

Project Rationale

In 1928, the Willow Inn Hotel, located on the subject property, was the hub of social activity in Kelowna's downtown. It was a popular place for social local gatherings and patrons of the hotel provided vital support to the businesses along Bernard Ave. The hotel was an important link between the downtown and the waterfront.

In an effort to honour the site's historic use, Westcorp sought to locate a world class hotel and conference centre in this highly visible location and was granted approval for the project in June 2014. With the completion of the Kelowna Yacht Club and Stuart Park, the proposed hotel represents the final component of the revitalization of the downtown waterfront. It will provide a key connection point along the waterfront and it will help to achieve one of the key principles of the Downtown Plan, namely to "Enhance Kelowna's identity nationally and internationally and enhance the identity of downtown as Kelowna's Principal Centre." The hotel will contribute significantly to the increase of commercial activity on the waterfront, will stimulate year-round use and will create a vibrant and energetic public realm.

With its sinuous lines drawn from the surrounding topography and a palette of materials inspired by nature, the hotel project will significantly reinforce the identity of the City and contribute to the emerging "Kelowna Brand."

Key objectives for the hotel project are:

Create an iconic building on one of the most visible locations on the downtown waterfront.

Create a high-end destination hotel with active and inviting public spaces adjacent to Kerry Park.

Create first class conference space for business and social uses.

Accommodate required parking on-site.

The DP for the 24 storey hotel was approved in Aug 2014, and a revised DP (to reflect minor revisions to design) was issued in October 2015.

Through the course of detailed design work in 2016, it became increasingly apparent, both from interior design and functionality perspectives, that the large parkade within the podium was a significant constraint. In addition, with the market becoming increasingly robust in Kelowna, it also became apparent that the project could much better respond to market conditions if a certain number of for-sale residential units could be included within the project instead of the proposed long-stay rental units. With a desire to seek solutions to functionality issues, and a desire to include units with different unit sizes, outside patio space, elevator and parking needs than what had been designed into the original project, Westcorp chose to halt construction plans and enter into a redesign exercise. The result of that work is the current application.

Significant Changes

Inclusion of residential condo units: the previous project had 189 hotel rooms and 25 long-stay rental suites for a total of 214 units. The current project has 174 hotel rooms and 49 for-sale residential units for a total of 223 units. The inclusion of condo units will increase the number of people living in our downtown core and add to the vibrancy of the building, surrounding streets and waterfront.

Parking: The previous project provided 242 parking stalls in a large above-grade parking structure with hotel and retail uses "wrapped around" it. In the current project, we have been able to significantly reduce the size of the above grade parking structure by creating two full levels of parking underground. The current project has two separate parking areas:

Hotel and public parking area- 156 stalls below-grade accessed off of Queensway Ave Residential secured parking area - 133 stalls above-grade accessed off of the laneway. If there are excess stalls in this area once stalls have been designated to homeowners, the balance will be available for valet service which will free up additional stalls in the public parking area.

Tower Placement/Interface with Kerry Park: The significant shrinking of the aboveground parkade allowed the tower to move eastward away from Kerry Park. This created a structure that slopes back from the lake with a series of stepped terraces. In addition to creating a soft transition in the massing along the lake front, the result was the creation of expansive terraces for outdoor experiences with strong connections to the lake on the lower levels of the hotel. At-grade animation, as with the previous project, is created through adjacent uses such as coffee shop, restaurant, lobby bar and hotel lobby. The current design has also pulled the overall building back from the Kerry Park edge to create larger patios for the coffee shop and restaurant than had been previously possible. In our view, the current design has created a softer friendlier interface, and the tower is much softened in impact due to its location away from the park edge.

Tower shape and aesthetics: The tower in the previous project was elliptical in shape, the cladding was a white composite material and the balconies were affixed to the structure. In the current design, the tower is still generally elliptical (because this shape presents a narrow face to the lake and Queensway view corridor), but now, with larger balconies as part of the floor slabs, the building edge undulates in a sinuous and fluid way. The slender massing of the tower is punctuated with the mid-level banding of the sky restaurant that balances the tower's vertical elements at the base and at its mid-section into two proportionally pleasing halves. The sky restaurant floor also provides the transition between the rhythm of balconies of the hotel floors (13 units per floor) and the rhythm of balconies of the suites and condo units (up to 6 units per floor). Natural looking manufactured cladding will mimic the warmth of wood. When one looks up, the tower has a soft textural quality created by the multi-terraces which are clad on the undersides in soft natural earth tone materials that further enhance the rhythmic and undulating lines of the building. At night, the terraces are visible with warm up-lighting washing the tower walls with a subtle comforting glow. This vertical lighting treatment will ensure that the building looks warm regardless of time of year or occupancy level. The tower is capped with a glowing beacon structure that will locate this downtown landmark on the night skyline. This landmark building will help to identify the downtown core as "Kelowna's Principal Centre."

Elevator Core and Tower Floor Plate: The previous design had 3 hotel elevators and 2 conference-only elevators. The current design has 3 hotel elevators servicing the hotel rooms, conference areas and 16th floor restaurant, 2 conference-only elevators, and 3 residential elevators. The addition of 3 elevators has caused the floor plate to increase, however, it is still within the limitations set by the C7 zone.

Tower Height: The previous project was 24 storeys. The current project is 32 storeys. (There are 31 storeys of hotel and residential uses in the project. The 32 floor is a mechanical/technical floor, but since there is possibility that a portion of that floor might not be required for mechanical and could become available for use as private upper deck for the penthouse owner, this level, for the purposes of DP, is being counted as a floor.) The number of storeys in the tower is essentially the result of balancing the additional costs of construction of the larger floor plate, core, and underground parkade with the revenue required to make the project feasible. At 32 storeys, the tower will look the same height as the One Water project in the North End and will essentially "bookend" the Civic District, much like the previous 24 storey hotel tower would have. In sky line studies, the tower stands out from its surrounding neighbours, but with the recent approval of 20 storeys at Lawrence and Ellis (Ella) and with other towers anticipated to follow in the Lawrence/Leon corridors, the hotel tower will become the "edge" of a downtown core tower cluster over time. Further, with the tower now pulled back from the Kerry Park edge, the experience from the pedestrian level will be much more focused on the podium.

The shadow study of the previous project showed that the tower's shadow will not have any major shadow impact on other buildings, particularly since there are no buildings located on the north side of the proposed development. The majority of the shadow impact will be on the Queensway Ave. turnaround and edge of Stuart Park during hours and seasons of minimum use, and the slender form of the tower will ensure that the shadowing that does occur, moves swiftly along its path. With the additional height in this design, the shadow will be somewhat lengthened, which will have little additional impact. In fact, it may actually provide a bit of relief on the Stuart Park concrete ice-rink pad for portions of the afternoon in the height of summer.

Another important aspect to note in the height consideration is the reality that commercial floors have a much higher floor to ceiling height than typical residential floors. The lobby has a 24' ceiling, the podium floors have 14' ceilings, the hotel floors have 9' ceilings, the 16th floor restaurant has a 16' ceiling, the residential floors have 10' ceilings, the 4 premium residential floors have 12'8" ceilings, and the penthouse floor has a 14' ceiling.

Conference Terraces: In the original design, the large west-facing terrace on the conference level was for the shared use of hotel guests and conference users. This was not ideal, but with the large parkade and subsequent tower placement in the previous design, it was unavoidable. In the new design, the number of expansive stepped terraces has allowed us to separate uses on the terraces. The 2^{nd} floor terrace and pool area is for hotel patrons and residential home owners, and the 5^{th} level terraces (conference level) are now solely for conference event use which will greatly enhance the ability to accommodate outdoor events such as weddings, galas, etc. The generous terraces facing north and west will allow for two outdoor events to occur simultaneously.

Public Spaces Added to the Tower: A public restaurant, private dining rooms and a culinary teaching kitchen facility have been introduced on the 16th level of the tower. Views from this vantage point overlooking the lake and bridge will be spectacular. The restaurant will be unique in Kelowna and will provide a new and interesting public space in our city.

Retail: In the previous design, retail shops were confined to Water St. because of lack of room within the lobby. In the current design, with a more generously sized lobby, retail has been included within the lobby as well as on Water St. These lobby retail kiosks will help to animate both the lobby and the Queensway corridor.

Laneway Elevation: In the previous design, architectural interest in the lane was provided by colour and texture on the metal screening of the parkade. In the current design, the cladding and glazing of the Queensway and Water St. facades will be carried down the entire length of the lane which will improve the view of the podium from the buildings across the lane. Glazing has also been wrapped around the building at the laneway entrance to improve transparency and the overall look and feel for pedestrians and motorists heading north on Water St.

Water St. Façade: In the previous design, there were retail units at grade with canopies that extended over the sidewalk, two levels of long-stay residential units above, a kaleidoscope feature for architectural interest, and metal screening for the parkade levels and conference ballroom.

In the current design, there are retail units at grade, this time set back from the property line so that the floor above provides the shelter rather than canopies. This has eliminated the need for an encroachment agreement along Water St. Wood-like cladding and glazing mask the parkade levels, and glazing has been added to the conference level to provide transparency and balance to the podium.

The new design has allowed Westcorp to solve many of the functionality issues that would have negatively impacted the potential success of the previously proposed hotel. GCA, world class hotel designers have brought a global sensibility to the project, one that will elevate this building and Kelowna on the world stage. We believe that this proposal fully meets the objectives we had hoped to achieve when we embarked on this exciting project.



This permit relates to land in the City of Kelowna municipally known as

289 Queensway

and legally known as

Lot 1 District Lot 139, ODYD, Plan KAP77920

and permits the land to be used for the development with variances to the following sections of the Zoning Bylaw 8000:

Section 14.7.5 Development Regulations (h)i.

To vary the maximum height of a building before a 3 metre setback is required from 16 metres to 20.25 metres for the Queensway frontage as per A-54 drawing attached to Schedule 'A'.

Section 14.7.5 Development Regulations (h)iii.

To vary the maximum floorplate for any building above 16.0m from 1,221m² to 3,130m² limited to the seventh floor as per A-56 drawing attached to Schedule 'A'.

Section 14.7.5 Development Regulations (b)

To vary the maximum height of a building from 76.5 metres to 131 metres.

Section 8 Parking and Loading – Table 8.2 Loading Schedule

To vary the number of loading spaces from 6 spaces to 3 spaces.

The development has been approved subject to any attached terms and conditions, and to full compliance with the approved plans bearing the stamp of approval and the above described development permit number.

The present owner and any subsequent owner of the above described land must comply with any attached terms and conditions.

Date of Decision:	February 20 th 2017
Decision By:	CITY COUNCIL
Issued Date:	DATE
Development Permit Area:	Comprehensive Development Permit Area
<u>File Manager:</u>	AC

This permit will not be valid if development has not commenced within 2 years of the council approved Date of Decision.

