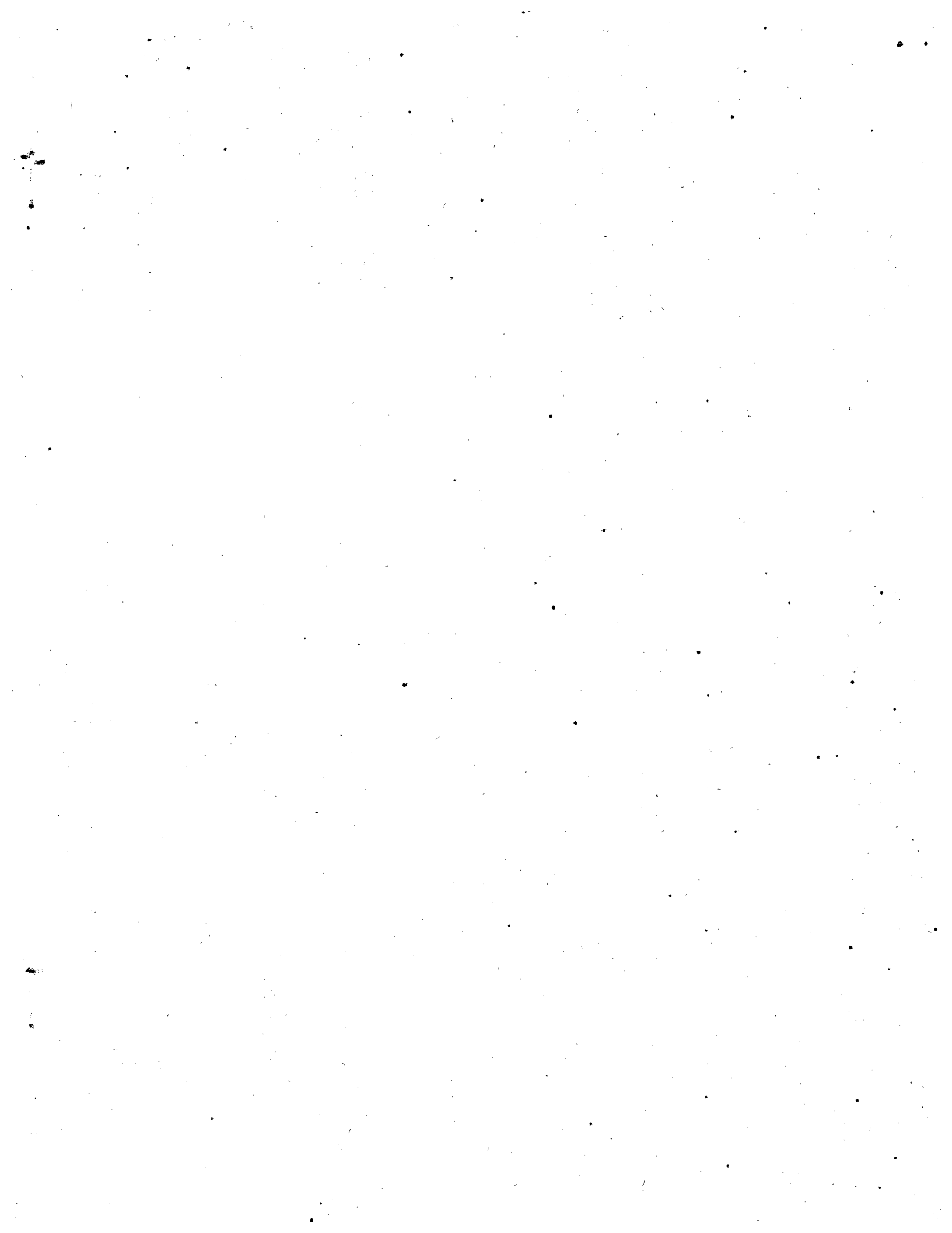


R628  
1967h

974.90  
R628  
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dc.

INTERSTATE ROUTE 78  
NEWARK INTERCHANGE



In all, 26 bridges and one viaduct will be constructed in the interchange complex, which will have 40 miles of traffic lanes within a three-mile curve around the airport. The viaduct, 1,558 feet long and over 200 feet wide will carry I-78 over 40 tracks of the Waverly Yards of the Penn Central Railroad. Estimates are that the viaduct will accommodate a daily average of 117,000 vehicles in 1975.

The ultimate construction cost of the complex will exceed \$50 million. One of the contracts awarded to date, \$11,887,906, was the highest ever let by the Department of Transportation. To date, five construction contracts have been let totaling \$35.3 million. A total of nine construction contracts will have been awarded when the complex is completed.

The problem of maintaining traffic flow during various construction phases in what is one of the most heavily used commuter and commercial corridors in the nation required coordinated planning by the Department of Transportation, the Port of New York Authority, the New Jersey Turnpike Authority, the City of Newark, and the U.S. Bureau of Public Roads and the U.S. Weather Bureau.

Transcontinental Interstate Route 78, which will be 10 lanes in the Newark Airport interchange, will carry daily average of 117,000 vehicles in 1975 and 158,000 in 1985, according to Department of Transportation estimates.

Route 1 & 9, which is eight lanes in the interchange area, is calculated for 67,000 in 1975 and 98,000 in 1985.

Route U.S. 22, which had an ADT of 64,000 in 1966 but which will drop to an estimated 50,000 in 1975 as I-78 diverts traffic from it, will rise to 76,000 by 1985.

Route 21, which will decrease from its 1966 level of 45,300 to 38,000 in 1975, will rise again to 52,000 in 1985.

The Turnpike will go from 125,000 in 1966 to 215,000 in 1975 and to 385,000 in 1985.

Route I-78 will extend 66.2 miles across New Jersey from Phillipsburg on the Delaware River to the Holland Tunnel. Its total cost is estimated at more than \$322 million. To date, in excess of \$165 million has been expended. More than half of the highway in New Jersey, 33.4 miles, is open to traffic. Another 19.6 miles are under construction, 10.8 miles are under design, and 2.4 miles under preliminary study.

AN INTERCHANGE TO SERVE  
MEGALOPOLITAN TRANSPORTATION

Probably no other interchange in the world will serve such a concentration of highway, air, rail and seaport facilities as the facility being constructed by the New Jersey Department of Transportation alongside Newark Airport in the hub of Megalopolis -- the super city which is thriving and growing between Boston and Washington.

Interstate Route 78, Newark Airport, Port Newark, the adjacent New Jersey-New York metropolitan area, the Penn Central Railroad and the Lehigh Valley Railroad, which will be directly or indirectly served by the future interchange, now generate an amount of vehicular movement which would have been beyond comprehension only a few years ago.

The vital role the interchange will play as the "mixing bowl" for these traffic generators can be appreciated when the extraordinary concentration of these facilities is comprehended.

Located within a two mile area extending east from the interchange is Route U.S. 1 & 9 -- the historic north-south highway which for decades has served as the link between the southeastern states and the Newark-New York area. This highway forms the eastern border of the interchange.

East of Route 1 & 9 is busy Newark Airport, and along the eastern border of the Airport, within a span of several hundred feet, lie the New Jersey Turnpike, freight lines of the Jersey Central Railroad, and Port Newark.

The northern border is Interstate Route 78, to extend across New Jersey into Pennsylvania, and connect with the 41,000-mile interstate system which reaches into every corner of the nation.

