

DMV / RCP : Inside the Agency

THESIS TITLE

A Thesis Submitted to the Department of Architecture
Harvard University Graduate School of Design, by

Olivia Howard

AUTHOR NAME

In Partial Fulfillment of the Requirements for the Degree of
[Master of Architecture]

May, 2022

DATE

(Month and Year Thesis Submitted)

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Olivia Howard



Iman S. Fayyad

DMV/RCP: Inside the Agency



model photo, Olivia Howard, 2022

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DMV / RCP: Inside the Agency
M.Arch I Thesis, 2022

DMV/RCP: Inside the Agency

1. The Department of Motor Vehicles
/ an agency of misplaced identity
2. The Reflected Ceiling Plan
/ a tool for recuperating civic space
3. The Retrofit
/ reshaping the DMV experience as civic ceilingscape



model photo, Olivia Howard, 2022

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DMV / RCP: Inside the Agency
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DMV/RCP: Inside the Agency

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1938. Berkley DMV field office. Valley Community Newspapers: "The DMV Celebrates its 100th Anniversary," August 2015 <https://www.valcomnews.com/dmv-celebrates-100th-anniversary/>

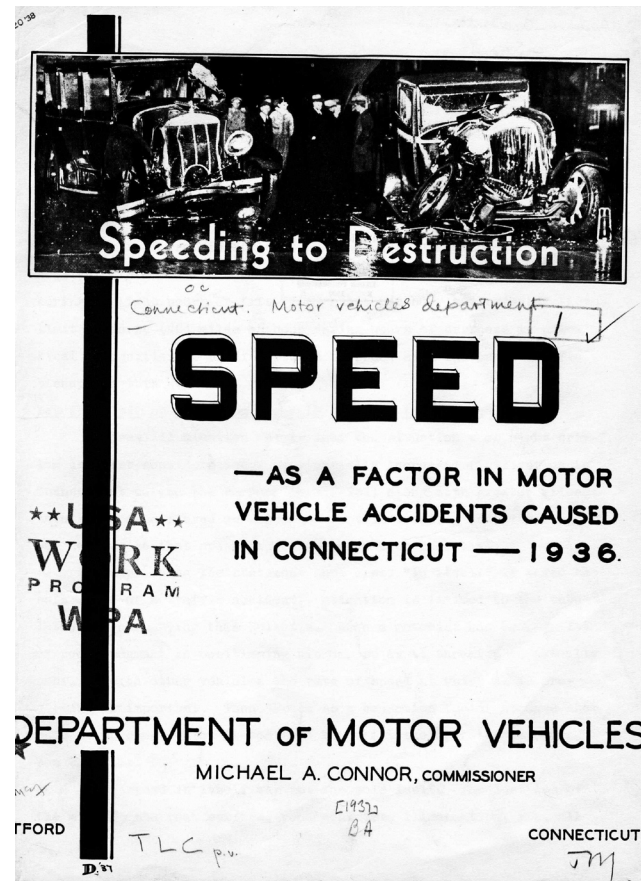
The Department of Motor Vehicles is a state agency full of contradictions: originally established for the purpose of abating the public nuisance of speeding drivers, the agency has now imprinted itself upon the cultural imaginary as a public nuisance.



1962. Drivers lined up to register their vehicles. Richmond Times-Dispatch, "From the Archives: The Virginia Department of Motor Vehicles." Jan. 31, 2018. Staff photo.



above: Model T wreck, published in "Antique Cars Wrecks", by Old Cars Weekly, Kruse Publication, 1990.



left: "Speed as a factor for motor vehicle accidents caused in Connecticut, 1936." Connecticut. Department of Motor Vehicles, 1937.

Though it is an arm of the state government fundamentally important to our democracy, by granting identification and voter rights, no agency is more loathed across the population. In spite of helping itself to all the rhetoric of scientific management, boasting a “modern, efficient, cost-effective and convenient service,” it remains an infuriatingly ineffective process, requiring long wait times and frustrating paperwork.

Perhaps the reason for our universal outrage with the operations of the agency lies with our expectation: the fact that we arrive at the DMV as consumers rather than as citizens. This expectation is not entirely unjustified; it is inscribed within the history of the agency.



1960s. People lined up to renew their licenses at the California DMV in Oceanside



2020. DMV in Westgate shopping mall, Madison, WI



The DMV as a universal experience



2019. People lined up outside a Department of Motor Vehicles office in Flushing, Queens. Credit: Elizabeth D. Herman for The New York Times

The DMV began as a service rather than as an autonomous space or building type, situated within an existing commercial infrastructure from the very beginning.

In the early 20th century, however, business people were granted agency to handle automobile registration and licensing, augmenting their primary lines of work, which included automobile garage owner, salesman, machinist, glass merchant, dentist, and so forth.



1916. McCann took offices inside the State Trust Company, a major bank in Plainfield, at the corner of Park Avenue and North Avenue. The photograph was taken a year after McCann established his DMV agency inside.



1960s. The Rhode Island RMV had offices all over the state, including this one in West Warwick.



1906. Machine shop interior, Morristown. The image is assumed to be of Dutton's business, providing a sense of what a motorist might have encountered as they sought to conduct registration and licensing transactions.

Ellen Hostetter, "The Landscapes of Early Automobile Registration and Licensing Laws: Creating New Jersey's Department of Motor Vehicles, 1903 to 1957," *Journal of Urban History* 2019, Vol. 45(3) 452– 482.

With the postwar economic boom, and the massive state and federal investments in auto-infrastructure, the automobile assumed a 1:1 ratio with the population at large, with driving and the notion of individuality now lastingly joined at the hip.

In a consequential transfer of power, the DMV itself went from being an agency granting driver licenses to an arbiter for the definition of individual identity, thus assuming an essential role in civic life, acting both as the administrative back-of-house and the primary interface between the people and the state.



1974. Commissioner Vern L. Hill outlines aspects of the new 16.5 million dollar DMV headquarters on a model of the 7 story facility for dmvy employees Judy Smith and Diana Davis. Richmond Times-Dispatch, "From the Archives: The Virginia Department of Motor Vehicles." Jan. 31, 2018. Staff photo.



1983. drivers get lisences at DMV office in Richmond, VA. Richmond Times-Dispatch, "From the Archives: The Virginia Department of Motor Vehicles." Jan. 31, 2018. Staff photo.



1956. Victor Gruen, Southfield Mall, Detroit, MI



1979. The New Headquarters of the Divison of Motor Vehicles has taken on a glassy look now that many of the windows have been installed. the \$13M building is scheduled to be completed in early 1979 according to DMV. Richmond Times-Dispatch, "From the Archives: The Virginia Department of Motor Vehicles." Jan. 31, 2018. Staff photo.

Everyone has to go to the DMV; it is in fact one of the few spatial environments in a socially divided and digitally infatuated USA where people of all socio economic backgrounds, races, religions, gender and so on come together under its unbearable inefficiency and its long waiting lines: everyone agree to hate the DMV.




1955. Examiner L.R. Hudson, administers and eye test to Nicky DesChamps. Richmond Times-Dispatch, "From the Archives: The Virginia Department of Motor Vehicles." Jan. 31, 2018. Staff photo.



1950. Woman poses for her license photograph. Valley Community Newspapers: "The DMV Celebrates its 100th Anniversary," August 2015 <https://www.valcomnews.com/dmv-celebrates-100th-anniversary/>

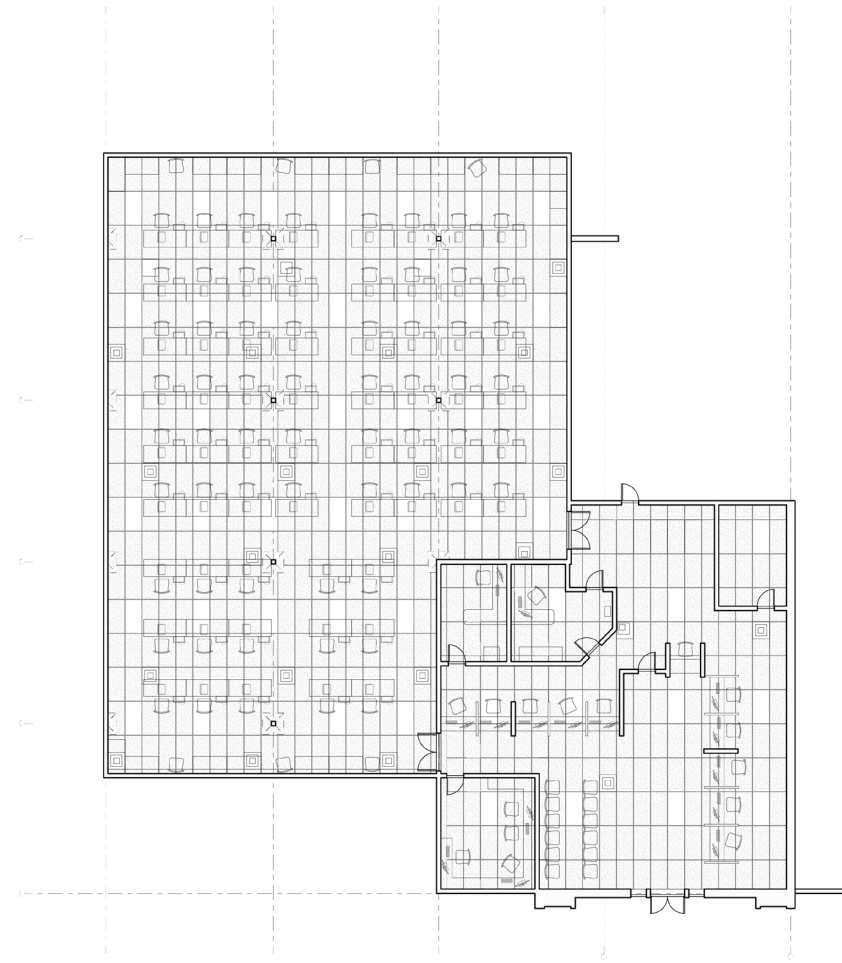


Michigan Driver License - blank



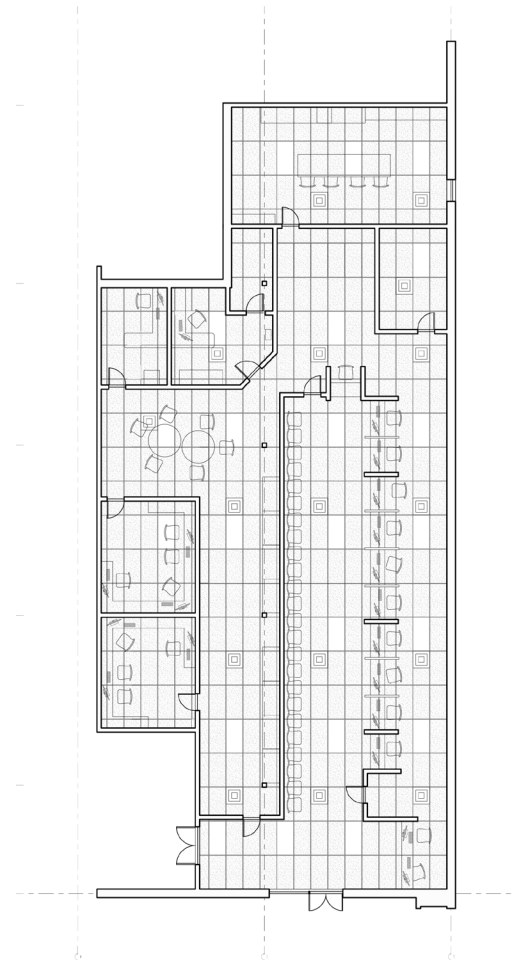
To so many Americans, accustomed to instantaneity, convenience and service, the Department of Motor Vehicles has paradoxically become a cultural counter-icon to the American way of life.

Where others see a nuisance, however, I propose today to see an opportunity for a socially and civically productive inefficiency; a win for collective over individual identity.



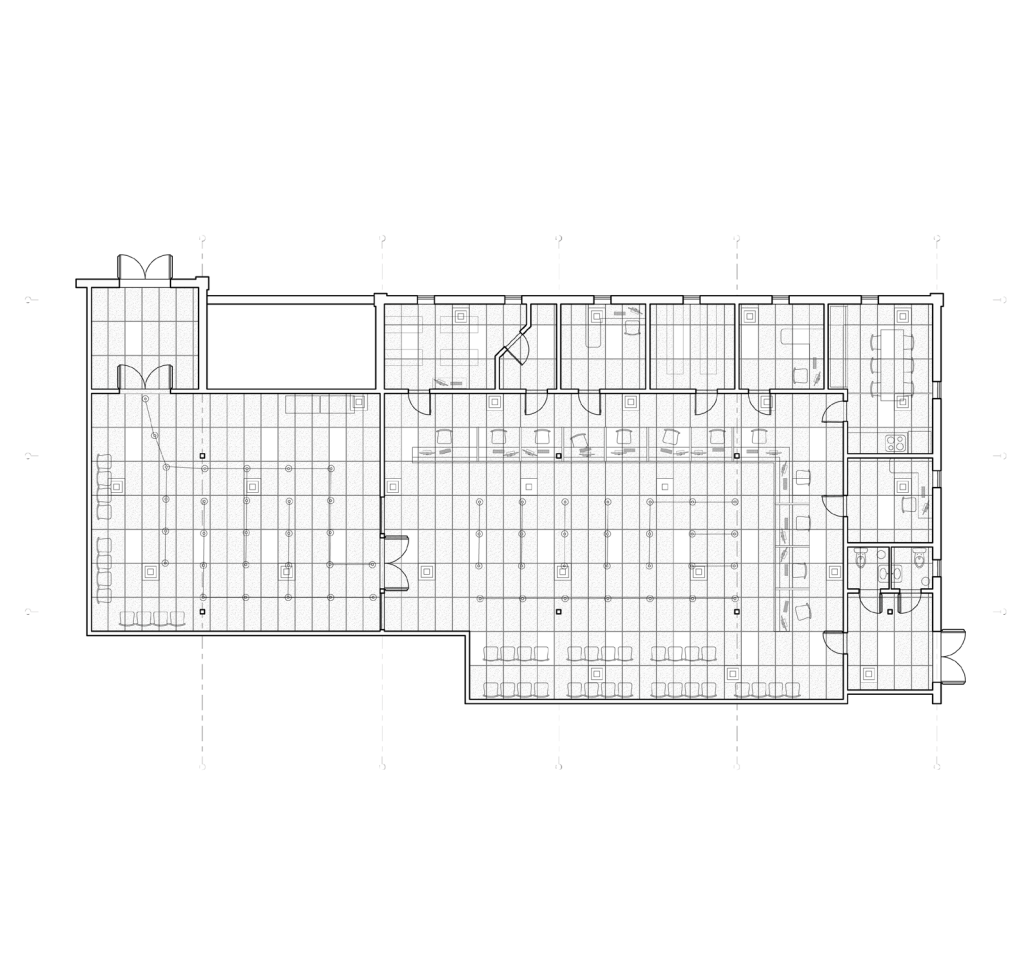
The office floor

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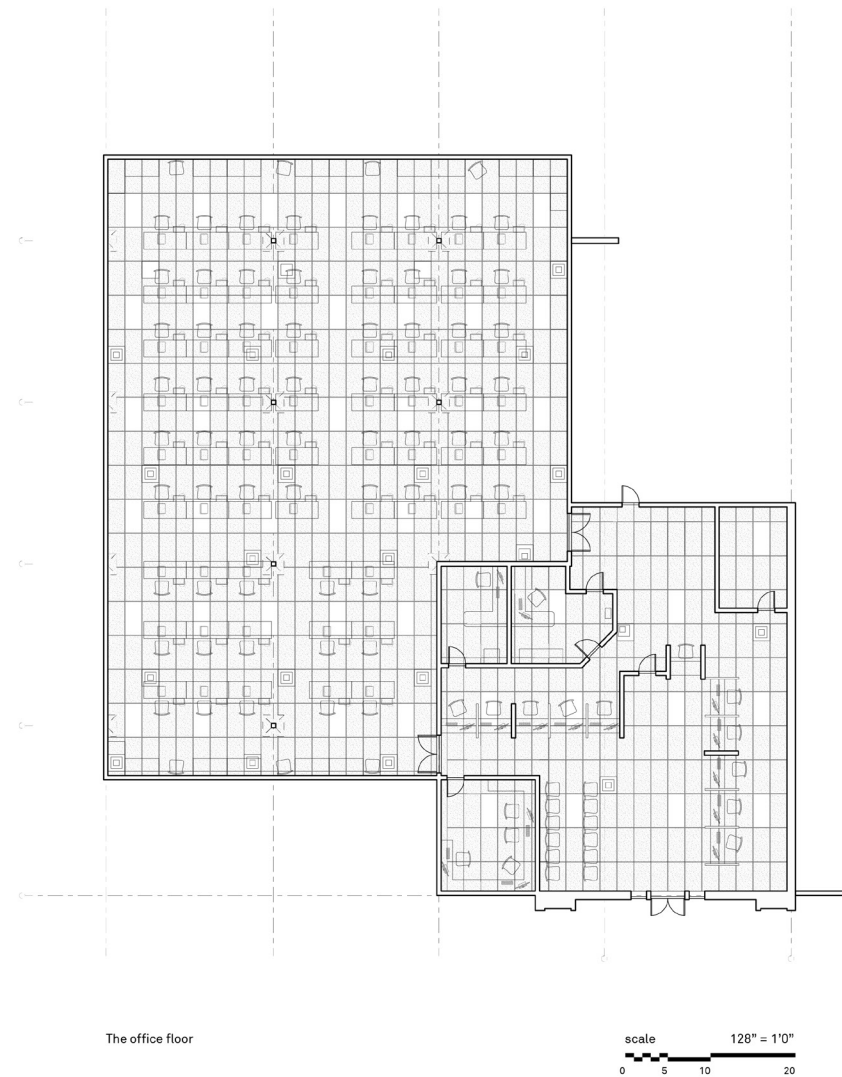
The bureau

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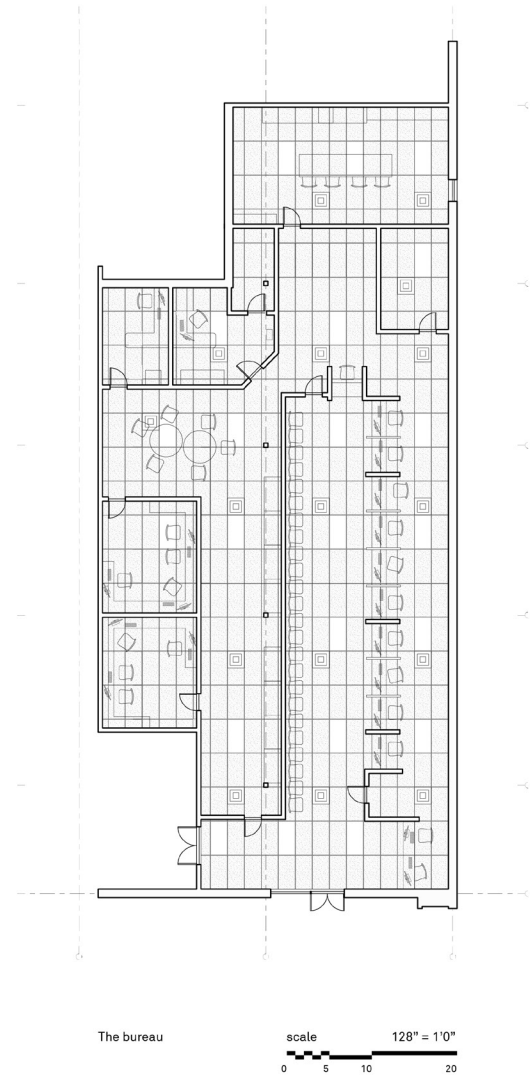


The waiting room

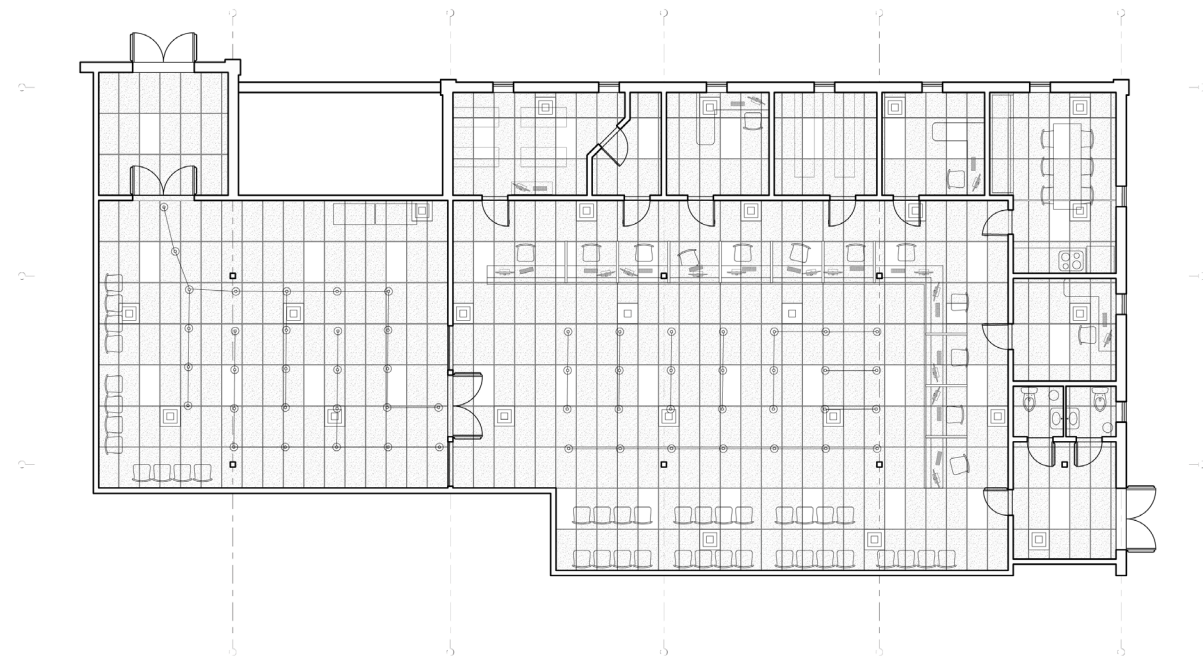
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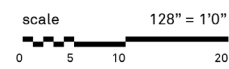
1965. 800 employees of the DMV, most of whom had access to all traces of a [driver's] record in the old system. Richmond Times-Dispatch, "From the Archives: The Virginia Department of Motor Vehicles." Jan. 31, 2018. Staff photo.



