MIASTO I TRANSPORT 2015

KONFERENCJA NAUKOWO-TECHNICZNA MIASTO I TRANSPORT 2015

Dr hab. inż. arch. Jacek Wesołowski

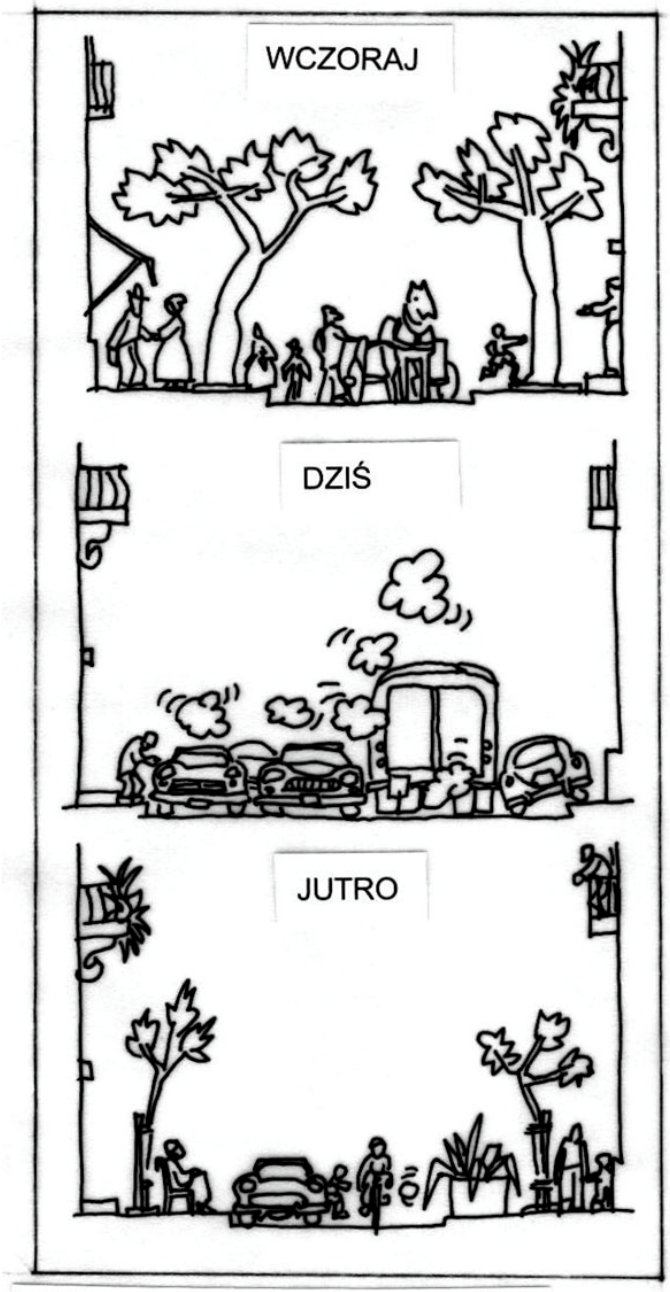
Instytut Architektury i Urbanistyki
Politechnika Łódzka

„Przestrzeń publiczna zamiast arterii”

POLITECHNIKA WARSZAWSKA 10.06.2015

odzyskiwanie przestrzeni ulic

czy jest możliwe zlikwidować
dominację ruchu kołowego
na ulicy śródmiejskiej
bez pogorszenia warunków obsługi
i dostępności śródmieścia?



źródło: Special Office for Public Space of the Municipality of Turin

New York, Washington Sq.

źr.: gramercy-park-hotel.blogspot.com

garment district. When those on borderlines of choice decide instead to walk or use the subway between their points of travel, attrition is operating. Indeed, so difficult has it become to move into the garment district by taxi or private car that in recent years most of Manhattan's fabric firms, which used to be in a quiet backwater in downtown Manhattan, have moved up into the garment district where they can be within walking distance of their customers. While such a move adds to concentration and intensity of city land use, it cuts down on city vehicular use, and is an example of attrition carried to the point that the *need* for cars is reduced.

Attrition of automobiles by cities is so seldom deliberate that it is hard to find recent examples. (The closing of streets for pedestrian use, being almost always accompanied by compensating provisions for vehicles, is not attrition but rearrangement of traffic.) However, the closing of Washington Square Park in New York to automobiles, beginning in 1958, affords an instance and is worth examining.

Washington Square Park, about seven acres in size, terminates the southern end of Fifth Avenue. However, until 1958, it did not terminate north–south traffic on Fifth Avenue. A roadway arrangement, originally a carriage drive, carried traffic through the park between Fifth Avenue's terminus and other north–south roadways below the park.

Over the years, traffic, of course, gradually increased on this park roadway link and it was always a nuisance to other users who patronize this park heavily and continuously. Back in the 1930s, Robert Moses, in his capacity as parks commissioner, attempted to remove this road. But his plan was to compensate for it – much more than compensate for it – by trimming down the sides of the park to widen the narrow perimeter streets, and thus to encircle the park with a major, high-speed traffic artery. This scheme, locally christened 'the bathmat plan' (describing what would be left of the park), was fought and defeated. Stalemate.

Then in the mid 1950s, Mr Moses came up with a new plan for erosion. This one involved a major depressed highway cutting through the centre of the park, as a link for carrying a heavy

Jane Jacobs, *The Death & Life of Great American Cities*, NY, 1961

…panie Hayes i Lyons były mniej konwencjonalne w myśleniu. (…) Zaproponowały one polepszenie warunków dla niektórych użytkowników miasta, takich jak dzieci, spacerowicze, czy amatorzy beztroskiej zabawy – kosztem ruchu kołowego. (…) Zaczęły popierać usunięcie istniejącego przejazdu bez poszerzania jezdni obwodowych.

volume of high-speed traffic between midtown Manhattan and a vast, yawning Radiant City and expressway which Mr Moses was cooking up south of the park.

At first most of the local citizens opposed the proposed depressed highway, anticipating nothing beyond a stalemate. However, two daring women, Mrs Shirley Hayes and Mrs Edith Lyons, were less conventional in their thinking. They took the remarkable intellectual step of envisaging improvement for certain city uses, such as children's play, strolling, and horsing around, at the expense of vehicular traffic. They advocated eliminating the existing road, that is, closing the park to all automobile traffic – but at the same time, *not* widening the perimeter roads either. In short, they proposed closing off a roadbed without compensating for it.

Their idea was popular; the advantages were evident to anyone who used the park. Furthermore, it began to dawn on the theorists in the community that stalemate did not exist as a choice this time. For when other parts of the Moses Radiant City and Downtown Expressway scheme were eventually developed, the road through the park would begin to get automobiles in express-highway quantities. It was noticed that the old road, although a nuisance, was being used well below its capacity, and would be quite a different and intolerable affair when it carried a share of the proposed future expressway-destined load.

Instead of staying on the defensive, majority opinion in the community took to the offensive.

The city officials insisted that if the roadway were closed – a step they appeared to think insane – the only possible alternatives must be to widen the streets at the park perimeter, or else bring them to a state of frantic and frenetic congestion. The Planning Commission, after a hearing, turned down the proposals for closure, and approved instead what its members called a 'minimum roadway' through the park, on the grounds that if the community got its foolish way the citizens would regret it. The streets surrounding the park, they said, would be swamped with diverted traffic. The traffic commissioner forecast an immediate annual increase of millions of cars in the near-by streets.

Mr Moses predicted that if the community got its way, the citizens would soon be back begging him to reopen the road and build a highway, but the mess they were in would serve them right and teach them a lesson.

All these dire predictions would likely have come true *if* compensating provision had been made for cars diverted from the park. However, before any alternate arrangements were made – even arrangements for speed-up of flow on existing perimeter roadbeds – the community, by exerting rather tough political pressure abruptly, got the park road closed, first on a trial basis and then permanently.

None of the predictions of increased traffic around the park were borne out. These predictions could not be borne out because these perimeter streets, narrow, beset with many lights, cluttered with parked cars, whimsically used by jaywalkers, replete with hard-to-negotiate corners, were already a most aggravating and slow route for automobiles. The route through the park, the route that was being closed, was much the best immediate north–south route.

Every traffic count taken around the park perimeter since the closing has shown no increase in traffic; most counts have shown a slight reduction. On lower Fifth Avenue, the traffic counts dropped appreciably; apparently a considerable amount of its traffic had been through traffic. Far from bringing new problems of congestion, the obstacle resulted in slight relief of previous congestion.

Where have the traffic commissioner's annual millions of cars gone instead?

This is the most interesting and significant part of the story. They have not noticeably gone anywhere else instead. The through avenues east and west of Fifth Avenue, and parallel to it, which might have been expected to take the brunt of the diverted load, did not seem to receive an extra load. At least the running time of the buses, a factor sensitive to increases or decreases in total traffic, reflected no change. Nor did the bus drivers detect a difference from observation. (The traffic commissioner, who has the means for making counts of the extent needed, and for doing origin-destination trip studies, appeared

„Żadna z prognoz zwiększonego ruchu wokół parku się nie zmaterializowała. Nie mogła, ponieważ drogi otaczające plac, wąskie i wyposażone w liczne światła, zawężone parkującymi samochodami, z nieprzewidywalnymi pieszymi, pełne ciasnych narożników, były najbardziej drażniącą i powolną trasą dla samochodów.
Żaden pomiar ruchu na obwodzie parku nie wykazał wzrostu, a większość pokazała niewielki spadek…
Wprowadzona bariera nie zwiększyła kongestii, ale wręcz przyniosła jej nieznaczne zmniejszenie.
Także równoległe Aleje raczej nie zaczęły przenosić zwiększonych potoków”

„nie ma absolutnej i niezmiennej liczby samochodów; liczba ta się zmienia w zależności od aktualnych zmiennych prędkości i wygody użycia różnych dróg przemieszczania się”

uninterested in learning where, if anywhere, his vanished hordes departed. He does not like to talk about it.)

Like the vanished bus riders on the one-way avenues, these cars – or *some* cars – disappeared into thin air. Their disappearance is no more mysterious, and no less to be expected, than the disappearance of the bus riders. For just as there is no absolute, immutable number of public transportation riders in a city, so is there no absolute, immutable number of private automobile riders; rather, the numbers vary in response to current differentials in speed and convenience among ways of getting around.

