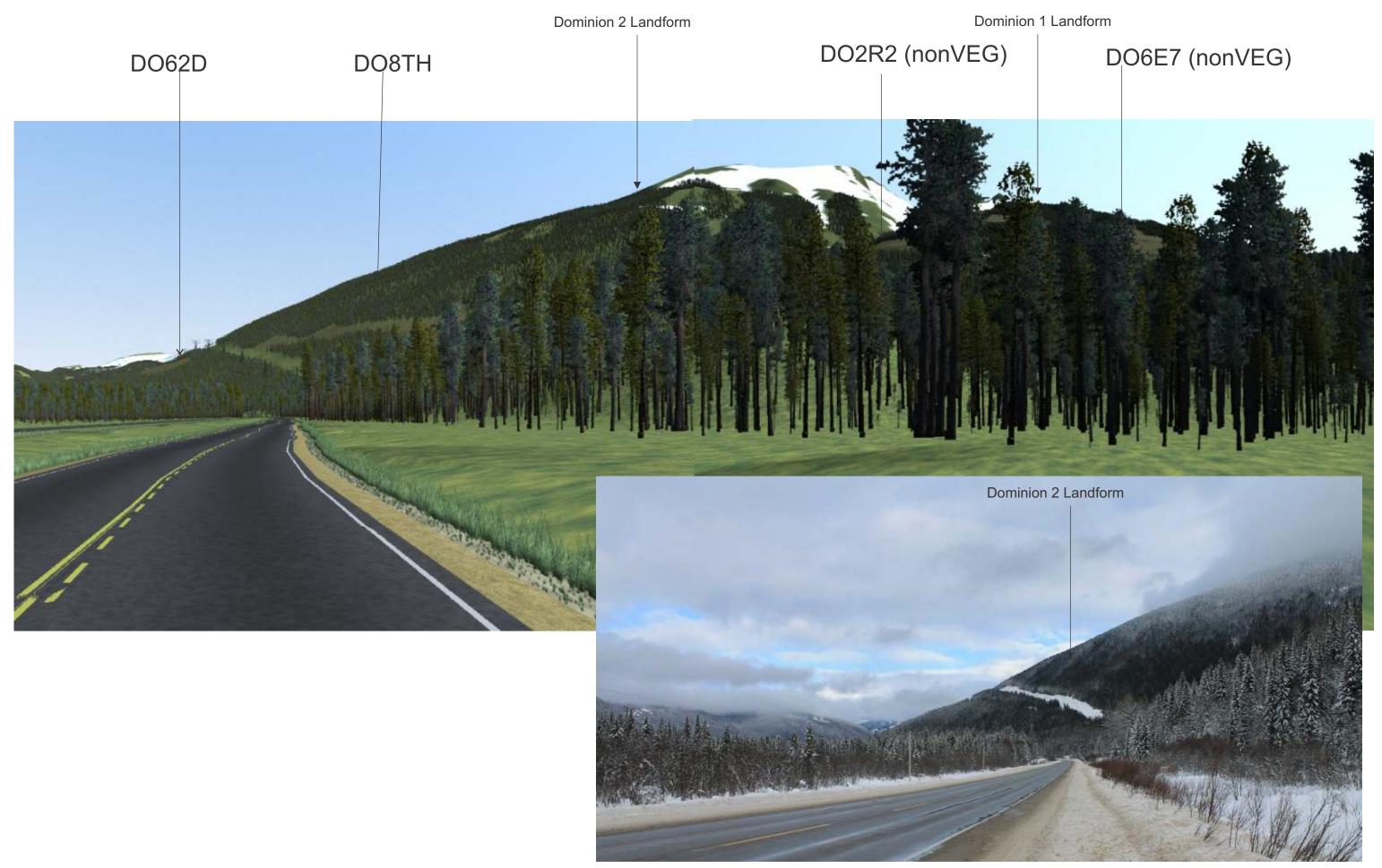


Photos by Ches Clem January 2020; placed into panorama by RDI using Kolor Autopano Giga 4.2