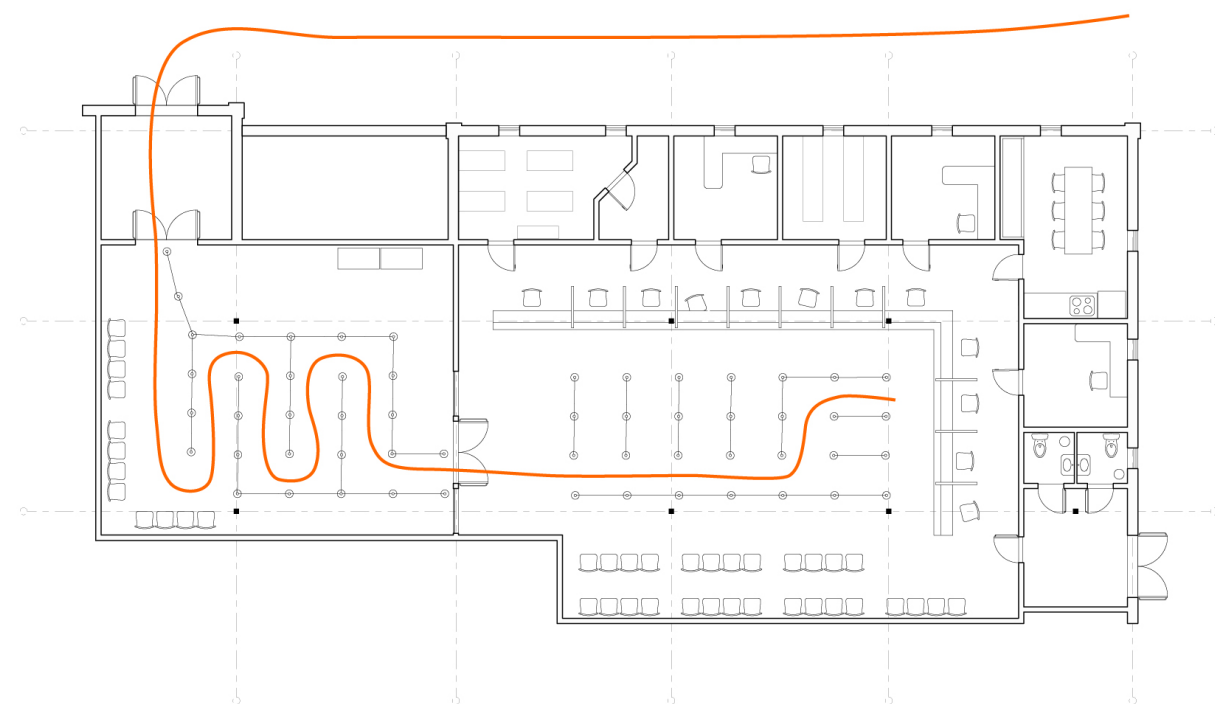
1981. Department of Motor Vehicles, Israel Sun, Ltd.
President and Fellows of Harvard College,
Judaica Division, Widener Library JPCDISUN48437



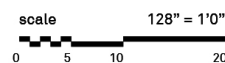
The waiting room



1981. Department of Motor Vehicles, Israel Sun, Ltd.
President and Fellows of Harvard College,
Judaica Division, Widener Library JPCDISUN48437



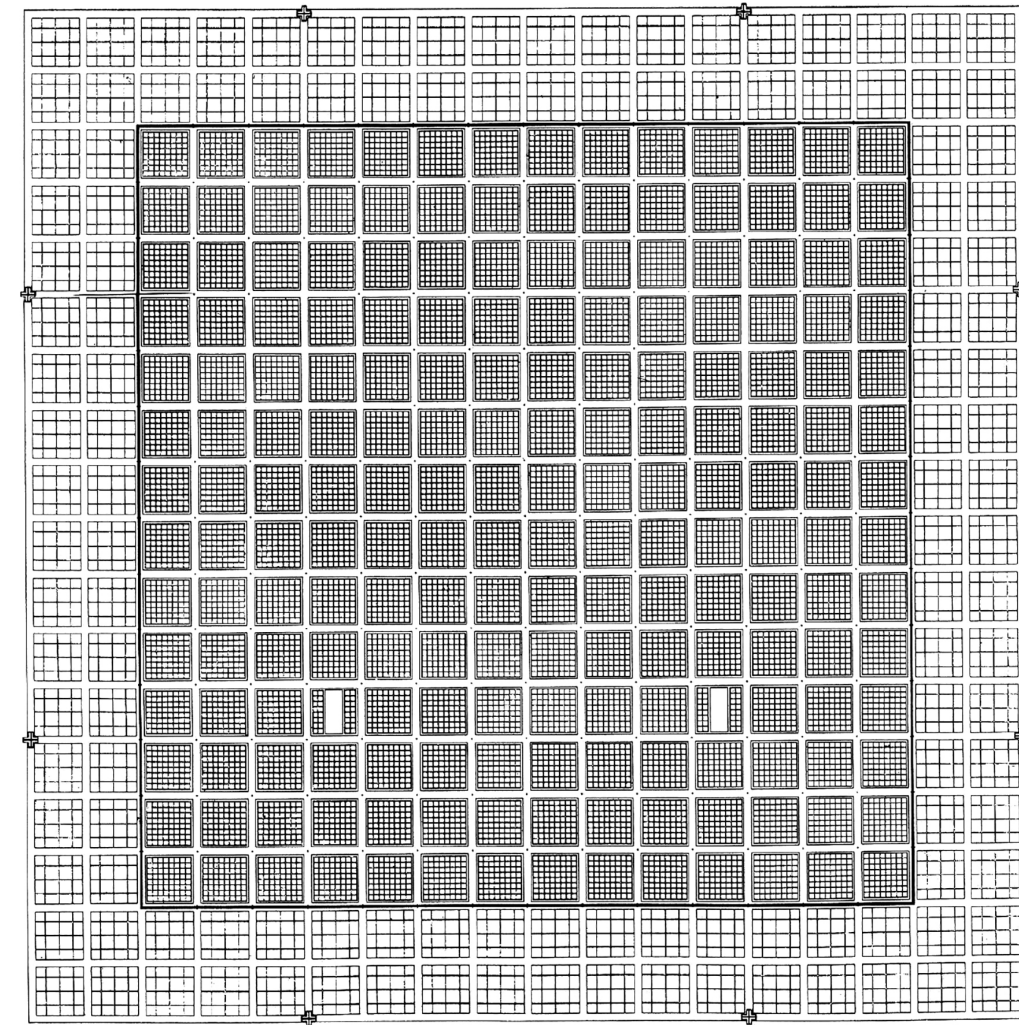
The waiting room



model photo, Olivia Howard, 2022

DMV/RCP: Inside the Agency

1. The Department of Motor Vehicles
2. The Reflected Ceiling Plan
3. The Retrofit



1968 Mies van der Rohe, Neue Nationalgalerie, Berlin

My thesis rejects the current organization of the DMV experience, which remains largely attached to the mall, situated side by side not with public services but with retail; stores which compete for attention over the agency's drab storefront.

I propose today to look at the ceiling plane as a device for the recuperation of a civic experience from commercial office space and put forward the reflected ceiling plan as a site of invention in redirecting hierarchy, program, and spatial differentiation.

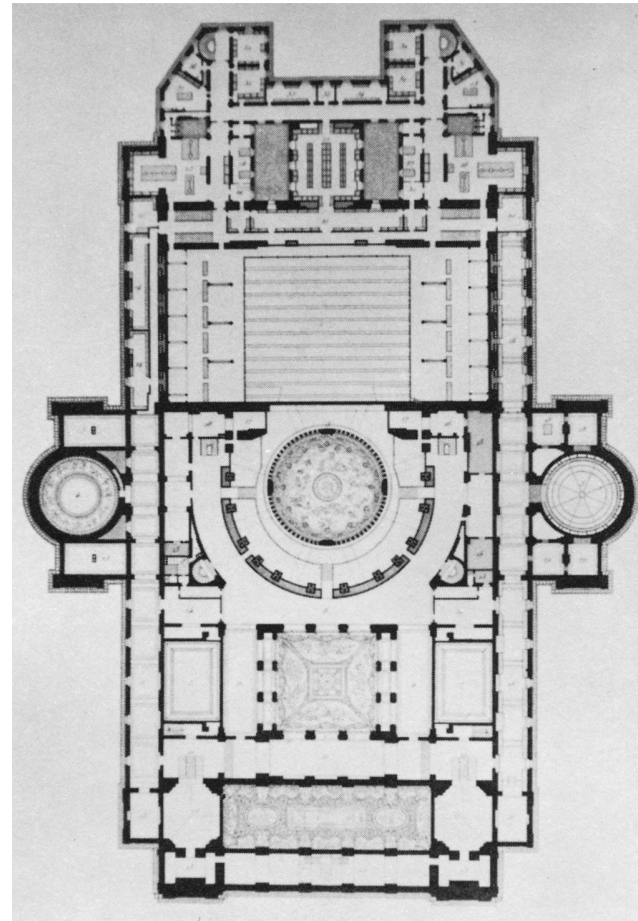


2014 OMA: *Fundamentals*, Venezia 2014, Elements of Architecture: Ceiling

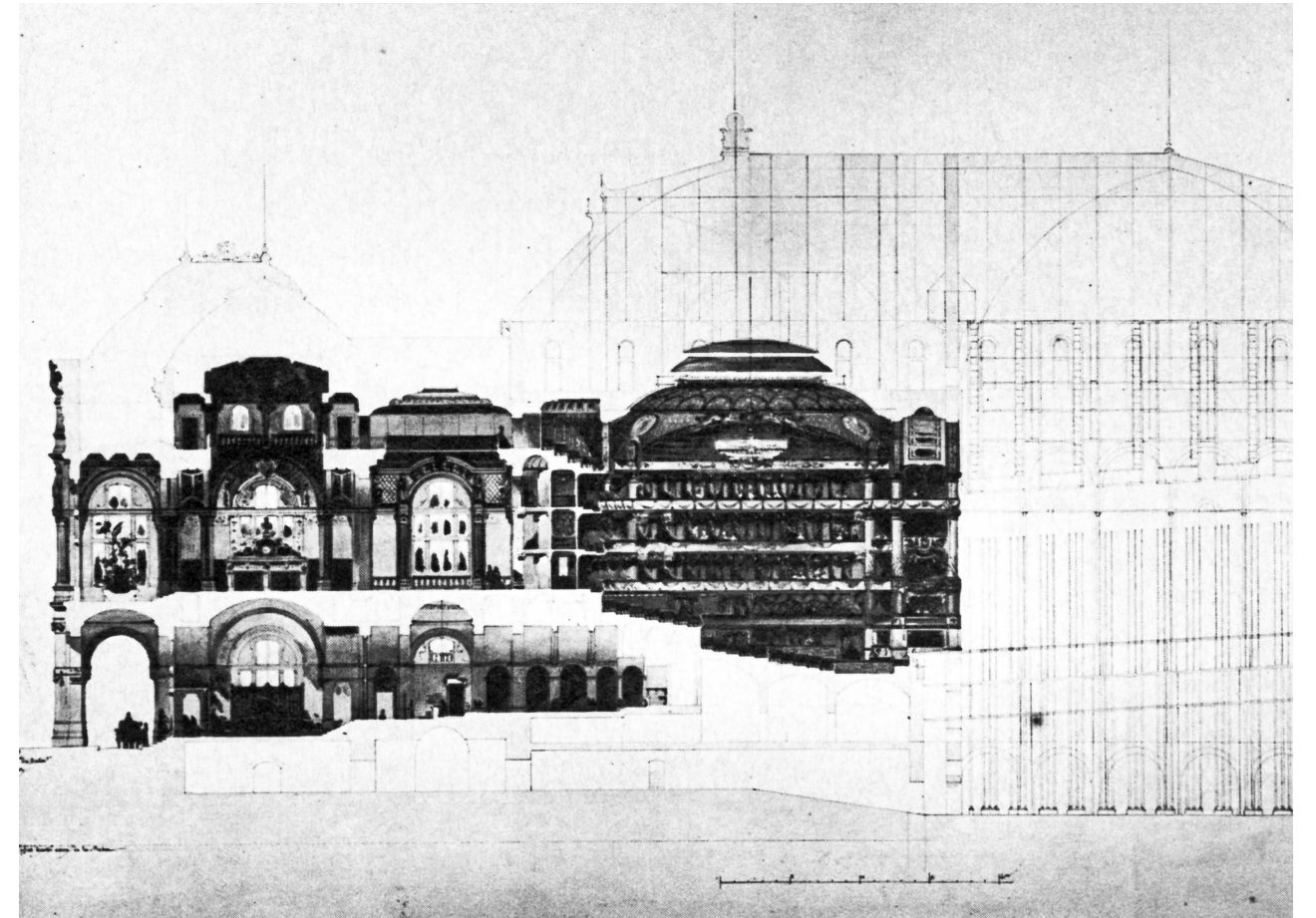
While it may seem mundane and omnipresent, the ceiling is not neutral.

The “false” or “dropped” ceiling was first articulated in the Beaux Arts tradition as a way to mold the interior and elevate new secular civic programs, like the Paris Opera house.

Here, the ceiling was key in creating both a plane of visual projection, as well as defining the collective body that gathered below it.



1875. Reflected Ceiling Plan, Paris Opera House. Charles Garnier. Steinhauser, Monika (1969). *Die Architektur der Pariser Oper*, plate 5. Munich: Prestel. OCLC 554553. Public Domain



1875 Charles Garnier, Section of the Opera Garnier. Eugène Viollet-le-Duc - Scan from the original work : Mead, Christopher Curtis (1991). *Charles Garnier's Paris Opéra: Architectural Empathy and the Renaissance of French Classicism*. New York: The Architectural History Foundation. Cambridge, Massachusetts: The MIT Press. ISBN 9780262132756. Public Domain.

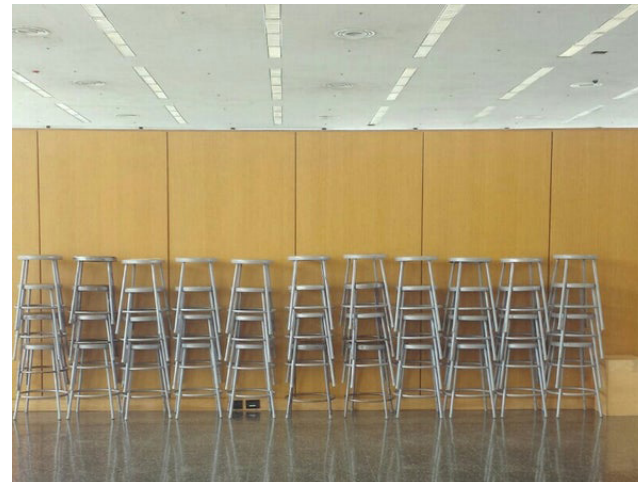
With the invention of the ceiling as an infinite plane during the modernist era, its surface became separated from its scaffold.

Mies' 1942 perspective for an Opera House, for example, shows a hall of industry in which the modernist blank ceiling plane with its implied limitlessness and independence from wall structure is clearly expressed.

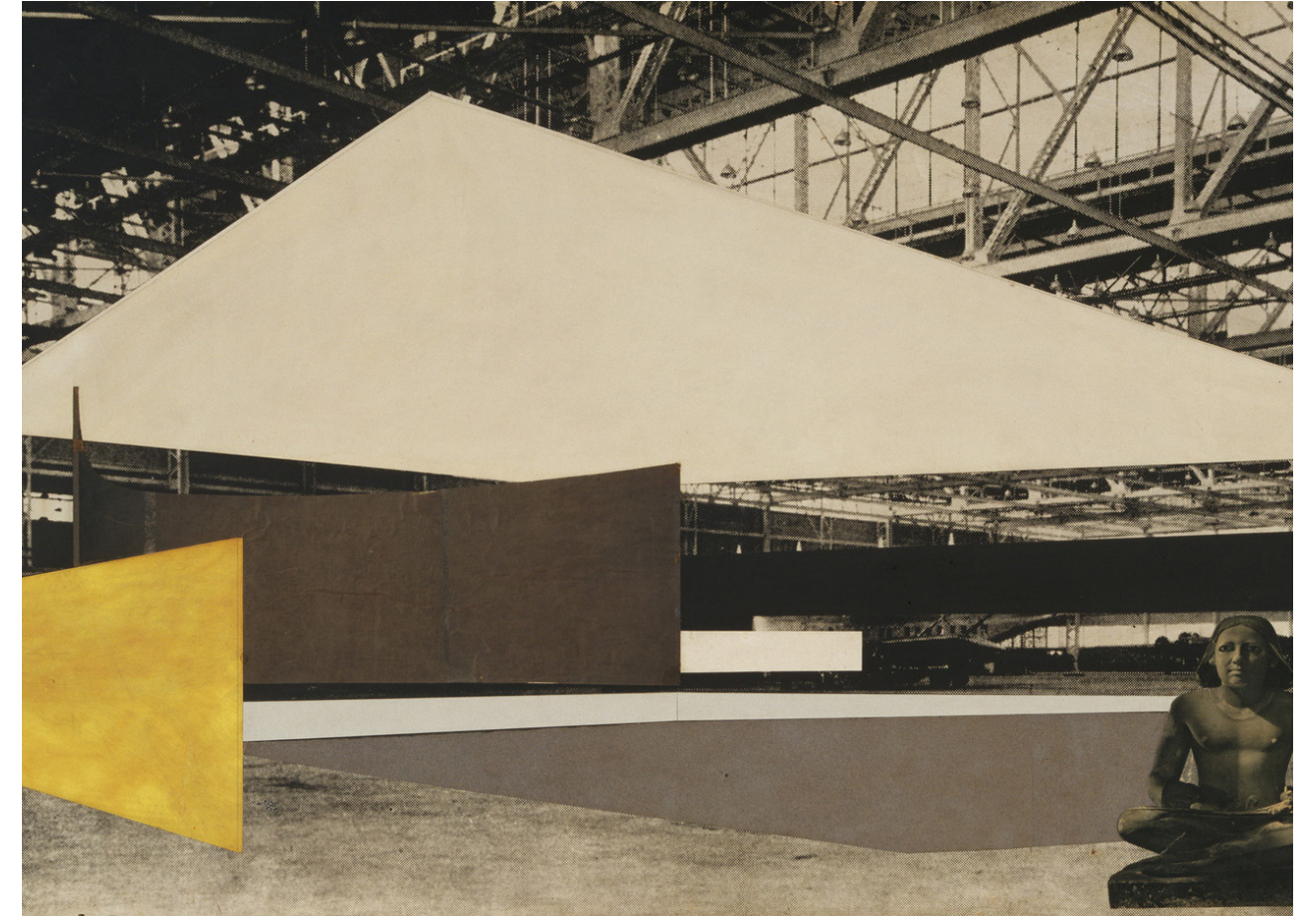
But, even though the ceiling here can be interpreted as structurally superfluous, it still has the potential to function, much like the opera, as a formal shaper of a collective.