Attrition of automobiles operates by making conditions *less* convenient for cars. Attrition as a steady, gradual process (something that does not now exist) would steadily decrease the numbers of persons using private automobiles in a city. If properly carried out – as one aspect of stimulating diversity and intensifying city use – attrition would decrease the need for cars simultaneously with decreasing convenience for cars, much as, in reverse, erosion increases need for cars simultaneously with increasing convenience for cars.

In real life, which is quite different from the life of dream cities, attrition of automobiles by cities is probably the only means by which absolute numbers of vehicles can be cut down. It is probably the only realistic means by which better public transport can be stimulated, and greater intensity and vitality of city use be simultaneously fostered and accommodated.

However, a strategy of attrition of automobiles by cities cannot be arbitrary or negative. Nor is such a policy capable of giving dramatic results suddenly. Although its cumulative effects should be revolutionary, like any strategy aimed at keeping things working it has to be engaged in as a form of evolution.

What sort of tactics are suitable to a strategy of attrition of automobiles by cities? Many of the tactics become obvious at once, if we understand that the point is not attrition of automobiles in cities but rather the attrition of automobiles *by* cities. Tactics are suitable which give room to other necessary and desired city uses that happen to be in competition with automobile traffic needs.

ruch indukowany
ruch zanikły

„Temperowanie” ruchu kołowego odbywa się przez stwarzanie coraz mniej wygodnych warunków dla samochodów. Taki powolny i stopniowy proces doprowadzi do stopniowego zmniejszenia się liczby osób używających samochodu w mieście.

(…) Erozja struktury zaś przeciwnie, zwiększy potrzebę użycia samochodu wraz ze zwiększającą się wygodą ich poruszania się”

Jane Jacobs, „The Death & Life of Great American Cities”

Nowy Jork, West Side Elevated

przemiana w dwujezdniową arterię

www.planetizen.com

Nowy Jork, West Side Elevated Highway
1922-30

katastrofa 1973

www.preservenet.com

Nowy Jork, West Side Highway
53% ruchu „wyparowało”; odbudowa napotkała na opór mieszkańców

Portland, Harbor Drive

przemiana w park nadbrzeżny,
zastąpienie przez drogę ekspresową
na przeciwległym nabrzeżu

Portland (OR), Harbor Drive, 1950

Portland's Harbor Drive

In the history of American freeway teardowns, Portland's Harbor Drive holds an auspicious position. It stands as the first major highway to be intentionally removed. In 1950, Harbor Drive, running adjacent to downtown along the western bank of the Willamette River, became Portland's first limited-access highway, six lanes carrying US Route 99W. As more freeways were built in the city during the 1960s--including Interstate 5 on the eastern bank of the Willamette and Interstate 405, a western bypass around downtown--Harbor Drive became less important as a long-haul freeway route. In the early 1970's, the average daily traffic using Harbor Drive was about 24,000 vehicles, including approximately 2,500 heavy trucks accessing nearby industrial areas.

Highway Removal

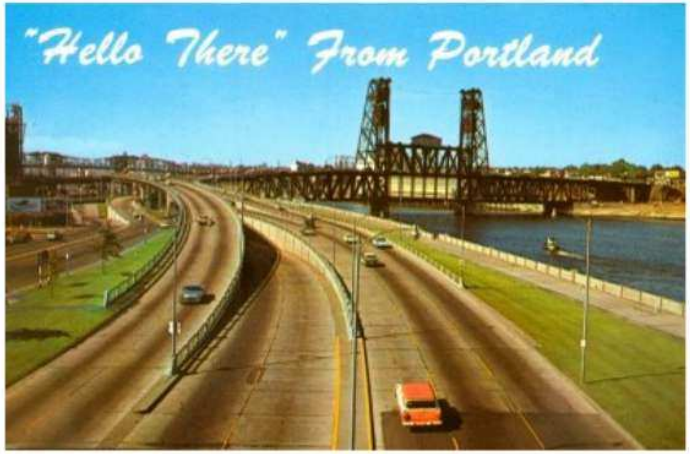
In the late 1960s, newly elected Governor Tom McCall pledged his support for the beautification of the west bank of the Willamette River-harkening back to the City Beautiful plans at the turn of the century that envisioned parks and greenways along the river. Alternatives were proposed for the area, initially various tunnel options were discussed but proved too expensive. Citizens, led by the Riverfront for Citizens coalition, called for a park and boulevard option. McCall ultimately backed the boulevard option and in 1974, Harbor Drive was closed for reconstruction.

The Boulevard

The direct footprint of Harbor Drive was converted into parkland and more park acreage was created by demolishing industrial and commercial buildings that bordered the freeway along Front Avenue. Front Avenue was widened into a landscaped boulevard to handle the local traffic and was later renamed as Naito Parkway. In 1978, construction of the 37-acre Waterfront Park was completed and, in1984, was named after Governor Tom McCall. The city extended Waterfront Park to the south in 1999, doubling the size of the public open space. Due to the success of the park, the city is currently redesigning sections of Nation Parkway to make the boulevard more pedestrian-friendly.

Economic Development

The success of Portland's downtown is widely known-and the demolition of Harbor Drive should take a good portion of credit. Key developments-like Yards at Union Station to the north and RiverPlace to the south-led to a resurgence in downtown

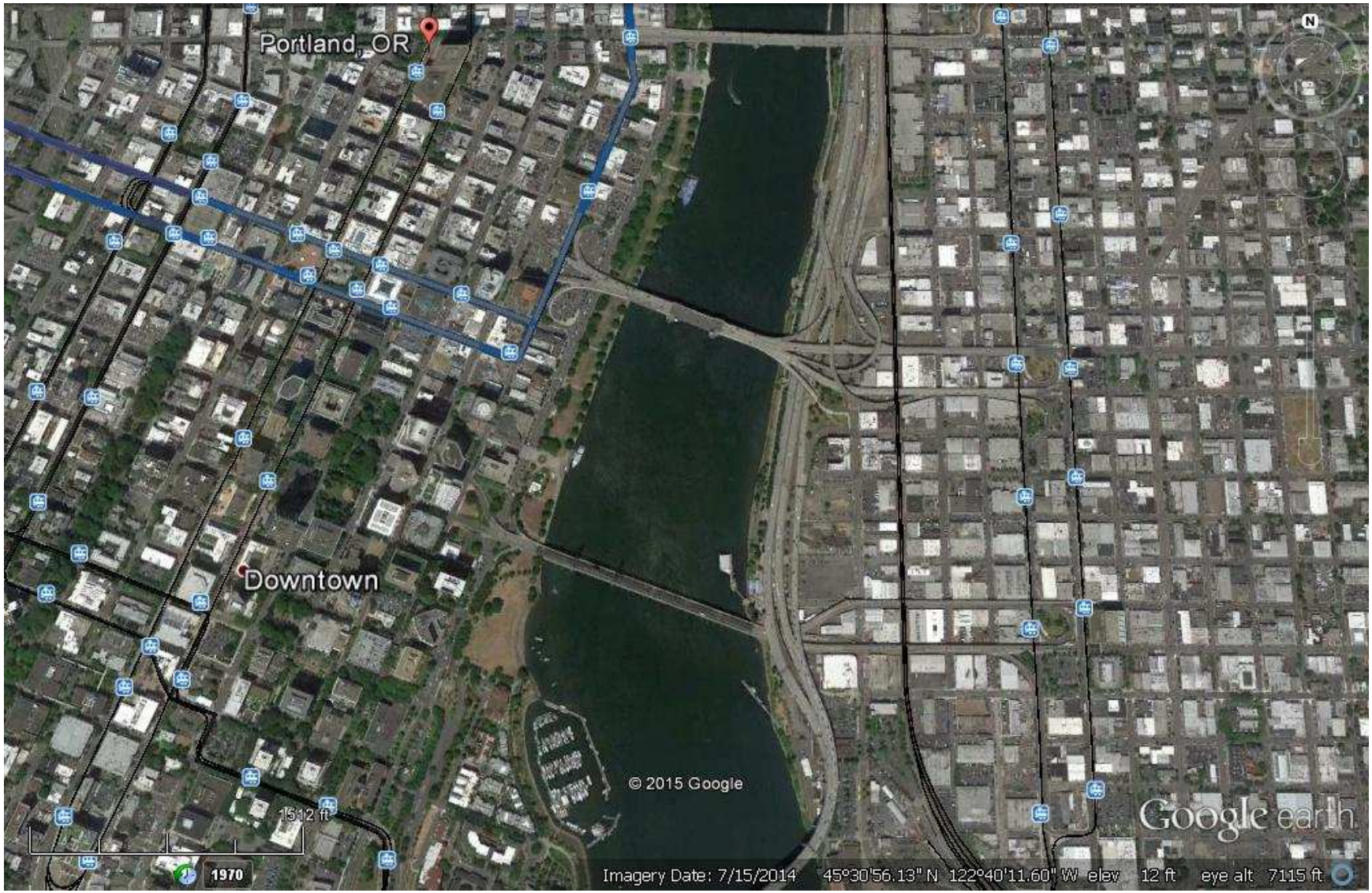


open 1943

A Postcard of the Harbor Drive. Source: cafeunknown.blogspot.com

The same area as pictured above, as Tom McCall Waterfront Park, circa 2005. Source: PDXplan.org

Internet 100%



Obecnie inicjatywa obywatelska „Riverfront for People” wzywa do wyburzenia autostrady po drugiej stronie rzeki,
jako istotnego kroku w kierunku rewitalizacji przyległej części miasta