Existing Zone: C7 – Central Business Commercial

Future Land Use Designation: MXR – Mixed Use (Residential/Commercial)

This is NOT a Building Permit.

In addition to your Development Permit, a Building Permit may be required prior to any work commencing. For further information, contact the City of Kelowna, Development Services Branch.

NOTICE

This permit does not relieve the owner or the owner's authorized agent from full compliance with the requirements of any federal, provincial or other municipal legislation, or the terms and conditions of any easement, covenant, building scheme or agreement affecting the building or land.

Owner:1324632 Alberta Inc. No A72431Address:8215-112 StreetCity:Edmonton, AbPhone:n/a

Ryan Smith, Community Planning Department Manager Community Planning & Strategic Investments Date

1. SCOPE OF APPROVAL

This Development Permit applies to and only to those lands within the Municipality as described above, and any and all buildings, structures and other development thereon.

This Development Permit is issued subject to compliance with all of the Bylaws of the Municipality applicable thereto, except as specifically varied or supplemented by this permit, noted in the Terms and Conditions below.

The issuance of a permit limits the permit holder to be in strict compliance with regulations of the Zoning Bylaw and all other Bylaws unless specific variances have been authorized by the Development Permit. No implied variances from bylaw provisions shall be granted by virtue of drawing notations that are inconsistent with bylaw provisions and that may not have been identified as required Variances by the applicant or Municipal staff.

2. CONDITIONS OF APPROVAL

- a) The dimensions and siting of the building to be constructed on the land be in accordance with Schedule "A";
- b) The exterior design and finish of the building to be constructed on the land be in accordance with Schedule "B";
- c) Landscaping to be provided on the land be in accordance with Schedule "C"; and
- d) The applicant be required to post with the City a Landscape Performance Security deposit in the form of a "Letter of Credit" in the amount of 125% of the estimated value of the landscaping, as determined by a Registered Landscape Architect.
- e) A maintenance agreement with associated bonding be signed and submitted with the City of Kelowna to ensure the upgraded off-sites improvements along Queensway Ave and Water St are provided for and maintained for in perpetuity.
- f) That a subdivision be registered with the land titles office completing the land exchange and lane dedication;
 - a. As part of the new registered plans, the vehicular right-of-way and turn around within the lane be amended to reflect the updated plans; &
 - b. A statutory right-of-way be registered on the property guaranteeing public access between the proposed building and Queensway Rd / Kerry Park.
- g) That a license of occupation be signed by the City of Kelowna to permit the canopy encroachments across the property lines.
- h) That a license of occupation be registered for the Hotel permitting the portions of Queensway Ave to be used for Hotel purposes such as valet services.

This Development Permit is valid for two (2) years from the Council Date of Decision if applicable, or Community Planning Department Manager approval, with no opportunity to extend.

3. PERFORMANCE SECURITY

As a condition of the issuance of this Permit, Council is holding the security set out below to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Developer and be paid to the Developer or his or her designate if the security is returned. The condition of the posting of the security is that should the Developer fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the Municipality may use enter into an agreement with the property owner of the day to have the work carried out, and any surplus shall be paid over to the property own of the day. Should the Developer carry out the development permitted by this Permit within the time set out above, the security shall be returned to the Developer or his or her designate. There is filed accordingly:

a) A Certified Cheque in the amount of n/a

OR

b) An Irrevocable Letter of Credit in the amount of n/a

Before any bond or security required under this Permit is reduced or released, the Developer will provide the City with a statutory declaration certifying that all labour, material, workers' compensation and other taxes and costs have been paid.

4. Indemnification

Upon commencement of the works authorized by this Permit the Developer covenants and agrees to save harmless and effectually indemnify the Municipality against:

a) All actions and proceedings, costs, damages, expenses, claims, and demands whatsoever and by whomsoever brought, by reason of the Municipality said Permit.

All costs, expenses, claims that may be incurred by the Municipality where the construction, engineering or other types of works as called for by the Permit results in damages to any property owned in whole or in part by the Municipality or which the Municipality by duty or custom is obliged, directly or indirectly in any way or to any degree, to construct, repair, or maintain.

The PERMIT HOLDER is the <u>CURRENT LAND OWNER</u>. Security shall <u>ONLY</u> be returned to the signatory of the Landscape Agreement or their designates.



LEGAL ADDRESS:

Development Permit. Application covering the following Property:

289 QUEENSWAY AVE. KELOWNA , BC

et	Project	Phase				
	Induced Department States Bullioned Bill	Partition of Statist				
-	Destand	Bale	Farmer			
	Decision of address					
6		100	-			
10	aga suray	1058	10000			
÷	Contract Proof in American Contractor		and the			
2	Constant Photos		AND O			
6	Descent General		and 0			
2	matrix 1 of Property in the	1000	And I I			
2	Internet II Pressie	4,0004	and it.			
	Incompany III Provalation	4066	anits O			
ia.	Joint 21 P. Toorigan	1000	AND D			
ė.	anni di Phonepart	1099	AND D			
×	anal 6 (P for piece	1000	men p			
2	and 4 / P Buggarine Company	1000	AND D			
12	June 5 - P Nooplan	1008	ANS! D			
4	Josef B (P. Buggalone Plantpain	1009	440.0			
5	Laven & Photoplan	1000	4943 (
*	presi E Melapinine Pilocomen	1,0104	WHOLE UP			
P	Jacel 7-86 Tooptan-Hotel	1008	ANSI 21			
	and 17 Peoplan Stylinings	1006	44430			
.	Level 18 Proviption Apartments TA & Technical Floor	1000	-00400 (2)			
88.	Level 19-20 Ficepiles Apartments Type B	1,000	WHO II			
7	unial 21 Prospier-Arentments Type C	1004	ANOI 11			
2	Loves 22-28 Provision Apartments Type-C	1009	ABARD D			
<u>.</u>	Lawer 28 Pologram Apentments Supe II	1000	1000			
-	uner 20-21 Provision Apatiments Type E	1000	49901.0			
2	Josef 12 Faarper- Perboare	1008	APROX 12			
-	Deale par Presidente - restricted in state	1000	-			
2	Automatica Promitica Seconda Institute & Marcine	A CREW	100000000000000000000000000000000000000			
	Residence Transferr Incares, Caret & Marriel	1.000	10000			
÷.	Robins Density, June & Sould	1000	diam'r 11			
	Radding Docation Fact & March	1,000	10000			
	Residence Residence & & R. Marteria Family	11000	44400.00			
- -	Automa Service C. Coll., Santa Aurolity	1.000	10000			
	Times Panale Drint	4.146	made 11			
	manual thread		WHAT D'			
ei -	Registragent No.49 & Route.	1080	WHEN D			
12	Rightright East K. Heri	1230	APPEND D			
	Perio of Editoriage Inter Okacegan Later		rendo (1			
w	ternal trom Okanagan Lake		WHEN D .			
0	How Nore Dranger Bridge		WHEN D			
ex	Hara buin Bernard Retries		494010			
4	Fare Burn Kerry Flank		rends ()			
0	Free Port Fot webs		WHEN D			
6	free toward the viola Lable	1	APPLIE 23			
5	new turn Bluet Pan		AND D			
5	Fire turn Ducemany & Phase Street		and D			
5	right many Wader Shiper		1000			
2	Little grade Streetungs		10000			
1	ingenourse were horn by Marries		APPEND D			
9	Ciele Huth West Building		1000			
5	Lase 2 and among		10000			
1	the state of the s	1000	10000			
2	12 Characterization and the second second	1,000	and a lot			
	17 Promisid Versions, Building Handle	1,000	and the local division of the local division			
	12 december of Verlaging Plane state	1,1000	1000			

Westcorp



Project 1864 Downtown Hotel Kelowna Kelowna, BC

Architects

Plan

Date Scale A1

A-00 -

N٥

July 2017







Project 1864 Downtown Hotel Kelowna

Kelowna, BC

Architects

Con

Plan Context Plan & Zoning Analysis Table
 Date
 Scale
 A1
 N°

 July 2017
 1/500
 A-02

(

																S	CHI	EDULE	<u> </u>	A & B	
																Tł #_	nis form DP17-0	s part of ap 191	application		
								Ke	lowna Dov	wntown Hote	Deve	lopment Sta	tistics			Pla Ini	anner tials	AC	Cit K	y of 🔌	na
LEVIL	TOTAL	GPA	10	RUNG		FOH HOTE		HOTEL	DOMS	SPA / FITHE	55	RETAL		APARTMENTS	12	CONFE	ENCE	MISCELLAN	EOUS I	TERRACI	
- Louis	Total Sq.m(+r-)	Total Big H (++)	Tatler Dig m [4-1] To	All Statices) IN	Club	Total Supercent To	na (14.11.14.)	Yolai Stangers Tax	(648.04) UNB	Time Departments The	a Sector	Total Digmont Total	SUR. W.	Total Squal and Total Squ	(ivi) (ins	Time Sq.m(w))	Total Digits (++	Titar Bamiws T	dar (sg.tt.(+i-)	formal disponsion () The	M 54.5 (+-)
82 81 L1 L2 L3 L4 L4 Mezz	3929.97 3925.97 3422,76 2528,65 2967,91 2904,01 585.37	42302 42302 36842 30447 31946 31581 6301	3029.97 3029.97 303.84 956.61 1242.25 1243.30 865.37	42302 42302 3271 10299 13371 13383 6301	79 77 6 15 29 12	835.86 829,43	8967 8928	1085.72	11667 14	601,32	7441	885,64 118,62	9535 1279					1397,22 1061,70 896,23 604,99	15040 11428 9647 6512	1058,55 254,04	11398 3185
LS Mezz LS Mezz LS Mezz	2919,98 654,71 1994,38 356,41	31430 7047 21467 3830	1243,62 654,71	13386 7547	29			1103.60	11882] 14							1294.37	1393	572,53 2* 699,99 306,41	6163 7535 3836	299,30 947,79	10202
L7 L8 L9 L10 L11 L12 L13 L14 L15 L18	802,97 802,97 802,97 802,97 802,97 802,97 802,97 902,97 802,97 802,97	10042 10042 10042 10042 10042 10042 10042 10042 10042 10042						704,29 704,29 704,29 704,29 704,29 704,29 704,29 704,29 704,29	7581 13 7581 13									228,00 228,00 228,00 228,00 228,00 228,00 228,00 228,00 228,00 228,00 228,00		100.64 110.64 110.64 110.64 110.64 110.64 110.64 110.64 110.64 110.64	1083 1083 1083 1083 1083 1083 1083 1083
L17 L18 L19 L20	901,27 901,27 901,27 901,27	9701 9701 9701 9701				737,93	7943	353,60 754,03 754,03	3009 4 8110 0									163.34 547.41 147.24 147.24	1758 5892 1585	119,00 203,36 203,38 203,36	1288 2189 2189 2189
L2H L22 L23 L24 L25	870,85 863,07 863,07 863,07 863,07 863,07	8374 9505 9505 9505 9505												707,75 707,75 707,75 707,75 707,75	8587 + 8587 + 8588 + 8588 + 8588 +			73,10 85,32 85,37 85,37 85,37	787 018 019 019 019	203.38 203.38 203.38 203.38 203.38 203.38	2180 2180 2180 2180 2189
L26 L27 L28 L29	883.07 883.07 883.07 883.07	9505 9505 9505 9505												7907,70 7907,70 7907,70 779,21	8586 4 8586 4 8586 4 8388 1			85,37 85,37 85,37 103,76	919 919 919 1117	203,38 263,38 203,38 203,38 203,38	2189 2189 2189 2189 2189
L31 L32 L32	883,67 883,67 743,60 685,39	0505 0505 8005 7377												770,31 779,31 641,00 223,21	8388 3 6906 1 2403			103,76 103,76 102,09 462,18	1117 1117 5000 4075	203.38 203.38 379.57 124.21	2189 2189 4086 1337
-	60589,51	544540	14089.84	151662	296	2403,22	25868	11094,37	119410 194	691,32	7441	1004,66	10814	9584,44 10	3106 40	1294,37	1393	2 10427,29	87620	8967,17	75209