1967. Mies van der Rohe, Neue Nationalgalerie. The steel roof structure for the Neue Nationalgalerie was raised by hydraulic jacks and then lowered onto eight supports. © SMB, Zentralarchiv



1956. Mies van der Rohe, Crown Hall, IIT Campus Chicago.

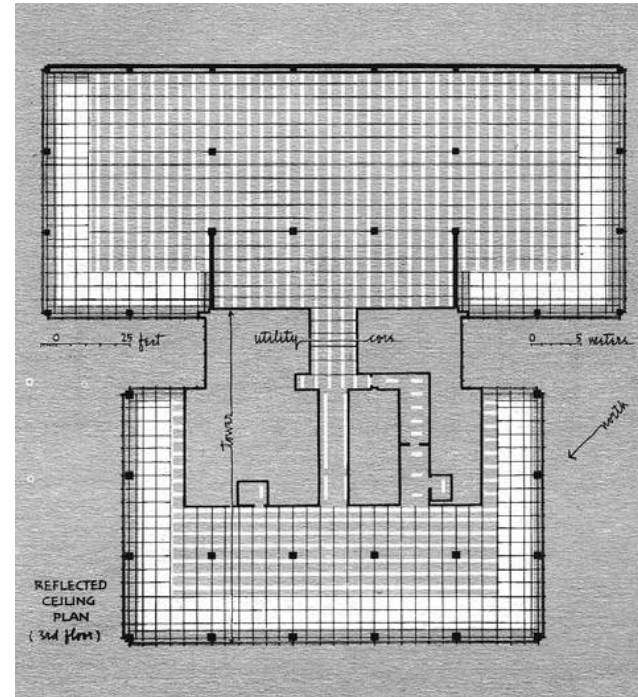


1942 Mies van der Rohe, Perspective for an Opera House

As Raymond Hood once said, “the plan is of primary importance because on the floor are performed all the activities of the human occupants,” - implying the plan is the primary instrument of getting things done efficiently.

But at the DMV, people spend most of their time waiting, that is, not doing anything.

Thus I would like to propose that here, more than the plan, it is the ceiling, with its atmospheric and immersive attributes, that can operate as a tool for activating and reclaiming this idleness as the instigator for the creation of a collective.



1957. Richard Kelly, lighting design, plan of the luminous ceiling for the Seagram Building



2014. Vacant tenant space in the Seagram Building. Photo by Gwen Fuertes. Gwendolyn E. Fuertes : “seagram 2058” University of California at Berkeley College of Environmental Design, M. Arch Thesis, 2014. http://ced.berkeley.edu/downloads/academic/arch_thesis_2014/2014%20Thesis_Gwen%20Fuertes_2058%20Seagram.pdf

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1994. "Dropped" Ceiling. Failure of suspended ceiling system including lights and air diffusers in the Northridge Earthquake (Photo credit: Wiss, Janney, Elstner Associates). US FEMA Earthquake planning, Chapter 6.3.4.1 "Suspended Acoustic Lay-In Tile Ceiling Systems. January 2011.



Reflected Spatial Ceiling Plan
ceiling system model photo
Olivia Howard, 2022



Reflected Spatial Ceiling Plan
ceiling system model photo
Olivia Howard, 2022

This retrofit takes place in the General Motors Headquarters in Detroit, a tall office building designed by Albert Kahn in 1919.

This iconic building straddled the threshold between the waning Beaux-Arts approach and American industrial modernism, while it also became a catalyst for urban change in Detroit, the Motor City.



1919. General Motor's Headquarters

In fact, its construction led to the creation of the so-called ‘New Center’ of the city, three miles north of downtown as a corporate- administrative hub that rebranded itself as the “actual center” of Detroit.

Following its purchase by the State of Michigan in 2011, the GM building houses today a long list of government offices, reaffirming its status as the “actual” administrative center of the city.

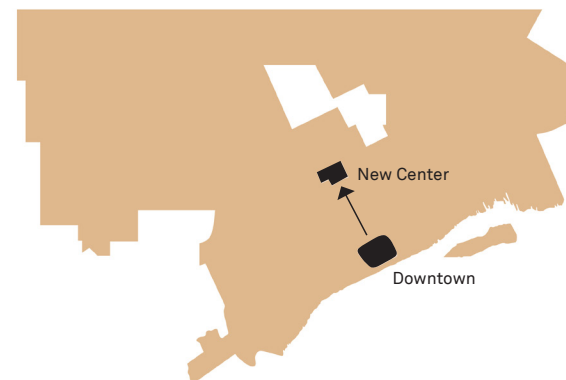
Last but not least, this site becomes important because it is here, in a temporary ground floor suite of this office tower, that Detroit’s Department of Motor Vehicles lives in today, as one of the many government functions of the New Center.



1922 General Motors Building, postcard

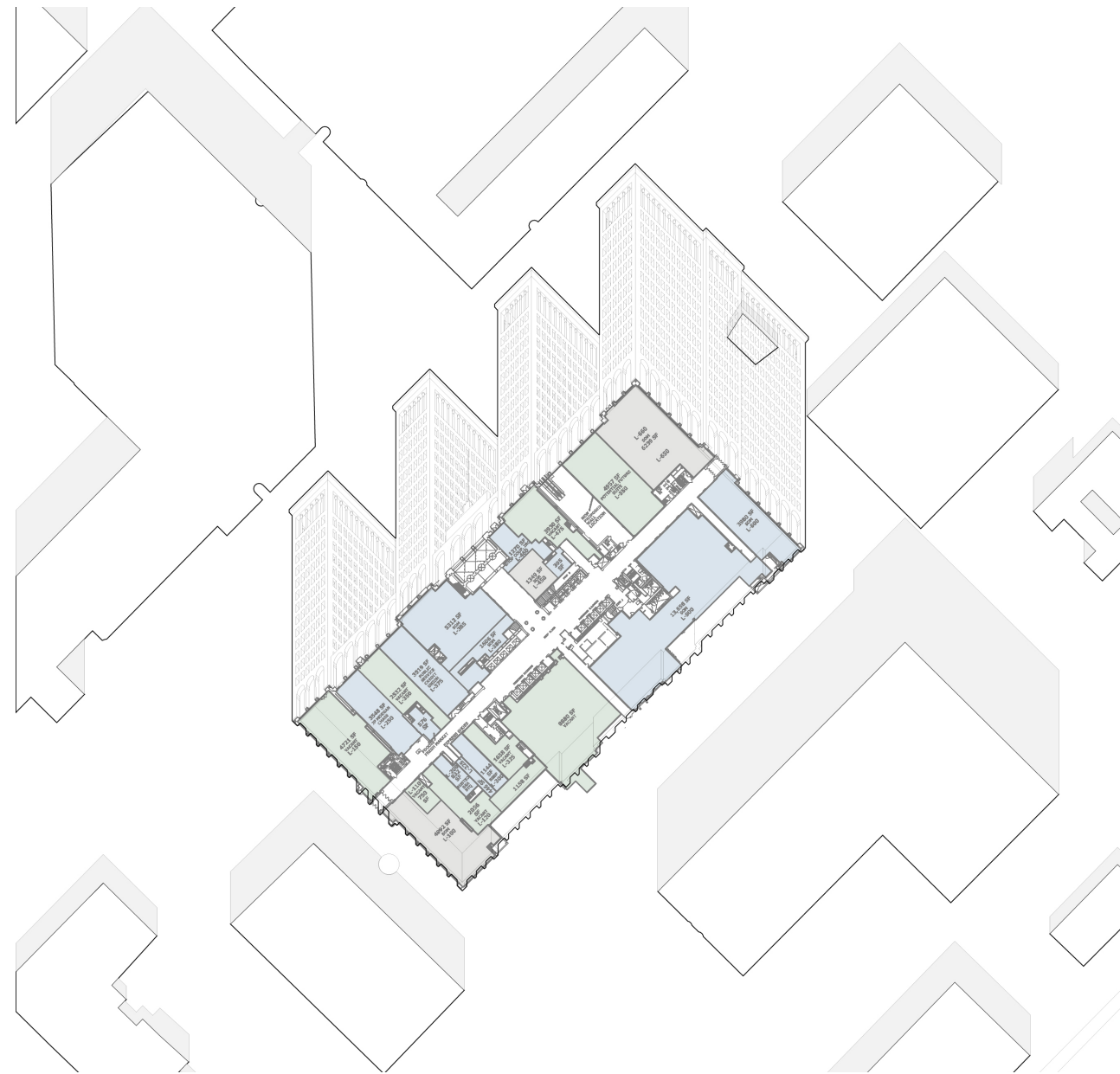


1920 General Motors Advertisement for the “Actual Center of Detroit”



1922 General Motors Building, postcard

Michael Abrahamson. (2018). Actual Center of Detroit. Journal of the Society of Architectural Historians, 77(1), 56–76. <https://doi.org/10.1525/jsah.2018.77.1.56>



GM Building, current ground floor, wormseye axon



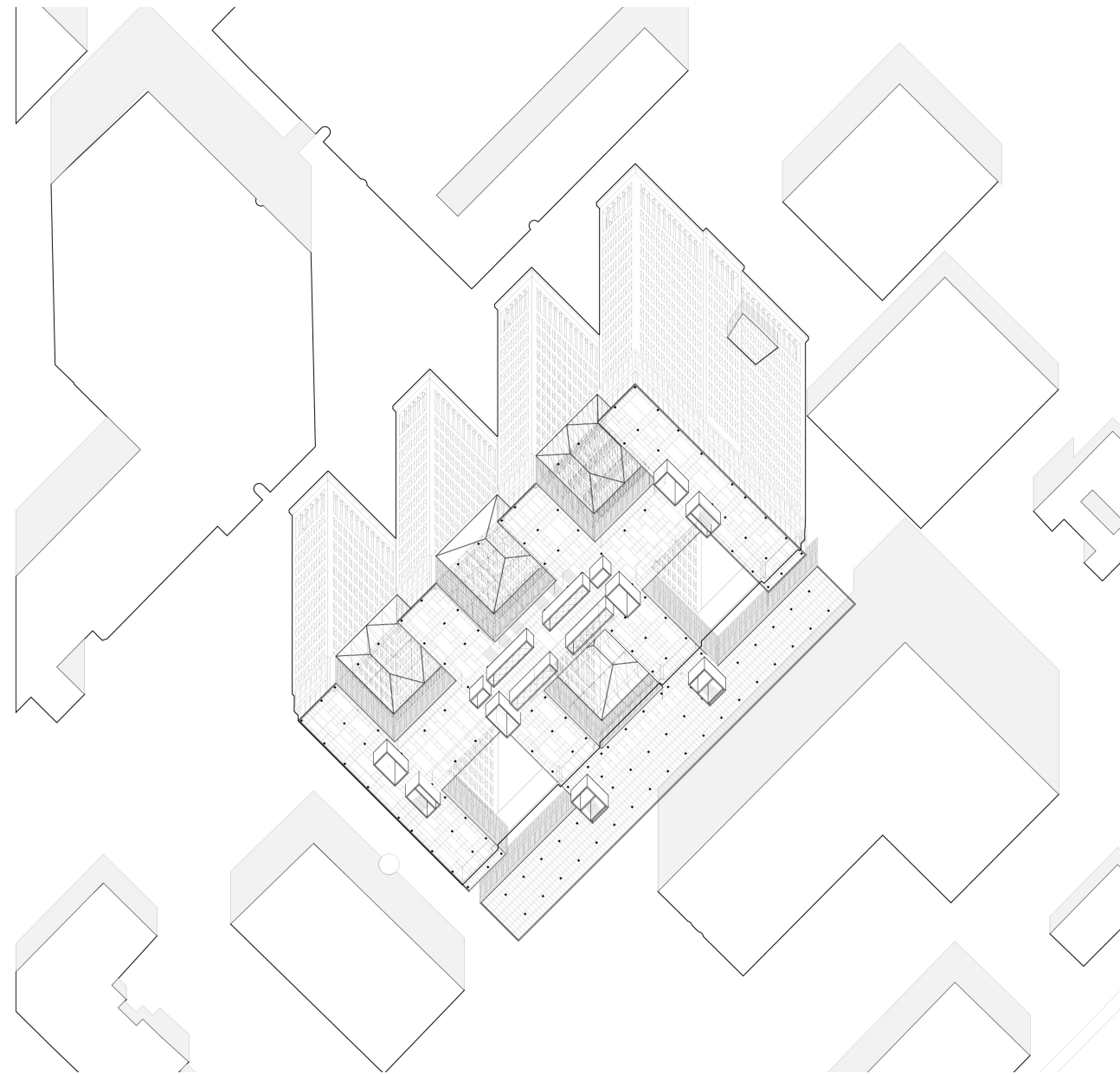
Detroit Historical Societ

Commercial programs

- 01. Shop Coup, Inc
- 02. Public Service Credit Union
- 03. Express Shoes
- 04. Busted Bra Boutique
- 05. Hair Salon
- 06. Foodie Fresh Market
- 07. JP Morgan Chase

Government offices

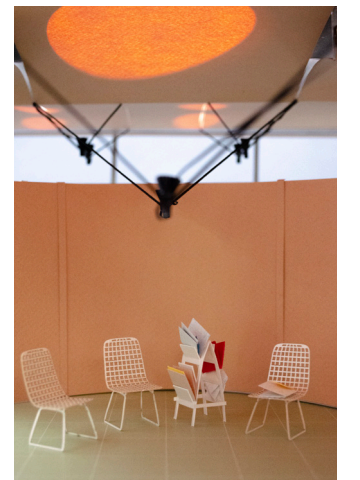
- 01. State Supreme Court Justices
- 02. Department of Elections
- 03. Public Schools Administration
- 04. Attorney General
- 05. Court of Appeals
- 06. Optometric Institute of Michigan
- 07. Worker's Compensation Agency
- 08. Department of Human Services
- 09. Department of Environment,
Great Lakes, and Energy
- 10. Michigan State Housing
Development Authority
- 11. Michigan Treasury Department

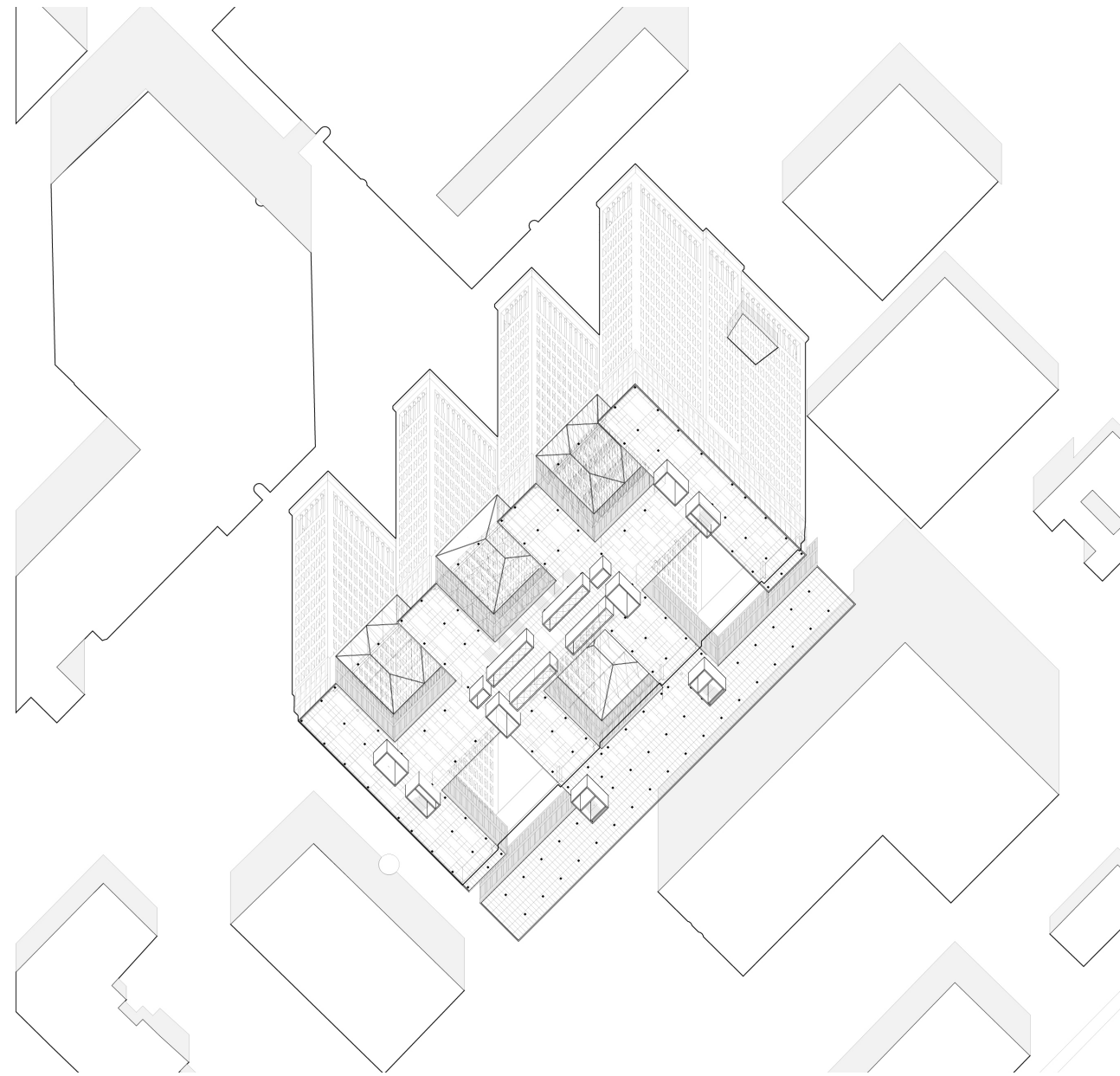


GM Building, Retrofit, wormseye axon

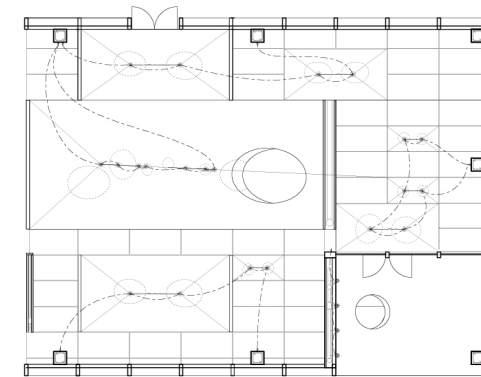
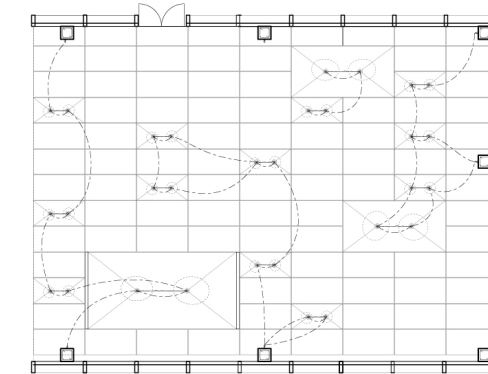
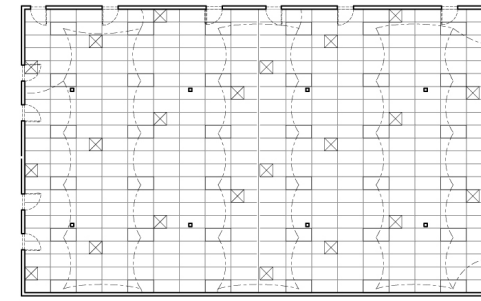