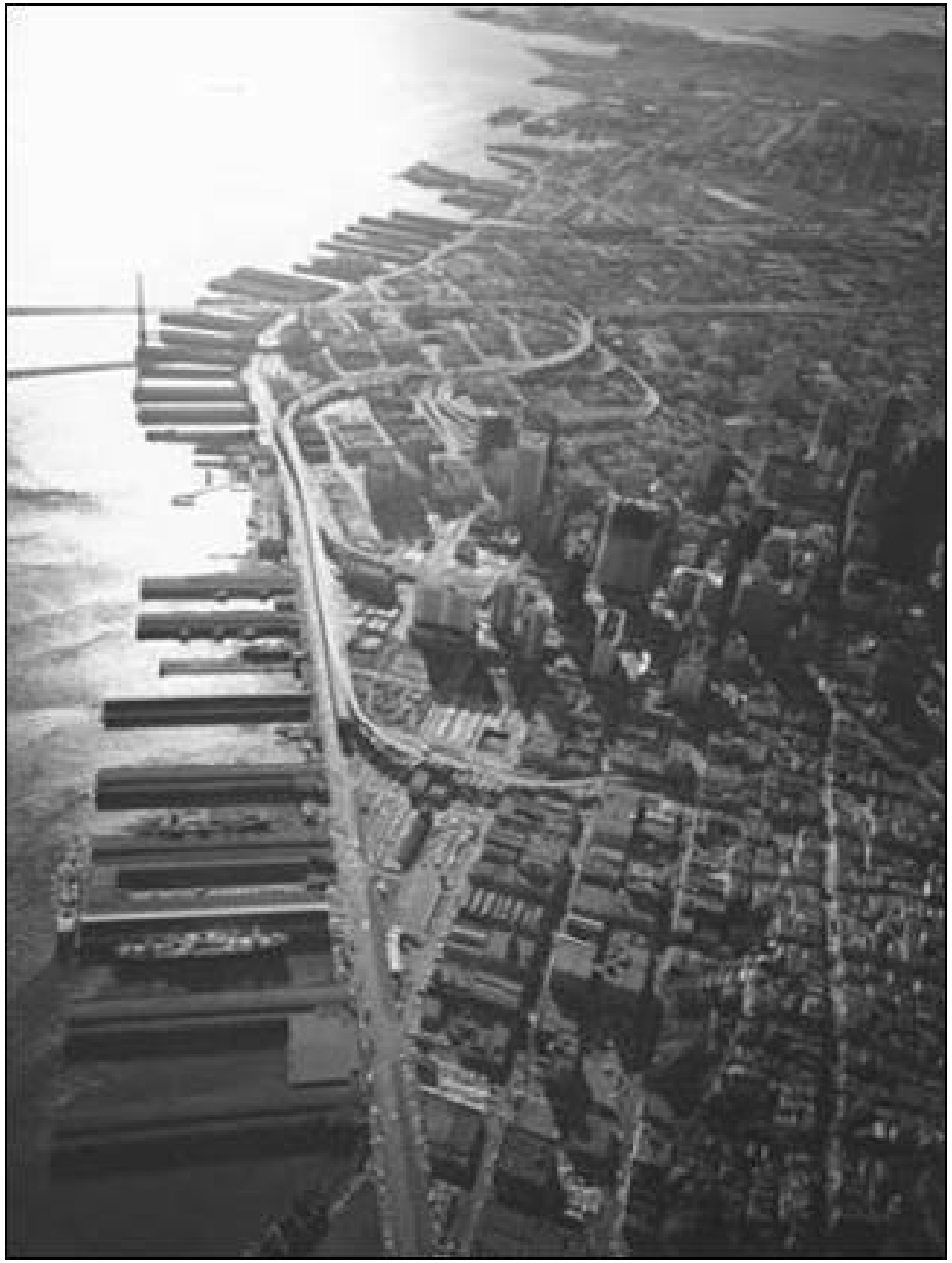
San Francisco, Embarkadero Freeway

przemiana w dwujezdniową ulicę
z tramwajem w pasie rozdzielającym;
plac przed przystanią promową

plan budowy dróg ekspresowych, 1947

San Francisco – Embarcadero Frwy

- trasa otwarta w 1959 r. jako część przyszłej I-80, nigdy nie ukończona
- Freeway Revolt w 1959 r. – rezygnacja z planów rozbudowy autostrad miejskich
- ok. 70k-100k poj. dziennie
- poważnie uszkodzona 17 X 1989 r. w trzęsieniu ziemi Loma Prieta
- inicjatywa rozbiórki wyszła od burmistrza A.Agnosa; rada się zgadza drobną większością głosów
- protesty kupców Chinatown
- rozbiórka w 1991 r.



San Francisco –
Embarcadero Freeway
w 1987 r.

Jeffrey Heller, 1969

www.slate.com

San Francisco –
Embarcadero Freeway
w 1987 r.

John O'Hara/Chronicle 1987

Gary Fong/Chronicle 1985

San Francisco – Embarcadero Freeway w 1985 r.

The Embarcadero was a prime example of what British transport researcher Phil Goodwin calls disappearing traffic *— get rid of a road, he found in a wide-ranging case study, and, on average, 25 percent of the traffic simply goes away.* [www.slate.com]

sustainablecitiescollective.com

początkowo planowano tunel, ale w końcu z niego zrezygnowano

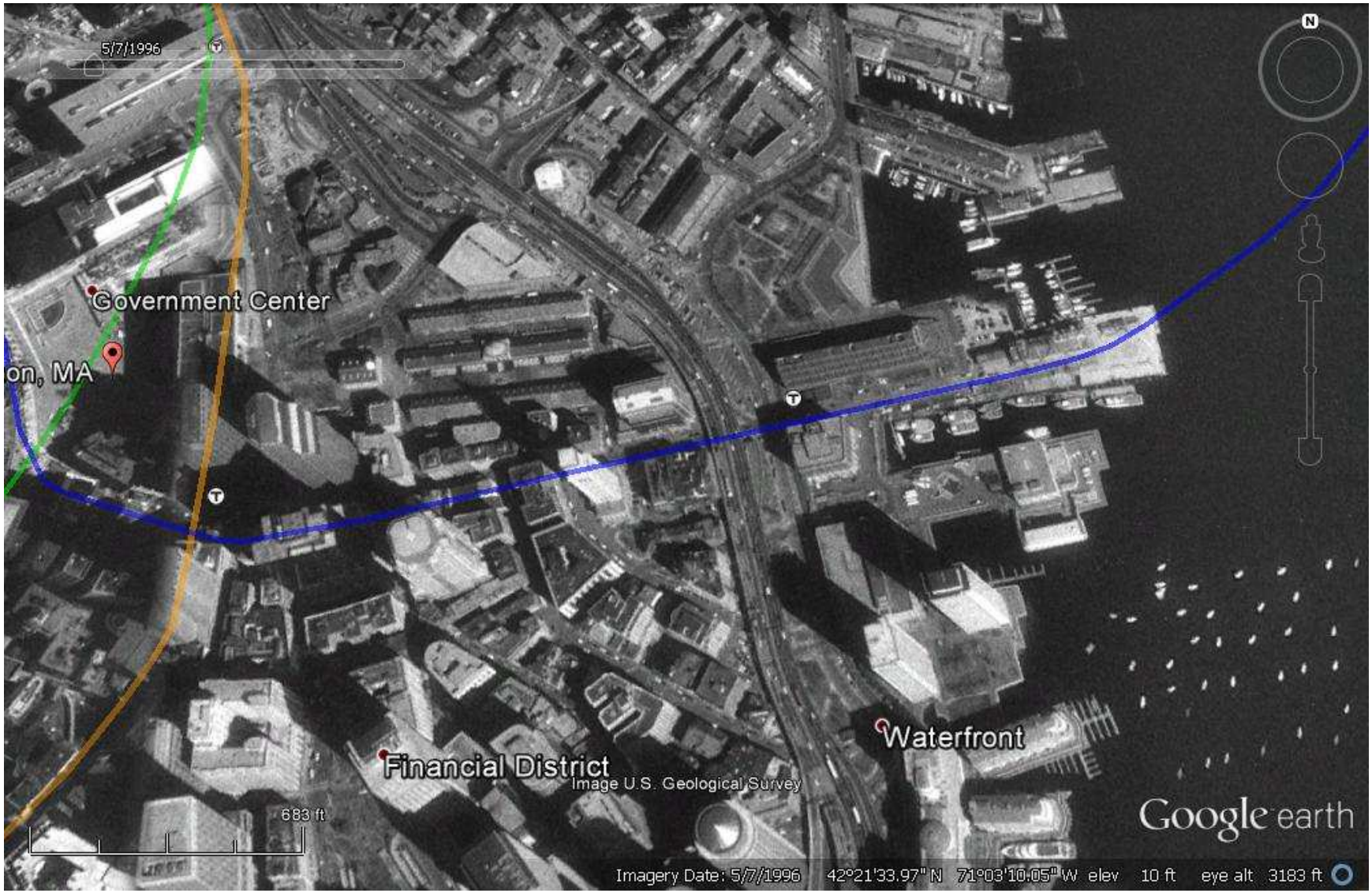
www.sanfranciscodays.com

San Francisco – przedpole Embarcadero przed budową drogi ekspresowej

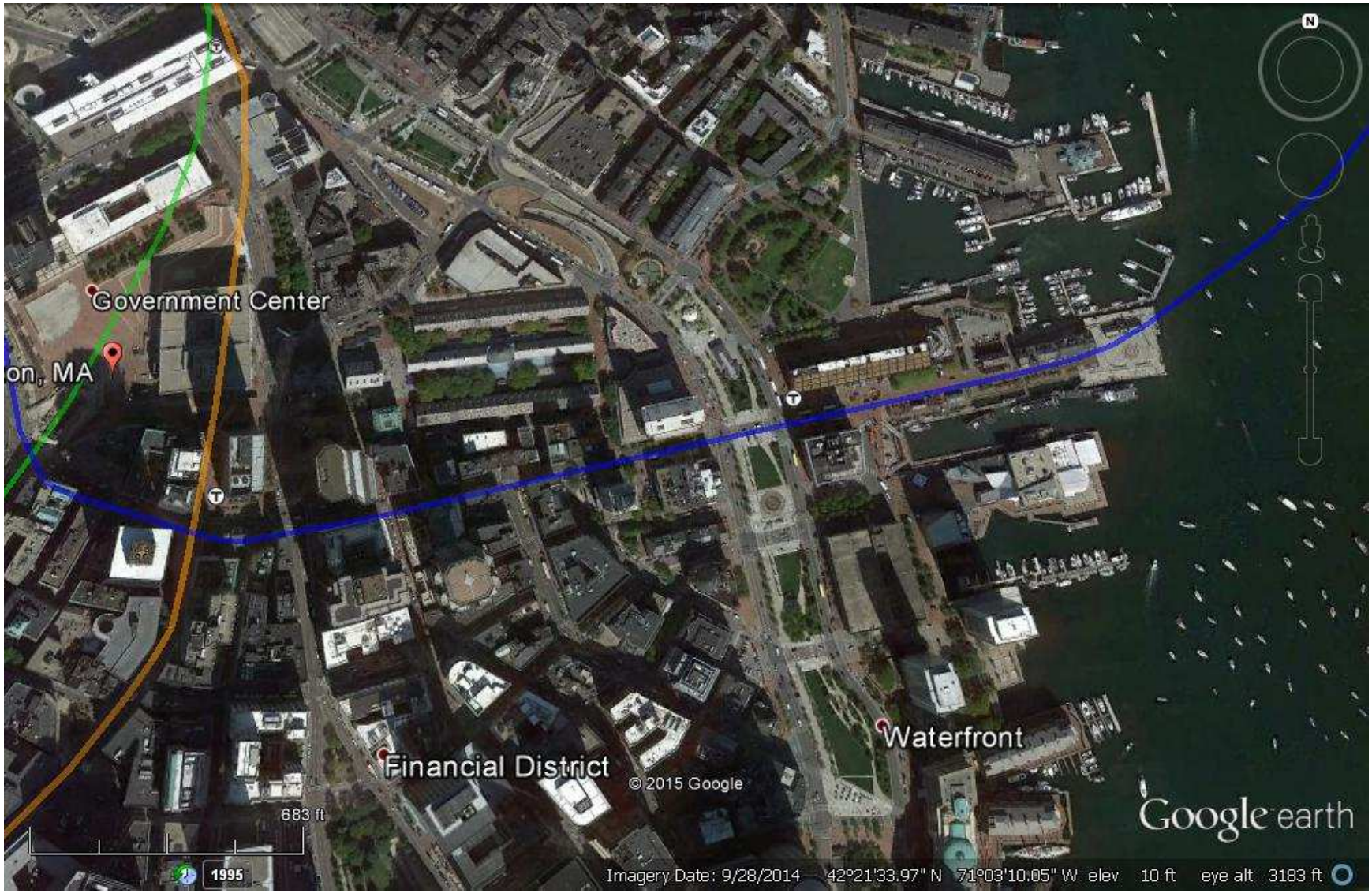
Boston, Central Artery („Big Dig”) 1982-2006

