UP-PEAK TRAFFIC, CIBSE GUIDE D 2020 EQUATION 3.6 AND TABLE 3.5

ITEM	VALUE	BASIS	RECORD
POPULATION ABOVE THE MAIN TERMINAL	75.9 PERSONS	46 UNITS ON 3 FLOORS ABOVE L1, CIBSE NORMAL FACTORS	ACC-VT-POP
RATED SPEED	1.00 M/S (200 FPM)	9.75 M OVER THE 30 S RESIDENTIAL TRAVEL TIME	ACC-VT-SPD
ROUND TRIP TIME	75.9 S	PETERS (2000) EQ. (9), 8-PERSON 2,500 LB CAR	ACC-VT-RTT
UP-PEAK INTERVAL	75.9 S, NOT MET	TARGET 60 S MAX., GUIDE D 2020 TABLE 3.5	ACC-VT-INT
HANDLING CAPACITY	33.3 %, MET	TARGET 6 % MIN. IN 5 MINUTES, TABLE 3.5	ACC-VT-HC
CARS FROM TRAFFIC	2	MEP ENGINE LISTS 1; IBG LAYS OUT 1; ADA-01 REQUIRES 1	ACC-VT-CNT

ROUND TRIP TERMS, PETERS (2000) AND PETERS AND DEAN (2018)

TERM	QUANTITY	VALUE	METHOD	RECORD
N	FLOORS ABOVE THE MAIN TERMINAL	3	IBG LEVELS ABOVE L1	ACC-VT-RTT
UEFF	EFFECTIVE POPULATION	75.9	EQ. (2), SUM OF THE FLOORS	ACC-VT-RTT
CC	RATED CAR CAPACITY	8 PERSONS	2.5787 SQ M AT 0.3 SQ M A PERSON	ACC-VT-RTT
P	AVERAGE PASSENGERS	6.4	EQ. (1), 80 % OF CC	ACC-VT-RTT
H	HIGHEST REVERSAL FLOOR	2.92	EQ. (3)	ACC-VT-RTT
S	PROBABLE STOPS	2.776	EQ. (4)	ACC-VT-RTT
DF	AVERAGE INTERFLOOR DISTANCE	3.2512 M	TRAVEL OVER N	ACC-VT-RTT
TV	TIME PER FLOOR AT RATED SPEED	3.251 S	EQ. (6)	ACC-VT-RTT
TF1	ONE-FLOOR FLIGHT TIME	6.918 S	EQ. (13) WITH A 0.5 S START DELAY	ACC-VT-RTT
TC, TO	DOOR CLOSE, OPEN	4.0 S, 3.0 S	TABLE 6, SIDE OPENING, 1067 MM DOOR	ACC-VT-RTT
TP	PASSENGER TRANSFER	1.3 S	TABLE 3 PLUS 0.3 S RESIDENTIAL	ACC-VT-RTT
TS	TIME LOST PER STOP	10.667 S	EQ. (7) AND (8)	ACC-VT-RTT
RTT	ROUND TRIP TIME	75.9 S	EQ. (9), GUIDE D 2020 EQ. 3.6	ACC-VT-RTT

HOISTWAYS, OTIS GEN3 CORE PUBLISHED DATA AGAINST THE IBG CORE

CAR	CORE	PUBLISHED COMPARISON	HOISTWAY W x D	IBG SHAFT W x D	PIT	OVERHEAD	RECORD
E1	CORE-A	OTIS GEN3 CORE 2,500 LB	8'-8" x 5'-9"	6'-0" x 8'-6", W SHORT 2'-8"	5'-0"	NOT PROVIDED — BY OTHERS	CODE-HW-E1

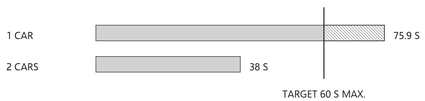
CODE ITEMS, OSSC 2022 CHAPTER 30

ITEM	VALUE	BASIS	RECORD
ELEVATOR CODE	2024 OREGON ELEVATOR SPECIALTY CODE: 2019 ASME A17.1	OSSC 2022 3001.2 TO OAR 918-400-0455	CODE-VT-EDN
CONTROL SPACE (OPTIONAL)	CONTROL CLOSET 5'-9" X 3'-10" OR CONTROL ROOM 5'-9" X 5'-9"	OTIS K; FIRE BARRIERS, OSSC 3005.4	CODE-VT-MCH
STRETCHER CAR	NOT PROVIDED — BY OTHERS	4 STORIES: OSSC 3002.4 APPLIES	CODE-VT-STR