		TOTAL GFA Balconie e B	(Excluding Terraces)	TOTAL BUILT A	NEA (including L Terreces)	
		Total (light)+i-)	Total Rep 71 (144)	Total State(+i-)	Total Right (+4)	
L1-32	TOTAL AREA ABOVE GROUND	24500	302879	43487	408088	"Not Including Parking
81/82	TO TAL AREA PARKING UNDERGROUND	7860	54504			
	TOTAL NUMBER OF STALLS	154				
L1-6	TO TAL AREA PARKING ABOVE GROUND	6238	67058	ł		
	TOTAL NUMBER OF STALLS	139				
L21-33	TO TAL RESIDENTIAL NET AREA	9584	103166	12325	132669	* Next activating manifested min setteneous. Next mototion Flacture
	TOTAL MARER OF ARAPMENTS	40				Here a control interesting a statement of the second statement
L1-20	TO TAL RESIDENTIAL COMMON AREA			272,84	2937	* Including elevators shafts + residential lobby
L1-20	TO TAL HOTEL + PODUM + SKYLDUNGE OFA AREA	25694	270133	29342	315838	* Including hotel BOH (including senice shafts) ; Not including Parking, Terras
	TOTAL MARER OF ROOMS	174	1.000	10.00	- 5-64.03	Bicyclie rodims.
	TOTAL NUMBER OF FLOORS					
	SITESTATS	Total Sigm(++)	Table Sig.71 (++)	Heckies	1	
	SITE AREA	4542	45894	0,454		
	SITE COVERAGE OF BUILDING (%)	83				
	Cap	34601				
	TAR PERMITED					

Parking Italia	Full Size (6x7.5ml	Medium Size	Compact Size	Accessible (6x3.7m)	Total per floor	Total Required
2	45	28	5	1	29	
1	49	24	3		77	
1/P(out)	6	12.622	1.1		6	
2/9	12	- 3		3.4	15	
3/#	15	11	3	1.1.1	29	
4/1	5	5	2	24	12	
A/P Mezz	15	11		12	29	
579	6	10	1.1		29	
S/P Mezz	15	11	3		29	
fotal	168	103	19	2	215	276
Type Ratio	Minim.50%	Max. 40%	Máx, 10%			
	56,9	34,9	6,4	0,7	100%	
		BICYCL	E PARKING	STALLS		
		PROV	IDED	REQU	#10	
		Class I	Class II	(2008-0-1	Class #	
lesidential		25	9	20		
Robert					2	
octail Total		2	2		- 50	-
10121			4.4			



Project 1864 Architects

Downtown Hotel Kelowna Kelowna, BC

Р

A-03





02. View looking toward site from Mill St and Bernard Ave.



04. View looking toward site from Marina.



03. View looking toward site from Queensway and Mill St.



05. View looking toward site from Stuart Park.



06. View looking toward site from Queensway and Water St.





07. View looking toward site looking down from Queensway.



08. View 06 close-up.





Project 1864 Downtown Hotel Kelowna Kelowna, BC **Plan** Context Photos
 Date
 Scale
 A1
 N°

 July 2017
 A-04





UNIQUE ATABY continuity and integration

conduct feeling

maximits visco.

maximum dati expression

H H H H L T B

maximized outdoor erees. harmonic relationship to sity - tower mature Expansive terraped operators usess

> >In order to create opportunities for more outdoor experiences with strong connections to the lake on the lower levels of the hotel , the structure slopes back from the lake with a series of stepped terraces. These terraces become a soft transition in the massing along the lake front and create intensified public activities on these various terraces.

>The introduction of sky lounge /restaurant level will give the public a unique dining experience with panoramic views of the lake . This experience is enhanced with extra ceiling height and grand expanses of glass.

>The large useable individual outdoor terraces are a key feature in affording everyone a quality outdoor experience on every level with unobstructed views . Each floor slab is wrapped with extra isulation to meet the National Energy Code. Otherwise the terraces would be much smaller and the outdoor living experience greatly diminished.

>Each level has gracious height to create more open and grand interior spaces with a greater connection to the outdoors and the lake.

Westcorp



Project 1864 Architects Downtown Hotel Kelowna Kelowna, BC

Plan Concept Design Date Scale A1 N٥ A-05 July 2017 -



Kelowna, BC





іві

Architects

Project 1864 Downtown Hotel Kelowna Kelowna, BC

Basement B1 / P Floor plan

Date Scale A1 July 2017 1:200

N٥ A-07





іві

Architects

Project 1864 Downtown Hotel Kelowna Kelowna, BC **Plan** Basement B2 / P Floor plan
 Date
 Scale
 A1

 July 2017
 1:200

N٥

A-08









Architects Downtown Hotel Kelowna Kelowna, BC

Plan Level 2 / P Floor plan
 Date
 Scale
 A1

 July 2017
 1:200

N٥

A-09







Architects Project 1864 Downtown Hotel Kelowna Kelowna, BC **Plan** Level 3 / P Floor plan
 Date
 Scale
 A1

 July 2017
 1:200



Architects Downtown Hotel Kelowna Kelowna, BC

іві

Westcorp

Plan Level 4 / P Floor plan Date July 2017
 Scale A1
 N°

 1:200
 A-11





Architects Downtown Hotel Kelowna Kelowna, BC **Plan** Level 4 / P Mezzanine Floor plan
 Date
 Scale
 A1

 July 2017
 1:200

_N ↓

N٥

A**-**12







Downtown Hotel Kelowna Kelowna, BC

Level 5 / P Floor plan

Date July 2017 1:200

N٥ A-13







Architecta Kelowna, BC **Plan** Level 5 / P Mezzanine Floor plan
 Date
 Scale
 A1

 July 2017
 1:200

N° A-14





Kelowna, BC





Project 1864 Architects Downtown Hotel Kelowna Kelowna, BC

Plan Level 7-16 Floor plan - Hotel Date Scale A1 July 2017 1:200

A-17

N٥





Architects Downtown Hotel Kelowna Kelowna, BC **Plan** Level 17 Floor plan - Skylounge
 Date
 Scale

 July 2017
 1:200

 Scale A1
 N°

 1:200
 A-18





Project 1864

Architects

Downtown Hotel Kelowna Kelowna, BC

Plan Date Level 18 Floor plan - Hotel Apartments Type A & Technical Floor July 2017 Ν

N٥

A**-**19

Scale A1

1:200





Ν





Project 1864 Downtown Hotel Kelowna

Kelowna, BC

Architects

Plan Level 19-20 Floor plan - Hotel Apartments Type B

 Date
 Scale
 A1

 /pe B
 July 2017
 1:200

I N° A-20





au





Project 1864 Downtown Hotel Kelowna

Kelowna, BC

Plan Level 21 Floor plan - Apartments Type C Date July 2017

 Scale A1
 N°

 1:200
 A-21





Architects Downtown Hotel Kelowna Kelowna, BC Plan Level 22-28 Floor plan - Apartments Type C

 Date
 Scale A1

 July 2017
 1:200

N° A-22





Ν

Westcorp



Project 1864 Downtown Hotel Kelowna Kelowna, BC

Architects

Plan Level 29 Floor plan - Apartments Type D
 Date
 Scale

 July 2017
 1:200

 Scale
 A1
 N°

 1:200
 A-23





Architects Downtown Hotel Kelowna Kelowna, BC **Plan** Level 30-31 Floor plan - Apartments Type E

Date July 2017

 Scale A1
 N°

 1:200
 A-24











Architects Downtown Hotel Kelowna Kelowna, BC **Plan** Level 33 Floor plan - Technical Floor

Floor July 2017

Scale A1 N° 1:200 A-26 5









Architects Downtown Hotel Kelowna Kelowna, BC
 Plan
 Date
 Scale
 A1

 Building Elevation Image North & South
 July 2017
 1/300

Scale A1 N° 1/300 A-28


+100.79m	
L33128.62m	· · · · · · · · · · · · · · · · · · ·
L32 +121-66m	
L31+117.50m	
L30	
L29 +100.04m	
L28+104.47m	
L27+100.75m	
L26 +97.63m	
<u>1</u> 24	
<u>L23</u> <u>+46-47m</u>	
L22+62.15m	
L21 +78-43m	
L19 +70.99m	
L ¹⁸ +4 ^{7.27m}	
L17+61.80m	
L16	
<u>L1546.000</u>	
<u>L⁵⁴ +51.84m</u>	
L1348.22m	
L12+46.80m	
L11+1.38m	
L10 +37.96m	
L3+34.34m	
L8 +31.12m	
L7 +27.7fm	
Poolan ROOF +36,97%	
16 Maga = ±21-720	
L620.228m	
L5 / P +1532m	
L4 / PMozz+14.525m	
13/PMosz +15/3/2m	
13/P	
12/P +4.8m	
L1 +0.00m	
	Building Elevation East







Project 1864 Downtown Hotel Kelowna Kelowna, BC Plan Building Elevation Image East & West Scale A1 N°

