

Minor Modification to change antenna make and model, elliptical component. ERP reduced slightly to match existing construction permit antenna. The construction permit antenna pattern ID # 1002859 is nearly identical to the proposed Dielectric pattern for TUL-C2-1/2M-1-K. There is no new proposed signal into Canada.

Study created: 2022.08.15 10:36:38

Study build station data: LMS TV 2022-08-12

Proposal: K40MT-D D31 LD CP BONNERS FERRY, ID
 File number: BLANK0000042866
 Facility ID: 130171
 Station data: User record
 Record ID: 409
 Country: U.S.

Build options:
 Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K30QA-D	D30	LD	LIC	COEUR D'ALENE, ID	BLANK0000063040	103.8 km
No	K30LS-D	D30	LD	LIC	SANDPOINT, ID	BLDTT20110927ADN	44.7
No	K30PT-D	D30	LD	LIC	KALISPELL & LAKESIDE, MT	BLANK0000064236	155.0
No	K30MJ-D	D30	LD	LIC	LIBBY, MT	BLDTT20111114AUF	57.0
Yes	KMNZ-LD	D31	LD	LIC	COEUR D'ALENE, ID	BLANK0000067078	103.8
No	K31DS-D	D31	LD	LIC	COOLIN, ID	BLDTT20090807AAM	42.1
No	KTVH-DT	D31	DT	APP	HELENA, MT	BLANK0000177547	394.0
No	K31KQ-D	D31	LD	LIC	PLAINS, MT	BLDTT20110425AAV	172.5
No	K31PD-D	D31	LD	LIC	WHITEFISH, ETC., MT	BLANK0000064296	154.7
No	KONG	D31	DT	LIC	EVERETT, WA	BLANK0000163848	464.9
No	K31KT-D	D31	LD	LIC	MOSES LAKE, WA	BLDTL20130715ADK	271.3
No	K31AH-D	D31	LD	LIC	OMAK, ETC, WA	BLANK0000180344	225.3
No	K31KW-D	D31	LD	LIC	RICHLAND, WA	BLDTL20120403ACG	350.4
No	K31KL-D	D31	DC	LIC	WALLA WALLA, WA	BLDTA20091207ADH	325.3
Yes	K32HA-D	D32	LD	LIC	BONNERS FERRY, ID	BLDTL20090722ABS	0.1
No	K40DJ-D	D32	LD	LIC	COOLIN, ID	BLANK0000079606	42.1
No	KLEW-TV	D32	DT	LIC	LEWISTON, ID	BLCDT20100111ADM	247.5
No	K32HH-D	D32	LD	LIC	KALISPELL, MT	BLDTT20111214ADX	155.0
No	KDYS-LD	D32	LD	LIC	SPOKANE, WA	BLDTL20130506ACL	129.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D31
 Mask: Stringent
 Latitude: 48 36 36.70 N (NAD83)
 Longitude: 116 15 27.60 W
 Height AMSL: 1874.5 m
 HAAT: 0.0 m
 Peak ER: 0.20
 AntennakWDIETULC2-1/2M-1-K 305.0 deg
 Elev Pattnr: Generic

50.4 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.193 kW	1215.7 m	50.8 km
45.0	0.024	942.0	34.0
90.0	0.000	696.5	9.5
135.0	0.006	352.4	17.3
180.0	0.002	372.2	13.4
225.0	0.141	820.8	41.2
270.0	0.162	1104.2	48.3
315.0	0.131	1276.8	48.9

Database HAAT does not agree with computed HAAT
 Database HAAT: 0 m Computed HAAT: 848 m

**Proposal 25.42 dBu contour crosses Canadian border, coordination required
 Distance to Canadian border: 43.4 km

Distance to Mexican border: 1771.0 km

Conditions at FCC monitoring station: Ferndale WA
Bearing: 277.1 degrees Distance: 462.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 133.1 degrees Distance: 1281.1 km