przełożenie arterii pod ziemię;

na powierzchni park liniowy w szerokim pasie rozdzielającym


5/7/1996
Government Center
on, MA
Financial District
Image U.S. Geological Survey
Waterfront
683 ft
Google earth
Imagery Date: 5/7/1996 42°21'33.97" N 71°03'10.05" W elev 10 ft eye alt 3183 ft

1996


Government Center
on, MA
Financial District
© 2015 Google
Waterfront
683 ft
1995
Google earth
Imagery Date: 9/28/2014 42°21'33.97" N 71°03'10.05" W elev 10 ft eye alt 3183 ft

2014

Photo No. 23 Nov. 1 1954
John F. Fitzgerald Expressway
Harris Structural Steel Co. Cont. 22-b
Overall view looking N. from Atlantic Ave
Photo by John W. Harper, Chelsea Mass.

reconnectaustin.com

Boston, Central Artery

- połączenie West Side i odciętej historycznej dzielnicy East Side
- gigantyczny koszt: 14,6 mld USD (przewidywano 4 mld)
- zmniejszenie poj.h o 62% (z 38k h do 15k h dziennie); czas przejazdu w kier. pn. skrócony o 85.6%
- jednakże są też oceny, że wskutek pojawienia się ruchu indukowanego, kongestia na większości kierunków się zwiększyła, a „wąskie gardła” pojawiły się dalej od śródmieścia
- głoszone oszczędności roczne rzędu 167 mln USD, uzyskane dzięki zwiększeniu wydajności układu miały się wziąć z analiz nie obejmujących kongestii w nowych miejscach

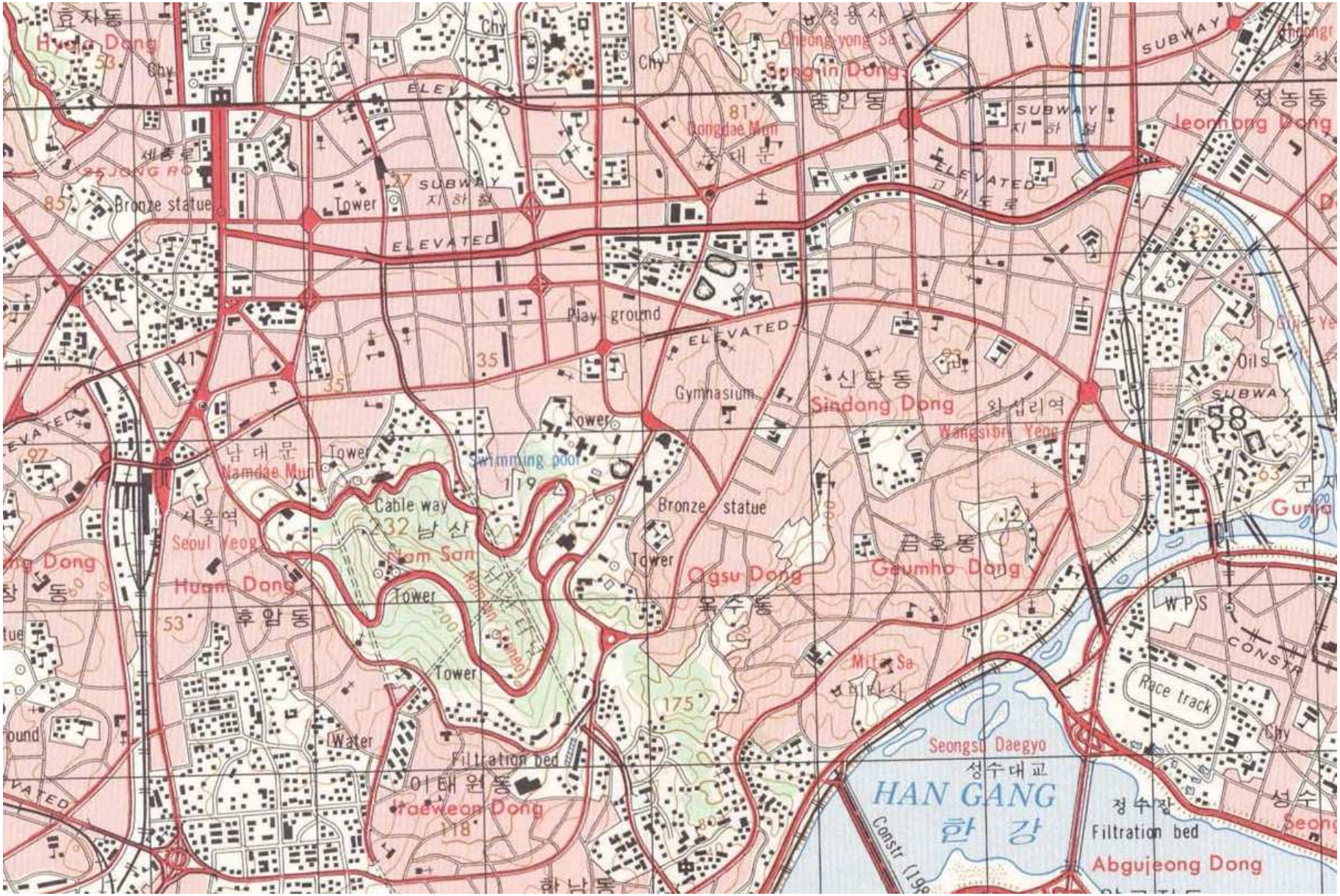
[za *Big Dig,* ang. *Wikipedia*]