Department of Public Records
model photo, 2022
Olivia Howard,

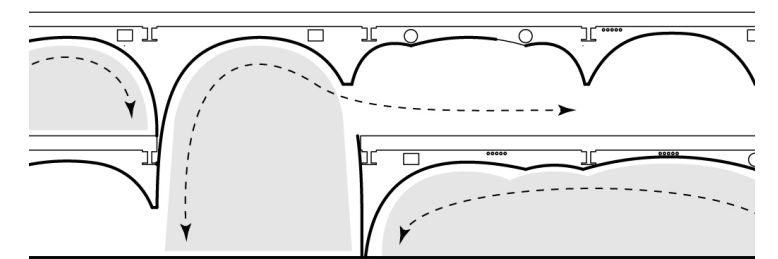
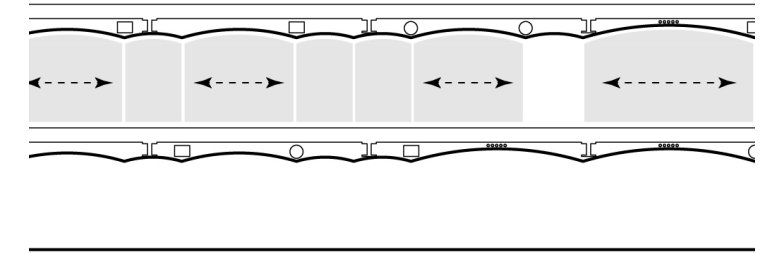
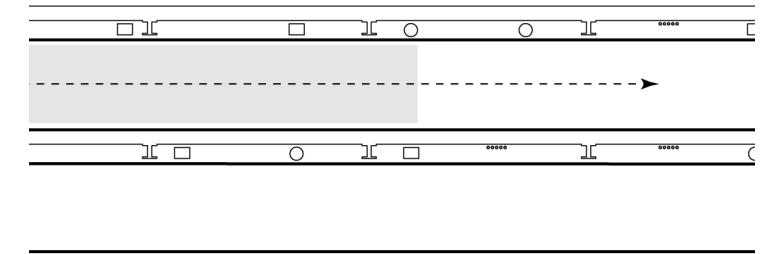




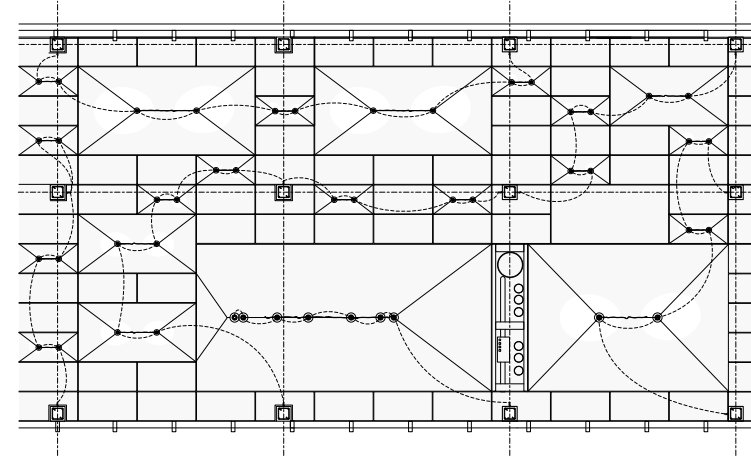
GM Building, Retrofit, wormseye axon



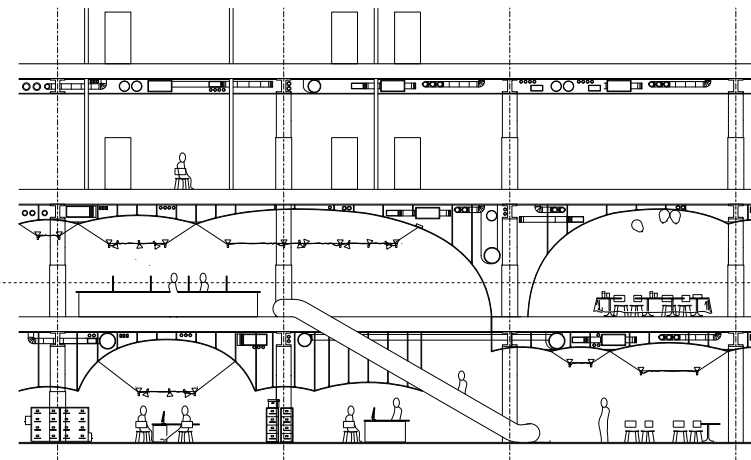
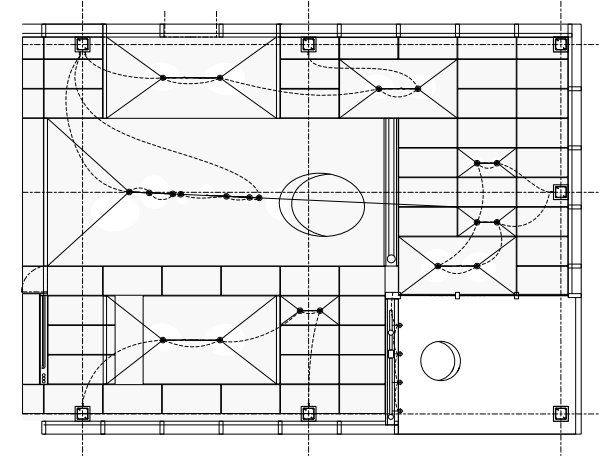
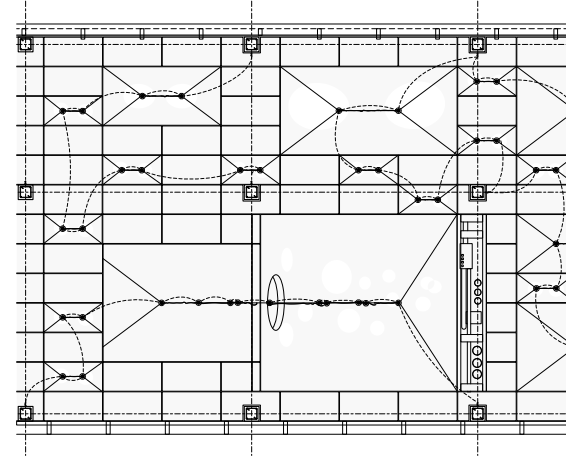
reflected ceiling plan



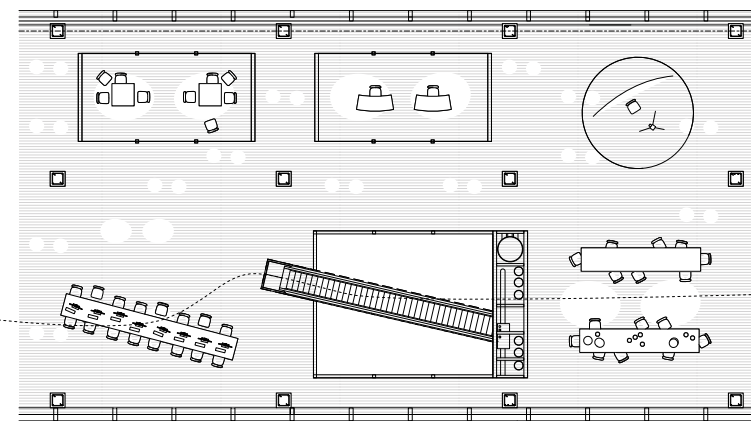
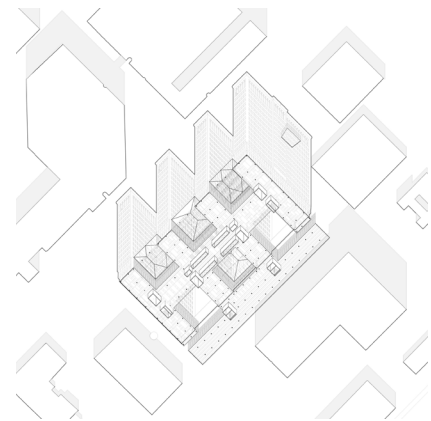
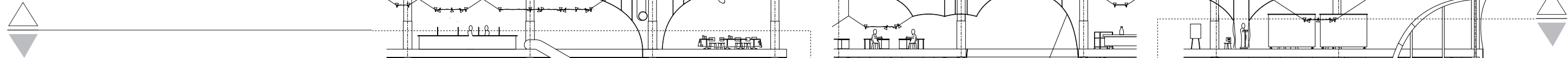
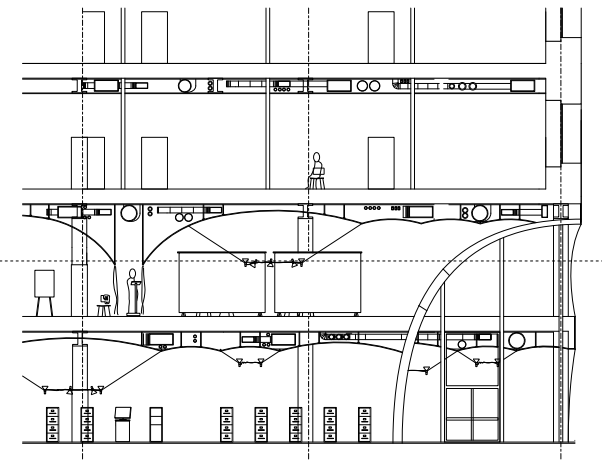
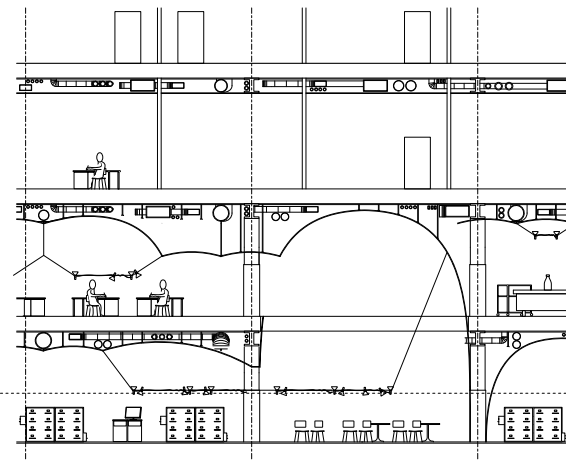
section: plenum/poche



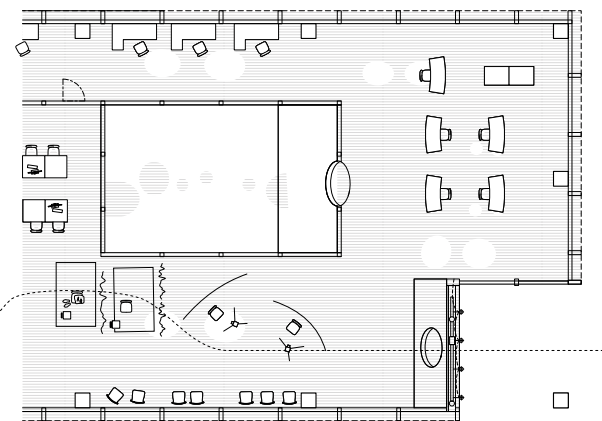
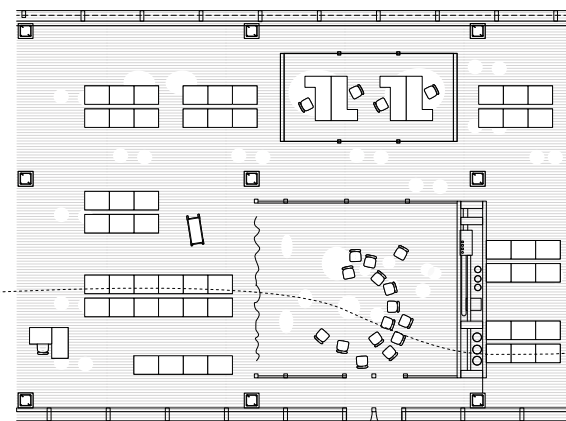
01 / reflected ceiling plan

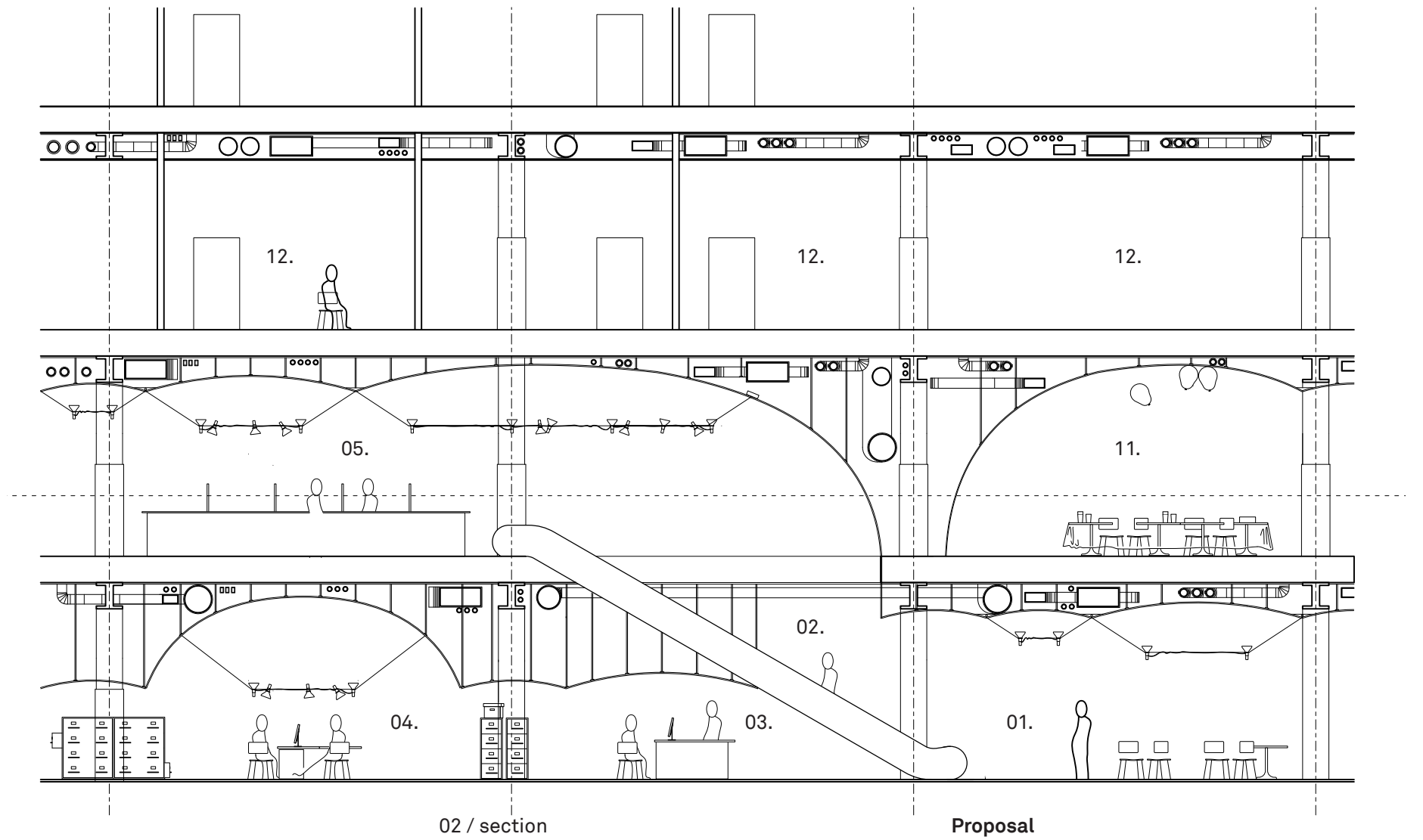
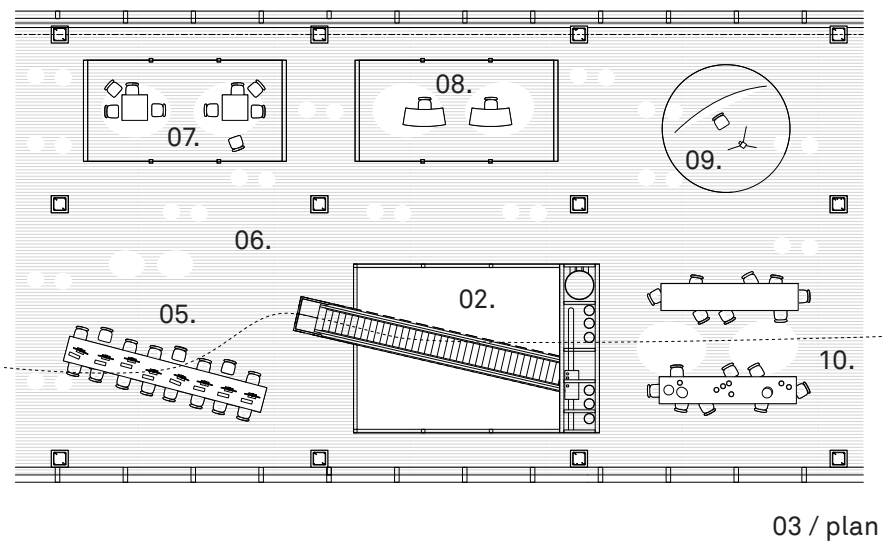
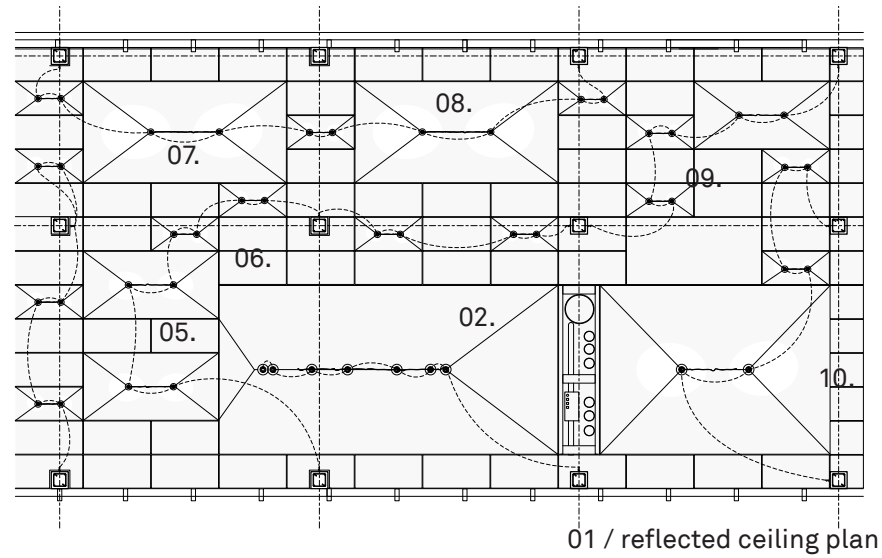