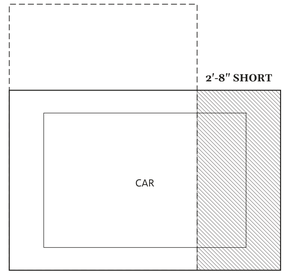
NOTES

1. PRODUCT ROWS ARE PUBLISHED COMPARISONS; EQUIPMENT IS NOT SELECTED. THE ARCHITECT AND ELEVATOR DESIGNER MUST RESOLVE THE REPORTED SHAFT AND TRAFFIC DIFFERENCES.
2. RTT 75.9 S OVER 1 SOURCED CAR (E1). TARGET AT MOST 60 S (GUIDE D 2020 TABLE 3.5, RESIDENTIAL UPPEAK): NOT MET. PETERS AND DEAN RECORD BARNEY'S 66 S TOLERANCE; 60 S IS APPLIED AS THE LIMIT.
3. UPPHC 25.3 PERSONS IN 5 MINUTES OVER U_EFF 75.9. TARGET AT LEAST 6% (GUIDE D 2020 TABLE 3.5, RESIDENTIAL UPPEAK): MET.
4. NO ALLOWANCE FOR LOSSES IS ADDED TO THE ROUND TRIP TIME, AND PETERS (2000)'S CORRECTIONS FOR UNEQUAL FLOOR HEIGHTS AND CARS THAT DO NOT REACH RATED SPEED ARE NOT APPLIED.
5. E1 (KONE ECOSPACE (PASSENGER), 2500 LB, CORE-A): SEISMIC WIDTH (SDC NOT RESOLVED, IBC 2021 CHAPTER 35 REFERENCES ASCE 7-16; THE REPO PINS NO ASCE 7-16 USGS SITE RECORD (THE ONE IT HOLDS IS ASCE 7-22)) BY THE DEPTH FOR FRONT OPENINGS, FOR A CLEAR CAR OF 6'-5 9/16" BY 4'-3 9/16"; THE IBG'S SHAFT IS 6'-0" WIDE BY 8'-6" DEEP: WIDTH SHORT BY 2'-8", SO THE CORE IS TOO SMALL FOR THIS CAR AS DRAWN; THE NORTH COMPARTMENT OF CORE-A IS 16'-0" BY 8'-6", WHICH HOLDS THIS HOISTWAY BY DIMENSION. OTIS GEN3 CORE'S 2,500 LB ROW IS THE BASIS OF DESIGN FOR A CAR THE MEP ENGINE NAMES KONE ECOSPACE (PASSENGER); KONE'S PLANNING DATA WAS NOT READ.
6. E1 (KONE ECOSPACE (PASSENGER), 2500 LB, CORE-A): OTIS PRINTS THE CLEAR OVERHEAD FOR A SINGLE CAR OUTSIDE A SEISMIC AREA (12'-10" AT 200 FPM) AND SENDS A SEISMIC AREA TO ITS REPRESENTATIVE. OWED: THE OVERHEAD FROM OTIS FOR THIS GROUP AND SITE. THE IBG'S OVERRUN IS 10'-0", UNDER THE PUBLISHED SINGLE-CAR 12'-10".
7. E1 (KONE ECOSPACE (PASSENGER), 2500 LB, CORE-A): OTIS PRINTS 4'-0" OR 5'-0" AND NOTES THAT SOME LOCATIONS REQUIRE 5'-0", WHICH IS CARRIED UNTIL THE LOCAL REQUIREMENT IS CONFIRMED. THE IBG'S PIT IS 5'-0": IT MEETS IT.
8. 4 STORIES ABOVE GRADE PLANE: 3002.4 REQUIRES A CAR FOR A 24 BY 84 IN STRETCHER. NO SOURCED CAR IS SHOWN TO TAKE IT: NO CLEAR DIMENSION OF THE 2500 LB ROW REACHES 84 IN. THE IBG'S REQUIREMENTS FLAG STRETCHER_REQUIRED FALSE, THE CORE ENGINE'S HEIGHT-OVER-60-FT RULE, WHERE 3002.4 COUNTS STORIES.
9. OTIS GEN3 CORE OFFERS AN OPTIONAL CONTROL CLOSET OR ROOM, EACH SIZED BY THE HOISTWAY DEPTH; THE IBG MARKS THE CARS MACHINE-ROOM-LESS AND LAYS OUT NO CONTROL SPACE. OSSC 2022 3005.4 ENCLOSES MACHINE ROOMS, CONTROL ROOMS, CONTROL SPACES AND MACHINERY SPACES OUTSIDE THE HOISTWAY IN FIRE BARRIERS RATED AS THE HOISTWAY. WHETHER A CLOSET OR ROOM IS WANTED IS THE ARCHITECT'S AND OTIS'S CALL.
10. OSSC 2022 3001.2 SENDS THE DESIGN AND INSTALLATION OF ELEVATORS TO THE ELEVATOR CODE ADOPTED UNDER OAR 918-400-0455; THE BCD NAMES THE 2024 OREGON ELEVATOR SPECIALTY CODE, THE 2019 ASME A17.1 WITH OREGON'S AMENDMENTS, EFFECTIVE 2024-01-01. OTIS'S NOTE 4 CONDITION FOR PRE-2008 A17.1 DOES NOT APPLY. THE AMENDMENTS TABLE WAS NOT READ.
11. IN FORCE IN OREGON SINCE 2026-04-01: OSSC 2025 (IBC 2024 BASE). ITS 3001.3 CARRIES 3001.2'S TEXT WITHOUT 'EXCEPT AS OTHERWISE PROVIDED FOR IN THIS CODE,', AND 3002.4 AND 3005.4 READ THE SAME. OAR 918-400-0455, THE RULE THAT ADOPTS THE ELEVATOR CODE, WAS NOT READ; THE BCD PAGE NAMES THE 2024 OREGON ELEVATOR SPECIALTY CODE, EFFECTIVE 2024-01-01.
12. CIBSE GUIDE D 2020 ITSELF WAS NOT READ; CIBSE SELLS IT. EQUATION 3.6 IS PETERS (2000) EQUATION (9); PETERS AND DEAN (2018) PRINT THE SAME RESIDENTIAL ROW (6 %POP, INTERVAL AT MOST 60 S) FROM THE DRAFT ISO 8100-32 OF MARCH 2017. GUIDE D 2025 WAS ANNOUNCED AT THE SAME SEMINAR AND WAS NOT READ.

