

**PROBLEM:  
AMERICA'S  
CRUMMIEST  
TRANSIT CENTER  
COULD GET WORSE**

**SOLUTION:  
PRAY**

**THINK PENN STATION IS BAD? LET'S GO INTO THE  
CRUMBLING TUNNELS THAT LIE BENEATH**

**BY DEVIN LEONARD, WITH ELISE YOUNG  
PHOTOGRAPHS BY NOLAN CONWAY**



**TO GET TO NEW YORK'S PENN STATION, EVERY NORTH-bound Amtrak passenger makes the last leg of their journey, through tunnels beneath the Hudson River, in the dark. Trust me: They should be glad. One day this autumn, an Acela pulls into Newark, N.J., and a railway spokesman escorts me onto the rear engine car, where we stand and take in the view facing backward. As we descend into one of the Hudson tunnels—there are two, both 107 years old, finished in the same year the Wright brothers built their first airplane factory—a supervisor flips on the rear headlights, illuminating the ghostly tubes.**

Our train (unsurprisingly) is operating at reduced speed because of an electrical glitch, which just gives us more time to gawk at the damage. There are eerie, nearly fluorescent white stains on the tunnel walls that look like they were painted by a giant with a roller brush. The pale swaths are remnants of the salt water that inundated the passages five years ago, during Hurricane Sandy. Sulfates and chlorides have been eating away at the concrete ever since, exposing reinforcement bars underneath. “Keep your eyes peeled,” says Craig Schulz, the affable Amtrak spokesman, “and you’ll see some of these areas where there is literally just crumbling concrete.”

As we emerge into the bowels of Penn Station, Schulz points to wooden flood doors above the tunnel entrances. They were installed during World War II to hold back the river if the tubes were torpedoed by a Nazi submarine. In the gloom, the doors look a full century older than their vintage. They seem more suited for a dungeon than a modern rail system like this one—the Northeast Corridor, which runs from Boston to Washington D.C., serving an area that generates a fifth of U.S. gross domestic product. Before we step off the train, Schulz repeats Amtrak’s mantra: The storm-ravaged tunnels are safe, for now, but the railroad doesn’t know how long it will be able to keep them in service.

I’d been assigned to write a story about Pennsylvania Station, but I wanted to get a caboose-eye view of the decaying tunnels leading up to it, because the only imaginable way the station could be any worse is if it were underwater. Penn, the Western Hemisphere’s busiest train station, serves 430,000 travelers every weekday—more than LaGuardia, JFK, and Newark airports combined. More than 200,000 people also use the subway stops that connect to Penn through harshly lit, low-ceilinged subterranean corridors. Locals race through the place; out-of-towners proceed more anxiously, baffled by the layout of what is truly not one station but three: Amtrak shares the space with the Long Island Rail Road and New Jersey Transit. All who schlep through the complex are united by a powerful urge to leave. “Everybody just wants to get the hell out of there,” says Mitchell Moss, director of the Rudin Center for Transportation Policy and Management at New York University.

There are too many people in Penn Station because there are too many trains—more than 1,300 arrivals and departures every weekday, twice the number from four decades



TRAINS ARE TYPICALLY PACKED, DREARY, AND LATE

ago. With so much traffic, small problems routinely compound into big ones; a 10-minute delay for one train backs up dozens more, and then tens of thousands of people are kept from their destinations. Every late train bleeds the economy: Executives miss board meetings, tourists don’t spend, hourly workers get a smaller paycheck.

In the last year, Penn Station’s troubles have ripened into gruesome new forms. In April, a rumor spread through the commuter crowds that shots had been fired. People dropped briefcases, phones, and heels in the pandemonium, which spread in part because the station has no coordinated public address system. Alexander Hardy, a Bronx-based writer who was headed to Washington, D.C., watched the stampede, which left 16 people injured, from behind the counter of a Dunkin’ Donuts, where he hid with half a dozen others. “I’m texting my friends to ask what the hell’s happening,” he says. Finally, Amtrak gave the all-clear; there hadn’t been a shooting after all. Hardy stepped out of the doughnut shop. A woman, separated from her child, was screaming. Hardy took a bus to the capital. A few weeks later, a sewage pipe spewed waste onto a heavily trafficked concourse—an honest-to-God shitstorm. “I’m like, ‘Literally, it’s raining in Penn Station,’” recalls Marigo Mihalos, a booking agent from New Jersey who witnessed the fecal deluge on her way to work.