02 / section

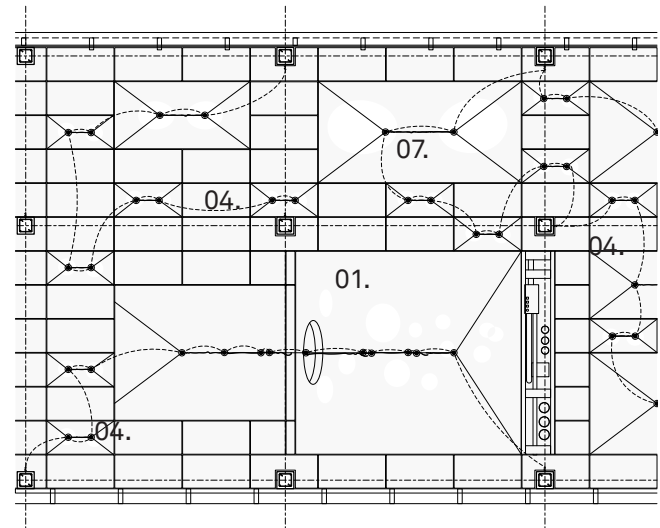


03 / plan

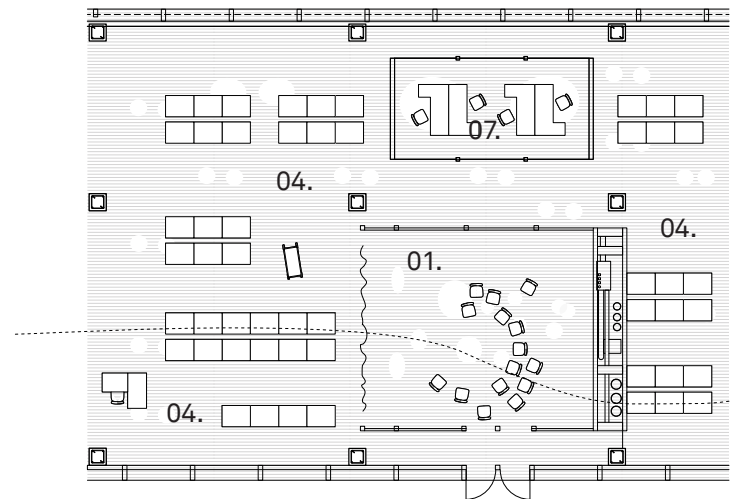




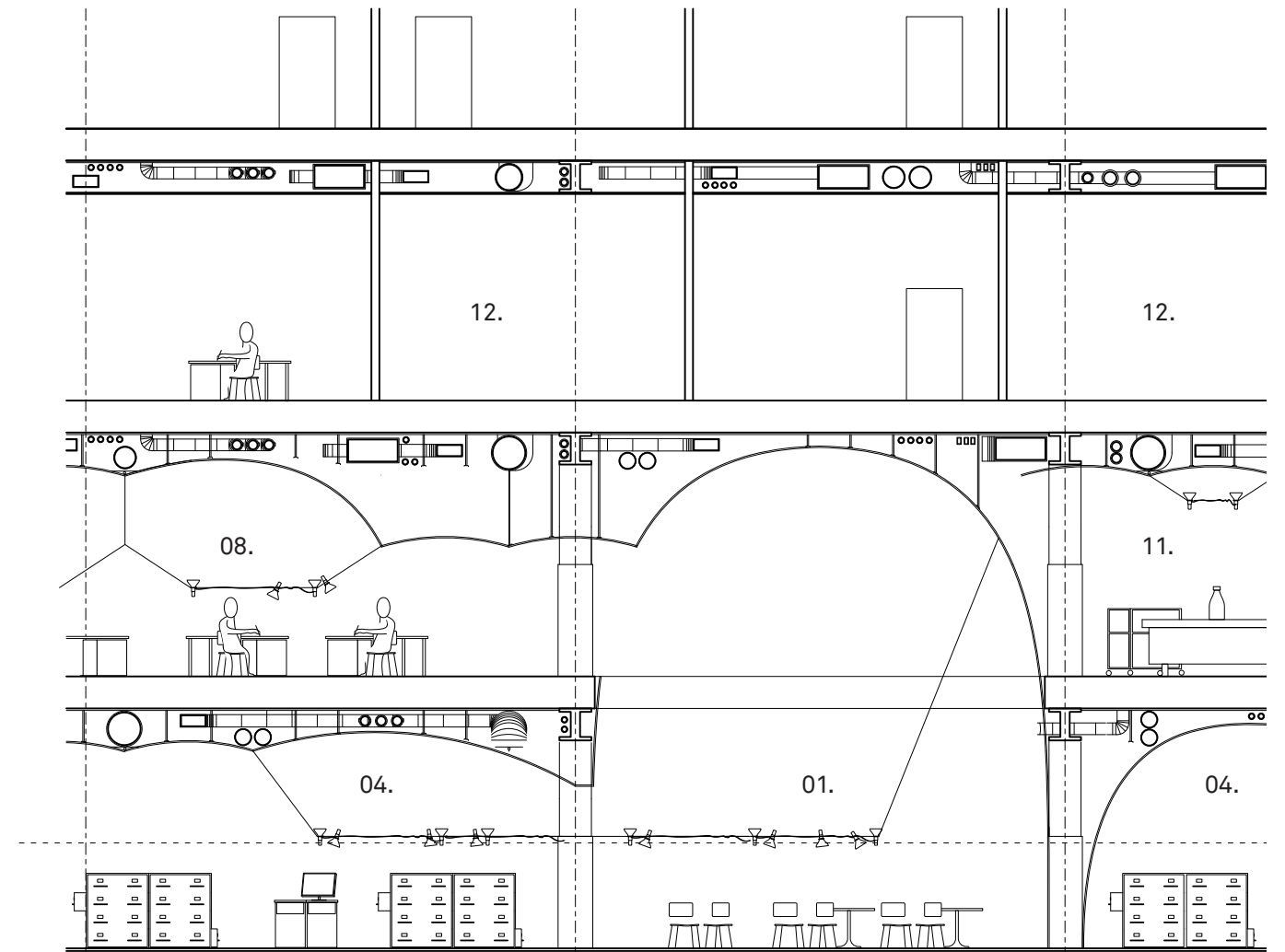
- 01. Ground floor waiting room
- 02. Escalator
- 03. Department of Records - reception
- 04. Department of Records - reading room
- 05. Department of Motor Vehicles (DMV) - reception
- 06. DMV - Circulation
- 07. DMV - Offices (staff)
- 08. DMV - Bureau
- 09. DMV - Photo booth
- 10. DMV - Examining Room
- 11. DMV - Celebration Station (existing)
- 12. Office tower
- 13. Public entrance



01 / reflected ceiling plan



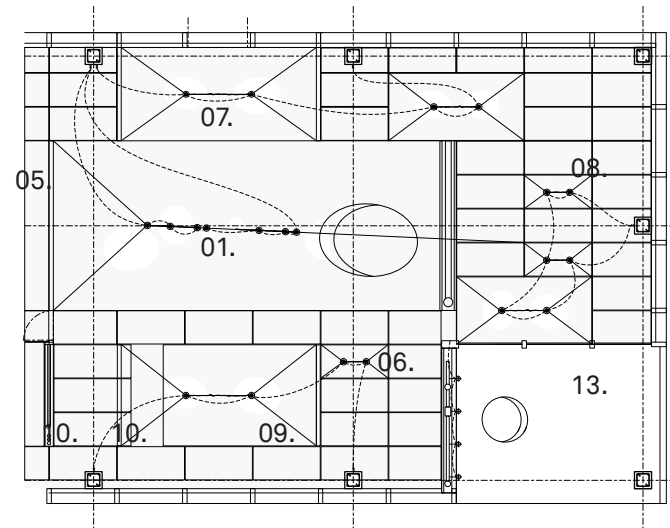
03 / plan



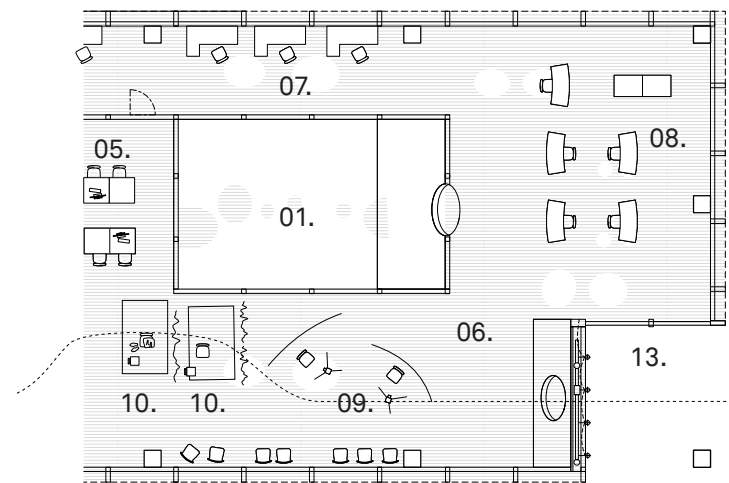
02 / section

Proposal

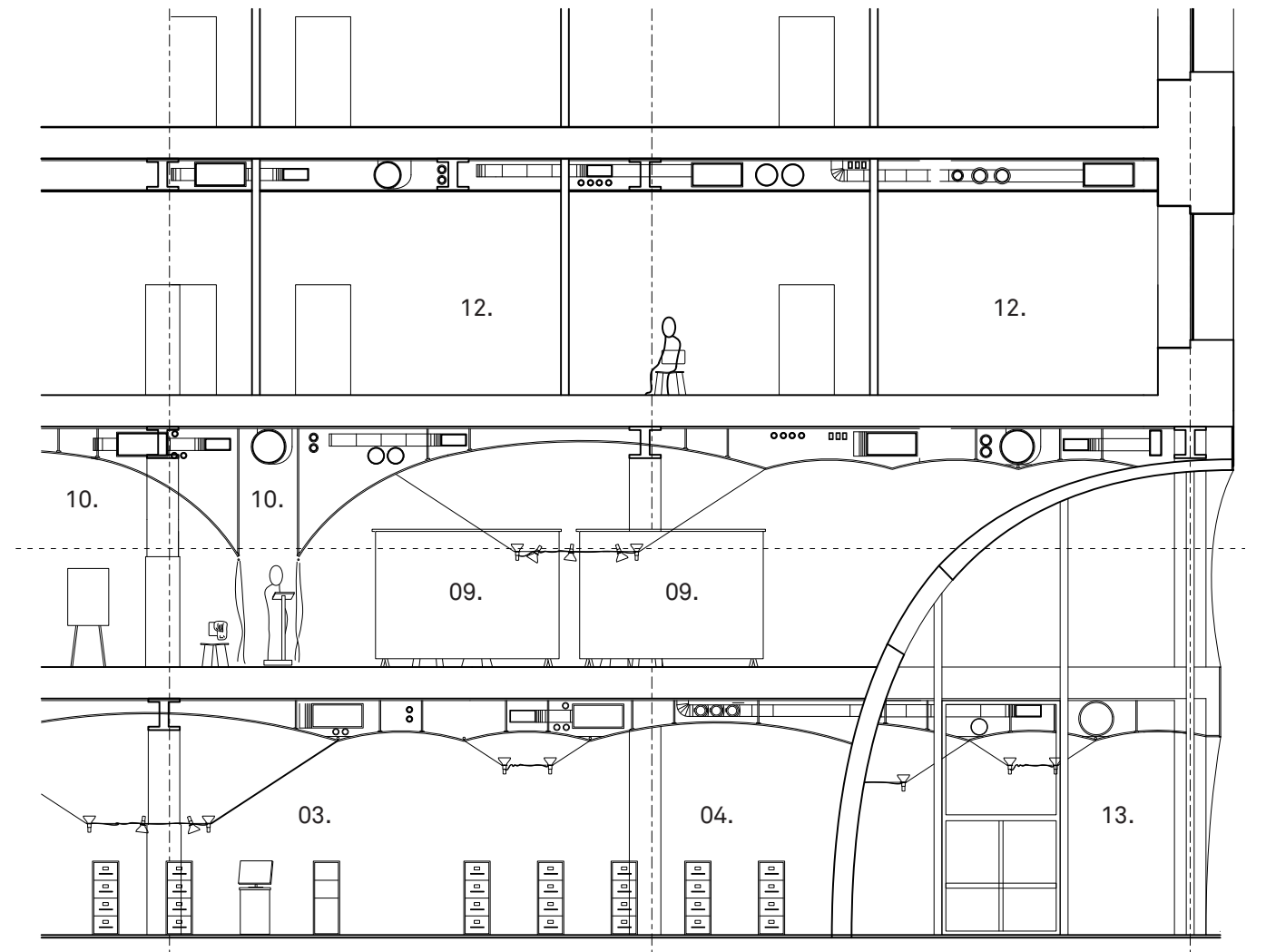
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01 / reflected ceiling plan