Seul, droga Czeonggye

przemiana w park liniowy z rzeką

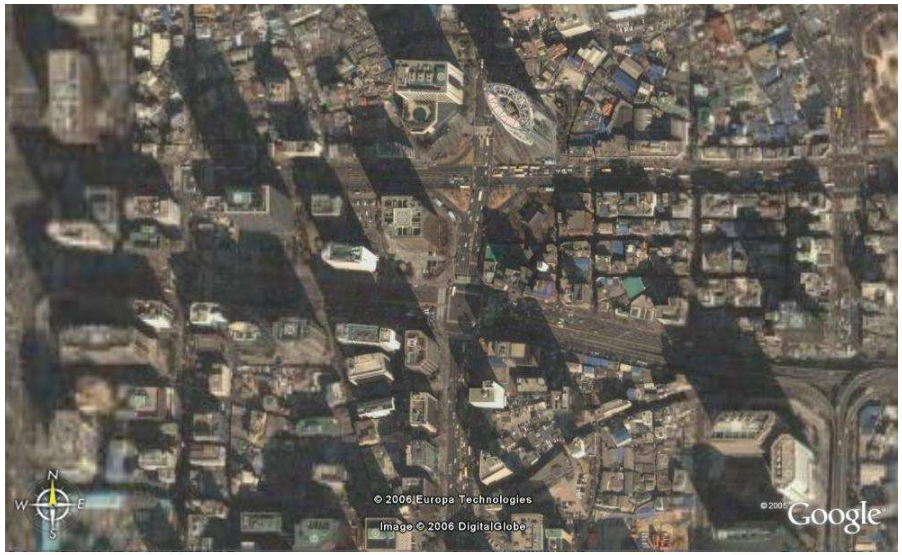
www.gardenvisit.com

Seul, droga ekspresowa ukończona 1976 w śladzie rzeki Czeonggyecheon

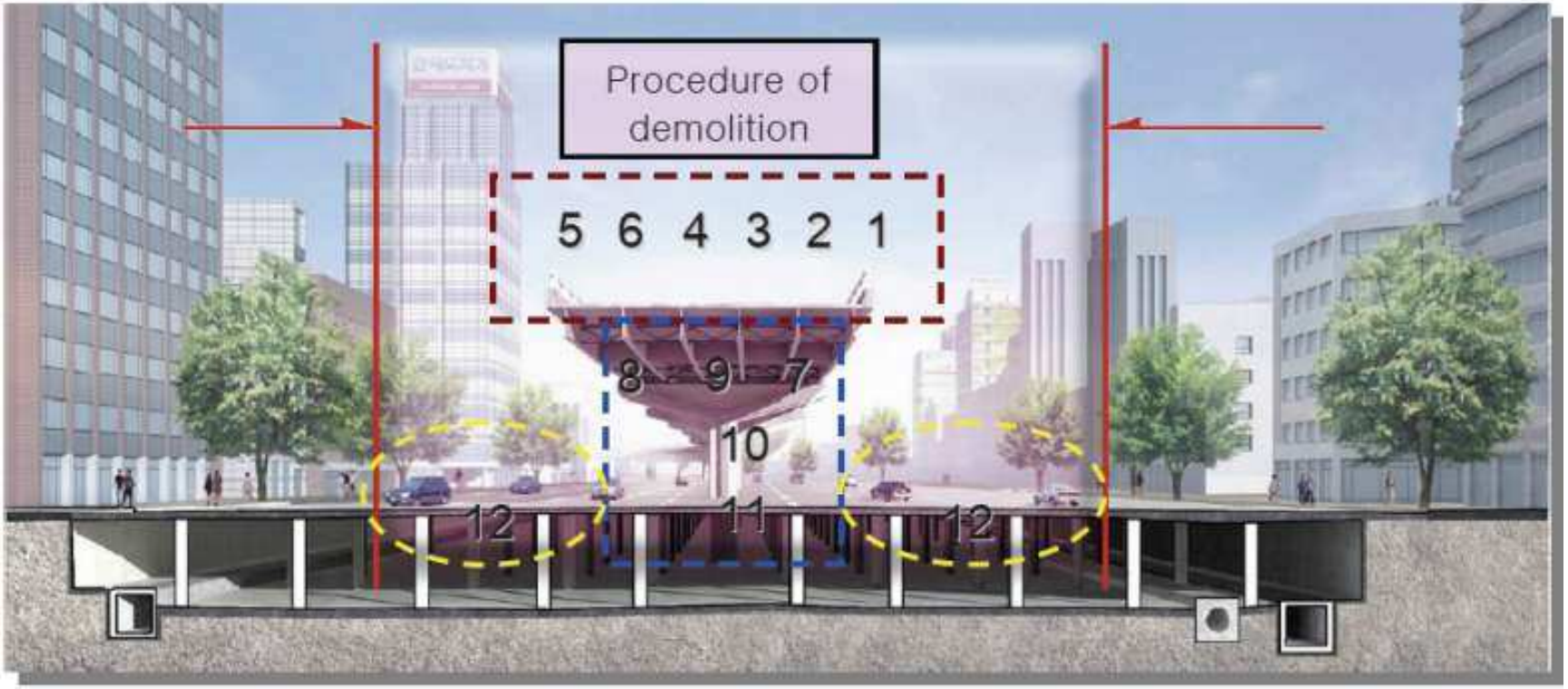


Seul, Czeonggyecheon

www.gardenvisit.com



Seul 2003: burmistrz Lee Myung-bak rozpoczyna politykę rewitalizacji fragmentów śródmieścia
początek: rozbiórka drogi ekspresowej



rzeka 청계천 Czeonggyecheon
w miejscu rozebranej arterii
(koszt: 281 mln USD)

skutek: powstanie miejskiej przestrzeni społecznej

stari4ek, WikiComm

Seul, Czeonggyecheon

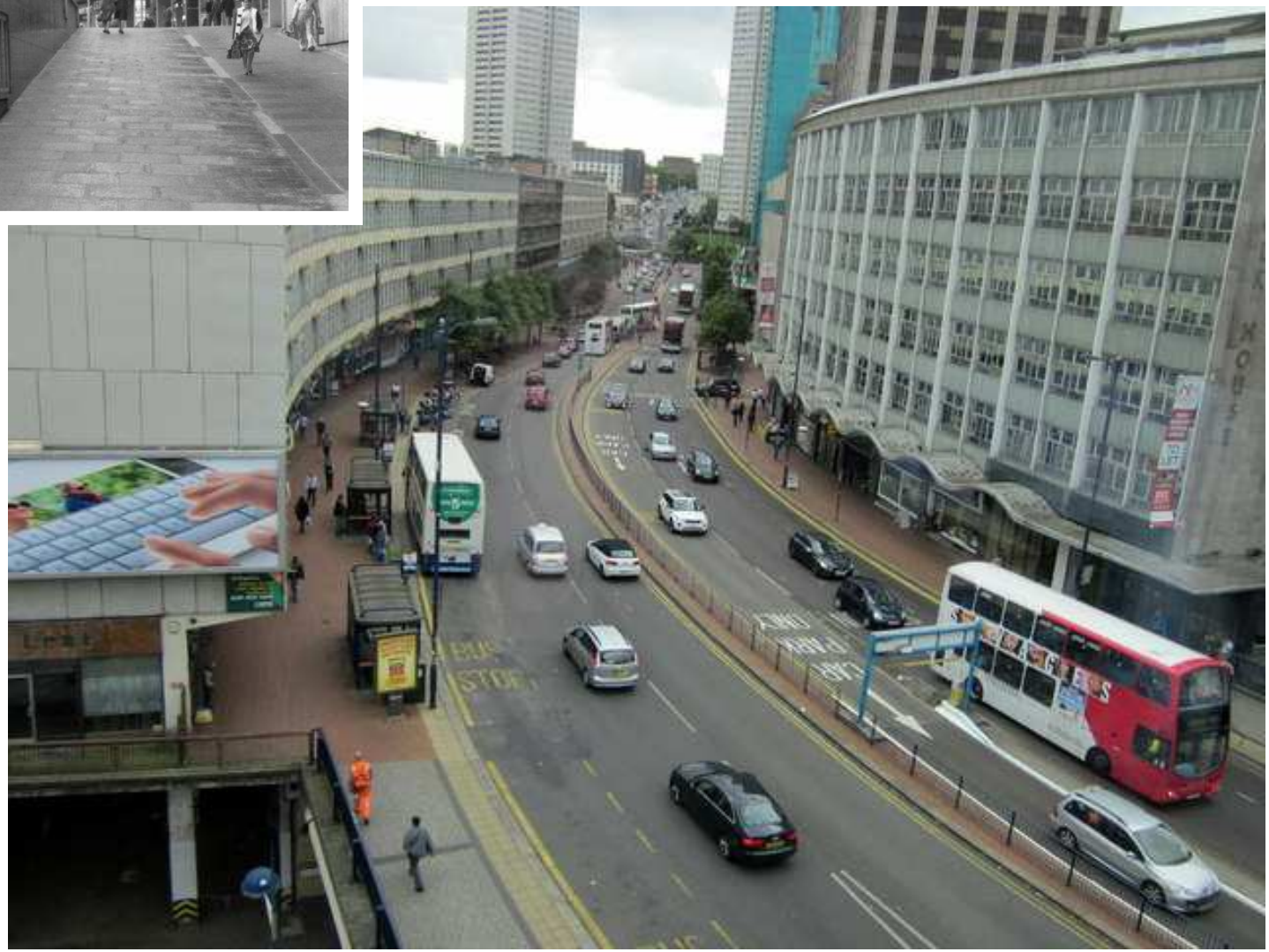
Seul, Cheonggyecheon

- Wzbogacenie ekosystemu wzdłuż rzeki: liczba gatunków ryb wzrosła do 25 z 4, ptaków – do 36 z 6, insektów do 192 z 15.
- Zanieczyszczenie cząteczkowe powietrza wzdłuż korytarza zmalało do 48 mikrogramów/m^3 z 74; temperatury letnie zmalały o 5 stopni niż w okolicy.
- Liczba samochodów w śródmieściu zmniejszyła się o 2,3%; obserwuje się zwiększenie prędkości na ulicach, także wskutek większych restrykcji w parkowaniu i polepszeniu oferty autobusowej.
- Nabrzeża rzeki odwiedza dziennie ok. 60-90 tys. osób.
- Inwestycja przyczyniła się do 15.1% wzrostu podróży autobusowych i 3.3% podróży metrem w okresie 2003-08.
- Wzrost cen nieruchomości w pasie 50m o 30-50% (dwukrotnie wyższy niż w reszcie miasta).
- W l. 2002-03 wzrost liczby firm w rejonie inwestycji o 3.5% (dwukrotnie większy niż w śródmieściu); wzrost liczby miejsc pracy w rejonie o 0.8% (w pozostałej części śródmieścia odnotowano spadek o 2.6%).
- “Właściwie przeszliśmy od miasta zorientowanego na samochód do miasta zorientowanego na człowieka” - Lee Inkeun, wiceburmistrz ds. transportu.

