

Miami Design District's Museum Garage by WORKac

Универзитет у Бањој Луци  
Архитектонско-грађевинско-геодетски факултет  
Архитектонско пројектовање 8  
/Зграде за паркирање возила – гараже/

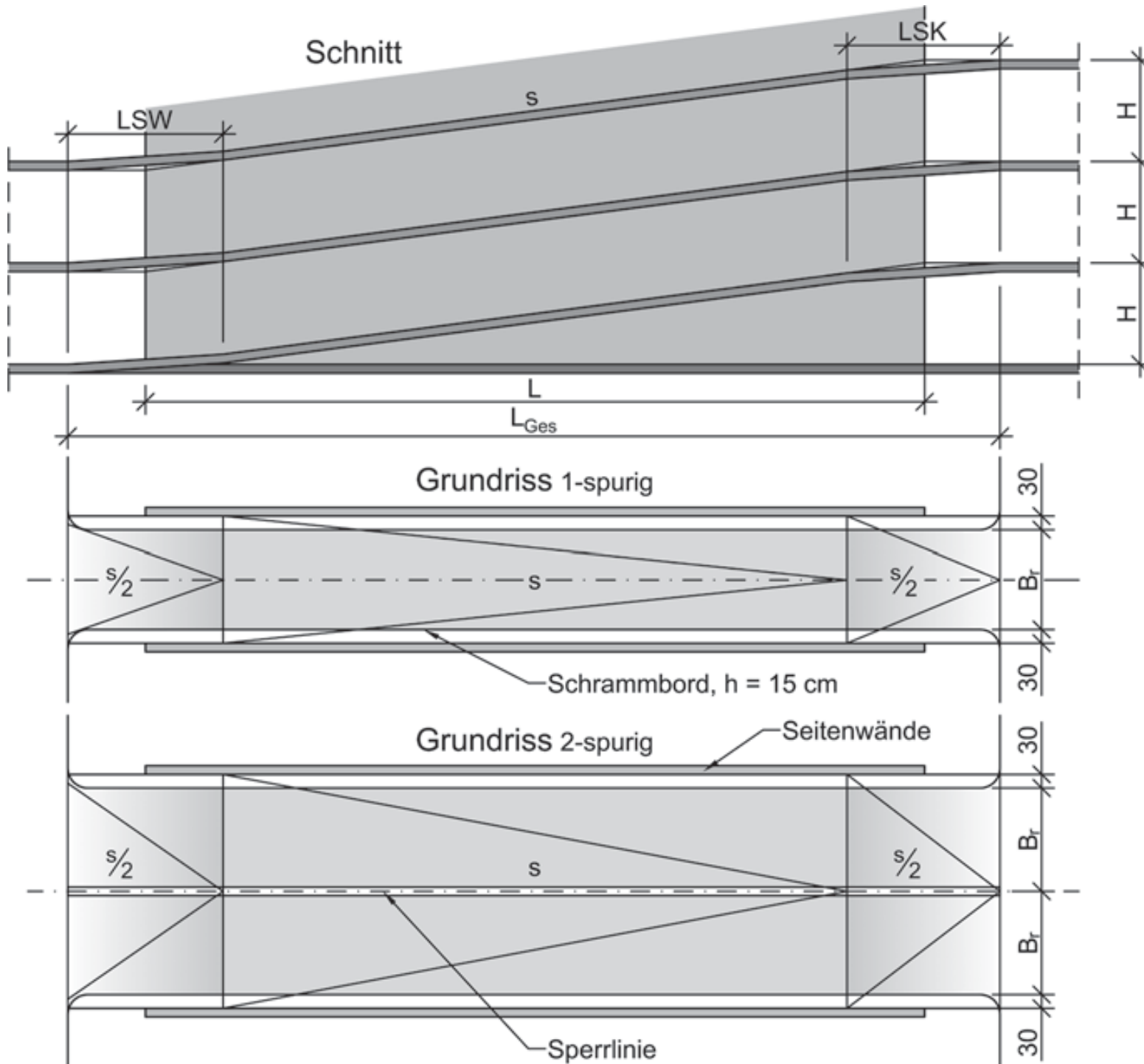
Наставник: доц. др Тања Тркуља, д.и.а.

# Немеханизоване јавне паркинг гараже

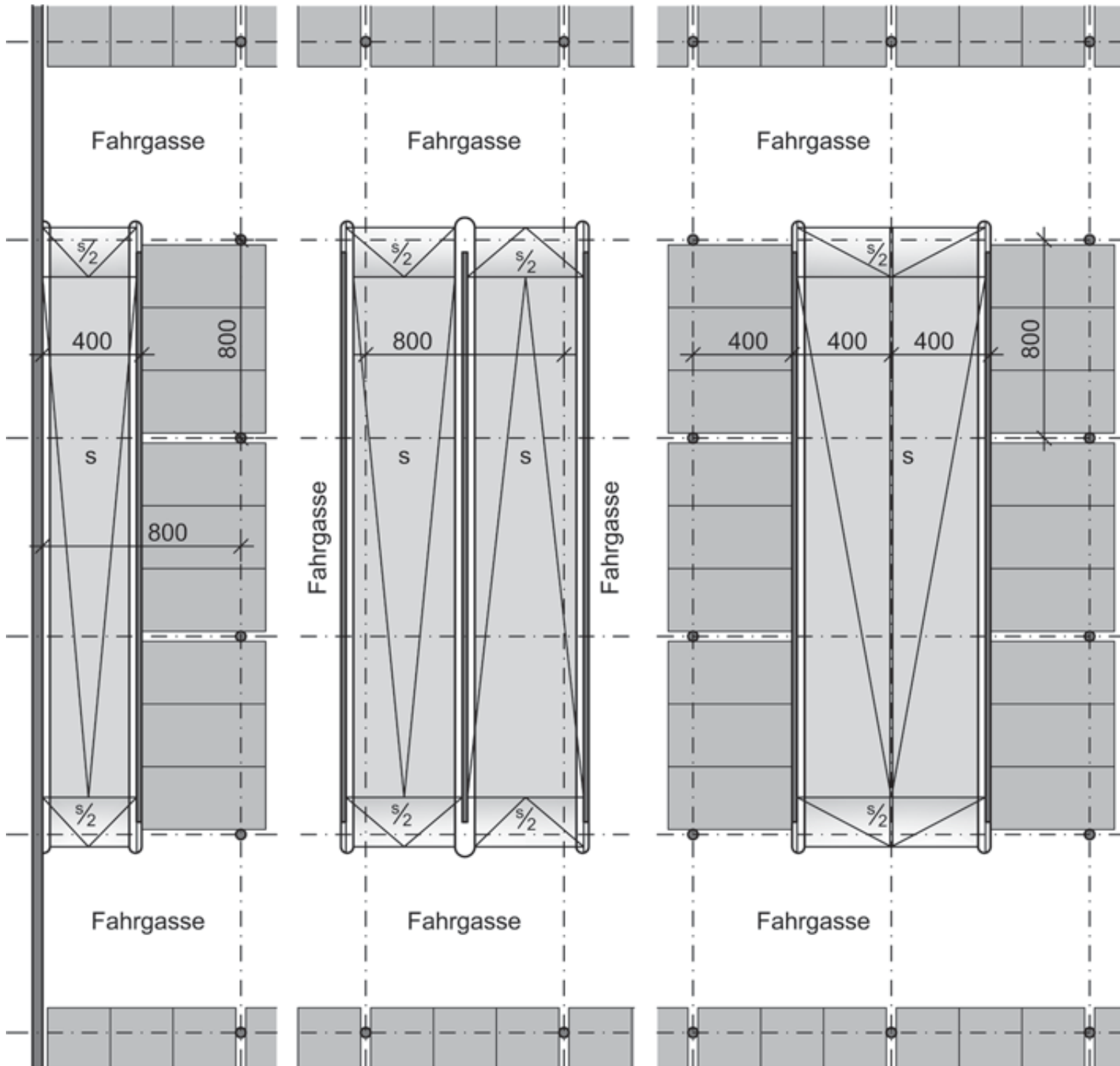
---

# Јавне паркинг гараже са правим дугим косинама

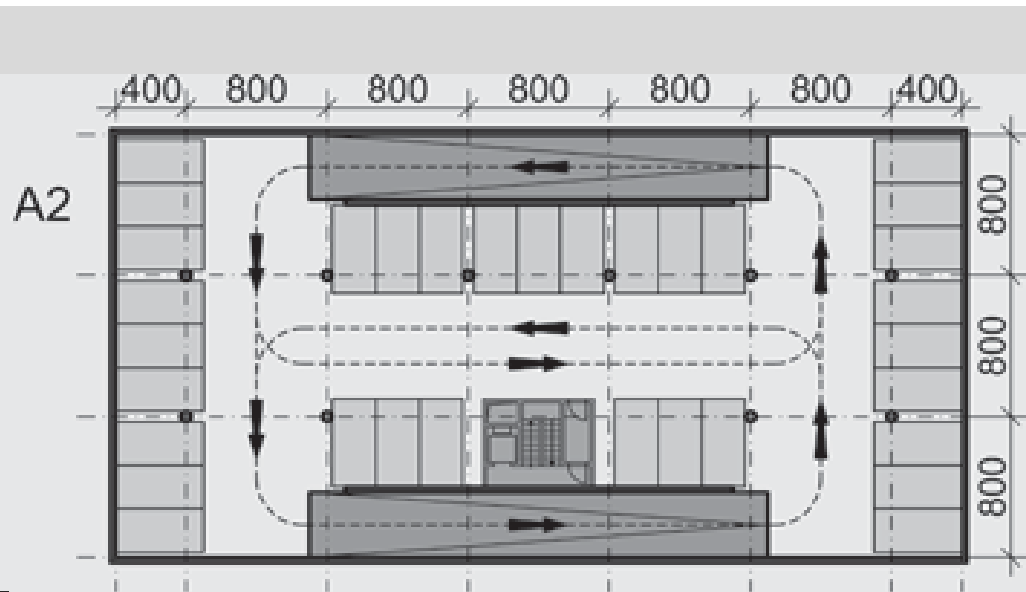
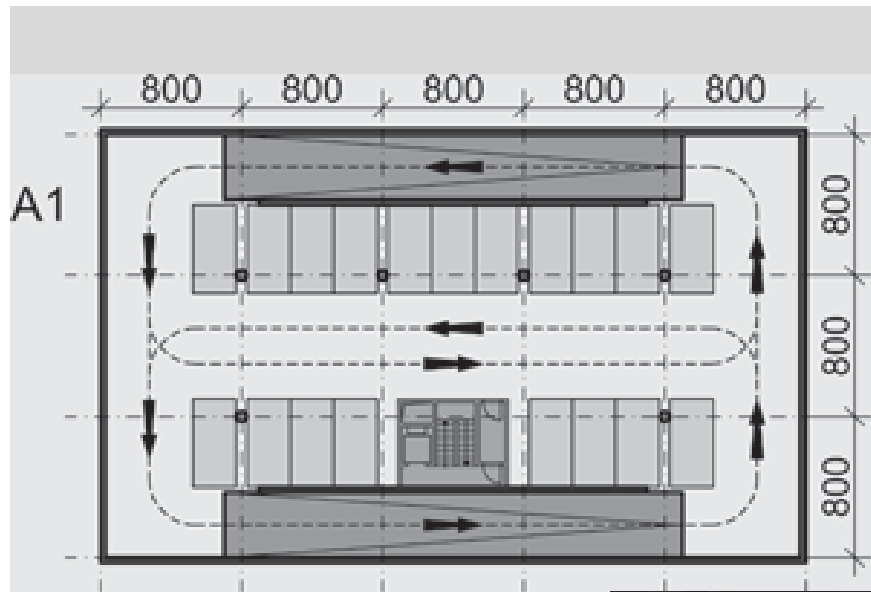
---



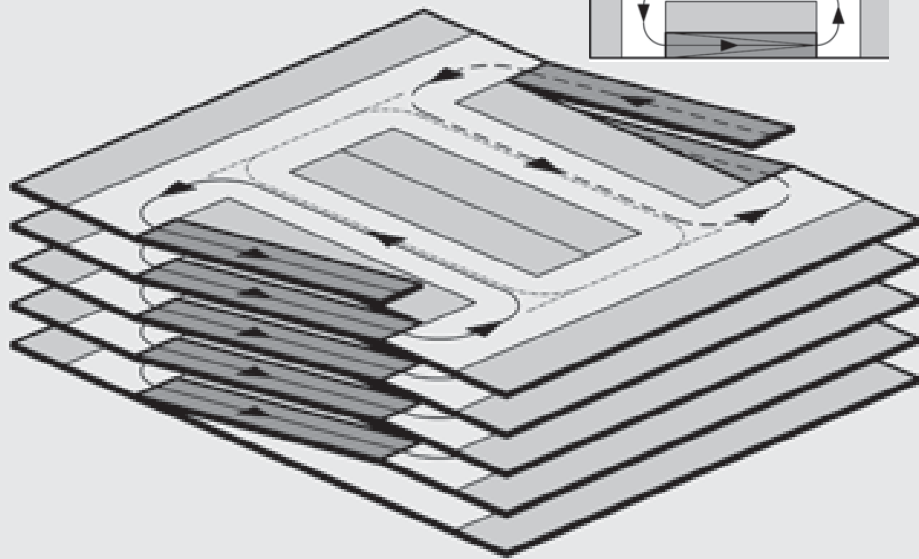
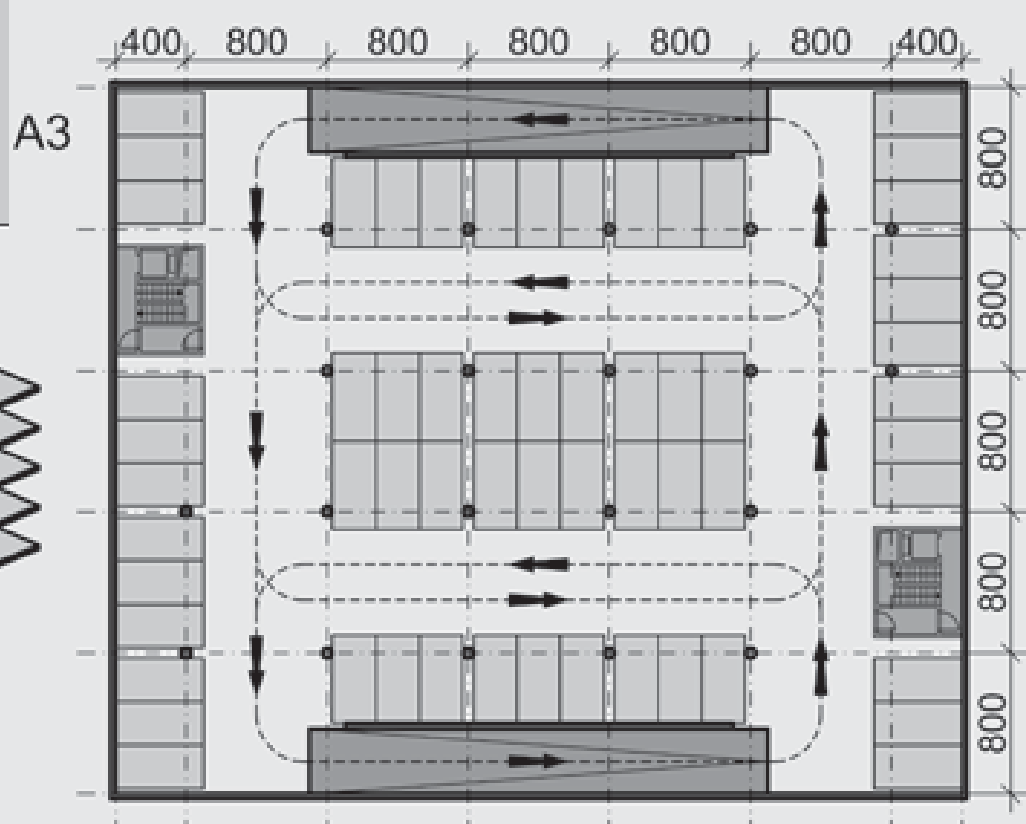
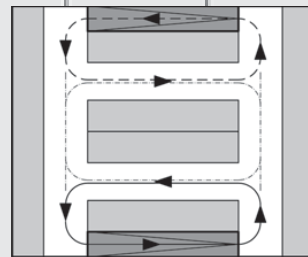
Појединачна  
и удвојена  
права дуга  
косина



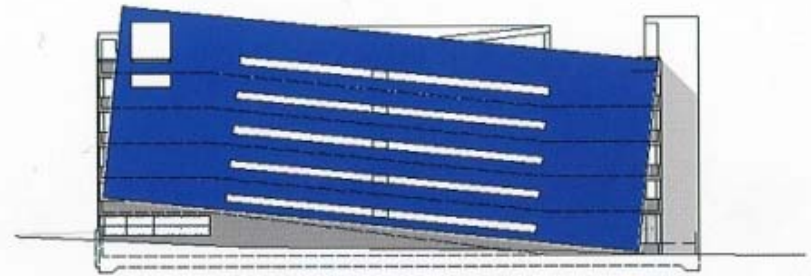
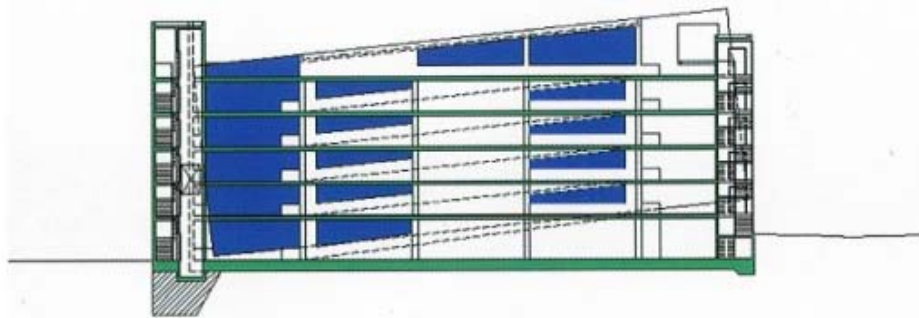
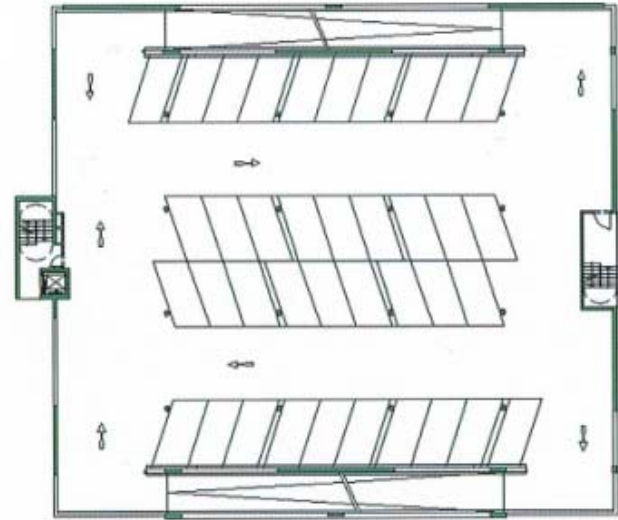
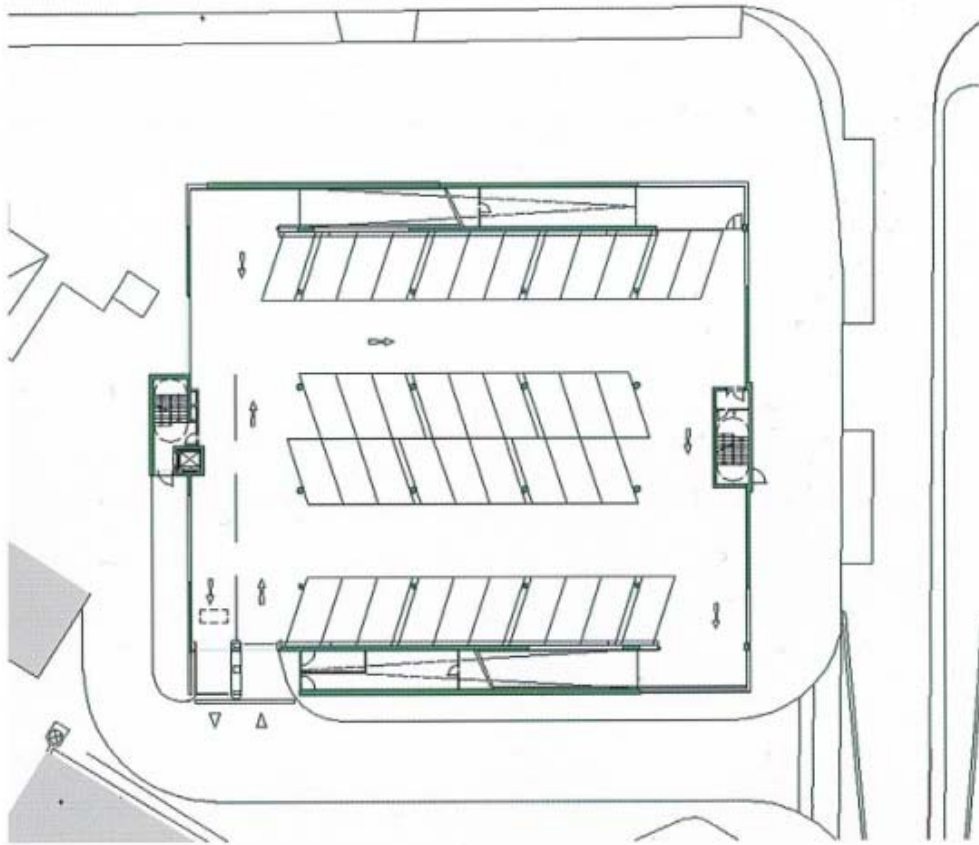
Појединачна  
и удвојена  
права дуга  
косина

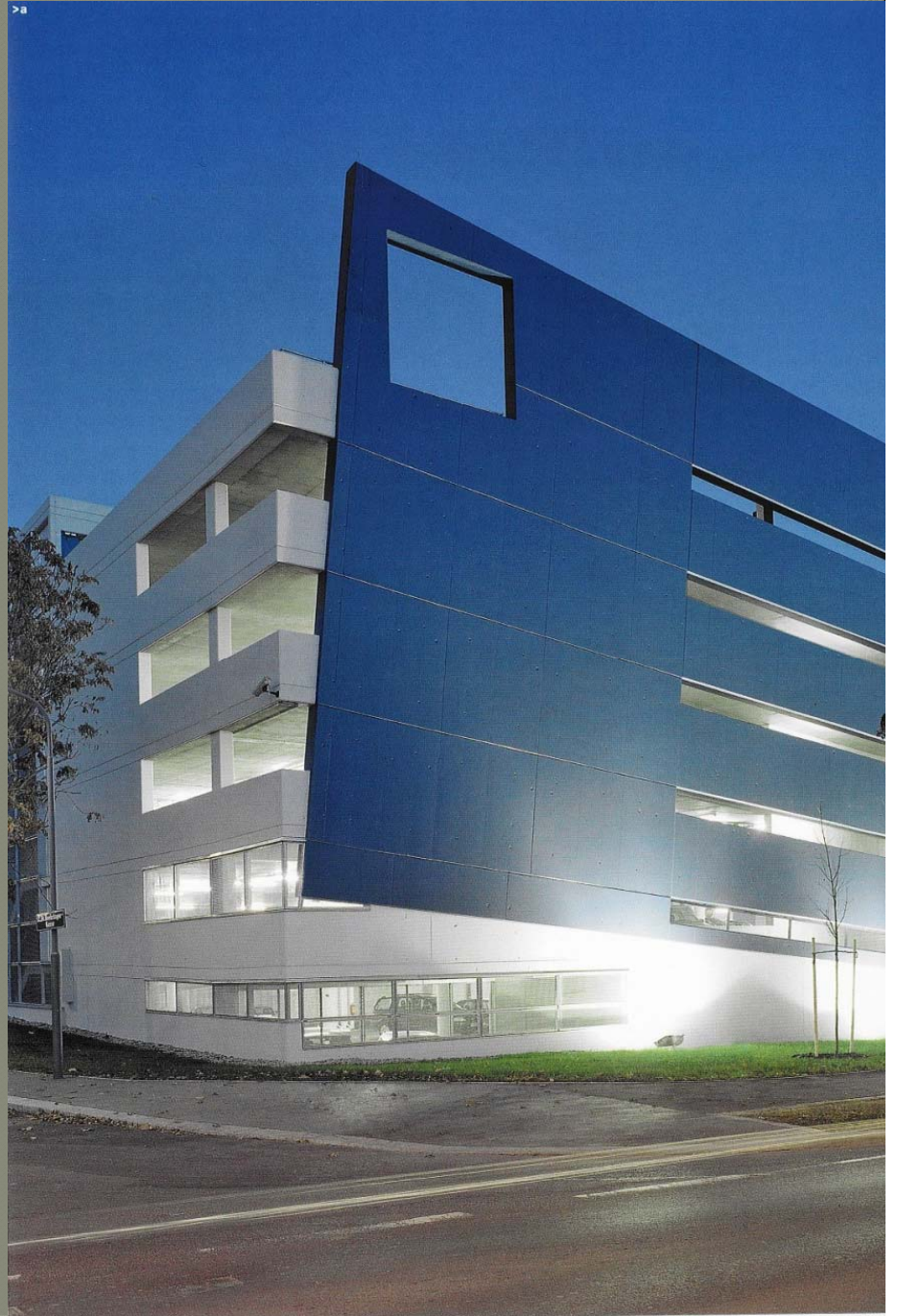


Варијанта А

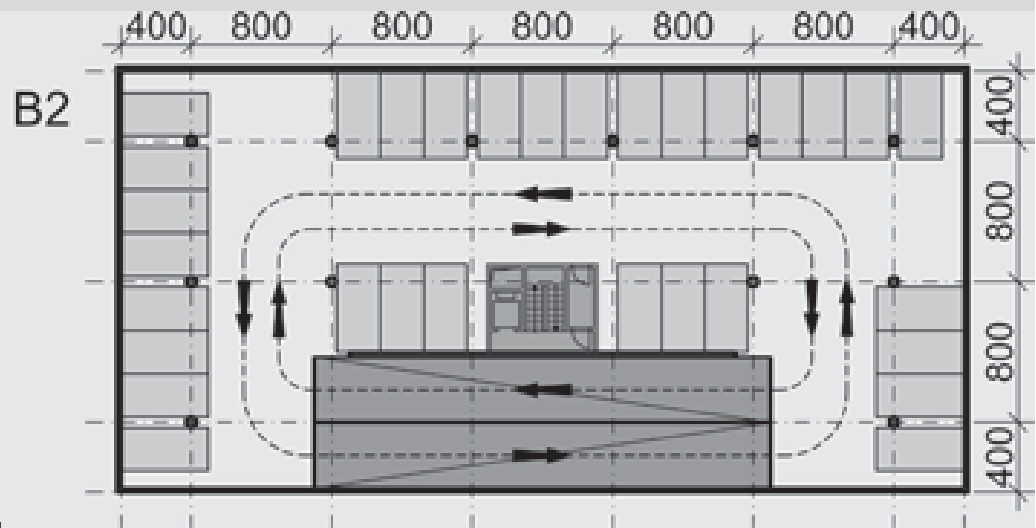
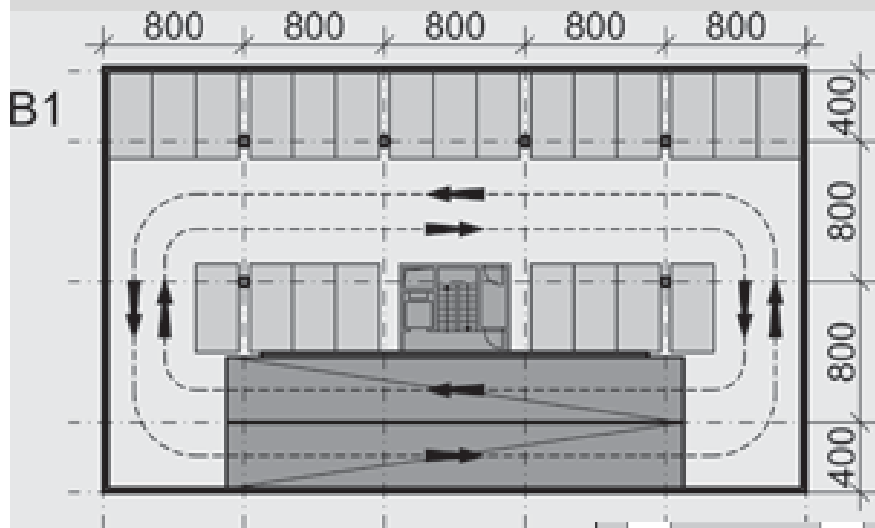


Maße in cm

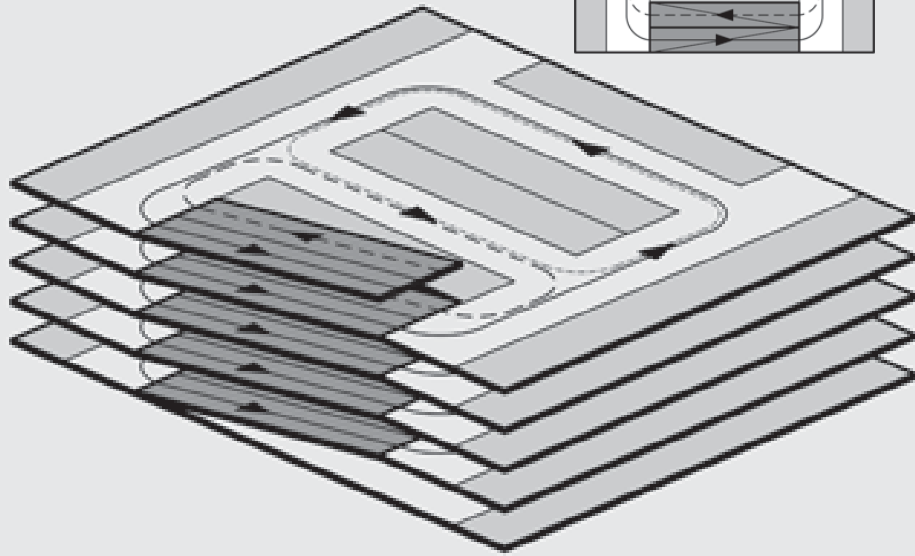
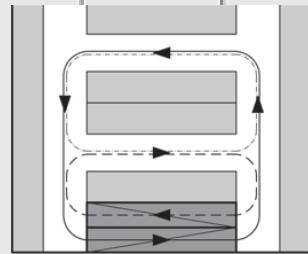




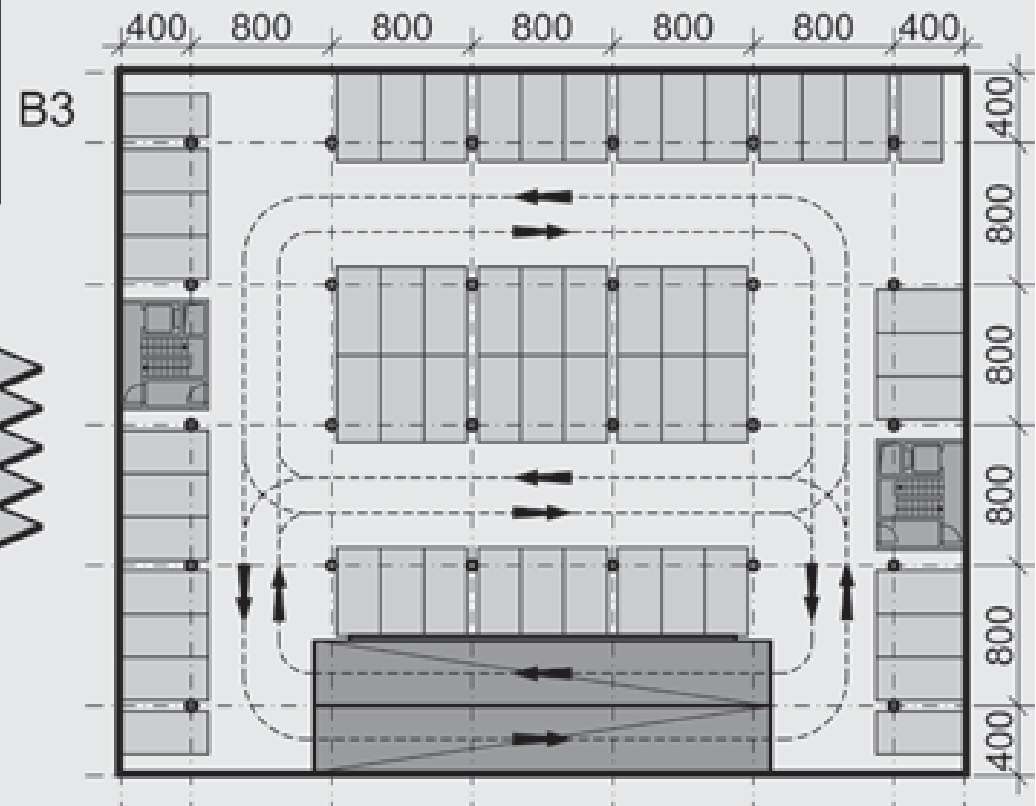




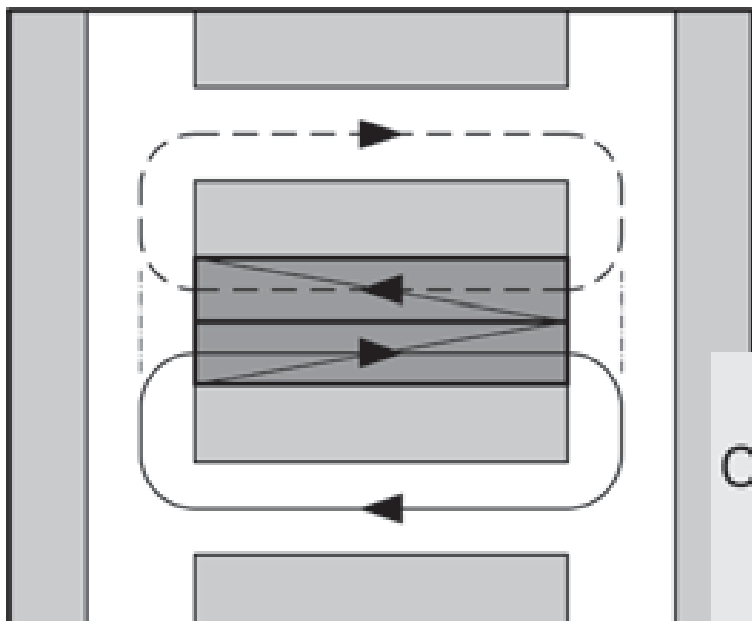
Варијанта В



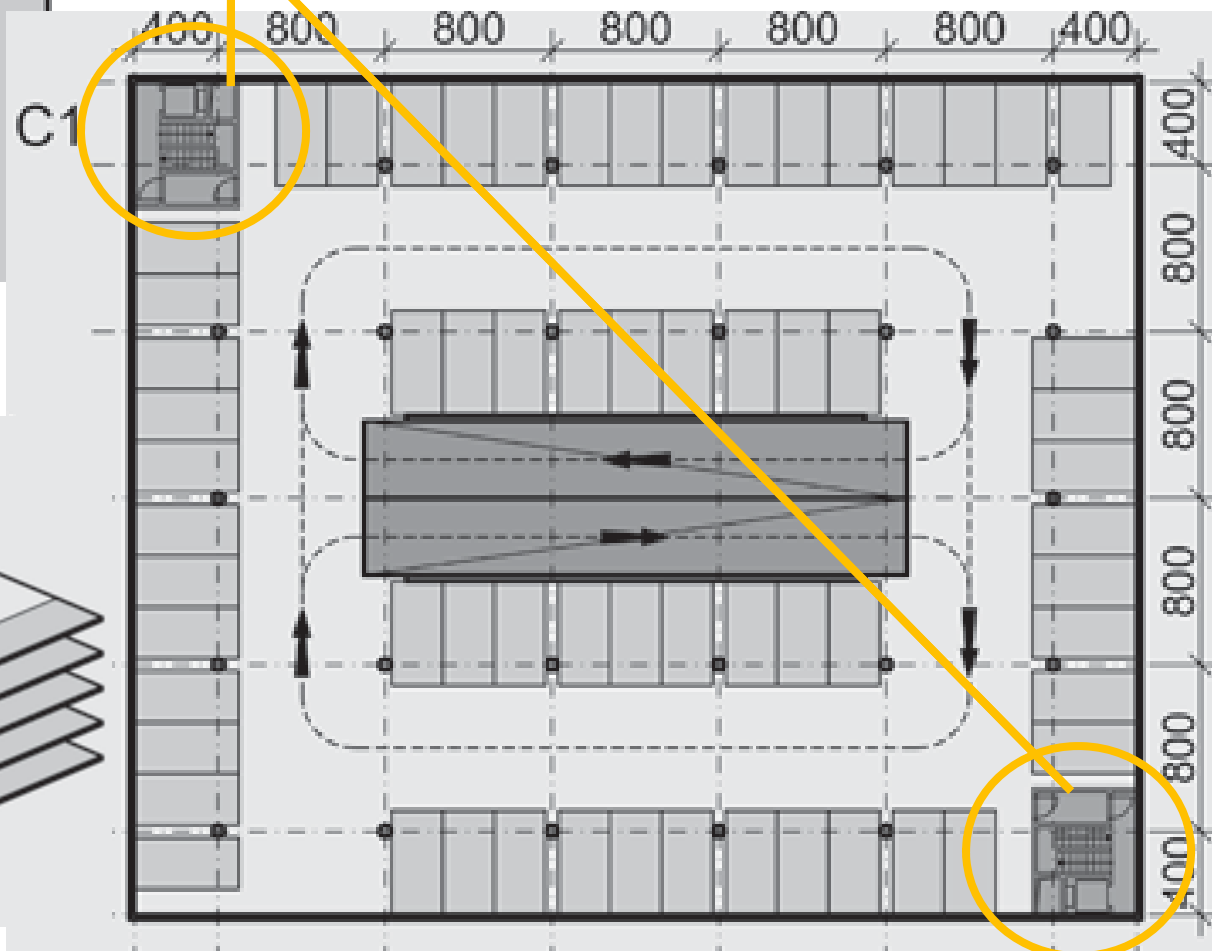
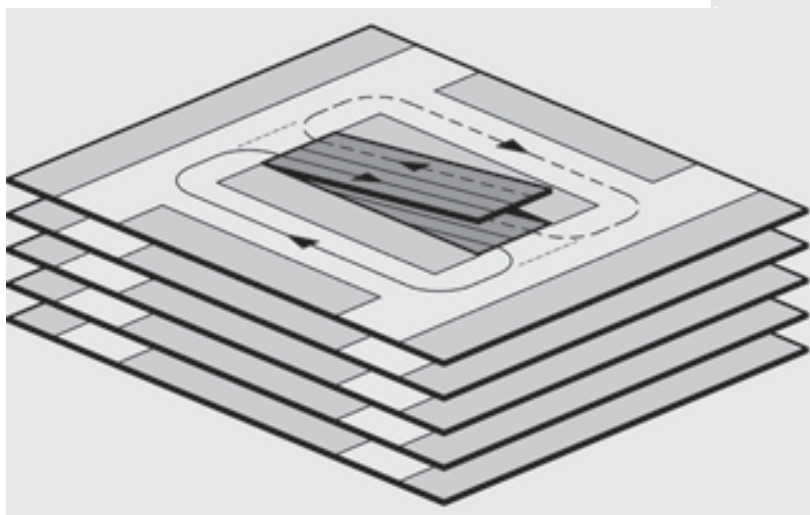
Maße in cm



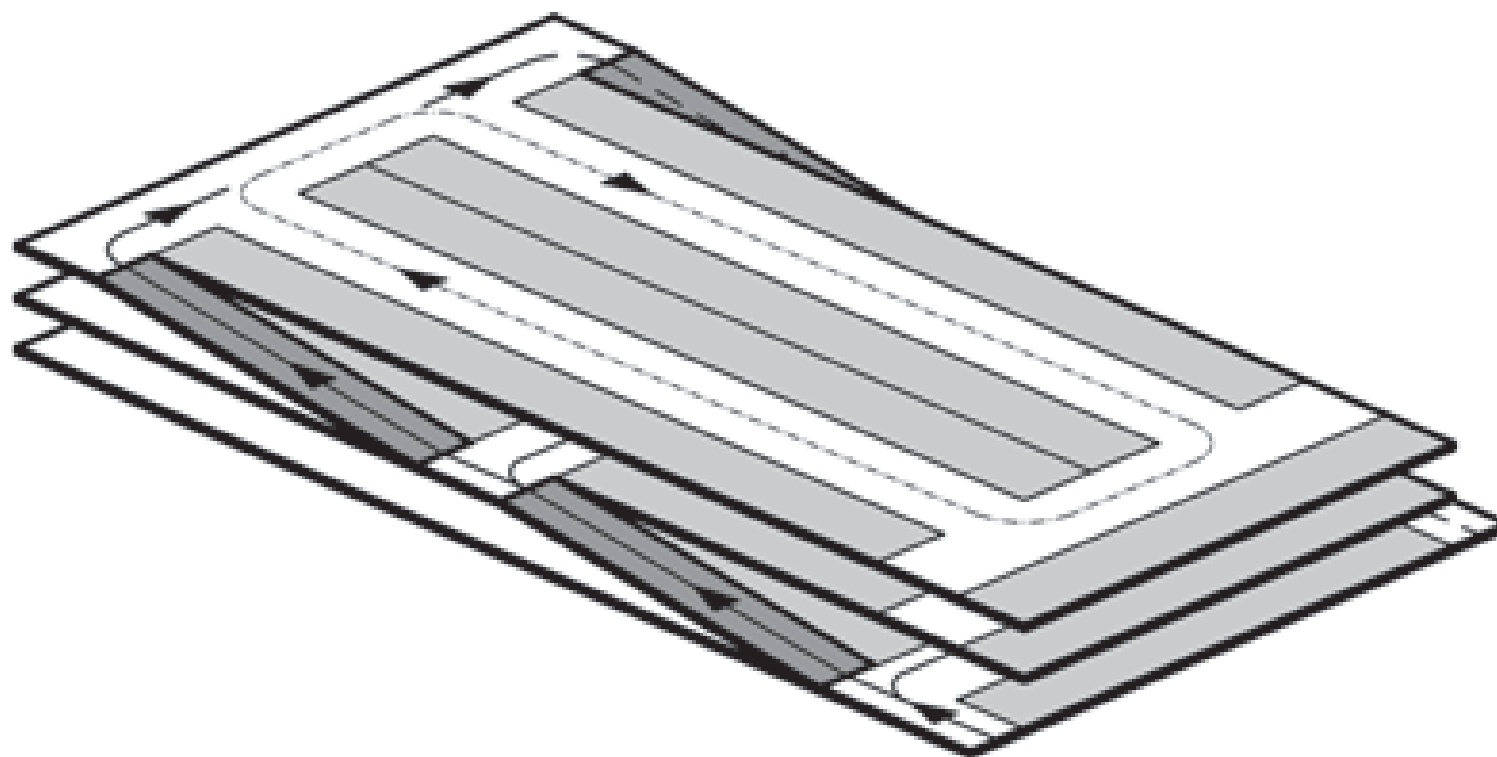
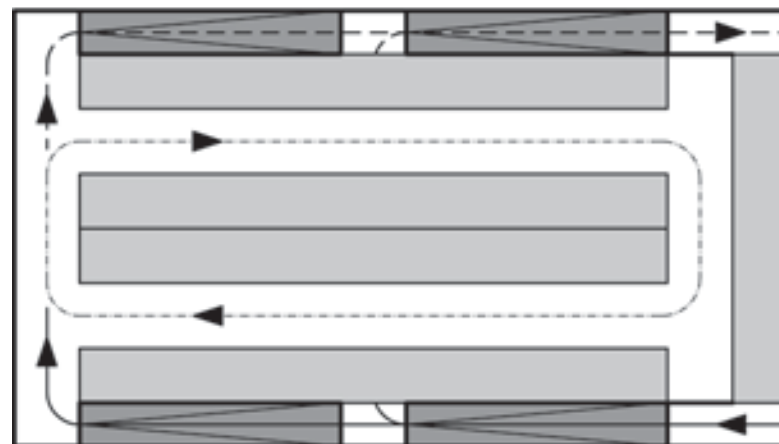
Свести на једну главну вертикалу (степениште + лифт) и противпожарне вертикале по потреби >  
**НЕ КАО НА ЦРТЕЖУ!**