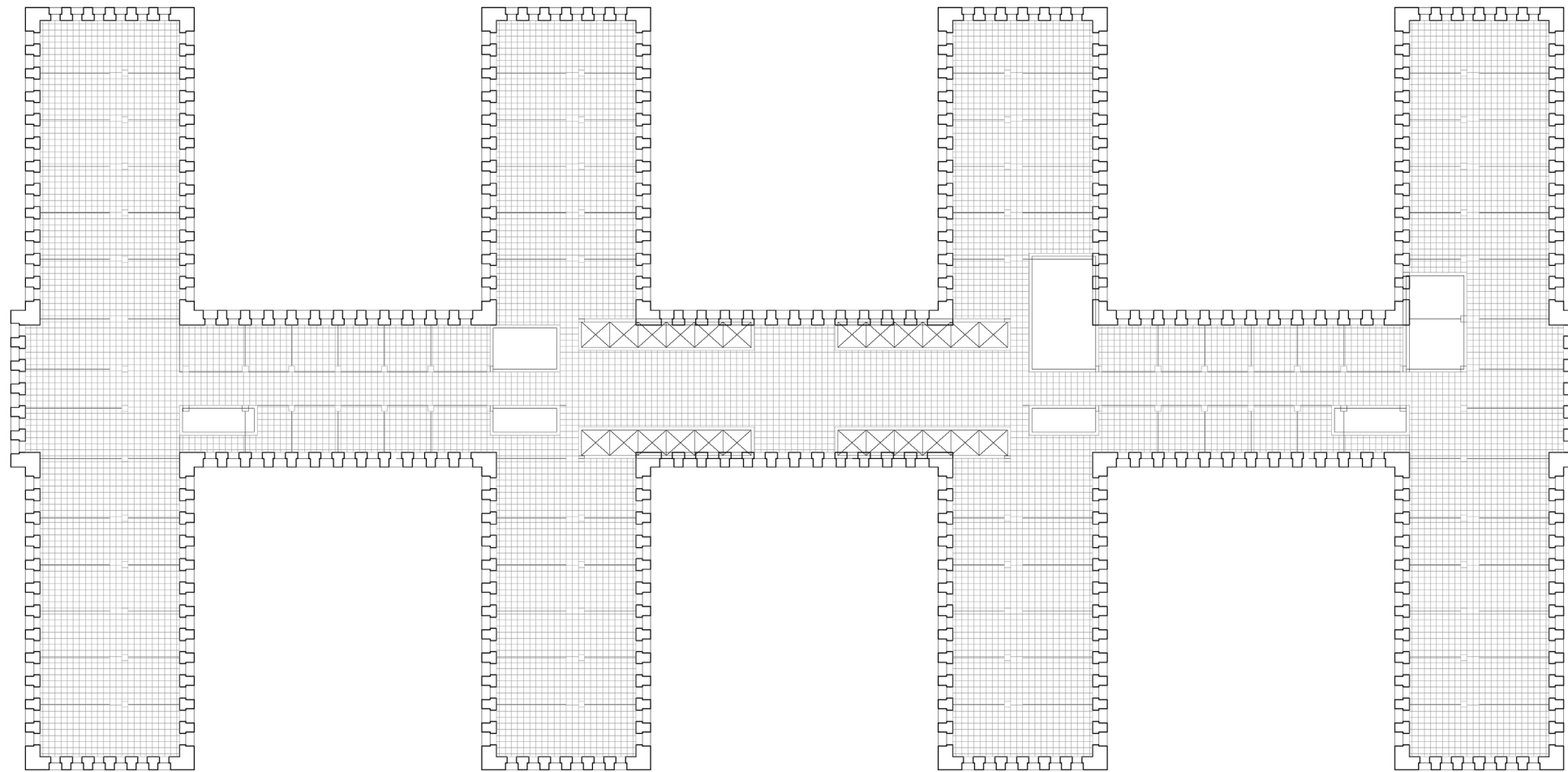
03 / plan



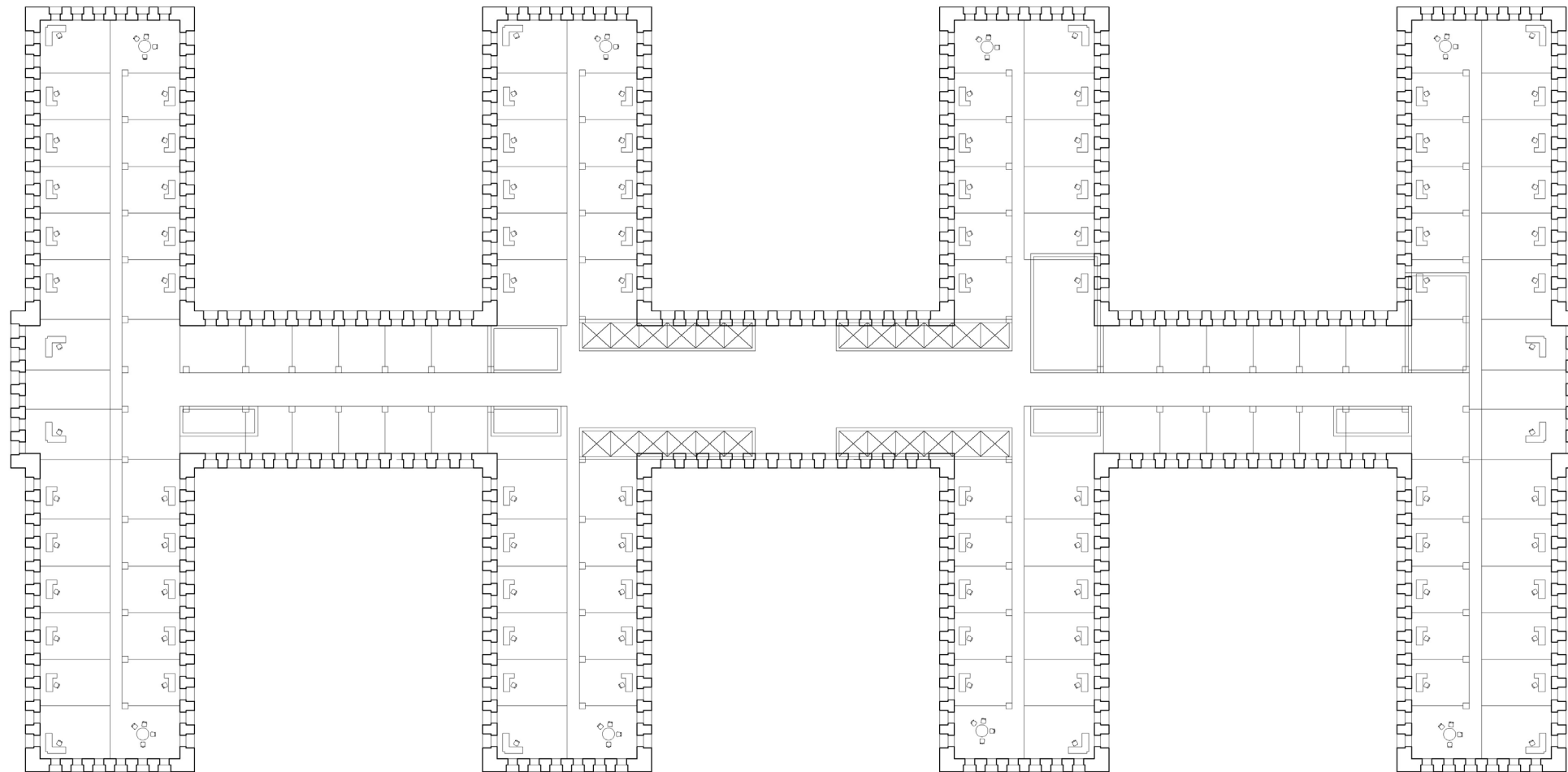
02 / section

Proposal

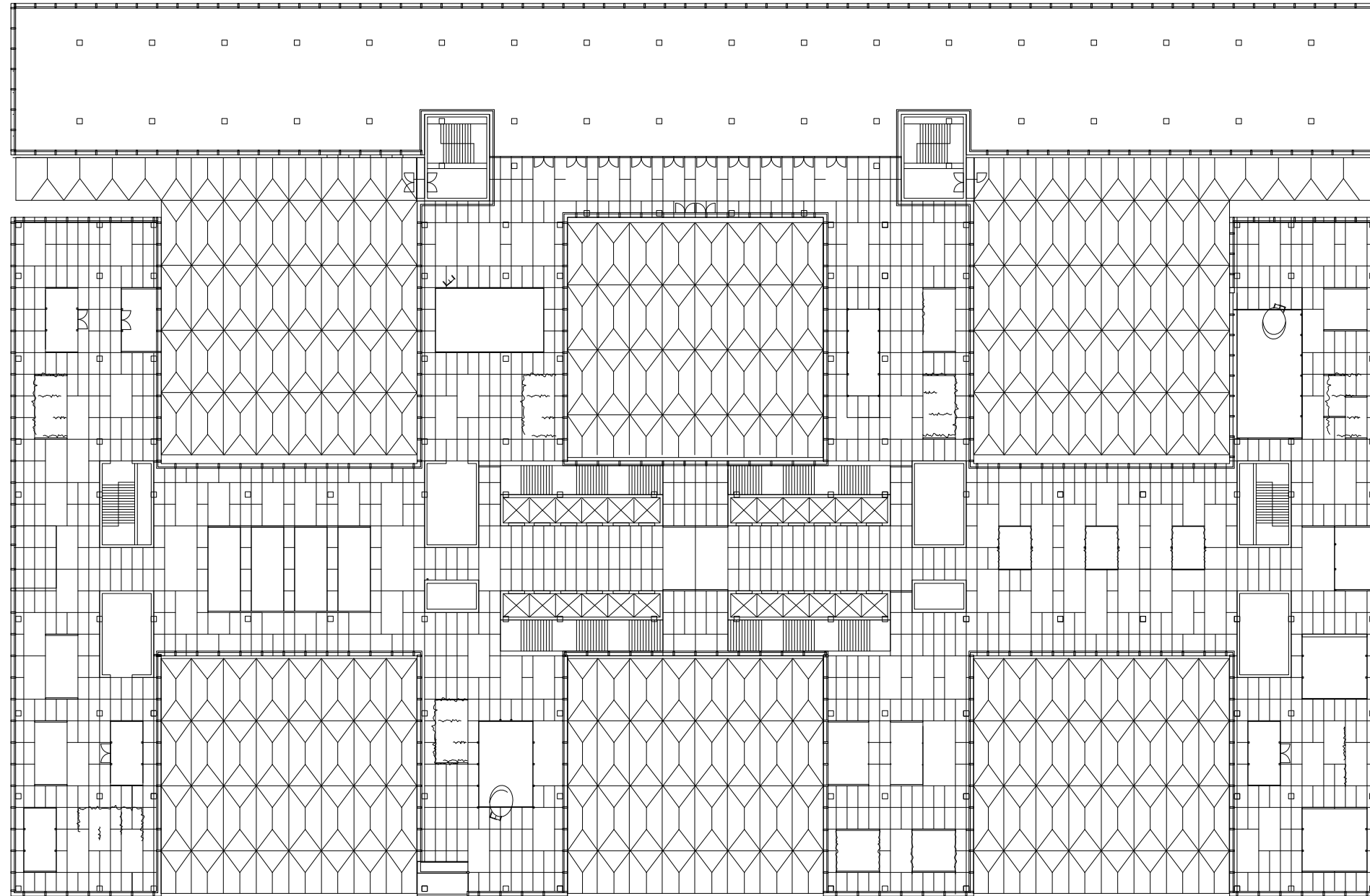
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- 13. Public entrance



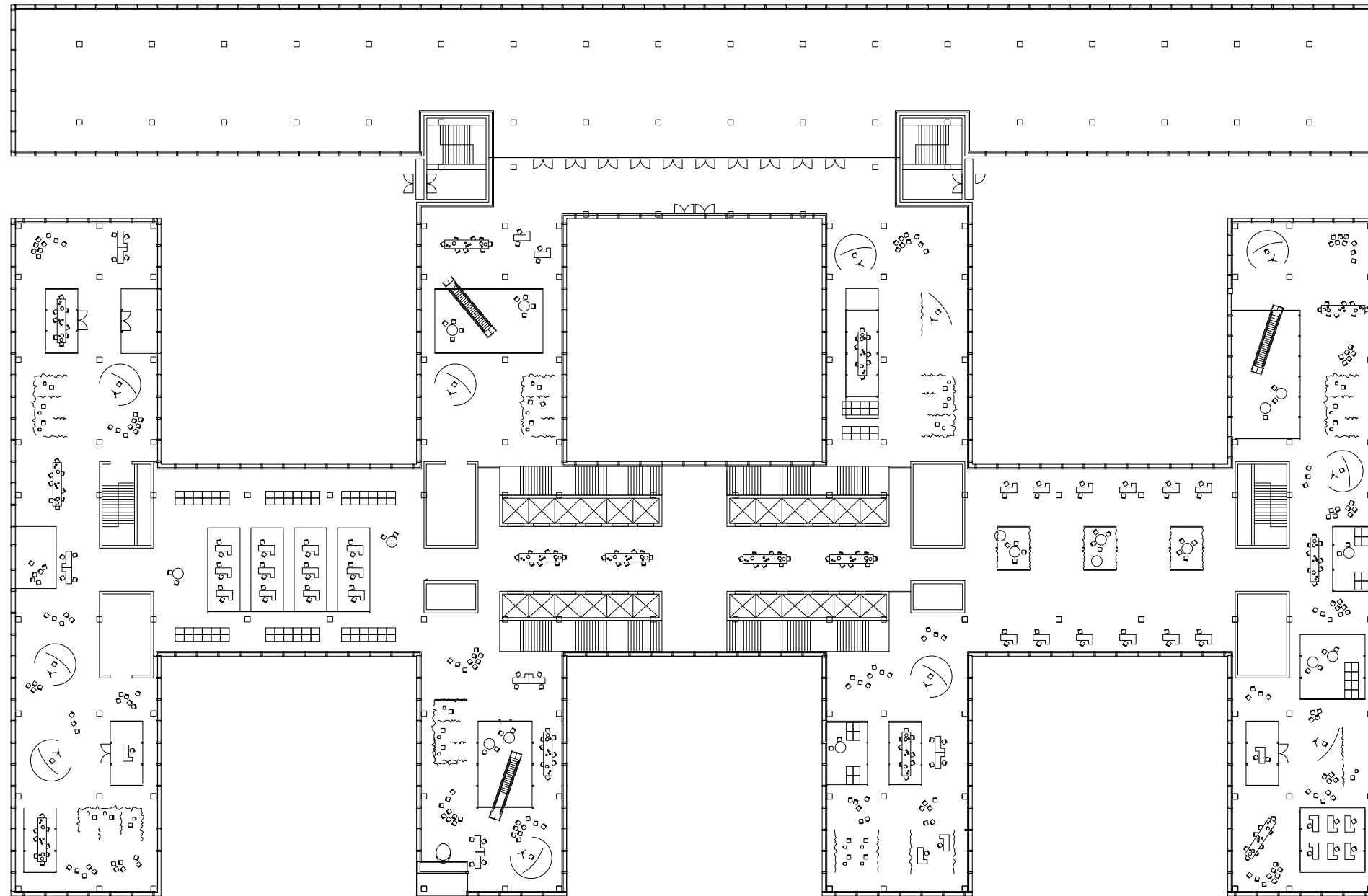
General Motors Building retrofit
Typical office floor reflected ceiling plan (existing)



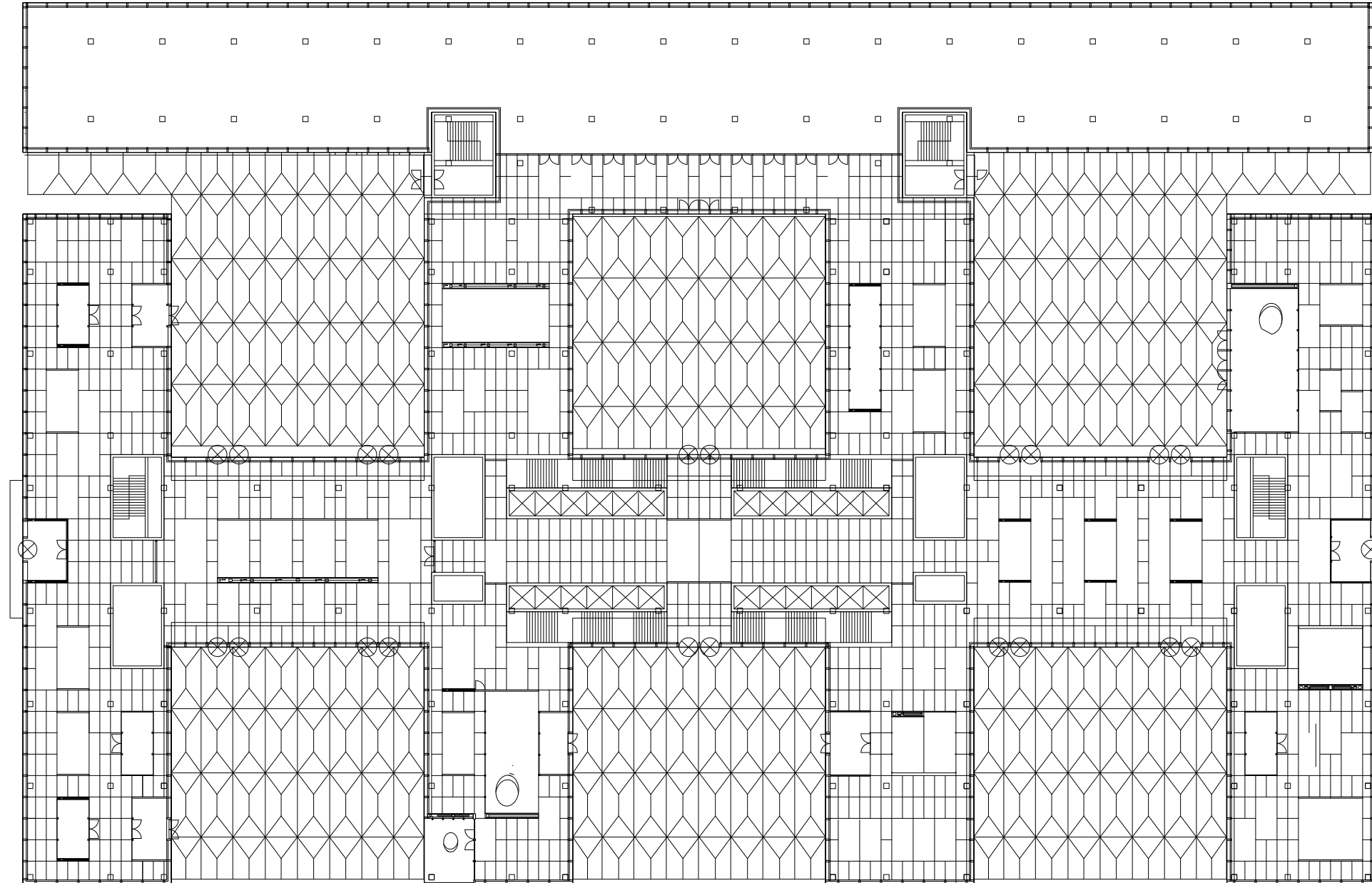
General Motors Building retrofit
Typical office floor plan (existing)



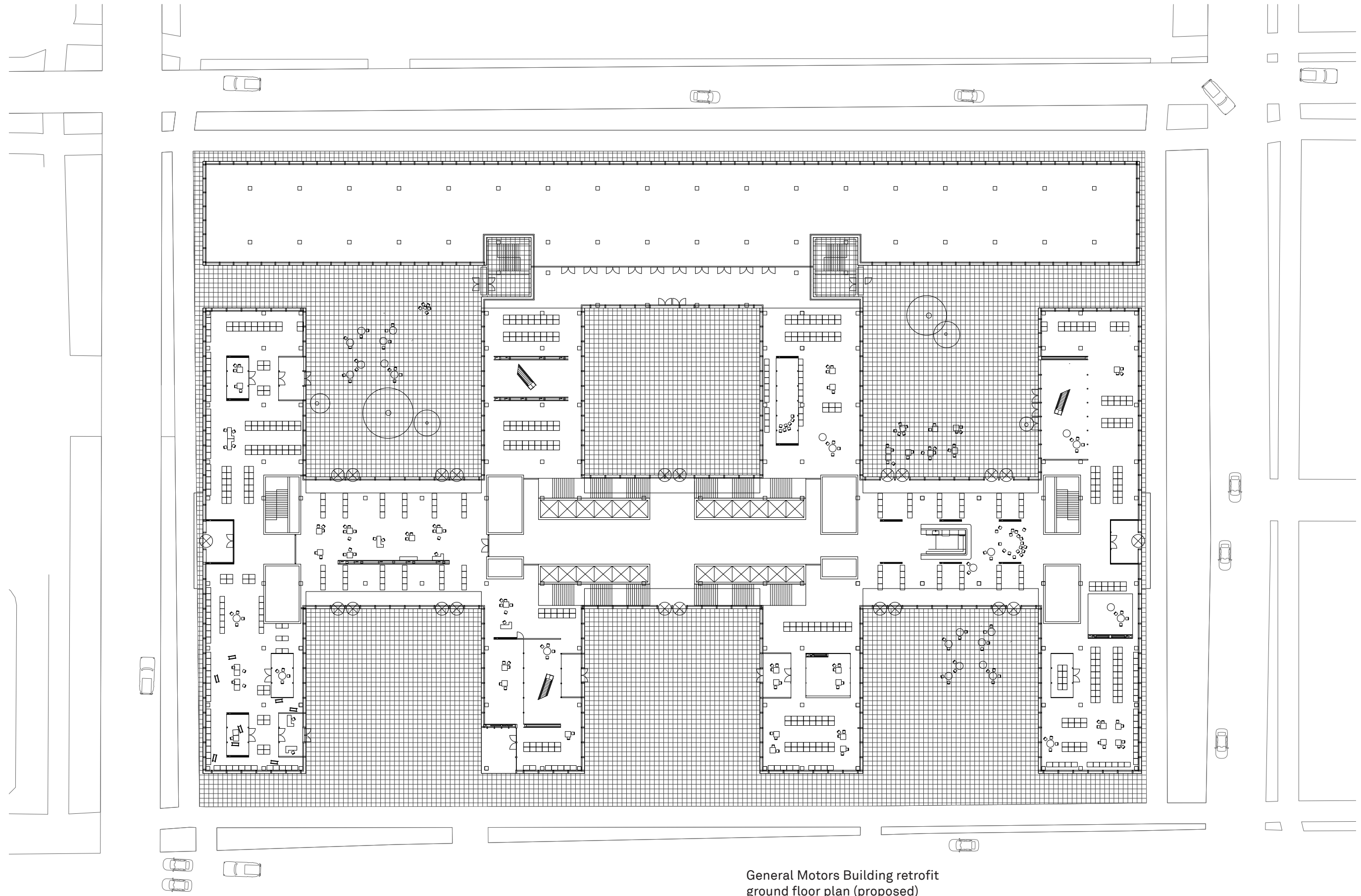
General Motors Building retrofit
Second floor reflected ceiling plan (proposed)



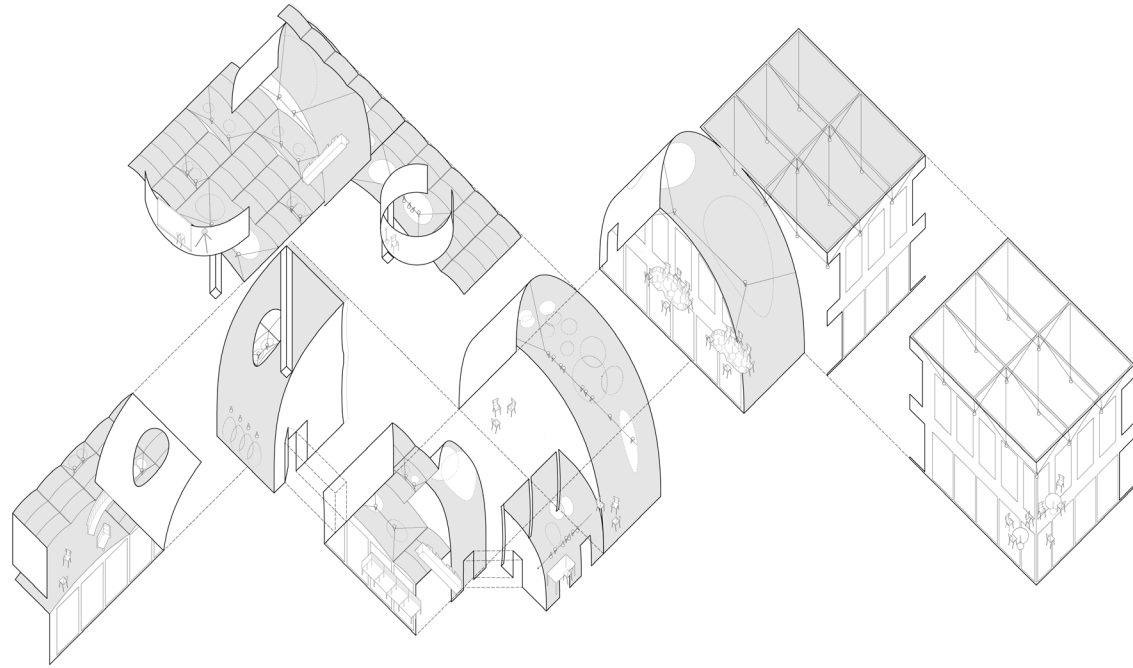
General Motors Building retrofit
Second floor plan (proposed)



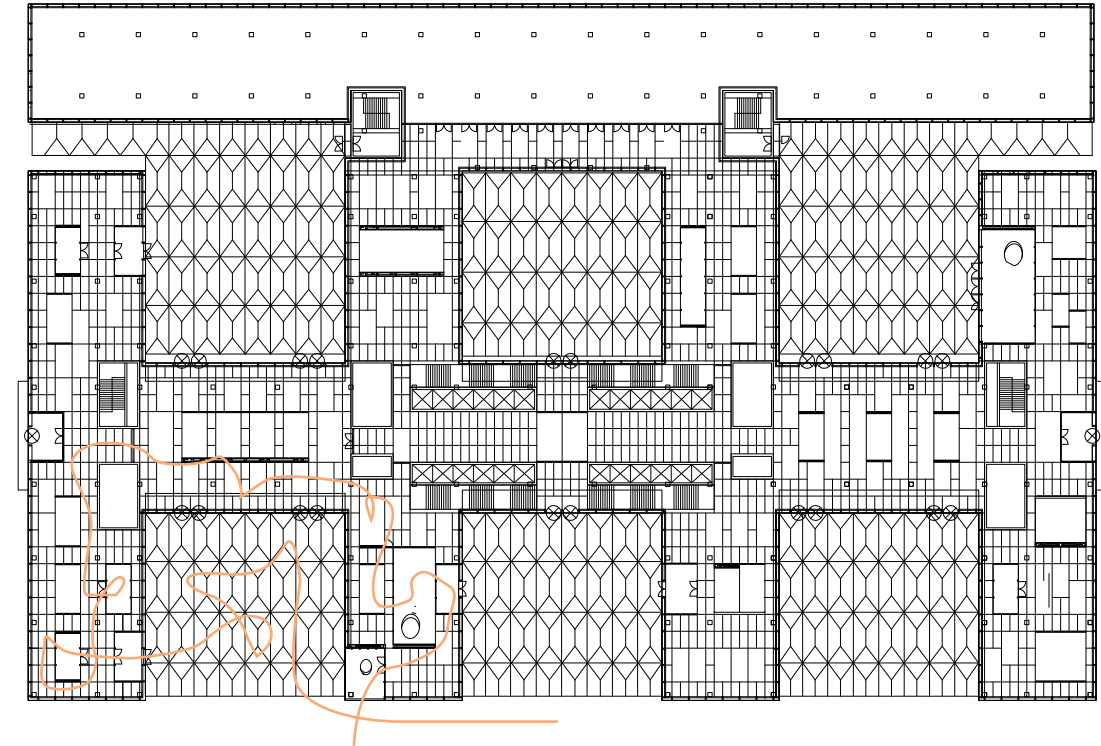
General Motors Building retrofit
Ground floor reflected ceiling plan (proposed)