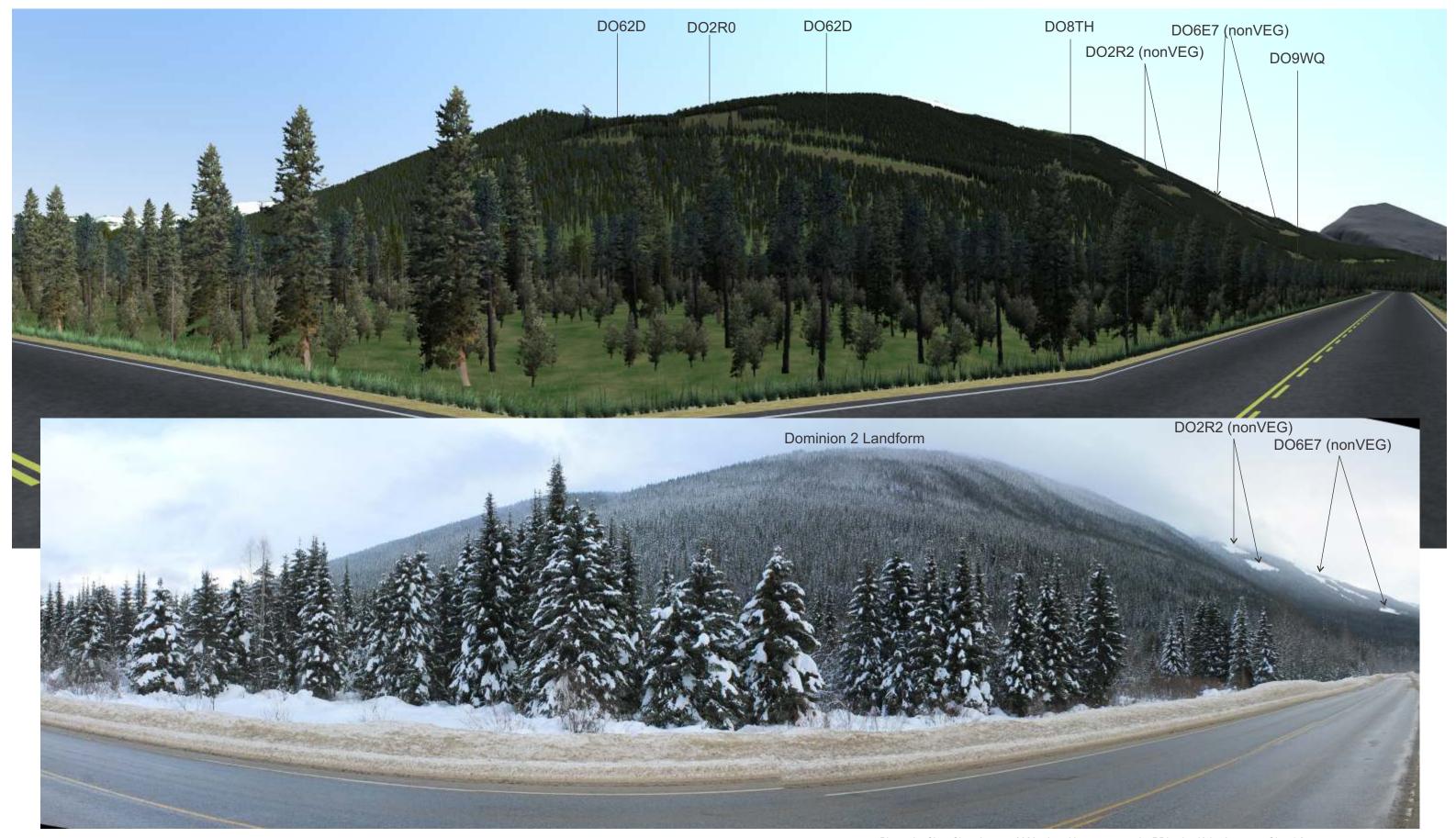




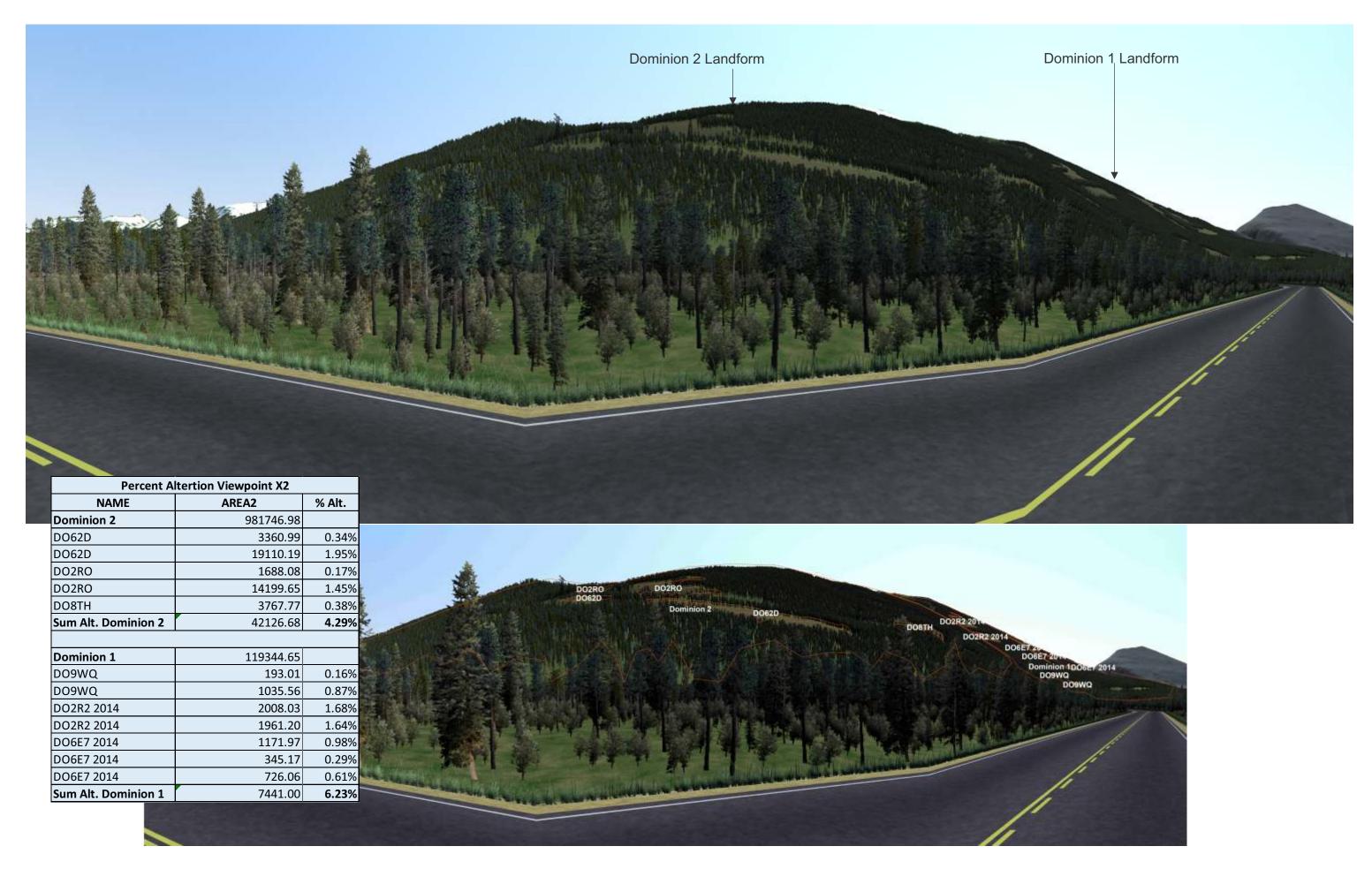
Photos by Ches Clem January 2020; placed into panorama by RDI using Kolor Autopano Giga 4.2

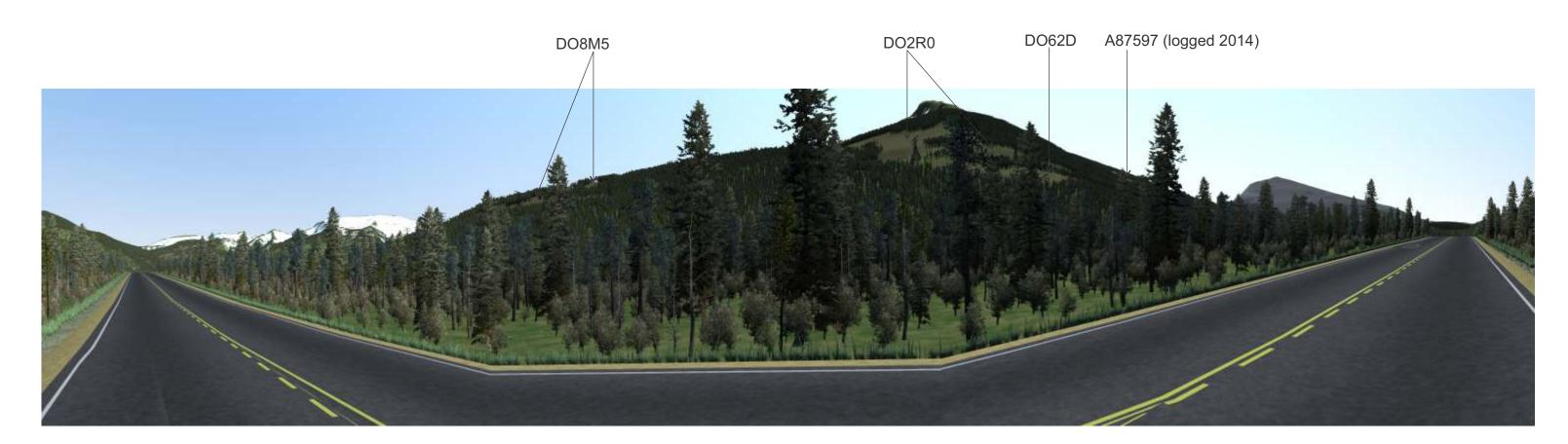


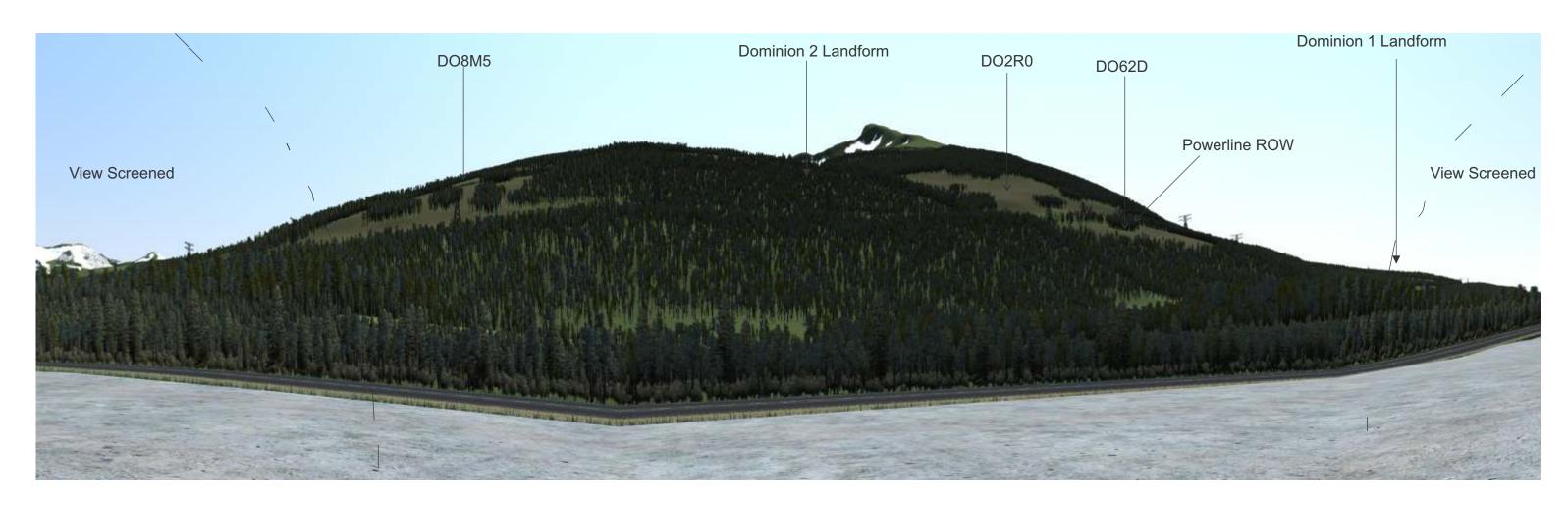
Photos by Ches Clem January 2020; placed into panorama by RDI using Kolor Autopano Giga 4.2



