10

PROJECT MILESTONE

RTD

Metro Rail Project

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

DRAFT REPORT

For The Development Of Milestone 10:

FIXED FACILITIES

MARCH 1983

RTD

Southern California Rapid Transit District
425 South Main Street
Los Angeles California

DRAFT REPORT

For The Development Of Milestone 10:

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FOREWARD

Since June 1980, the Southern California Rapid District (SCRTD) has been engaged in the preliminary engneering phase of the Metro Rail Project. This project encompasses the preliminary design of an 18-mile subway, which will be the initial segment of Southern California's ultimate rapid transit network. As part of the 1976 Regional Transportation Development Program, Metro Rail is designed to help solve the increasing transportation problems of Los Angeles' high-density urban center -the Regional Core.

Before Metro Rail goes into operation, it will have passed through the five conventional stages of rapid transit development: (1) planning and alternative analysis, (2) preliminary engineering/environmental impact analysis, (3) final design, (4) construction, and (5) operational testing. The SCRTD successfully guided the project through the first phase from 1977 to 1980 and has since been engaged in the preliminary engineering phase. This is an intensive 2-1/2 year program during which the key elements of the subway project are to be defined and designed. This phase encompasses the selection of the precise route alignment (where the trains will go), the station location (where the trains will stop), the preliminary station designs (how the stations will look), the vehicle designers (what size the cars will be and how they will look) and construction methods.

Simultaneous with the design work will be an extensive, detailed analysis of the possible environmental impacts of this project on the affected communities along Metro Rail's Downtown to North Hollywood route.

Pending the acquisition of necessary capital funding, the final design phase will commence, followed by a four - to six-year construction period, and culminating with a system inspection and testing period.

The preliminary engineering work is on schedule with its mid-1983 planned completion. This intensive effort is under the policy direction of the District Board of Directors; Mike Lewis, President; Ruth E. Richter, Vice President; Jan Hall; Marvin L. Holen; Carl Meseck; Thomas G. Newsom; Nick Patsaouras; Jay Price; Charles H. Storing; Gordana Swanson; and George Takei.

The preliminary engineering program is proceeding under the general direction of the SCRTD General Manager, and under the administrative and technical management of the Metro Rail Project Manager/Chief Engineer. The District has also engaged the professional services of the following consulting firms for specialized consulting work: Daniel, Mann, Johnson, & Mendenhall/Parsons Brinckerhoff Quade and Douglas (ways and structures); Kaiser Engineers, Inc. (subsystems); Harry Weese & Associates (station design); Booz-Allen & Hamilton, Inc. (systems analysis); Sedway/Cooke (environmental analysis); The Converse Consultants (general geotechnical and seismic exploration); Lindvall-Richter & Associates (special geotechnical and seismic evaluation); Wilson-Ihrig Associates (noise and vibration); PSG/Waters (corrosion control); Gage-Babcock (fire protection); and Barton-Aschman (patronage estimates).

The Metro Rail Project Staff is responsible for direction and control of the consultants' work. Together, the Project Staff and the consultants form the Project Team.

During the next few months, decisions will be made on 12 vital interrelated points of project development - called "milestones' - that will lead to the ultimate system definition. These milestones represent successive incremental steps in establishing a final system plan that will be the basis for detailed design and construction. Each milestone is a major decision point for the Metro Rail Project. This report, the tenth of the 12 milestone reports, addresses the design of Fixed Facilities.

EXECUTIVE SUMMARY

The Metro Rail Project, undertaken by the Southern California Rapid Transit District, will have a significant role in the future development of the Los Angeles region. Its impact will reach beyond giving the community an additional choice in how to get to work each day--such development initiates potential for a wider variety of lifestyle, new housing options, greater employment opportunities and commercial expansion.

The project is currently in the preliminary engineering phase of an 18-mile initial segment of the ultimate rapid transit network. This phase of the project is scheduled for completion in mid-1983. Development of the project during preliminary engineering is being charted in 12 milestone reports, each corresponding to a vital, interrelated decision point of project development. To serve as a means of obtaining public input, extensive community participation programs have been established for each of the 12 milestones.