A**-**29

1/300

Date

July 2017



ROOF	+133-79m	-							Initials	AC	COMMUN
	+130.79m					-					
L33	+126.82m						<u> </u>				
1.00							Γ				
	+121.95m							D , · _ · _ · _ · _			
L31	+117.58m										
L30	+113.21m							1			
L29	+108-84m										
L28	+104.47m			<u> </u>			- 4	1			
L27	+100.75m						11	±			
L26	+97.03m					2 1 22	11	±.			
L25	+92.21m					2 . 22	11	±.			
1.24						2 . 22	72	1.			
1.22	+ 35,59m							≝u·-·			
100	+85.87m							<u>.</u>			
	+82.15m							1			
121	+78.43m					2 22		1			
L20	+74.71m							1			
L19	+70,99m							1			
L18	+67.27m							1			
L17	+61.90m							£1			
L16	+58.48m										
L15	+55_06m			~ ~ ~							
L14	+51.64m		1		2 2 2						
L13	+48.22m		4 44	~ ~ ~	2 22	× ×					
L12	+44.80m		1								
L11	+41.38m										
L10	+37.96m										
L9	+34.54m										
<u>L8</u>	+31_12m						1. 21 5				
L7 Podiu	+27.70m #ROOF +28.97m									=:=:=:=	
L6 Mea	: +23.72m	a para				7777	- 47				
L6	+20.225m		1111			THE P		m			
L5 / P L4 / PN	+15.95m ezz+14.525m										
L4 / P L3 / PA	+11.675m										
L3 / P	+7.40m				· · ·			× *			
L2/P	+4.20m										
<u>L1</u>	+0,00m								-		

ROOF +133.79m	
+130.79m	
L33 +126,82m	
L32 +121.95m	
L31 +117.58m	
120	
eou +11321m	
L29 +108,84m	
L28 +104,47m	
L27 +100.75m	
L26 +97_03m	
L25 +93,31m	
L24 +89,59m	
L23 +85,87m	
L22 +82_15m	
L21 +78.43m	
L20 +74.71m	
L19 +70.99m	
L18 +67.27m	
L17 +61.90m	
L16 +5849m	
L15 +55.06m	
L14+51_64m	
L13 +48.22m	
L12+44.80m	
L11+41_38m	
L10 +37,96m	
L9 +34.54m	
L8 +31_12m	
L7 +27.70m PODIU/I/ROOF +25.97m	
L6 Mezz +23.72m	
L6 +20.225m	
L5 / P +15.95m L4 / PMezz+14.525m	
L4 / P +11.675m	
L3/P +7.40m	
L2/P +4.20m	
L1+0.00m	

Building Elevation North





Architects Downtown Hotel Kelowna Kelowna, BC Plan Building Elevation North & South
 Date
 Scale
 A1

 July 2017
 1:300

:300 A-30

N٥

Building Elevation South



L. L22 +82,15m Į. L21 +78,43m Į. L20 +74.71m L19 +70.99m L18 +67.27m L17 +61.90m L16 +58-48m L15 +55.06m L14 +51.64m L13 +48.22m L12 +44.80m e 4 - 2 L11 +41.38m L10 +37.96m 1.1.1 L9 +34.54m L8 +31.12m . . L7 +27.70m PODIUM ROOF +26.97m L6 Mezz +23.72m L6 +20.225m L5 / P +15.95m L4 / PMezz+14.525m L4 / P +11.675m L3 / PMezz+10.25m L3 / P +7.40m [_____ L2 / P +4.20m L1____+0.00m

IBI

2

ł

H

4

2



ROOF +133.79m

L33 +126.82m

L32 +121.95m

L31 +117.58m

L30 +113-21m

L29 + 108.84m

L28 +104.47m

L27 +100.75m

L26 +97.03m

L25 +93.31m

L24 +89,59m

L23 +85.87m

+130.79m

Project 1864 Architects Downtown Hotel Kelowna Kelowna, BC

Plan Building Elevation East & West Date Scale A1 July 2017

N٥ 1:300 A**-**31

					SCHEDULE	A & B
					This forms part of app	ication
					# DP17-0191	
					Planner	
	ROOF +133.79m	• • • • •			Initials AC	
	+130.79m			╶┨╴╴╴┊╶╴╘╈╴┊╶╴		
	L33 +126.82m	┈┝╷┼╌┈┝╺ <u></u>	BALLOUZ AND TY	1004424		
	L32 +121,95m		Partnegan	PENTHOLISE		
	L31 +117.58m					
	130					
	L29 +108.84m	PROVEM APARTMENTS		/ mexica analysis		
	L28 + 104-47m			PREMEM ADDRESS		
	L27 +100.75m	ASMETMENTS		амитиентя		
UP 140/10 Image Image <t< td=""><td>L26 +97.03m</td><td>AMMIMONTS</td><td></td><td>Алитицте</td><td></td><td></td></t<>	L26 +97.03m	AMMIMONTS		Алитицте		
19. 19.00 10. 10.00 10. 1	L25 +93,31m	APARTMENTS		амитиентя		
19. 14970 1 <	L24 +89.59m	APARTMENTS		AMALTINETE		
19. 1000 10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	L23 +85.87m			AWAITING TO		
	L22 +82.15m			APARTMENTE		
Lin 1 max 1 <td< td=""><td>L21 +78.43m</td><td></td><td></td><td>APARTMENTE</td><td></td><td></td></td<>	L21 +78.43m			APARTMENTE		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	L20 +74.71m			APARTMENTE		
L10 40270 40000 4000 40000	L19 +70.99m			APARTMENTE		
L17 141300 156 159400 156 159400 156 159400 156 159400 156 159400 157 159400 157 159400 158 159400 159 1594000 159 1594000 159 1594000 159 159400 159 159400 15	L18 +67_27m		k *	тонси		
L10 194,490, L13 194,490, L14 194,490, L15 194,290, L16 194,290, L17 194,290, L18 194,490, L19 194,290, L19,290, 194,290	L17 +61.90m	SITURISE		BATIGANE		
L14 -55.06m	L16 +58_48m	HORE BOOM	XK	нота носи		
L14 +5124m -<	L15 +55-06m	нотельком	MK	ното, косм		
L12 ++4,220 -	L14 +51_64m	HOTEL BOOM	X K			
L12	L13 +48,22m	нотеляром		ного, посм		
L1	L12 +44.80m					
L10	L11 +41_38m			N 1000 1000		
9 -93-54-5m	L10 +37.96m	нопелером		ЛА, <u>О</u> новыком		
B 31,120 Image: Market	L9 +34.54m			N 100.1004		
DOMESTICION 20.0000 20.0000 20.0000 20.0000 LO Marz 420.7200 20.0000 20.0000 20.0000 LO Marz 43.0200 20.0000 20.0000 20.0000 LO Marz 10.0000 20.00000 20.0000 20.0000 <td>L8 +31.12m</td> <td>иодалон И</td> <td></td> <td></td> <td></td> <td></td>	L8 +31.12m	иодалон И				
Line Line Line Line Line Line Line Line +50.250				V V V V V V V V V V V V V V V V V V V		
Distriction Distriction Distriction Distriction Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mithage Lif // mi	L6 Mezz +23,72m					
Li / P. 11.02m 11.02m 11.02m 11.02m Li / P. 10.02m 11.02m 11.02m Bi (P. 10.02m 11.02m 11.02m Bi (P. 10.02m 11.02m 11.02m Bi (P. 10.02m 10.02m 10.02m	L0 +20223m			TwTwTee-oncident w.Tw		
L4 (P +11025m	L5 / P +15.95m L4 / PMezz+14.525m				1 N	
D (P +7.40m Image: Constraint of the second	L4 / P +11.675m L3 / PMezz +10.25m	HOTERCOM				
L1 420m 1	L3 / P +7.40m		612			
L1 100m 11 12001200	L2 / P +4.20m					
B1 (P - 4.35m) Image 2 2 2 2 2 <th2< th=""> <th2< th=""></th2<></th2<>	<u>L1 +0.00m</u>				A A as inh	
	B1 / P3.35m		всн			
	B2 / P670m		824		1	

ROOF +133.79m	999	o P P	Ŷ	9	9 9	9 9	9 9
+130.79m k							N N N N N N N N N N N N N N N N N N N
L33 +126-82m							1064
122							
L32 +121,95m							
L31 +117,58m							
L30 +113.21m							
L29 +108-84m			· · · ·	•• • •	• • • • • • • • •		
L28 +104-47m		· · · ·	· · · ·	** * *	· · · ·		
L27 +100.75m		5 55 S			`		1
L26 +97.03m					·		
L25 +93.31m					•		
L24 +89.59m		5 55 S			•		ļ
L23 +85.87m					•		
L22 +82.15m				** * *	•		
L21 +78.43m					•		
L20 +74_71m		x <u>xx</u> x		~ ~	• <u>• •</u> •		
L19 +70,99m		× 22 ×		~ ~	•		
L18 +67.27m		s 52 s		~ ~	•		
L17		x x x	1				
+61.90m							
L15 +55.06m							
L14 +51.64m							!
L13 +48,22m							
L12 +44_80m					j j		
L11+41,38m					· / / · · ·		
L10 +37.96m							
L9 +34.54m							
L8 +31.12m							
							<u></u>
L6 Mezz +23.72m							
L6 +20.225m	·····	1 Hef West	R chronologica o	<u></u>		1 5	
L5 / P +15.95m L4 / PMezz+14.525m			804				redour dans)
L4 / P +11.675m L3 / PMezz+10.25m		1.90016	904				J
L3/P +7.40m	- A. Berner	oung 3	BCH				
L2 / P +4.20m		2	804				
L1 +0.00m	<u>n 1</u> +	3	804	LOADING AREA		E L	1014.
B1/P -3.35m		1					roots:
B2 / P6.70m //		1					roots:
							Section I
Plan			Date	-	Scale A1	N°	
Building Section A & B	. vvest-East		July 201	1	1:300	A-32	