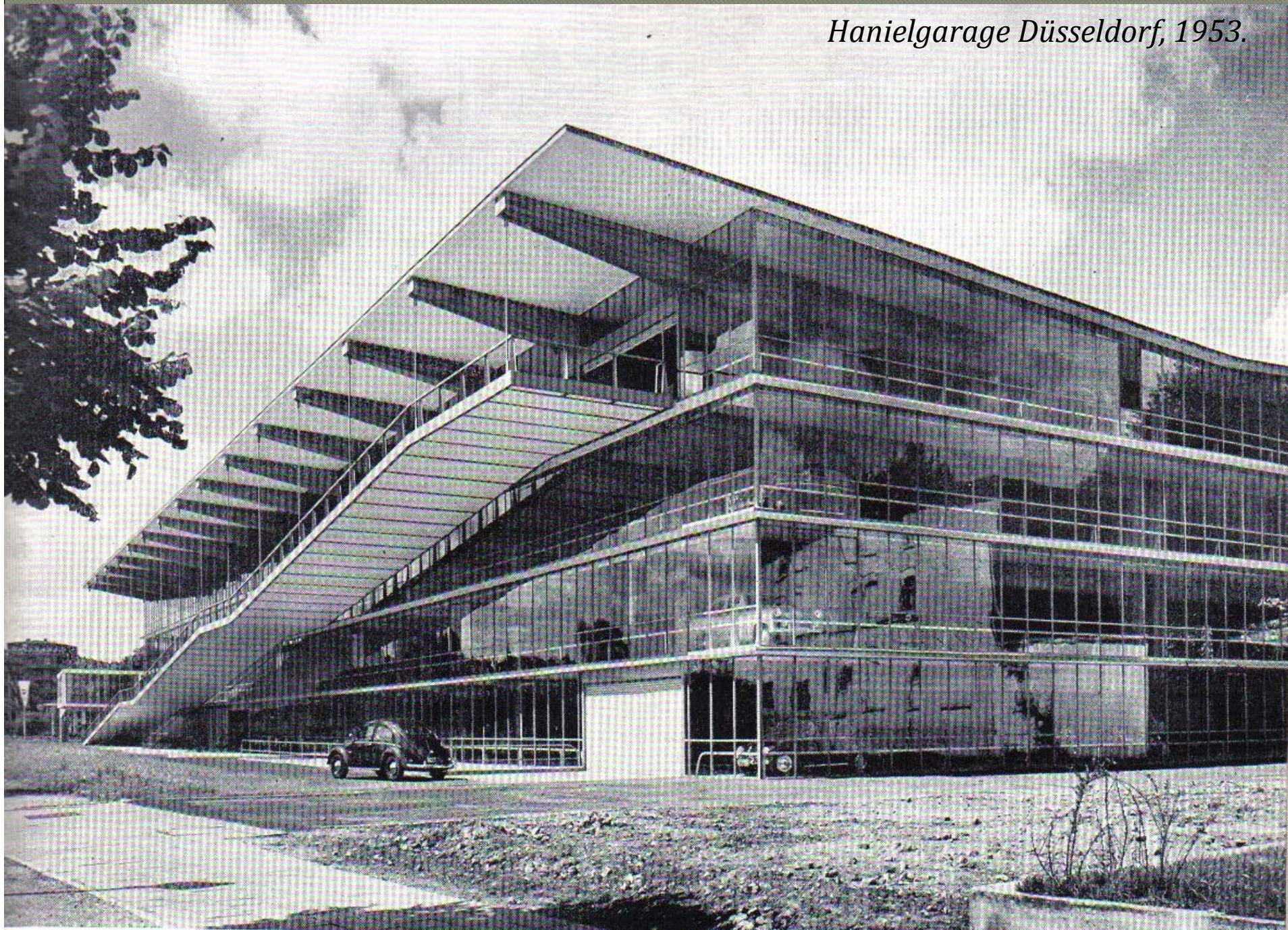
Варијанта С



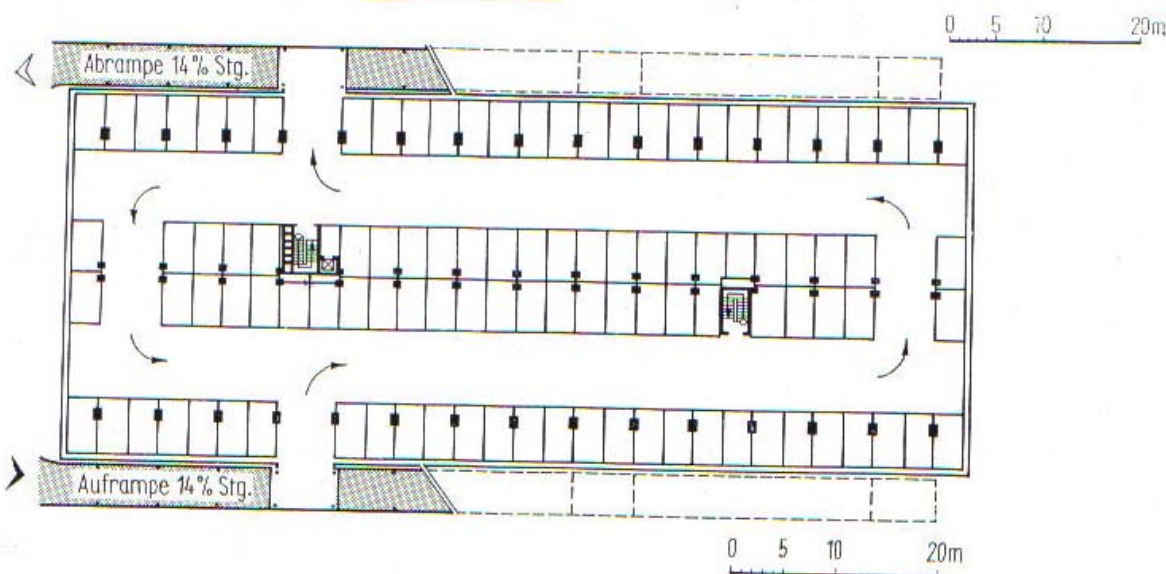
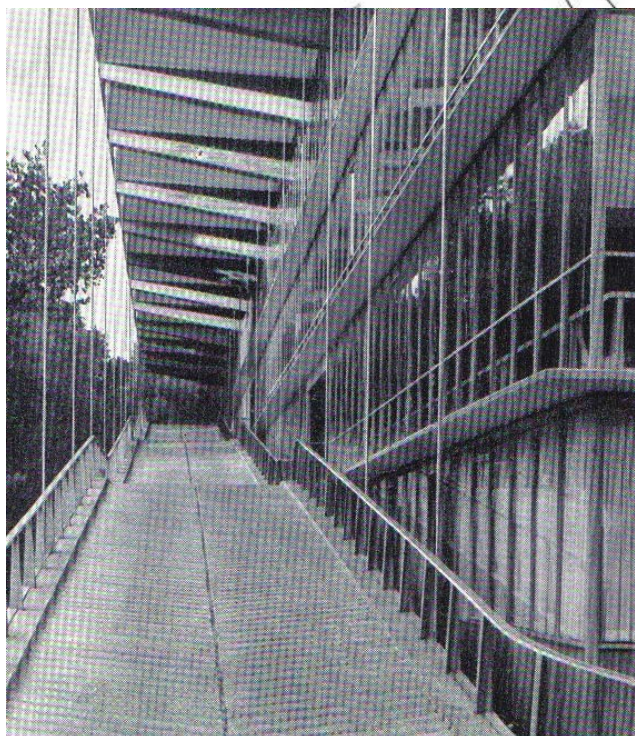
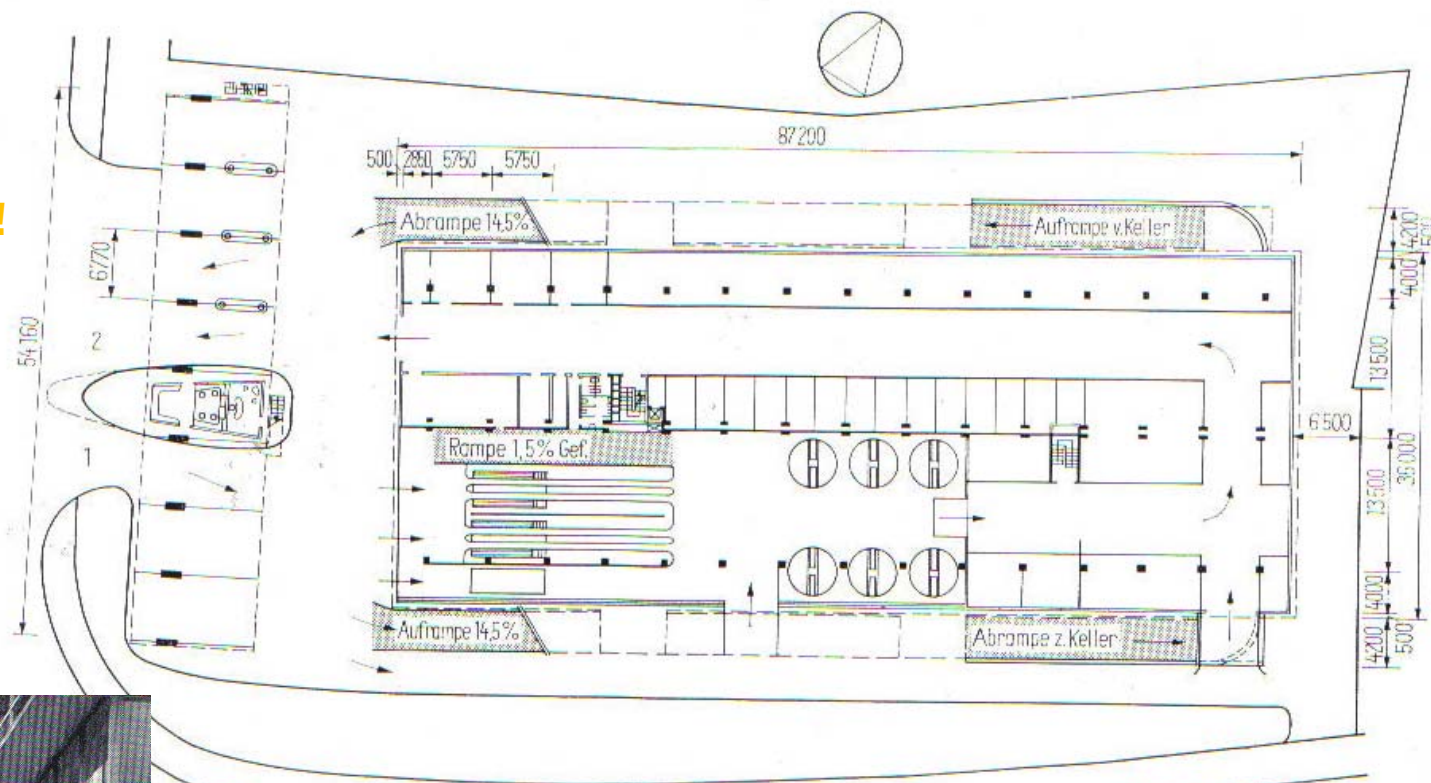
Варијанта D

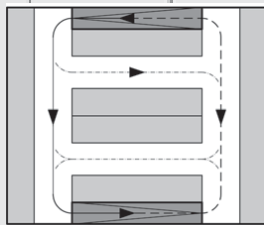
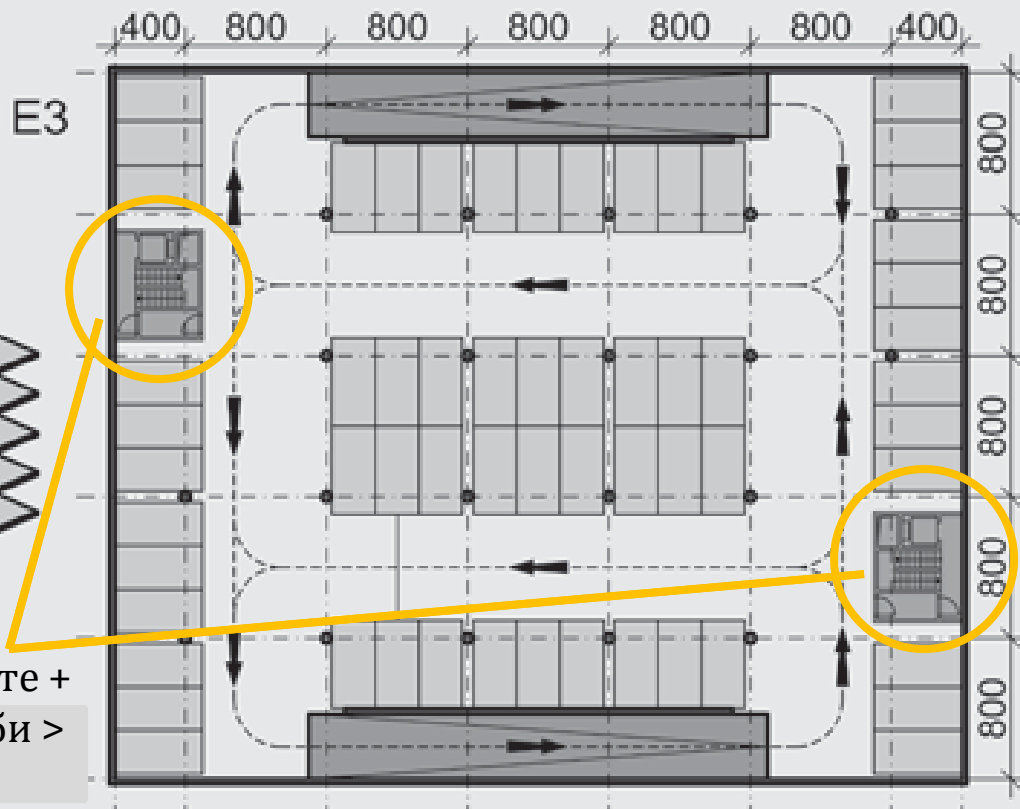
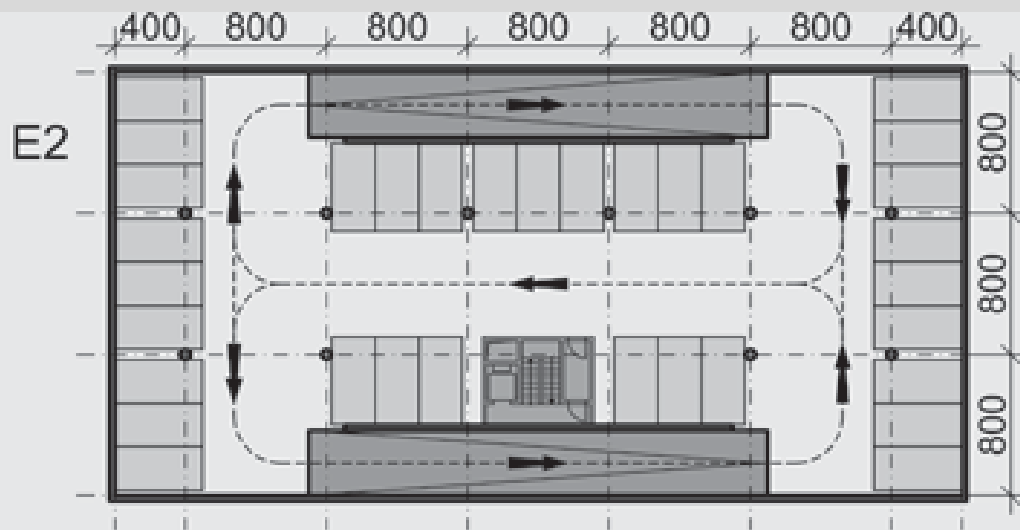
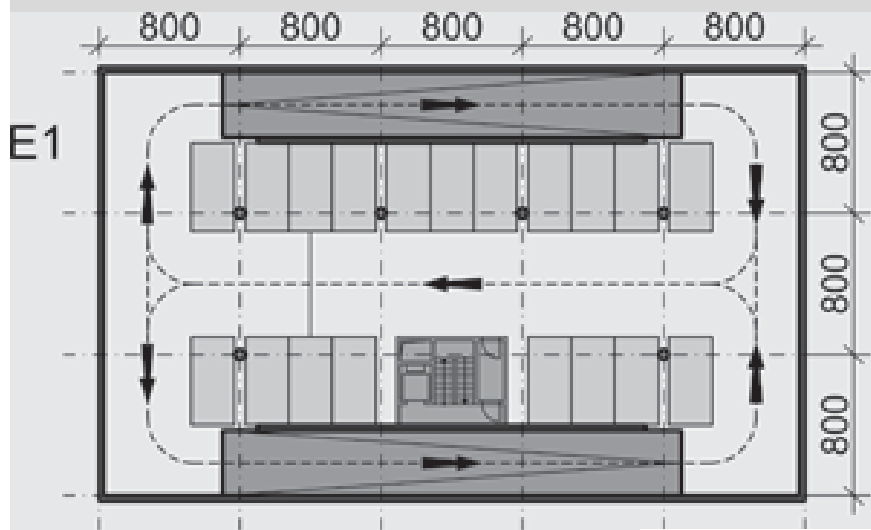


*Hanielgarage Düsseldorf, 1953.*

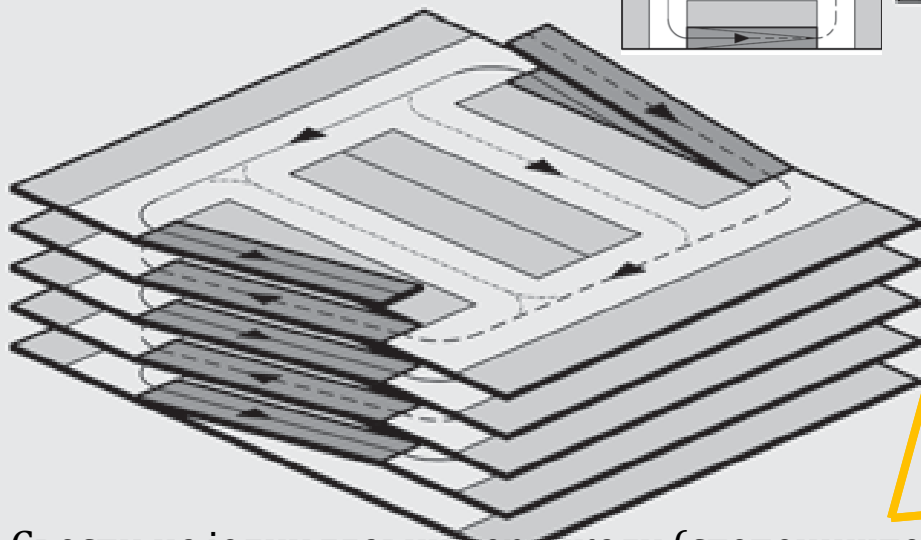


Улаз у додатне  
садржаје одвојити од  
улаза у гаражу >  
**НЕ КАО НА ЦРТЕЖУ!**

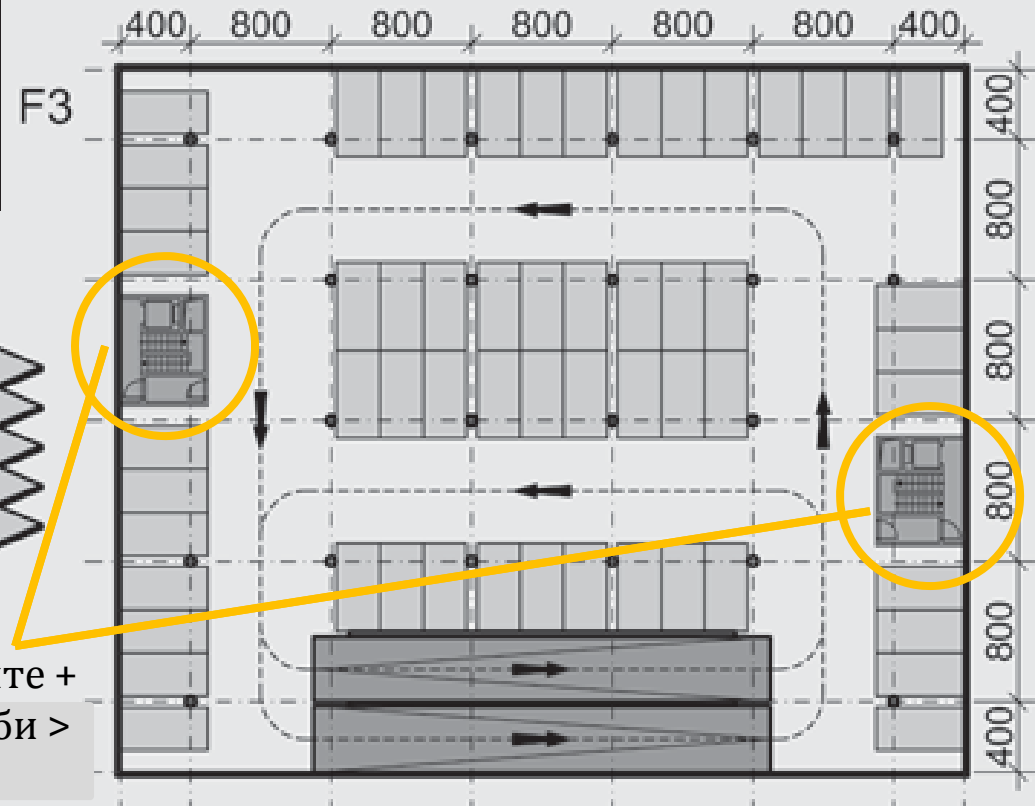
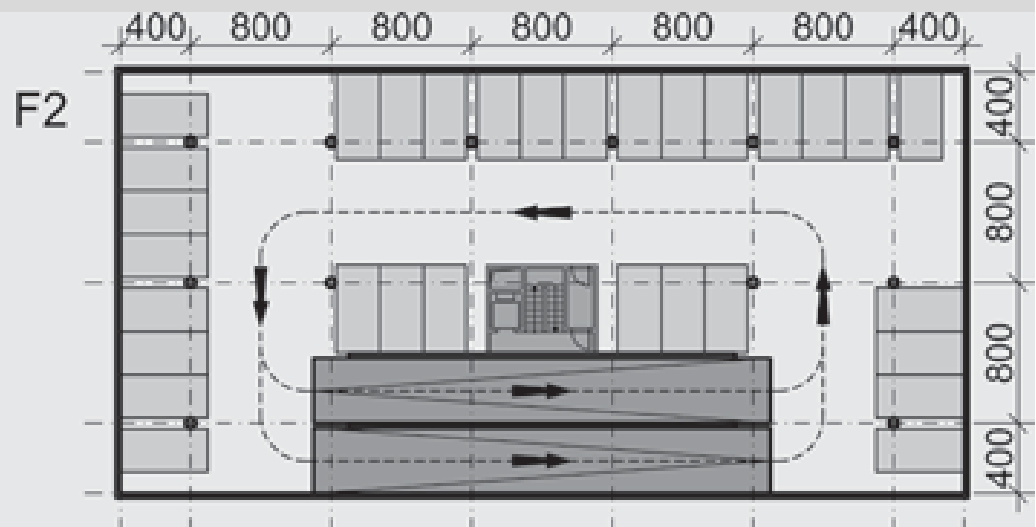
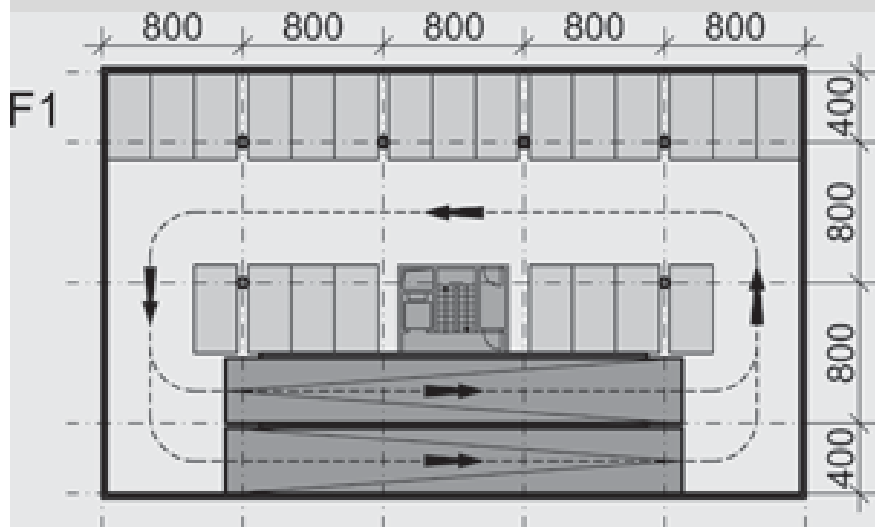




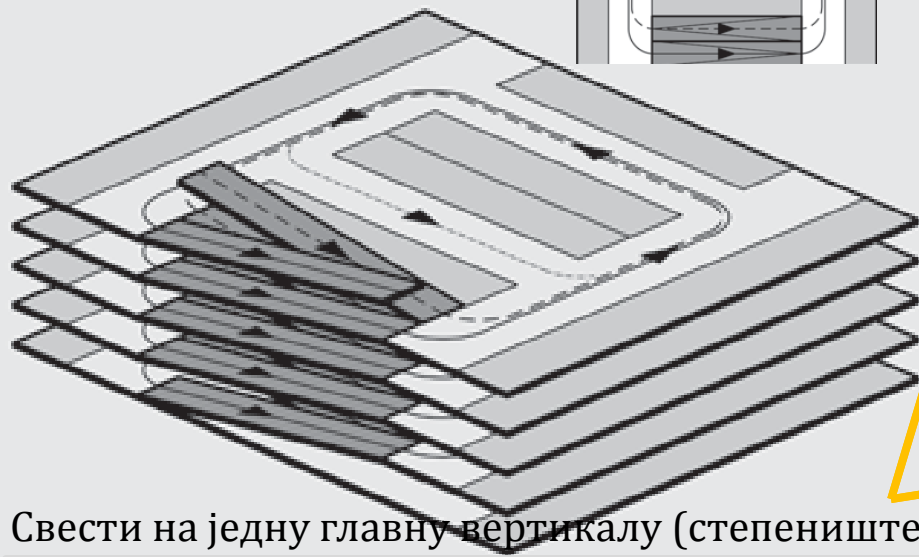
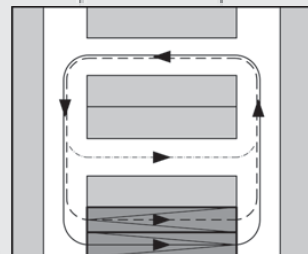
Варијанта Е



Свести на једну главну вертикалу (степениште + лифт) и противпожарне вертикале по потреби >  
**НЕ КАО НА ЦРТЕЖУ!**

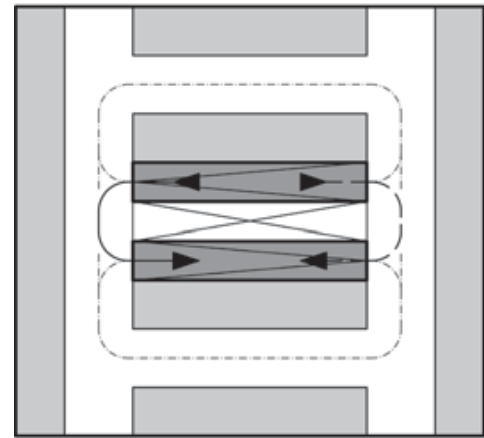
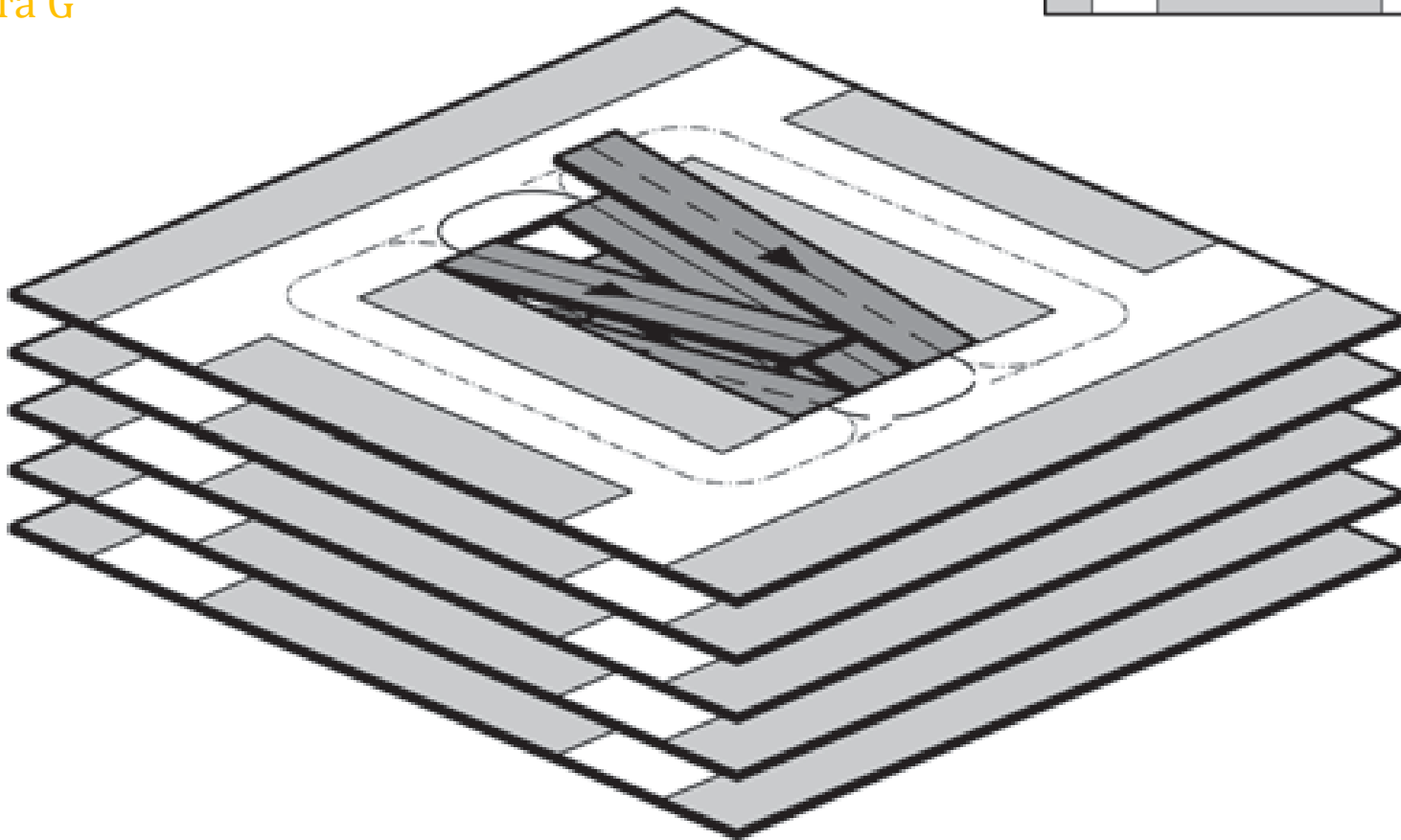


Варијанта F



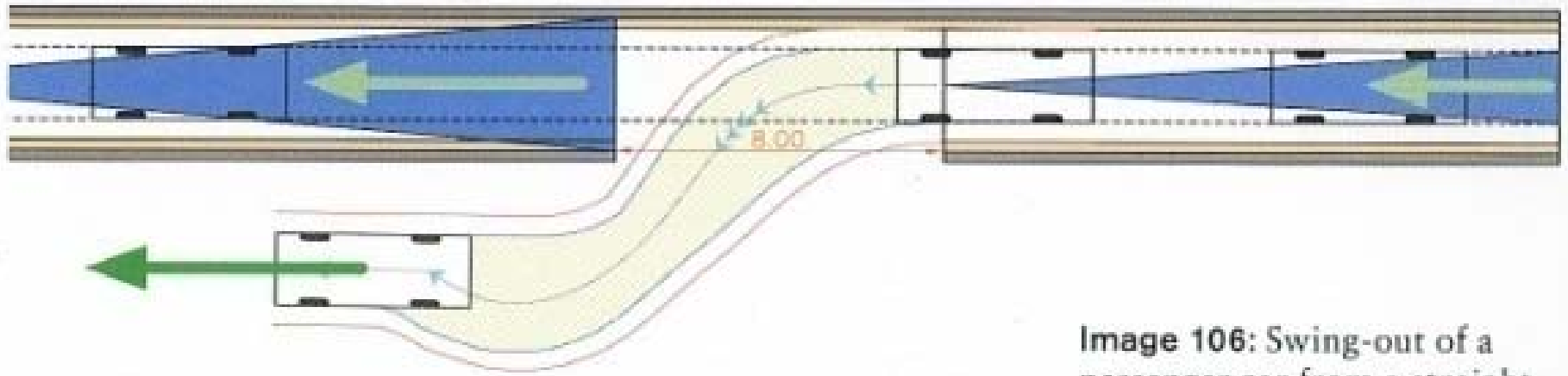
Свести на једну главну вертикалу (степениште + лифт) и противпожарне вертикале по потреби >  
**НЕ КАО НА ЦРТЕЖУ!**

Варијанта G

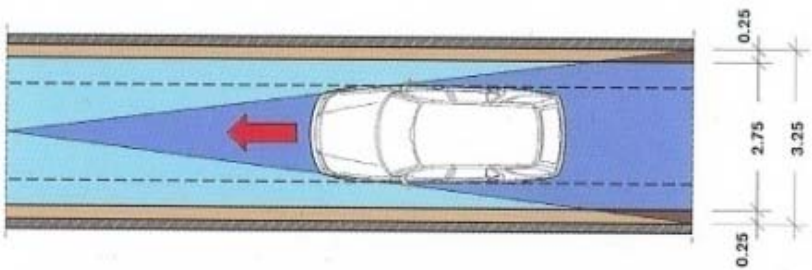




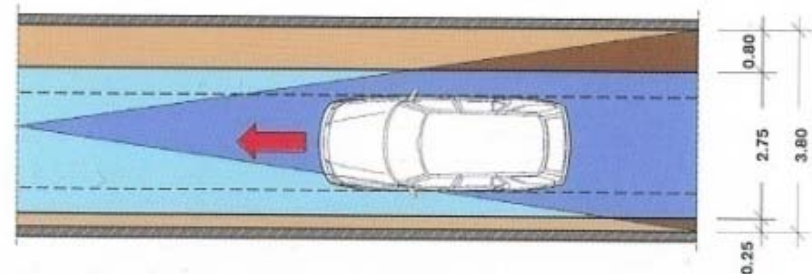




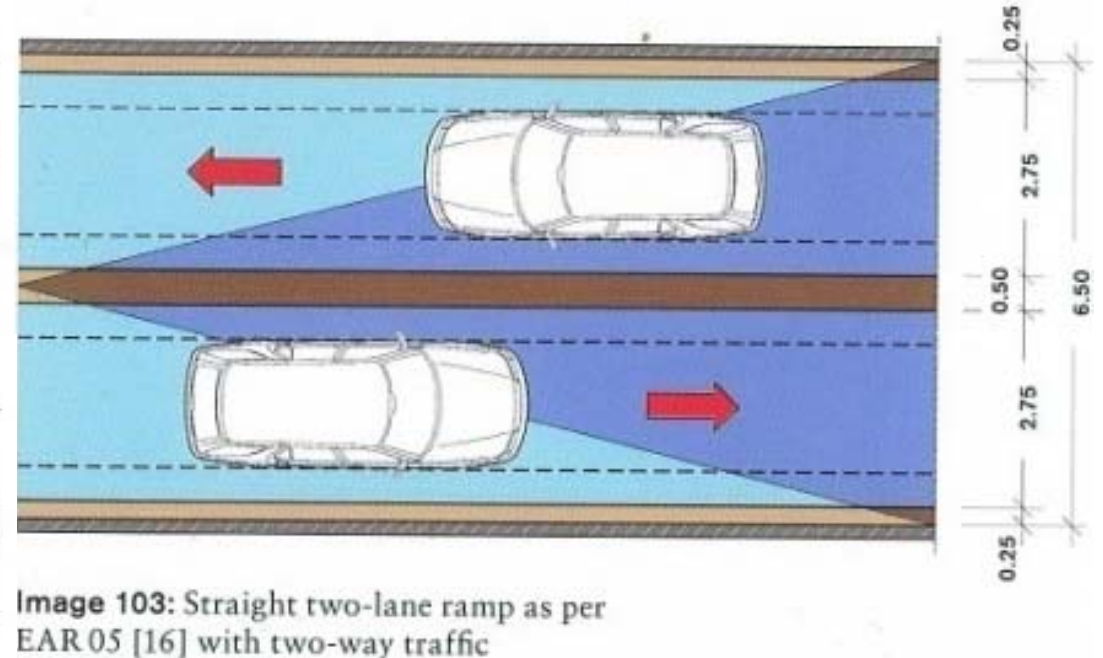
**Image 106:** Swing-out of a passenger car from a straight ramp onto a parking level



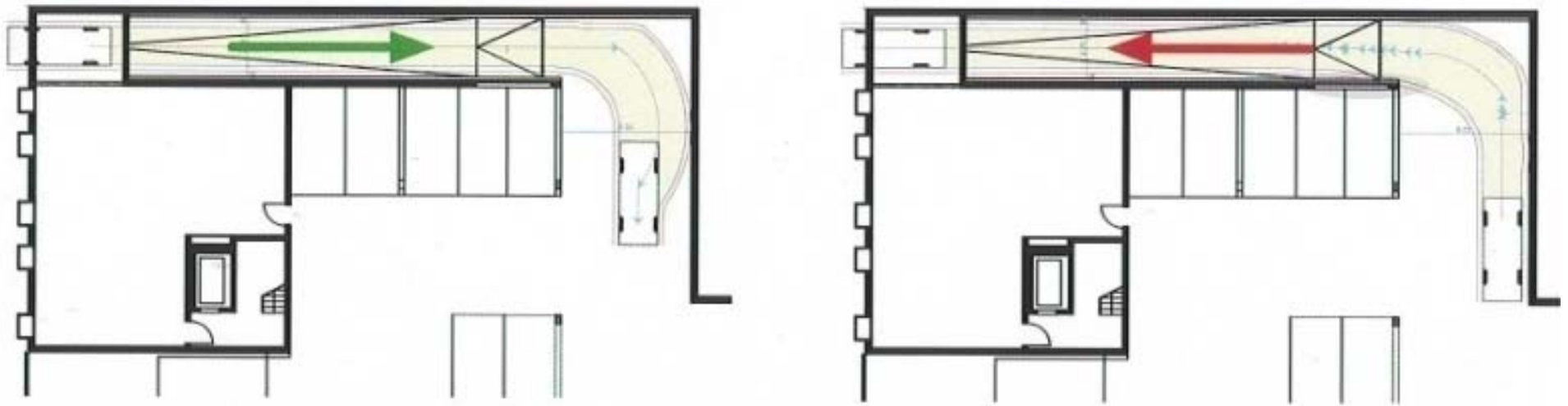
**Image 100:** Straight single-lane ramp as per EAR 05 [16]



**Image 101:** Straight single-lane ramp with walkway as per EAR 05 [16]

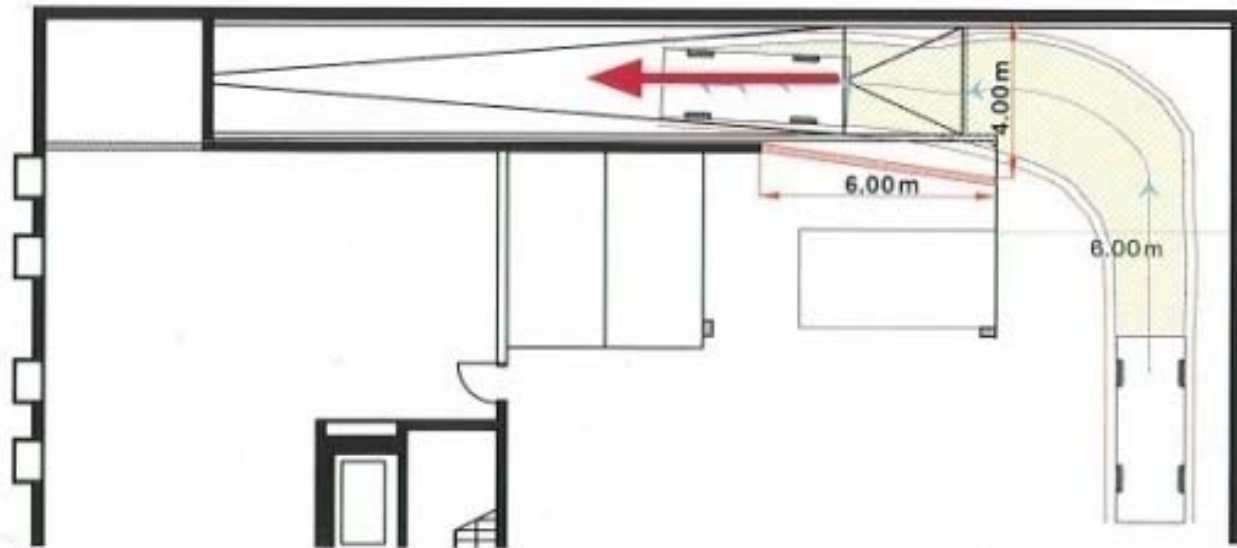


**Image 103:** Straight two-lane ramp as per EAR 05 [16] with two-way traffic



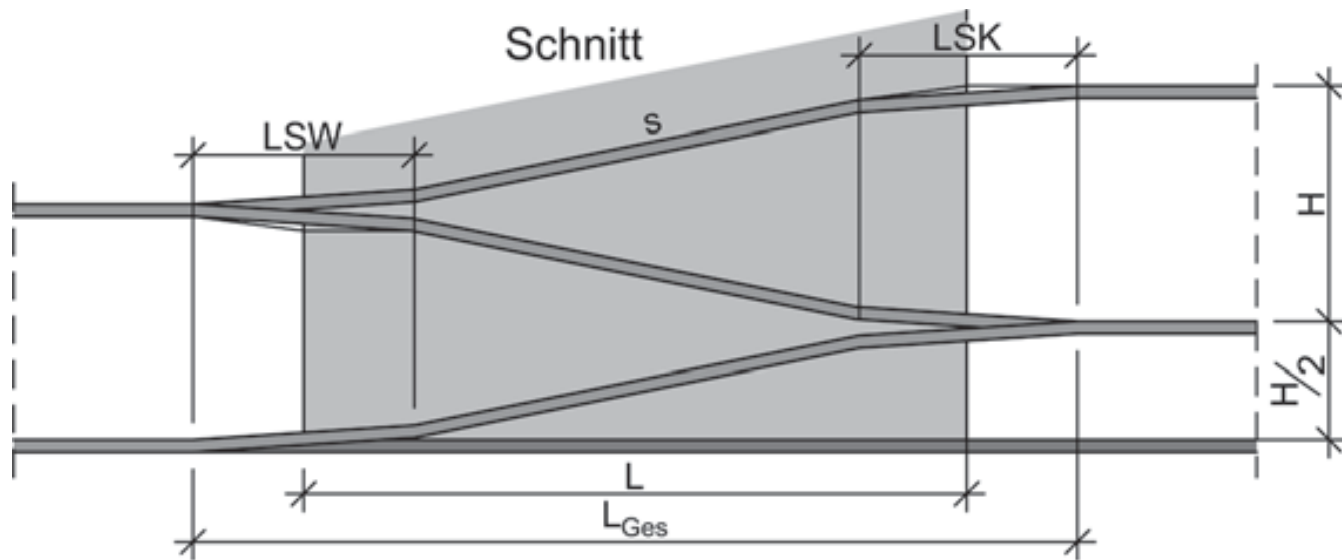
Возна линија за приступ (улаз/излаз) подземној гаражи