Photos by Ches Clem January 2020; placed into panorama by RDI using Kolor Autopano Giga 4.2

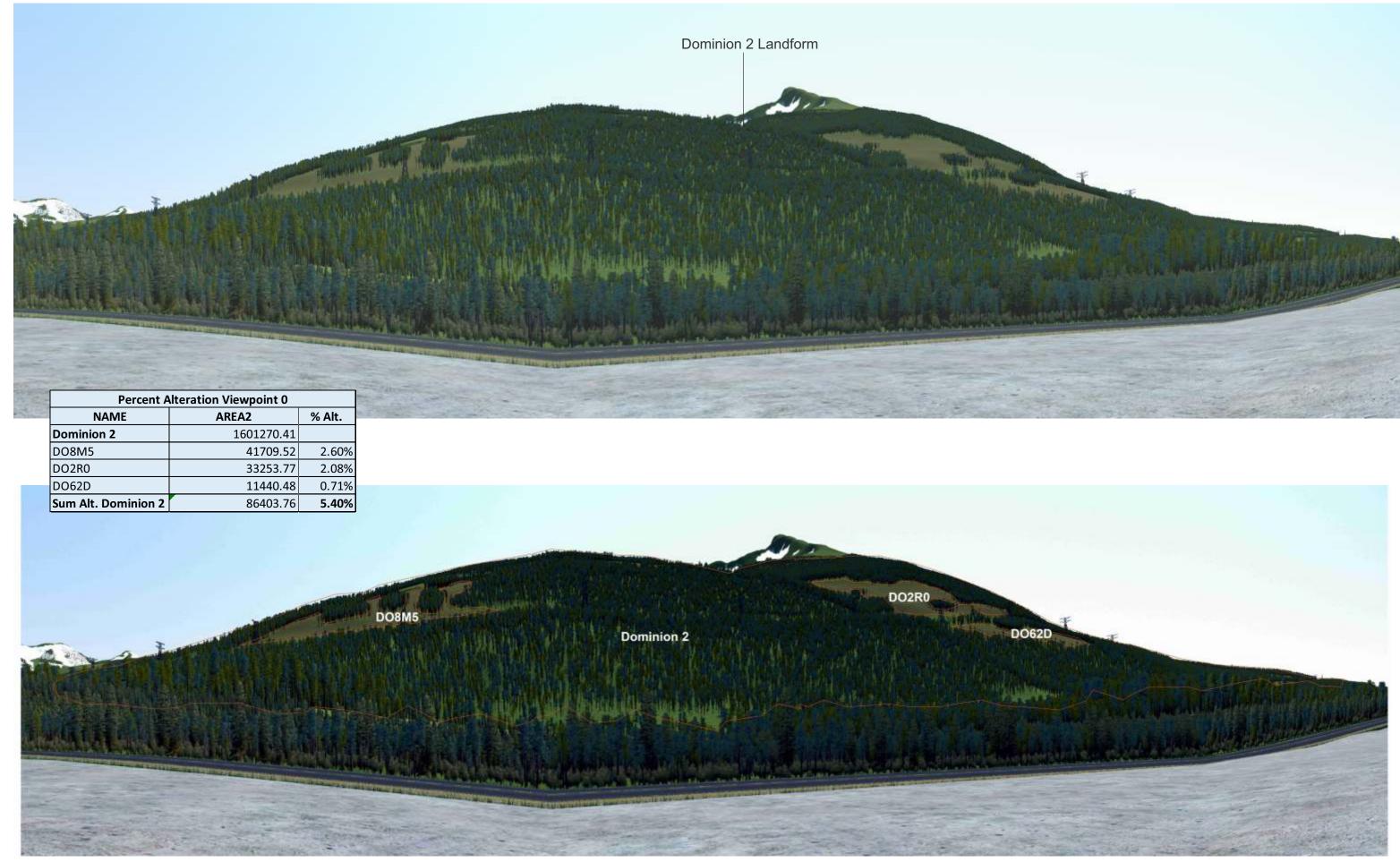




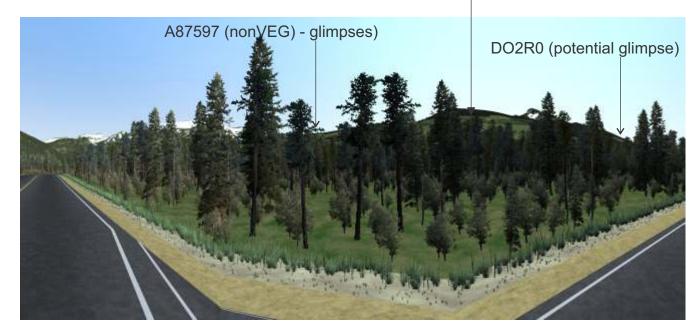




Photos by Ches Clem January 2020; placed into panorama by RDI using Kolor Autopano Giga 4.2

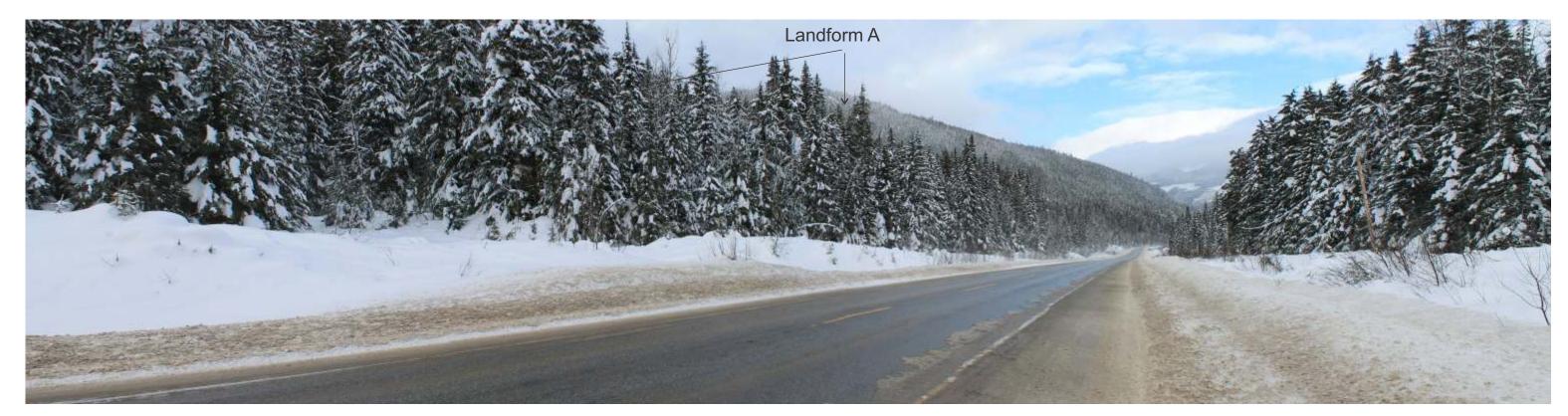






Dominion 3 Landform

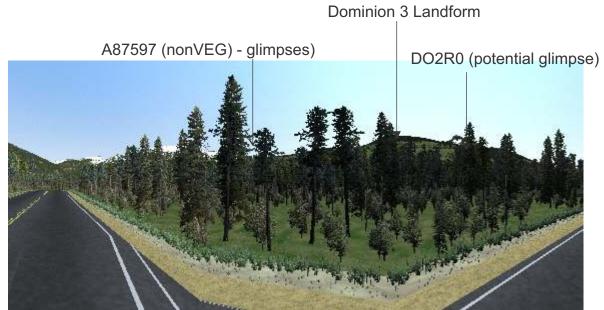
West



West

Photos by Ches Clem January 2020; placed into panorama by RDI using Kolor Autopano Giga 4.2