Study cell size: 1.00 km
Profile point spacing: 1.00 km

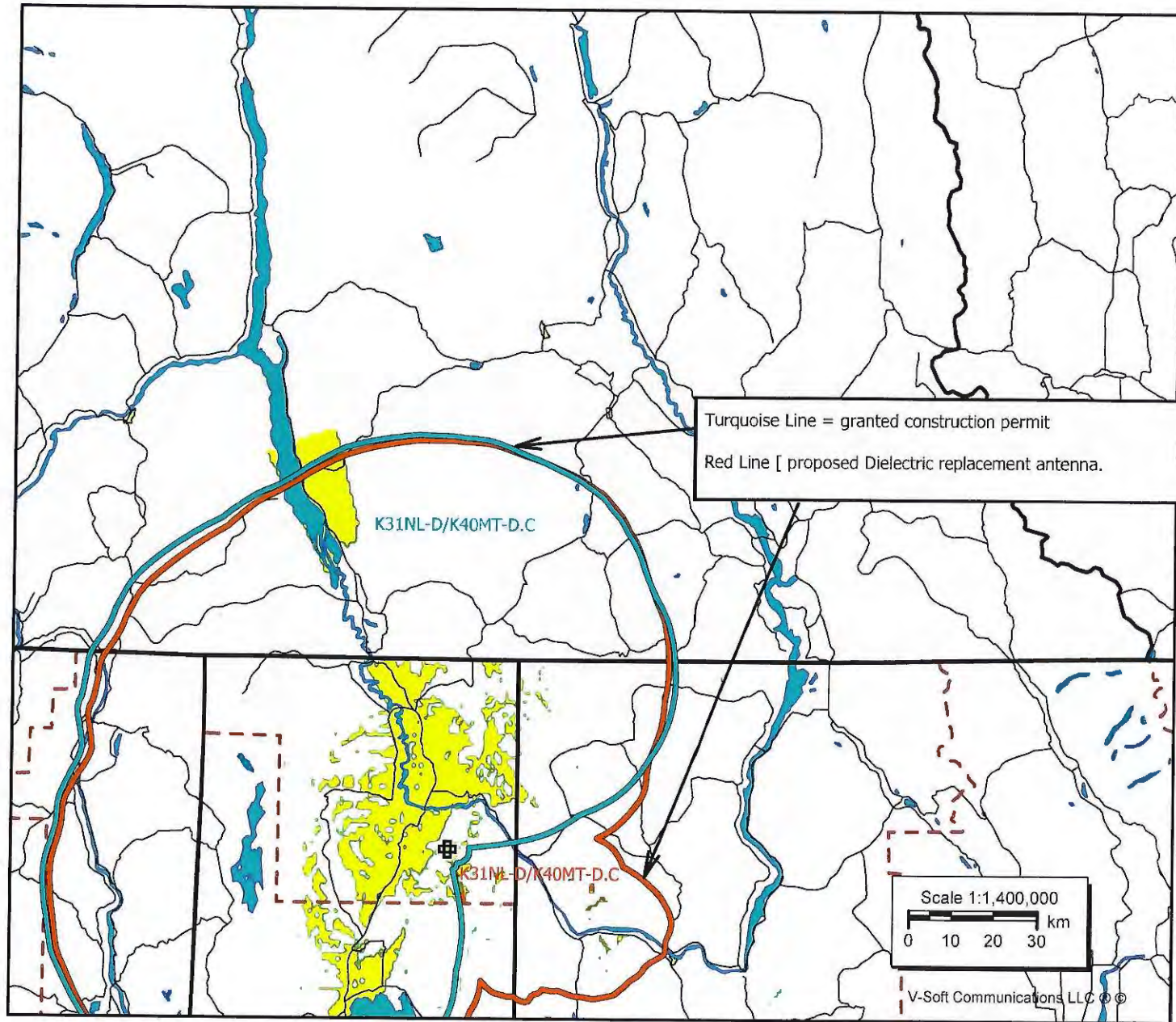
Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

---- Below is IX received by proposal BLANK0000042866 ----

Proposal receives 35.73% interference from scenario 1
No IX check failures found.

0000042866
Latitude: 48-36-36.70 N
Longitude: 116-15-27.60 W
ERP: 0.23 kW
Channel: 31
Frequency: 575.0 MHz
AMSL Height: 1874.5 m
Elevation: 1845.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.75
Prop Model: Longley-Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 311.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 90.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

	> 51.0 dBuV/m
	48.0 - 51.0
	41.0 - 48.0



The construction permit antenna pattern ID # 1002859.