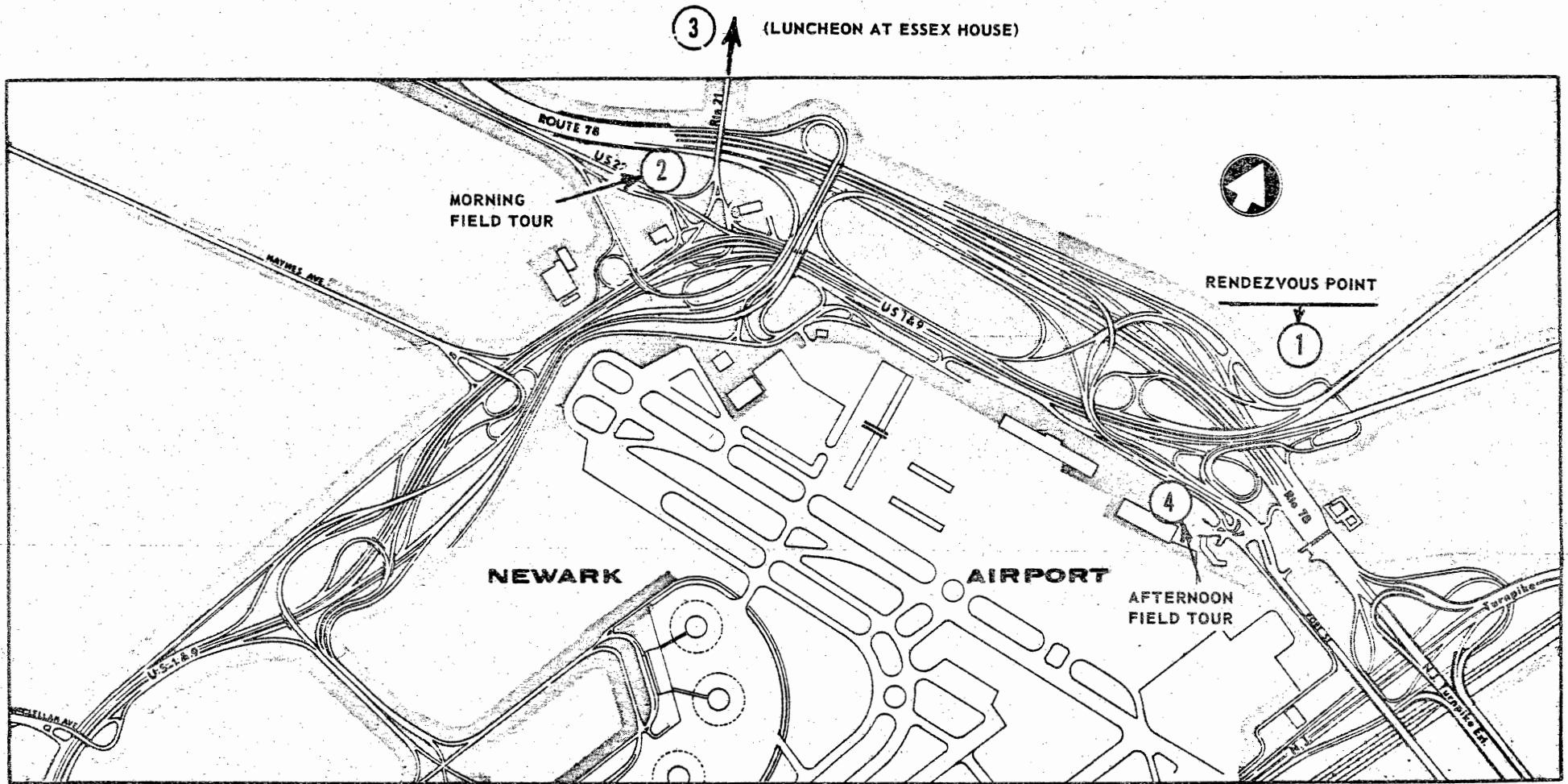
The western border is the Penn Central Railroad passenger lines and huge Waverly freight yard.

The southern border is the interchange serving U.S. Routes 21 to Newark and 22 which serve the densely populated and industrialized northeast region of New Jersey.

The interchange itself, one of the largest such facilities in the world, lies astride what might aptly be termed the life-lines of this web of activity. Its construction was dictated by the coming of Interstate Route 78 to the area, but its importance will extend far beyond the demands of that superhighway.

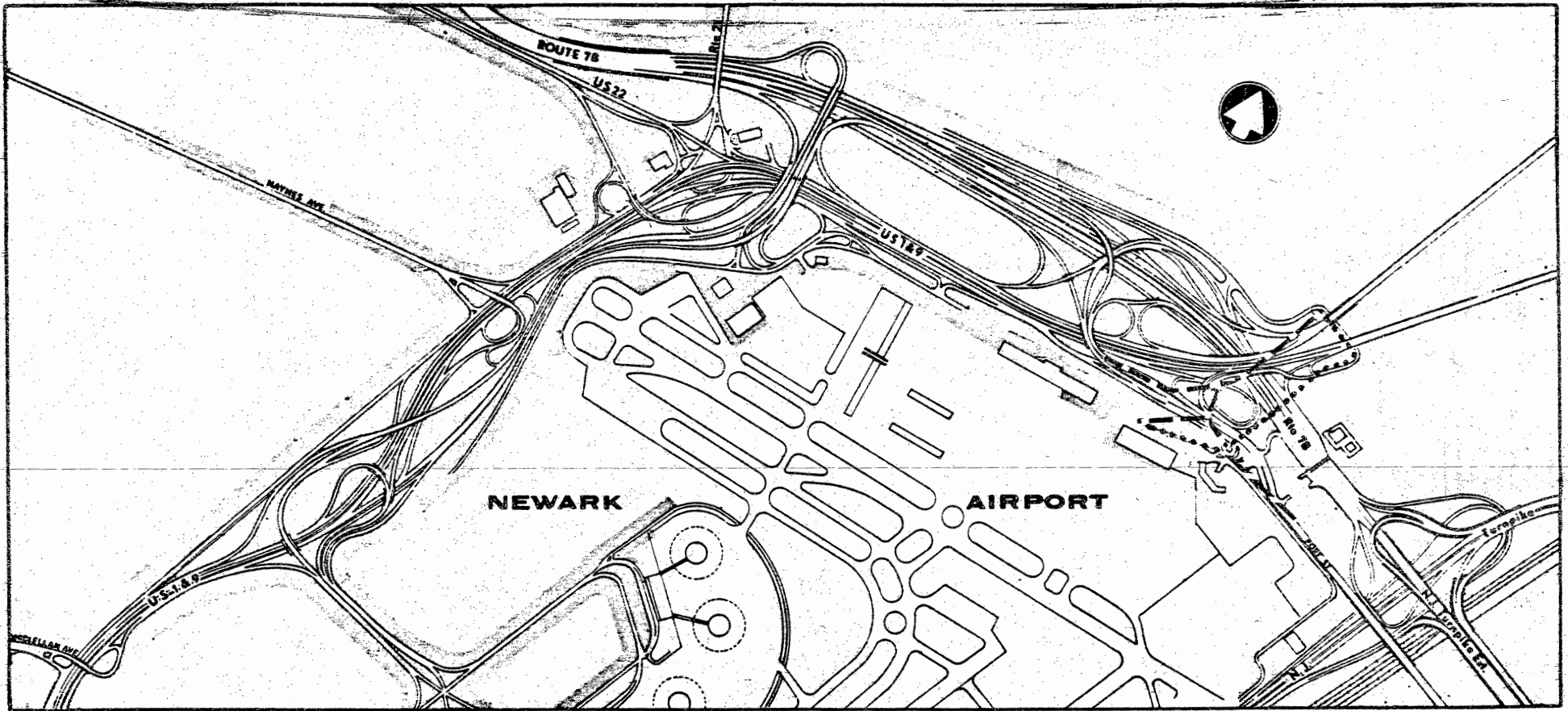
It is designed to serve traffic generated by five major routes which will have a combined average daily flow of more than 415,000 vehicles by 1975.

In particular, its multiple routing combinations will interconnect three of the most heavily traveled arteries in the eastern United States -- Interstate Route 78, Routes 1 & 9, Routes 21 & 22, and the New Jersey Turnpike.