Проширење  
косине да  
омогући  
бољу возну  
геометрију

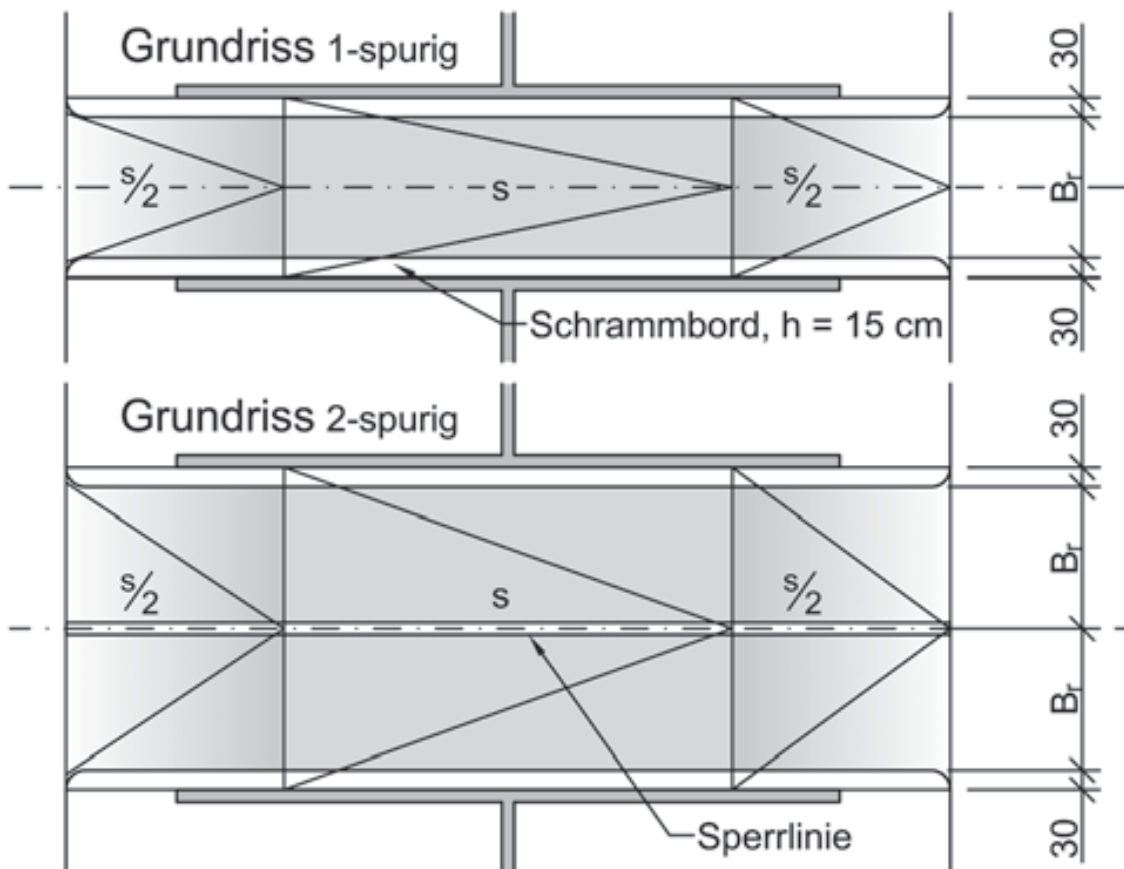


# Јавне паркинг гараже са правим кратким косинама

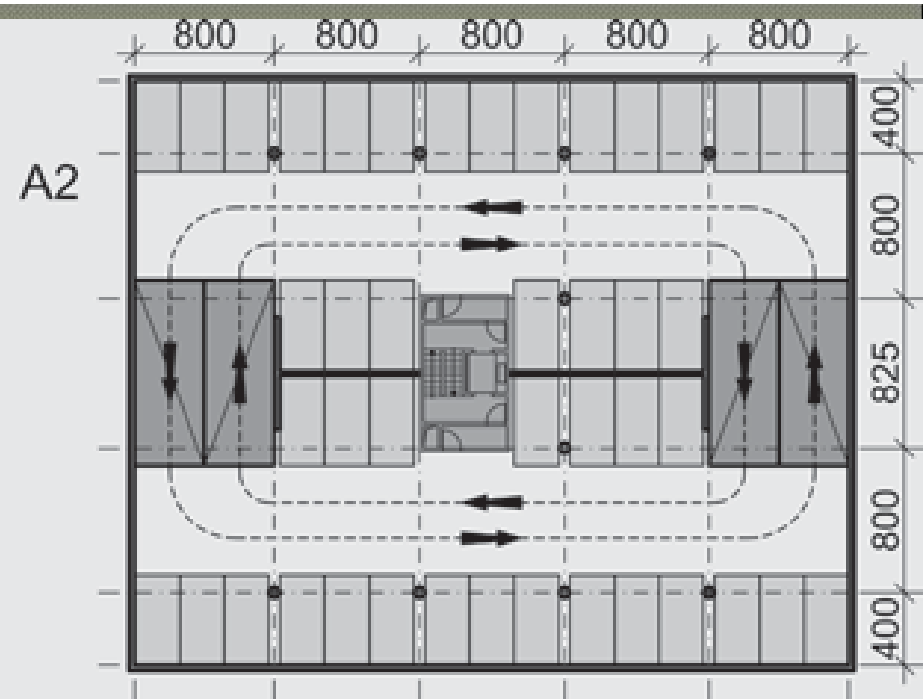
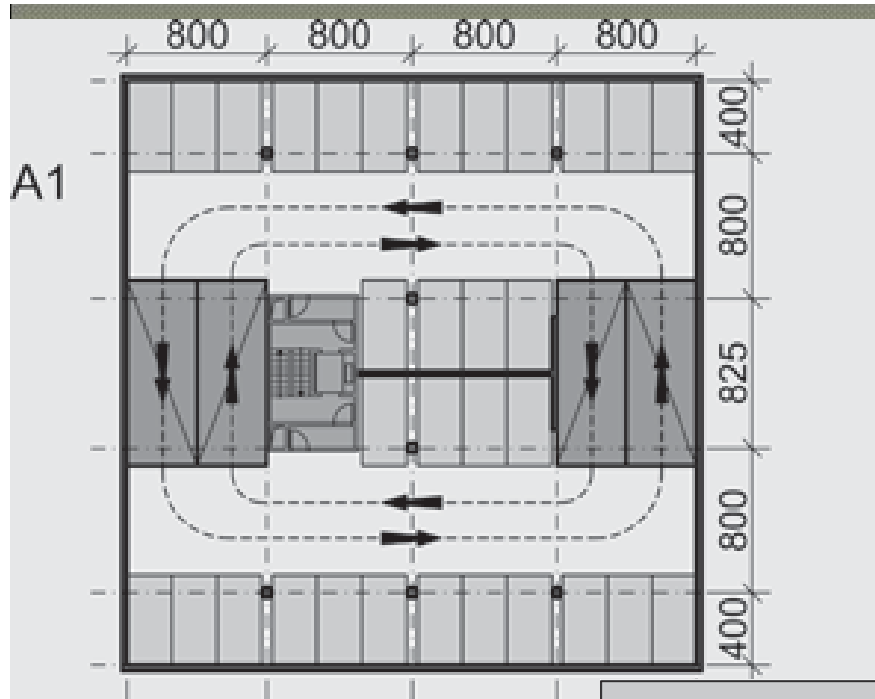
---



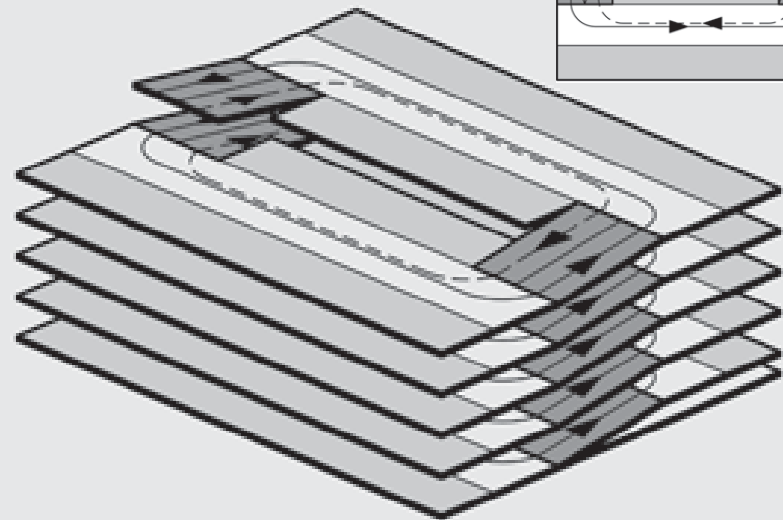
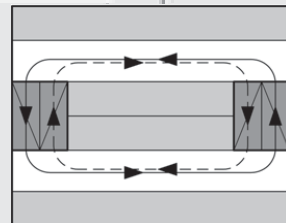
Појединачна  
и удвојена  
права кратка косина



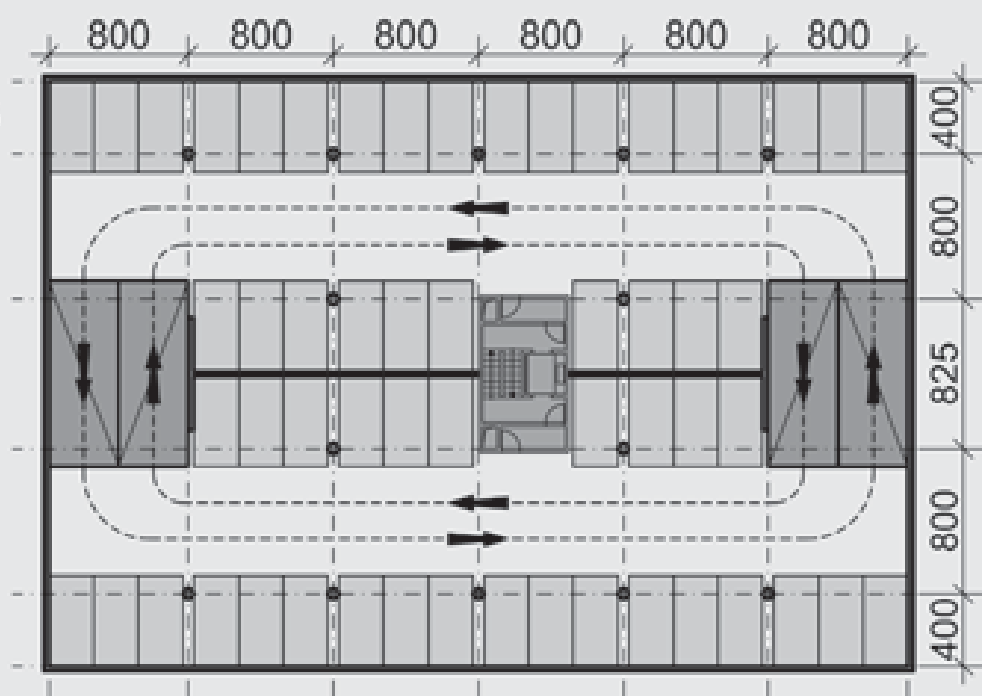


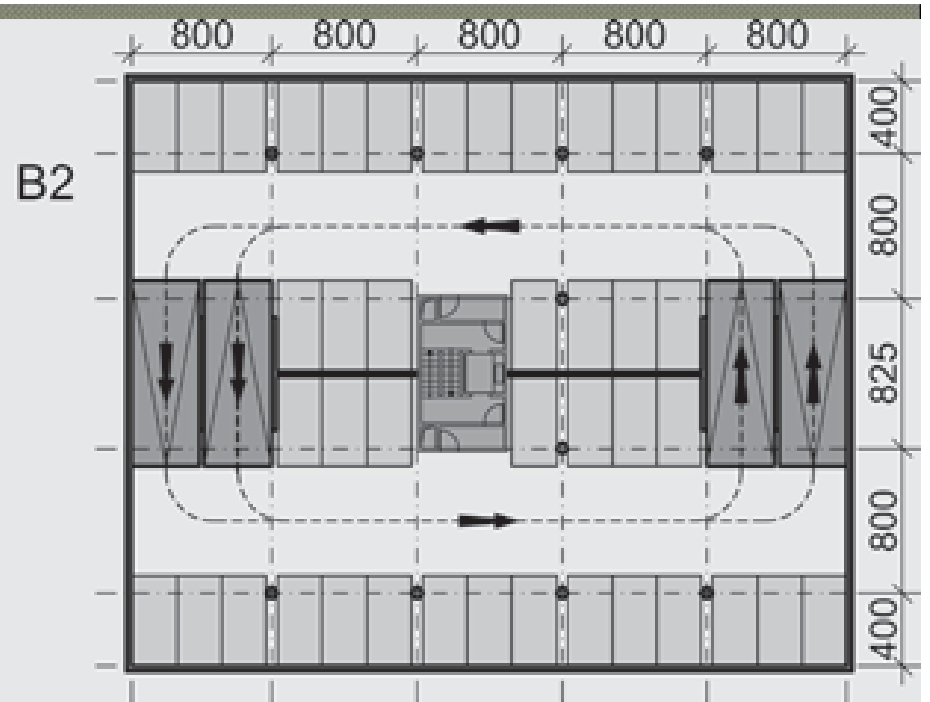
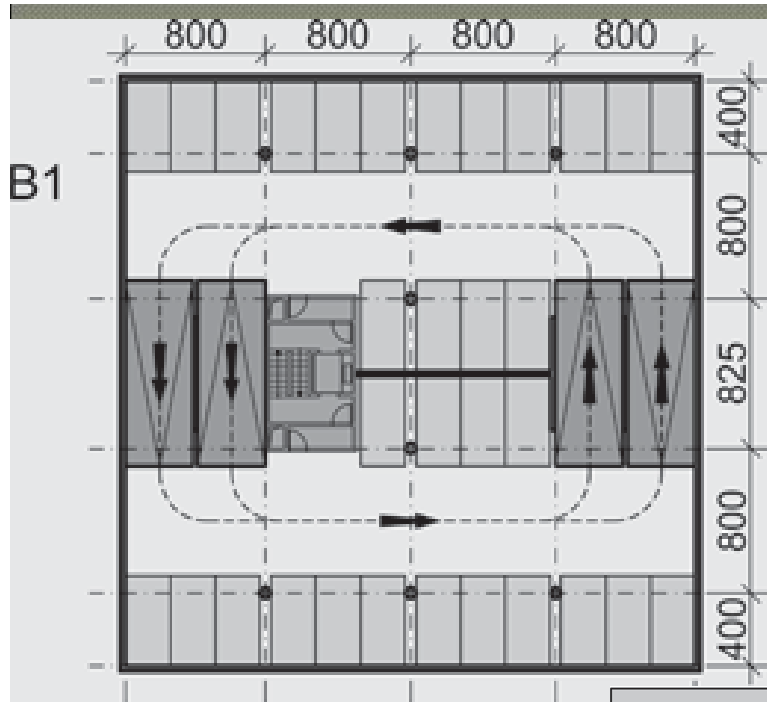


Варијанта А

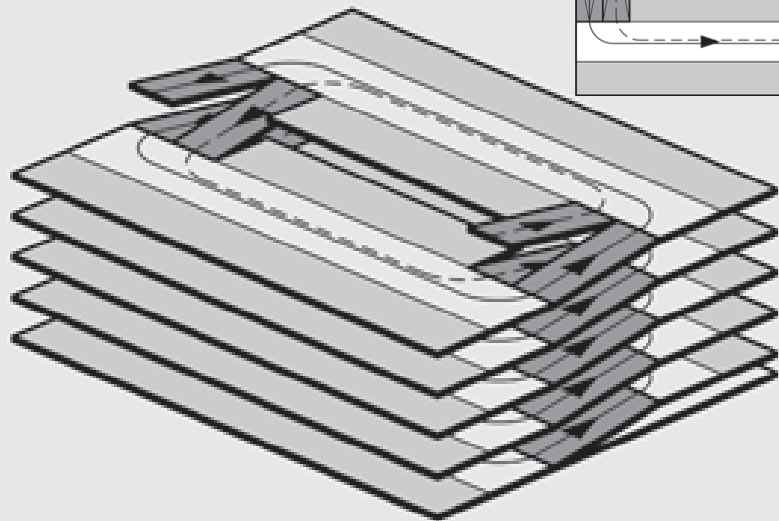
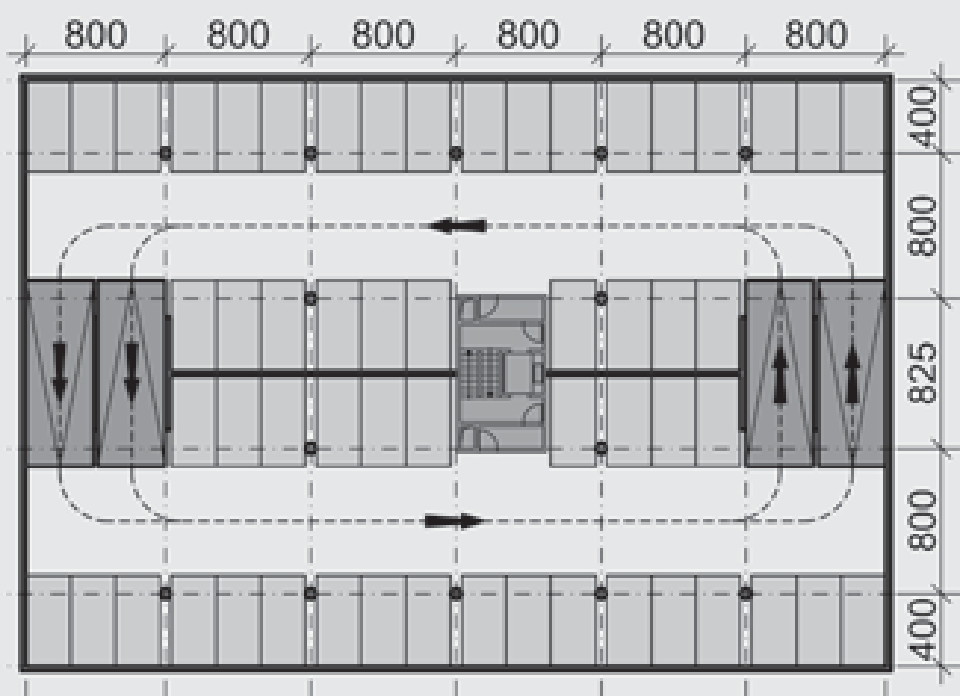
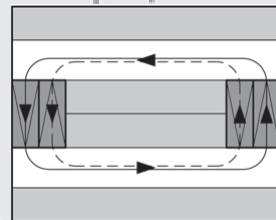


Maße in cm





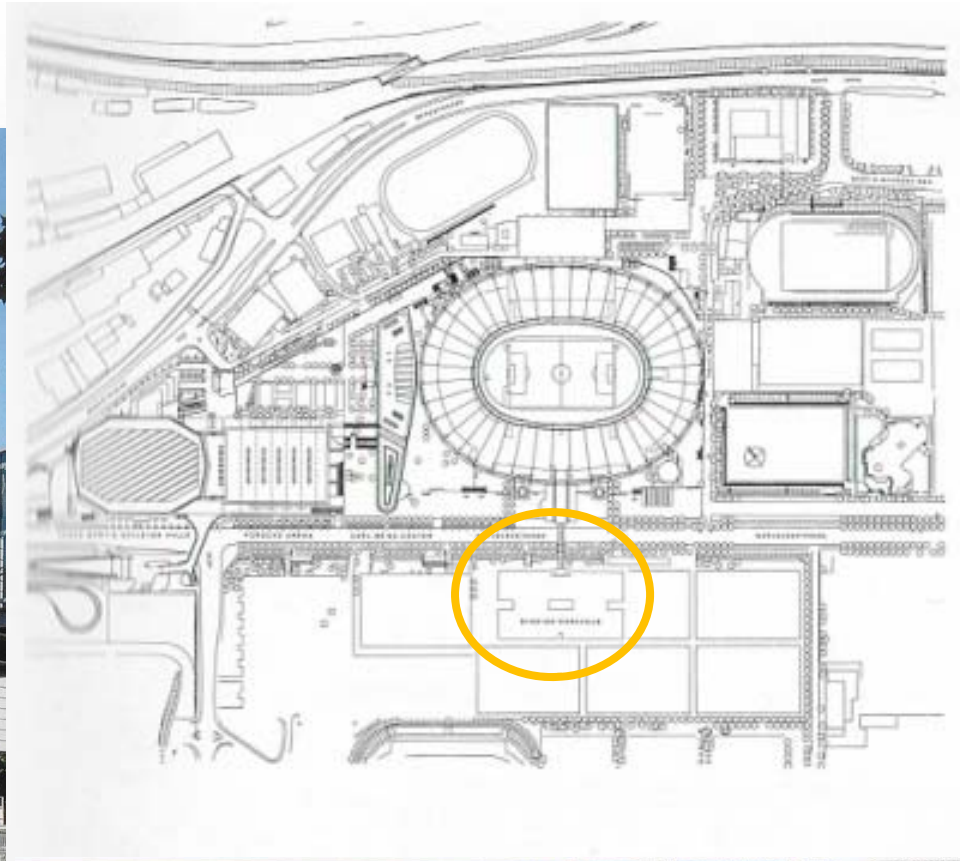
Варијанта В

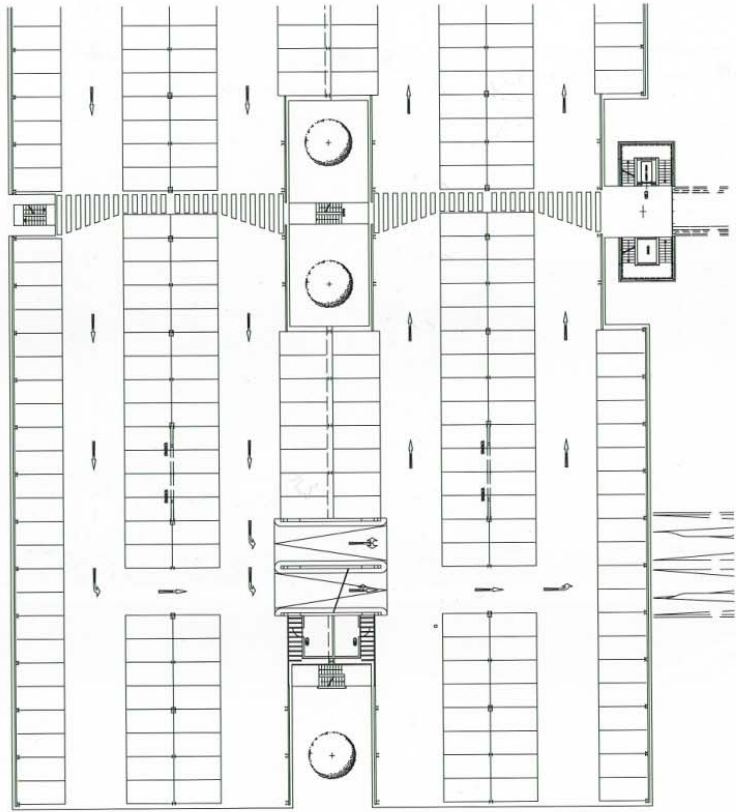


Maße in cm



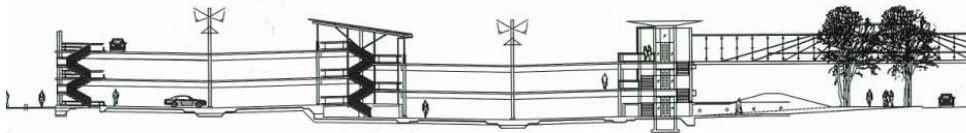
Gottlieb-Daimler-Stadion  
Stuttgart, Germany



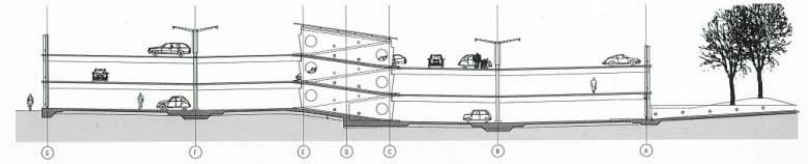
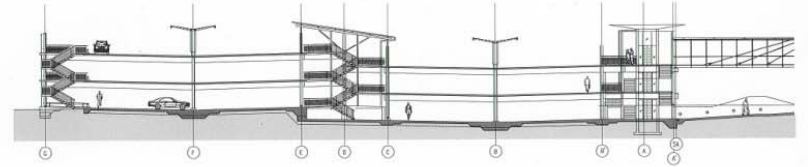
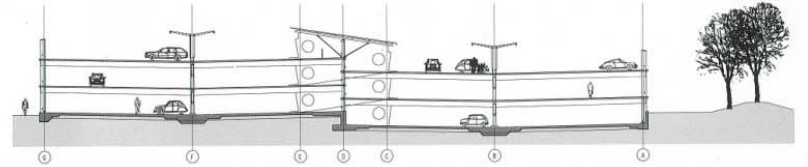


Car park

Footpath

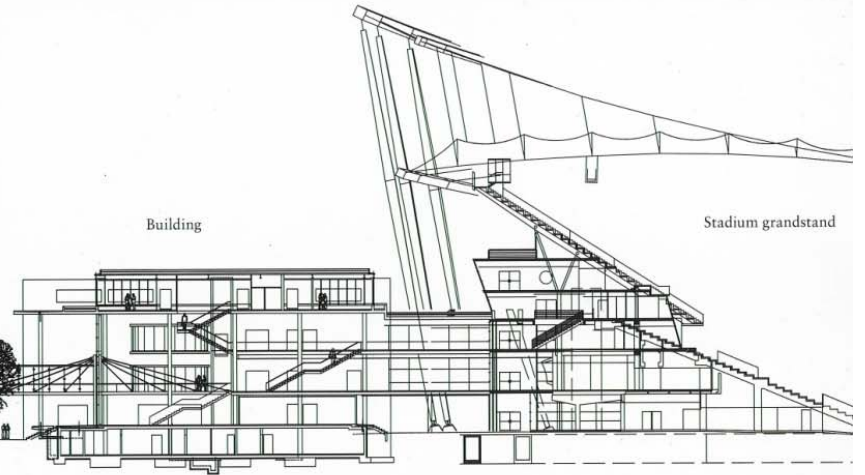


>k



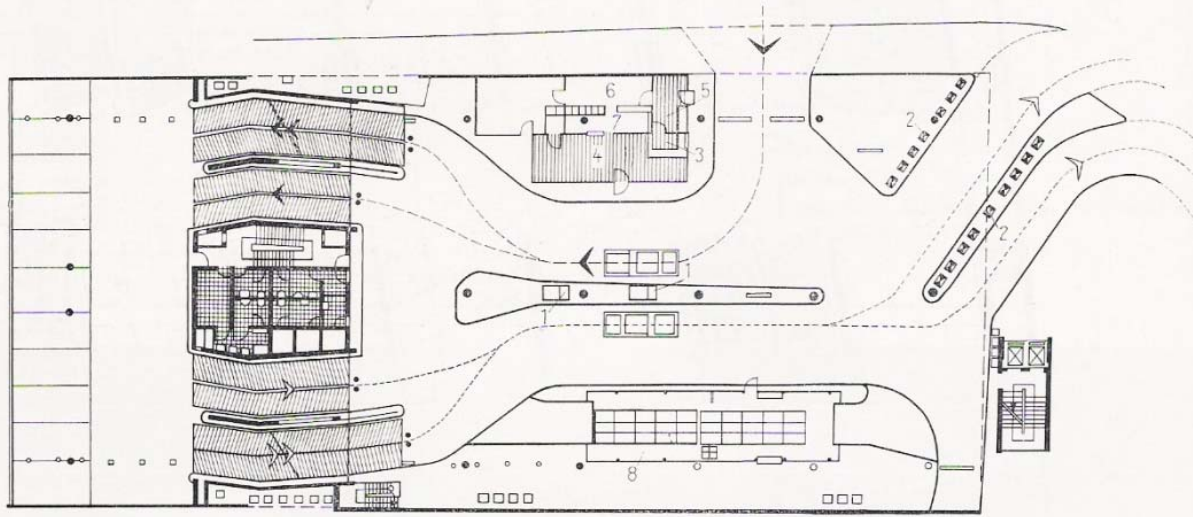
Building

Stadium grandstand





Freestanding multistorey car parks > Gottlieb-Daimler-Stadion, Stuttgart

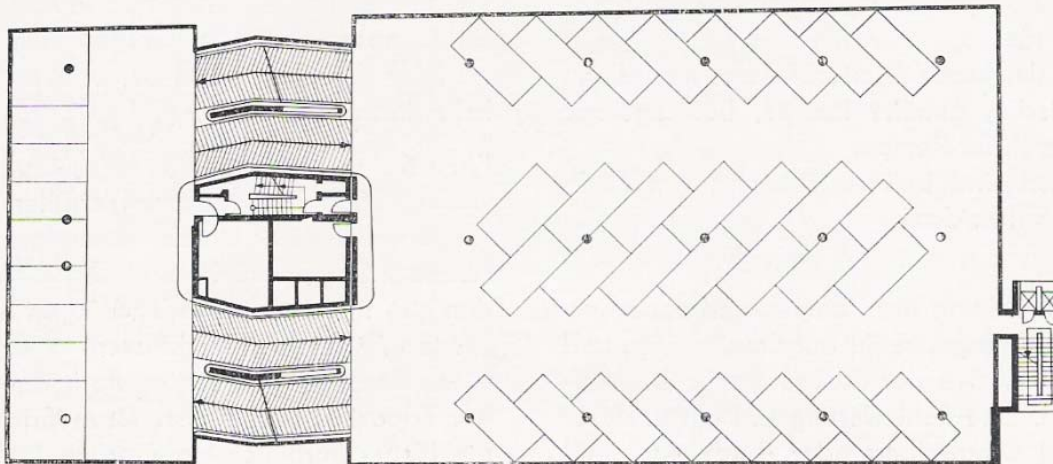


131 Grundrisse

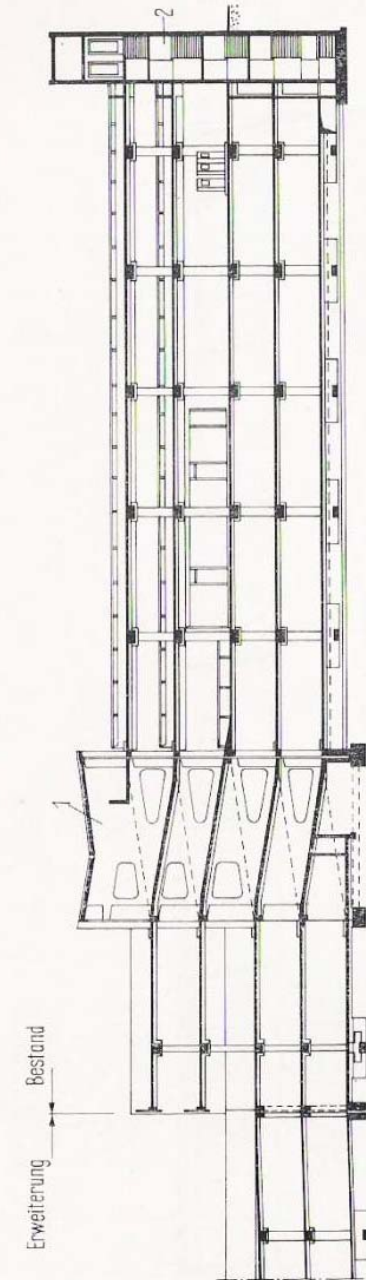
a) Erdgeschoßgrundriß

b) Normalgeschoßgrundriß

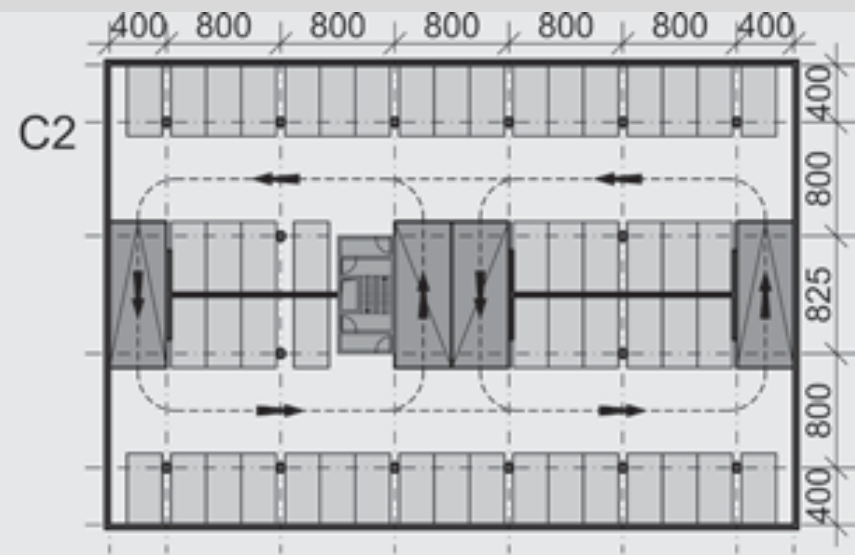
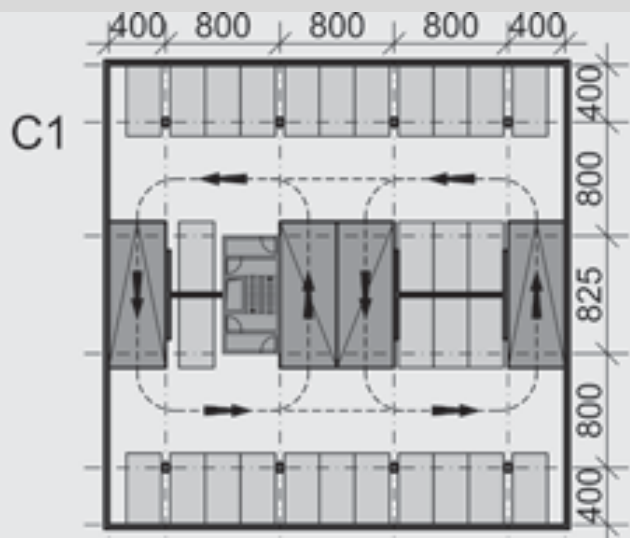
1 Kontrolle der Ein- und Ausfahrt; 2 Tankinsel an der Ausfahrt; 3 Kasse; 4 Kundenraum; 5 Tankwarte; 6 Aufenthaltsraum; 7 Verkauf; 8 Wagen-Service



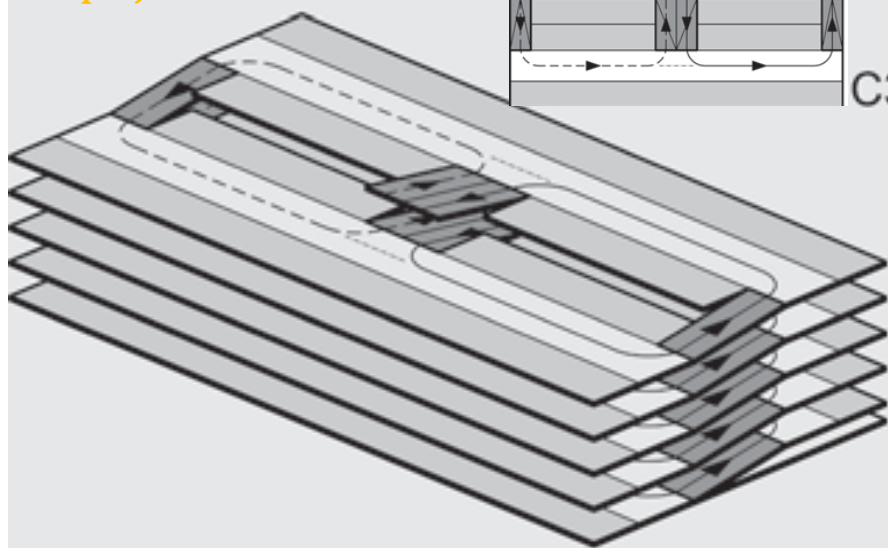
Bilder 130 bis 132 Parkhaus Breuninger in Stuttgart, 1963 mit dem Paul-Bonatz-Preis der Stadt Stuttgart ausgezeichnet  
Kapazität 311 Pkws in der ersten Ausbaustufe  
Entwurf: G. Wiegand, München



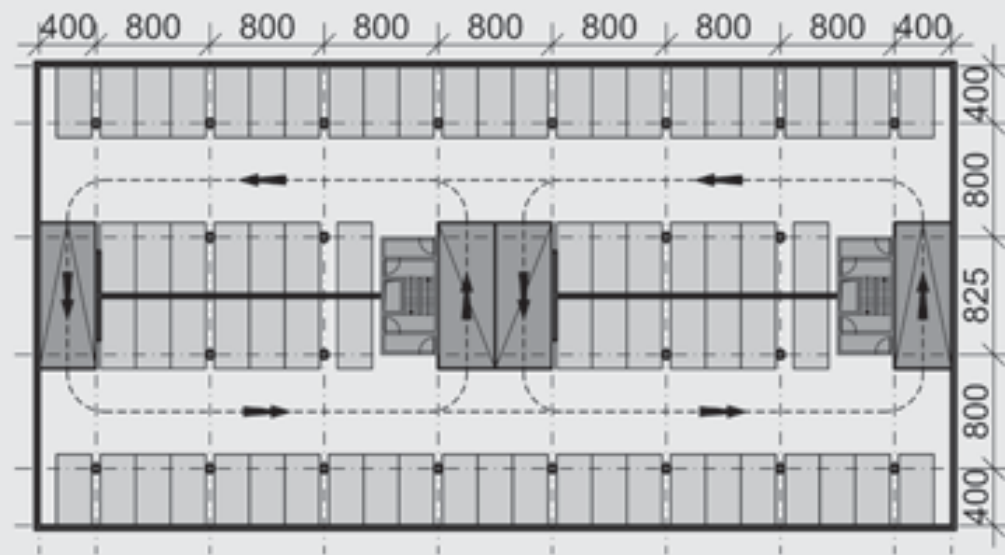
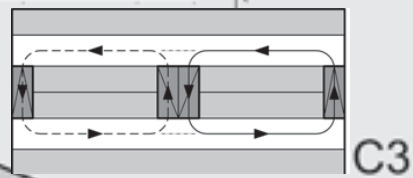
130 Längsschnitt durch die Rampe 1 Rampenturm; 2 Treppen- und Aufzugsturm



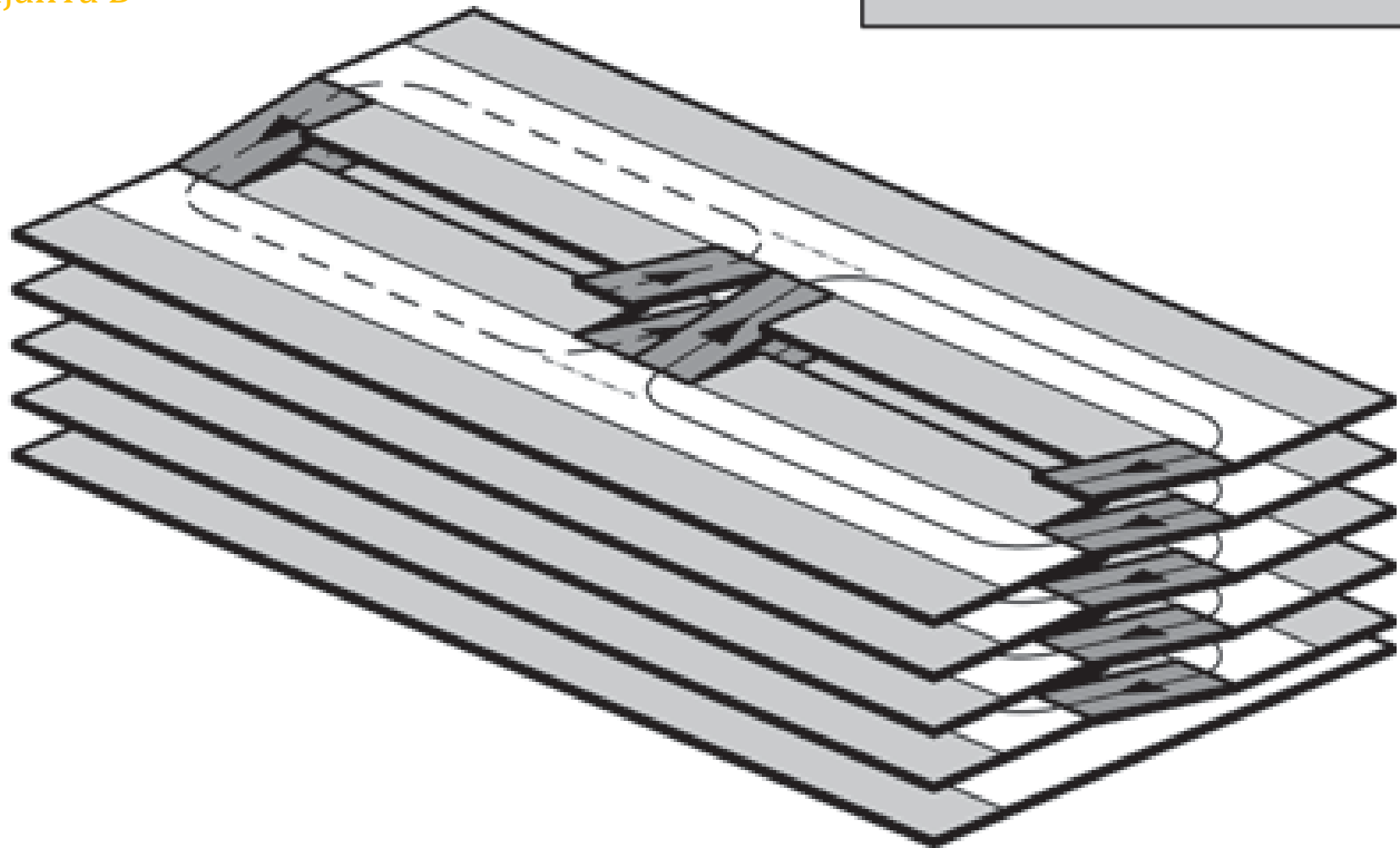
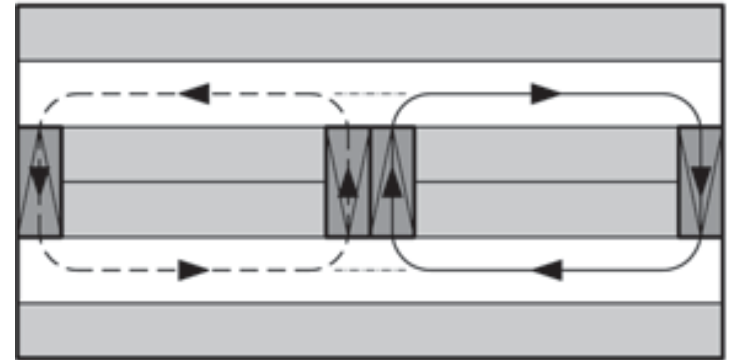
Варијанта С