IBI

Architects Downtown Hot

Downtown Hotel Kelowna Kelowna, BC

	SCHEDULE A&B			
	This forms part of application			
	# <u>DP17-0191</u>			
	Planner AC Kelowna			
စ္ စု စုစိုဝုဝုစု စု စုစုစု စုစုစု	Initials AC COMMUNITY PLANNING	ဖ စိုဝဝဝ စ ဝဝဝ စ	P	္ ေ စု
	ROOF +133.79m		ROOF +133.79m	
	+ 130.79m		+ 130/9m	
	L33 +126.82m		L33 +126.82m	
L32 +121.95m	L32 +121.95m		L32+121.95m	
L31 +117.58m	L31+117.69m		L31+117.58m	
L30 +113,21m	L30 +113,21m		L30 +113,21m	
L29 ± 108.84m	L29 ±108.84m		L29 +108.84m	
	L20 +104.47m		104,47m	
			126 +100.75m	
			126 +97_03m	
	<u>+93.31m</u>		+93.31m	
			+84,59m	
	122		+85,87m	
	121		+82,15m	
	120		120	
	L19		L19 170.000	
			L18	
			L17	
	+61_90m		+61.90m	
	L16_+58_48m		L16+58_48m	
	L15 +55_06m		L15+55_06m	
	L14 +51.54m		L14+51_64m	
	L1340 <u>2</u> 2m		L13 +44.80m	
L11 +41.38m	L11 +41.38m		L11 +41.38m	
L10 +37.96m	L10 +37 <u>.96m</u>		L10 +37.96m	
L9 +34.54m	L9 +34,54m		L9 +3454m	
L8 +31.12m	L8 +31.12m		L8 +31.12m	
	L7 +27.70m EODUMERODF +28.970m		L7 +27.70m EQOBUNERODF +25.92m = : = : =	
L6 Mezz +23.72m	L6 Mezz +23.72m		L6 Mezz +23.72m	
L6 +20,225m	L6+20,225m		L6 +20,225m	
L5 / P +15,95m	L5 / P		L5 / P +15.95m	
	L4 / P +11.675m		L4 / P +11.675m	
L3 / P #740m	L3 / P +7.40m		L3 / PMezz+10.25m L3 / P +7.40m	
L2/P +4.20m	L2 / P +4.20m		L2 / P +4.20m	
	L1+0.00m		L1+0.00m	
B1/P -3-35m	B1/P -9-35m			
B2 / P _ 570m (B2 / P _ 570m) (B2 / P _ 570m (B2 / P _ 570m) (B2 / P _ 570m)) (B2 / P _ 570m) (B2 / P _ 570m)) (B2 / P _ 570m) (B2 / P _ 570m)) (B2 / P	B2 (_P6.70m		<u>B2 / P6.70m</u>	
Sector	Project 1864	Plan		Date Scale A1 N°



 IBI
 Architects
 Downtown Hotel Kelowna Kelowna, BC

Building Section C,D & E. North-South

July 2017

1:300







N°





Cladding system
 Reference image
 Manufactured cladding



- Transparent glass panels handrail





Project 1864 Downtown Hotel Kelowna Kelowna, BC

Plan Material Board Date Scale A1 Ju**l**y 2017 .

N٥ A-35



	/1/	
	- CED outdoor lighting continuously located	
	at the whole top part facade (Upper part)	
	LED outdoor lighting points located at the both facade's steel slast and cladding system part	
	(Penthouse & Technical floors)	
	/3/	
	لحت - حت LED outdoor lightpoints located at the facade's steel slats	
	(Skylounge floor)	
	/4/	
	LED outdoor lighting points located at the	
	(Hotel & Apartments floors)	
		III - II - II - II - II - - - - - - - - - - - - -



IBI ____ Project 1864

Architects Downtown Hotel Kelowna Kelowna, BC

Plan	
Night Light North & South Building	

Scale A1 N° July 2017 1:250 A-36

Date







Project 1864

Downtown Hotel Kelowna Kelowna, BC
 Plan
 Date

 Night Light East & West Building
 July 2017

Scale A1 N° 1:250 A-37











Project 1864

Architects Downtown Hotel Kelowna Kelowna, BC Date Scale July 2017 -

Scale A1 N° - A-38



Westcorp



Project 1864 Architects Downtown Hotel Kelowna Kelowna, BC Plan Aerial from Okanagan Lake Date Scale A1 Ju**l**y 2017 .









Project 1864 Architects Downtown Hotel Kelowna Kelowna, BC Plan View from Okanagan Bridge Date Scale A1 July 2017 -

N°





IBI GC/

Architecta Architecta Downtown Hotel Kelowna Kelowna, BC **Plan** View from Bernard Avenue Date Scale A1 July 2017 -











Architects Downtown Hotel Kelowna Kelowna, BC **Plan** View from Ke

Plan View from Kerry Park Date Scale A1 July 2017 -

№ A**-**42





 \Box

IBI

Architects Downtown Hotel Kelowna Kelowna, BC **Plan** V**i**ew from the water Date Scale A1 July 2017 -

SCHEDULE

A & B

№ A**-**43











Architects Downtown Hotel Kelowna Kelowna, BC **Plan** View toward the Hotel Lobby Date Scale A1 July 2017 -







Architects

ІВІ

Project 1864 Downtown Hotel Kelowna Kelowna, BC **Plan** View from Stuart Park Date Scale A1 July 2017 -

SCHEDULE

A & B











Architects Downtown Hotel Kelowna Kelowna, BC **Plan** View from Queensway & Water Street Date Scale A1 July 2017 -











Architects Downtown Hotel Kelowna Kelowna, BC **Plan** View from Water Street Date Scale A1 July 2017 -

№ A-47







IBI

Architects

Project 1864 Downtown Hotel Kelowna Kelowna, BC **Plan** View from Queensway Avenue Date Scale A1 July 2017 -





IBI GC

Architects Project 1864 Downtown Hotel Kelowna Kelowna, BC Plan Nighttime view from the Marina Date Scale A1 July 2017 -

N٥









Architects Downtown Hotel Kelowna Kelowna, BC **Plan** View East Building Date Scale A1 July 2017 -



N٥







 Architects Downtown Hotel Kelowna Kelowna, BC **Plan** Shadow Analysis
 Date
 Scale A1
 N°

 July 2017
 A-52

Ň



C7 - PROPOSED SETBACK VARIANCES ABOVE 16 M

Areas representing encroachment into 3.0 m Setback (See bylaw reference below)

- Bylaw Reference:

Consolidated Zoning Bylaw No.8000, C7-Central Business Commercial, 14.7.5 Development regulations, Section (h): "i) Any Portion of a building above 16 meters in height must be a minimum of 3.0m from any property line abutting a street, as shown on C7- Diagram B attached to this bylaw. The above setbacks will be measured from the nearest exterior building face, exclusive of unenclosed balconies,"









Architects Downtown Hotel Kelowna Kelowna, BC Plan C7-Proposed Setback Variances Above 16m

 Date
 Scale
 A1

 July 2017
 1/300

.

N٥

A**-**54

 \uparrow^{N}



C7 - PROPOSED VARIANCES: BUILDING HEIGHT

- Bylaw Reference:

Zoning Bylaw No. 8000, C7 - Central Business Commercial, 14.7.5 Development Regulations, Section (a): "The maximum allowable height shall be in accordance with the C7 - Map A Downtown Height Plan - 76.5m, or approximately 26 storeys

- Proposed Building Height Variance:

To vary the máximun building height from 76.5 m to 130.79 m.

SCHEDULE	A & B
This forms part of applic	ation
#_DP17-0191	🕺 💥
	City of
Planner Initials AC	Kelowna

Elevation Diagram



IBI

Project 1864

Architects

Downtown Hotel Kelowna Kelowna, BC

Plan C7-Proposed Variances-Building Height July 2017

Date Scale A1 N° .



Elevation Diagram

Westcorp	
----------	--

IBI

Project 1864 Architects Downtown Hotel Kelowna Kelowna, BC

Plan Date Scale A1 N° C7-Proposed Variances- Floor plate July 2017 -

PRELIMINARY RESULTS



DOWNTOWN KELOWNA HOTEL

KELOWNA, BC

PEDESTRIAN WIND STUDY - PRELIMINARY RESULTS RWDI #1501922 August 16, 2017

SUBMITTED TO

Barry Pfau, P. Eng G.S.C. Vice President – Construction bpfau@westcorp.net

SUBMITTED BY

Raisa Lalui, M.Eng Project Coordinator Raisa.Lalui@rwdi.com

Jon Barratt, P.Eng Project Manager Jon.Barratt@rwdi.com

RWDI

280 – 1385 West 8th Avenue, Vancouver, BC V6H 3V9 T: 604.730.5688

This document is intended for the sole use of the party to whom it is addressed and may contain information that is privileged and/or confidential. If you have received this in error, please notify us immediately.
(B) RWDI name and logo are registered trademarks in Canada and the United States of America

RWDI#1501922 August 16, 2017



EXECUTIVE SUMMARY

The following document provides preliminary results for the Pedestrian Wind Study conducted for the proposed Downtown Kelowna Hotel (Project) located in Kelowna, BC. The project site, photographs of the wind tunnel study model and the wind statistics recorded at the Kelowna Airport (and used in the study) are shown in **Images 1, 2**, and **3**, respectively. The RWDI Pedestrian Wind Criteria, which deal with both pedestrian safety and comfort as it relates to wind force, are also described in order to assist with the interpretation of the results presented.

The predicted wind comfort and safety conditions pertaining to the two site and surrounding configurations assessed are graphically depicted on a site plan in **Figures 1a through 2b**. These conditions and the associated wind speeds are presented in **Tables 1 and 2**. These results are presented in the attached results package and can be summarized as follows:

- Wind speeds in the study area are predicted to meet the wind criterion used to assess pedestrian wind safety for both configurations;
- Overall, pedestrian wind comfort conditions in areas on and around the site are expected to be calm and appropriate for the intended use, and are expected to remain similar to the exiting conditions;
- Wind conditions in the above grade podium, terrace and lounge areas are mostly comfortable for passive activities throughout the year, however, wind speeds at a few locations may be higher-than-desired along the west of the tower at balconies and the roof deck.

While referring to the RWDI Pedestrian Wind Criteria description that follows, we encourage the design team to review the results and assess them against the intended pedestrian usage at specific locations. If there are locations where improved conditions are desired, the RWDI team is prepared to discuss and suggest conceptual wind control strategies. Additional commentary regarding background on wind flow patterns, wind comfort levels, and any further recommendations for wind control measures to help moderate wind activity in areas of high wind activity will be presented within the final report. Prior to issuing the report, we suggest that we have a teleconference to go over the results and discuss the types/locations/feasibilities of possible wind control measures.

PEDESTRIAN WIND STUDY - PRELIMINARY RESULTS DOWNTOWN KELOWNA HOTEL



RWDI#1501922 August 16, 2017



Image 1: Site plan – Aerial view of site and surroundings (courtesy of Google™ Earth)

PEDESTRIAN WIND STUDY - PRELIMINARY RESULTS DOWNTOWN KELOWNA HOTEL



RWDI#1501922 August 16, 2017



Image 2a: Wind tunnel study model - Existing configuration



Image 2b: Wind tunnel study model - Proposed configuration

PEDESTRIAN WIND STUDY - PRELIMINARY RESULTS DOWNTOWN KELOWNA HOTEL



RWDI#1501922 August 16, 2017



Summer (May – October)

Winter (November - April)

Wind Speed	Probability (%)		
(km/h)	Summer	Winter	
Calm	26.9	30.1	
1-10	47.4	47.5	
11-20	20.5	17.7	
21-30	4.6	3.9	
31-40	0.6	0.7	
>40	0.1	0.1	

Image 3: Directional distribution of winds approaching Kelowna Airport from 1986 - 2016



RWDI PEDESTRIAN WIND CRITERIA

The RWDI pedestrian wind criteria are used in the current study. These criteria have been developed by RWDI through research and consulting practice since 1974. They have also been widely accepted by municipal authorities as well as by the building design and city planning community.