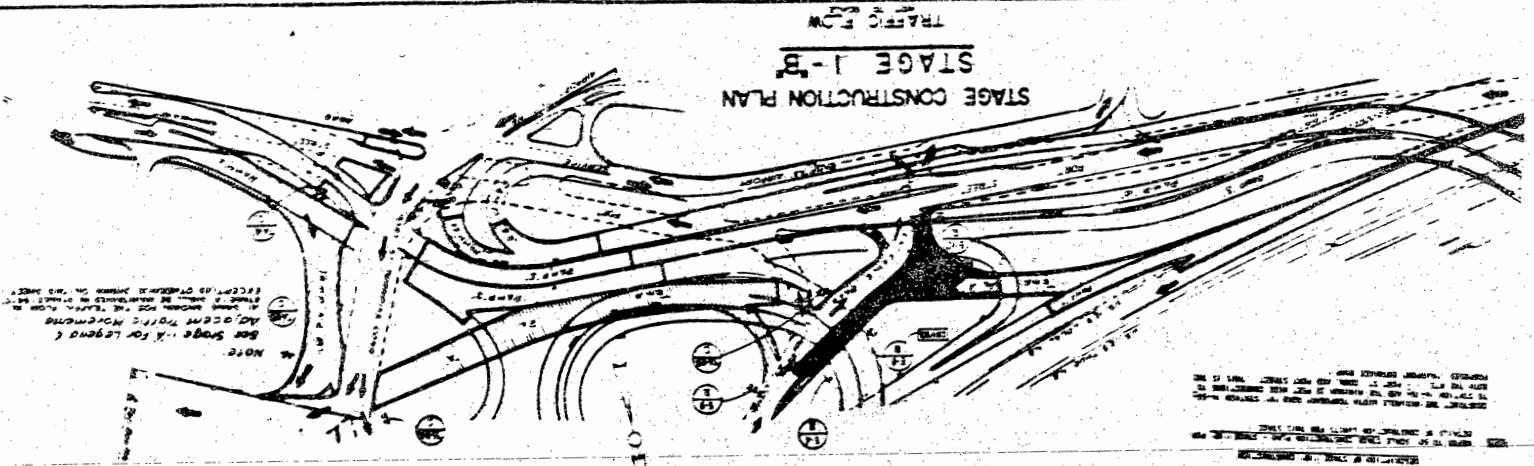
FINAL DESIGN OF INTERCHANGE

**REARRANGEMENT OF TELEPHONE FACILITIES  
NEW JERSEY BELL TELEPHONE COMPANY**



- REMOVE AND ABANDON
- ..... TO BE CONSTRUCTED
- WORK AT COMPANY'S EXPENSE

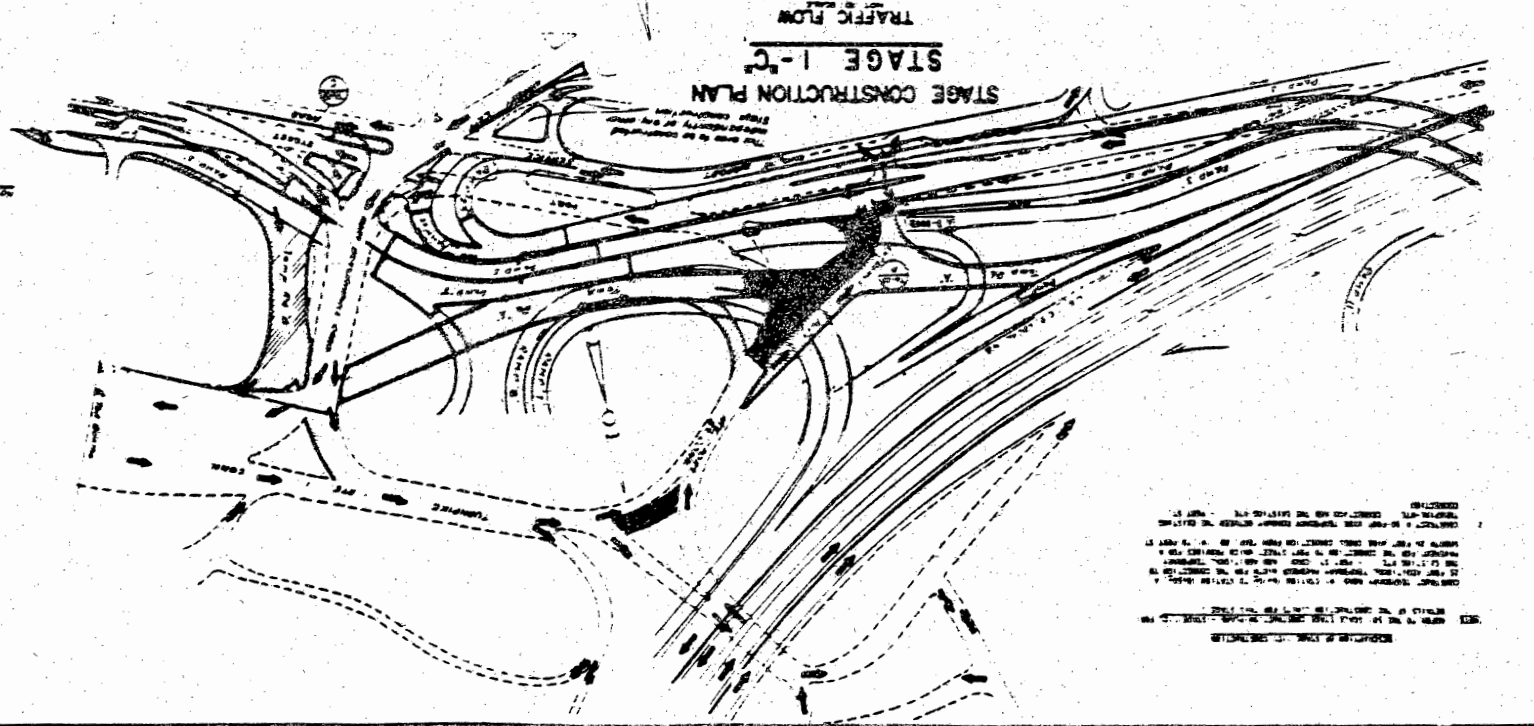
STAGE 1-B CONSTRUCTION PLANS



NOTE  
See Stage A for Legend &  
Adjustment Traffic Movements  
EXCEPT AS OTHERWISE SHOWN ON THIS SHEET

TRAFFIC FLOW  
STAGE 1-B  
STAGE CONSTRUCTION PLAN

STAGE 1-C CONSTRUCTION PLANS



NOTE  
See Stage A for Legend & Adjusted  
Traffic Movements

TRAFFIC FLOW  
STAGE 1-C  
STAGE CONSTRUCTION PLAN

**DESCRIPTION OF STAGE "1-A" CONSTRUCTION**  
 (SEE: REFER TO THE 50' SCALE STAGE CONSTRUCTION PLAN - STAGE "1-A" FOR DETAILS OF THE CONSTRUCTION LIMITS FOR THIS STAGE)