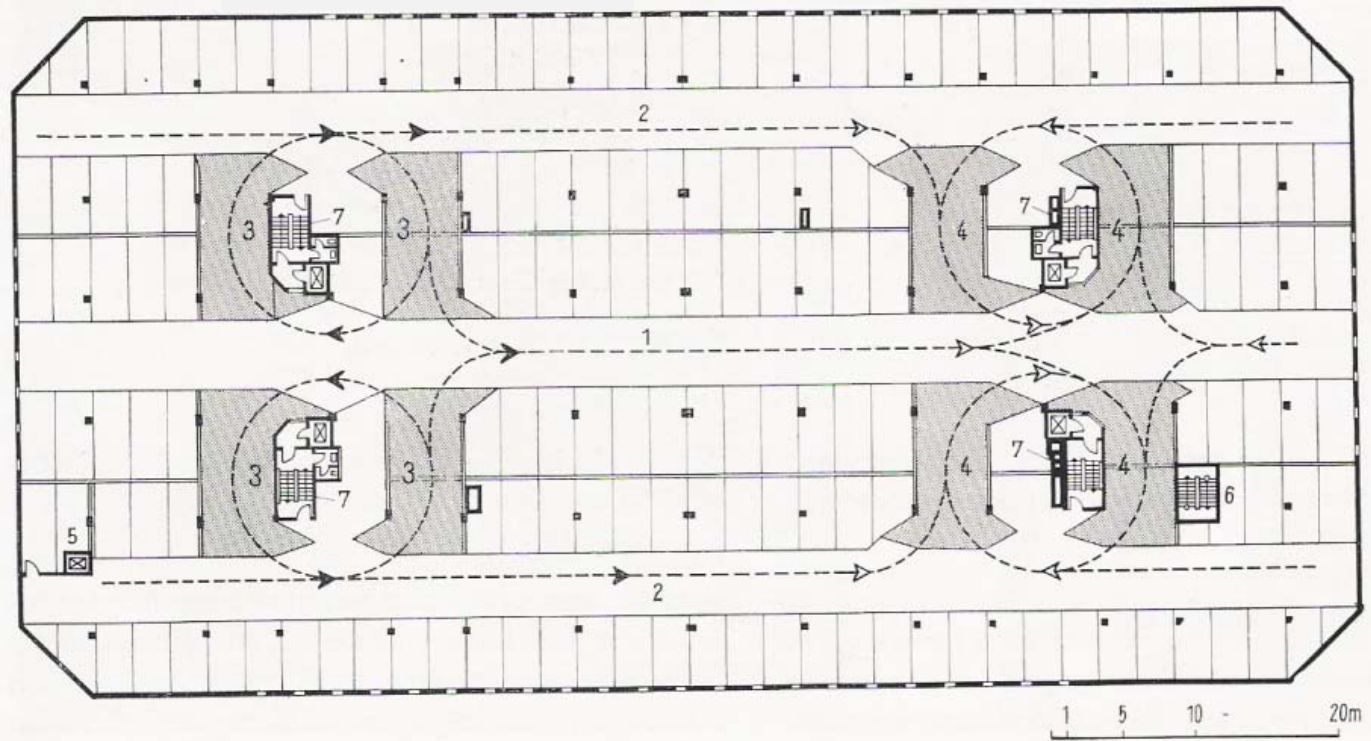
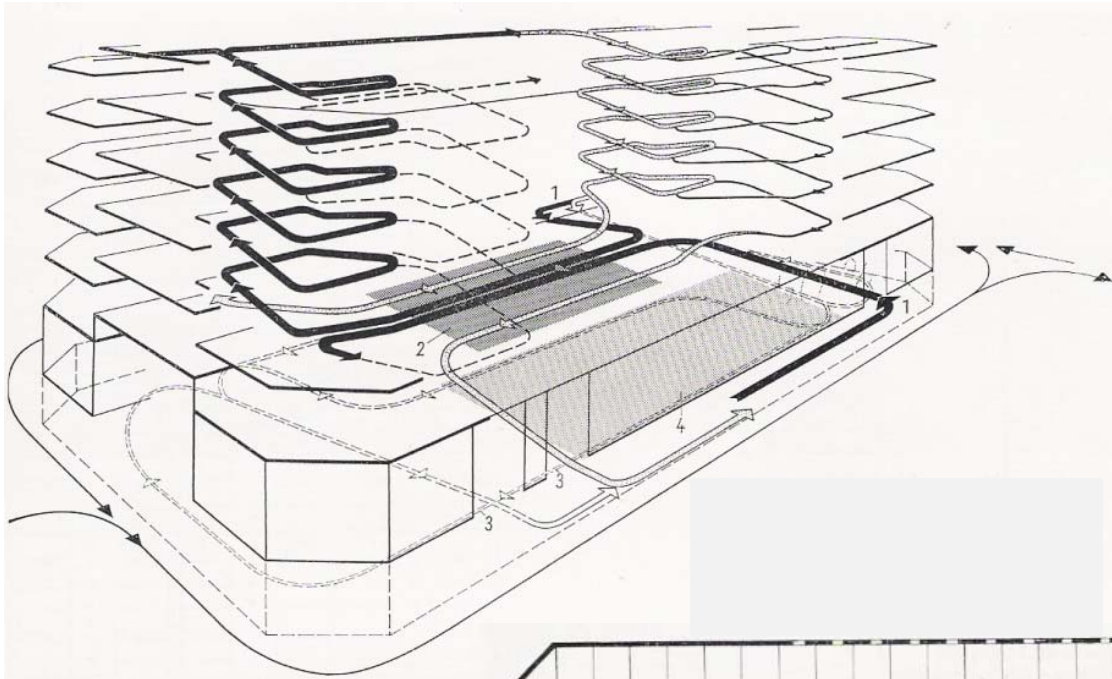


Маße in cm

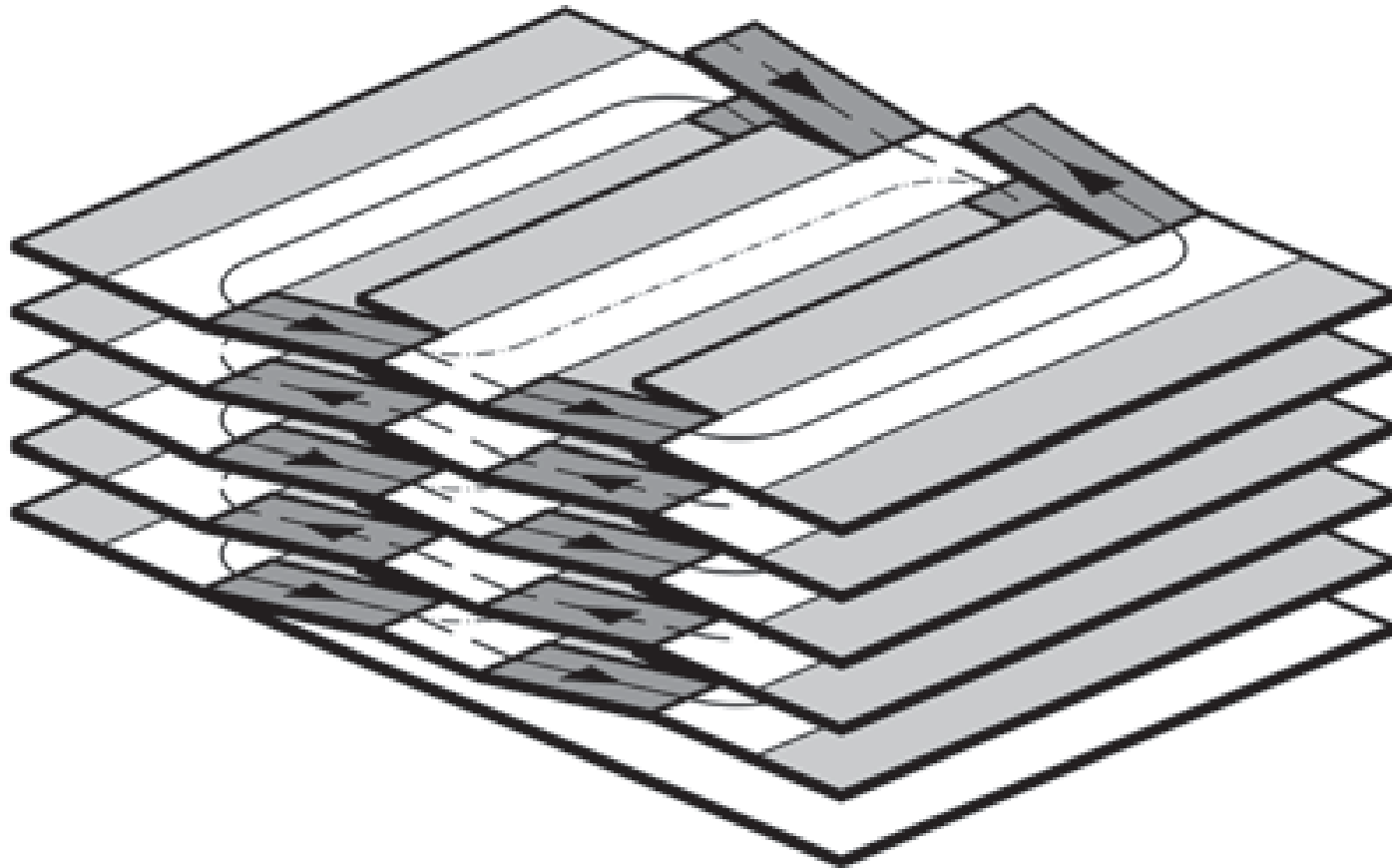
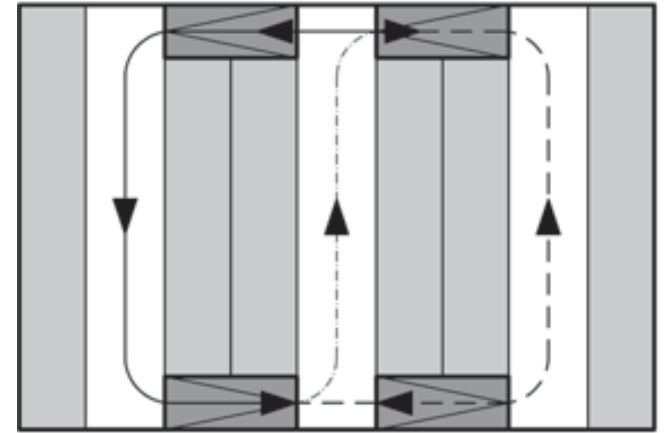


Варијанта D



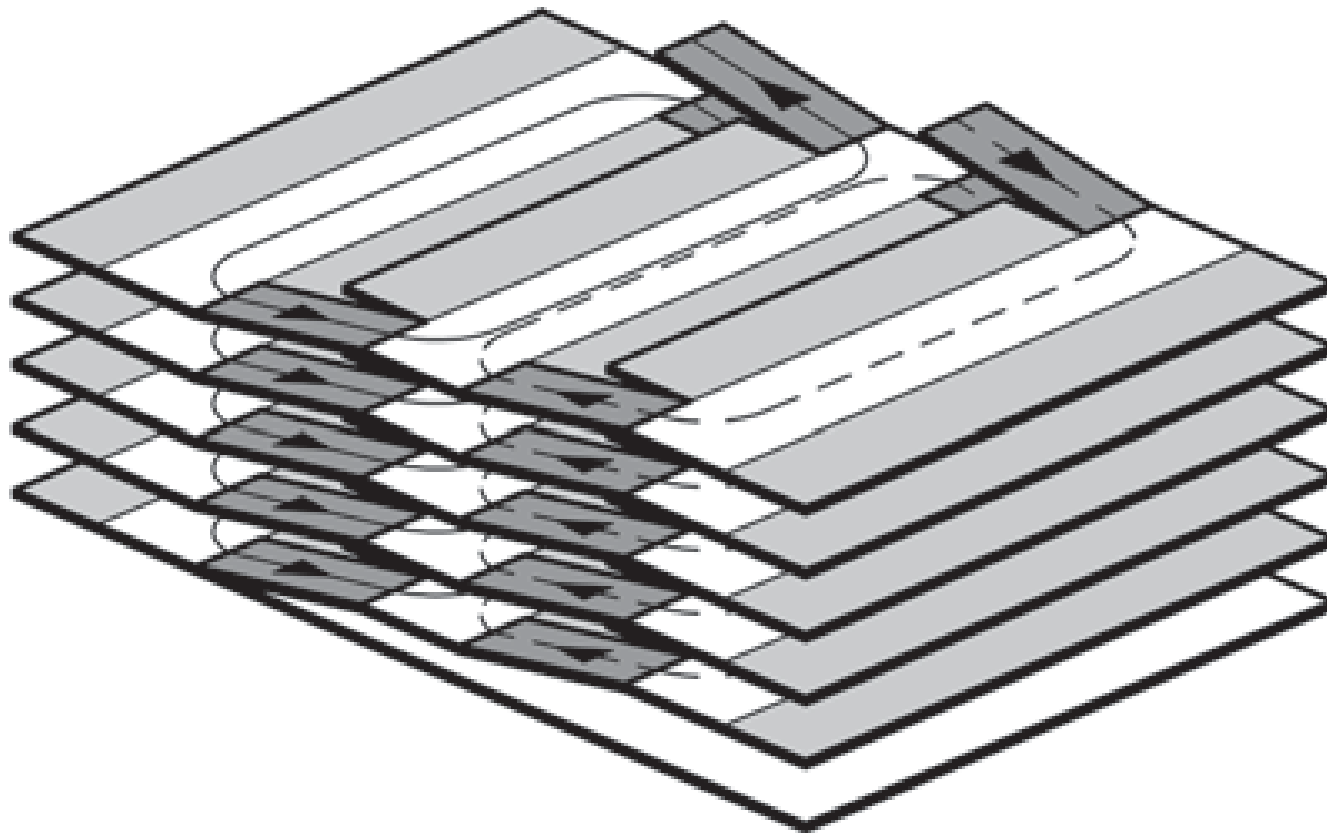
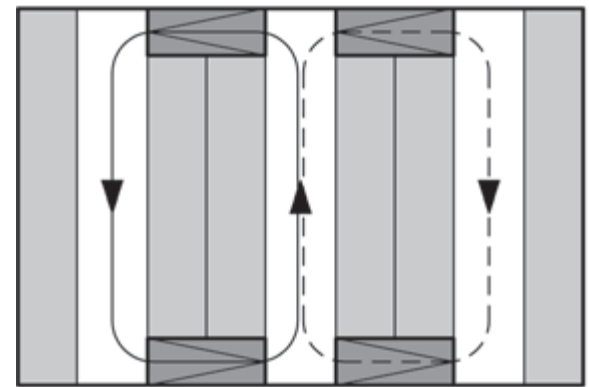


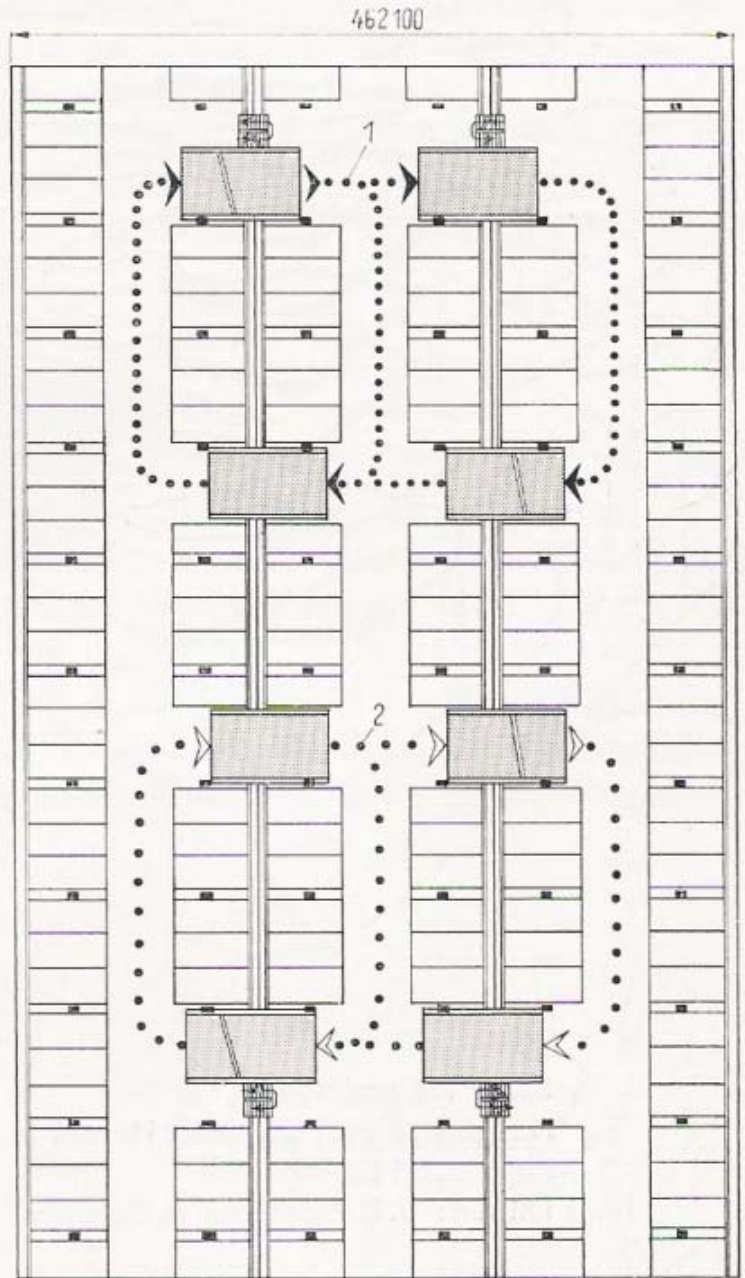
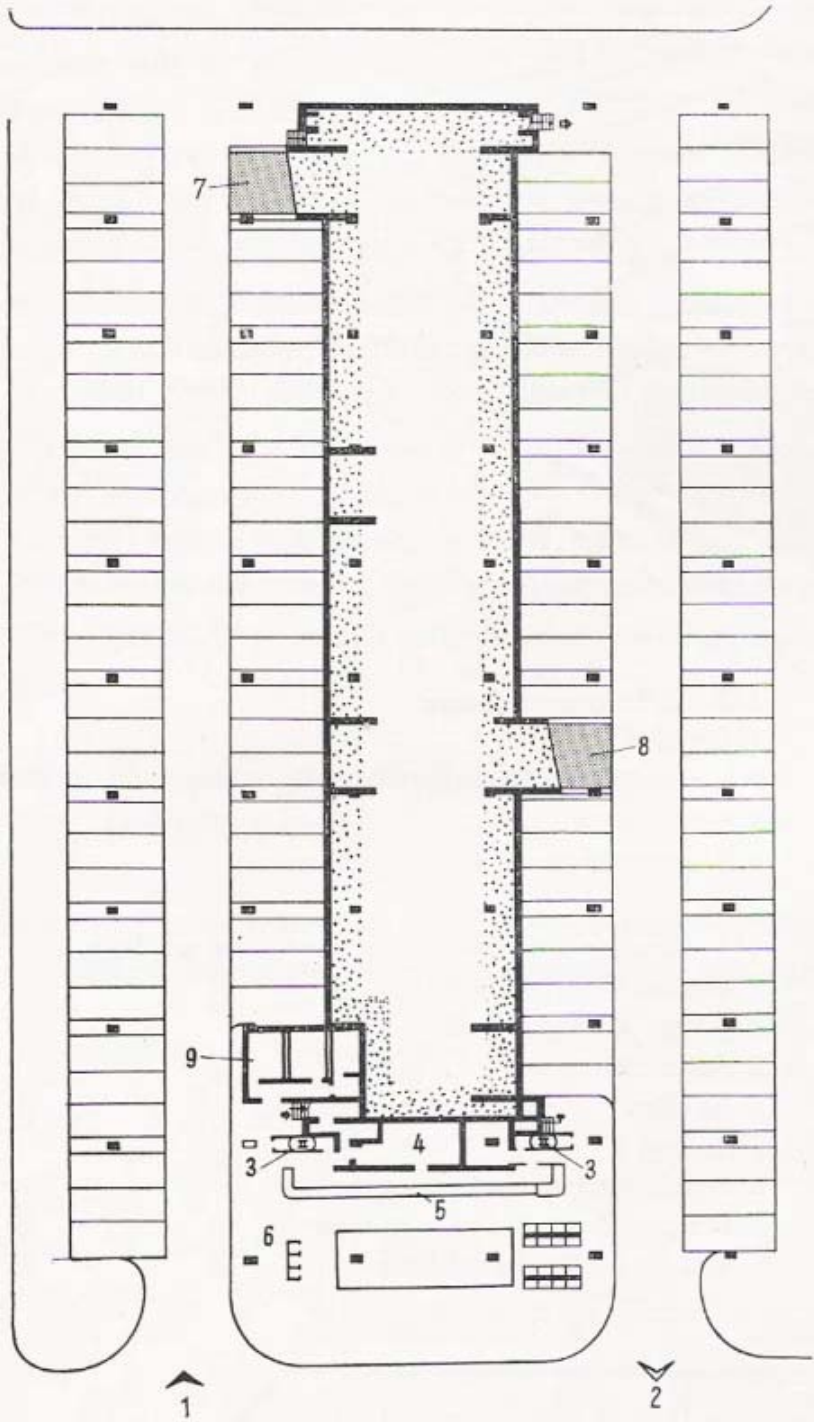
Варијанта Е



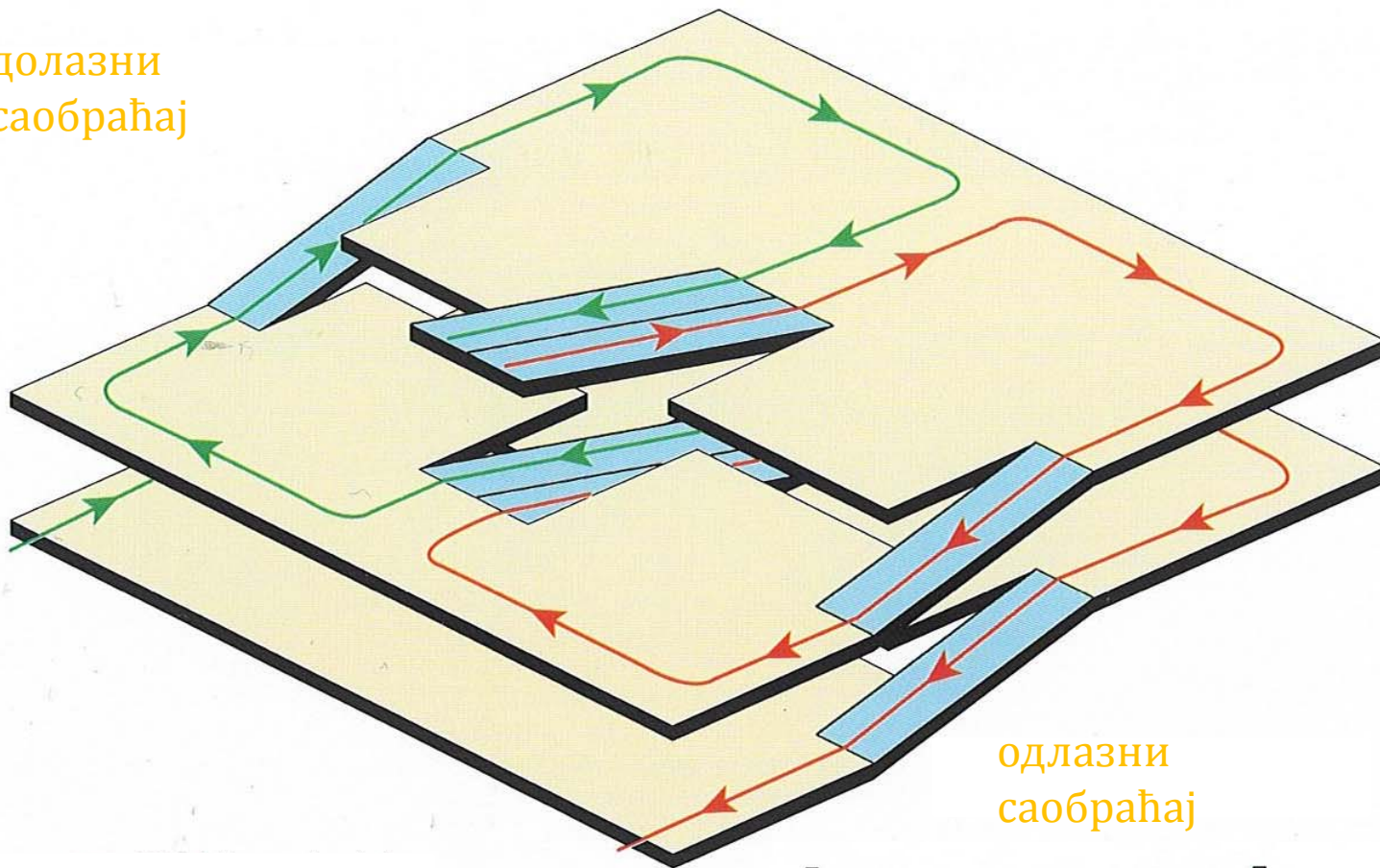


Варијанта F

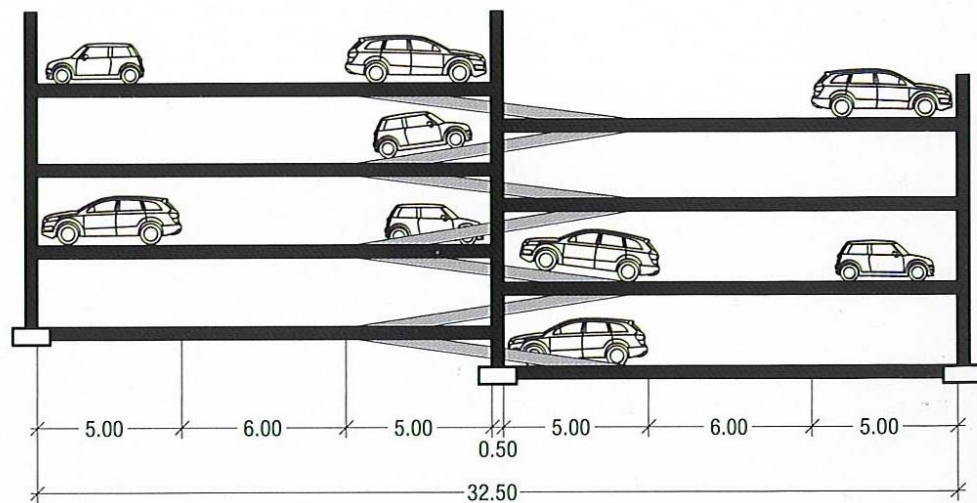


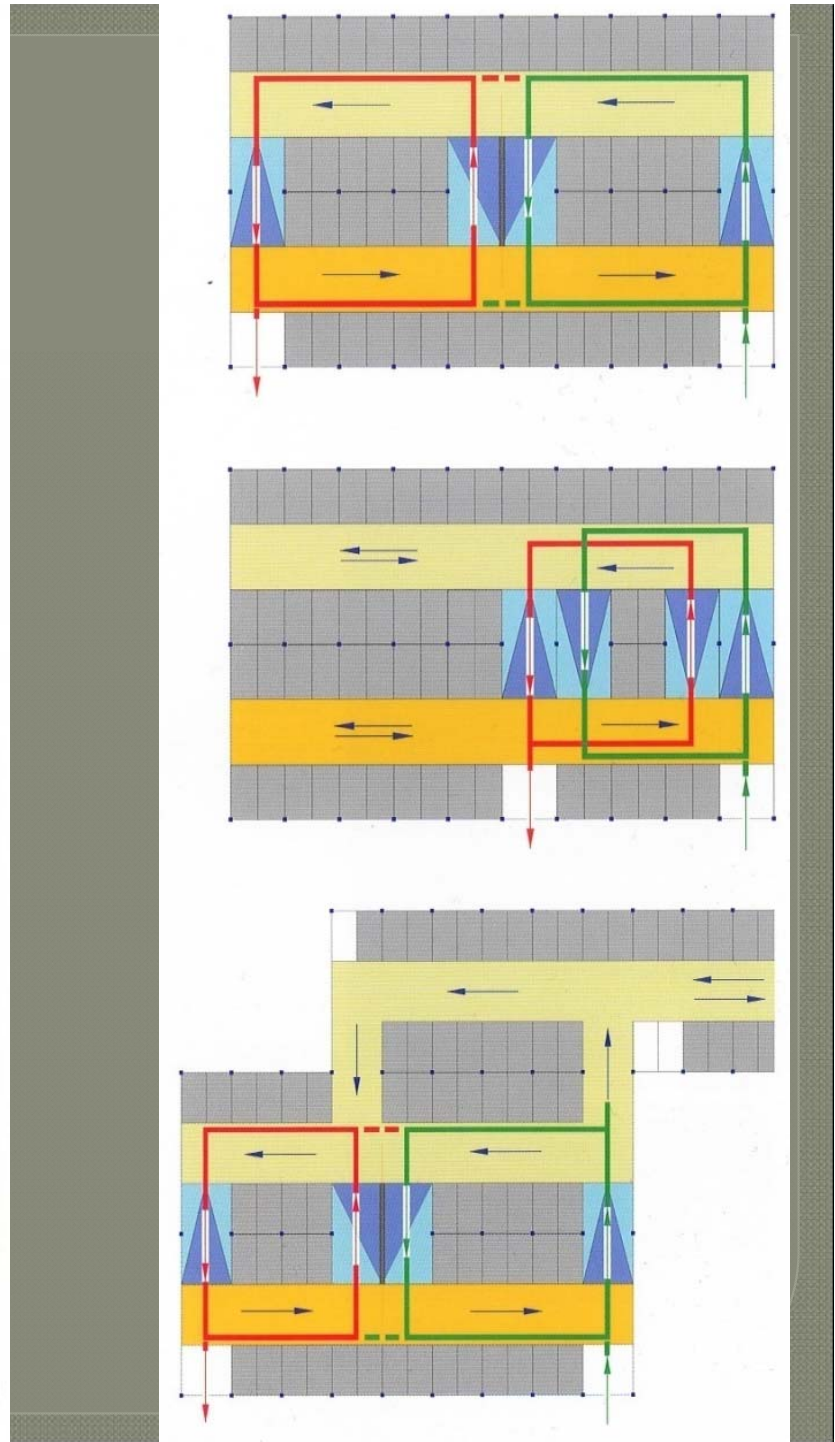
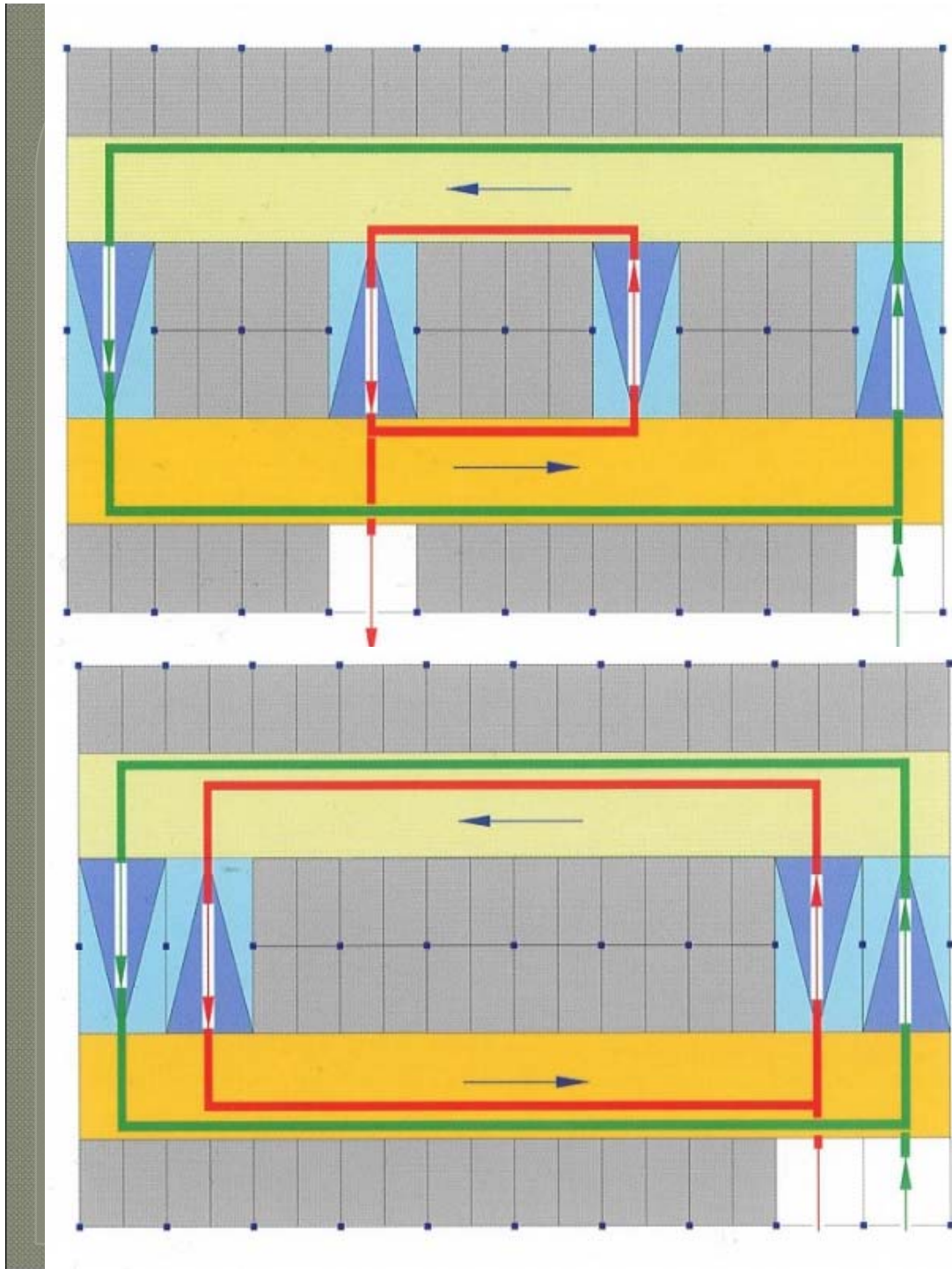


долазни  
саобраћај



одлазни  
саобраћај



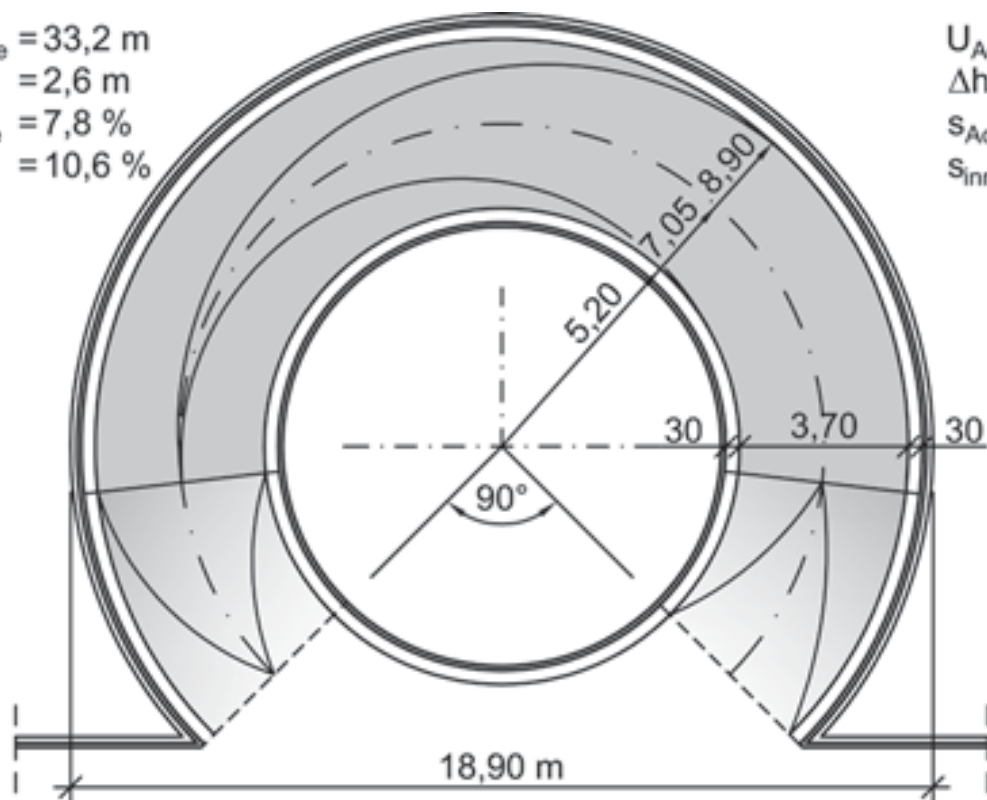


# Јавне паркинг гараже са кружним косинама

---

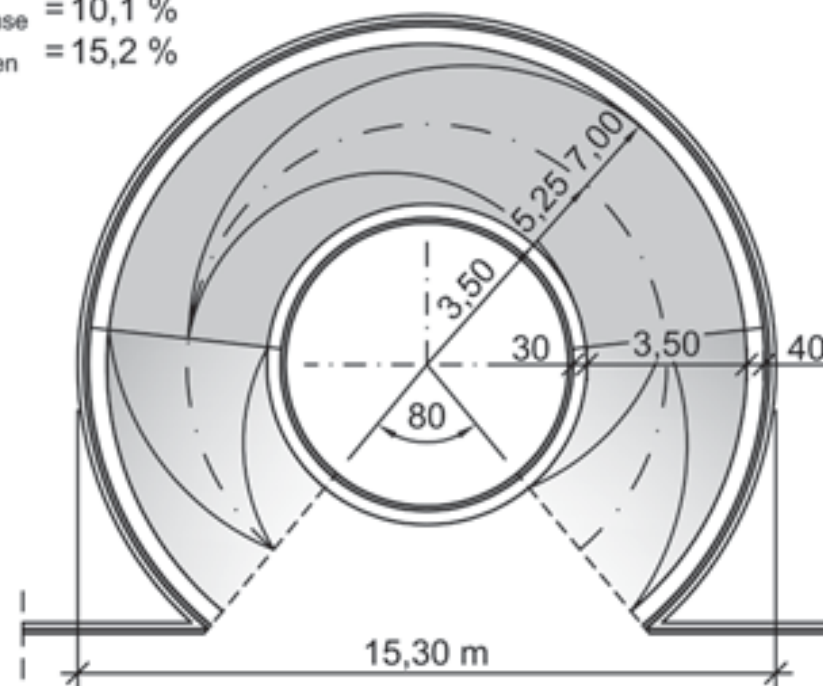
Појединачне  
кружне косина

$U_{\text{Achse}} = 33,2 \text{ m}$   
 $\Delta h = 2,6 \text{ m}$   
 $S_{\text{Achse}} = 7,8 \%$   
 $S_{\text{innen}} = 10,6 \%$



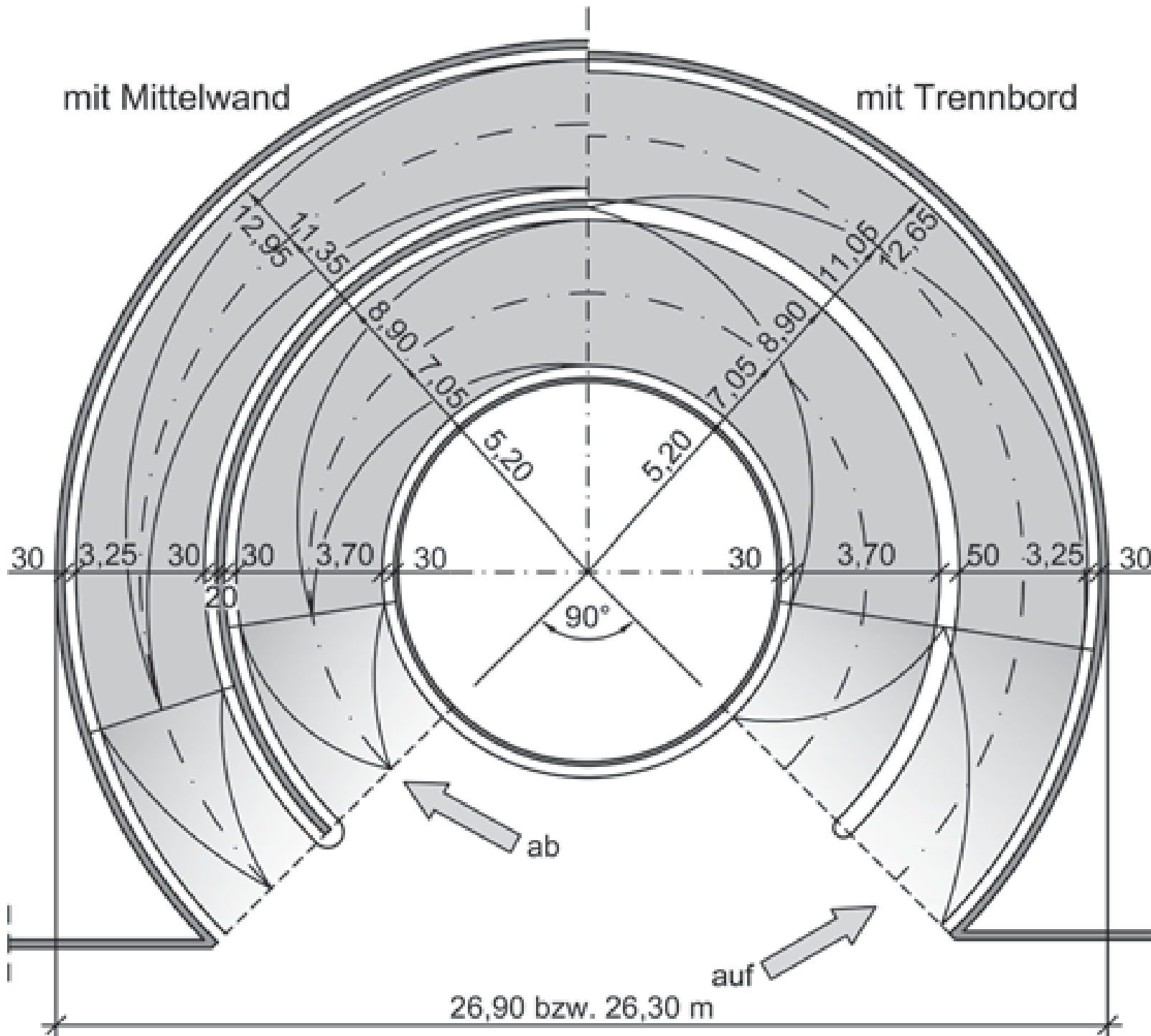
ОПТИМАЛНО

$U_{\text{Achse}} = 25,7 \text{ m}$   
 $\Delta h = 2,6 \text{ m}$   
 $S_{\text{Achse}} = 10,1 \%$   
 $S_{\text{innen}} = 15,2 \%$