Comfort Category	GEM Speed (km/h)	Description
Sitting	<u><</u> 10	Calm or light breezes desired for outdoor restaurants and seating areas where one can read a paper without having it blown away
Standing	<u><</u> 14	Gentle breezes suitable for main building entrances, bus stops, and other places where pedestrians may linger
Strolling	<u><</u> 17	Moderate winds that would be appropriate for window shopping and strolling along a downtown street, plaza or park
Walking	<u><</u> 20	Relatively high speeds that can be tolerated if one's objective is to walk, run or cycle without lingering
Uncomfortable	> 20	Strong winds of this magnitude are considered a nuisance for all pedestrian activities, and wind mitigation is typically recommended

RWDI Pedestrian Wind Criteria

Notes:

(1) Gust Equivalent Mean (GEM) Speed = max(mean speed, gust speed/1.85); and;

(2) GEM speeds listed above based on a seasonal exceedance of 20% of the time between 6:00 and 23:00.

Safety Criterion	Gust Speed (km/h)	Description
Exceeded	> 90	Excessive gust speeds that can adversely affect a pedestrian's balance and footing. Wind mitigation is typically required.

Notes:

Based on an annual exceedance of 9 hours or 0.1% of the time for 24 hours a day.

A few additional comments are provided below to further explain the wind criteria and their applications.

- Both mean and gust speeds can affect pedestrian comfort and their combined effect is typically quantified by a Gust Equivalent Mean (GEM) speed, with a gust factor of 1.85.
- Instead of standard four seasons, two periods of summer (May to October) and winter (November to April) are adopted in the wind analysis, because in a cold climate such as that found in Kelowna, there are distinct differences in pedestrian outdoor behaviours between these two time periods.

RWDI#1501922 August 16, 2017 **S**Y

- Nightly hours between midnight and 5 o'clock in the morning are excluded from the wind analysis for comfort since limited usage of outdoor spaces is anticipated, while wind safety analysis is conducted for a 24-hour period.
- A 20% exceedance is used in these criteria to determine the comfort category, which suggests that wind speeds would be comfortable for the corresponding activity at least 80% of the time or four out of five days.
- Only gust winds need to be considered in the wind safety criterion. These are usually rare events, but deserve special attention in city planning and building design due to their potential safety impact on pedestrians.
- These criteria for wind forces represent average wind tolerance. They are sometimes subjective and regional differences in wind climate and thermal conditions as well as variations in age, health, clothing, etc. can also affect people's perception of the wind climate. Comparisons of wind speeds for different building configurations are the most objective way in assessing local pedestrian wind conditions.



Location		Wind Comfort				Wind Safety	
	Configuration	Summer		Winter		Annual	
		Speed (km/h)	Rating	Speed (km/h)	Rating	Speed (km/h)	Rating
1	Existing	8	Sitting	6	Sitting	42	Pass
	Proposed	3	Sitting	3	Sitting	17	Pass
2	Existing	7	Sitting	6	Sitting	41	Pass
	Proposed	5	Sitting	4	Sitting	32	Pass
3	Existing	8	Sitting	7	Sitting	43	Pass
	Proposed Eviating	8	Sitting	1	Sitting	48	Pass
4	Proposod	8	Sitting	5	Sitting	44	Pass
5	Evisting	8	Sitting	6	Sitting	47	Pass
5	Proposed	8	Sitting	7	Sitting	45	Pass
6	Existing	8	Sitting	6	Sitting	42	Pass
	Proposed	9	Sitting	7	Sitting	52	Pass
7	Existing	8	Sitting	6	Sitting	44	Pass
	Proposed	12	Standing	10	Sitting	69	Pass
8	Existing	7	Sitting	6	Sitting	41	Pass
	Proposed	12	Standing	10	Sitting	64	Pass
9	Existing	7	Sitting	6	Sitting	43	Pass
	Proposed	9	Sitting	8	Sitting	50	Pass
10	Existing	7	Sitting	6	Sitting	40	Pass
	Proposed	8	Sitting	6	Sitting	46	Pass
11	Existing	7	Sitting	6	Sitting	38	Pass
40	Proposed	6	Sitting	5	Sitting	53	Pass
12	Existing	5	Sitting	5	Sitting	30	Pass
12	Existing	6	Sitting	7	Sitting	23	Pass
15	Proposed	6	Sitting	5	Sitting	36	Pass
14	Existing	5	Sitting	4	Sitting	32	Pass
	Proposed	6	Sitting	5	Sitting	38	Pass
15	Existing	7	Sitting	6	Sitting	50	Pass
	Proposed	8	Sitting	7	Sitting	42	Pass
16	Existing	7	Sitting	6	Sitting	43	Pass
	Proposed	5	Sitting	4	Sitting	31	Pass
17	Existing	8	Sitting	6	Sitting	45	Pass
	Proposed	7	Sitting	6	Sitting	43	Pass
18	Existing	7	Sitting	6	Sitting	43	Pass
	Proposed	9	Sitting	7	Sitting	55	Pass
19	Existing	7	Sitting	6	Sitting	44	Pass
	Proposed	6	Sitting	5	Sitting	35	Pass
20	Existing	8	Sitting	6	Sitting	45	Pass
21	Evicting	0	Sitting	ð	Sitting	52	rass Pass
21	Proposed	0	Sitting	0 Q	Sitting	42	r ass Pass
22	Existing	2	Sitting	7	Sitting	40	Pass
	Proposed	11	Standing	9	Sitting	58	Pass
			0	-	0		

Table 1: Pedestrian Wind Comfort and Safety Conditions
		Wind Comfort			Wind Safety			
Location	Configuration		Summer		Winter		Annual	
LOCATION	Configuration	Speed	.	Speed	A	Speed		
		(km/h)	Rating	(km/h)	Rating	(km/h)	Rating	
23	Existing	9	Sitting	7	Sitting	47	Pass	
	Proposed	9	Sitting	8	Sitting	57	Pass	
24	Existing	7	Sitting	6	Sitting	42	Pass	
	Proposed	7	Sitting	6	Sitting	40	Pass	
25	Existing	8	Sitting	7	Sitting	43	Pass	
	Proposed	8	Sitting	7	Sitting	46	Pass	
26	Existing	8	Sitting	7	Sitting	42	Pass	
	Proposed	8	Sitting	7	Sitting	45	Pass	
27	Existing	7	Sitting	6	Sitting	49	Pass	
	Proposed	9	Sitting	8	Sitting	51	Pass	
28	Existing	8	Sitting	7	Sitting	46	Pass	
	Proposed	10	Sitting	8	Sitting	50	Pass	
29	Existing	9	Sitting	7	Sitting	46	Pass	
	Proposed	9	Sitting	8	Sitting	47	Pass	
30	Existing	8	Sitting	7	Sitting	46	Pass	
	Proposed	10	Sitting	8	Sitting	53	Pass	
31	Existing	8	Sitting	7	Sitting	46	Pass	
	Proposed	10	Sitting	8	Sitting	56	Pass	
32	Existing	/	Sitting	6	Sitting	39	Pass	
	Proposed	8	Sitting	/	Sitting	48	Pass	
33	Existing	9	Sitting	/	Sitting	48	Pass	
24	Proposed	9	Sitting	1	Sitting	53	Pass	
54	Droposod	/	Sitting	0	Sitting	47	Pass	
25	Froposed	9	Sitting	7	Sitting	54	Pass	
33	Proposod	0	Sitting	/	Sitting	49 52	Pass	
36	Evisting	6	Sitting	5	Sitting	37	Pass	
50	Proposed	7	Sitting	5	Sitting	17	Pass	
37	Fristing	5	Sitting	4	Sitting	32	Pass	
57	Proposed	10	Sitting	7	Sitting	55	Pass	
38	Existing	6	Sitting	5	Sitting	45	Pass	
	Proposed	10	Sitting	8	Sitting	60	Pass	
39	Existing	6	Sitting	5	Sitting	33	Pass	
	Proposed	7	Sitting	6	Sitting	47	Pass	
40	Existing	6	Sitting	5	Sitting	38	Pass	
	Proposed	6	Sitting	5	Sitting	47	Pass	
41	Existing	7	Sitting	6	Sitting	42	Pass	
	Proposed	9	Sitting	8	Sitting	55	Pass	
42	Existing	8	Sitting	7	Sitting	42	Pass	
	Proposed	9	Sitting	8	Sitting	62	Pass	
43	Existing	8	Sitting	6	Sitting	44	Pass	
	Proposed	8	Sitting	6	Sitting	53	Pass	
44	Existing	8	Sitting	6	Sitting	43	Pass	
	Proposed	7	Sitting	7	Sitting	55	Pass	

Table 1: Pedestrian Wind Comfort and Safety Conditions



		Wind Comfort				Wind Safety		
Lesstian	Confirmation		Summer		Winter		Annual	
Location	Configuration	Speed (km/h)	Rating	Speed (km/h)	Rating	Speed (km/h)	Rating	
45	Existing	8	Sitting	7	Sitting	43	Pass	
	Proposed	8	Sitting	7	Sitting	55	Pass	
46	Existing	8	Sitting	6	Sitting	44	Pass	
47	Proposed	11	Standing	10	Sitting	62	Pass	
47	Existing	8	Sitting	/	Sitting	44	Pass	
40	Proposed	9	Sitting	8	Sitting	65	Pass	
40	Proposed	0 8	Sitting	7	Sitting	42 58	Pass	
49	Fristing	9	Sitting	7	Sitting	45	Pass	
-12	Proposed	8	Sitting	7	Sitting	49	Pass	
50	Existing	9	Sitting	7	Sitting	46	Pass	
	Proposed	8	Sitting	7	Sitting	53	Pass	
51	Existing	9	Sitting	7	Sitting	46	Pass	
	Proposed	9	Sitting	8	Sitting	60	Pass	
52	Existing	N/A						
	Proposed	11	Standing	9	Sitting	63	Pass	
53	Existing	N/A						
	Proposed	7	Sitting	5	Sitting	46	Pass	
54	Existing	N/A					_	
	Proposed	10	Sitting	8	Sitting	61	Pass	
55	Existing	N/A 7	Sitting	6	Sitting	13	Dass	
56	Evisting	ν	Sitting	0	Sitting	45	1 055	
50	Proposed	15	Strolling	12	Standing	74	Pass	
57	Existing	N/A	50.000.8		56676478			
	Proposed	8	Sitting	7	Sitting	55	Pass	
58	Existing	N/A						
	Proposed	9	Sitting	8	Sitting	57	Pass	
59	Existing	N/A						
	Proposed	7	Sitting	6	Sitting	44	Pass	
60	Existing	N/A						
	Proposed	11	Standing	10	Sitting	65	Pass	
61	Existing	N/A	Chura III in a	1.4	Chan aliana	70	Data	
62	Proposed	17	Strolling	14	Standing	79	Pass	
02	Proposod	IN/A	Sitting	6	Sitting	50	Pacc	
63	Fristing	N/A	Sitting	0	Sitting	52	r ass	
00	Proposed	8	Sitting	7	Sitting	53	Pass	
64	Existing	N/A		,	0	55		
2.	Proposed	10	Sitting	8	Sitting	63	Pass	
65	Existing	N/A	-		ç			
	Proposed	12	Standing	9	Sitting	73	Pass	
66	Existing	N/A						
	Proposed	13	Standing	11	Standing	69	Pass	