West

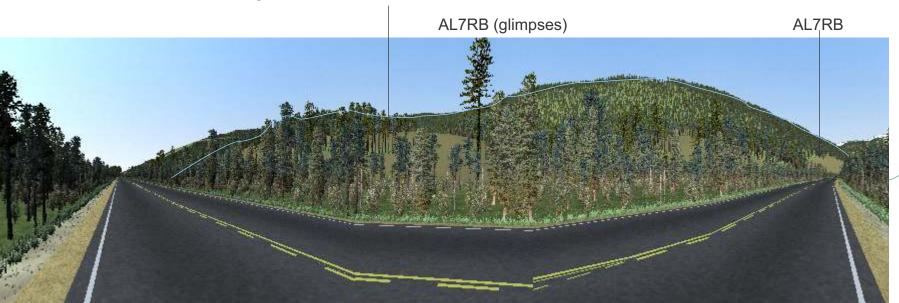


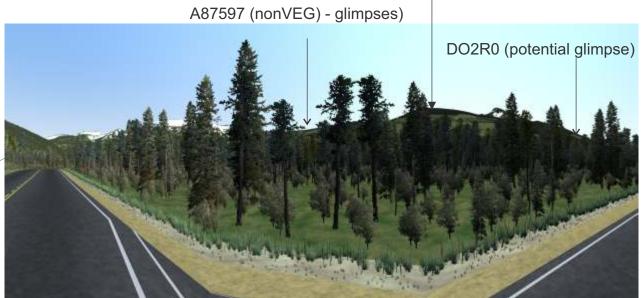
Photos by Ches Clem January 2020; placed into panorama by RDI using Kolor Autopano Giga 4.2

West

beyond the WTRA will be visible.

VP 3

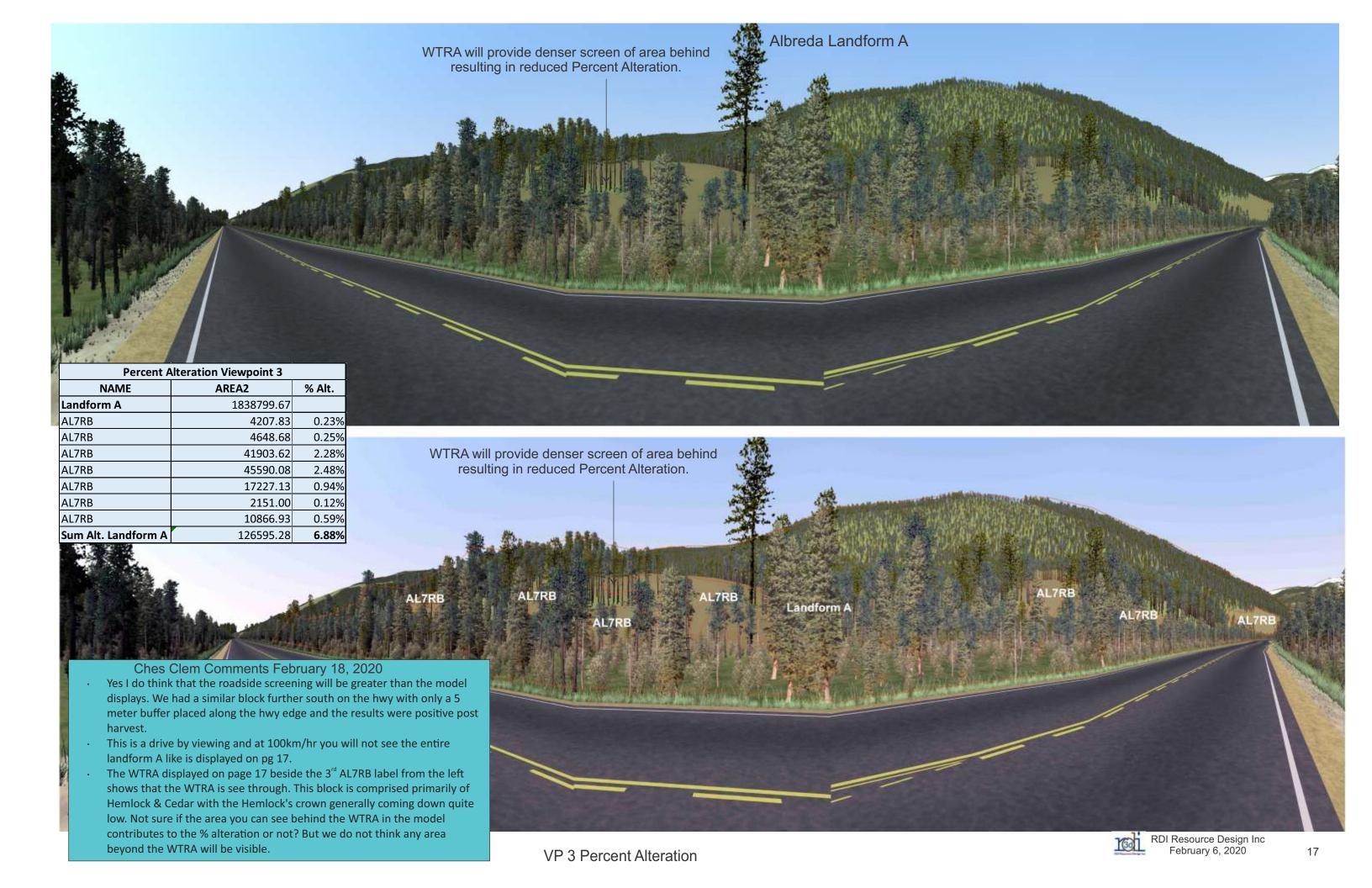




Dominion 3 Landform

West









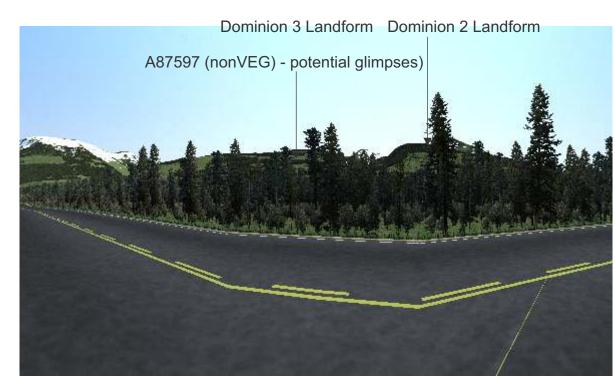
West



Photos by Ches Clem January 2020; placed into panorama by RDI using Kolor Autopano Giga 4.2

Albreda Landform A AL7RB (potential)



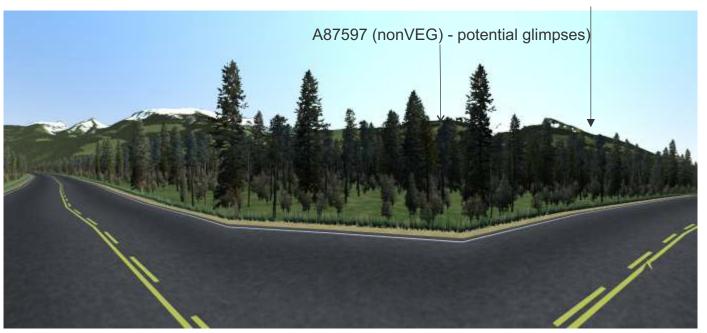


West



Photos by Ches Clem January 2020; placed into panorama by RDI using Kolor Autopano Giga 4.2