After two trains derailed in Penn Station last spring, the railway said it would reduce service by 20 percent during peak hours for eight weeks to do repairs, forcing many commuters to take buses and ferries. New York Governor Andrew Cuomo told his constituents to brace for the “summer of hell.” As the station festers, civic groups and preservationists are renewing their call for elected officials to move Madison Square Garden (non-New Yorkers may not be aware that a 21,000-seat stadium is located directly above Penn Station) and build a new space, cavernous and sunlit. But nothing in the station’s political history or the present-day debate suggests cause for hope.

As the gateway to America’s largest city, Penn Station should inspire awe, as train stations do in London, Paris, Tokyo, and other competently managed metropolises.

Instead, it embodies a particular kind of American failure—the inability to maintain roads, rails, ports, and other necessary conduits. For generations, the officials connected to Penn Station have been blind to, or unable to deliver on, the idea that improving the station would more than pay for itself. (One estimate, from the Business Roundtable, says that a dollar invested in infrastructure yields as much as \$3 in economic growth.) In the final days of 2017, the situation reached perhaps its bleakest point yet, when the Trump administration signaled its disinterest in coming to the rescue: The president will not honor an Obama-era commitment to New York and New Jersey to foot half the cost of a new tunnel, dumping planners back at square one.

Penn Station is a debacle reaching across time. Its past is a slow-motion disaster of inaction and canceled reforms, its present an ongoing disgrace. And its future could be truly catastrophic, in the form of a tunnel failure that pinches shut one of the most vital economic arteries in America.

**ON A HOT SATURDAY IN JUNE, PENN IS LOUSY WITH** people trying to exit the city. Outside a McDonald’s that has never known sunlight or fresh air, the sweaty throngs give strange looks to a bearded man in shorts who appears to be remaining in the station voluntarily. His name is Justin Rivers, and he leads \$35 tours called Remnants of Penn Station. A dozen or so takers appear for this, his second tour of the day. The first one, Rivers tells the group, ran 20 minutes long because guests couldn’t stop asking questions about the Summer of Hell. “People are just really interested,” Rivers says. “Penn Station has

been in the press almost daily because it’s falling apart.”

His tourgoers are among the many New Yorkers—and others with an interest in urban planning—who know that today’s decrepit facility sits beneath what used to be a gorgeous hall, inspired by the Roman Baths of Caracalla. It was demolished in the 1960s, to the dismay of preservationists. Rivers leads his flock through modern-day Penn, pointing out vestiges of the old place: an original staircase leading down to the tracks; a Long Island Railroad waiting room; a ghostly, red-lettered sign for the long-gone Pennsylvania Railroad.

As he dodges homeless people and glassy-eyed tall-boy vendors, Rivers, who’s also written an off-Broadway play about the original station’s demise, tells the story of Alexander Cassatt, the visionary railroad president who began construction on both Penn and the Hudson tunnels at the turn of the last century. He died before the building opened in 1910, to a crowd of 100,000. In its early days, Penn was the kind of place you might go without a ticket to glimpse stars such as Charlie Chaplin and Mary Pickford boarding the Orange Blossom Special to Florida or the Chicago-bound Broadway Limited.

But after World War II, the once-powerful rail companies withered as the government built interstate highways and subsidized air travel. In 1970 the successor to Pennsylvania Railroad declared bankruptcy, and soon the station and its tunnels became the property of Amtrak, the new federal railroad. Perennially underfunded, Amtrak didn’t—and still doesn’t—have much cash to spend on either Penn Station or the tunnels. Instead, says Daniel Baer, senior vice president of the engineering and ►



WHEN WORKERS AND TOURISTS ARE STRANDED, PENN'S FAILURES TAKE AN ECONOMIC TOLL



◀ consulting firm WSP USA, the railroad tends to fix things only when they're already broken. "Amtrak is in a situation where they're constantly chasing their tail," he says.

The addition of New Jersey Transit trains in the 1990s was both an economic boon to the region—I bought a house in Maplewood, N.J., in 1996 so I could ride the new Midtown Direct to work—and the beginning of Penn Station's transformation from mere malodorous eyesore to Hieronymus Bosch-grade hellhole. With Jersey commuters swarming the place, farsighted politicians presented grand visions for upgrading it. They all failed.