Table 1: Pedestrian Wind Comfort and Safety Conditions



			Wind C	Comfort		V	Vind Safety
Location	Configuration		Summer		Winter		Annual
Location	conngulation	Speed (km/h)	Rating	Speed (km/h)	Rating	Speed (km/h)	Rating
67	Existing	N/A					
	Proposed	9	Sitting	7	Sitting	61	Pass
68	Existing	N/A					
	Proposed	15	Strolling	11	Standing	81	Pass
69	Existing	N/A					
	Proposed	14	Standing	10	Sitting	81	Pass
70	Existing	N/A					
	Proposed	9	Sitting	9	Sitting	66	Pass
71	Existing	N/A					
	Proposed	10	Sitting	8	Sitting	71	Pass
72	Existing	N/A					
	Proposed	12	Standing	10	Sitting	75	Pass
73	Existing	N/A					
	Proposed	12	Standing	9	Sitting	70	Pass
74	Existing	N/A					
	Proposed	12	Standing	11	Standing	70	Pass
75	Existing	N/A					
	Proposed	12	Standing	11	Standing	71	Pass
76	Existing	N/A					
	Proposed	18	Walking	14	Standing	79	Pass
77	Existing	N/A					
	Proposed	18	Walking	14	Standing	79	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Seasons		Hours	Com	fort Speed (km/h)	Safety Speed (km/h)
Summer = May - October		6:00 - 23:00 for comfort	(20% Seasonal Exceedance)		(0.1% Annual Exceedance)
Winter = N	ovember - April	0:00 - 23:00 for safety	≤ 10	Sitting	≤ 90 Pass
Configurat	tions		11 - 14	Standing	> 90 Exceeded
Existing	Without the propose	ed development	15 - 17	Strolling	
Proposed With the proposed development		18 - 20	Walking		
			> 20	Uncomfortable	



	COMFORT CA GEM Wind S Category Lim	TEGORY beed (mph) it	Sitting 0 – 6 ≥80%	Standing 0 -8 ≥80%	Strolling 0 - 10 ≥80%	Walking 0 – 12 ≥80%	Unco >12 >20%	omfortable %	SAFETY C Gust Speed > 0.15% S	ATEGORY d ≥56 (mph) easonal
	Config.	Season	%	%	%	%	%	RATING	%	RATING
1	Existing	Summer Winter	88 92	96 97	98 98	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	100 100	100 100	100 100	100 100	0 0	Sitting Sitting	0	Pass
2	Existing	Summer Winter	88 92	96 97	98 98	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	96 97	99 99	100 100	100 100	0 0	Sitting Sitting	0	Pass
3	Existing	Summer Winter	88 91	96 97	98 98	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	89 91	96 97	98 99	99 99	1 1	Sitting Sitting	0	Pass
4	Existing	Summer Winter	88 91	95 96	98 98	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	89 92	97 97	99 98	100 99	0 1	Sitting Sitting	0	Pass
5	Existing	Summer Winter	88 92	96 97	98 98	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	88 91	96 96	99 98	99 99	1 1	Sitting Sitting	0	Pass
6	Existing	Summer Winter	89 92	96 97	98 99	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	84 89	93 95	96 97	98 98	2 2	Sitting Sitting	0	Pass
7	Existing	Summer Winter	89 92	96 97	98 99	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	74 80	84 89	90 93	93 95	7 5	Standing Sitting	0	Pass
8	Existing	Summer Winter	90 93	97 98	99 99	100 100	0 0	Sitting Sitting	0	Pass
	Proposed	Summer Winter	74 80	83 88	89 92	93 95	7 5	Standing Sitting	0	Pass
9	Existing	Summer Winter	90 93	97 97	99 99	99 100	1 0	Sitting Sitting	0	Pass
	Proposed	Summer Winter	85 88	95 95	98 98	99 99	1 1	Sitting Sitting	0	Pass
10	Existing	Summer Winter	91 94	98 98	99 99	100 100	0 0	Sitting Sitting	0	Pass
	Proposed	Summer Winter	89 91	96 97	98 98	99 99	1 1	Sitting Sitting	0	Pass
11	Existing	Summer Winter	93 95	99 99	100 100	100 100	0 0	Sitting Sitting	0	Pass
	Proposed	Summer Winter	91 93	95 96	96 98	97 98	3 2	Sitting Sitting	0	Pass
12	Existing	Summer Winter	96 97	99 99	100 100	100 100	0 0	Sitting Sitting	0	Pass
	Proposed	Summer Winter	85 89	93 94	96 97	98 98	2 2	Sitting Sitting	0	Pass
13	Existing	Summer	96	99	100	100	0	Sitting	0	Pass

Seasons

Summer = May to October

6:00 to 23:00 for Comfort 0:00 to 23:00 for Safety

Hours



	COMFORT CA GEM Wind Sp Category Limit	TEGORY eed (mph) t	Sitting 0 – 6 ≥80%	Standing 0 -8 ≥80%	Strolling 0 - 10 ≥80%	Walking 0 – 12 ≥80%	Unco >12 >20%	omfortable	SAFETY C Gust Spee > 0.15% S	ATEGORY d ≥56 (mph) easonal
	Config.	Season Winter	% 97	% 99	% 100	% 100	% 0	RATING Sitting	%	RATING
	Proposed	Summer Winter	95 96	99 99	100 100	100 100	0 0	Sitting Sitting	0	Pass
14	Existing	Summer Winter	96 97	99 99	100 100	100 100	0 0	Sitting Sitting	0	Pass
	Proposed	Summer Winter	94 95	99 99	100 99	100 100	0 0	Sitting Sitting	0	Pass
15	Existing	Summer Winter	89 92	96 97	98 98	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	89 91	97 97	99 99	100 100	0 0	Sitting Sitting	0	Pass
16	Existing	Summer Winter	88 92	96 96	98 98	99 99	1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	96 97	99 99	100 100	100 100	0 0	Sitting Sitting	0	Pass
17	Existing	Summer Winter	87 91	95 96	98 98	99 99	1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	89 92	97 97	99 99	100 99	0	Sitting Sitting	0	Pass
18	Existing	Summer Winter	88 92	96 97	98 98	99 99	1	Sitting Sitting	0	Pass
	Proposed	Winter	83 88	91 94	94 96	97 97	3	Sitting Sitting	0	Pass
19	Existing	Summer Winter	89 92	96 97	98 98	99 99	1	Sitting Sitting	0	Pass
	Proposed	Winter	94 96	99 99	100 100	100 100	0	Sitting	0	Pass
20	Existing	Summer Winter	87 91	95 96	98 98	99 99	1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	81 87	90 93	94 95	97 97	3	Sitting Sitting	0	Pass
21	Existing	Summer Winter	88 91	96 97	98 98	99 99	1	Sitting Sitting	0	Pass
~~	Proposed	Winter	81 85	92 93	95 96	97 98	3	Sitting Sitting	0	Pass
22	Existing	Summer Winter	86 90	94 96	97 98	99 99	1	Sitting Sitting	0	Pass
	Proposed	Winter	78 83	89 91	93 95	96 97	4	Standing	0	Pass
23	Existing	Summer Winter	84 89	93 95	97 97	98 98	2 2	Sitting Sitting	0	Pass
	Proposed	Summer Winter	83 85	92 93	94 96	96 97	4 3	Sitting Sitting	0	Pass
24	Existing	Summer Winter	89 92	96 97	99 99	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	91 93	97 98	99 99	100 100	0 0	Sitting Sitting	0	Pass
25	Existing	Summer Winter	87 91	95 96	98 98	99 99	1 1	Sitting Sitting	0	Pass

Seasons

Summer = May to October

Hours 6:00 to 23:00 for Comfort

0:00 to 23:00 for Safety



	GEM Wind S	TEGORY peed (mph)	Sitting 0 – 6	Standing 0 -8	Strolling 0 - 10	Walking 0 – 12	Unco >12	omfortable	SAFETY C	ATEGORY I ≥56 (mph)
	Category Lim	It	≥80%	≥80%	≥80%	≥80%	>20%	6	> 0.15% Se	easonal
	Config.	Season	%	%	%	%	%	RATING	%	RATING
	Proposed	Summer	86	94	97	99	1	Sitting	0	Pass
		Winter	89	95	98	99	1	Sitting	-	_
26	Existing	Summer	88	96	98	99	1	Sitting	0	Pass
	D	Winter	91	97	98	99	1	Sitting		-
	Proposed	Summer	87	95	97	99	1	Sitting	0	Pass
~-		Winter	89	95	98	99	1	Sitting		_
27	Existing	Summer	91	95	97	98	2	Sitting	0	Pass
	Duanaaad	vvinter	93	97	98	99	1	Sitting	0	Deee
	Proposed	Summer	80 00	93	96	97	3	Sitting	0	Pass
20	Eviating	Summer	00	95	97	90	۲ ۲	Sitting	0	Deee
28	Existing	Summer	80	94	97	99	1	Sitting	0	Pass
	Bronocod	Summor	90	95	90	99	1	Sitting	0	Dooo
	Floposeu	Winter	01 87	91	90	90	2	Sitting	0	Fd55
20	Evicting	Summor	07	90	90	90	2	Sitting	0	Dooo
29	Existing	Wintor	04 90	92	90	90	2 1	Sitting	0	Fd55
	Proposed	Summer	83	94	96	99	2	Sitting	0	Pass
	Tioposcu	Winter	88	94	97	98	2	Sitting	0	1 435
30	Evicting	Summer	86	04	07	00	1	Sitting	0	Pass
50	Existing	Winter	91	96	98	99	1	Sitting	0	1 435
	Proposed	Summer	81	90	95	97	3	Sitting	0	Pass
	Topoood	Winter	87	93	96	97	3	Sitting	Ũ	1 400
31	Existing	Summer	86	94	97	99	1	Sitting	0	Pass
01	Exioting	Winter	90	95	98	99	1	Sitting	Ũ	1 400
	Proposed	Summer	81	90	94	97	3	Sitting	0	Pass
		Winter	87	93	96	97	3	Sitting	-	
32	Existing	Summer	93	98	99	100	0	Sitting	0	Pass
	_/g	Winter	94	98	99	100	Õ	Sitting	ů.	
	Proposed	Summer	87	96	98	99	1	Sitting	0	Pass
	•	Winter	91	96	98	99	1	Sitting		
33	Existing	Summer	85	94	97	99	1	Sitting	0	Pass
	U	Winter	89	95	98	99	1	Sitting		
	Proposed	Summer	84	93	97	99	1	Sitting	0	Pass
		Winter	89	95	97	99	1	Sitting		
34	Existing	Summer	90	96	98	99	1	Sitting	0	Pass
		Winter	93	97	99	99	1	Sitting		
	Proposed	Summer	84	93	96	98	2	Sitting	0	Pass
		Winter	89	95	97	98	2	Sitting		
35	Existing	Summer	86	94	97	99	1	Sitting	0	Pass
		Winter	90	95	98	99	1	Sitting		
	Proposed	Summer	82	91	95	97	3	Sitting	0	Pass
		Winter	88	93	96	98	2	Sitting		
36	Existing	Summer	93	98	99	100	0	Sitting	0	Pass
		Winter	95	99	100	100	0	Sitting		_
	Proposed	Summer	88	96	98	99	1	Sitting	0	Pass
		Winter	92	97	98	99	1	Sitting		_
37	Existing	Summer	96	99	100	100	0	Sitting	0	Pass
	. .	Winter	97	99	100	100	0	Sitting	<u> </u>	-
	Proposed	Summer	81	89	93	96	4	Sitting	0	Pass