West



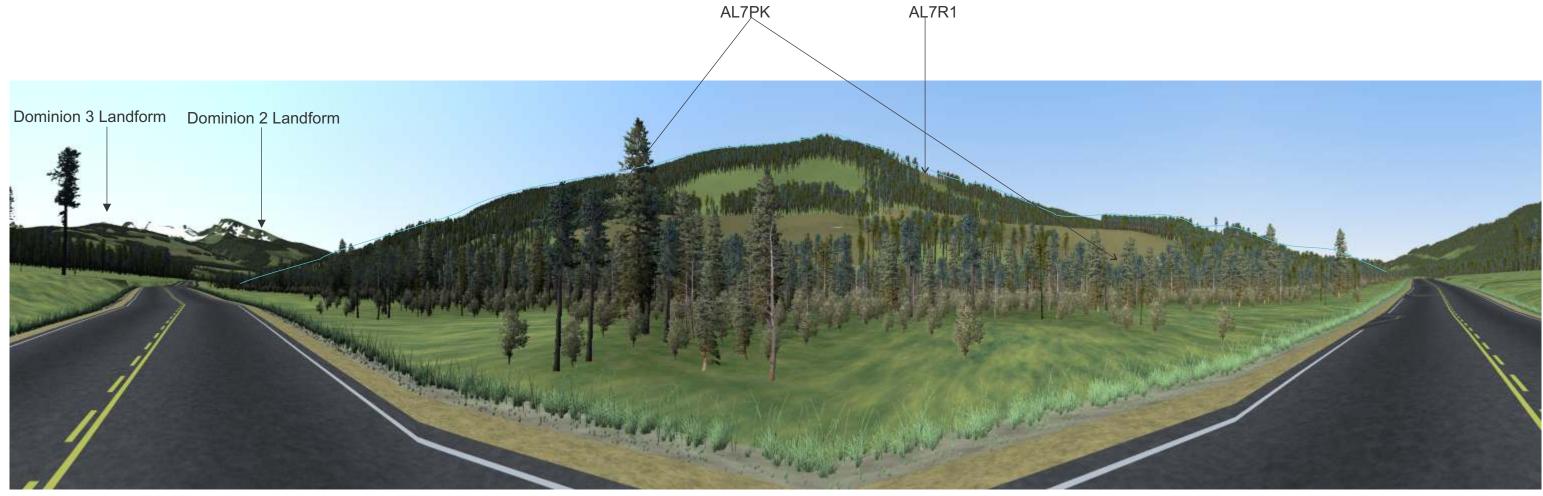
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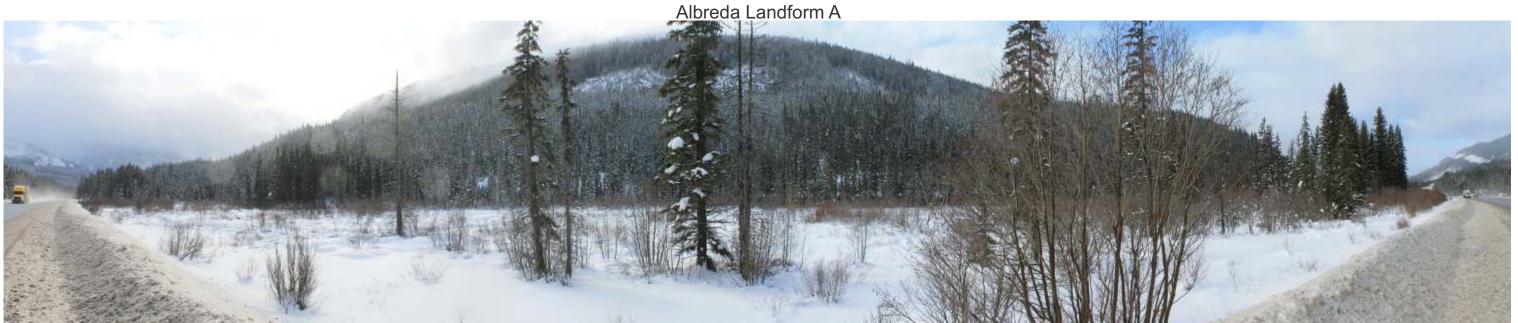


East West



No Photos of Landform A

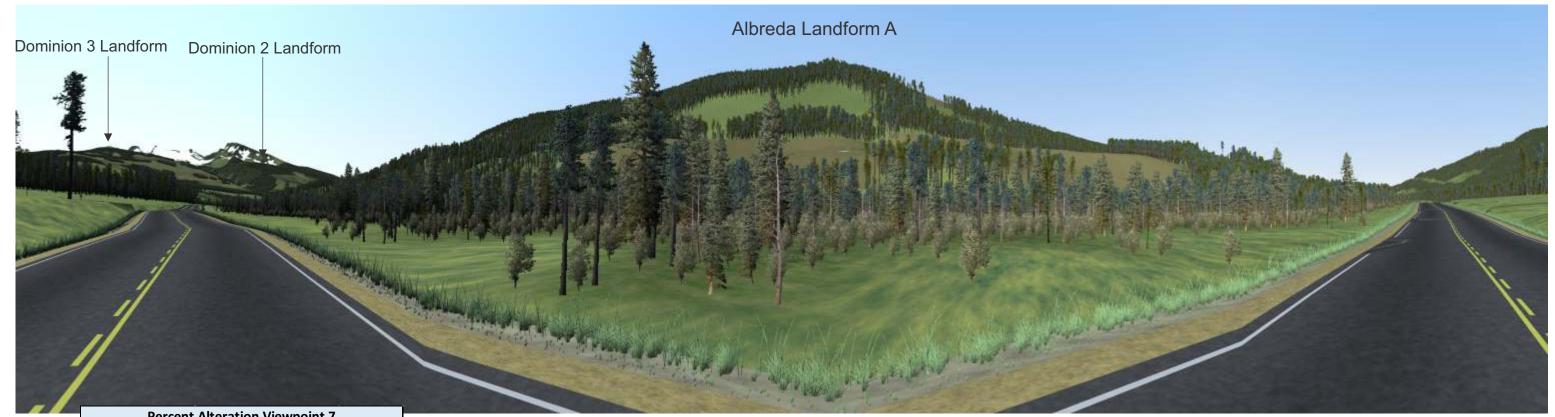


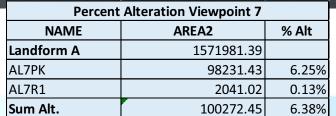


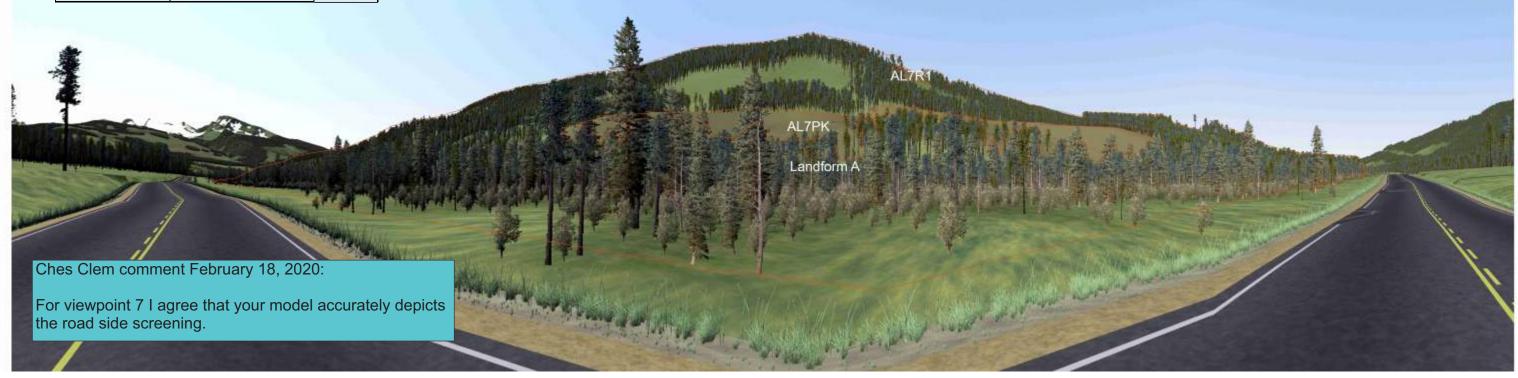
Ches Clem comment February 18, 2020:

For viewpoint 7 I agree that your model accurately depicts the road side screening.