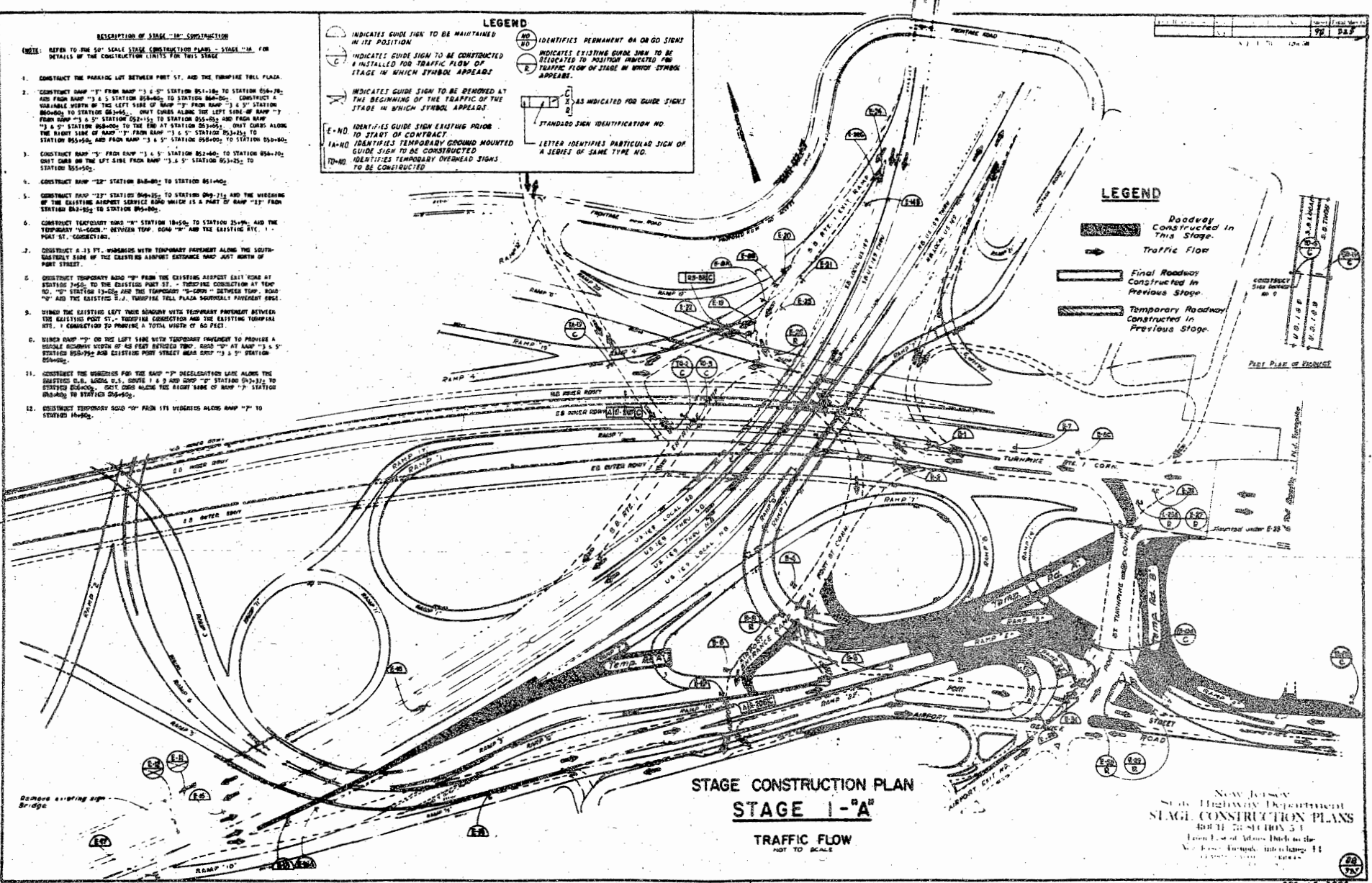
- CONSTRUCT THE PARALLEL LOT BETWEEN PORT ST. AND THE TURNPIKE TOLL PLAZA.
- CONSTRUCT RAMP "1" FROM RAMP "3" & "5" STATION 851+00 TO STATION 856+70. ADD FROM RAMP "3" & "5" STATION 856+00 TO STATION 860+00. CONSTRUCT A VARIABLE WIDTH OF THE LEFT SIDE OF RAMP "7" FROM RAMP "3" & "5" STATION 860+00 TO STATION 853+40. ONT CURBS ALONG THE LEFT SIDE OF RAMP "7" FROM RAMP "3" & "5" STATION 853+40 TO STATION 855+00. ADD FROM RAMP "3" & "5" STATION 855+00 TO THE END AT STATION 853+40. ONT CURBS ALONG THE RIGHT SIDE OF RAMP "7" FROM RAMP "3" & "5" STATION 853+40 TO STATION 855+00. ADD FROM RAMP "3" & "5" STATION 855+00 TO STATION 853+40.
- CONSTRUCT RAMP "2" FROM RAMP "3" & "5" STATION 852+40 TO STATION 854+70. ONT CURBS ON THE LEFT SIDE FROM RAMP "3" & "5" STATION 853+25 TO STATION 855+50.
- CONSTRUCT RAMP "22" STATION 848+00 TO STATION 851+00.
- CONSTRUCT RAMP "23" STATION 848+00 TO STATION 849+70 AND THE WIDENING OF THE EXISTING AIRPORT SERVICE ROAD WHICH IS A PART OF RAMP "23" FROM STATION 843+50 TO STATION 848+00.
- CONSTRUCT TEMPORARY ROAD "1" STATION 18+50 TO STATION 25+00, AND THE TEMPORARY "1-CORR." BETWEEN TEMP. ROAD "1" AND THE EXISTING AVE. 1 - PORT ST. CONNECTION.
- CONSTRUCT A 15 FT. WIDENING WITH TEMPORARY PAVEMENT ALONG THE SOUTH-EASTERN SIDE OF THE EXISTING AIRPORT SERVICE ROAD JUST NORTH OF PORT STREET.
- CONSTRUCT TEMPORARY ROAD "2" FROM THE EXISTING AIRPORT EXIT ROAD AT STATION 7+50 TO THE EXISTING PORT ST. THROUGH CONNECTION AT TEMP. "1-CORR." STATION 13+50 AND THE TEMPORARY "2-CORR." BETWEEN TEMP. ROAD "2" AND THE EXISTING S.E. TURNPIKE TOLL PLAZA SOUTHERLY PAVEMENT SIDE.
- WIDEN THE EXISTING LEFT TRUCK SHOULDER WITH TEMPORARY PAVEMENT BETWEEN THE EXISTING PORT ST. THROUGH CONNECTION AND THE EXISTING TEMPORARY AVE. 1. CONSTRUCTED TO PROVIDE A TOTAL WIDTH OF 40 FEET.
- WIDEN RAMP "7" ON THE LEFT SIDE WITH TEMPORARY PAVEMENT TO PROVIDE A DOUBLE SHOULDER WIDTH OF 40 FEET BETWEEN TEMP. ROAD "2" AT RAMP "3" & "5" STATION 855+70 AND EXISTING PORT STREET NEAR RAMP "3" & "5" STATION 850+00.
- CONSTRUCT THE WIDENING FOR THE RAMP "7" DECELERATION LANE ALONG THE EXISTING S.E. LOCAL AVE. DRIVE 1 & 2 AND RAMP "7" STATION 853+70 TO STATION 850+00. ONT CURBS ALONG THE RIGHT SIDE OF RAMP "7" STATION 850+00 TO STATION 856+00.
- CONSTRUCT TEMPORARY ROAD "3" FROM 171 WIDENING ALONG RAMP "7" TO STATION 14+50.

**LEGEND**

- INDICATES GUIDE SIGN TO BE MAINTAINED IN ITS POSITION
- INDICATES GUIDE SIGN TO BE CONSTRUCTED
- INDICATES GUIDE SIGN TO BE REMOVED AT THE BEGINNING OF THE TRAFFIC OF THE STAGE IN WHICH SYMBOL APPEARS
- IDENTIFIES PERMANENT OR ON GO SIGNS
- IDENTIFIES EXISTING GUIDE SIGN TO BE DELETED OR ACTION REQUESTED AND TRAFFIC FLOW OF STAGE IN WHICH SYMBOL APPEARS.
- AS INDICATED FOR GUIDE SIGNS
- STANDARD SIGN IDENTIFICATION NO.
- LETTER IDENTIFIES PARTICULAR SIGN OF A SERIES OF SAME TYPE NO.
- IDENTIFIES GUIDE SIGN EXISTING PRIOR TO START OF CONTRACT
- IDENTIFIES TEMPORARY COORDINATE MOUNTED GUIDE SIGN TO BE CONSTRUCTED
- IDENTIFIES TEMPORARY OVERHEAD SIGNS TO BE CONSTRUCTED

**LEGEND**

- Roadway Constructed in This Stage.
- Traffic Flow
- Final Roadway Constructed in Previous Stage.
- Temporary Roadway Constructed in Previous Stage.