UP-PEAK INTERVAL AGAINST THE TARGET

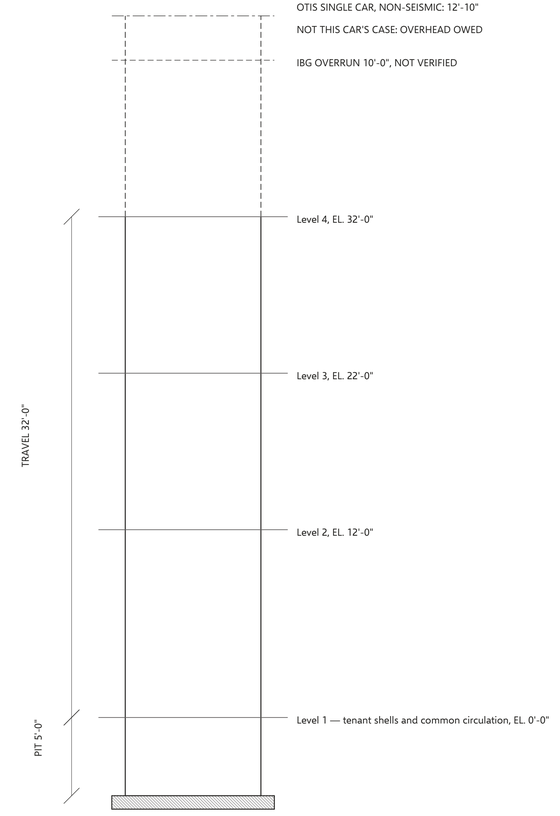


③ **ELEVATOR TRAFFIC STUDY**
SCALE: NTS



PUBLISHED HOISTWAY 8'-8" x 5'-9", SOLID
IBG SHAFT 6'-0" x 8'-6", DASHED
CLEAR CAR 6'-5 9/16" x 4'-3 9/16", POSITION SCHEMATIC
HATCH: HOISTWAY THE IBG SHAFT DOES NOT PROVIDE

② **HOISTWAY PLAN**
SCALE: NTS



① **HOISTWAY SECTION**
SCALE: NTS

SHEET NOTES

1. GENERAL REQUIREMENTS: SPECIFIED IN SECTION 01 10 00.

NOT PROVIDED — BY OTHERS
APPLICANT / OWNER

CONSULTANTS

STRUCTURAL	NOT PROVIDED — BY OTHERS
CIVIL	NOT PROVIDED — BY OTHERS
MECHANICAL	NOT PROVIDED — BY OTHERS
PLUMBING	NOT PROVIDED — BY OTHERS
ELECTRICAL	NOT PROVIDED — BY OTHERS
LANDSCAPE	NOT PROVIDED — BY OTHERS
FIRE PROTECTION	NOT PROVIDED — BY OTHERS
GEOTECHNICAL	NOT PROVIDED — BY OTHERS

REVIEW
Prepared for review by the design professional of record. Not for construction or permit submission.

PROJECT

Architecture.Engineering — L courtyard study
FICTIONAL STUDY: NO REAL PARCEL
ARCHITECTUREENGINEERING — L COURTYARD STUDY
OCCUPANCY R-2, M · CONSTRUCTION NOT PROVIDED — BY OTHERS · STORIES 4

REVISIONS

MARK	DATE	DESCRIPTION

REGISTER

Project	AE-STUDY-L01
Issue	NOT PROVIDED — BY OTHERS
Date	NOT PROVIDED — BY OTHERS
Drawn	NOT PROVIDED — BY OTHERS
Scale	NTS
Phase	CONSTRUCTION DOCUMENTS

OPEN ISSUE
The set's open issue is stated on the cover, G0.01.

ELEVATOR TRAFFIC STUDY

SHEET
A4.8