Milestone 3, Route Alignment Alternatives and Milestone 4, Station Location Alternatives provided the basis for making decisions on the location aspects of the Project. The SCRTD Board, in adopting these two previous Milestones, has fixed the route alignment and the location of stations.

This report, Milestone 10 - Fixed Facilities, documents the design resulting from the "Preliminary Engineering" phase of the project. For stations, this means that the number, size and location of all basic elements are determined including surface provisions for park-and-ride, kiss-and-ride, bus facilities, and pedestrian access. The same level of determinations is made for the other fixed facilities in the system. For the alignment, the exact horizontal and vertical location of the tracks is plotted and related track structures such as crossovers and pocket tracks are determined. The design of yard and maintenance facilities is defined and the general construction methods to be used have been selected.

The conclusions reached in Milestone 10 will define all the essential design requirements and limitations which will provide the framework for the next stage of design, "Continuing Preliminary Engineering." During the Continuing Preliminary Engineering phase all systems, materials, quantities, qualities, sizes, and finishes are defined. Then during Final Design contract drawings and documents for issuance to construction contractors for bidding are prepared.

Milestone 10, Fixed Facilities is presented in five chapters. The background of the project and the Community Participation Program are presented in Chapter I. Chapter II introduces the reader to the various elements of station definitive design and then discusses each station individually, presenting the recommended definitive design conclusions. For the Preliminary Draft Report, "footprint" plans are utilized indicating basic surface and station features. The later Draft Report will show a site plan, floor plan, and sections of each station. Each plan is accompanied by text describing the parameters leading to the station design. Chapter III describes Line, Yard and Maintenance Facilities, Miscellaneous Structures, and the Central Control Facility. Chapter IV presents the general construction methods to be used. The final chapter, Chapter V - Implementation, describes the next steps in the design of the system and outlines the recommended design and construction packages.

A summary of the Milestone 10 conclusions and recommendations associated with each type of fixed facility follows:

A. Stations

1. Station Complex

All stations will be located underground and constructed by the cut-and-cover method either in the street right-of-way or off-street (selected locations). The stations will be column free with 450 foot long, center-island-type platforms. Ancillary and equipment rooms will be developed at both ends of the station at the platform and intermediate levels. Fare collection will take place at intermediate mezzanines (at one or both ends depending on patronage levels) with the exception of Alvarado where a surface level concourse will be developed.

2. Station Agent's Booth

It is recommended that one or more station agent's booths be provided at each station as a part of the fare collection area, to permit a station to be operated with or without an attendant.

3. Artwork

It is recommended that 1/2 of one percent of the estimated construction cost for each station be budgeted for the acquisition of original artwork for that station.

4. General Plans

It is recommended that the General Architectural Plans presented in this report be approved as the basis for completion of Preliminary Engineering for each station.

B. Right-of-Way Tunnels

All trains will run on steel tracks contained in twin bored underground tunnels each about 18 feet in diameter. The twin tunnels vary in depth from 25 feet to approximately 125 feet below city streets and up to 700 feet in depth beneath the Santa Monica Mountains.

The tunnels will be interconnected with cross passages at frequent intervals to provide passenger access to the adjacent tunnel in the event of a safety-related incident requiring passenger evacuation.

The tunnels will house a 3rd electrified pick-up rail to power the trains, a service walkway and communications and signaling equipment for all train operations.

C. Yard and Maintenance Facility

It is recommended that the Main Yard and Shops be located in the area bounded by the Santa Fe Railway (which is immediately west of the Los Angeles River,) on the east, Santa Fe Avenue on the west, the Santa Ana Freeway on the north and a line about 1100 feet south of the Sixth Street Bridge on the south. This location conforms to the location criteria developed for the Yard and Maintenance Facility.