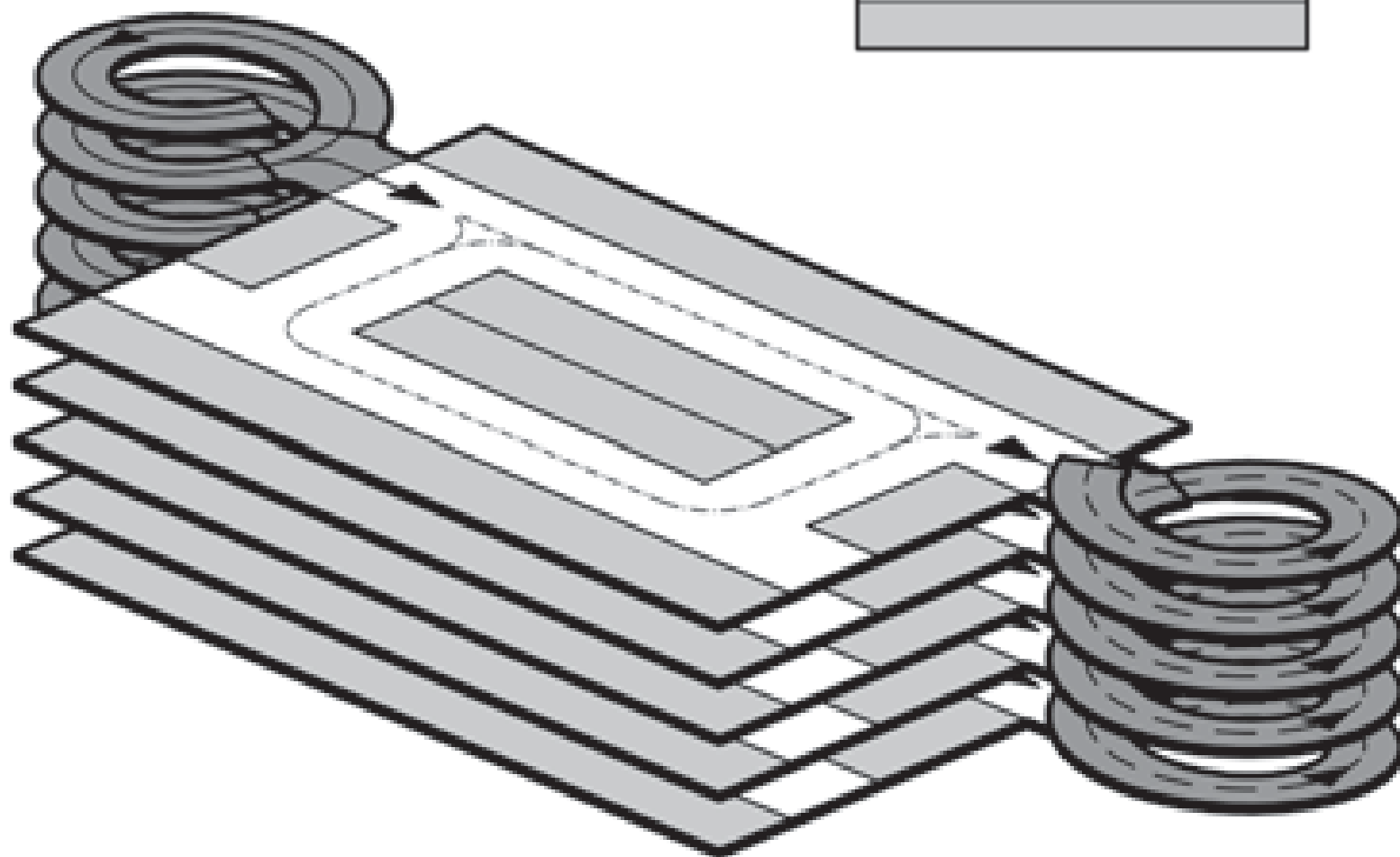
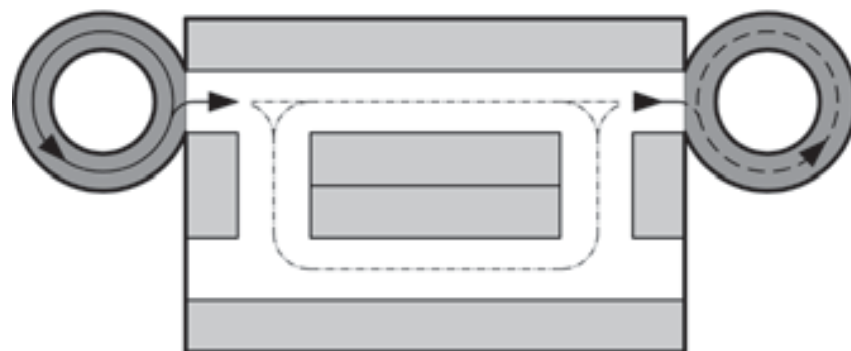


НАЈМАЊЕ

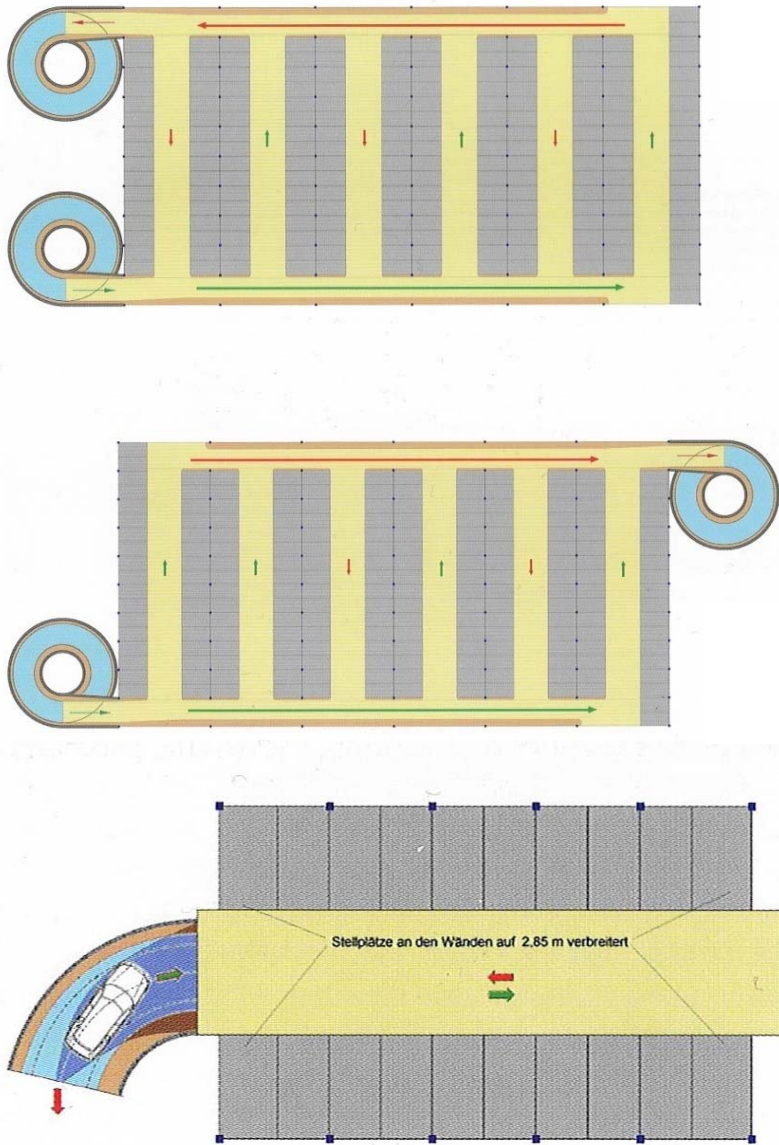
Удвојена  
кружна  
косина



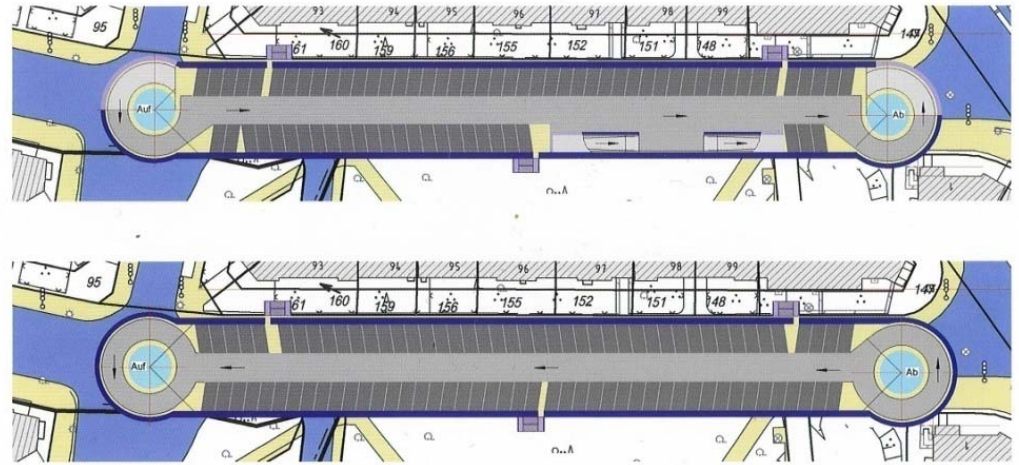
Варијанта А



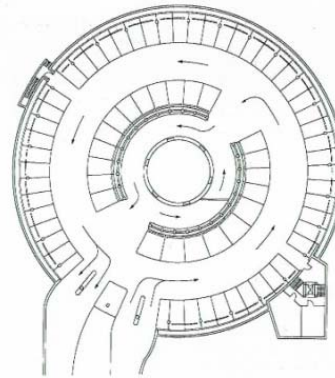




**Image 122:** Access to a parking street via its central axis using a curved combined entry and exit drive ramp



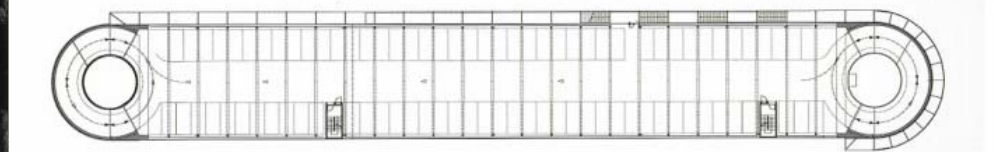
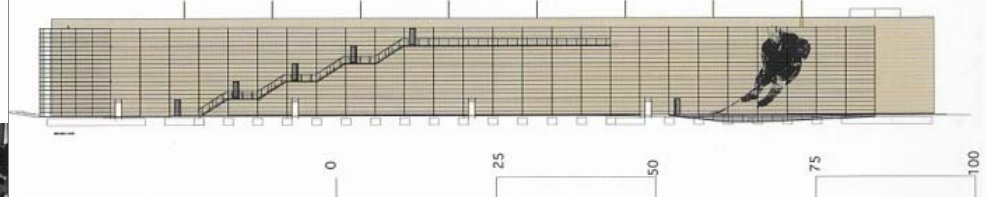
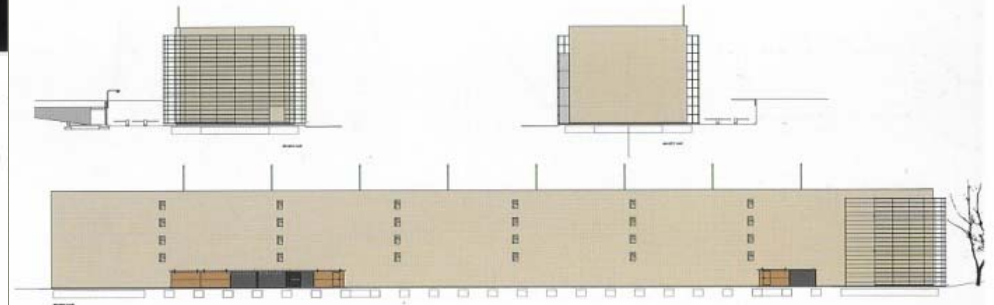
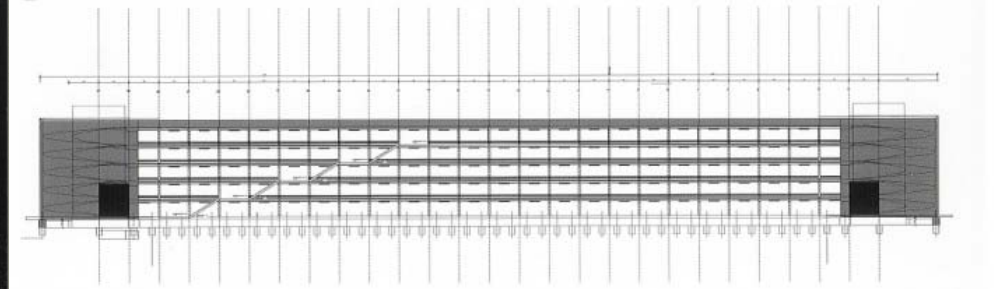
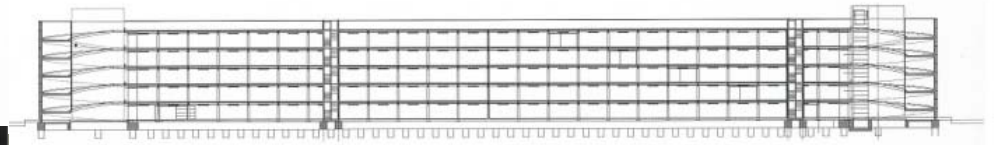
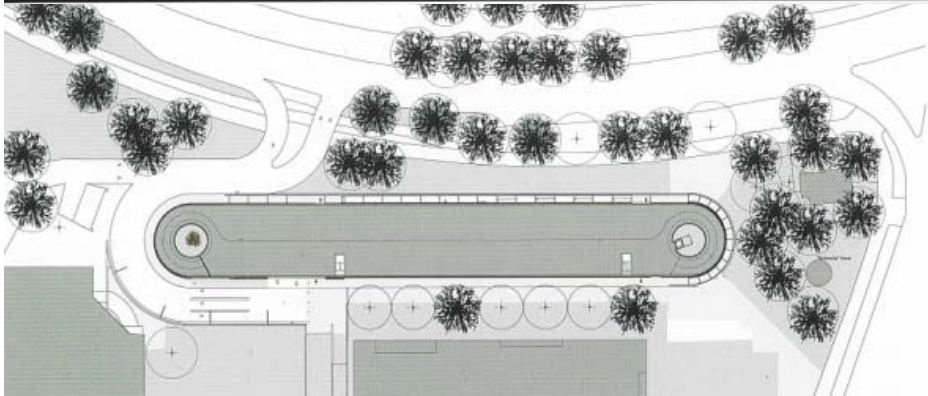
**Image 127:** Design of a particularly narrow underground car park below a public road with vertical access via spiral ramps located at the ends of the parking streets; upper plan: level -1, including ramps for road access; lower plan: levels -2 and -3

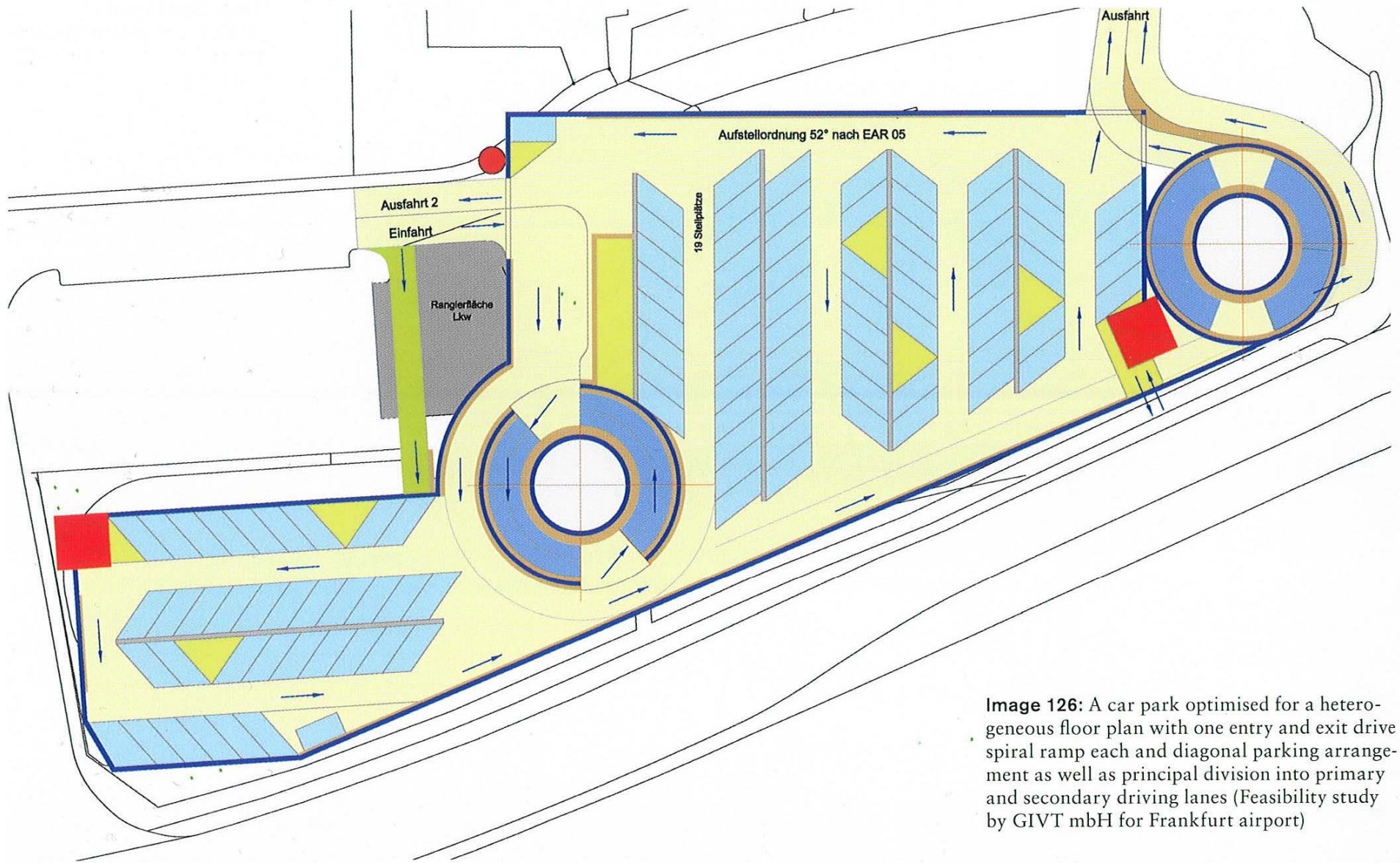


**Image 128:** Full-floor cylindrical car park (the *Rondell*, Hameln); exterior view and **Image 129:** Interior view with central spiral ramp in Hameln; 486 parking spaces

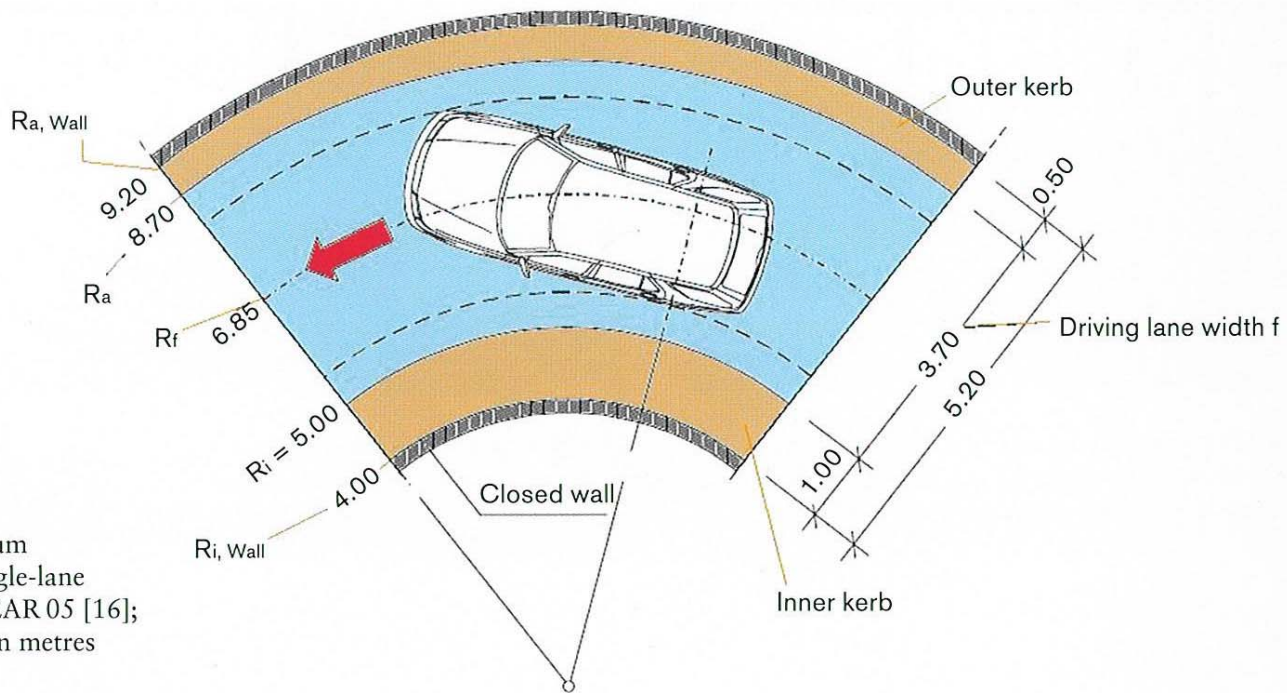


**Bollwerksturm car park**  
Heilbronn, Germany

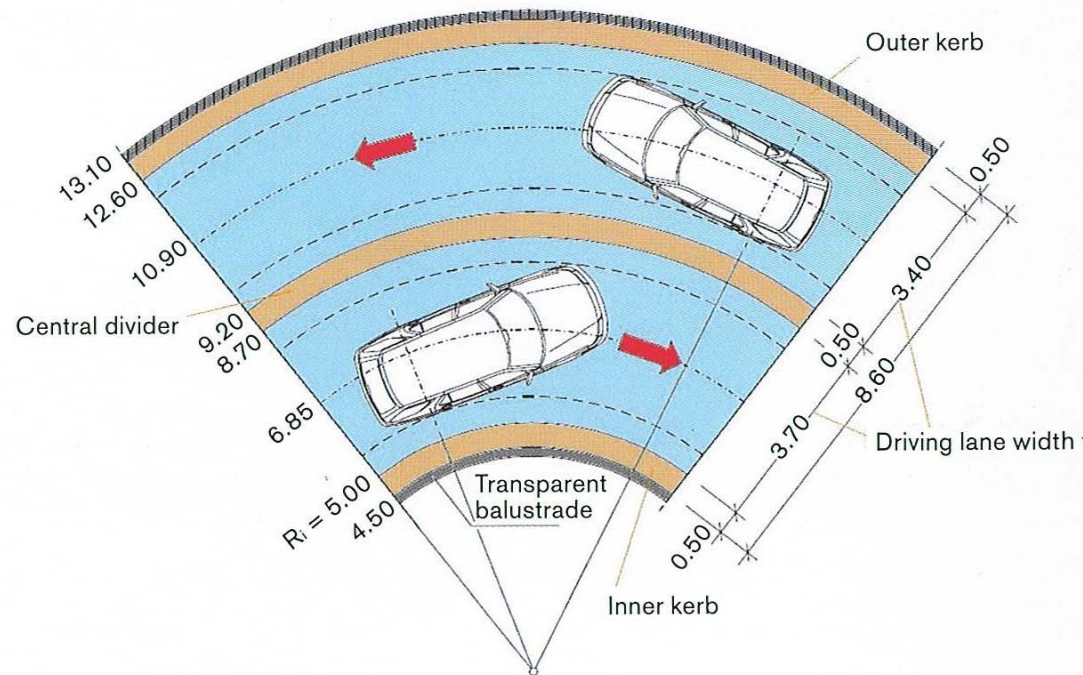




**Image 126:** A car park optimised for a heterogeneous floor plan with one entry and exit drive spiral ramp each and diagonal parking arrangement as well as principal division into primary and secondary driving lanes (Feasibility study by GIVT mbH for Frankfurt airport)



**Image 108:** Minimum dimensions of a single-lane spiral ramp as per EAR 05 [16]; all dimensions are in metres



**Image 113:** Minimum dimensions of a two-lane spiral ramp as per EAR 05 [16]; all dimensions are in metres



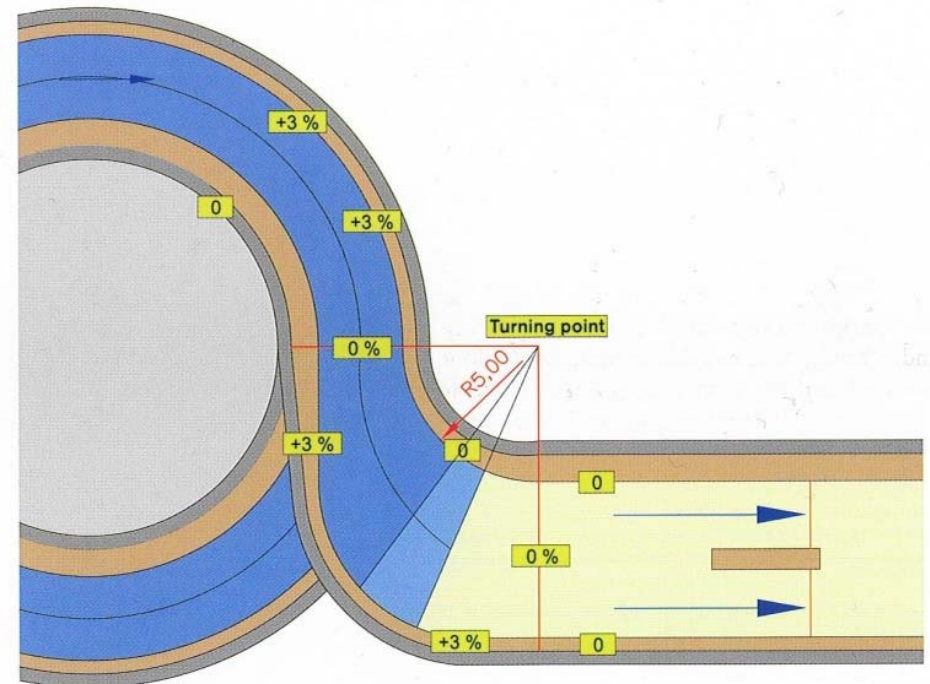
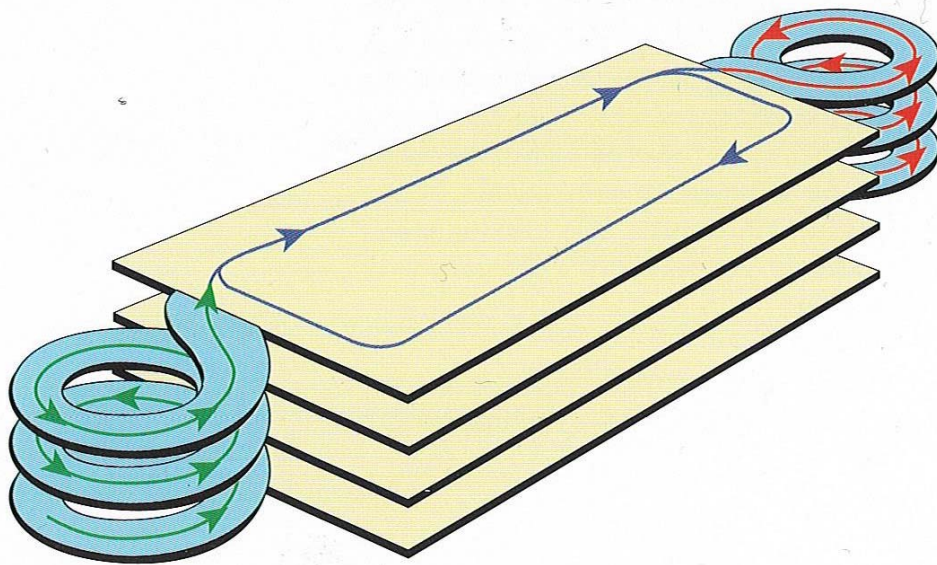
**Image 109:** EAR 05-compliant spiral ramp with all the required safety features (*Alter Steinweg, Münster*)



**Image 110:** Almost fully rule-compliant, highly transparent spiral ramp. This ramp, however, fails to provide safety kerbs on its outer side



**Image 111:** Spiral ramp with an only 3.50 metre wide driving lane without safety kerbs and guidance aids

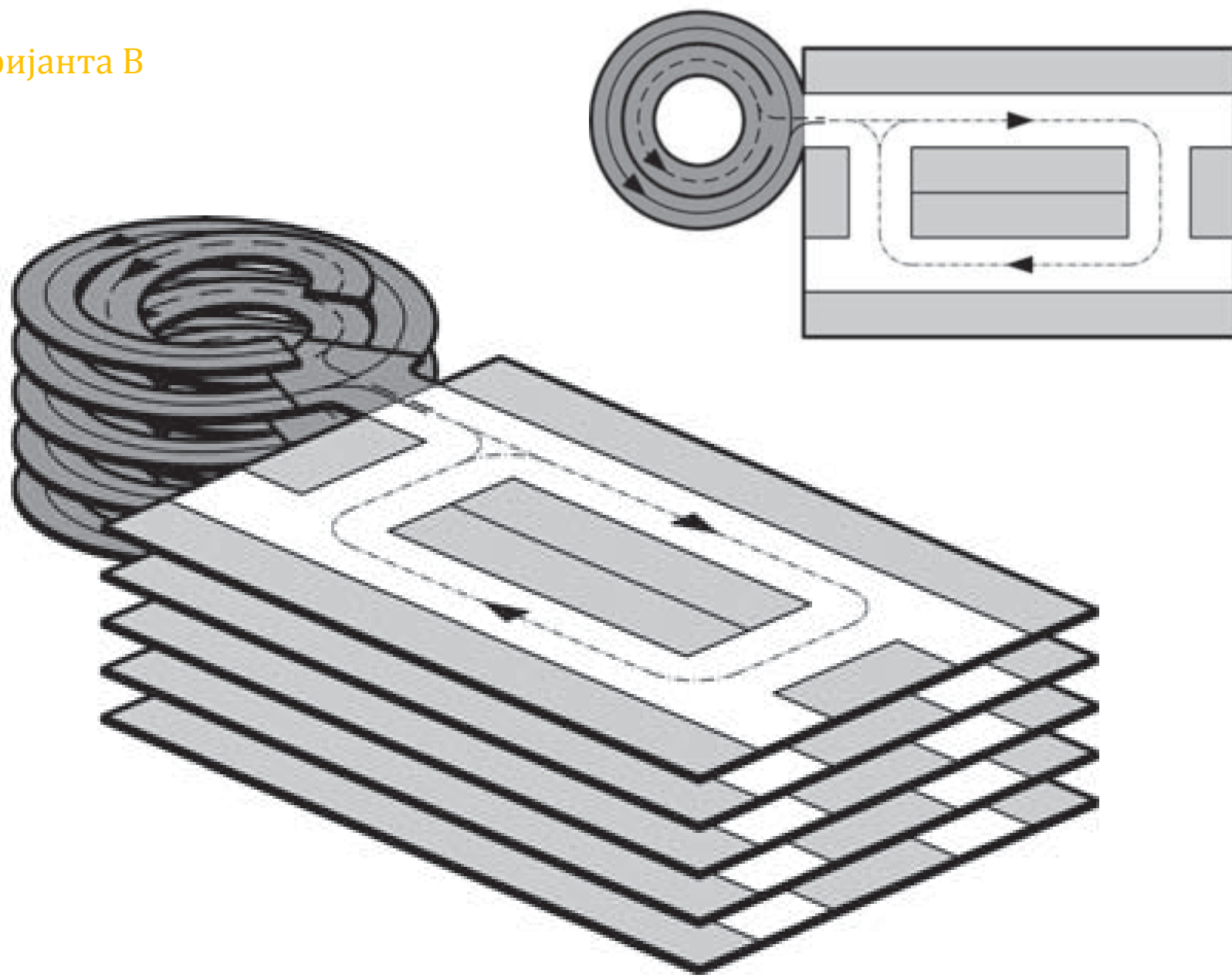


**Image 112:** Transition of the curve camber at the turning point between a spiral ramp and an adjoining exit drive

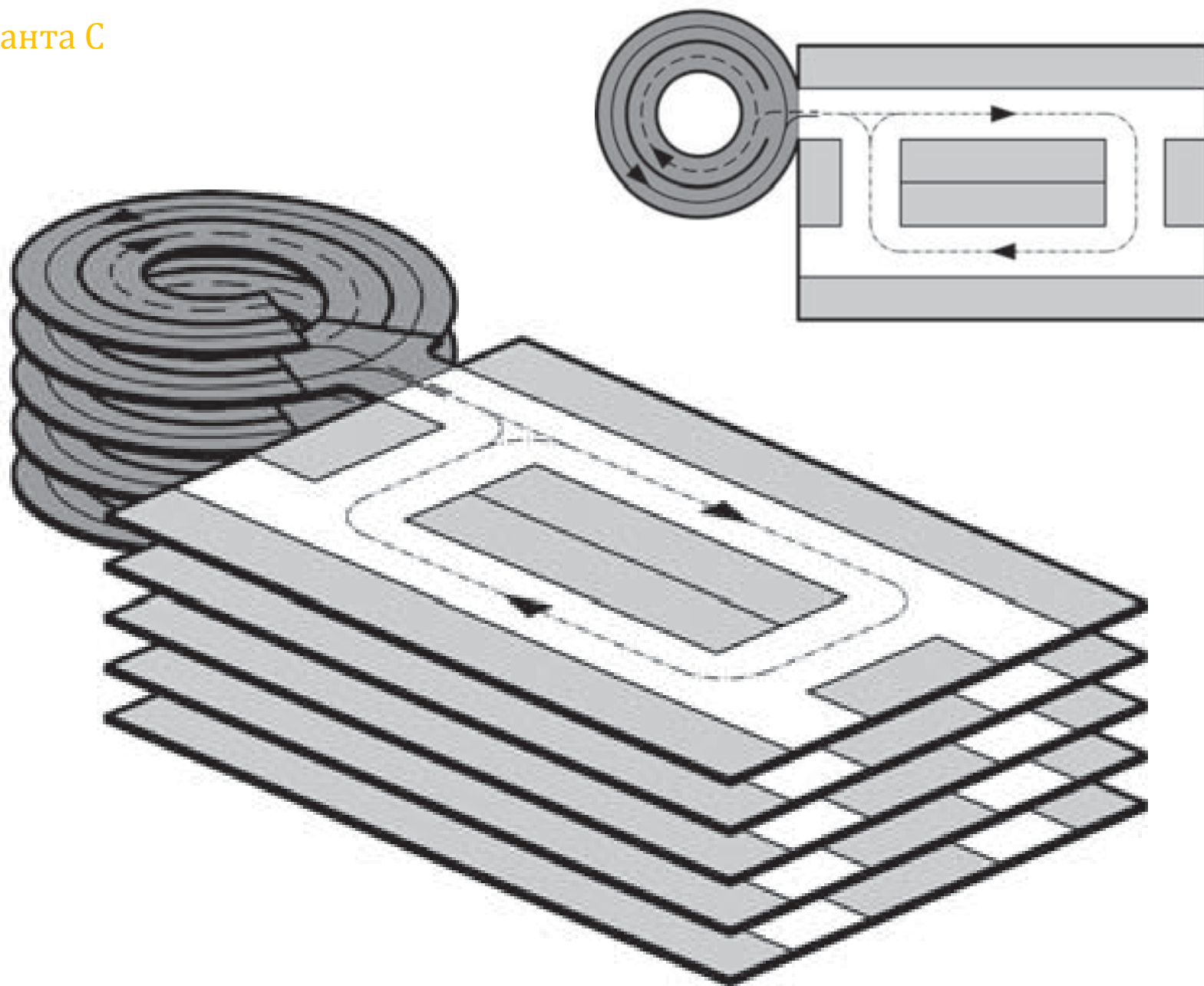
**Parking Garage Four, at the Raleigh-Durham International Airport, in North Carolina, has space for 6,150 vehicles.**



Варијанта В

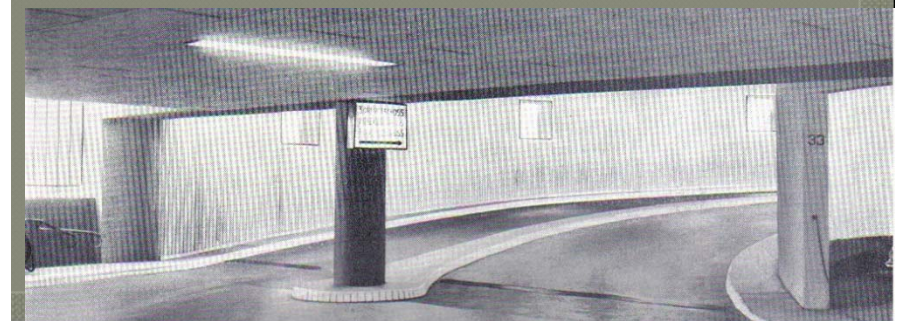
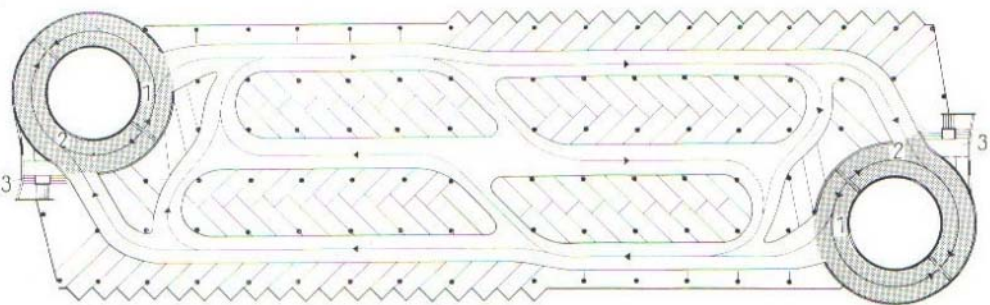
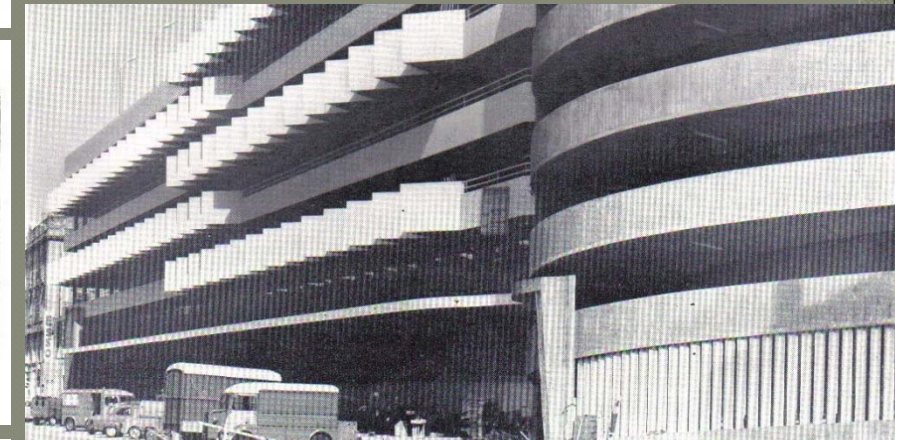
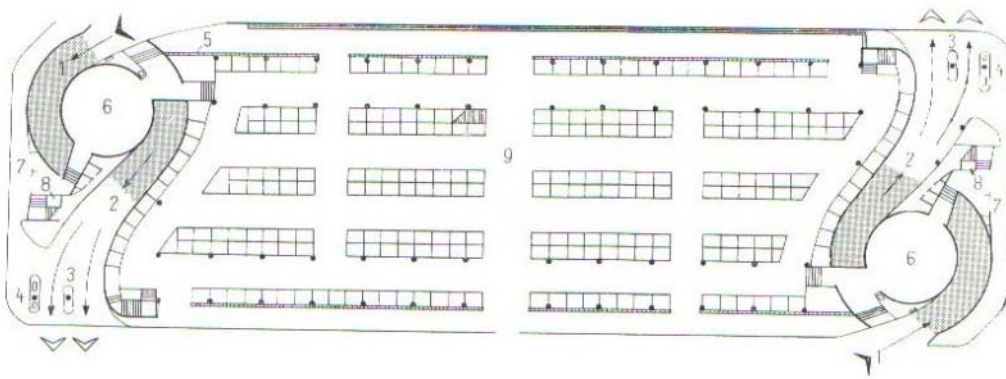
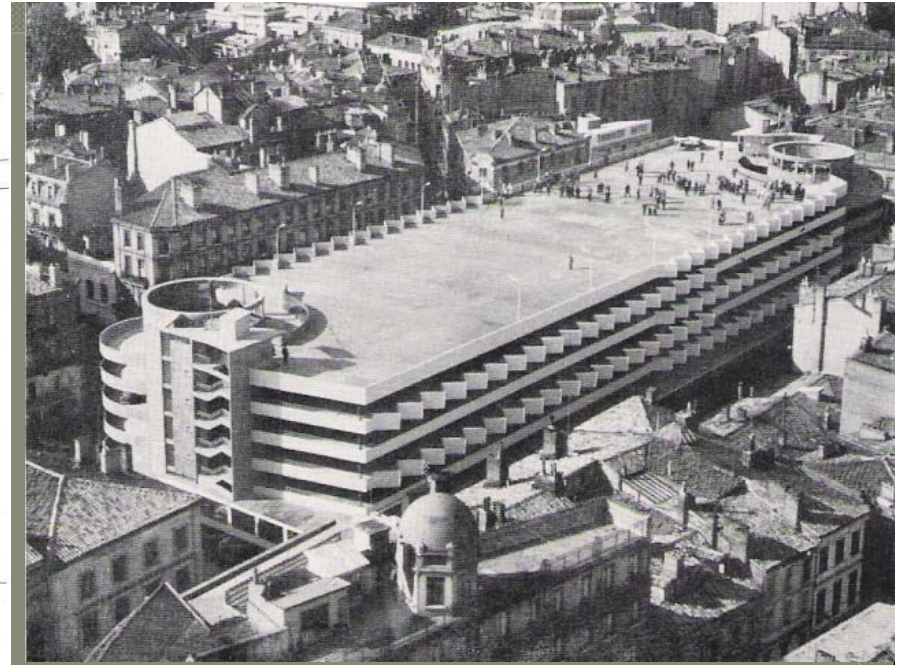
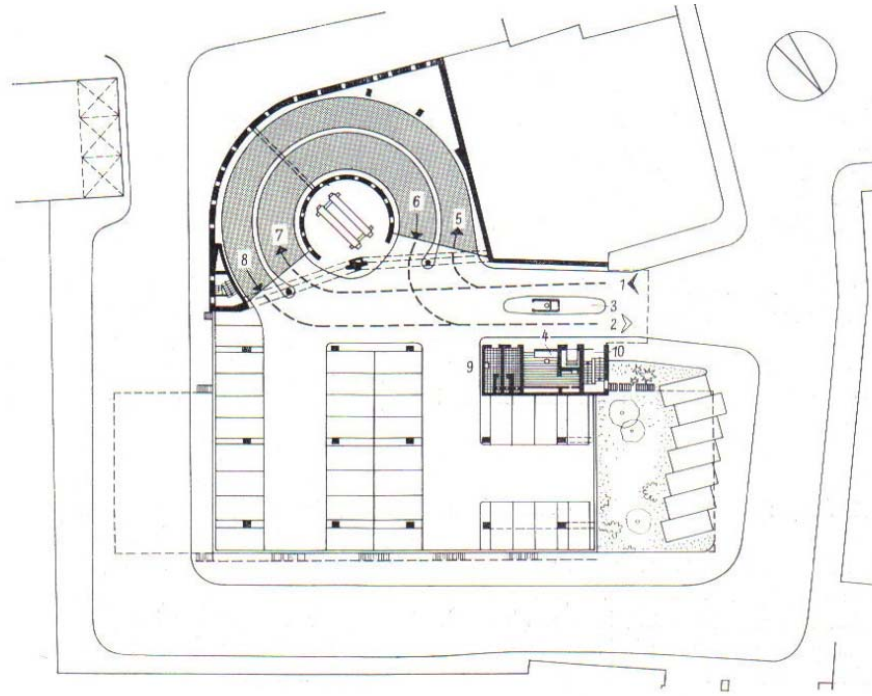