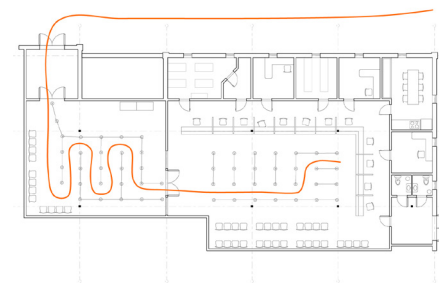
General Motors Building retrofit
ground floor plan (proposed)



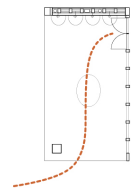
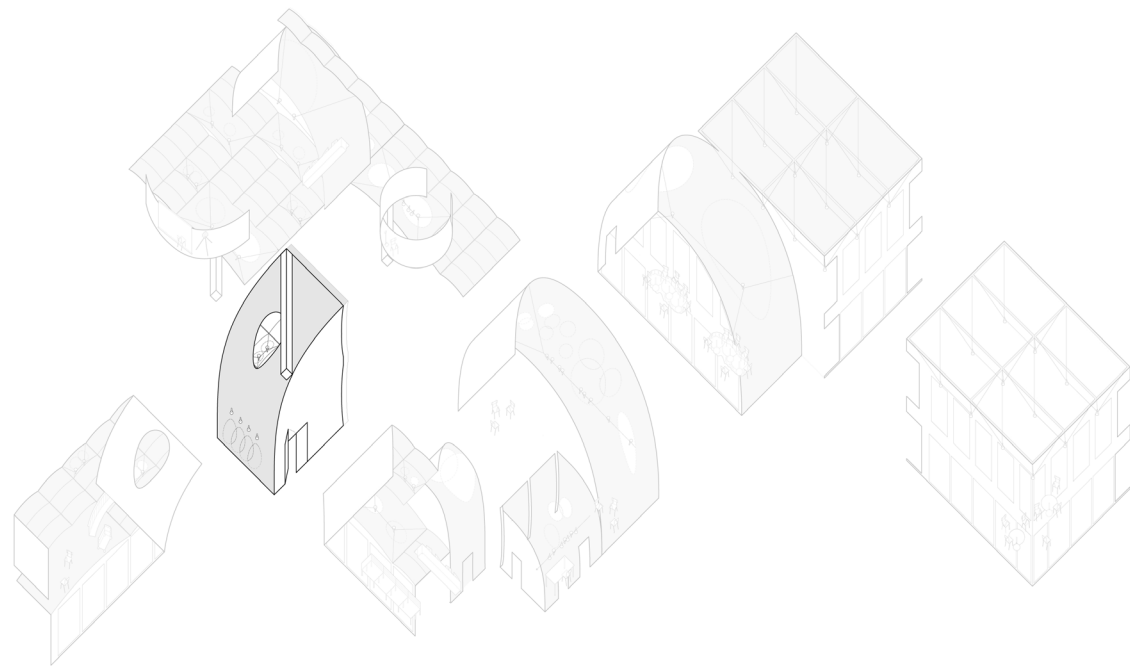
Spatial Ceiling diagram



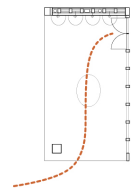
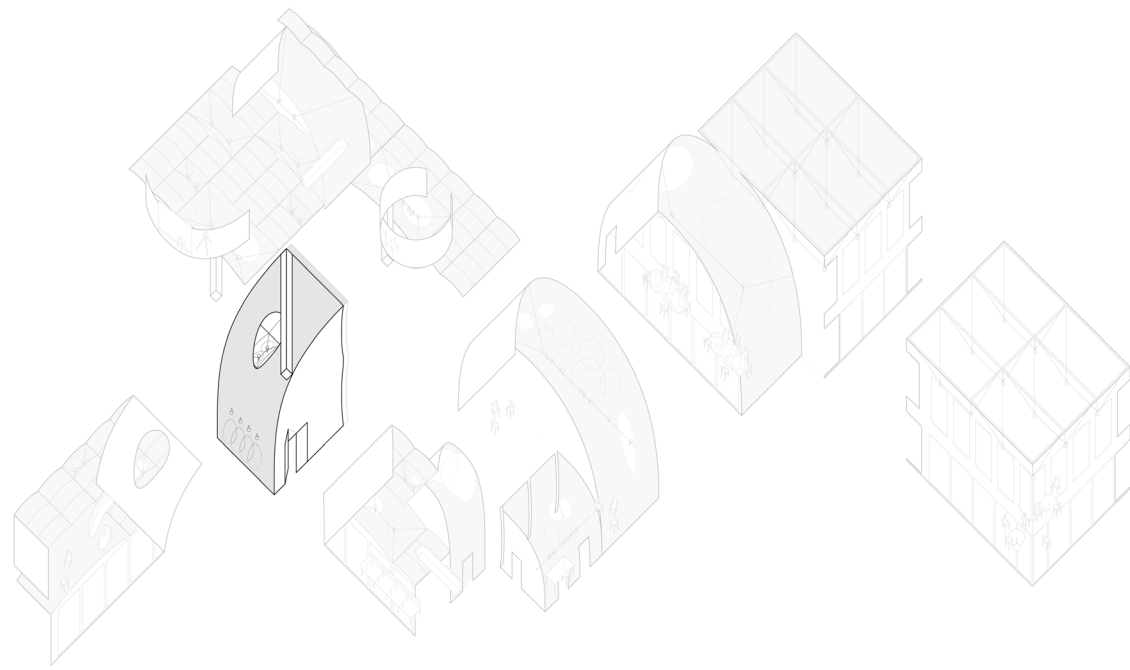
General Motors Building retrofit
Ground floor reflected ceiling plan (proposed)



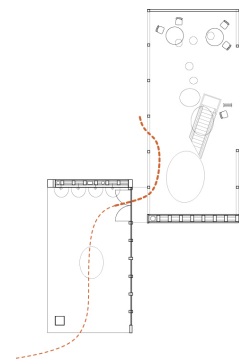
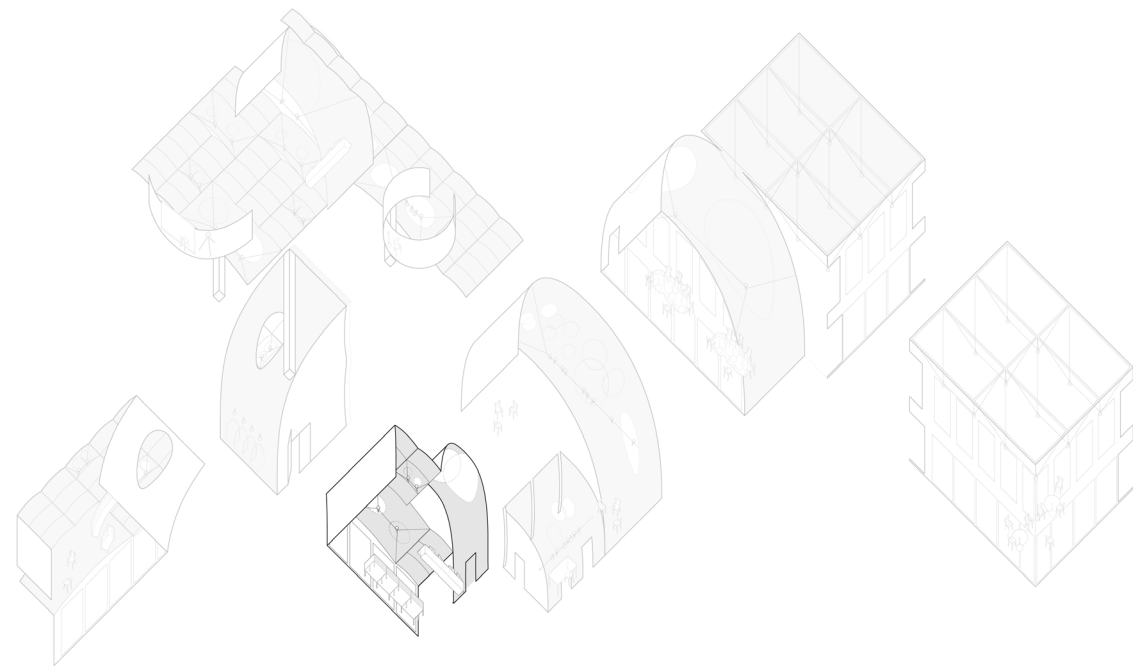
Spatial Ceiling #05 : The Awning



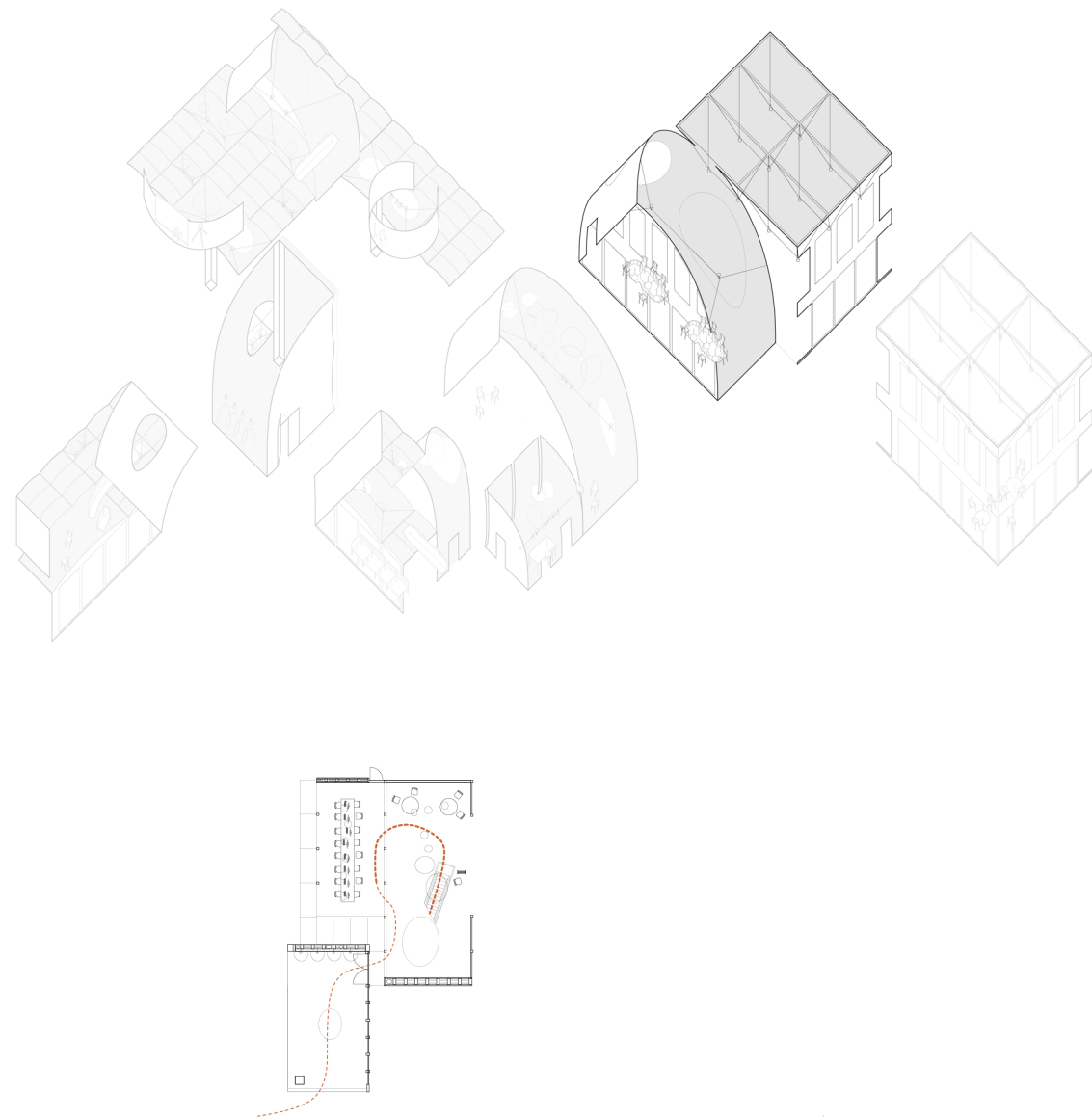
Spatial Ceiling #05 : The Awning



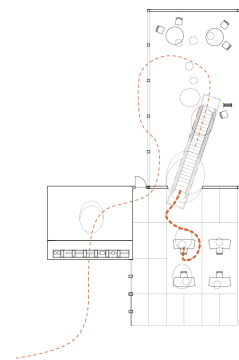
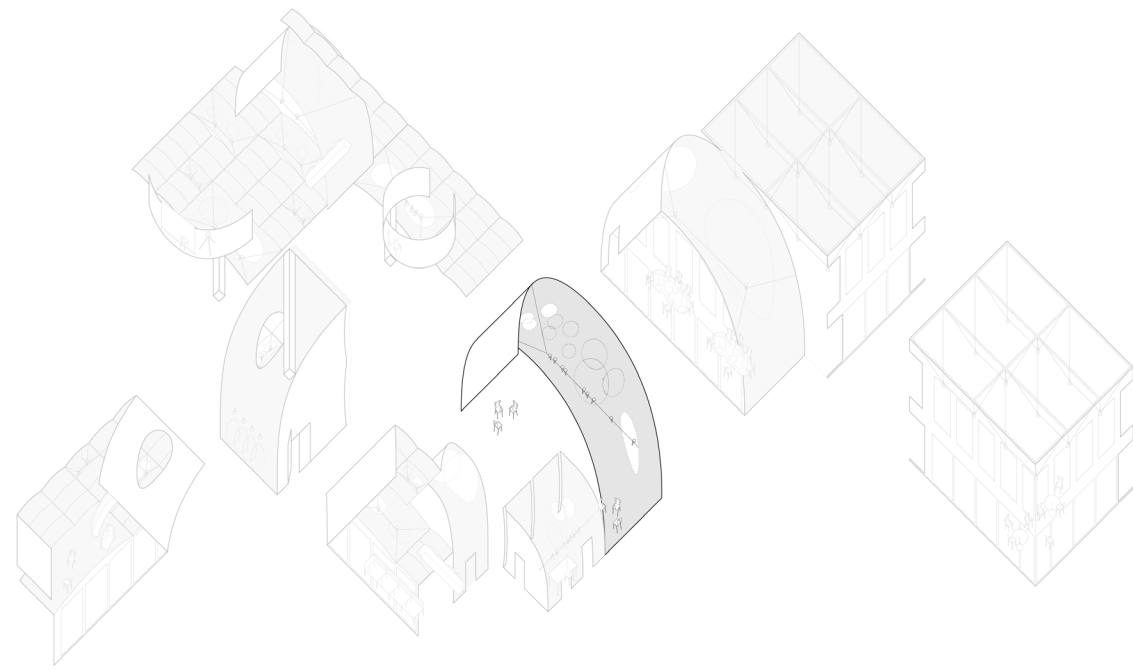
Spatial Ceiling #06 : The Department of Records



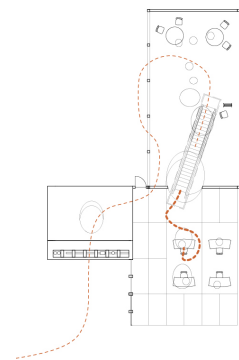
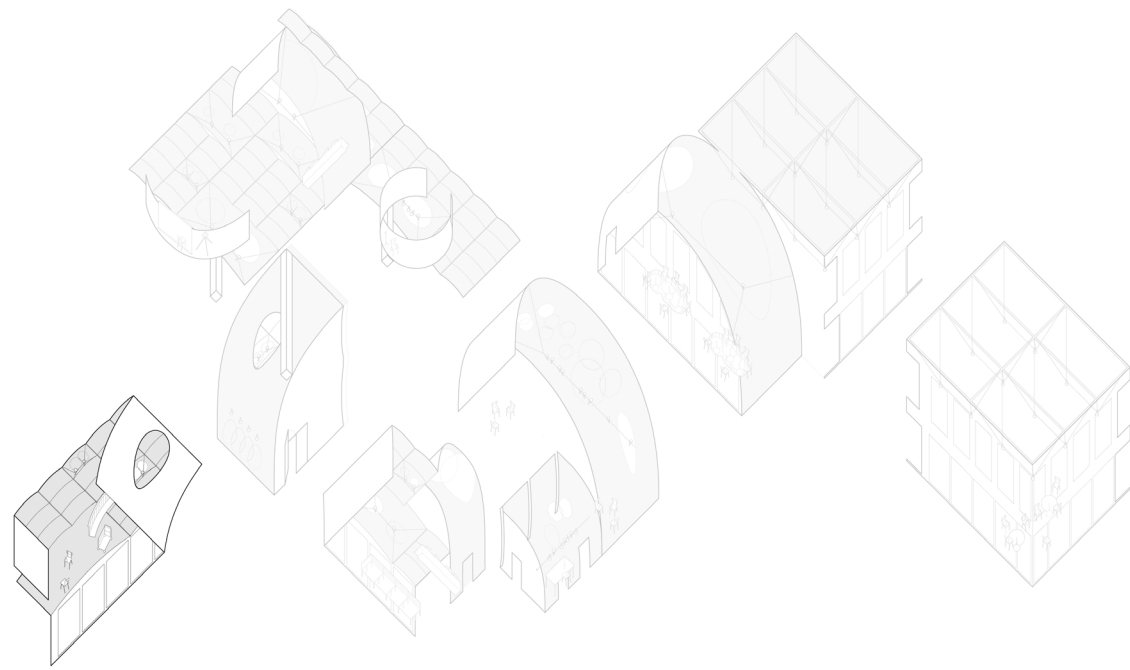
Spatial Ceiling #07 : The Lobby