Seasons

Summer = May to October

Hours 6:00 to 23:00 for Comfort

0:00 to 23:00 for Safety



	COMFORT CA GEM Wind Sp Category Limi	TEGORY beed (mph) t	Sitting 0 – 6 ≥80%	Standing 0 -8 ≥80%	Strolling 0 - 10 ≥80%	Walking 0 – 12 ≥80%	Unco >12 >20%	mfortable	SAFETY C Gust Speed > 0.15% S	ATEGORY d ≥56 (mph) easonal
	Config.	Season Winter	% 87	% 93	% 95	% 97	% 3	RATING Sitting	%	RATING
38	Existing	Summer Winter	92 94	97 98	98 99	99 100	1 0	Sitting Sitting	0	Pass
	Proposed	Summer Winter	81 86	91 93	94 96	96 97	4 3	Sitting Sitting	0	Pass
39	Existing	Summer Winter	95 96	99 99	100 100	100 100	0 0	Sitting Sitting	0	Pass
	Proposed	Summer Winter	88 92	95 97	98 98	99 99	1 1	Sitting Sitting	0	Pass
40	Existing	Summer Winter	95 96	98 99	99 100	100 100	0 0	Sitting Sitting	0	Pass
	Proposed	Summer Winter	93 95	97 98	99 99	99 100	1 0	Sitting Sitting	0	Pass
41	Existing	Summer Winter	89 92	96 97	98 99	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	83 88	92 94	95 97	98 98	2 2	Sitting Sitting	0	Pass
42	Existing	Summer Winter	89 91	96 97	99 99	100 99	0 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	84 87	93 94	96 97	97 98	3 2	Sitting Sitting	0	Pass
43	Existing	Summer Winter	88 91	95 96	98 98	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	89 92	95 96	97 98	99 99	1 1	Sitting Sitting	0	Pass
44	Existing	Summer Winter	88 91	96 97	98 98	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	89 91	95 96	97 98	98 99	2 1	Sitting Sitting	0	Pass
45	Existing	Summer Winter	88 91	96 97	98 98	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	86 89	94 95	96 97	98 99	2 1	Sitting Sitting	0	Pass
46	Existing	Summer Winter	89 92	96 97	98 99	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	76 82	88 91	93 94	95 96	5 4	Standing Sitting	0	Pass
47	Existing	Summer Winter	87 91	95 96	98 98	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	84 86	92 93	95 96	96 97	4 3	Sitting Sitting	0	Pass
48	Existing	Summer Winter	88 91	95 97	98 98	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	87 89	94 96	96 97	98 98	2 2	Sitting Sitting	0	Pass
49	Existing	Summer Winter	85 90	94 95	97 98	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	88 91	95 96	97 98	99 99	1 1	Sitting Sitting	0	Pass

Seasons

Summer = May to October

Hours 6:00 to 23:00 for Comfort

0:00 to 23:00 for Safety



	COMFORT CA GEM Wind S Category Lim	ATEGORY peed (mph) it	Sitting 0 – 6 ≥80%	Standing 0 -8 ≥80%	Strolling 0 - 10 ≥80%	Walking 0 – 12 ≥80%	Unco >12 >20%	mfortable	SAFETY C Gust Speed > 0.15% S	ATEGORY d ≥56 (mph) easonal
	Config.	Season	%	%	%	%	%	RATING	%	RATING
50	Existing	Summer Winter	83 88	93 95	97 97	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	86 89	94 95	96 97	98 99	2 1	Sitting Sitting	0	Pass
51	Existing	Summer Winter	85 89	94 95	97 98	99 99	1 1	Sitting Sitting	0	Pass
	Proposed	Summer Winter	85 87	92 94	95 96	96 97	4 3	Sitting Sitting	0	Pass
52	Existing	Summer Winter	N/A N/A					-		
	Proposed	Summer Winter	77 84	87 91	91 94	94 96	6 4	Standing Sitting	0	Pass
53	Existing	Summer Winter	N/A N/A							
	Proposed	Summer Winter	89 93	95 97	98 98	99 99	1 1	Sitting Sitting	0	Pass
54	Existing	Summer Winter	N/A N/A							
	Proposed	Summer Winter	80 86	88 92	92 95	95 96	5 4	Sitting Sitting	0	Pass
55	Existing	Summer Winter	N/A N/A							
	Proposed	Summer Winter	90 93	96 97	98 98	99 99	1 1	Sitting Sitting	0	Pass
56	Existing	Summer Winter	N/A N/A							
	Proposed	Summer Winter	67 73	77 83	83 88	88 91	12 9	Strolling Standing	0	Pass
57	Existing	Summer Winter	N/A N/A							
	Proposed	Summer Winter	86 89	94 95	96 97	98 99	2 1	Sitting Sitting	0	Pass
58	Existing	Summer Winter	N/A N/A					O luit		-
	Proposed	Summer Winter	82 87	92 94	96 97	98 98	2 2	Sitting Sitting	0	Pass
59	Existing	Summer Winter	N/A N/A			100		0.00	2	5
	Proposed	Summer Winter	91 94	97 98	99 99	100 100	0	Sitting	0	Pass
60	Existing	Summer Winter	N/A N/A				_	0		-
	Proposed	Summer Winter	76 81	86 89	92 94	95 96	5 4	Standing	0	Pass
61	Existing	Summer Winter	N/A N/A	- 4		05	45		-	5
	Proposed	Summer Winter	62 69	74 80	80 85	85 89	15 11	Strolling Standing	0	Pass
62	Existing	Summer	N/A							

Seasons

Summer = May to October

Winter = November to April

Hours 6:00 to 23:00 for Comfort 0:00 to 23:00 for Safety



	COMFORT CA GEM Wind Sp Category Limit	TEGORY eed (mph) t	Sitting 0 – 6 ≥80%	Standing 0 -8 ≥80%	Strolling 0 - 10 ≥80%	Walking 0 – 12 ≥80%	Unco >12 >20%	mfortable	SAFETY CA Gust Speed > 0.15% Se	ATEGORY I ≥56 (mph) easonal
	Config.	Season Winter	% N/A	%	%	%	%	RATING	%	RATING
	Proposed	Summer Winter	86 91	94 96	97 98	98 99	2 1	Sitting Sitting	0	Pass
63	Existing	Summer Winter	N/A N/A							
	Proposed	Summer Winter	85 90	92 95	95 97	97 98	3 2	Sitting Sitting	0	Pass
64	Existing	Summer Winter	N/A N/A							_
	Proposed	Summer Winter	80 86	89 92	92 95	95 96	5 4	Sitting Sitting	0	Pass
65	Existing	Summer Winter	N/A N/A							
	Proposed	Summer Winter	75 83	82 88	86 91	90 93	10 7	Standing Sitting	0	Pass
66	Existing	Summer Winter	N/A N/A							_
	Proposed	Summer Winter	74 77	83 85	87 90	91 93	9 7	Standing Standing	0	Pass
67	Existing	Summer Winter	N/A N/A						_	_
	Proposed	Summer Winter	82 83	91 92	94 95	96 97	4 3	Sitting Sitting	0	Pass
68	Existing	Summer Winter	N/A N/A				1.5	0		_
	Proposed	Summer Winter	69 76	79 85	84 89	88 92	12 8	Strolling Standing	0	Pass
69	Existing	Summer Winter	N/A N/A				40			5
	Proposed	Summer Winter	73 81	80 87	84 90	88 92	12 8	Standing	0	Pass
70	Existing	Summer Winter	N/A N/A	0.4				O'W'		5
	Proposed	Winter	82 83	91 92	94 95	96 97	4 3	Sitting	0	Pass
/1	Existing	Winter	N/A N/A	00	04	0.4	0		0	Dees
	Proposed	Winter	81 86	88 91	91 94	94 95	6 5	Sitting	0	Pass
72	Existing	Summer Winter	N/A N/A				_	0. "		_
	Proposed	Winter	74 77	85 87	90 91	93 94	7 6	Standing	0	Pass
/3	Existing	Summer Winter	N/A N/A	05	00	00	7		<u> </u>	5
	Proposed	Summer Winter	74 77	85 87	90 91	93 94	7 6	Standing	0	Pass
74	Existing	Summer Winter	N/A N/A							

Seasons

Summer = May to October

Hours 6:00 to 23:00 for Comfort 0:00 to 23:00 for Safety



	GEM Wind Speed (mph) Category Limit		Sitting 0 – 6 ≥80%	Standing 0 -8 ≥80%	Strolling 0 - 10 ≥80%	Walking 0 – 12 ≥80%	Uncomfortable >12 >20%		SAFETY CATEGORY Gust Speed ≥56 (mph) > 0.15% Seasonal	
	Config.	Season	%	%	%	%	%	RATING	%	RATING
	Proposed	Summer Winter	73 77	84 86	90 90	94 94	6 6	Standing Standing	0	Pass
75	Existing	Summer Winter	N/A N/A							
	Proposed	Summer Winter	74 77	85 87	90 91	93 94	7 6	Standing Standing	0	Pass
76	Existing	Summer Winter	N/A N/A							
	Proposed	Summer Winter	62 70	72 80	78 84	83 88	17 12	Walking Standing	0	Pass
77	Existing	Summer Winter	N/A N/A							
	Proposed	Summer Winter	62 70	72 80	78 84	83 88	17 12	Walking Standing	0	Pass

Seasons

Summer = May to October Winter = November to April Hours 6:00 to 23:00 for Comfort 0:00 to 23:00 for Safety