**STAGE CONSTRUCTION PLAN**  
**STAGE 1-"A"**  
 TRAFFIC FLOW  
 NOT TO SCALE

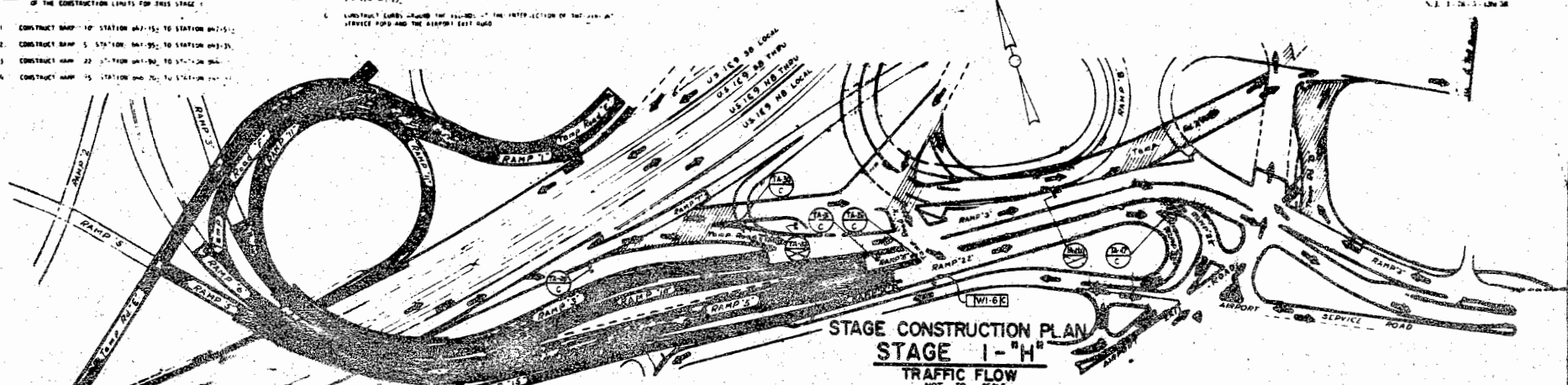
New Jersey  
 State Highway Department  
**STAGE CONSTRUCTION PLANS**  
 SHEET 75 OF SECTION 5-1  
 From East of Adams Drive to the  
 New Jersey Turnpike Interchange 11  
 CONTRACT NO. 200-1-100-1  
 DATE: 10/1/68

**DESCRIPTION OF STAGE "H" CONSTRUCTION**  
 (NOTE: REFER TO 50' SCALE STAGE CONSTRUCTION PLAN - STAGE "H" FOR DETAILS OF THE CONSTRUCTION LIMITS FOR THIS STAGE.)

1. CONSTRUCT RAMP "10" STATION 047+50 TO STATION 047+50.
2. CONSTRUCT RAMP "5" STA 100+00 TO STATION 047+50.
3. CONSTRUCT RAMP "22" STA 100+00 TO STA 100+00.
4. CONSTRUCT RAMP "15" STATION 040+00 TO STATION 047+50.

5. CONSTRUCT THE NORTHERLY CURVE FOR RAMP "22" FROM THE BEGINNING WHERE IT MEETS THE EXISTING AIRPORT SERVICE ROAD CURVE TO RAMP "22" STATION 047+50.
6. CONSTRUCT CURBS AROUND THE ISLAND AT THE INTERSECTION OF THE AIRPORT SERVICE ROAD AND THE AIRPORT EXIT ROAD.

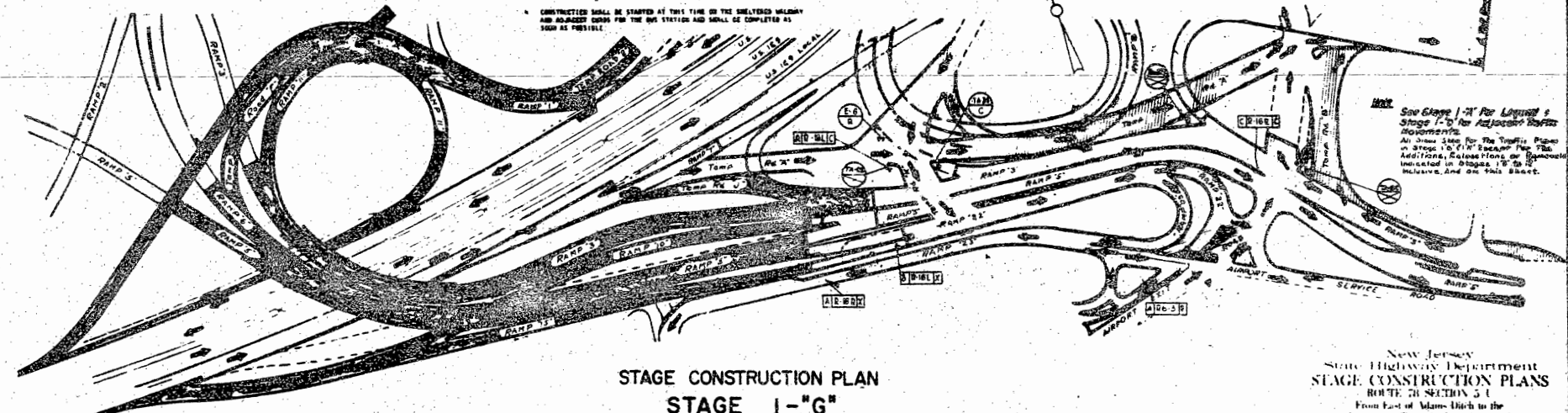
Sheet No.	Scale	Date	Drawn	Checked
101	1" = 100'	1-28-58	J. J. ...	J. J. ...



**STAGE CONSTRUCTION PLAN  
 STAGE 1-"H"  
 TRAFFIC FLOW  
 NOT TO SCALE**

**DESCRIPTION OF STAGE "G" CONSTRUCTION**  
 (NOTE: REFER TO 50' SCALE STAGE CONSTRUCTION PLAN - STAGE "G" FOR THE DETAILS OF THE CONSTRUCTION LIMITS FOR THIS STAGE.)

1. CONSTRUCT THOSE PARTS OF THE "RAMP" "22" CURVE TO PARKING AREA AND THE PROPOSED AIRPORT EXIT CURVE WHICH COMPLETE THE CONNECTION TO THE NORTHERLY SIDE OF THE EXISTING AIRPORT EXIT ROAD. ALSO CONSTRUCT THE CURBS OF THE ISLAND BETWEEN THE "RAMP" "22" CURVE TO PARKING AREA, "RAMP" "22" AND THE PROPOSED AIRPORT EXIT ROAD.
2. CONSTRUCT RAMP "7" STATION 040+00 TO STATION 040+50.
3. CONSTRUCT TEMPORARY CURB "7" BETWEEN APPROXIMATELY TEMPORARY ROAD "A" STATION 140+00 AND THE WIDENED PROPOSED RAMP "11" PASSENGER AT STATION 040+00.
4. CONSTRUCTION SHALL BE STARTED AT THIS TIME ON THE SHELTERED WALKWAY AND ADJACENT CURBS FOR THE BUS STATION AND SHALL BE COMPLETED AS SOON AS POSSIBLE.



**STAGE CONSTRUCTION PLAN  
 STAGE 1-"G"  
 TRAFFIC FLOW**

See Stage 1-"H" For Legend & Stage 1-"H" For Adjacent Traffic Movements

See Stage 1-"G" For Legend & Stage 1-"G" For Adjacent Traffic Movements  
 All Drive Signs For The Traffic Plans on Stage 1-"G" Show The Traffic Additions, Substitutions or Deletions Indicated in Stages 1-"G" & 1-"H" Release And See This Sheet.