Vision 1: In the late 1990s, New York Senator Daniel Patrick Moynihan raised \$350 million to replace Penn with a new station in the building right next to it, an historic post office. ("My dad always said, 'Only in New York could you knock down a magnificent Beaux Arts masterpiece only to find another one by the same architect across the street,'" remembers Maura Moynihan, his daughter.) The effort fell apart after Sept. 11.

Vision 2: In 2008, New York Governor Eliot Spitzer was on the verge of pushing through a multibillion-dollar plan to relocate MSG and renovate Penn into a cathedral-like space. It collapsed with the rest of Spitzer's political career when he was caught patronizing prostitutes and resigned.

Vision 3: In 2009, New Jersey Governor Jon Corzine put together a fully funded \$8.7 billion project for new tunnels—Access to the Region's Core, or the Biblical-sounding ARC. But in a case of extreme political myopia, Corzine's successor, the White House-eyeing Chris Christie, canceled the plan to keep gasoline taxes low.

## “THE SUMMER OF HELL? TO ME, THAT WOULD BE A WARM DAY AT THE BEACH COMPARED TO THE HELLFIRE WE WOULD BE IN IF ONE OF THOSE TUNNELS HAD TO BE TAKEN OUT OF SERVICE”

**CHRISTIE'S FOLLY BECAME CLEAR IN OCTOBER 2012.** Hurricane Sandy struck the region with 80-mile-an-hour winds, and the water off New York rose higher than at any time in the city's recorded history. The Hudson River surged over the banks of Manhattan, poured into a submerged rail-yard, and flooded Penn Station's venerable tunnels. A few days later, Amtrak pumped out 13 million gallons of seawater from those tubes and two that run beneath the East River. But chemicals had penetrated the walls and begun gnawing away at concrete and power systems that dated to the time of the Orange Blossom Special.

Even after Sandy, a post-ARC construction effort called the Gateway Program languished. At a hearing in Trenton

in 2015, Stephen Gardner, an Amtrak vice president, tried to stoke some urgency among legislators by brandishing a fearsome-looking hunk of wire from the tunnels' malfunctioning electrical system. "Mr. Chairman, this is a portion of the feeder cable that failed," he said. "These are 1930s-vintage, lead-lined, oil-filled, paper-insulated copper cables, and they do a pretty amazing job. As you can see here, they are quite an antique, and we rely on them every day." Tom Wright, president of the Regional Plan Association, a local urban policy group, attended the hearing. He was stunned: "I mentioned to Steve afterwards, 'Jesus, that looks like a set piece from the old *Bride of Frankenstein* movie.' He kind of laughed and said, 'Actually, I think it's older than that.'"

The same month, one of New Jersey's Democratic senators, Cory Booker, rode through one of the tunnels in a special Amtrak observation car, equipped with floodlights. Booker was shocked to see cracks in the walls. "It was incredibly eye-opening," he says in an interview, adding that Amtrak officials told him if there were another storm as strong as Sandy, the tunnels might not survive.

In the era of climate change, hurricanes are becoming stronger and more frequent. Sandy, as bad as it was, only flooded the Hudson tunnels halfway. A storm that completely inundated the chambers could cause them to crack up from the inside, taking out lighting, radio, and ventilation systems. If the walls were weakened enough, the worst-case scenario could occur: total collapse. In some areas, the tunnels sit just below the riverbed, and William Ryan, a special research scientist at Columbia University's Lamont-Doherty Earth Observatory, says there is less sediment there than there used to be. Ryan spent years, starting in the late 1980s, mapping the bottom of the Hudson using echo sounding and reflection profiling. His team found that the 1960s creation of Battery Park City—an expansion of Manhattan Island into the Hudson, using landfill from the excavation of the World Trade Center site—altered the way the river flows. As a result, a good part of the silt protecting the train tunnels has been carried off.

The most likely tunnel-disaster scenario, however, requires no storms at all. Amtrak says that within seven years, one of them is likely to have been so weakened by Sandy's aftereffects that it will have to be taken out of service for at least 18 months' worth of repairs. "There will come a time when the reliability of the tunnels starts to decay," says Charles "Wick" Moorman, the co-CEO of Amtrak until the end of 2017. "The curve, once it starts, may be fairly sharp. We'll just have to see. Nobody knows. This is a great science experiment. Kids playing with chemicals."