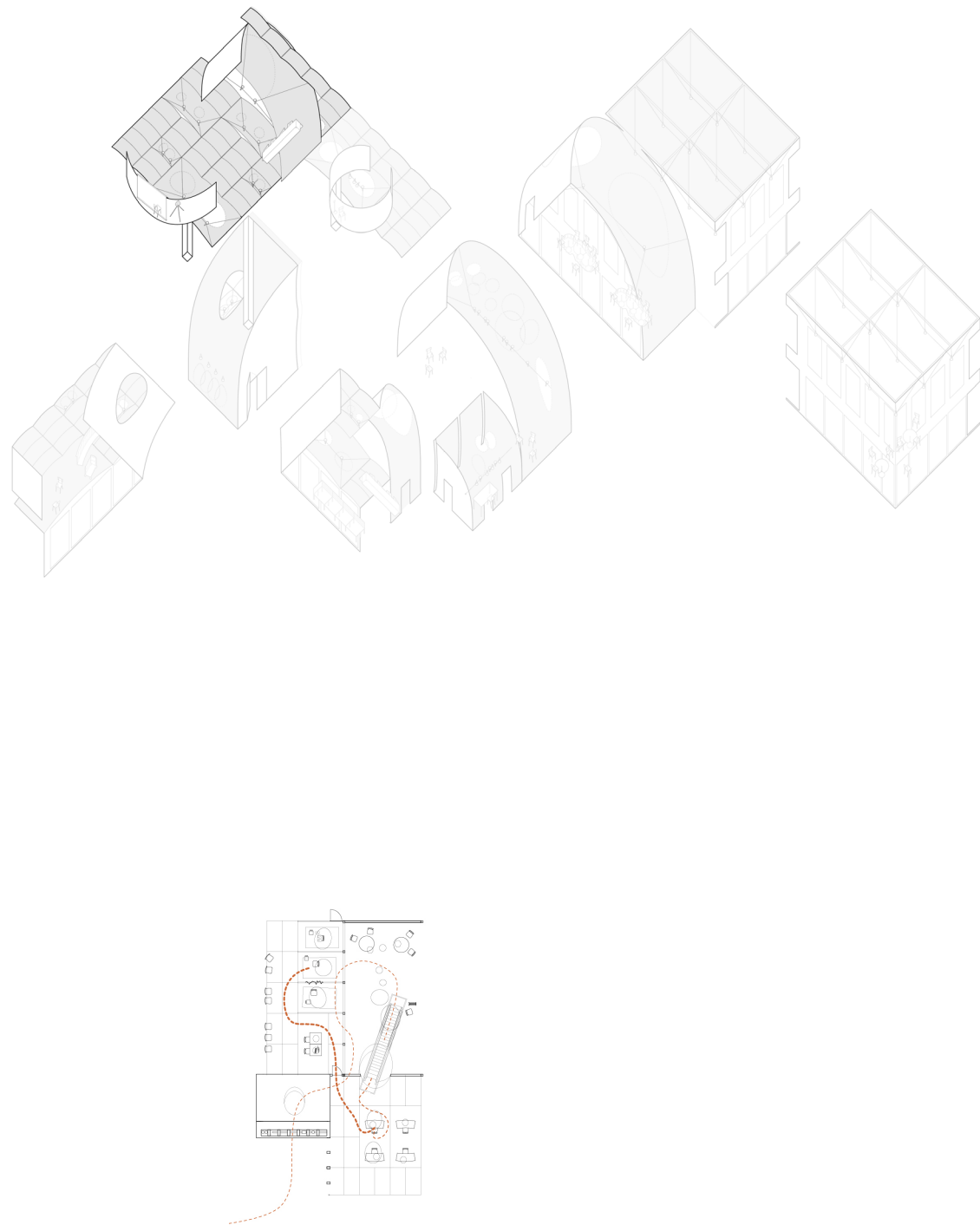
Spatial Ceiling #01 : The Oculus



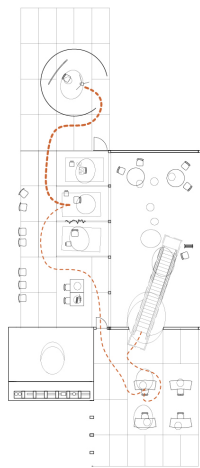
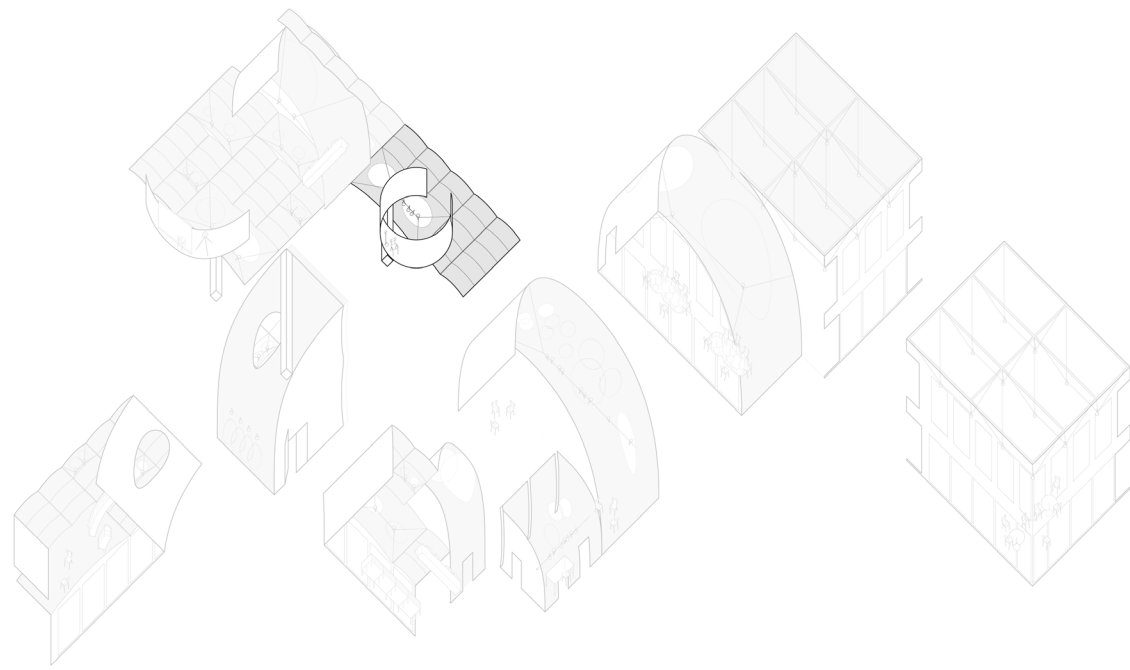
Spatial Ceiling #02 : The Plenum



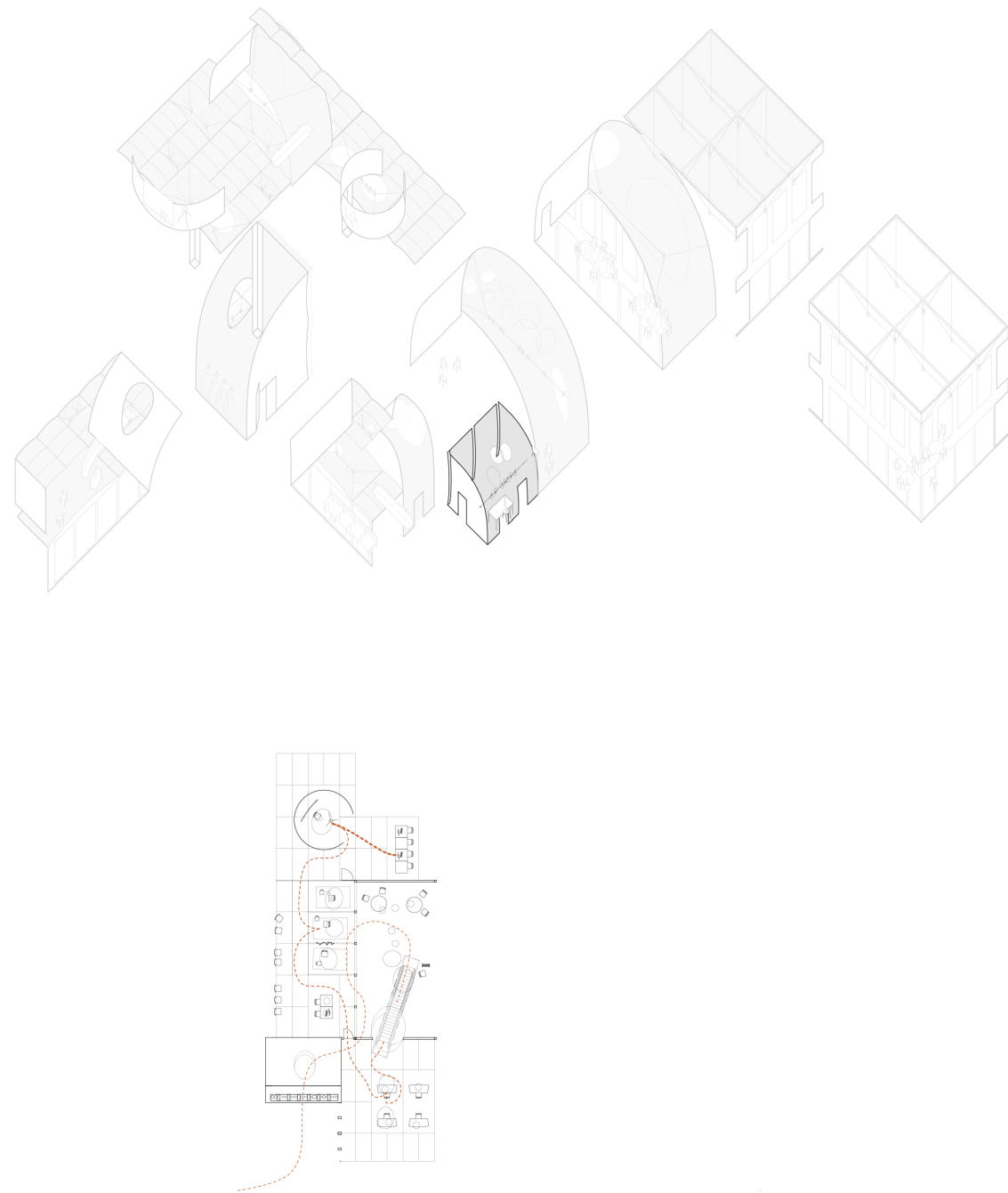
Spatial Ceiling #03 : The Examining Room



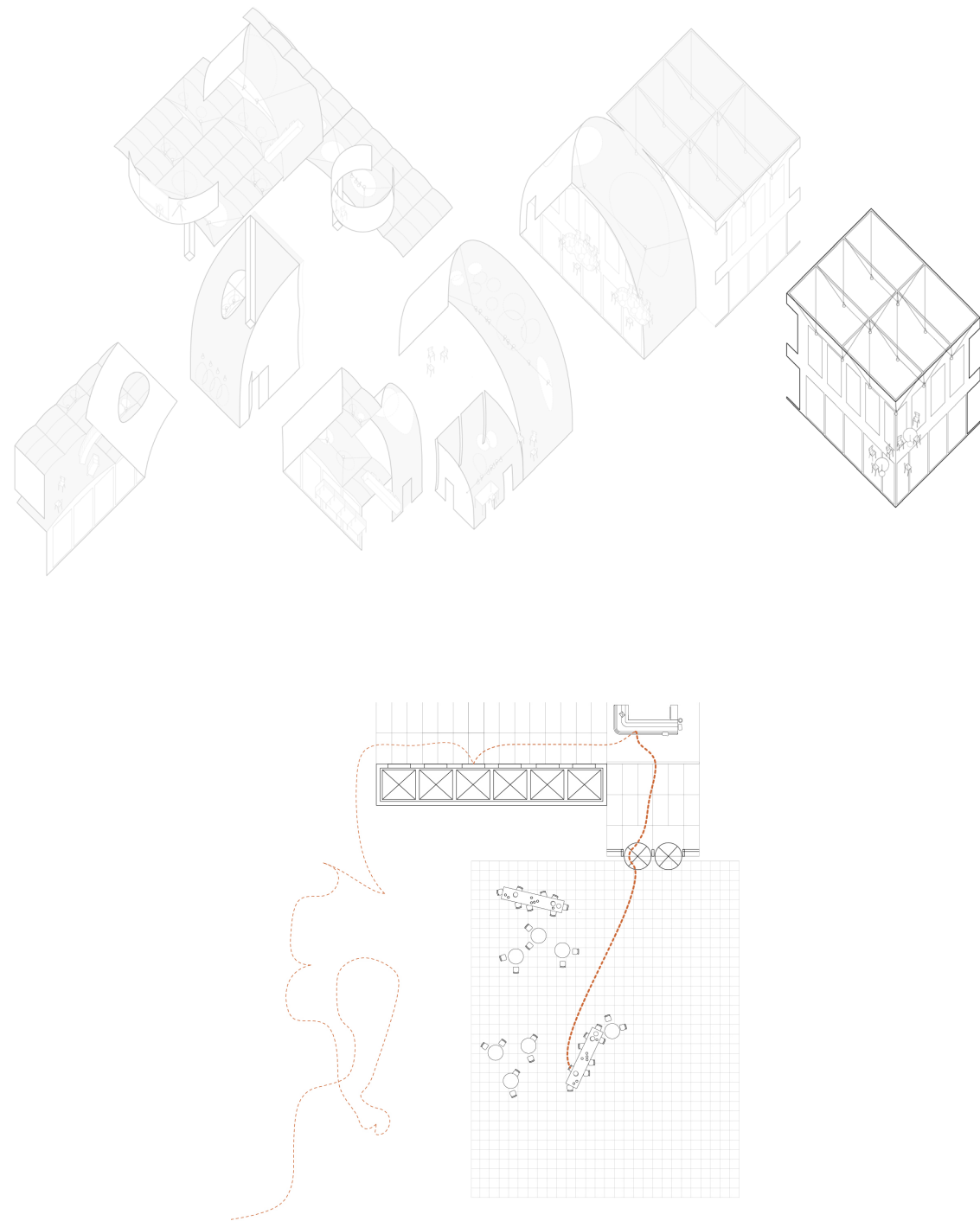
Spatial Ceiling #04 : The Photo Booth



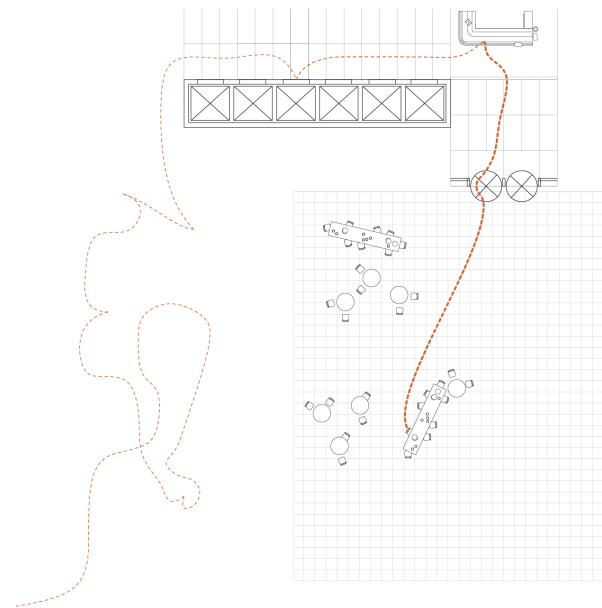
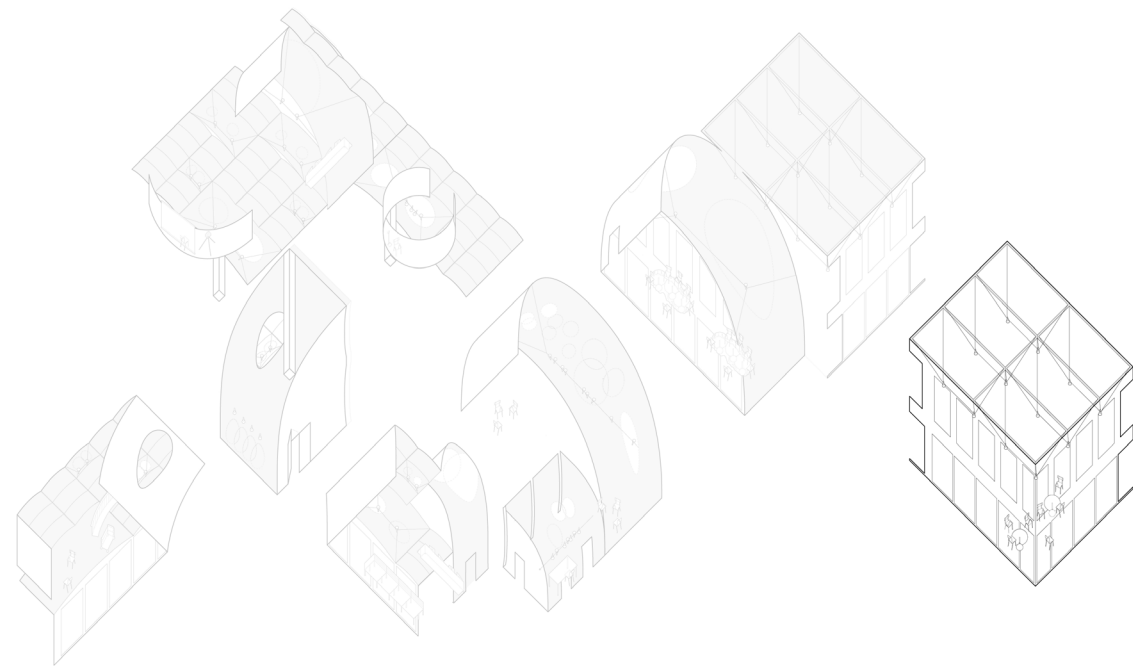
Spatial Ceiling #08 : The Office

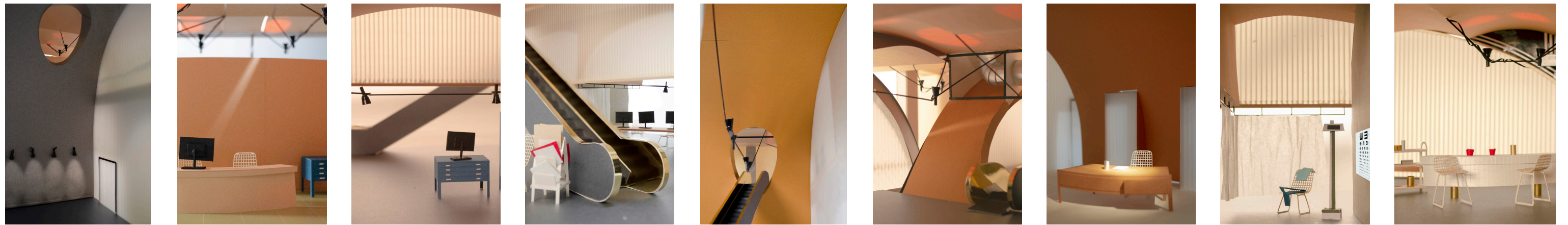
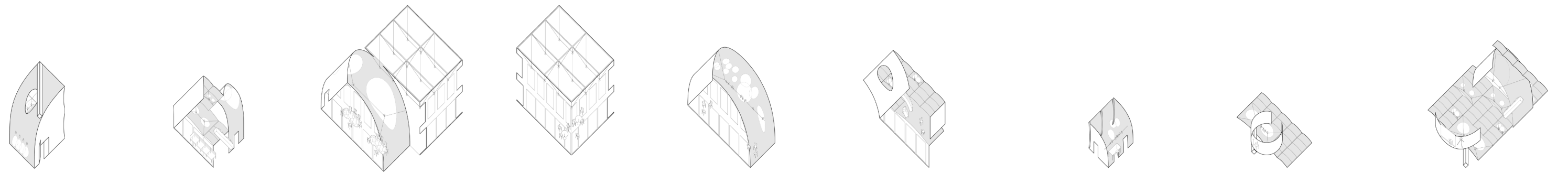
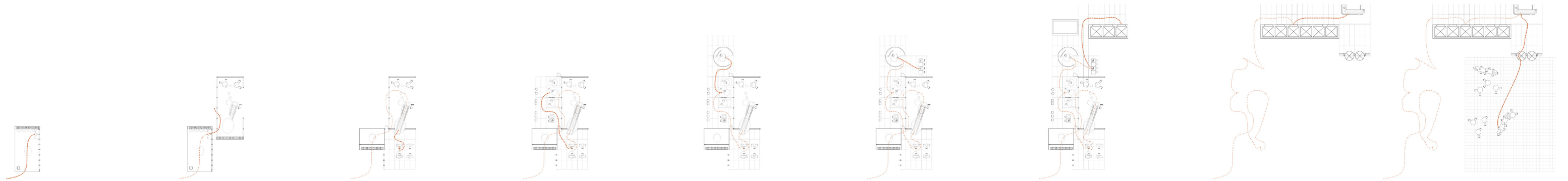


Spatial Ceiling #10 : The Waiting Room



Spatial Ceiling #10 : The Waiting Room



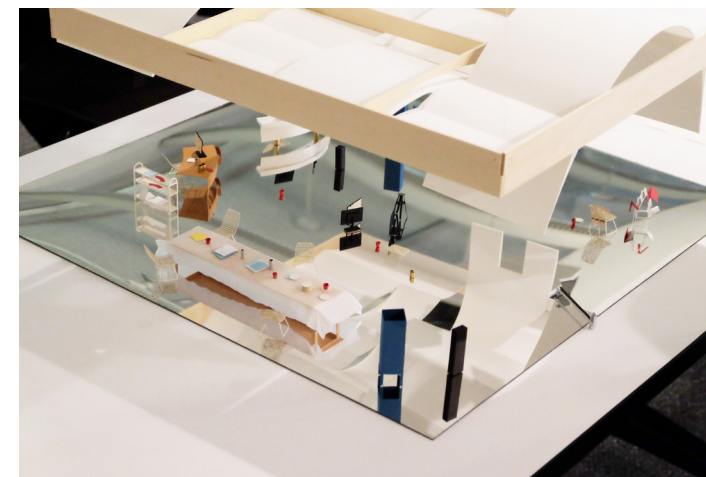




Thesis Review Pin Up
Gropius Room, Gund Hall, GSD



Scenographic model, building fragment
Olivia Howard



Suspended model:
Reflected Spatial Ceiling Plan