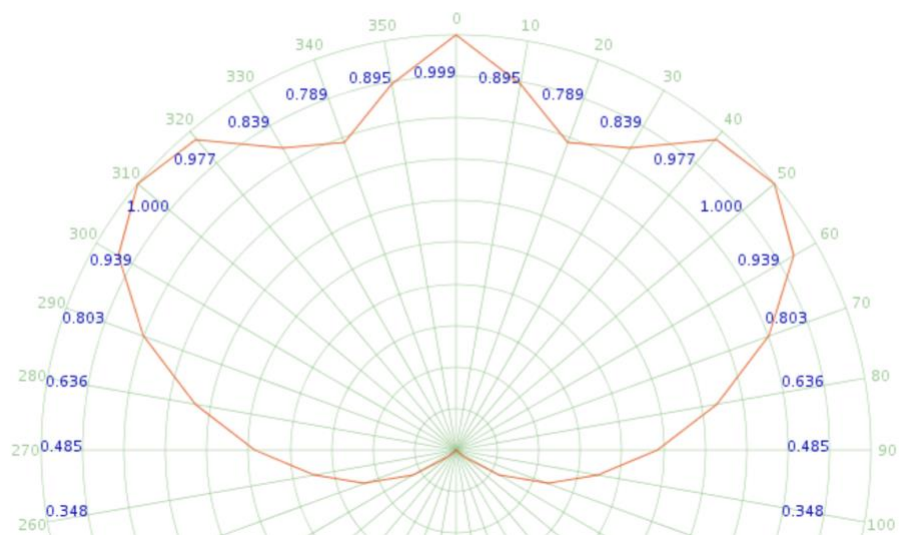
Antenna ID: 1002859

Manufacture: SBP | Model: UPC

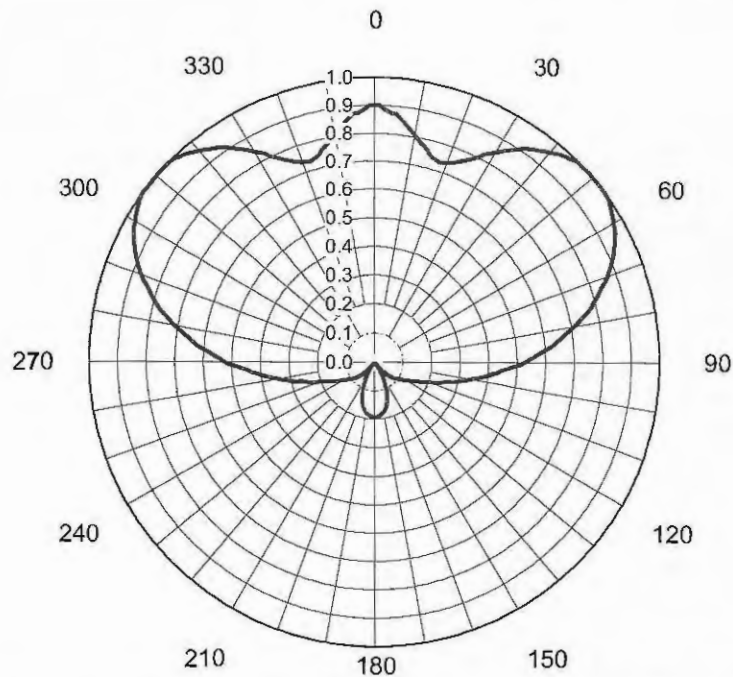
Directional Antenna Relative Field Values

Degree	V _A	Degree	V _A	Degree	V _A	Degree	V _A
0	0.999	90	0.485	180	0.001	270	0.485
10	0.895	100	0.348	190	0.001	280	0.636
20	0.789	110	0.237	200	0.001	290	0.803
30	0.839	120	0.12	210	0.001	300	0.939
40	0.977	130	0.024	220	0.001	310	1.0
50	1.0	140	0.001	230	0.024	320	0.977
60	0.939	150	0.001	240	0.12	330	0.839
70	0.803	160	0.001	250	0.237	340	0.789
80	0.636	170	0.001	260	0.348	350	0.895