www.terrapass.com na podstawie NYT,
landscapeperfromance.org,
ang. Wikipedia

www.photobydjnorton.com

Birmingham: Queensway



Roy Hughes

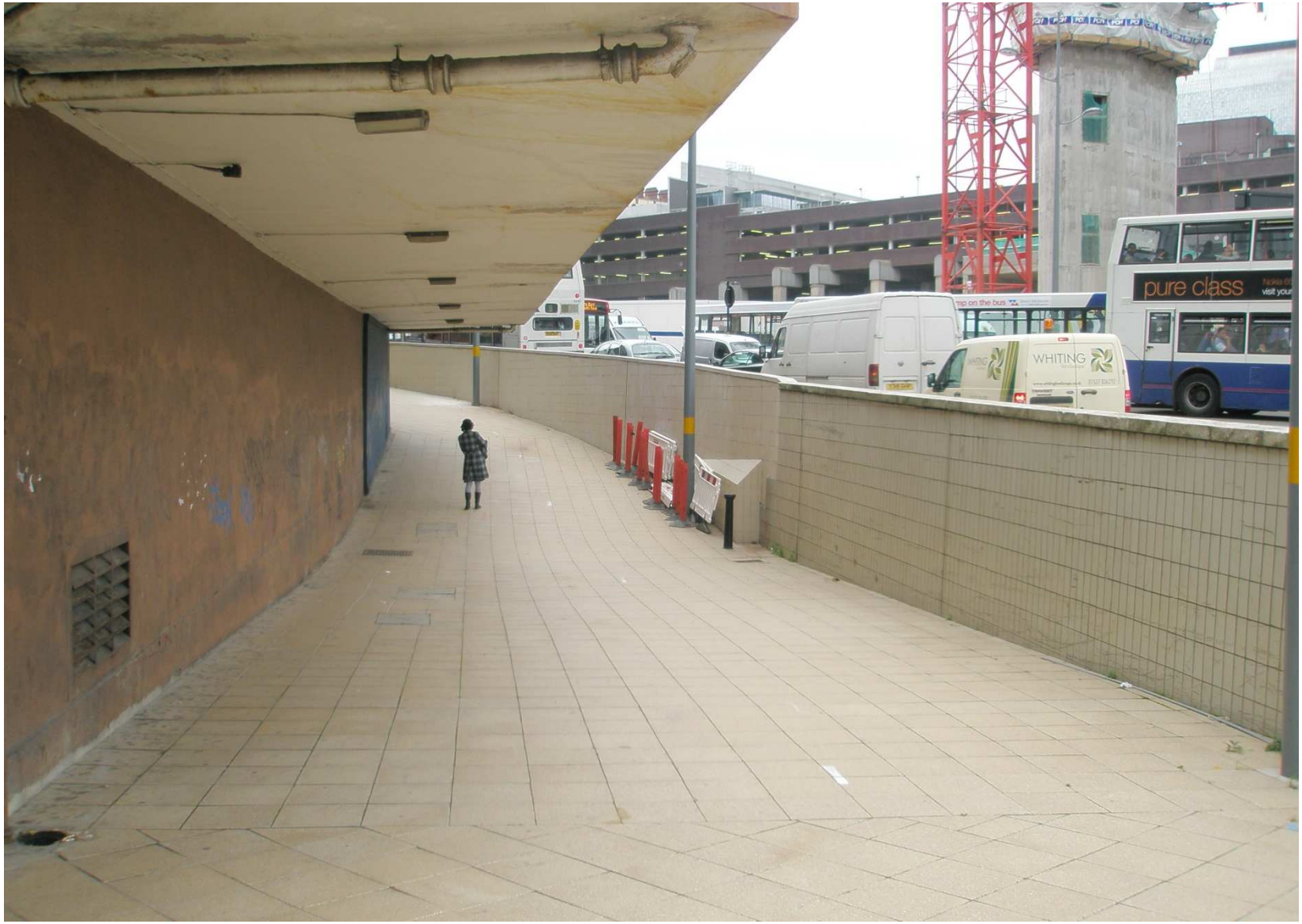
Birmingham, Queensway

1962

2006

www.photobydjnorton.com

Birmingham: Queensway

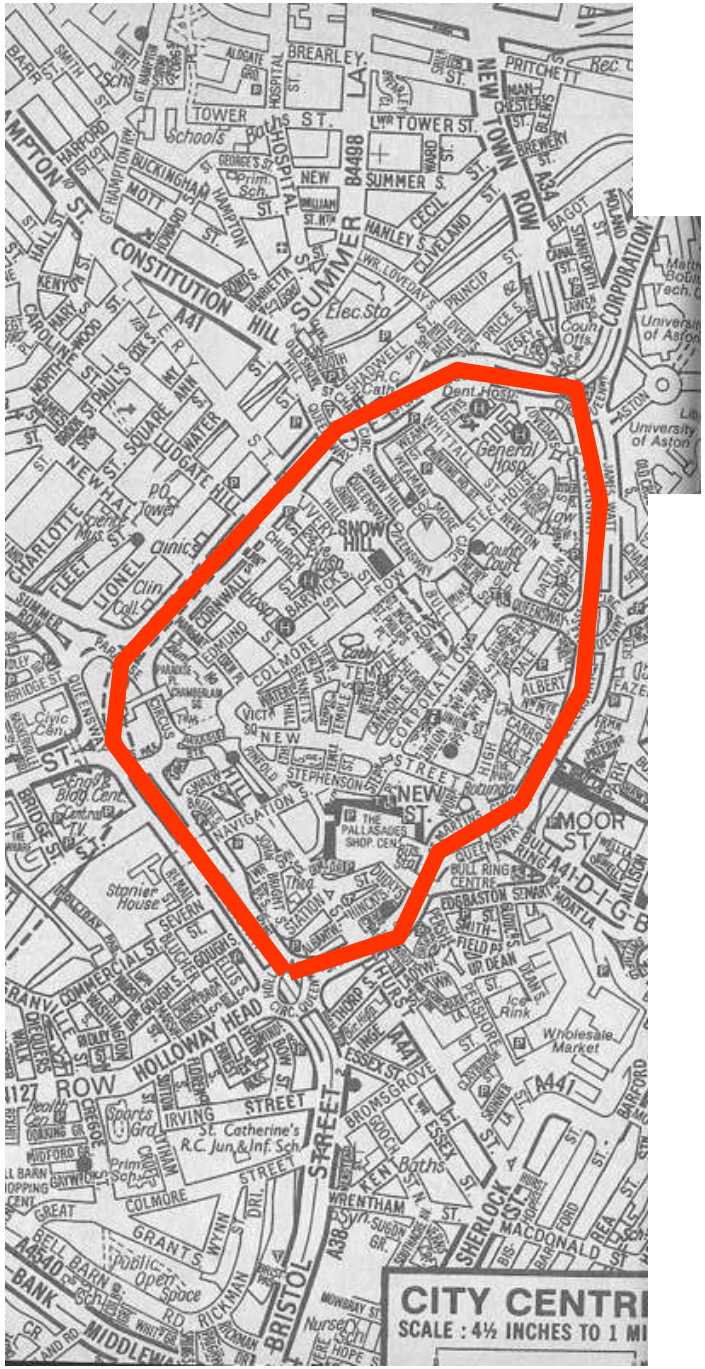


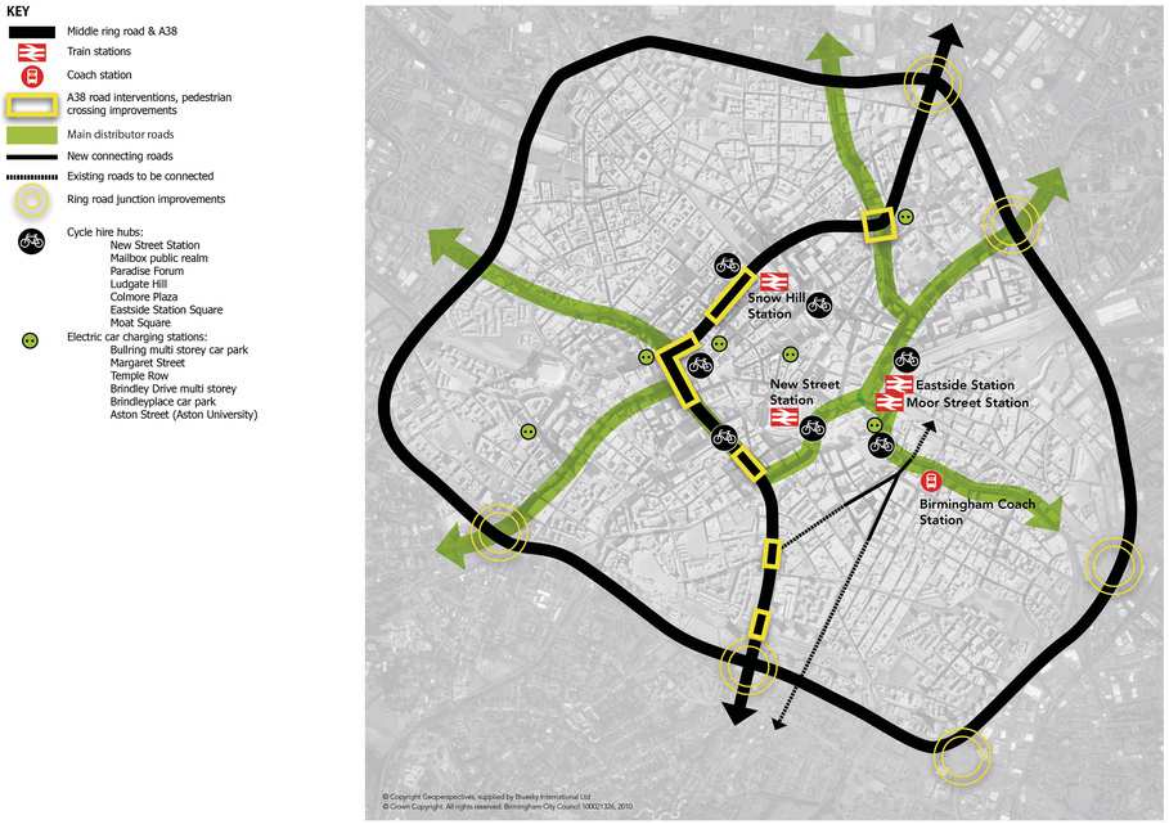
Birmingham: Queensway

Birmingham: Queensway

demontaż „betonowego kołnierza”

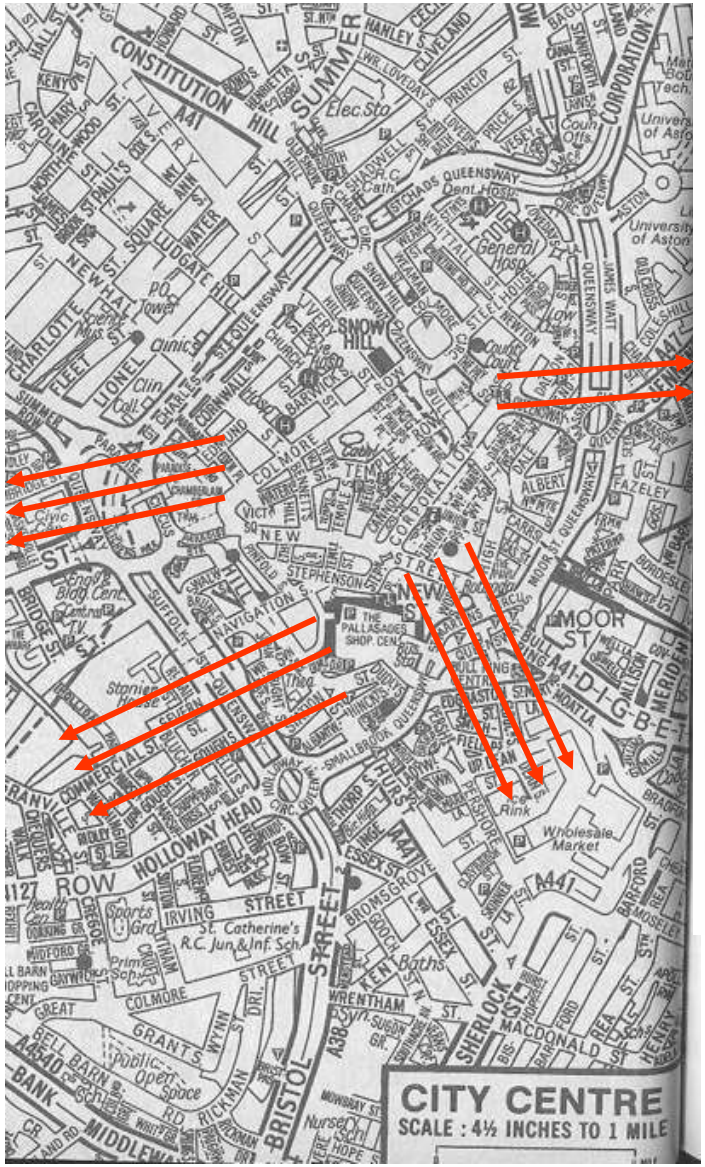
1960-1971: budowa „Inner Ring Road”
1990-te: „Big City Plan”
~2000: zamknięcie wschodniej części trasy