Photos by Ches Clem January 2020; placed into panorama by RDI using Kolor Autopano Giga 4.2



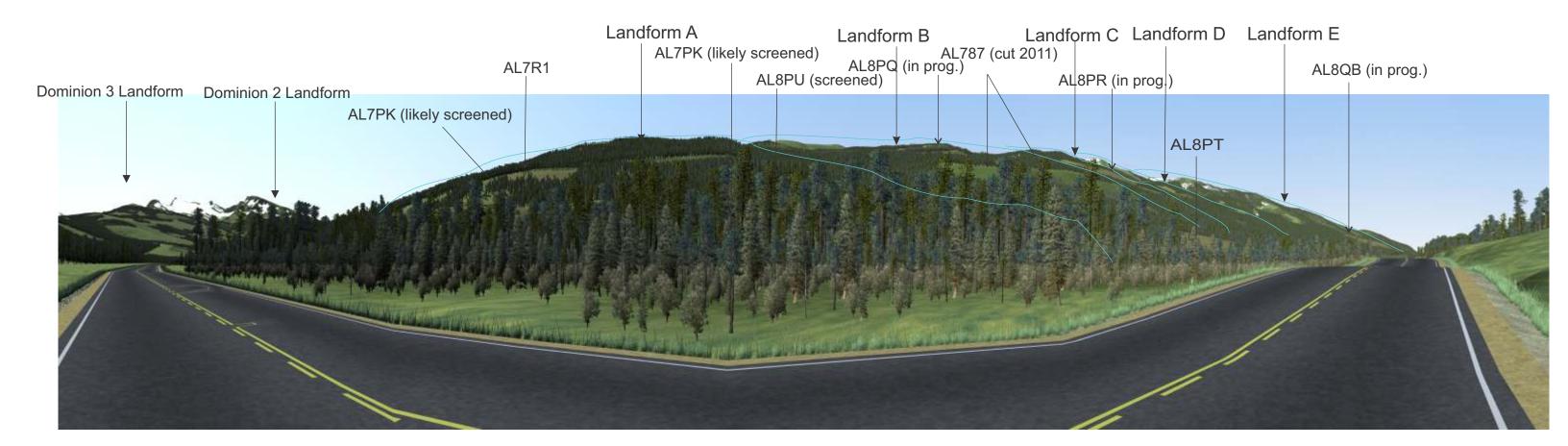






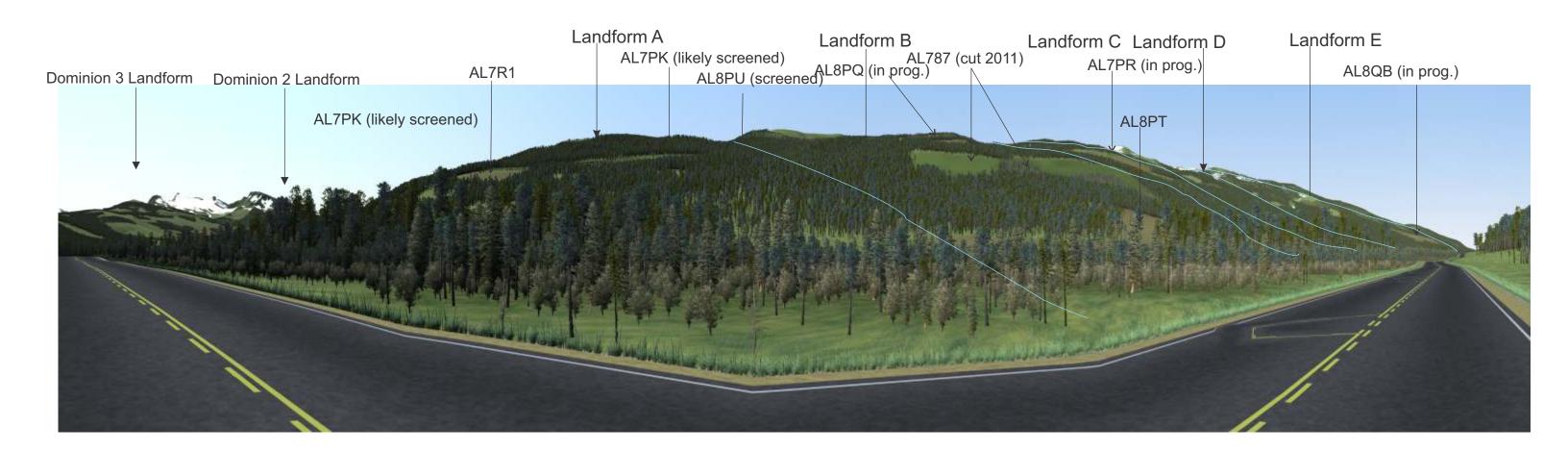


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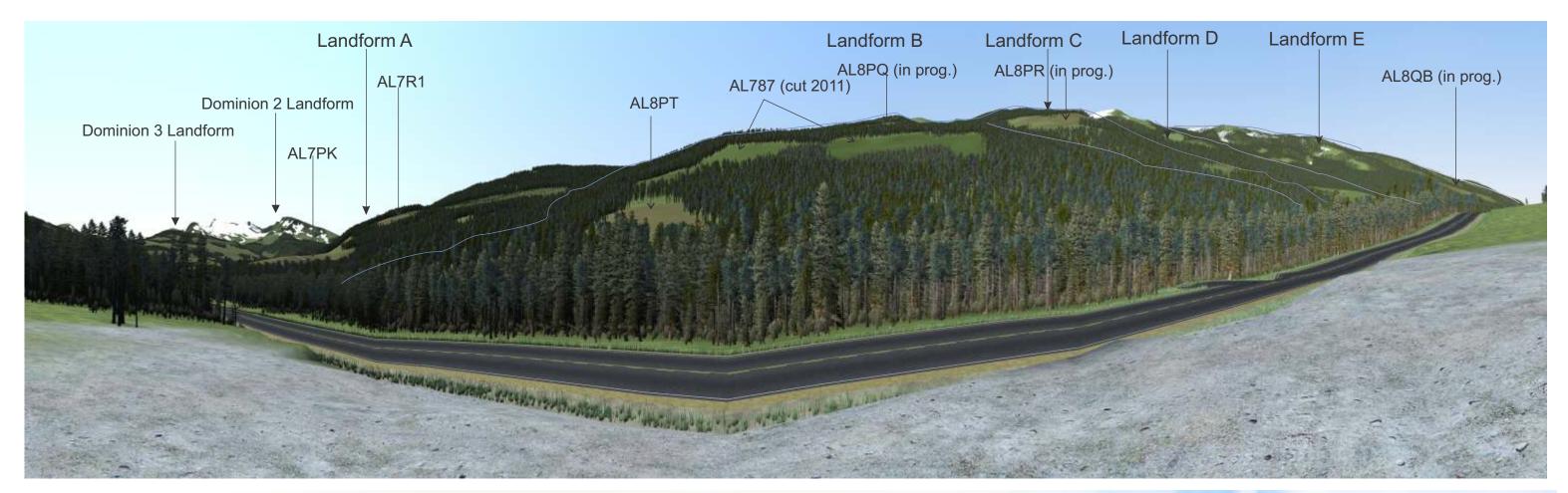