# Варијанта С

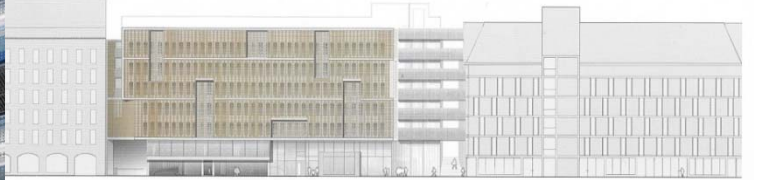
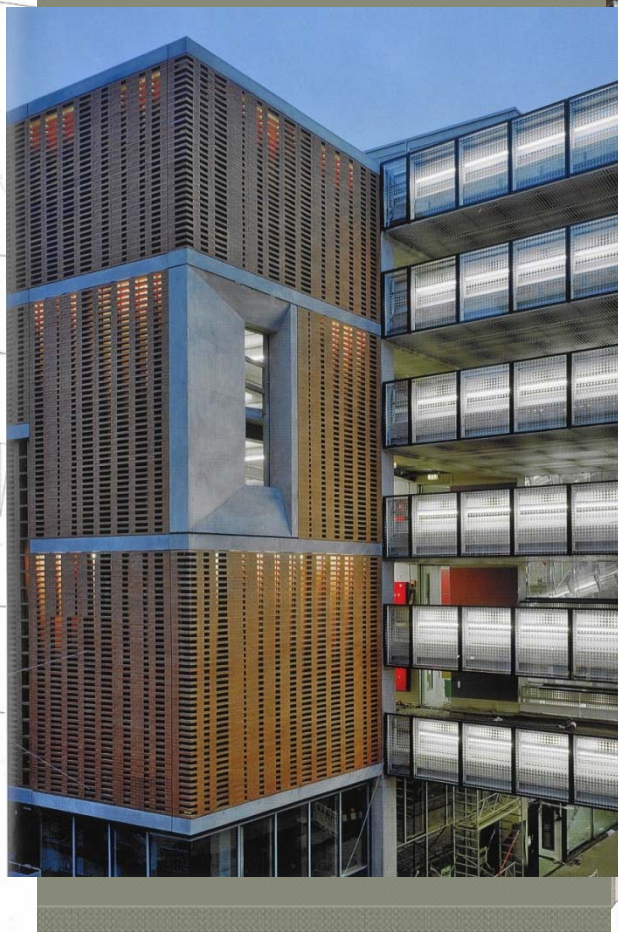
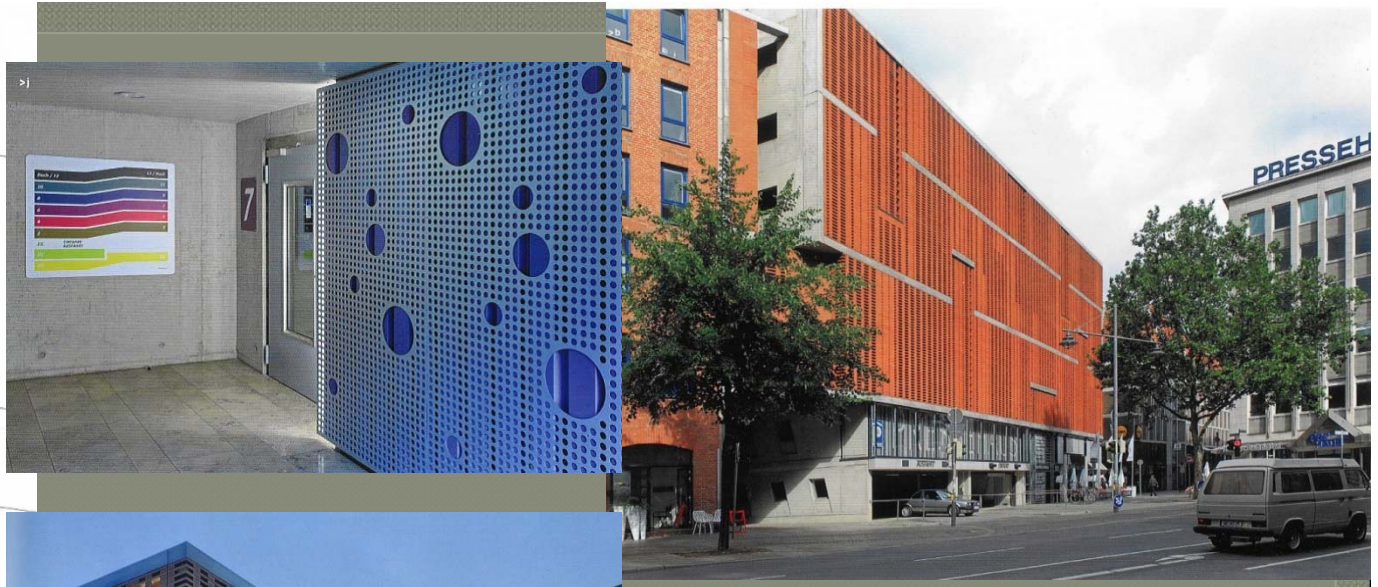
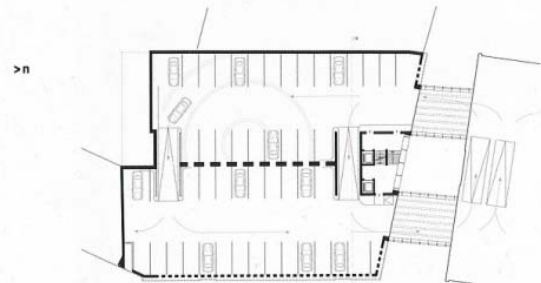
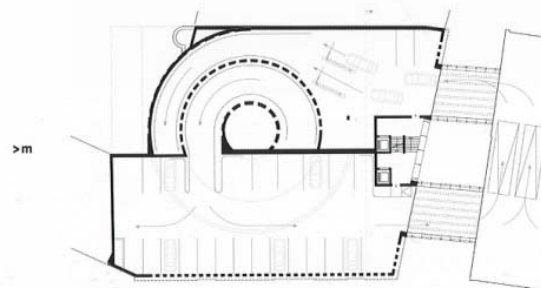
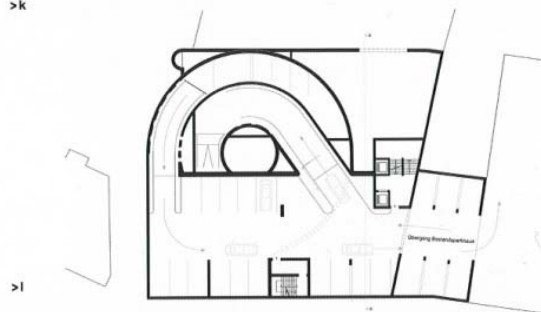
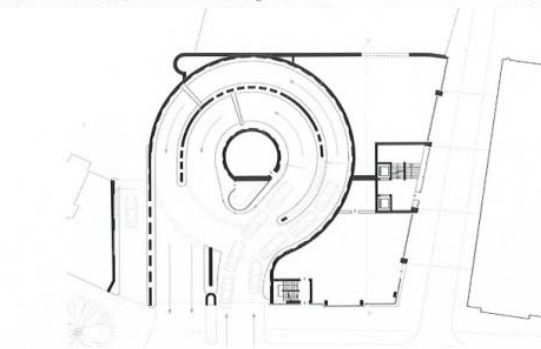




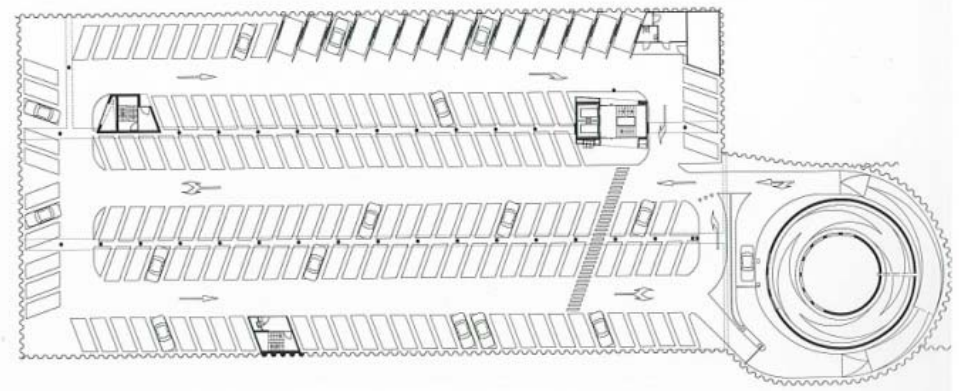
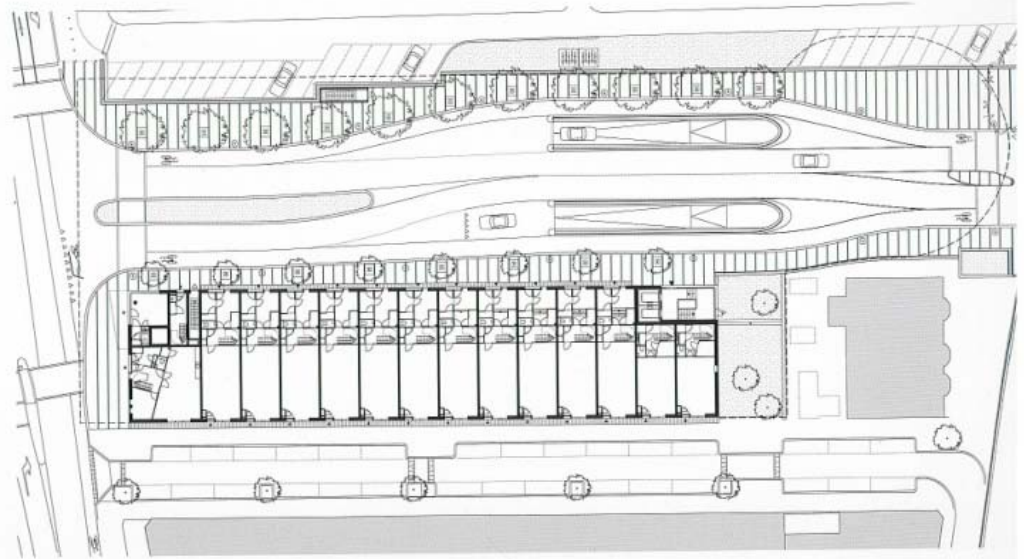
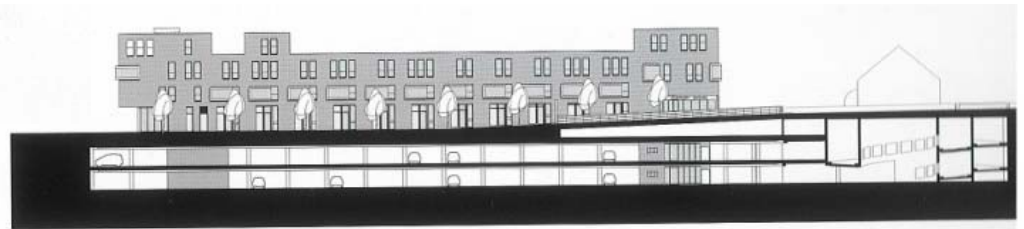
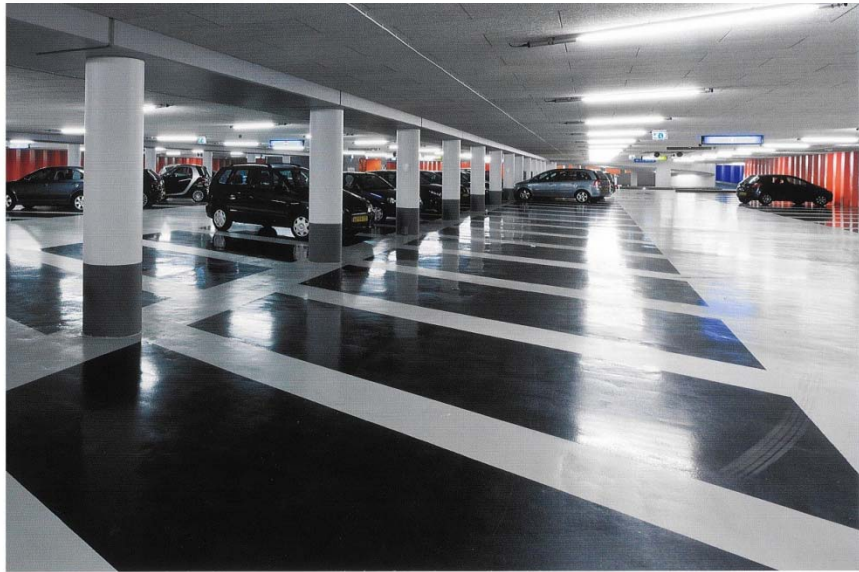
- 166 Grundriß  
irdigeschoß
- 1 Einfahrt
  - 2 Ausfahrt
  - 3 Kontrolle
  - 4 Kasse
  - 5 Abfahrt zum Kellergeschoß
  - 6 Ausfahrt vom Kellergeschoß
  - 7 Auffahrt
  - 8 Abfahrt
  - 9 WC
  - 0 Treppe und Aufzug

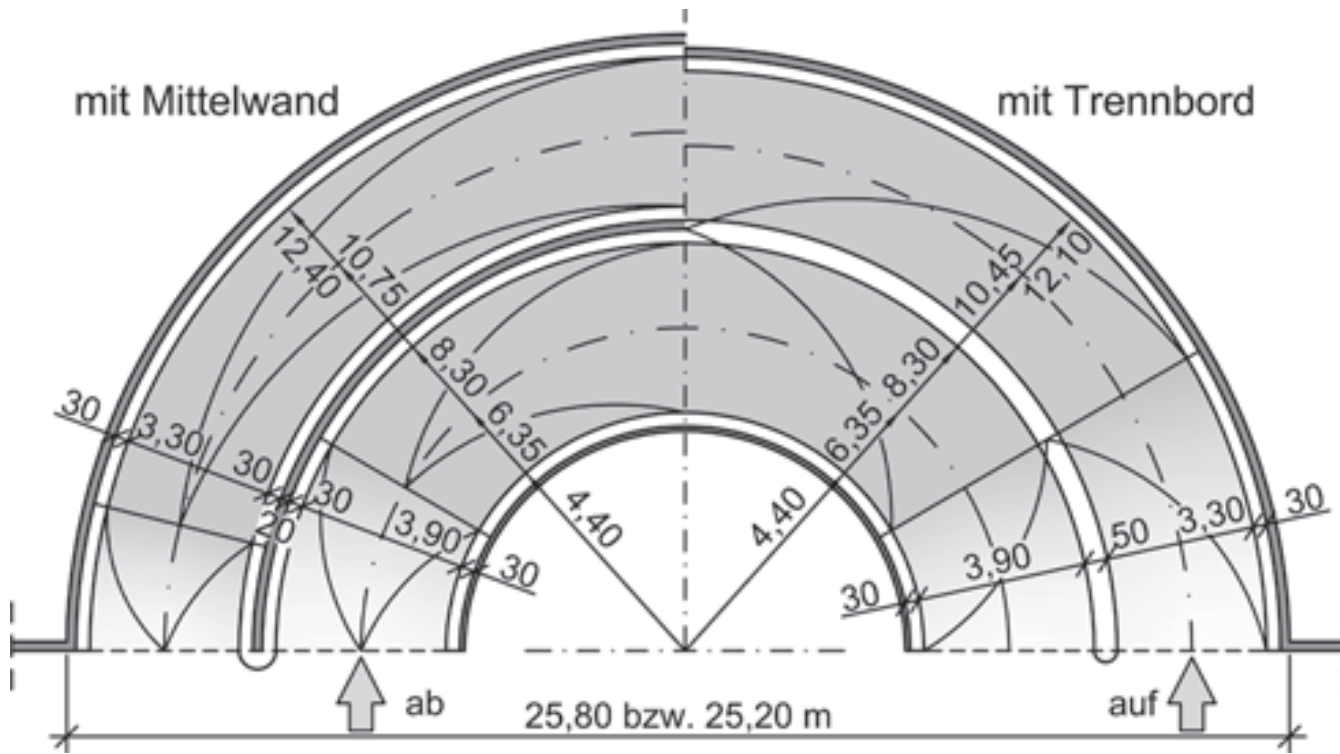


Pressehaus multistorey car park  
Bremen, Germany



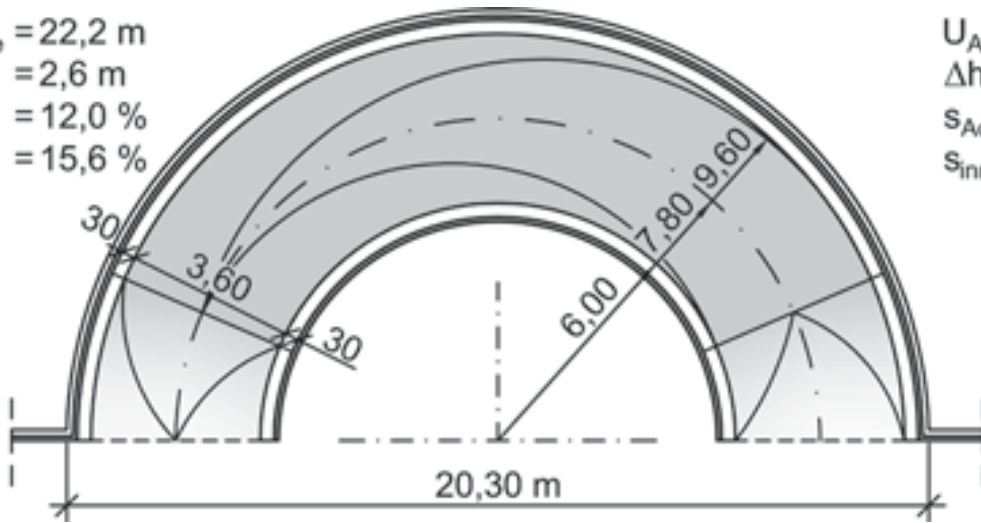
**Koepoort underground car park**  
Delft, the Netherlands





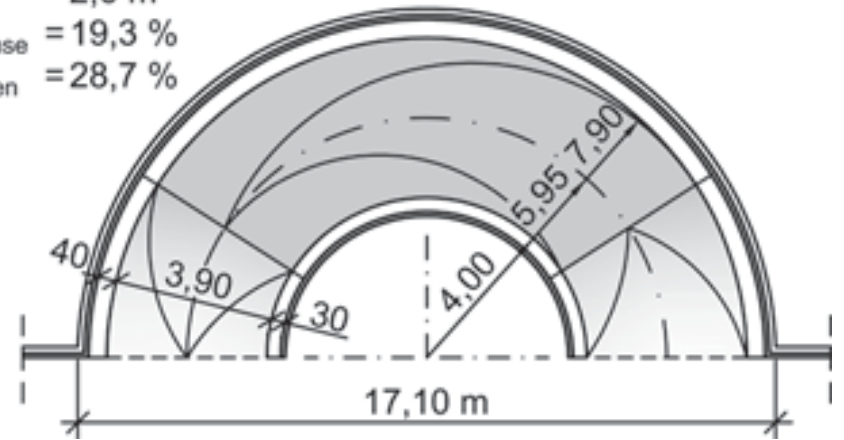
Појединачне и удвојене  
полукружне косине

$U_{\text{Achse}} = 22,2 \text{ m}$   
 $\Delta h = 2,6 \text{ m}$   
 $s_{\text{Achse}} = 12,0 \%$   
 $s_{\text{innen}} = 15,6 \%$

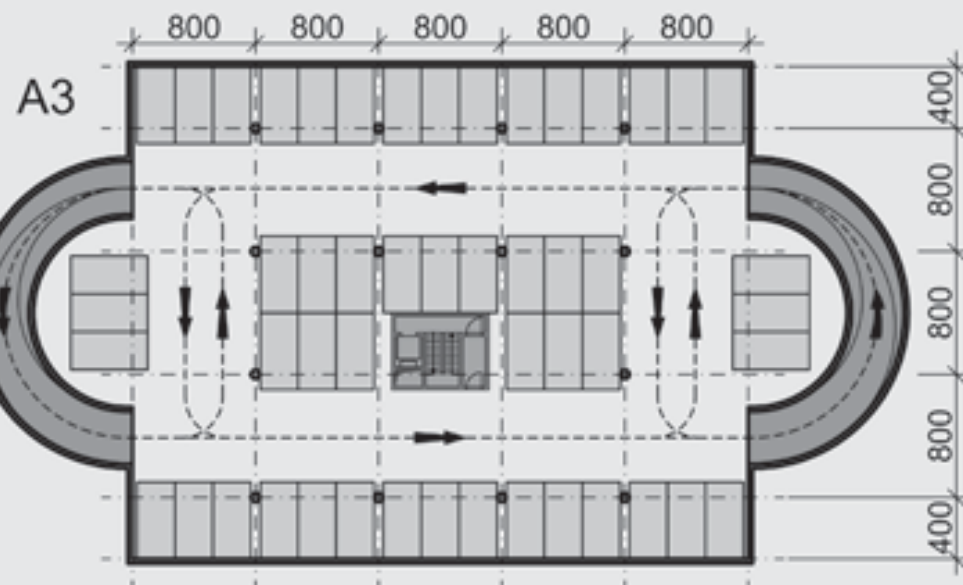
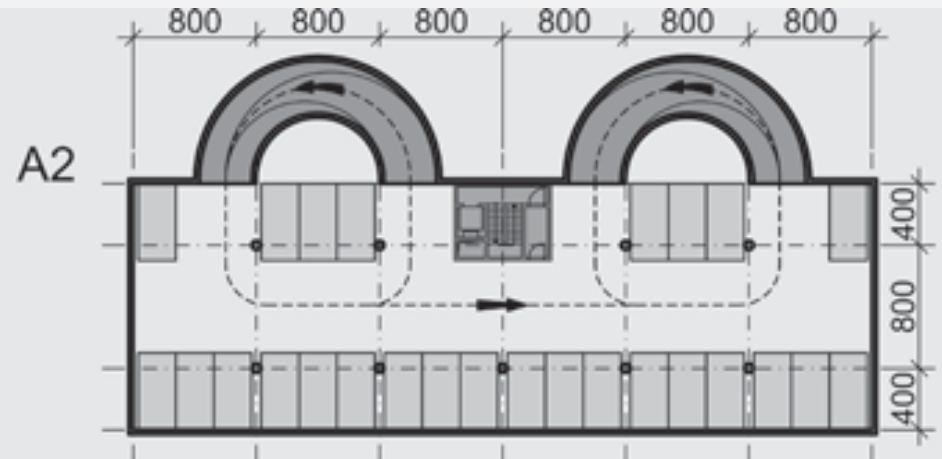
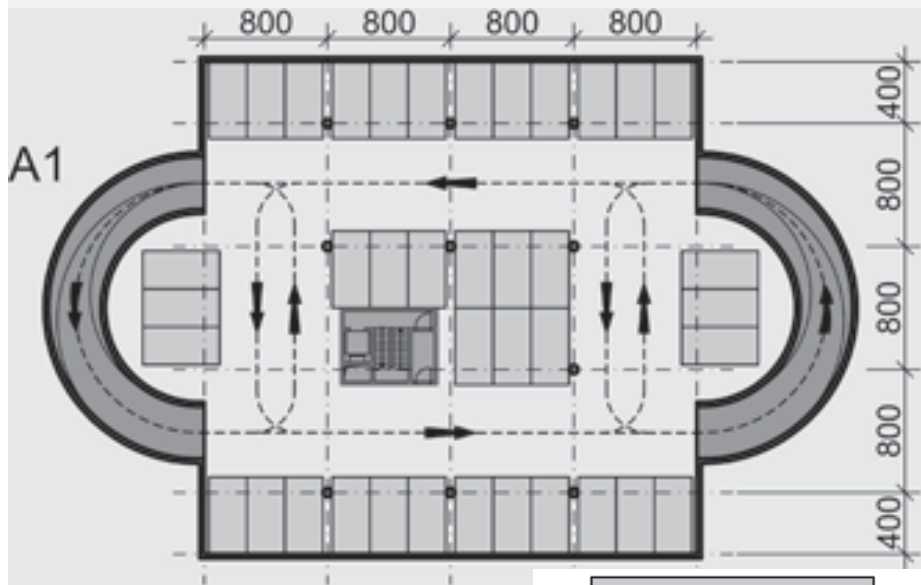


ОПТИМАЛНО

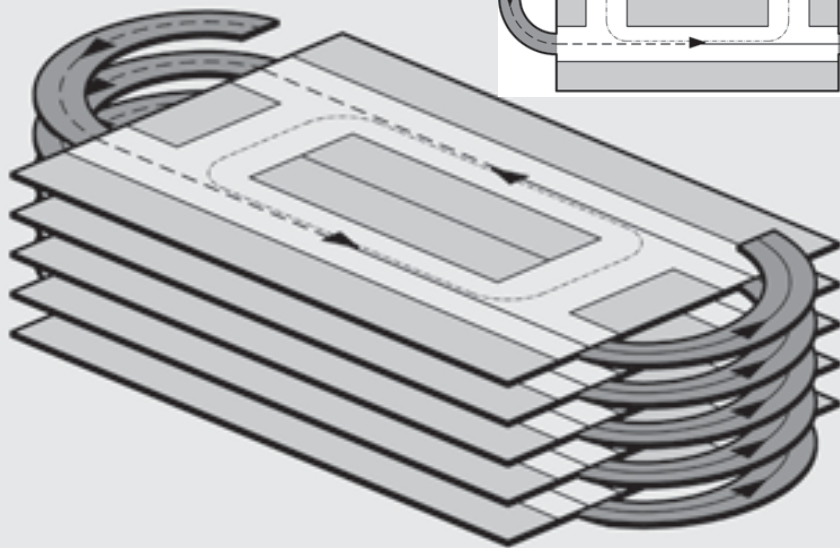
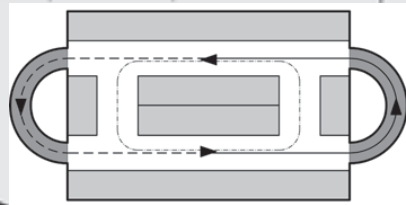
$U_{\text{Achse}} = 16,5 \text{ m}$   
 $\Delta h = 2,6 \text{ m}$   
 $s_{\text{Achse}} = 19,3 \%$   
 $s_{\text{innen}} = 28,7 \%$



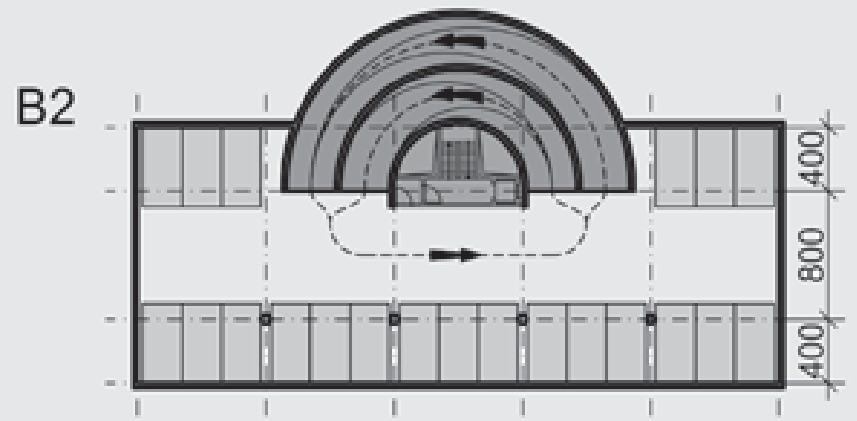
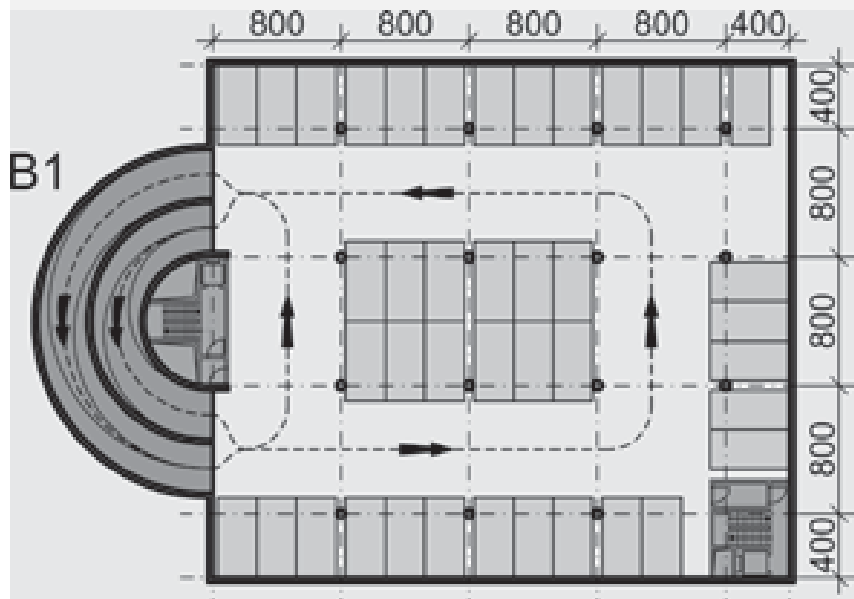
НАЈМАЊЕ



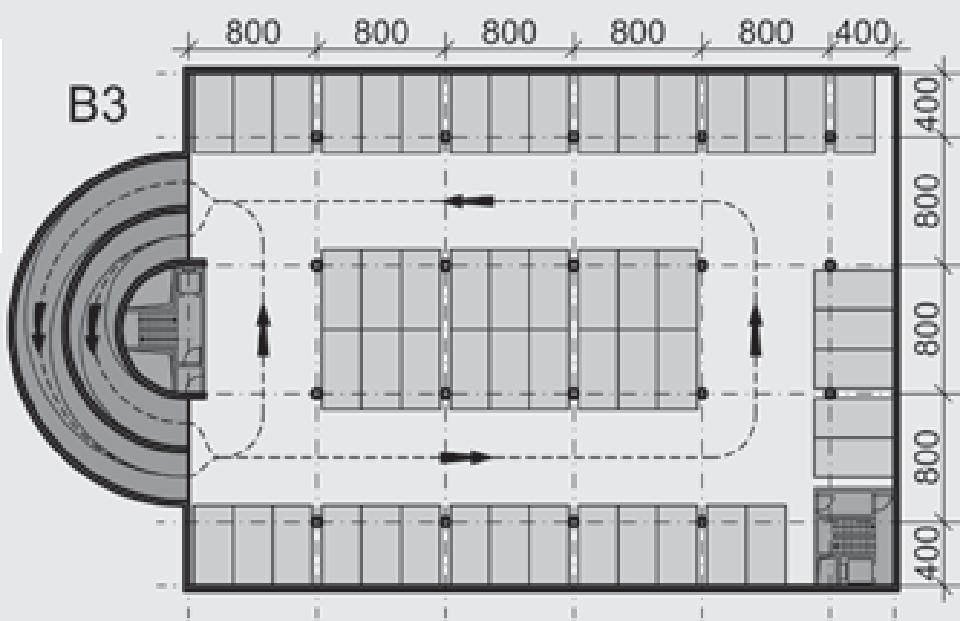
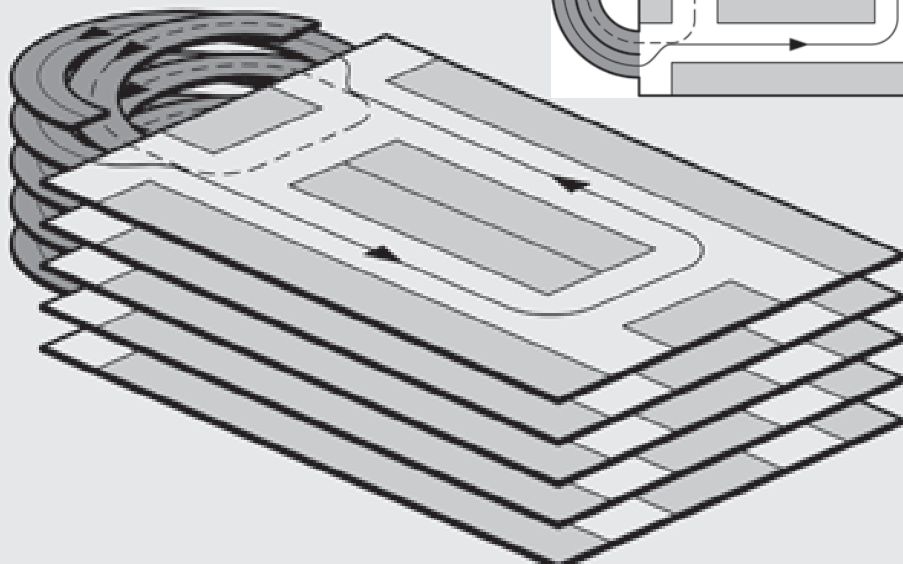
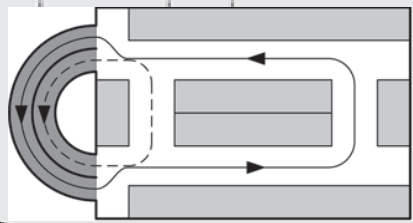
Варијанта А



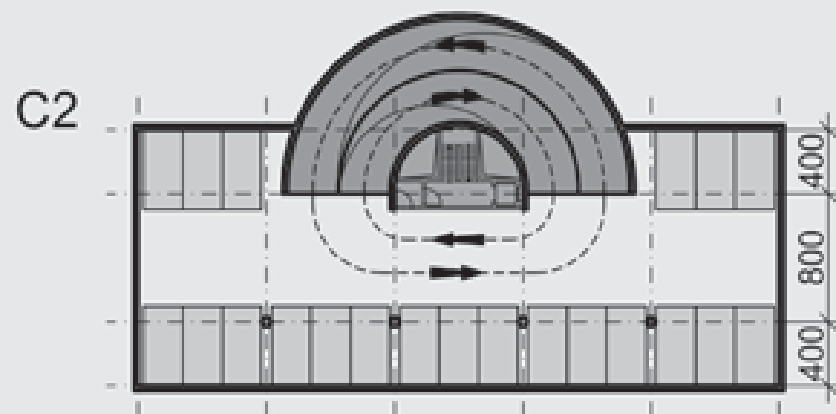
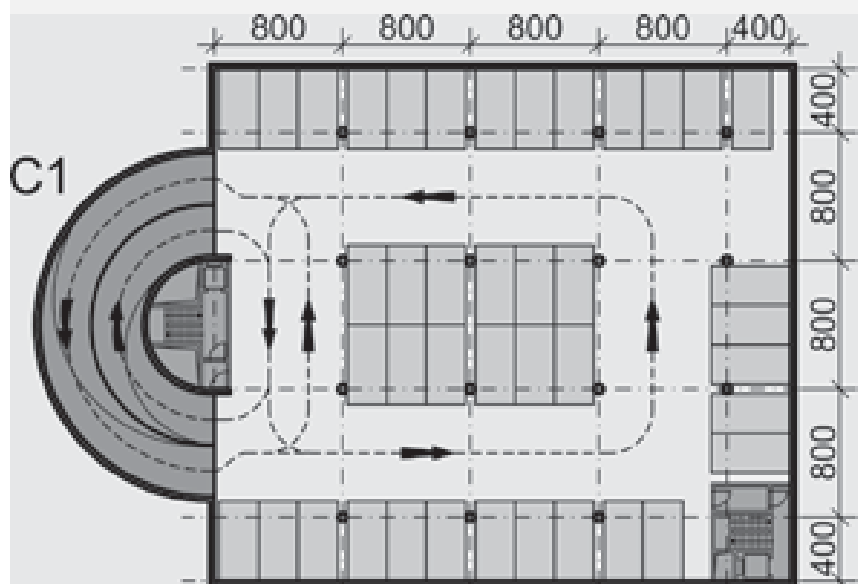
Maße in cm



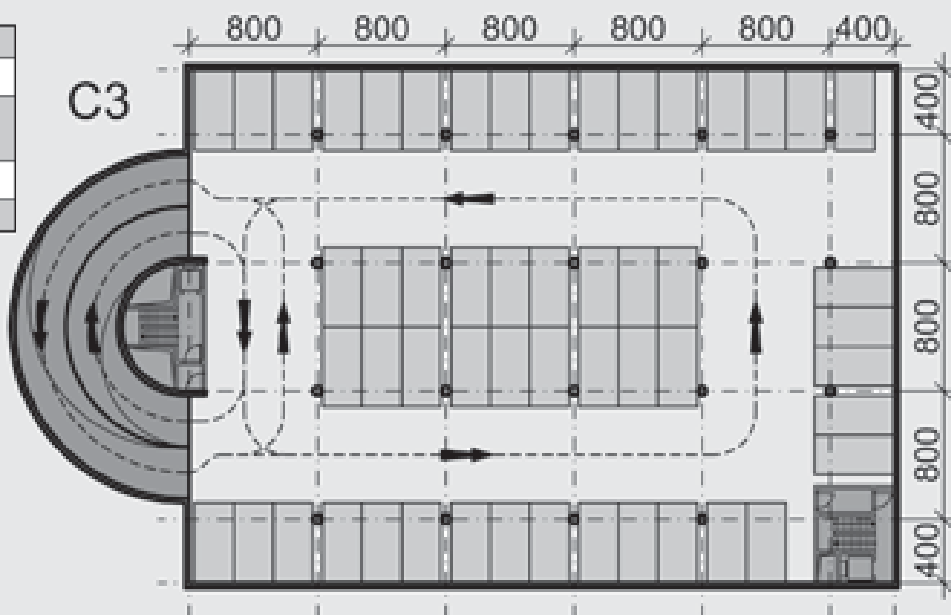
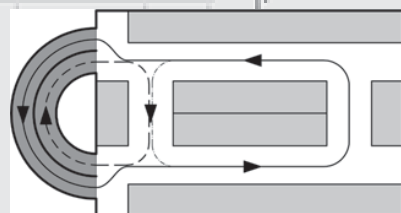
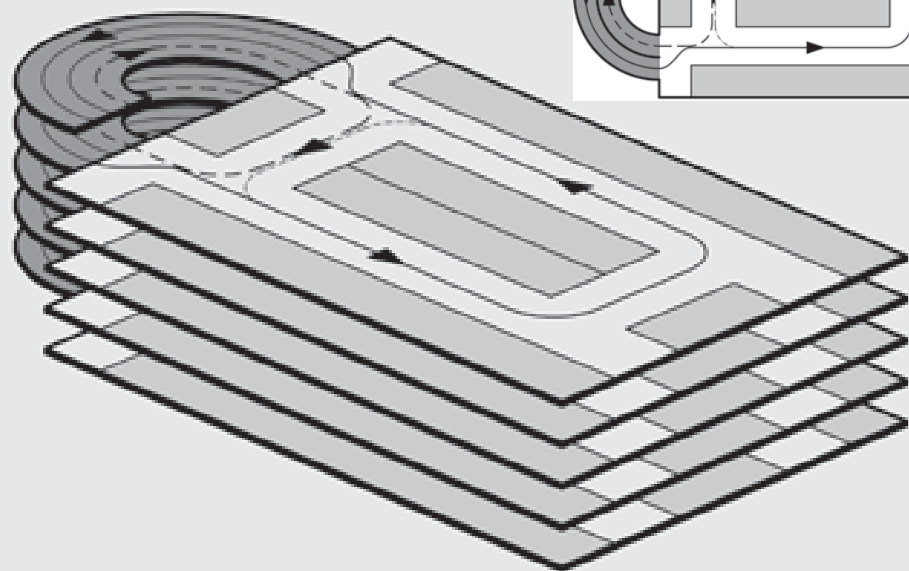
Варијанта В