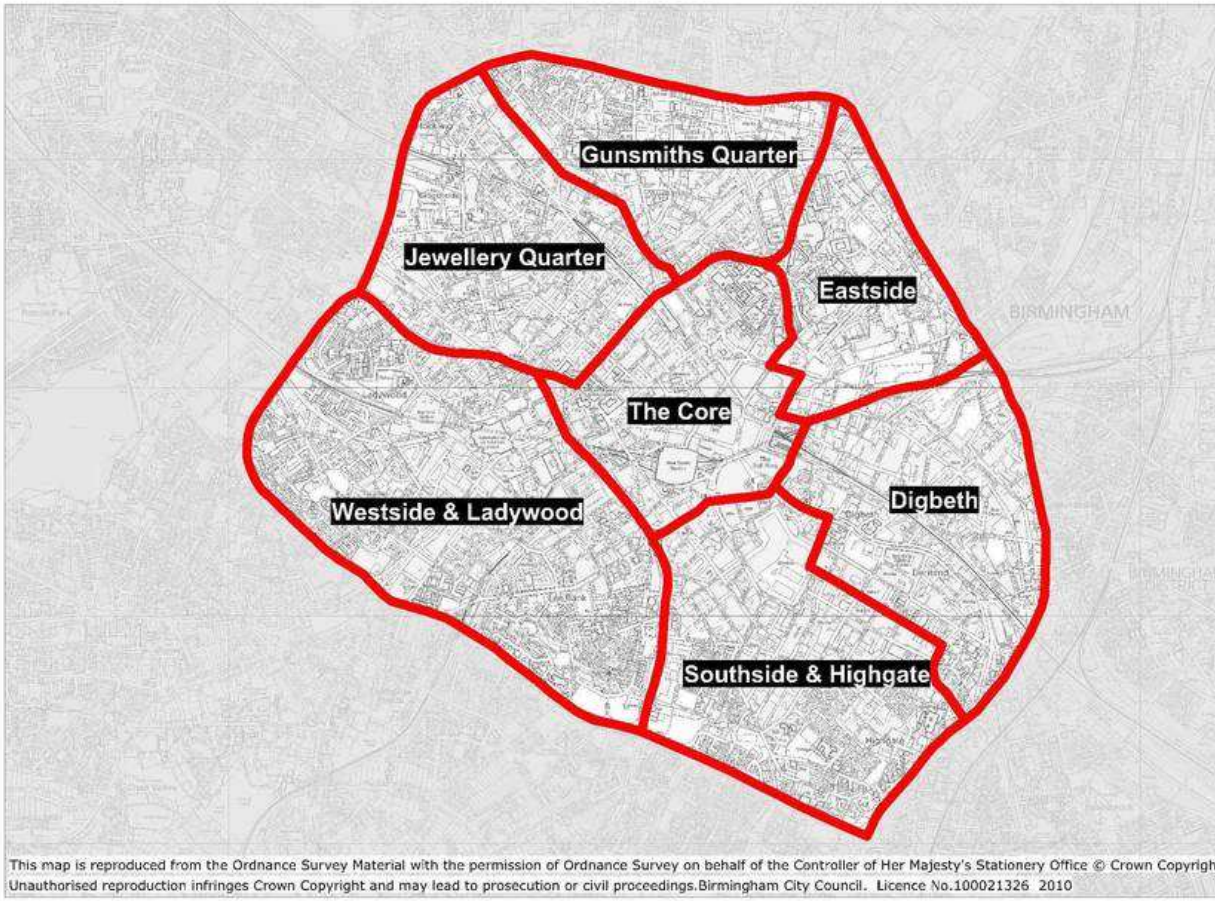




Birmingham: Queensway

demontaż „betonowego kołnierza”



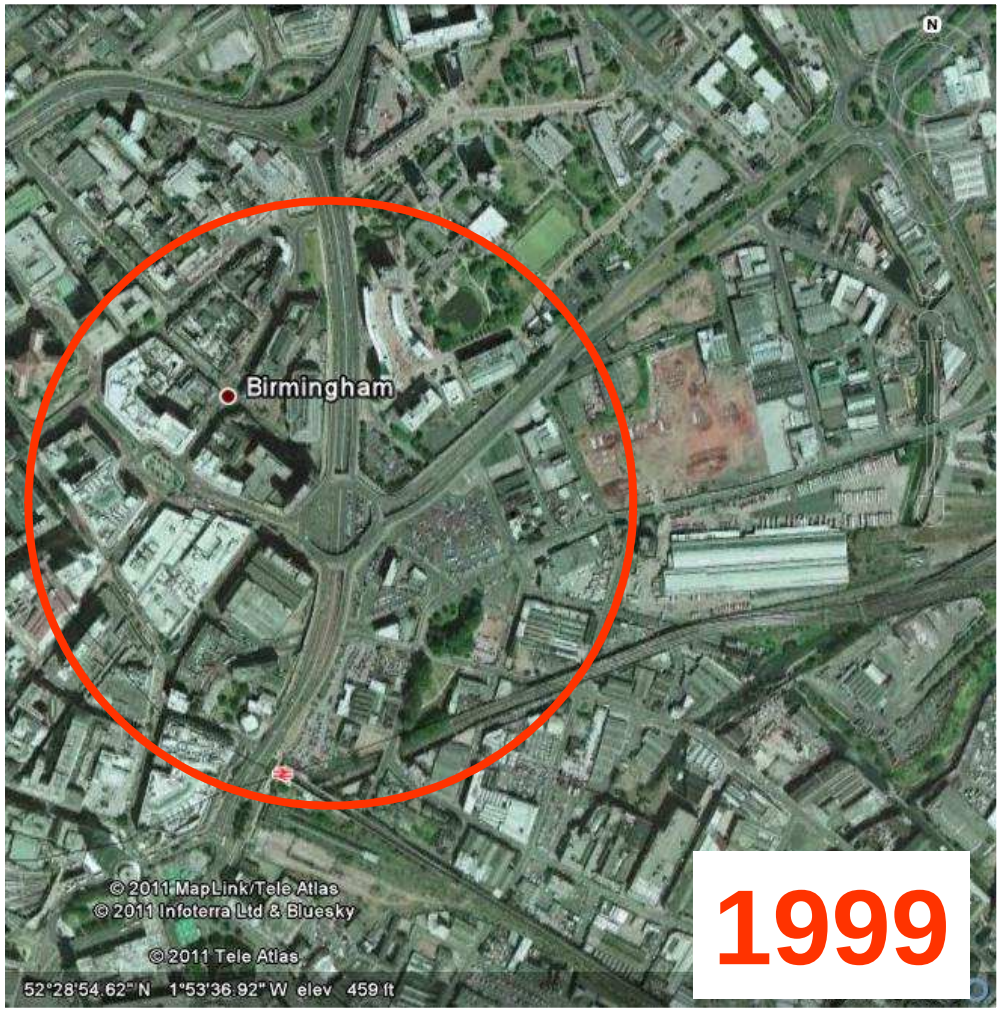


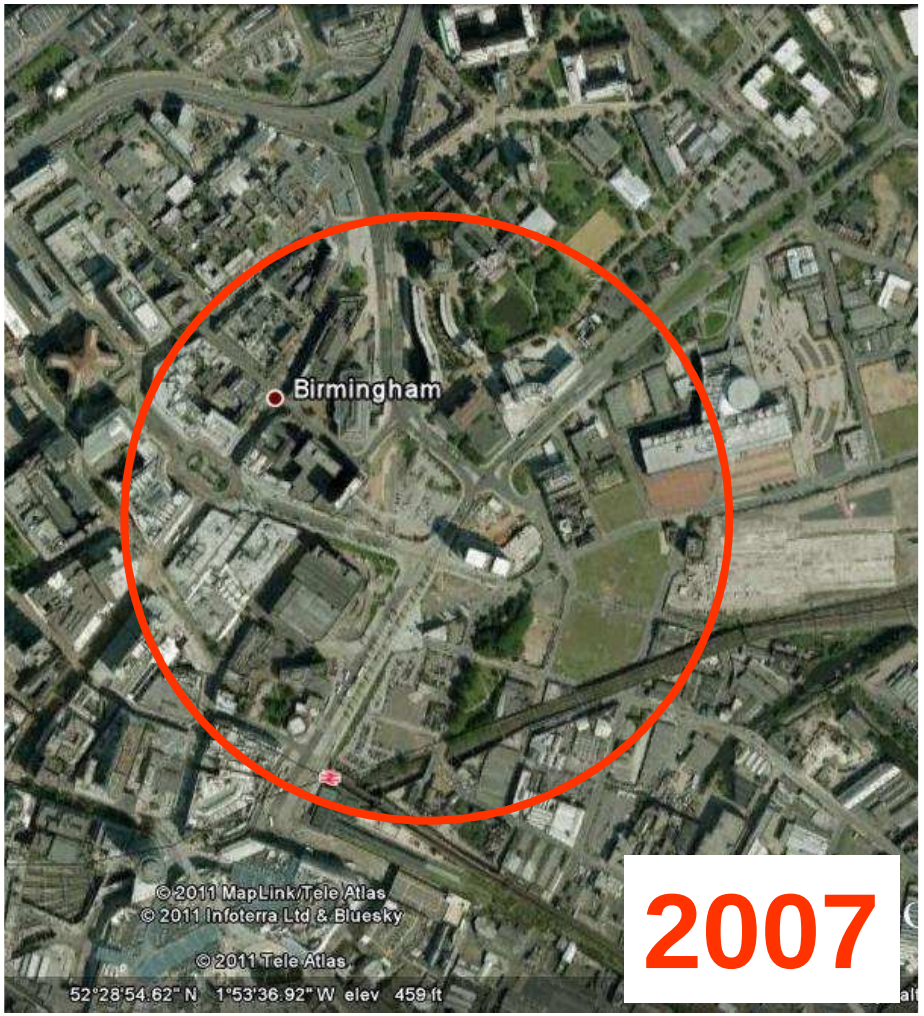
otwarcie śródmieścia – ekspansja zabudowy miejskiej