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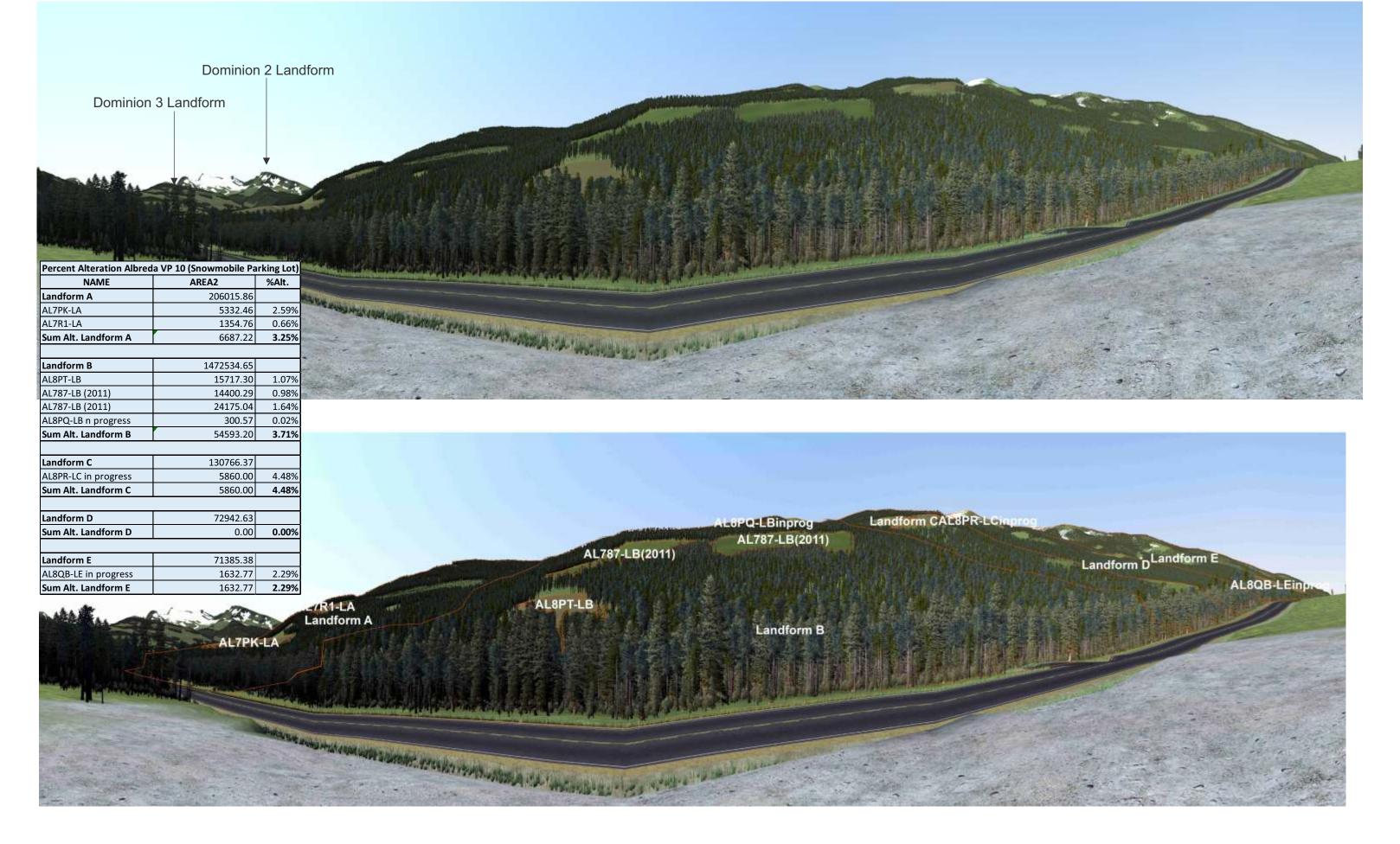
Photos by Ches Clem January 2020; placed into panorama by RDI using Kolor Autopano Giga 4.2

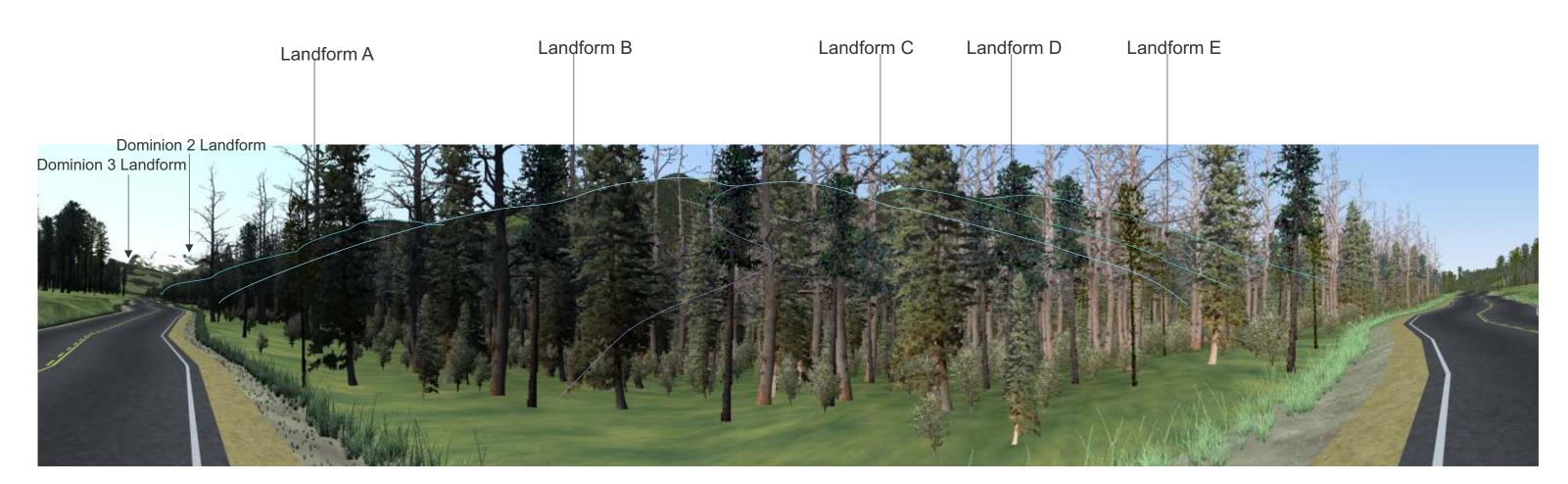




Note: Snowmobile Lot is 7m above highway. AL7PK and AL8PT are mainly screened in views at highway level.

Photos by Ches Clem January 2020; placed into panorama by RDI using Kolor Autopano Giga 4.2