➤ Result: Polar Plot



Dielectric®



AZIMUTH PATTERN Horizontal Polarization

In Free Space

Proposal No. **C-71539-2**
Date **10-Nov-20**
Call Letters **K40MT**
Channel **31**
Frequency **575 MHz**
Antenna Type **TUL-C2-1/2M-1-K**
Gain **2.58 (4.12dB)**
Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.902	36	0.922	72	0.837	108	0.230	144	0.007	180	0.196	216	0.007	252	0.230	288	0.837	324	0.922
1	0.902	37	0.930	73	0.825	109	0.217	145	0.011	181	0.195	217	0.011	253	0.244	289	0.854	325	0.912
2	0.889	38	0.939	74	0.811	110	0.206	146	0.018	182	0.195	218	0.018	254	0.253	290	0.869	326	0.898
3	0.882	39	0.949	75	0.797	111	0.194	147	0.026	183	0.194	219	0.025	255	0.263	291	0.883	327	0.885
4	0.874	40	0.956	76	0.784	112	0.184	148	0.034	184	0.191	220	0.031	256	0.283	292	0.895	328	0.872
5	0.873	41	0.967	77	0.765	113	0.176	149	0.042	185	0.190	221	0.038	257	0.299	293	0.907	329	0.857
6	0.861	42	0.974	78	0.746	114	0.166	150	0.050	186	0.188	222	0.044	258	0.313	294	0.917	330	0.843
7	0.847	43	0.982	79	0.728	115	0.159	151	0.058	187	0.186	223	0.051	259	0.329	295	0.927	331	0.833
8	0.832	44	0.988	80	0.712	116	0.153	152	0.066	188	0.184	224	0.056	260	0.345	296	0.936	332	0.820
9	0.821	45	0.996	81	0.693	117	0.146	153	0.074	189	0.181	225	0.062	261	0.359	297	0.945	333	0.802
10	0.809	46	0.997	82	0.672	118	0.138	154	0.082	190	0.179	226	0.067	262	0.376	298	0.956	334	0.789
11	0.793	47	0.998	83	0.655	119	0.132	155	0.090	191	0.176	227	0.072	263	0.395	299	0.963	335	0.780
12	0.781	48	0.999	84	0.640	120	0.127	156	0.098	192	0.172	228	0.077	264	0.411	300	0.967	336	0.769
13	0.772	49	1.000	85	0.621	121	0.123	157	0.105	193	0.167	229	0.081	265	0.430	301	0.975	337	0.759
14	0.762	50	0.998	86	0.598	122	0.118	158	0.112	194	0.163	230	0.085	266	0.444	302	0.982	338	0.750
15	0.748	51	0.999	87	0.580	123	0.114	159	0.120	195	0.158	231	0.090	267	0.464	303	0.987	339	0.744
16	0.742	52	0.999	88	0.561	124	0.110	160	0.127	196	0.153	232	0.094	268	0.483	304	0.992	340	0.739
17	0.737	53	0.999	89	0.544	125	0.105	161	0.134	197	0.147	233	0.098	269	0.511	305	0.997	341	0.735
18	0.732	54	0.999	90	0.527	126	0.102	162	0.141	198	0.141	234	0.102	270	0.527	306	0.999	342	0.732
19	0.735	55	0.997	91	0.511	127	0.098	163	0.147	199	0.134	235	0.105	271	0.544	307	0.999	343	0.737
20	0.739	56	0.992	92	0.483	128	0.094	164	0.153	200	0.127	236	0.110	272	0.561	308	0.999	344	0.742
21	0.744	57	0.987	93	0.464	129	0.090	165	0.158	201	0.120	237	0.114	273	0.580	309	0.999	345	0.748
22	0.750	58	0.982	94	0.444	130	0.085	166	0.163	202	0.112	238	0.118	274	0.598	310	0.998	346	0.762
23	0.759	59	0.975	95	0.430	131	0.081	167	0.167	203	0.105	239	0.123	275	0.621	311	1.000	347	0.772
24	0.769	60	0.967	96	0.411	132	0.077	168	0.172	204	0.098	240	0.127	276	0.640	312	0.999	348	0.781
25	0.780	61	0.963	97	0.395	133	0.072	169	0.176	205	0.090	241	0.132	277	0.655	313	0.998	349	0.793
26	0.789	62	0.956	98	0.376	134	0.067	170	0.179	206	0.082	242	0.138	278	0.672	314	0.997	350	0.809
27	0.802	63	0.945	99	0.359	135	0.062	171	0.181	207	0.074	243	0.146	279	0.693	315	0.996	351	0.821
28	0.820	64	0.936	100	0.345	136	0.056	172	0.184	208	0.066	244	0.153	280	0.712	316	0.988	352	0.832
29	0.833	65	0.927	101	0.329	137	0.051	173	0.186	209	0.058	245	0.159	281	0.728	317	0.982	353	0.847
30	0.843	66	0.917	102	0.313	138	0.044	174	0.188	210	0.050	246	0.166	282	0.746	318	0.974	354	0.861
31	0.857	67	0.907	103	0.299	139	0.038	175	0.190	211	0.042	247	0.176	283	0.765	319	0.967	355	0.873
32	0.872	68	0.895	104	0.283	140	0.031	176	0.191	212	0.034	248	0.184	284	0.784	320	0.956	356	0.874
33	0.885	69	0.883	105	0.263	141	0.025	177	0.194	213	0.026	249	0.194	285	0.797	321	0.949	357	0.882
34	0.898	70	0.869	106	0.253	142	0.018	178	0.195	214	0.018	250	0.206	286	0.811	322	0.939	358	0.889
35	0.912	71	0.854	107	0.244	143	0.011	179	0.195	215	0.011	251	0.217	287	0.825	323	0.930	359	0.902

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