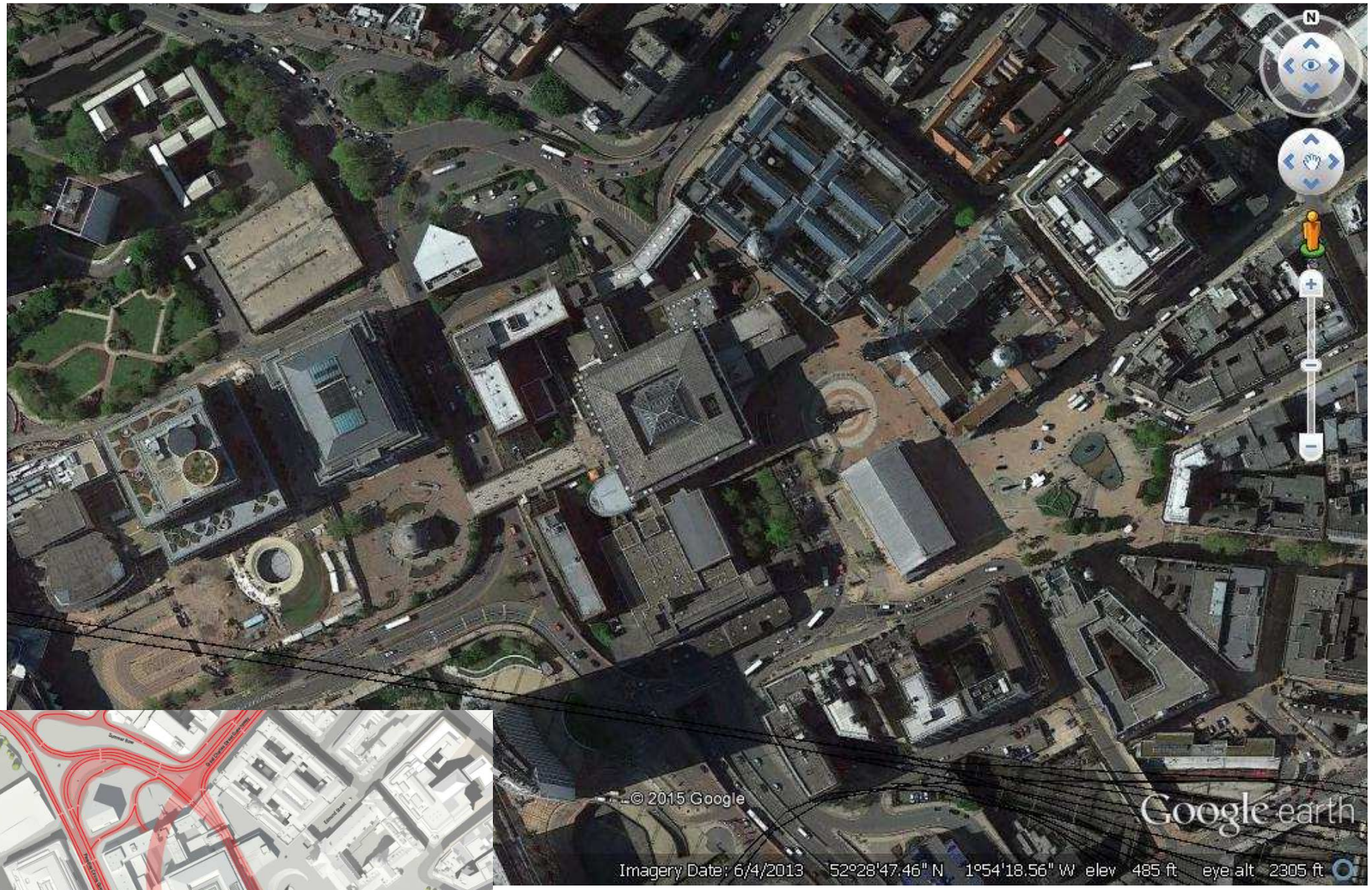
Queensway: w głębi przejście naziemne

Birmingham: Queensway

demontaż „betonowego kołnierza”







Birmingham, Paradise Circus

www.urbanbuildings.net

Paradise Circus

Paradise Circus

Birmingham, przebudowa Paradise Circus 2015+

Paryż, voie rapide G. Pompidou

zamykana w niedziele i święta

zamykana latem na „Paris Plages” od 20 lipca do 20 sierpnia (od 2002 r.)

plan zupełnego zamknięcia dla samochodów prawego nabrzeża odrzucony w 2004 r.

na pd. nabrzeżu ogranicza się ruch do jednego pasa i wprowadza jednopoziomowe przejścia dla pieszych

voie G.-Pompidou

Mbzt, WikiComm

www.parisetudiant.com

Paris-Plages

Paris-Plages

urbanplanet.info

www.europe1.fr

Budapeszt, Ferenciek tere

Budapeszt, arteria przez Ferenciek tere

varoskepp.blog.hu

Budapeszt
Ferenciek tere

fot.: Urb-i, Facebook

Budapeszt, Ferenciek tere

Budapeszt, Ferenciek tere

www.origo.hu

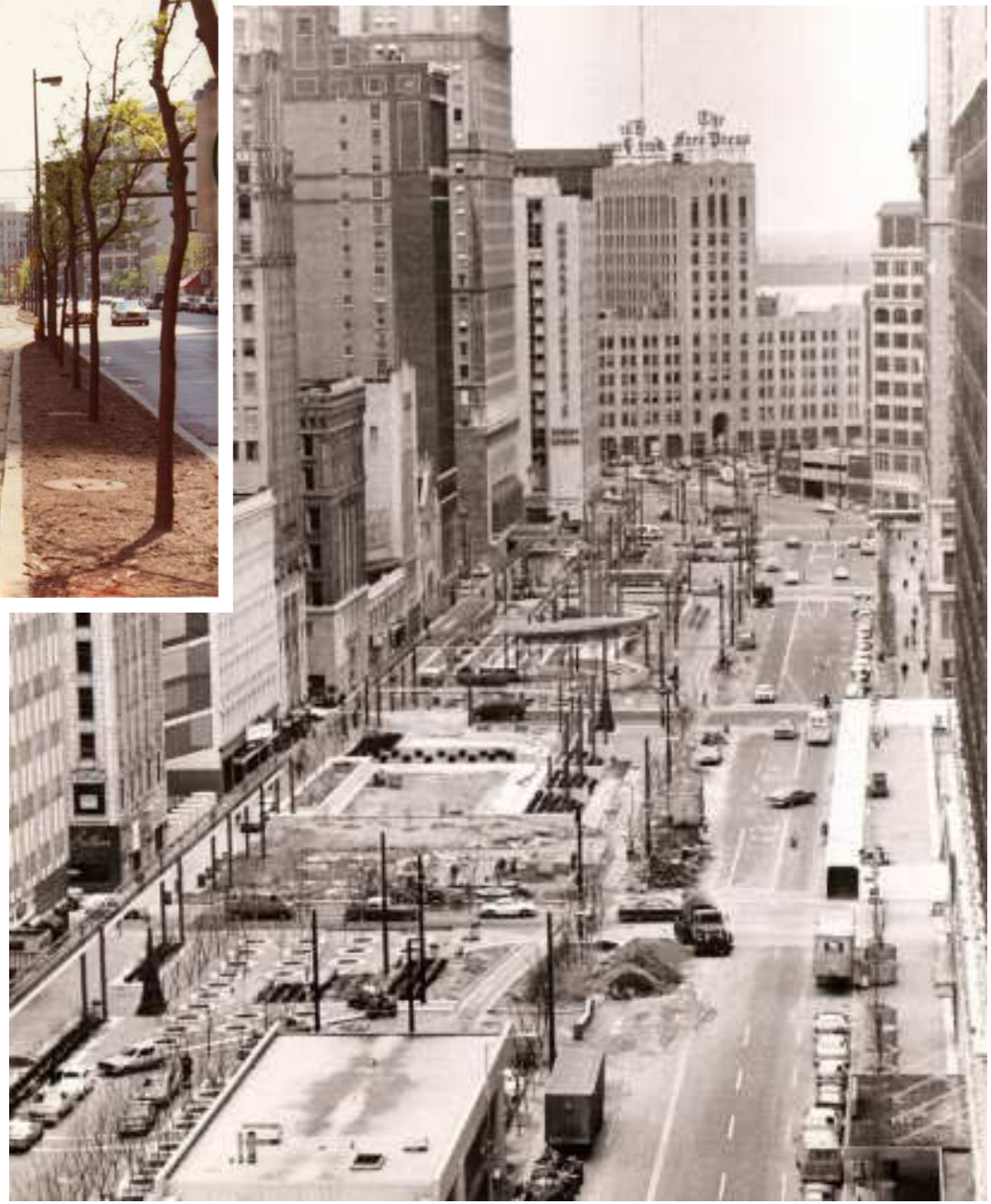
budapest.varosom.hu

Budapeszt, Ferenciek tere

Detroit, Washington Boulevard

„półpedestrianizacja” nie uwieńczona sukcesem

powrót do *status quo ante*



Detroit
Washington Boulevard
~1985

Detroit
Washington Boulevard obecnie

Łódź, Trasa WZ

- droga częściowo pod ziemią, ale jakość przestrzeni publicznej wątpliwa
- rozwój przedmieść kosztem rewitalizacji śródmieścia

www.euroinfrastructure.eu

lodz.naszemiasto.pl

Trasa WZ, przystanek przesiadkowy przy Piotrkowskiej

Łódź, Trasa WZ

- „oszczędnościowe” ograniczenie długości tunelu (taniej o 50 mln zł)

ale:

- wydłużenie linii tramwajowej na dalekie peryferie o ok. 4,5 km (~60 mln zł)
- budowa pary estakad drogowych na popularnym dzikim przejściu (~15 mln zł)
- propozycja budowy „mostu nad Marszałkami” w tzw. II etapie (~100 mln zł)

RAZEM: ~175 mln zł kosztów niekoniecznych

jakelo.salon24.pl

budowa na ukończeniu

Sally Cairns, Carmen Hass-Klau, Phil Goodwin, *Traffic Impact of Highway Capacity Reductions: Assessment of the Evidence*, Landor Publishing, London, 1998

- przebadano 60 przypadków zmniejszenia przepustowości sieci drogowej w następujących krajach: UK, DE, CH, IT, NL, SE, NO, US, CA, AU, JP
- krótkoterminowa kongestia, brak trwałego zwiększenia kongestii
- 14%-25% ruchu „wyparowało”

Warszawa, przedpole staromiejskie

„miasto frontem do rzeki”

proj.: Bartosz Kaciupski

Warszawa – przedpole Starego i Nowego Miasta
po usunięciu Wisłostrady

proj.: Bartosz Kaciupski

Warszawa – przedpole Starego i Nowego Miasta
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