Maße in cm

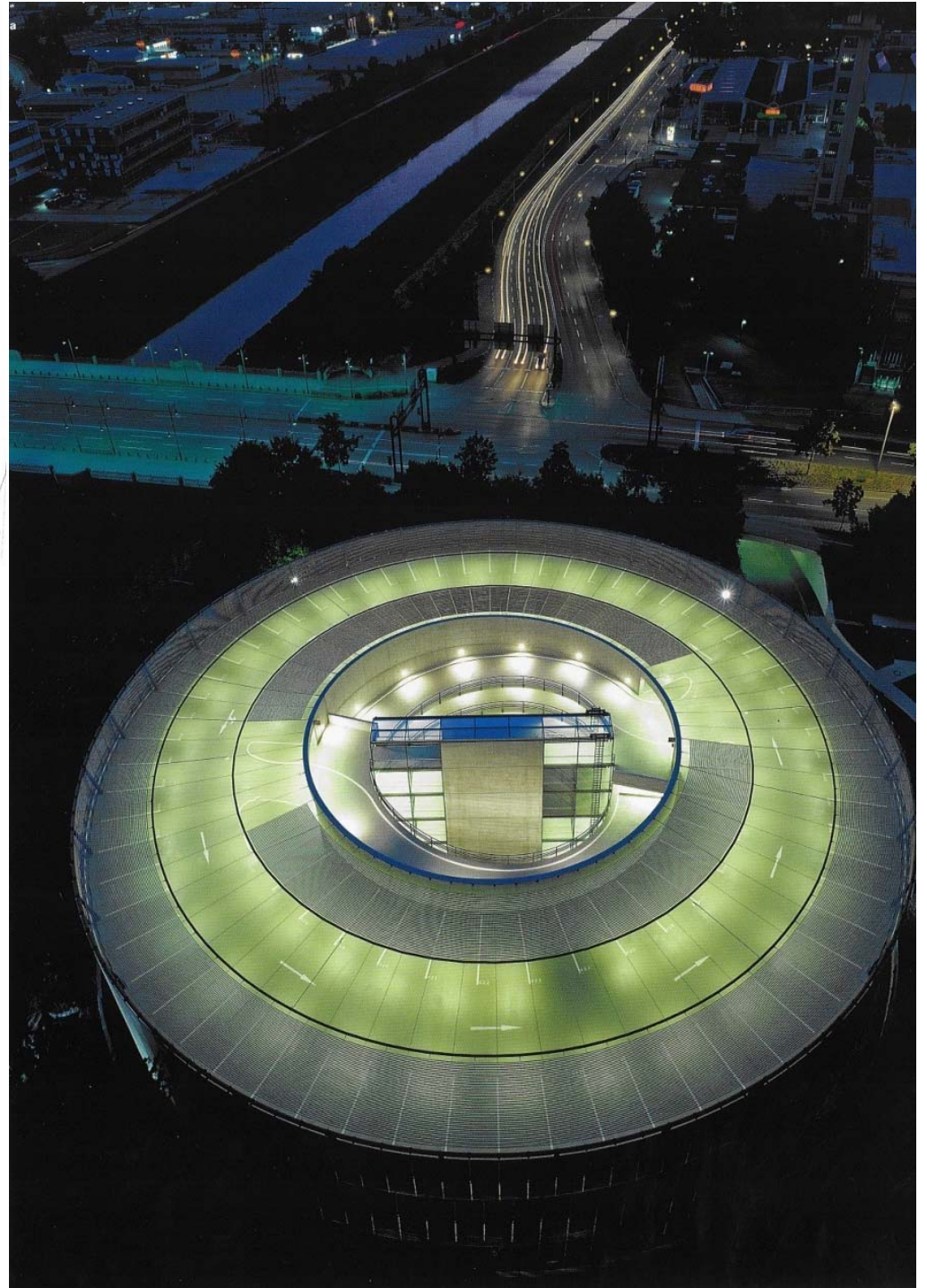
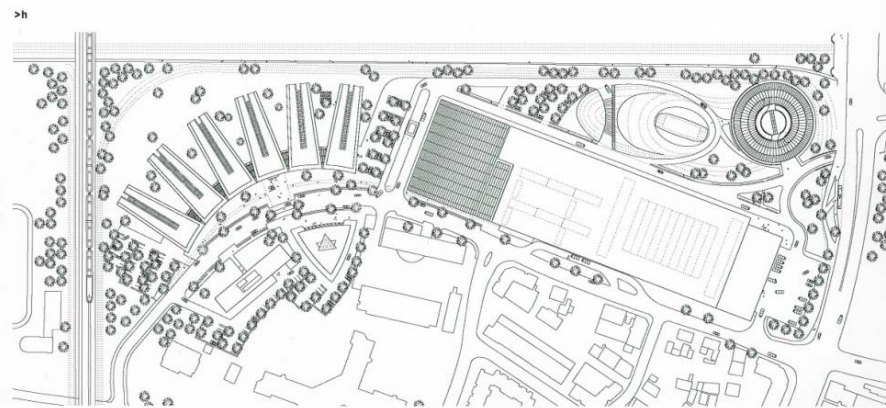
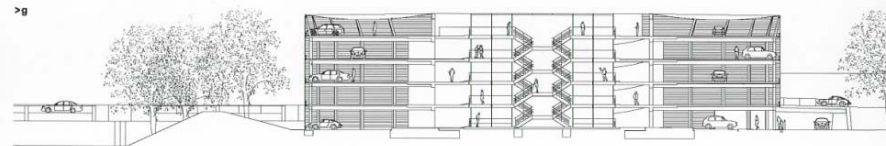
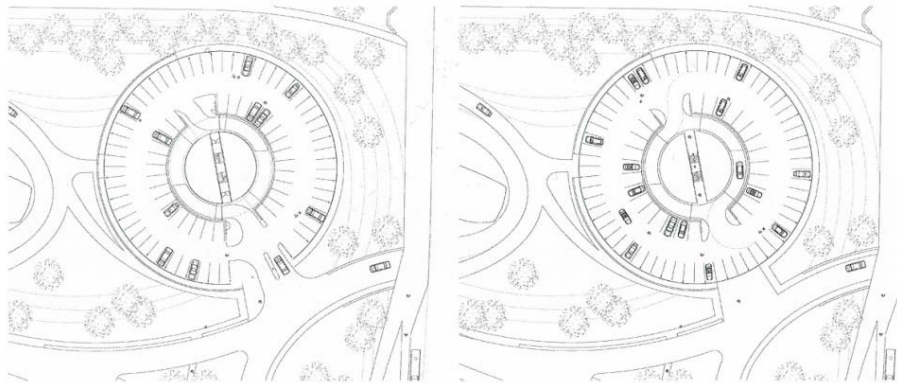


Варијанта С



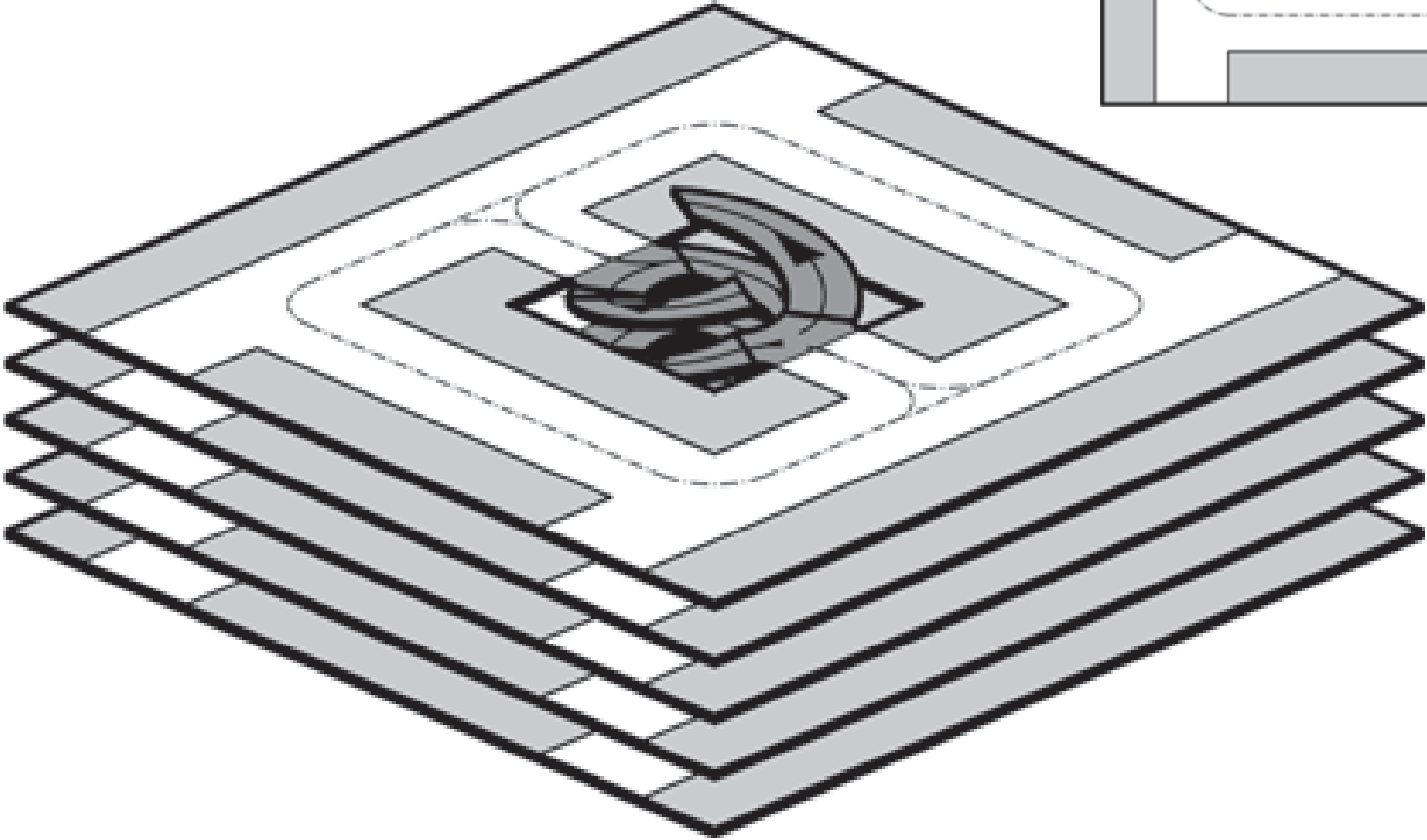
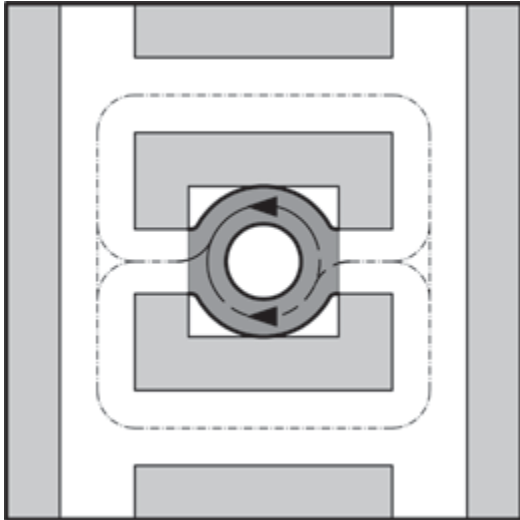
Maße in cm

Burda company car park  
Offenburg, Germany

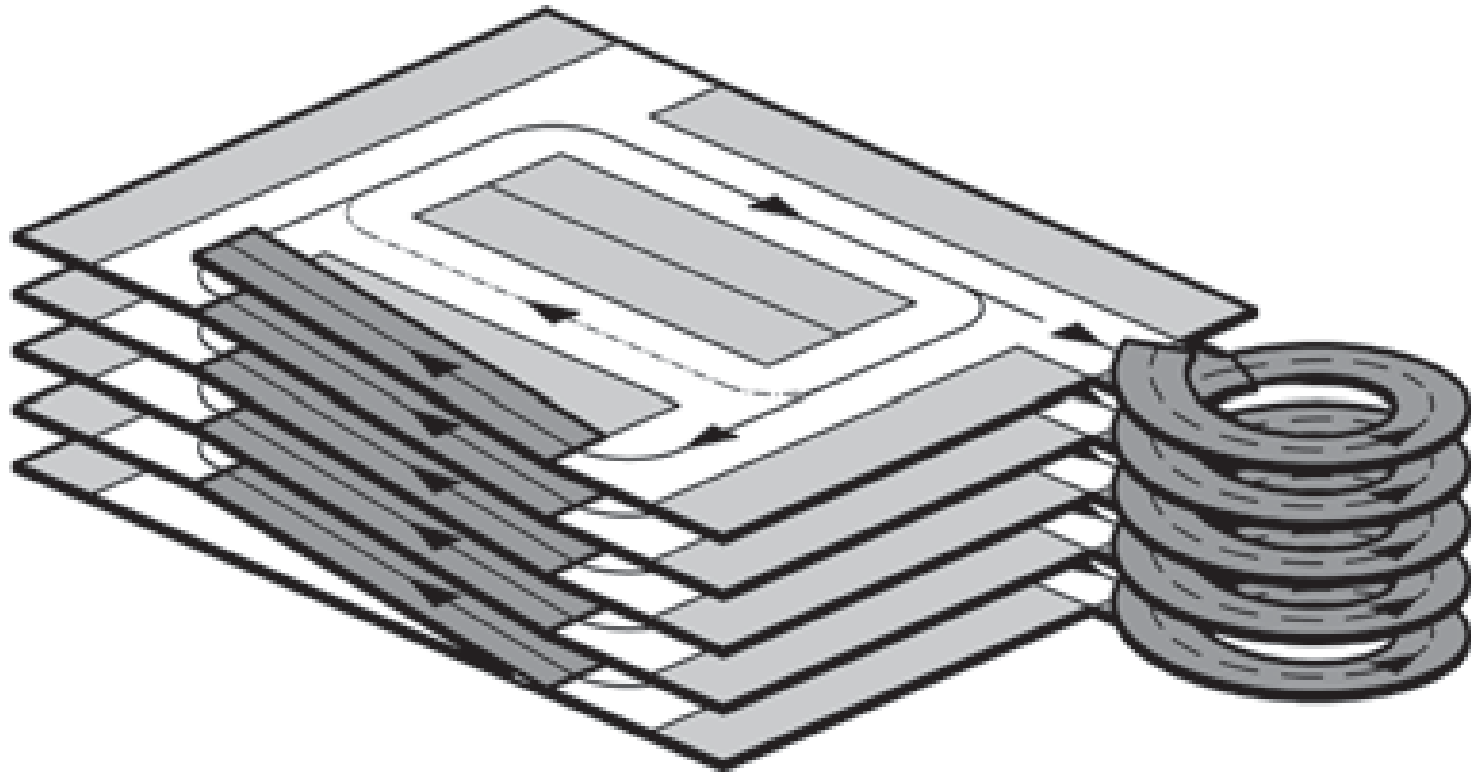
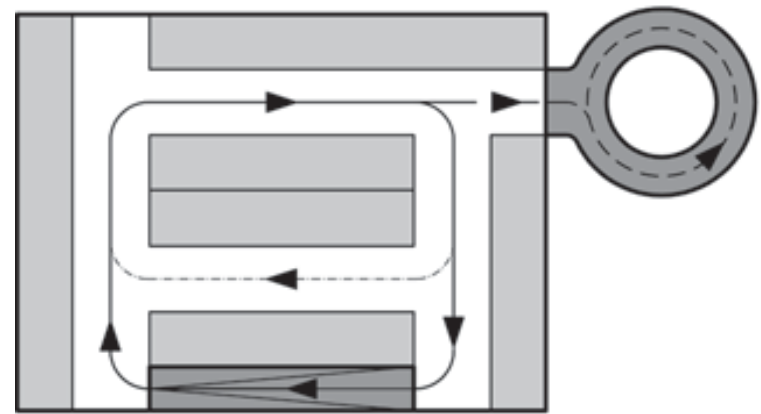




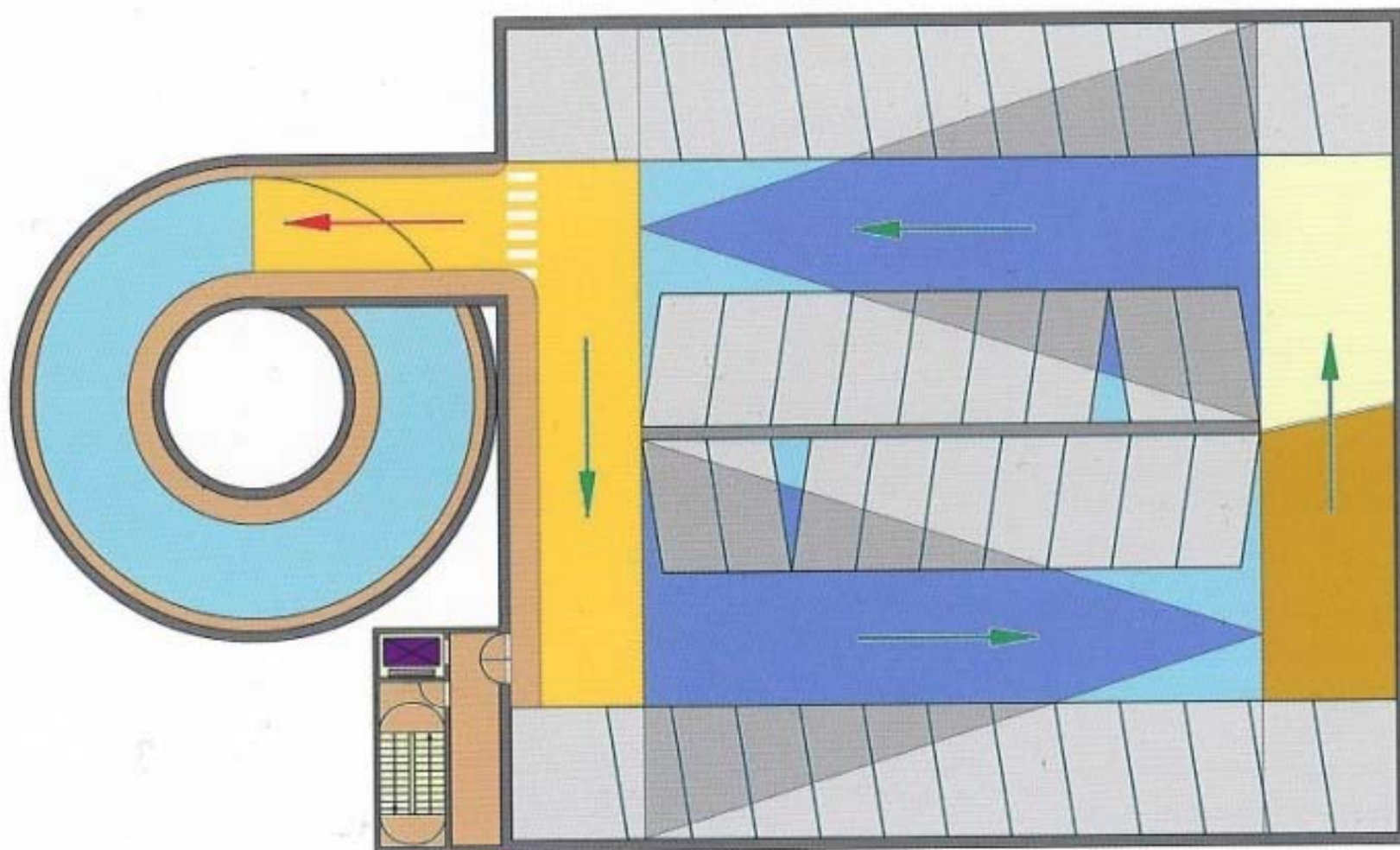
Варијанта D



Специјални облици

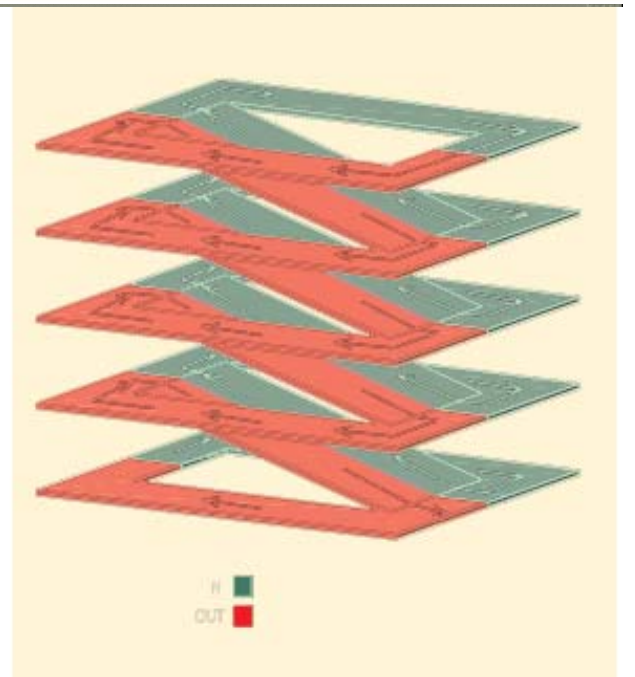
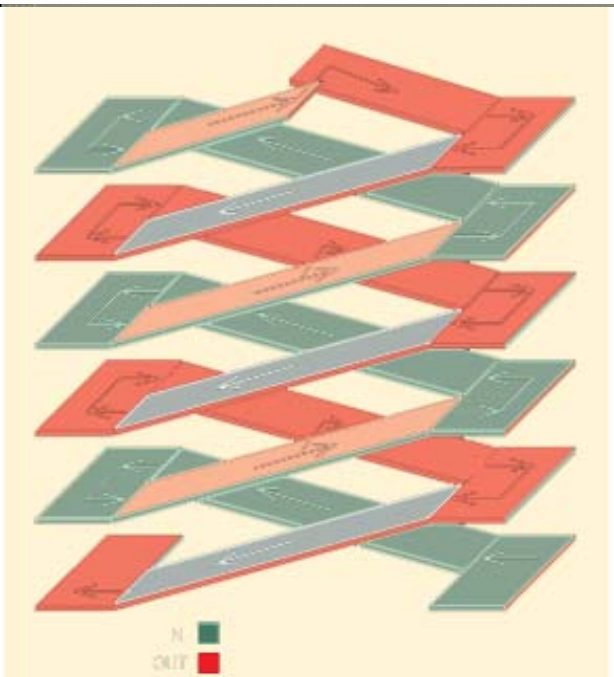
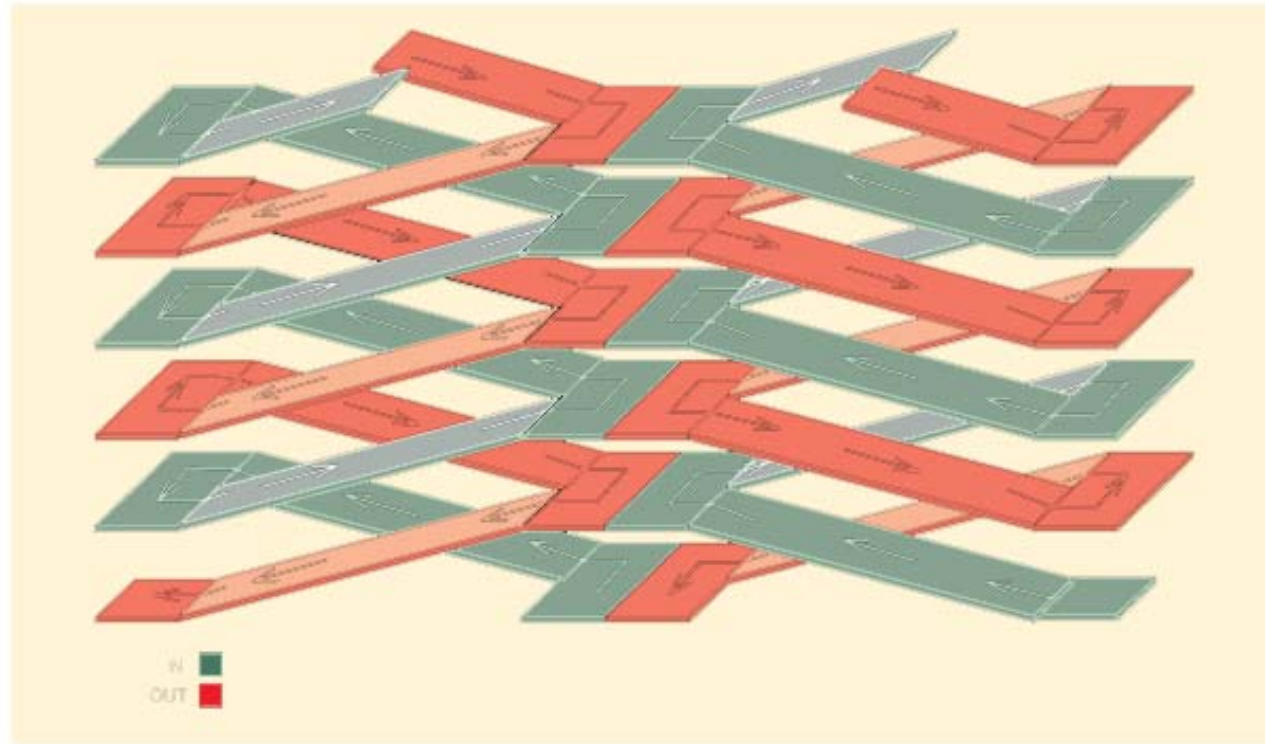
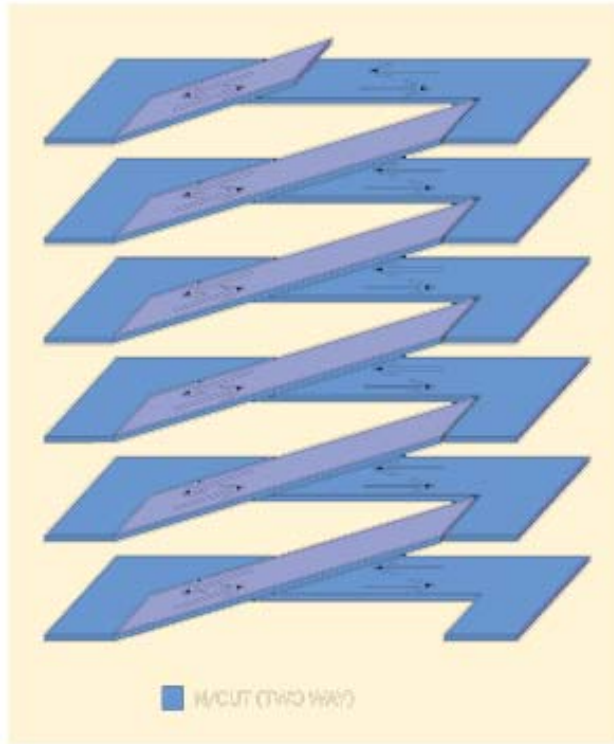


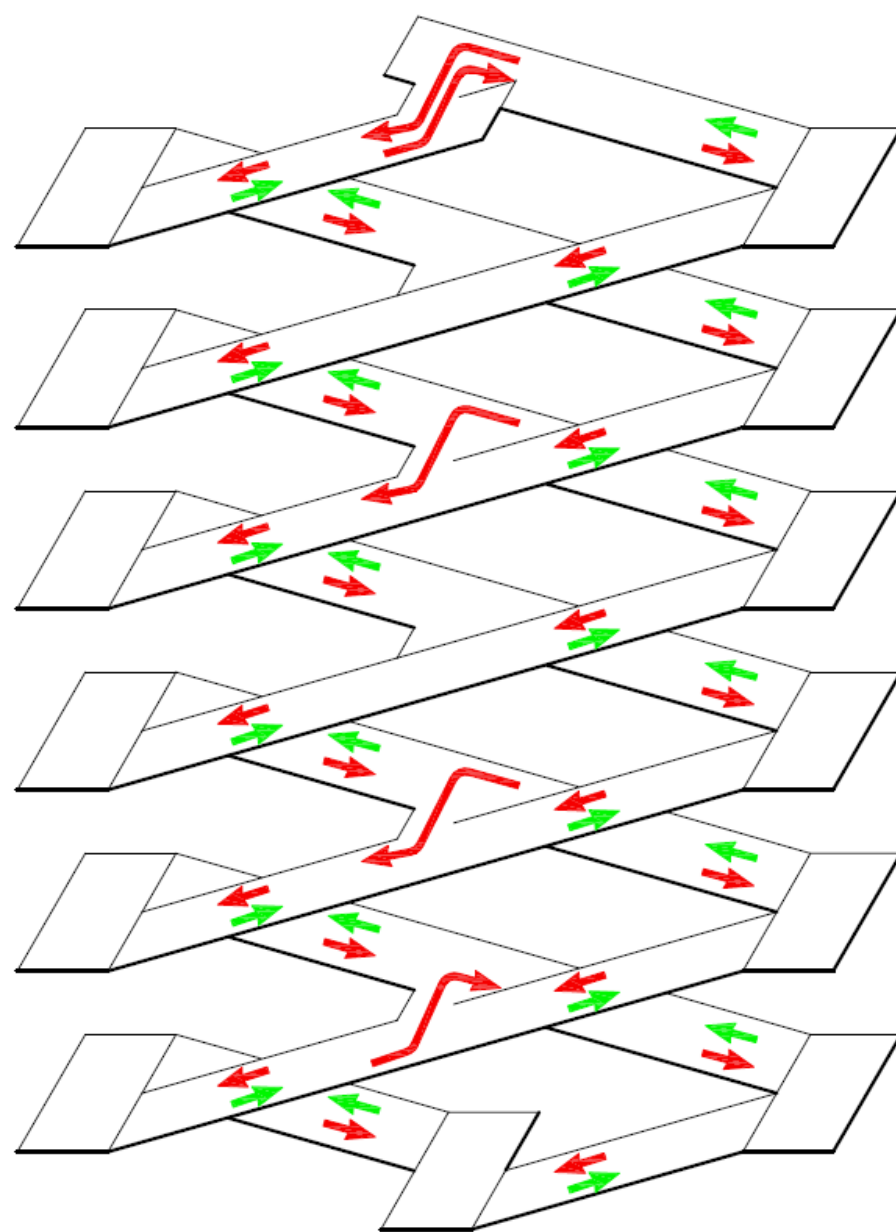
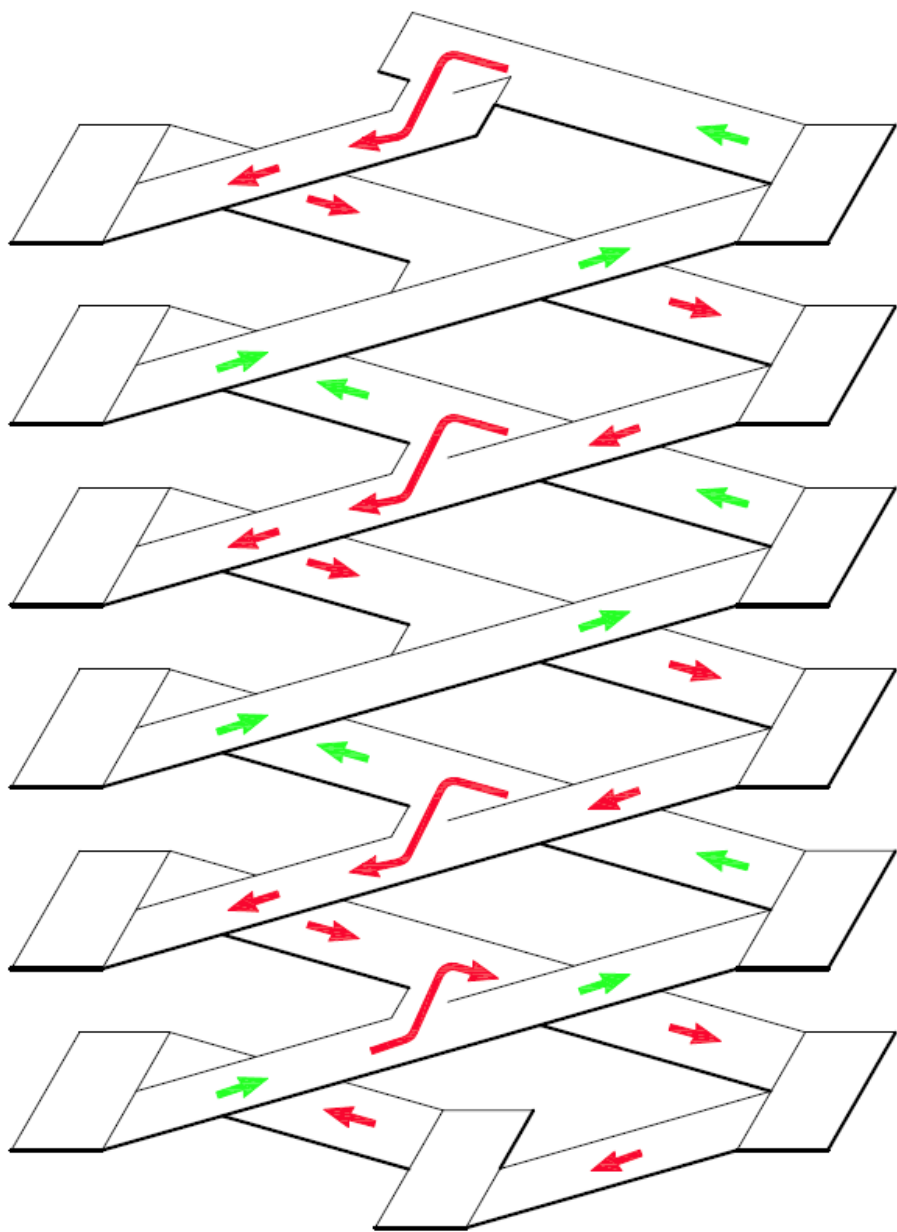
## Специјални облици

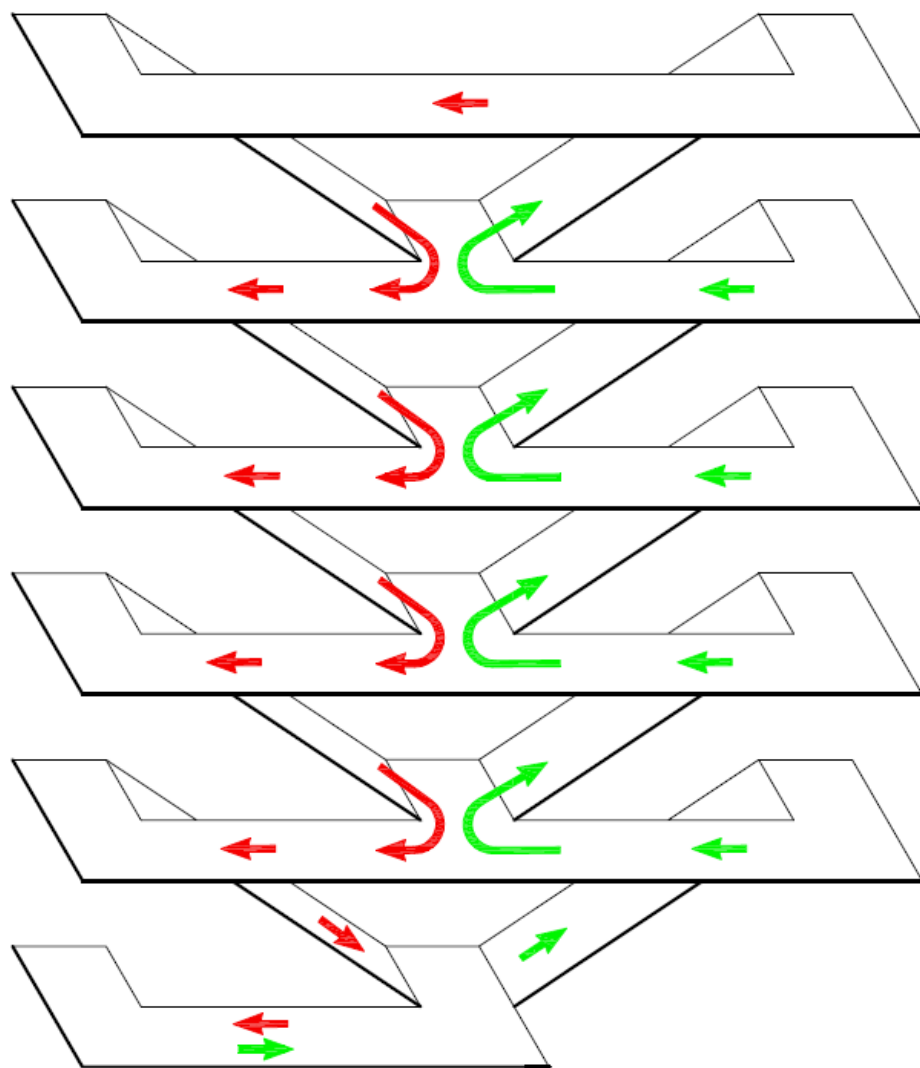
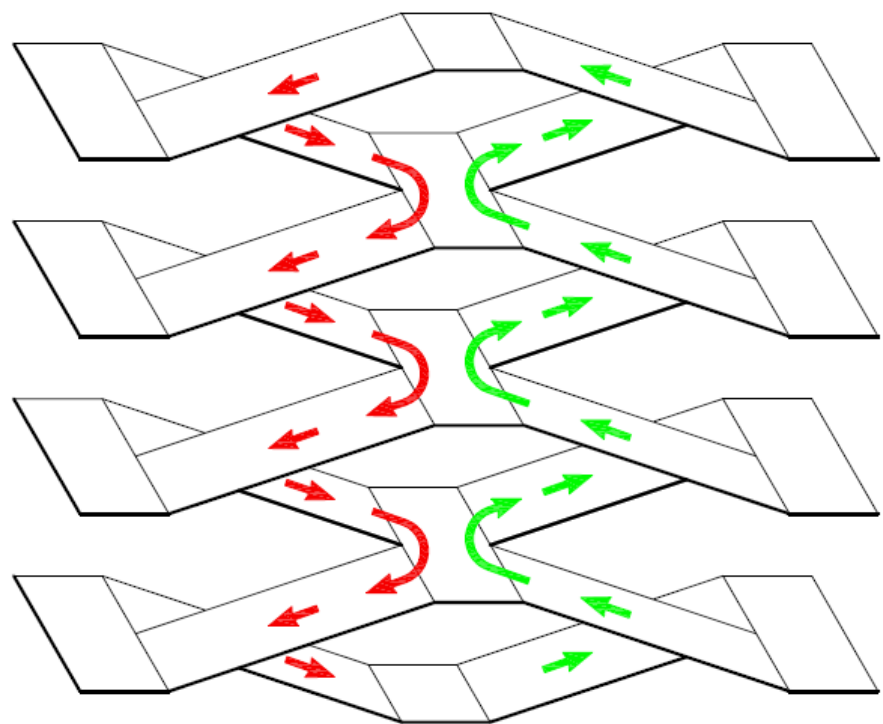


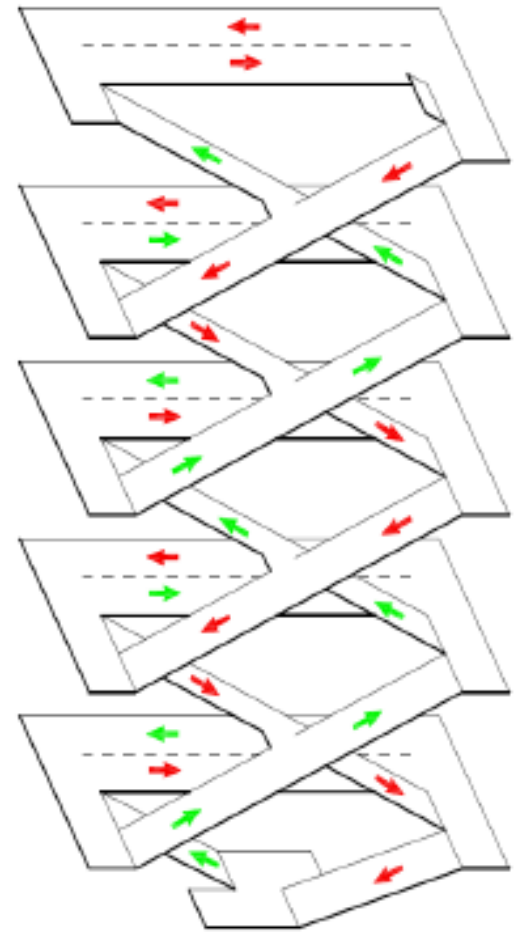
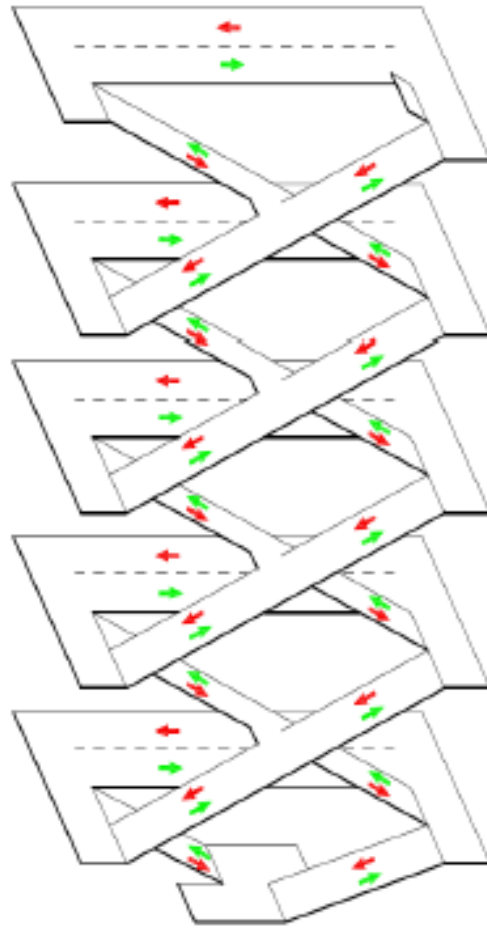
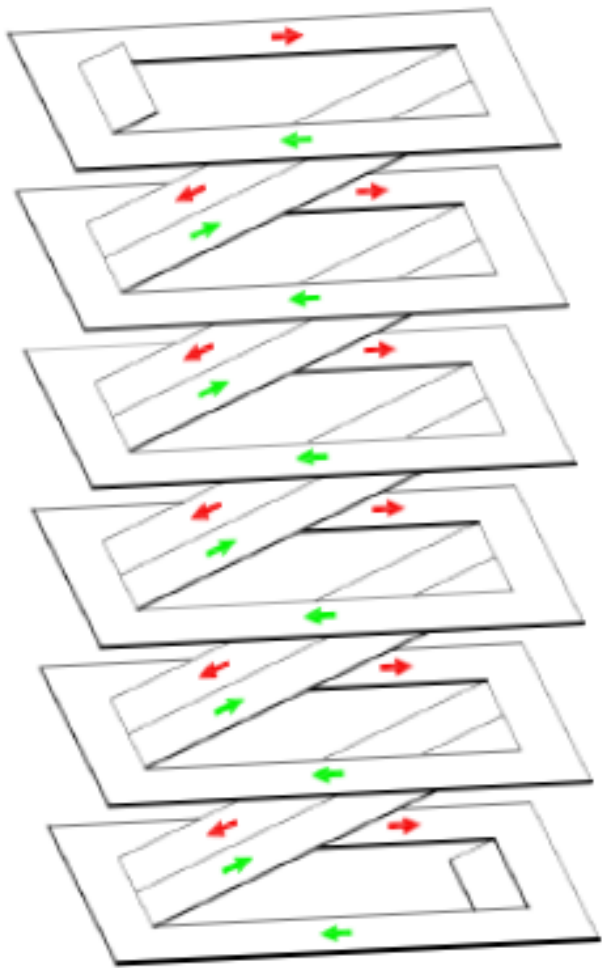
# Укошене јавне паркинг гараже