New Jersey  
 State Highway Department  
**STAGE CONSTRUCTION PLANS**  
 ROUTE 78 SECTION 5 I  
 From East of Milne Interchange to the  
 New Jersey Turnpike Interchange 14  
 (ORANGE PARKWAY) at ORANGE  
 Scale as Indicated

**DESCRIPTION OF STAGE OF CONSTRUCTION**

**NOTE:** REFER TO THE 50' SCALE STAGE CONSTRUCTION PLANS - STAGE "IF" FOR THE DETAILS OF THE CONSTRUCTION AREAS FOR THIS STAGE.

CONSTRUCT THE RIGHT HAND TURN PAVEMENT AT THE NORTHEAST CORNER OF THE INTERSECTION OF THE AIRPORT EXIT AND SERVICE ROADS, COMPLETE THE CURB ALONG THE NORTHERLY SIDE OF THE AIRPORT SERVICE ROAD AND ONLY THE CURB ALONG THE ISLAND ALONG THE WESTERN SIDE OF THIS RIGHT HAND TURN PAVEMENT. TRAFFIC IS TO BE ALLOWED TO USE THIS BEFORE ANY OTHER CONSTRUCTION IS STARTED IN THIS AREA.

CONSTRUCT RAMP "22" STATION 854+00 TO STATION 854+50; THE VERTICALS OF THE EXISTING AIRPORT SERVICE ROAD FROM RAMP "21" STATION 854+00 TO STATION 854+50; AND THE CURB AND SIDEWALK FROM RAMP "21" STATION 854+00 TO STATION 854+50. TRAFFIC IS TO BE ALLOWED TO USE THIS ENTRANCE RAMP "22" AS SOON AS POSSIBLE.

CONSTRUCT THE REMAINING PORTION OF THE PROPOSED AIRPORT EXIT ROAD BETWEEN THE EXISTING AIRPORT SERVICE ROAD AND RAMP "20". ONLY THE REMAINDER OF THE CURB INCLUDED THE ISLAND AT THE NORTHEAST CORNER OF THE INTERSECTION OF THE AIRPORT EXIT AND SERVICE ROADS AND PAVE THE ISLAND WITH TEMPORARY PAVEMENT.

CONSTRUCT RAMP "21" STATION 854+00 TO STATION 854+00.

CONSTRUCT TEMPORARY PAVEMENT ON THE ISLAND BETWEEN RAMP "17" AND "21" FROM RAMP "17" & "21" STATION 853+25 TO STATION 853+50.

CONSTRUCT CURB ALONG THE RIGHT SIDE OF RAMP "2" FROM RAMP "3 & 5" STATION 858+00 TO STATION 858+00.

CONSTRUCT THE PARALLEL LOT ENTRANCE AND EXIT CIRCULATION IN THE SEPARATE SUB-TRACTS TO MAINTAIN BOTH ENTRANCE AND EXIT TRAFFIC.

**STAGE CONSTRUCTION PLAN  
STAGE 1-"F"  
TRAFFIC FLOW  
NOT TO SCALE**

**DESCRIPTION OF STAGE "IF" CONSTRUCTION**

**NOTE:** REFER TO THE 50' SCALE STAGE CONSTRUCTION PLANS - STAGE "IF" FOR THE DETAILS OF THE CONSTRUCTION AREAS FOR THIS STAGE.

- CONSTRUCT PORTIONS OF RAMP "23" CONNECTION TO THE PAVED AREA AND THE SUBGRADE AIRPORT EXIT ROAD TO PREVENT THE TEMPORARY CONSTRUCTION OF ANY ROADWAY AND SIDEWALK. ONLY CURBS ON THE ISLAND BETWEEN THESE ROADWAYS AND PART OF WITH TEMPORARY PAVEMENT. CONSTRUCT TEMPORARY PAVEMENT CONCRETE TO THE SOUTHERLY SIDE OF THE EXISTING AIRPORT EXIT ROAD IN THIS SAME AREA.
- CONSTRUCT RAMP "23" FROM RAMP "13 & 1" STATION 858+00 TO STATION 858+00; AND THE COMPLETION OF THE VERTICALS OF THE RIGHT SIDE OF RAMP "23" FROM RAMP "13 & 1" STATION 858+00 TO STATION 858+00.

- CONSTRUCT APPROXIMATELY 100' L.F. OF CURB ALONG THE SOUTHERLY SIDE OF THE AIRPORT SERVICE ROAD BETWEEN TEMPORARY RAMP "21" AND RAMP "13 & 1" STATION 854+00.
- CONSTRUCT RAMP "23" FROM STATION 858+00 TO STATION 858+00. ONLY CURBS ON LEFT AND RIGHT SIDES FROM RAMP "23" STATION 858+00 TO STATION 858+00.
- CONSTRUCT RAMP "23" FROM STATION 858+00 TO RAMP "13 & 1" STATION 858+00. ONLY CURBS ON THE LEFT SIDE FROM STATION 858+00 TO STATION 858+00; AND ON THE RIGHT SIDE FROM STATION 858+00 TO RAMP "13 & 1" STATION 858+00.

**STAGE CONSTRUCTION PLAN  
STAGE 1-"E"  
TRAFFIC FLOW**

Sheet No.	101
Scale	1" = 100'

**NOTE:** This portion of pavement in this area is to be constructed and is not to be started until construction is started in this Stage "IF".

**NOTE:** See Stage 1-"F" For Legend & Slope 1:1 For Adjacent Traffic Movements.

**NOTE:** See Stage 1-"A" For Legend & Slope 1:1 For Adjacent Traffic Movements. All Signs Shown For The Traffic Signs In Stage 1-"A" Shall Be Reinstated In Stage 1-"F" Except For The Additional, Reinstated or Reconstructed Indicated In Stage 1-"F" Indicated On This Sheet.

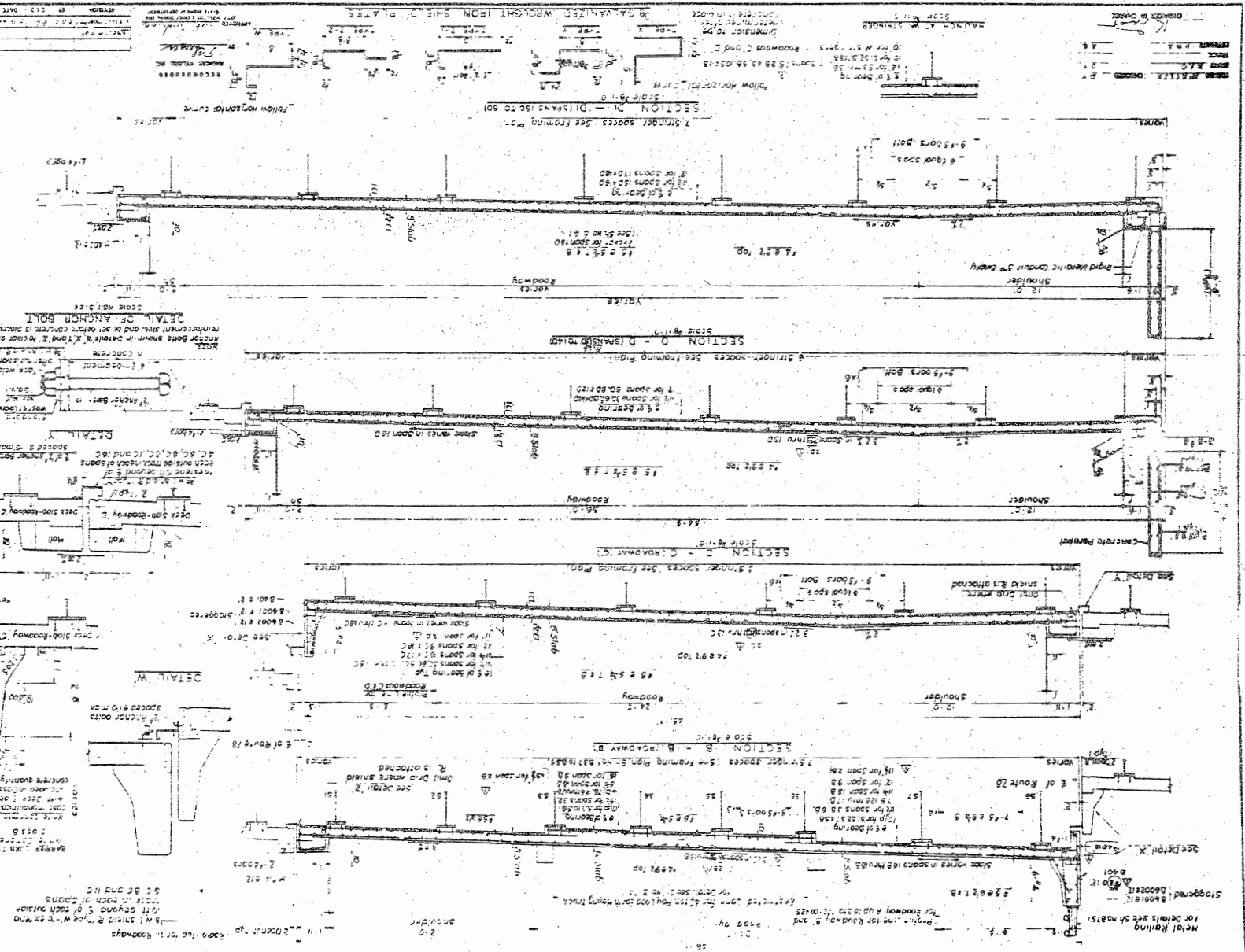
New Jersey  
State Highway Department  
**STAGE CONSTRUCTION PLANS**  
ROUTE 78 SECTION 3.1  
From East of Atlas Ditch to the  
New Jersey Turnpike Interchange 14  
Grassy, Private, or Unimproved