If Amtrak and New Jersey Transit have to rely on a single Hudson tunnel, they could operate just six trains an hour, rather than the current 24. It's hard to overstate the economic impact that would have on New York City. "The Summer of Hell?" Booker asks. "To me, that would be a warm day at the beach compared to the hellfire we would be in if one of those tunnels had to be taken out of service."



SHABBY INFRASTRUCTURE DEMEANS A GREAT CITY

According to the Partnership for New York City, a group that represents its business community, some 30 percent of Manhattan's workforce lives west of the Hudson. These commuters could try to cram onto the Port Authority's PATH trains, which carry 292,000 commuters a day through different Hudson tunnels, but they're already near capacity. There are always ferries. But does a region that has prided itself on being ahead of the rest of the world truly want to see the large-scale return of a mode of transportation from the 19th century?

Others could drive to work, but the trans-Hudson bridges and tunnels available to cars already have punishing rush-hour delays. Imagine the backups, road rage, and pollution if tens of thousands of additional commuters had to use them. Common Good, a bipartisan government-reform organization, estimates that 50,000 more automobiles crossing the Hudson each day would sap productivity by \$2.3 billion per year. And that's nothing compared with the biggest number of them all. The Northeast Corridor Commission, a panel created by Congress in 2008, projects that the U.S. economy would lose \$100 million *per day*—\$36.5 billion a year—if the entire train route from Boston to Washington ever shut down.

**IN 2015 THE GOVERNORS OF NEW YORK AND NEW JERSEY** agreed to a deal on Gateway: The states would pay half the cost of building new tunnels to Penn, and the Obama administration pledged that the federal government would cover the other half. That year and the next, Donald Trump campaigned as the guy who would rebuild America's crumbling infrastructure, promising a \$1 trillion plan to repair roads, bridges, tunnels, the electrical grid, and more. It was possible to think that Penn Station might be saved.

But after Trump was elected, the New York City native dashed those hopes. He eliminated billions in funding for Gateway-related projects in his 2018 budget. And in the waning days of 2017, Trump made it official: His administration would not abide by the Obama-era commitment to pay for half of the new tunnels. K. Jane Williams, deputy administrator of the Federal Transit Administration, sent a curtly worded letter to New York and New Jersey officials that snidely made the deal sound made-up. "We consider it unhelpful to reference a nonexistent 'agreement' rather than directly address the responsibility for funding a local project where 9 out of 10 passengers are local transit riders," she wrote. In the Trump administration's view, Penn Station's issues are a distinctly local concern. It's true that in the Trump era, nothing is ever certain, and the Gateway corpse could reawaken. But it seems unlikely that the current political cast will succeed where so many of their predecessors have failed.

Meanwhile, across the street from the station, work has begun on the renovation of the James A. Farley Post Office building—the Beaux Arts masterpiece Senator Moynihan eyed in the 1990s. Separate from the Gateway project, it's being converted into a new entrance hall for Amtrak and LIRR trains (and a glassy shopping center) and is scheduled to open in 2020. In August, Cuomo, who's widely seen as considering a bid for the presidency, held a triumphant press conference at the site that had the feel of a political rally. "At a time when there is confusion in this country, and there is anger in this country, and there's anxiety and despair, New York is headed in the only direction we know, which is going forward!" he said, slicing the air with his right hand.

But the \$1.6 billion Moynihan Train Hall, as it will be known, isn't likely to significantly reduce congestion, according to NYU's Moss. Amtrak and LIRR passengers will still be able to access the train complex from the existing Penn Station, which is a block closer to the center of Manhattan. (The Cuomo administration says the impact will be greater.) Moss is among those who scoff at the idea of prettying the upper-level train station experience when what lies beneath is a such mess. "We don't need a transit temple," he says. "We need to focus on the tunnels and getting more tracks into Manhattan."

I don't frequent Penn Station as much as I used to. My wife and I sold our house in New Jersey in 2016 and moved into Manhattan, just before the commute got infernal. Of course, now we have to deal with the subways. Have you heard? They're falling apart, too. **E**