---



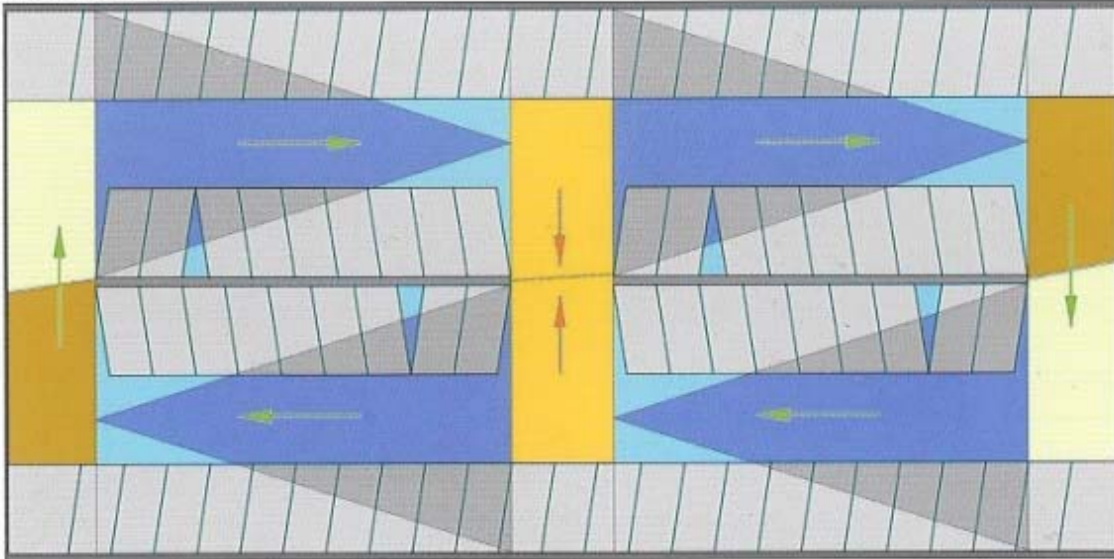




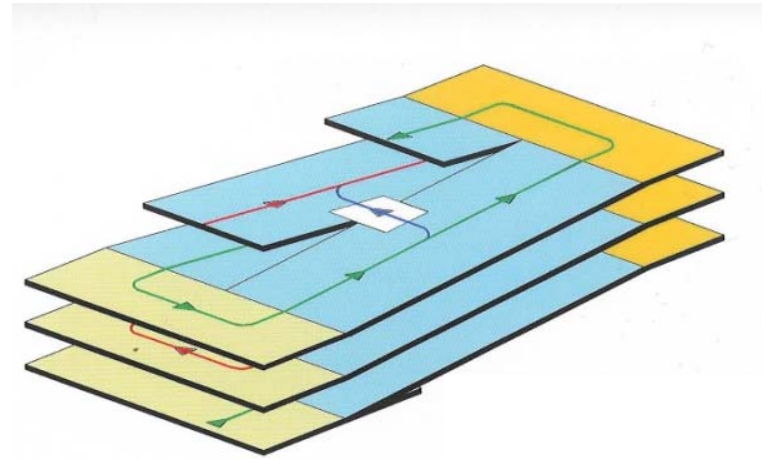
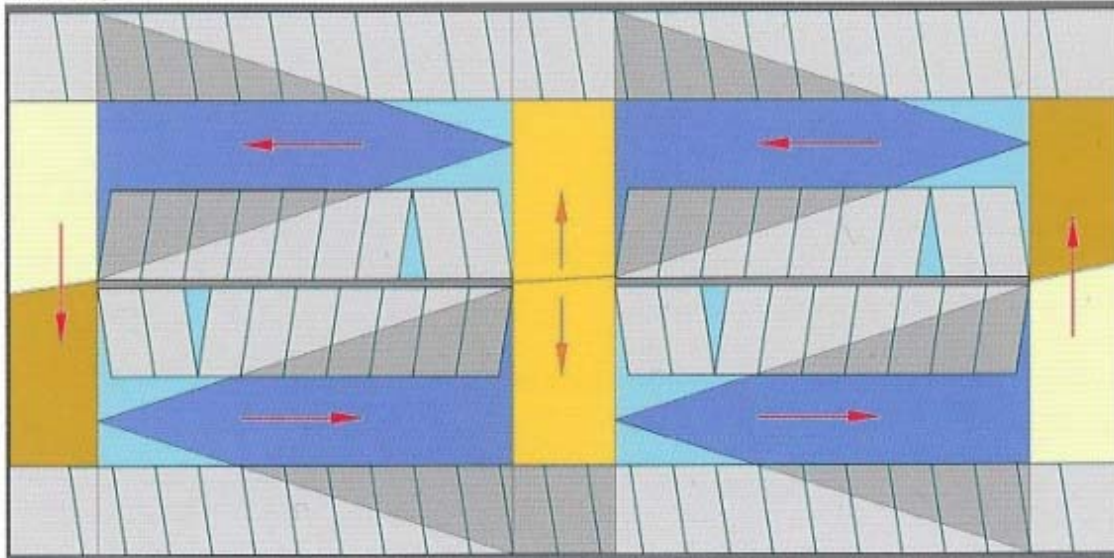


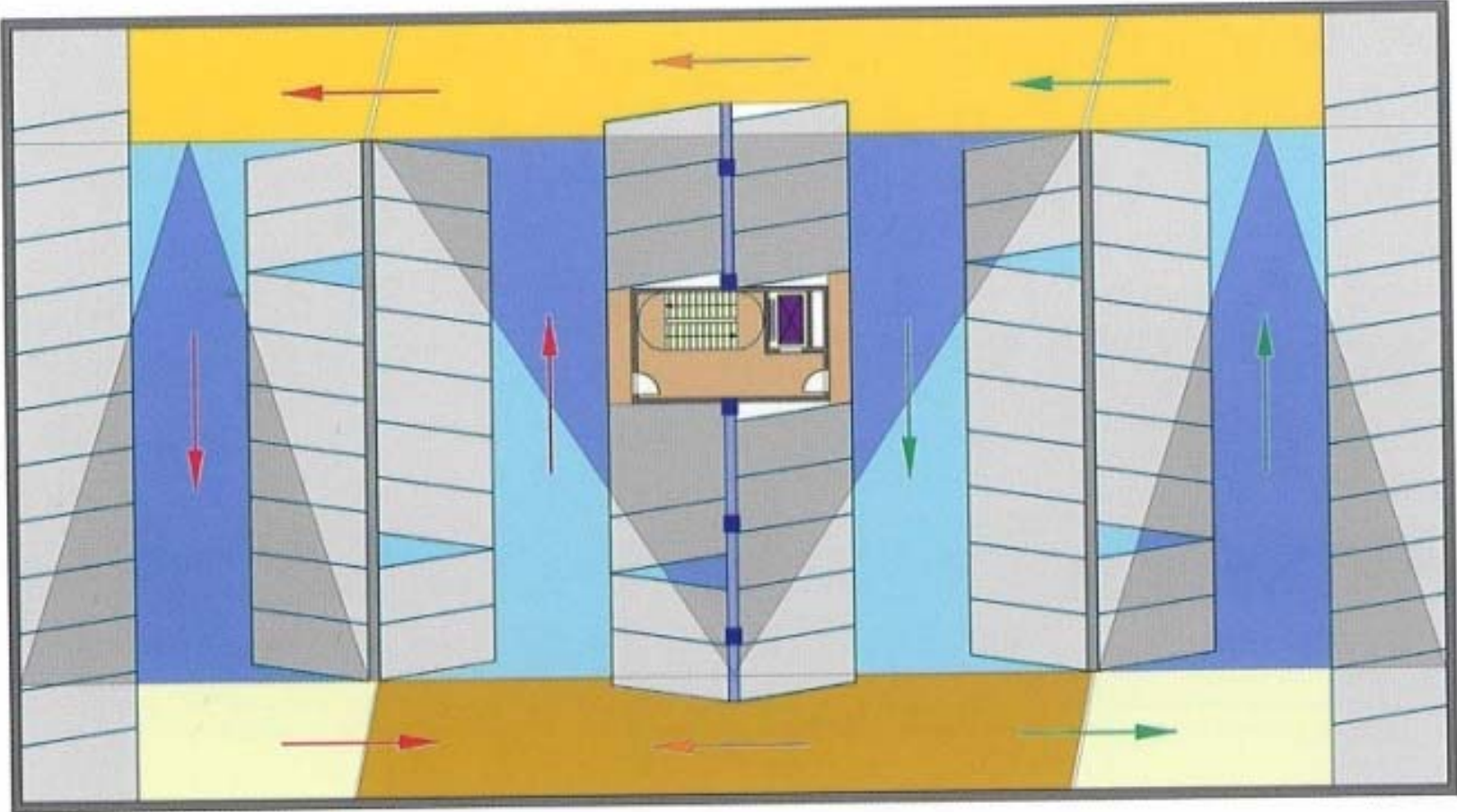


Entrance ramps

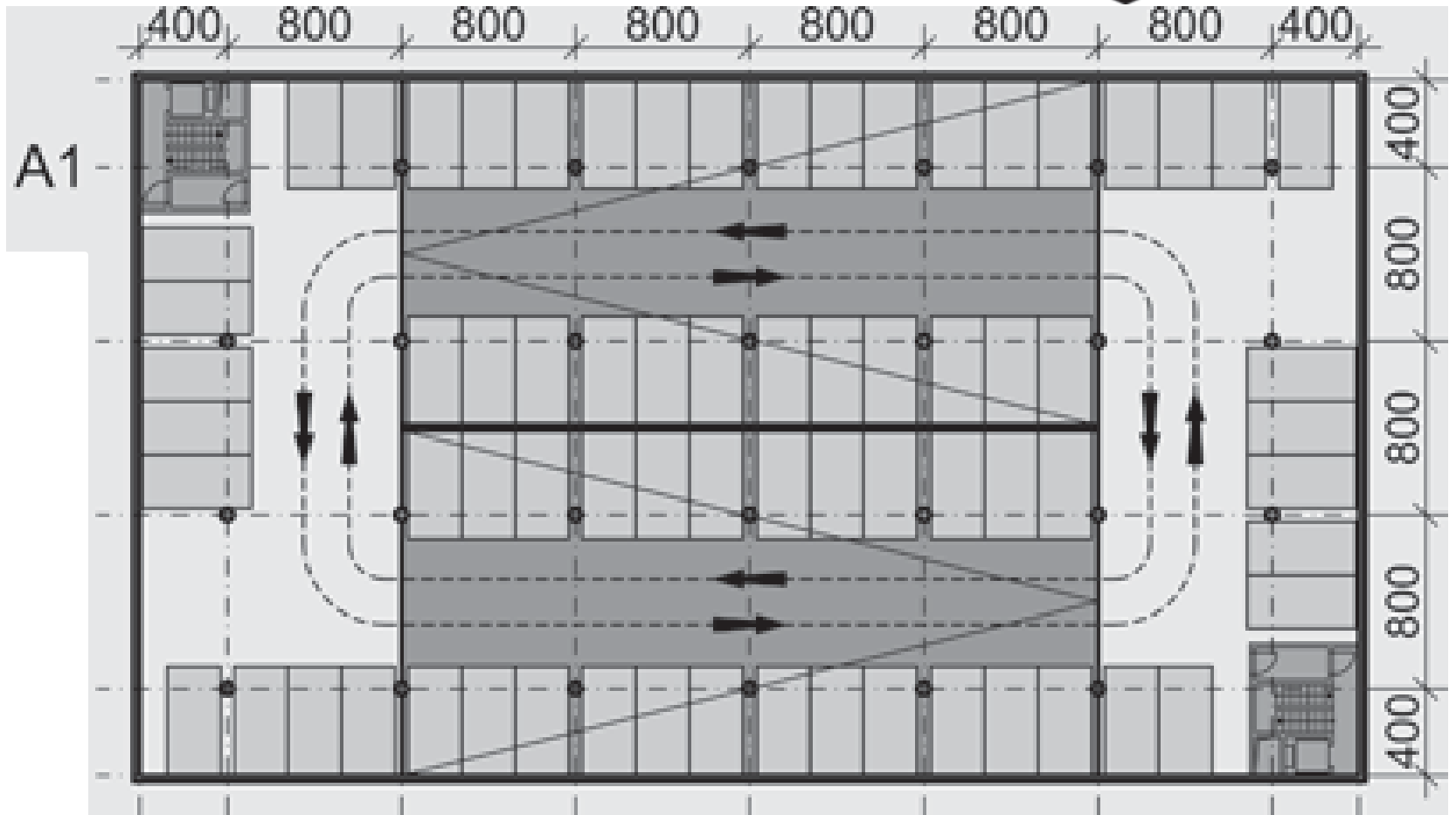
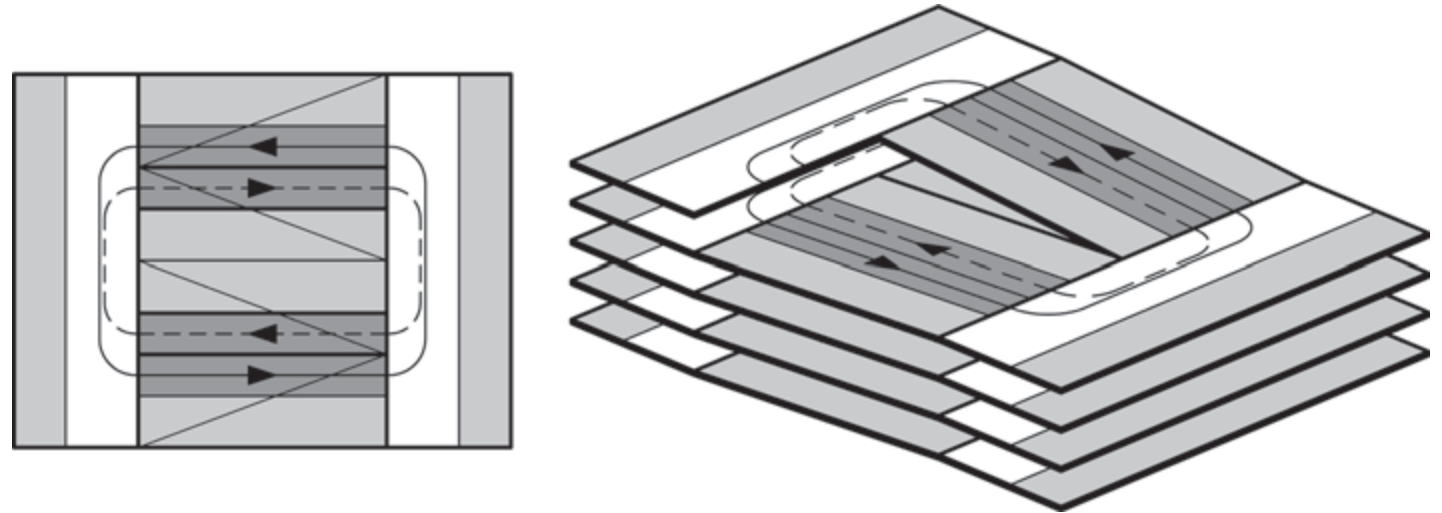


Exit ramps

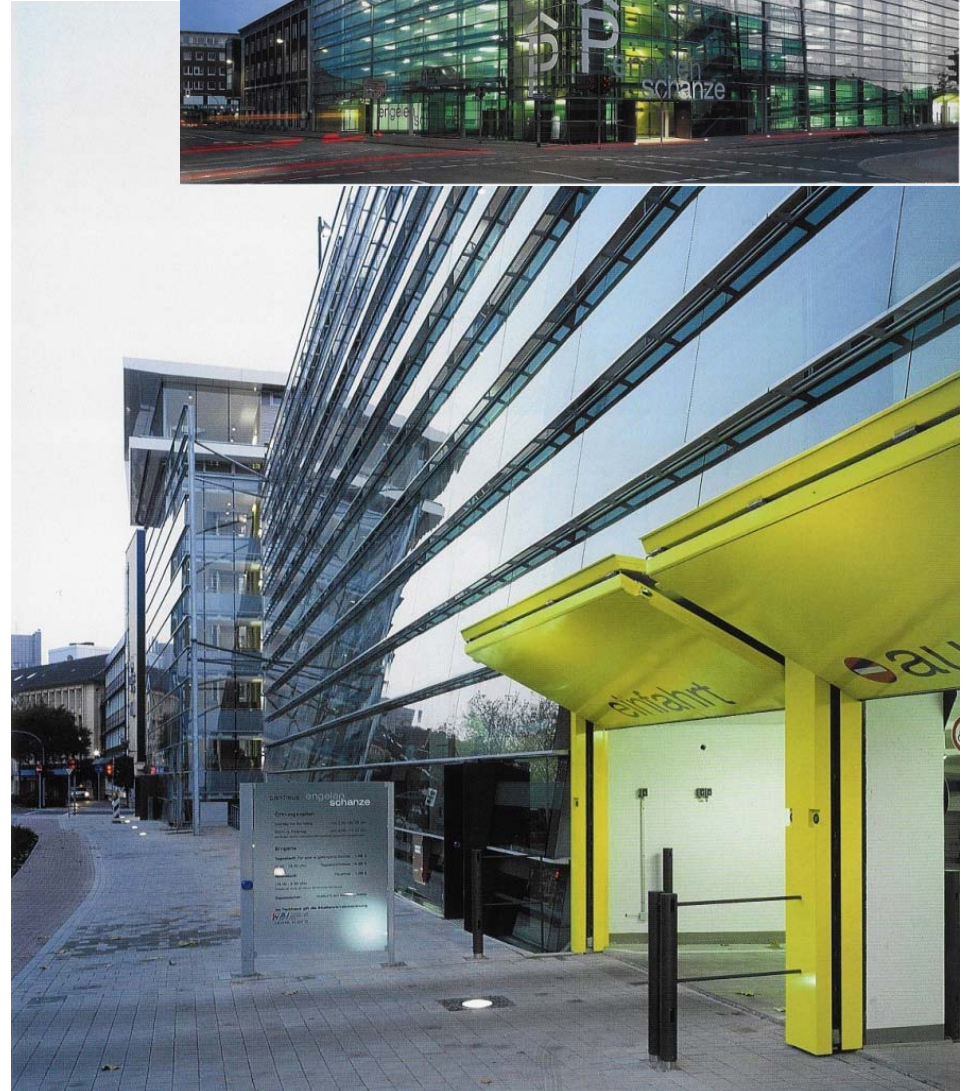
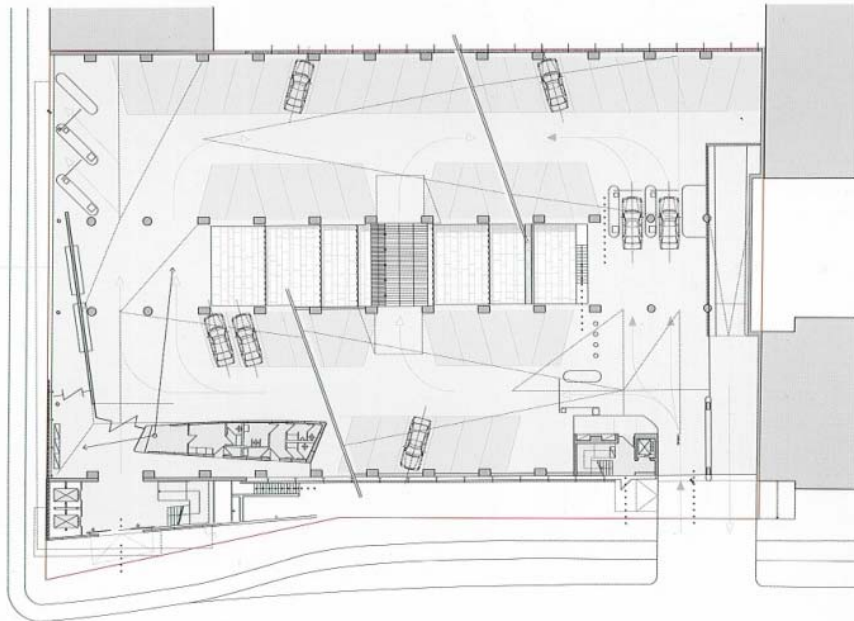
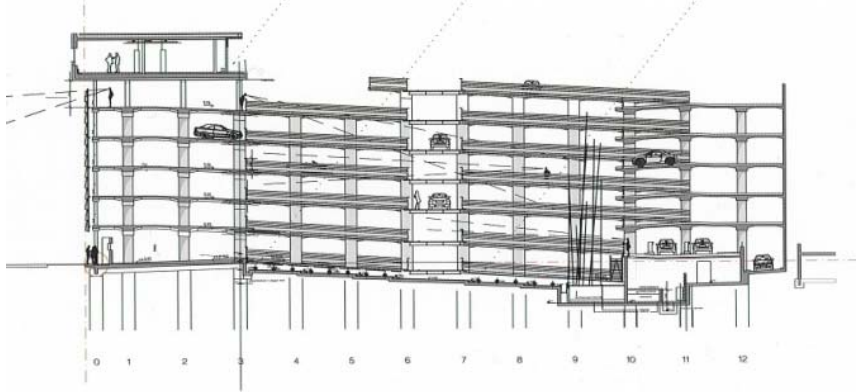
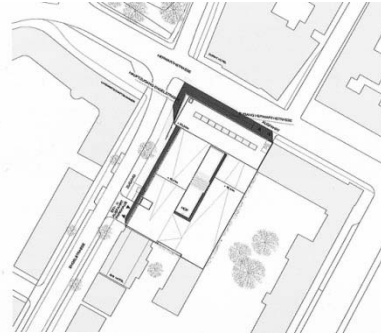
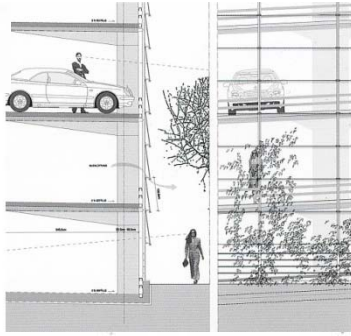
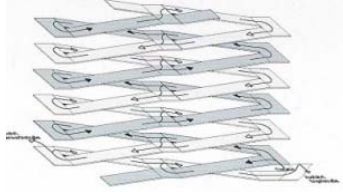




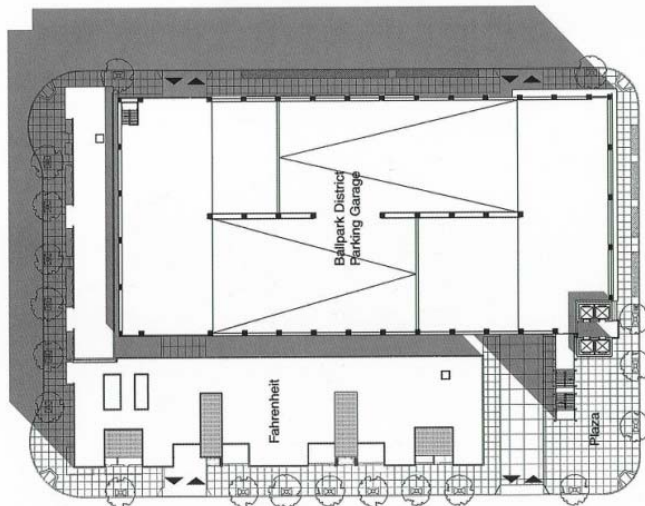
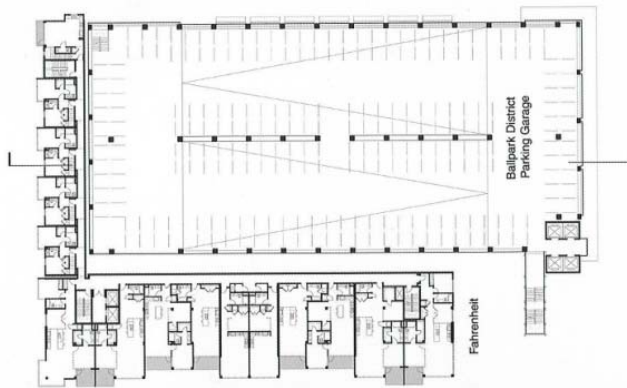
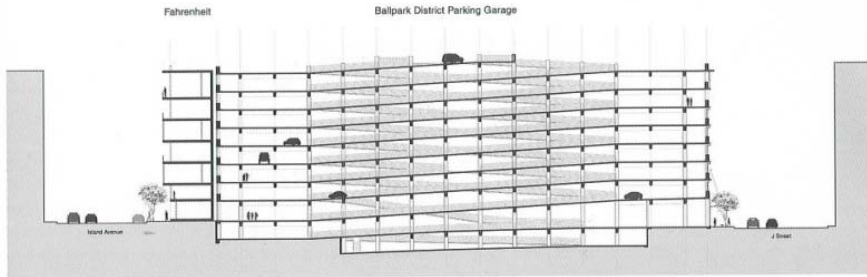
Варијанта А



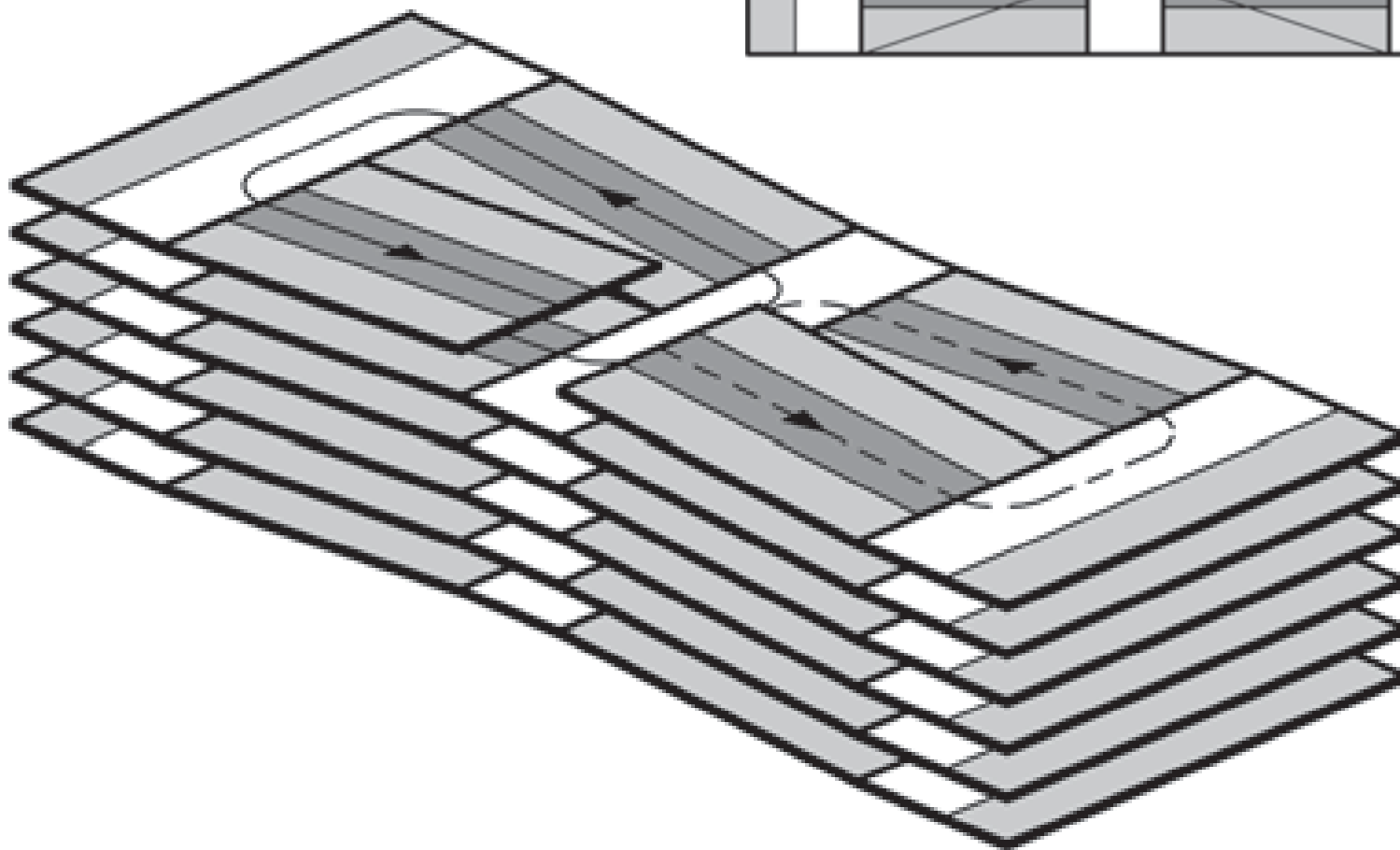
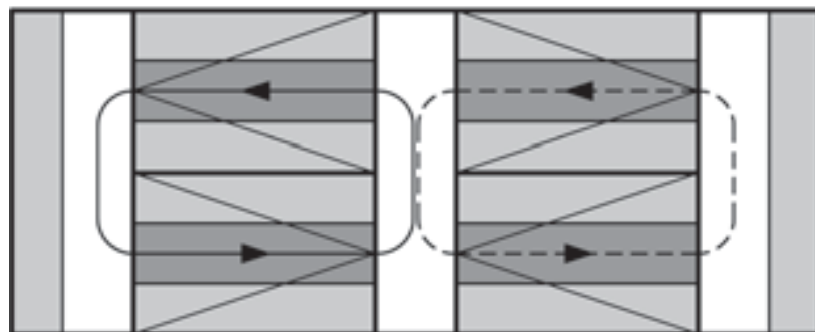
Engelsschanze car park  
Münster, Germany



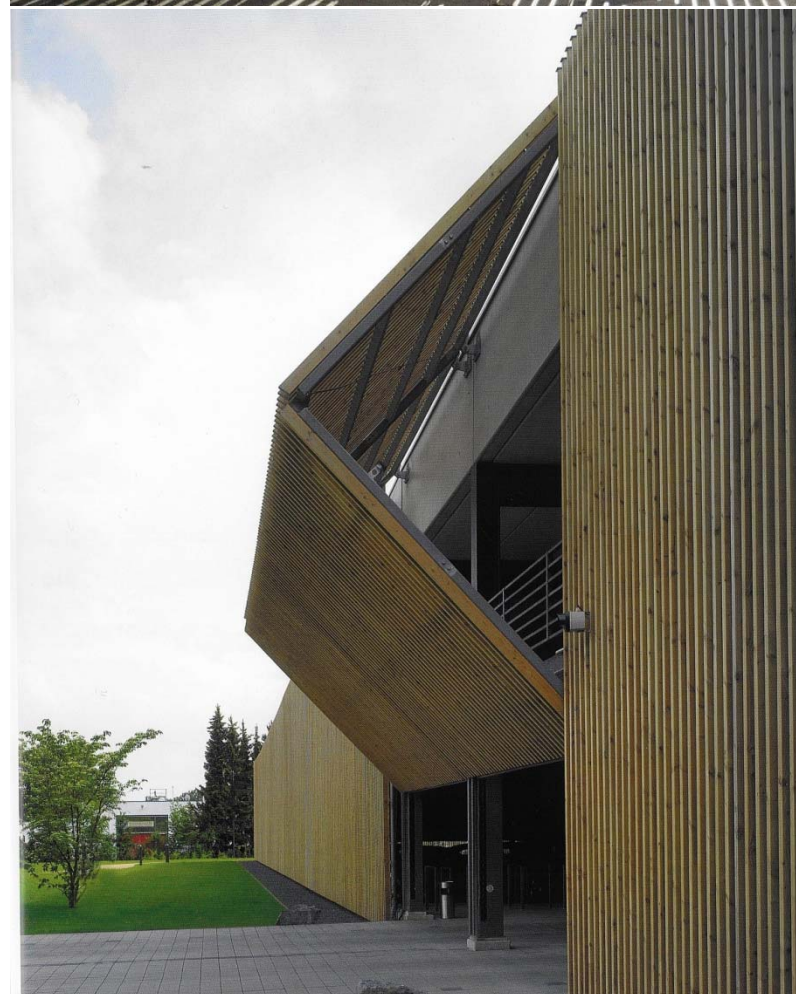
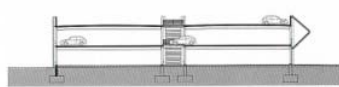
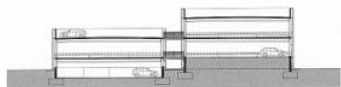
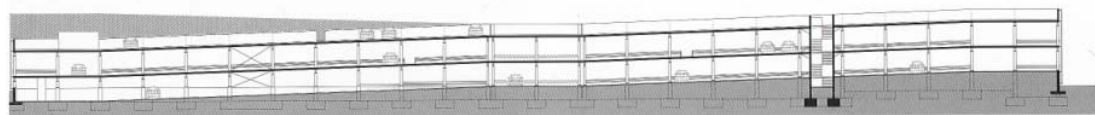
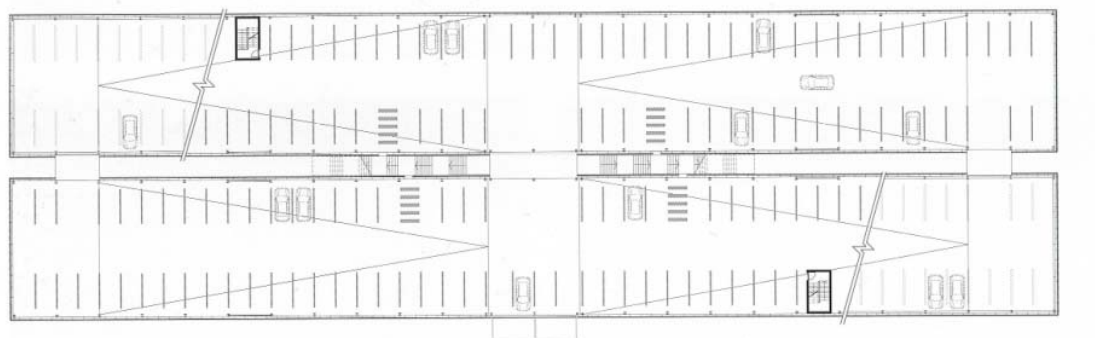
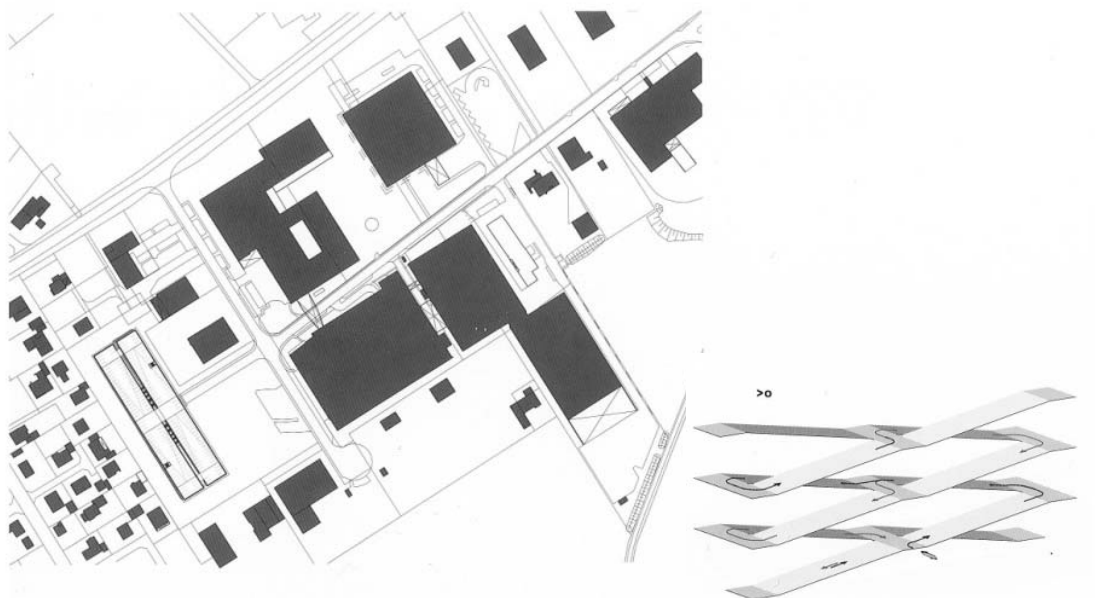
# Ballpark District San Diego, USA



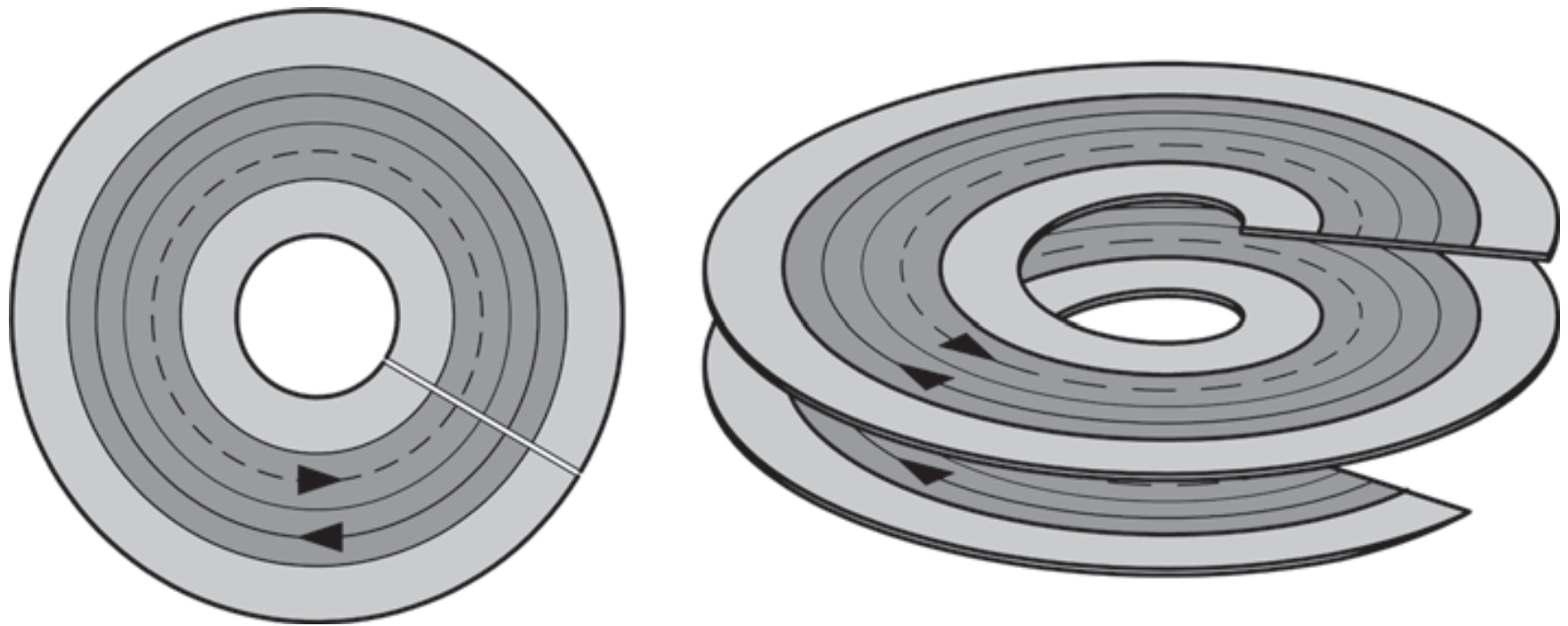
Варијанта В



Company campus car park  
Coesfeld-Lette, Germany

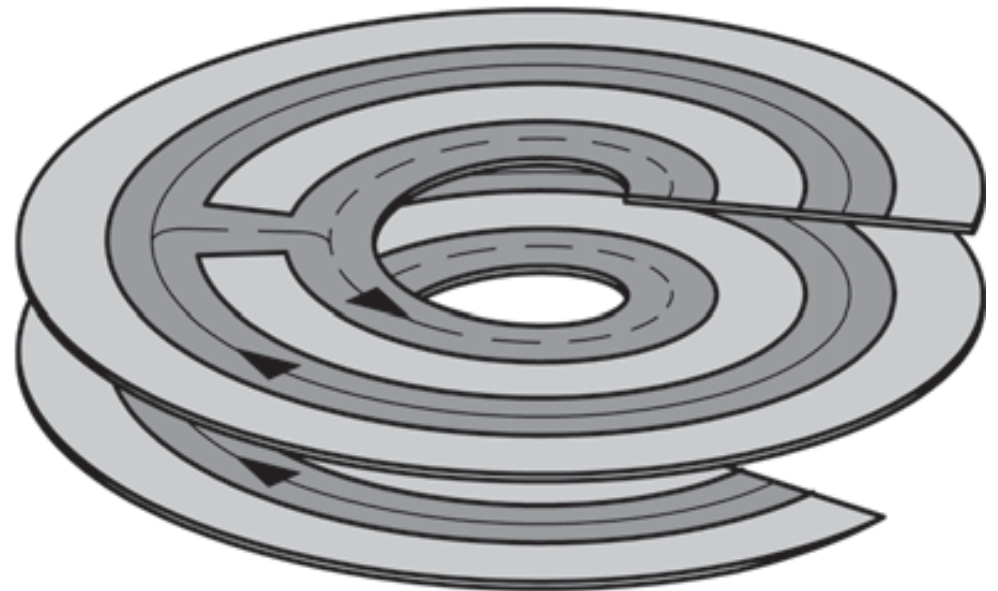
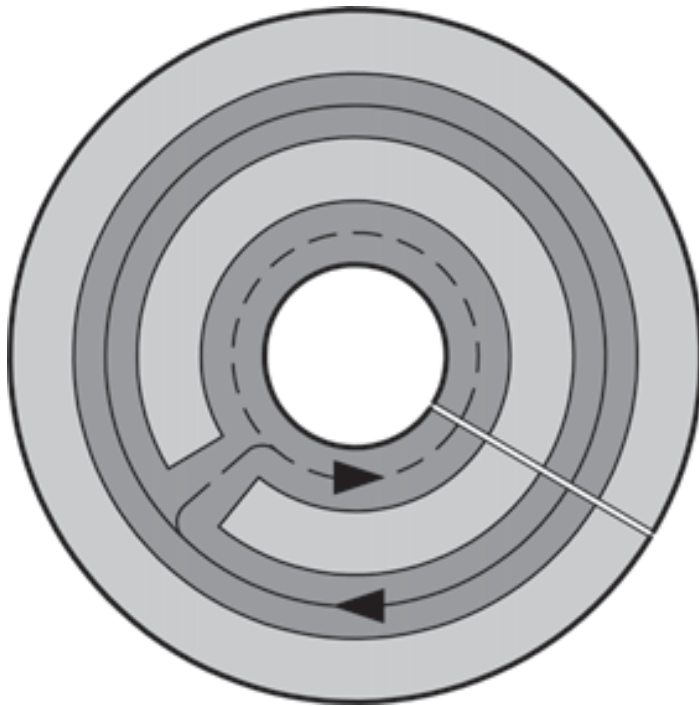


Варијанта С





Варијанта D



## ПИТАЊА ЗА ИСПИТ

1. колоквијум / 1. испитни тест

На датим скицама заокружити паркинг гаражу која има следеће карактеристике:

1. косе етаже кружног облика са рампом за брзо силажење
2. косе етаже правоугаоног облика са кружном рампом за брзо силажење
3. косе етаже правоугаоног облика
4. кружне рампе раздвојене за силазак и пењање између равних етажа
5. концентричне кружне рампе између равних етажа
6. спиралне рампе између смакнутих етажа
7. вањске дуге праве рампе између равних етажа
8. унутрашње дуге праве рампе између равних етажа
9. унутрашње унакрсне праве рампе између равних етажа
10. кратке рампе са двосмјерним саобраћајем између једноструко смакнутих етажа
11. кратке рампе са једносмјерним саобраћајем између једноструко смакнутих етажа
12. кратке праве рампе са одвојеним паровима за пењање и силажење
13. кратке праве рампе између двоструко смакнутих етажа.

За препознати тип гараже дати у скицама основне елементе припадајућих рампи / косина / односно карактеристичне етаже, као што су димензије, нагиб, израчунавање дужине у односу на спратну висину итд.