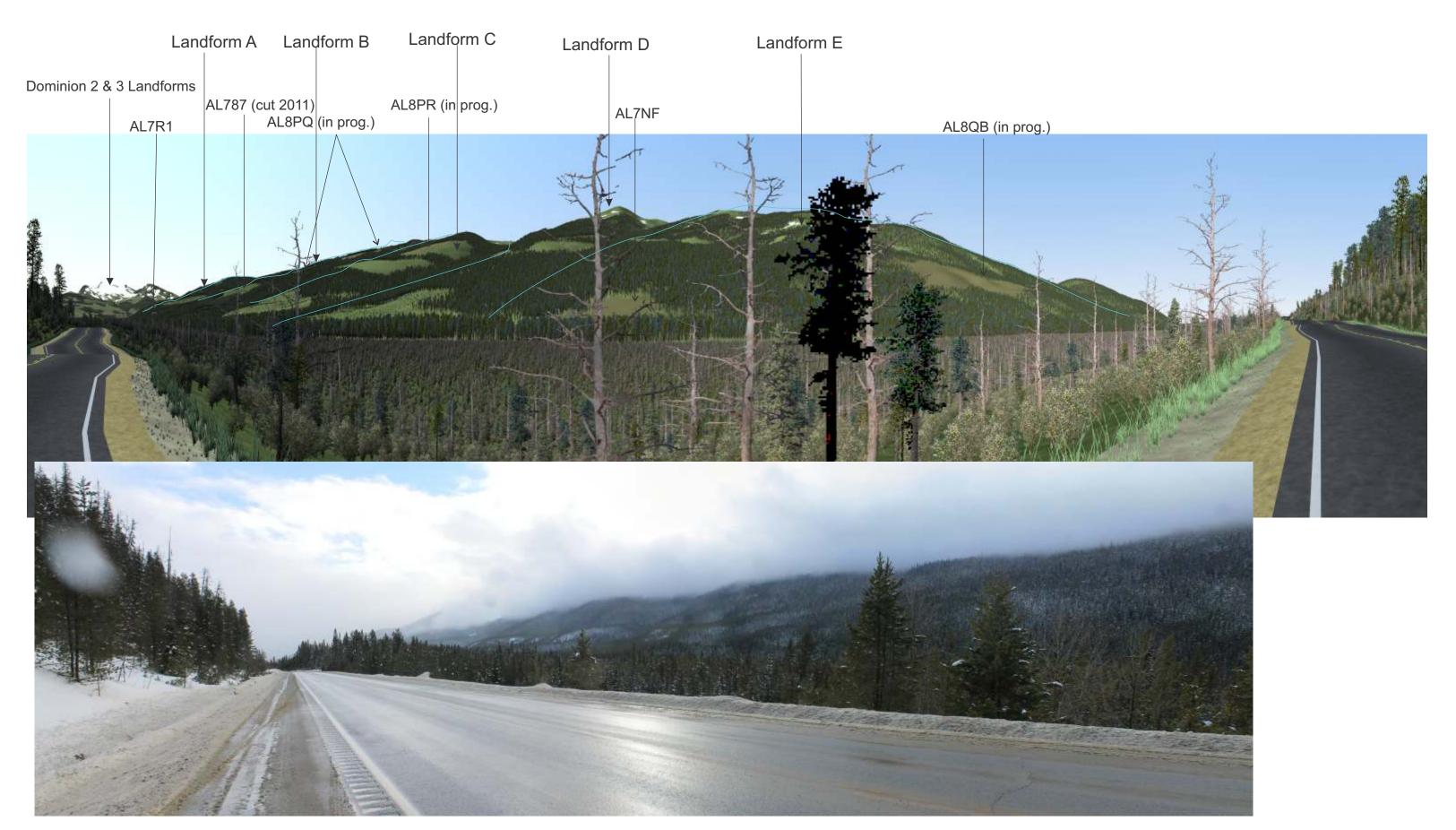




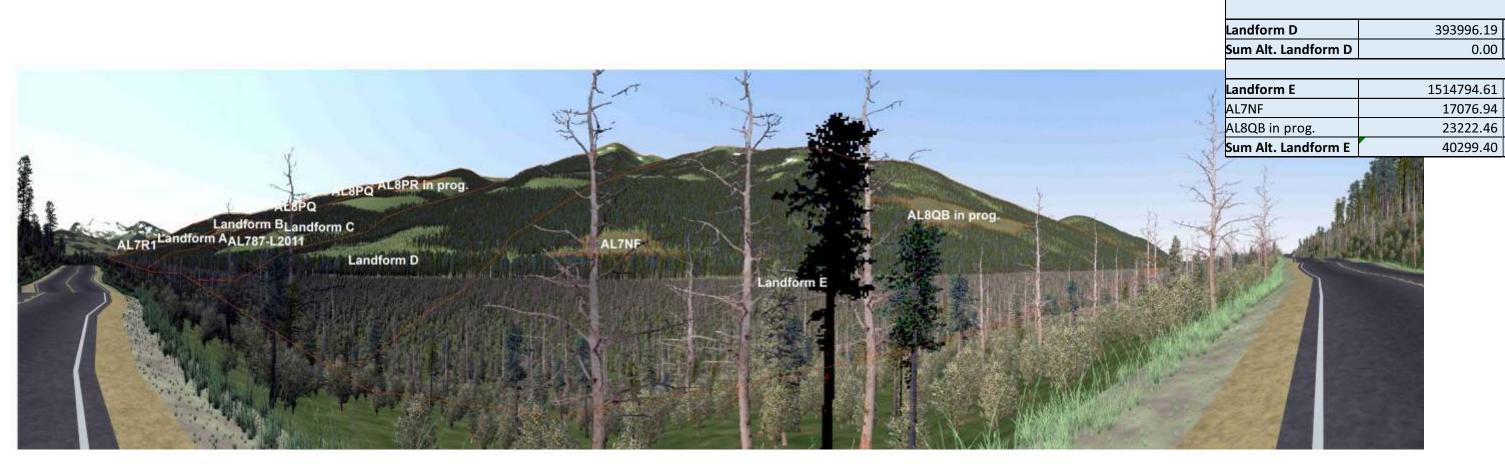


All openings likely fully screened - see open view from VP 12

Photos by Ches Clem January 2020; placed into panorama by RDI using Kolor Autopano Giga 4.2







14741.69

165.48

165.48

41176.83

310.55

677.57

2105.66

3093.78

125940.41

1592.02

1592.02

0.00

1.12%

1.12%

0.75%

1.65%

5.11%

7.51%

1.26%

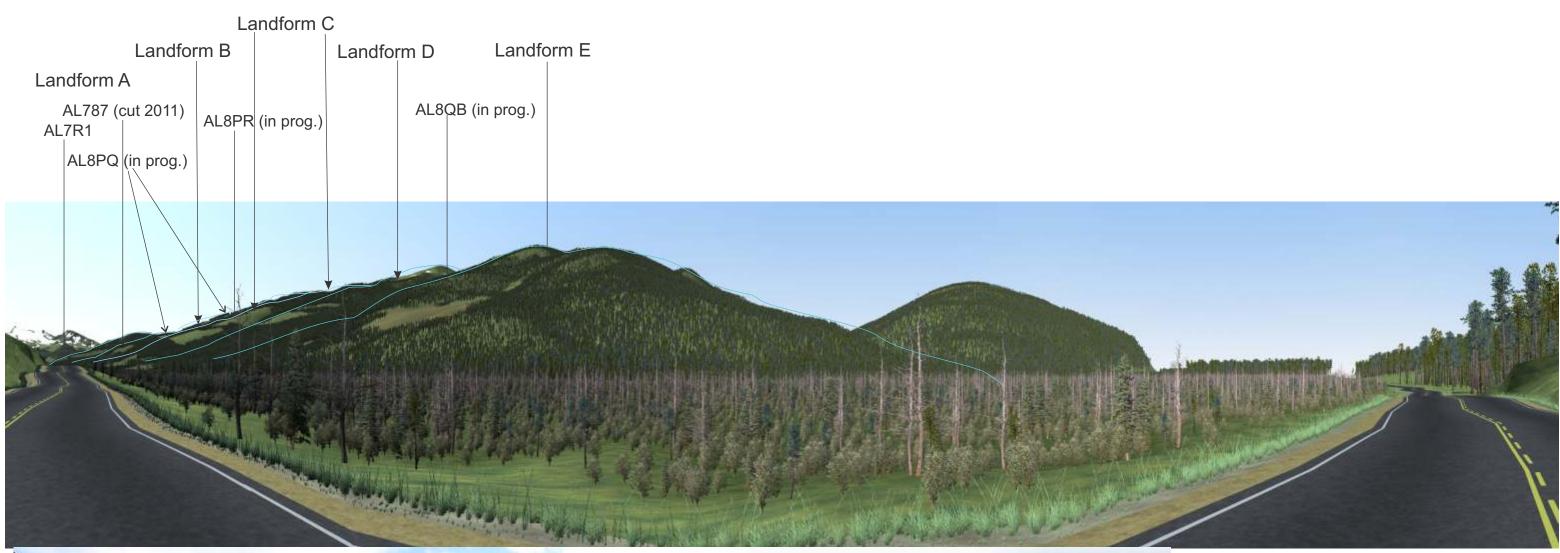
1.26%

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1.13%

1.53%

2.66%





Photos by Ches Clem January 2020; placed into panorama by RDI using Kolor Autopano Giga 4.2