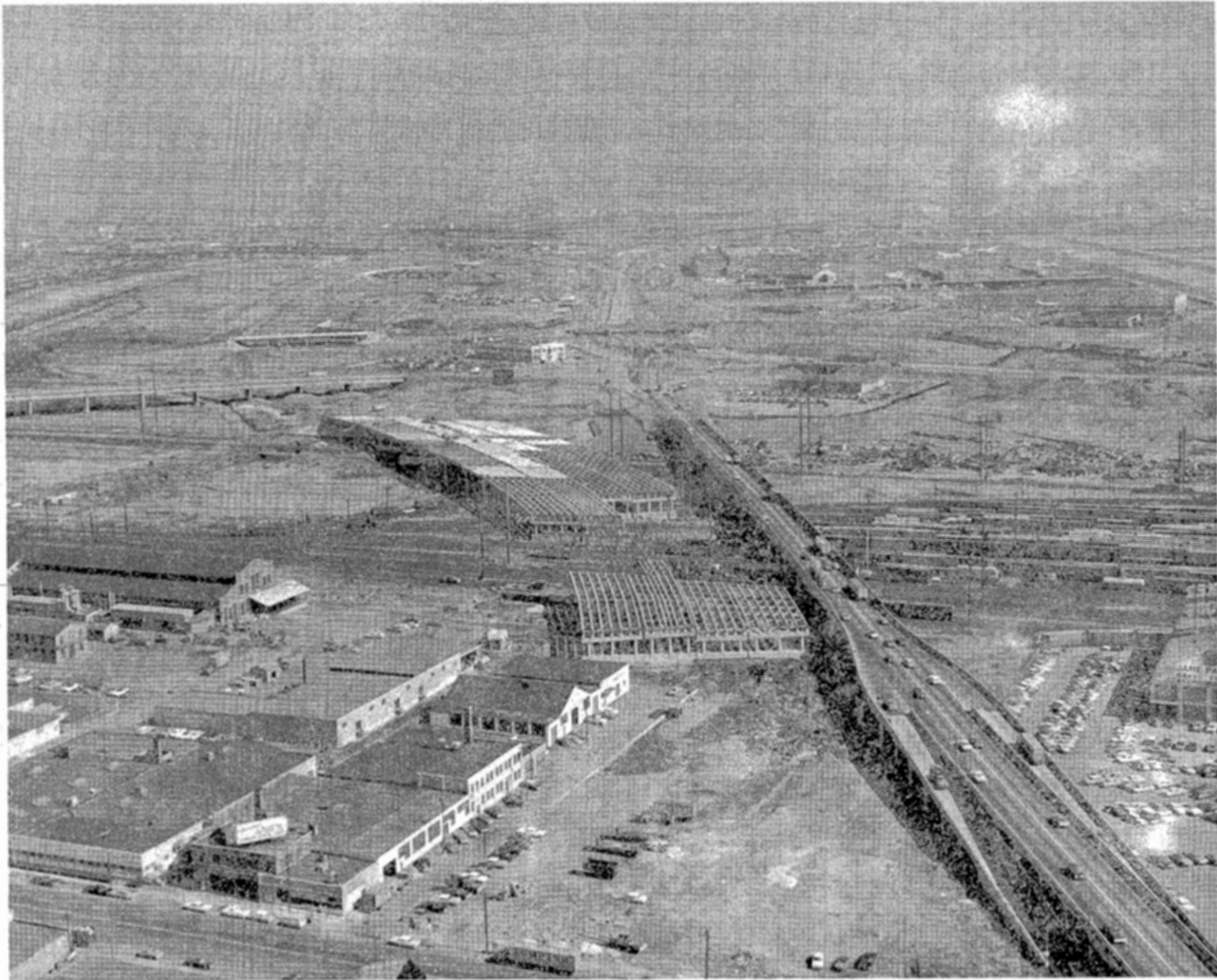
DRAWN BY: CHAS. E. ...  
 CHECKED BY: ...  
 DATE: ...  
 PROJECT: ...  
 SHEET NO. ... OF ...  
 SCALE: ...  
 TITLE: ...  
 SECTION: ...  
 ROUTE: ...  
 MUNICIPALITY: ...  
 ROADWAY: ...  
 DIVISION: ...  
 NEW JERSEY STATE HIGHWAY DEPARTMENT  
 DIVISION OF HIGHWAYS  
 VIADUCT OVER PENN. R.R. WAVERLY YARD  
 SECTION 1 - DECK SLAB SECTIONS  
 ROADWAY B.C.D.

ESTIMATED QUANTITIES

NO.	DESCRIPTION	AMOUNT	UNIT
1	Concrete Deck Slab	...	...
2	Reinforcing Steel	...	...
3	Formwork	...	...
4	...	...	...
5	...	...	...
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# INTERSTATE ROUTE 78 - NEWARK INTERCHANGE



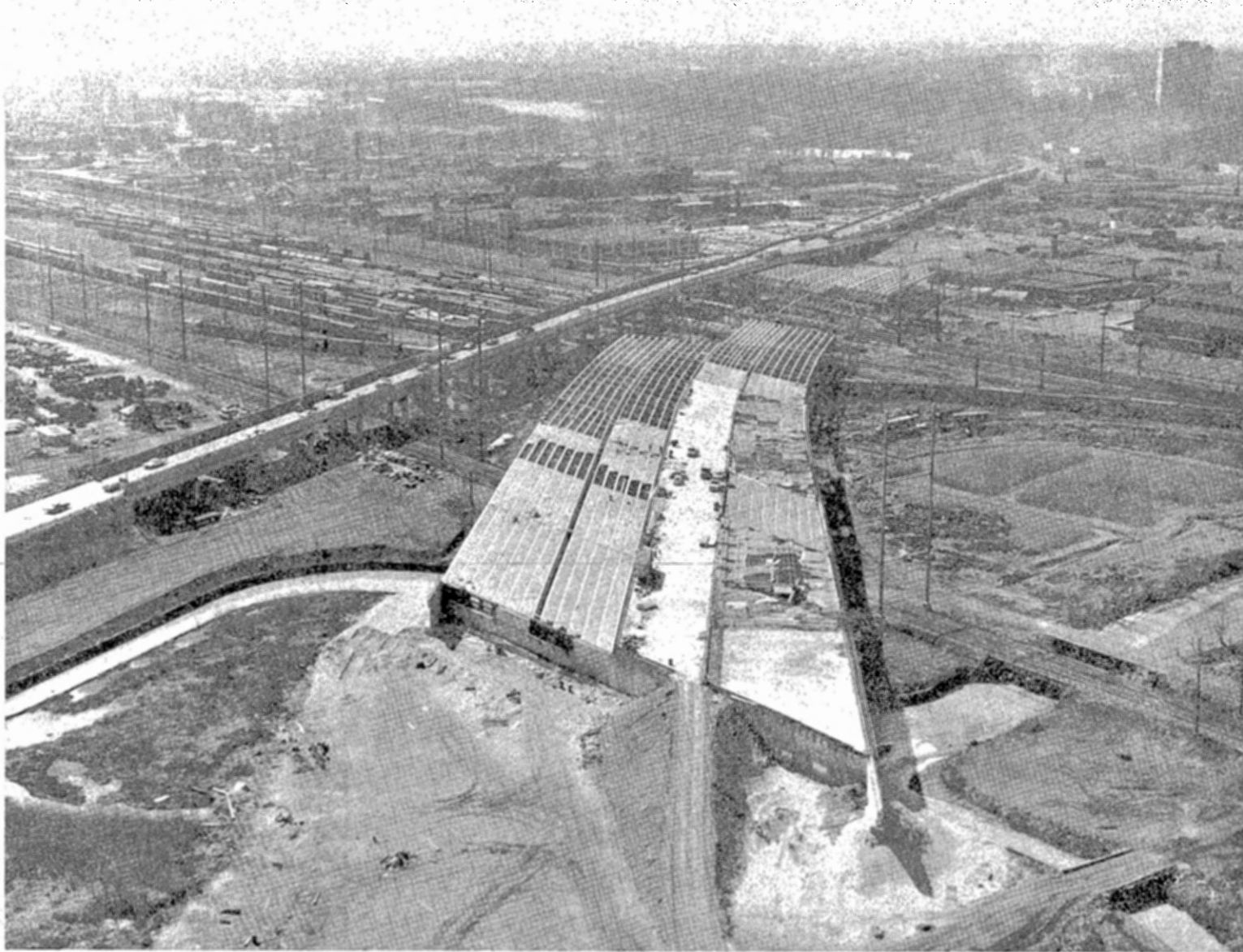
WAVERLY VIADUCT LOOKING EAST ON ROUTE 78

# INTERSTATE ROUTE 78 - NEWARK INTERCHANGE



ROUTE 78 LOOKING WEST WITH WAVERLY VIADUCT IN THE UPPER LEFT.

# INTERSTATE ROUTE 78 - NEWARK INTERCHANGE



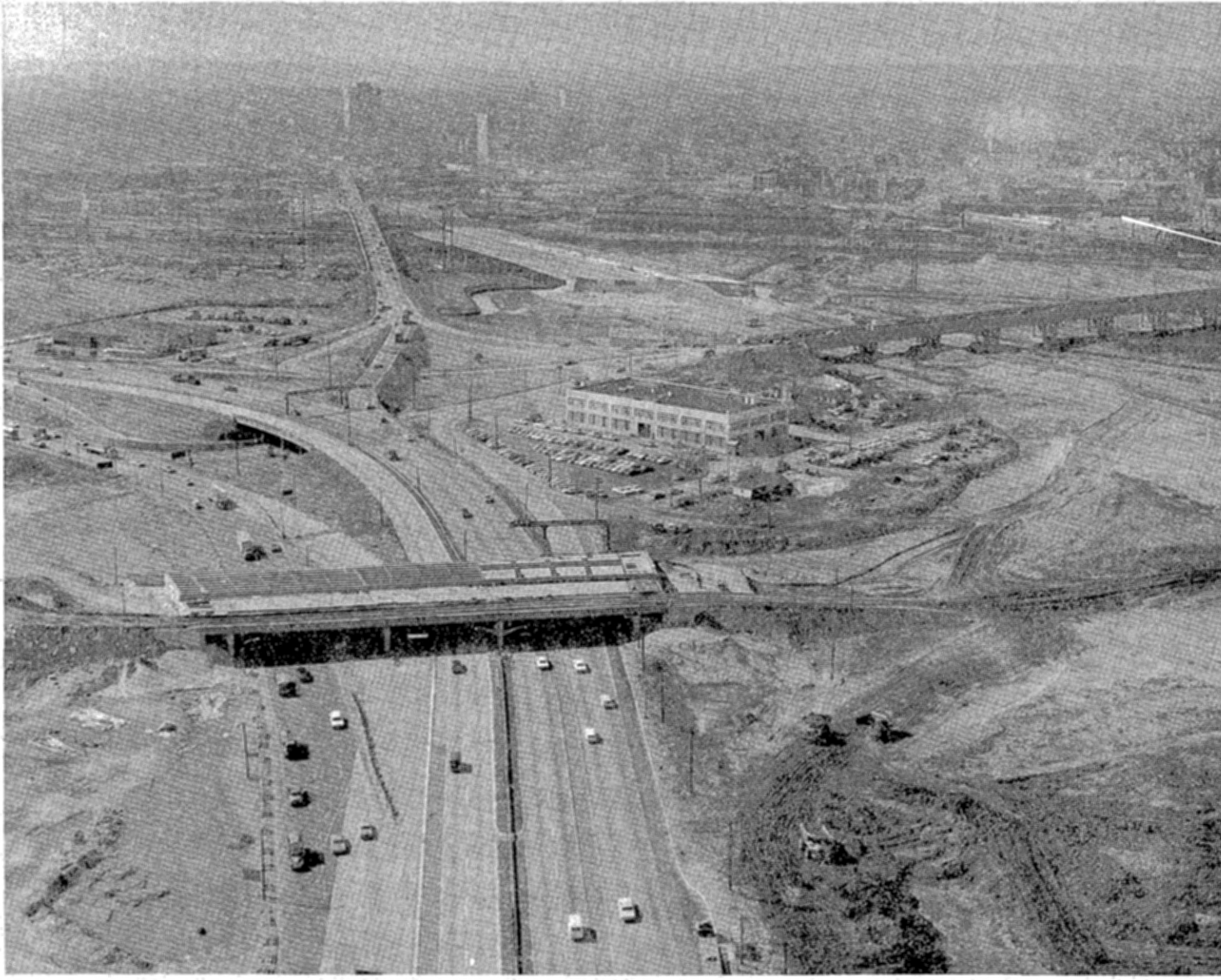
WAVERLY VIADUCT LOOKING WEST ON ROUTE 78

# INTERSTATE ROUTE 78 - NEWARK INTERCHANGE



WAVERLY VIADUCT - VARIOUS STAGES OF DECK CONSTRUCTION

# INTERSTATE ROUTE 78 - NEWARK INTERCHANGE



LOCATION OF WAVERLY VIADUCT WITH REFERENCE TO EXISTING ROUTES 1, 9, 21, 22 INTERSECTION AND RELOCATION OF ROUTE 1 AND 9 TO ACCOMPLISH CONSTRUCTION OF STRUCTURE NO. 16 IN FOREGROUND.

# INTERSTATE ROUTE 78 - NEWARK INTERCHANGE



STAGE CONSTRUCTION WITH TEMPORARY ROADS

# INTERSTATE ROUTE 78 - NEWARK INTERCHANGE



ROUTE 78, SECTION 5U SHOWING STAGE CONSTRUCTION WORKING IN AND AROUND FLOWING TRAFFIC.

# INTERSTATE ROUTE 78 - NEWARK INTERCHANGE



CONGESTION OF ROUTES REQUIRING SEVERAL NEW STRUCTURES TO BE  
CLOSE TO EACH OTHER TO ALLOW REQUIRED TURNS