D. Central Control Facility

It is recommended that the Central Control Facility be located adjacent to the east entrance to the Union Station Metro Rail Station. This location conforms to criteria developed for the location of the Central Control Facility.

E. Intermediate Traction Power Substations and Ventilation Shafts

Intermediate traction power substations and vent shafts are proposed for the following locations (locations are also shown on alignment plans and profiles in Chapter III):

1. On the north side of Wilshire Boulevard mid-block between Murfield Road and Rimpau Boulevard.

2. In the Hollywood Hills, west of the Hollywood Bowl and east of Mulholland Drive.

3. In the Hollywood Hills, west of Passmore Drive, south of Bonnie Hill Drive and north of Woodrow Wilson Drive.

4. On the east side of Lankershim Boulevard, mid-block between Kling Street and Blix Street.

In addition, it is recommended that an intermediate ventilation shaft be located at Fairfax Avenue and Sixth Street.

F. Station Access Facilities

1. Bus Facilities

Based on requirements developed and presented as part of the Milestone 9 process, off-street bus facilities are recommended at Union Station, Wilshire/Vermont, Wilshire/Western, Wilshire/Fairfax, Hollywood/-Cahuenga, Universal City and North Hollywood Stations (and at Wilshire/Crenshaw Station if a decision is made to have a station at that location). In addition, the construction of new bus pull-off lanes are recommended for the Civic Center, Wilshire/Alvarado, Wilshire/Vermont, Wilshire/Normandie, Wilshire/Western, Wilshire/-Fairfax, Fairfax/Beverly, Fairfax/Santa Monica, and North Hollywood Stations.

2. Park-and-Ride Facilities

Based on requirements developed and presented as part of Milestone 9, park-and-ride facilities are recommended at the Union Station, Wilshire/Fairfax, Fairfax/Beverly, Universal City, and North Hollywood Stations. To reduce the initial cost of the system, it is recommended that the Park-and-Ride sites be developed initially for surface parking with the construction of parking structures deferred until alternative funding sources have been explored. The following table shows the parking requirement for each station and the number of spaces that would be initially provided on the surface.

Park & Ride Station	Requirements (spaces)	Initial Spaces to be Provided
Union Station	2500	600
Wilshire/Fairfax	1000	250
Fairfax/Beverly	1000	250
Universal City	2450	1175
North Hollywood	2200	1790

3. Kiss-and-Ride Facilities

It is recommended that off-street kiss-and-ride facilities be provided at the Wilshire/ Vermont, Universal City and North Hollywood Stations.

4. Bicycle Parking Facilities

It is recommended that a limited number of bicycle lockers or racks be placed at all stations, except those in the Central Business District. If the initially provided bicycle parking spaces are fully utilized, consideration should be given to providing additional spaces.

5. Bicycles on Trains

Based on concerns for the comfort, convenience and safety of expected Metro Rail users, it is recommended that, until actual operating experience on the Metro Rail system can be reviewed, bicycles should not be permitted in stations or on trains.

CONCLUSIONS AND RECOMMENDATIONS

In Milestones 3 and 4 route alignment and station locations were determined. This determination provided the basis for the definitive design of fixed facilities which is presented in this Milestone 10 Report. Presented below are the conclusions and recommendations associated with each type of fixed facility.

A. Stations

1. Station Complex

All stations in the Starter System are to be constructed in below-ground structures using the cut-and-cover method in existing street or in off-street locations (Union, Wilshire/Alvarado, Wilshire/Vermont, Fairfax/Beverly, Hollywood/Cahuenga, and Universal City Stations).

The station interiors will be column free with 450 foot long center island platforms to provide for unobstructed passenger movements during normal and any emergency operations. Extensive ancillary and mechanical equipment rooms will be located at both ends of the station at the platform and intermediate levels. Traction power substations are located over crossover or pocket tracks immediately adjacent to the stations with the exception of Union Station, 7th/Flower, Wilshire/Western and Fairfax/Santa Monica where they have been located above ground or below ground off-street, or within the train room itself.

Fare collection will take place at intemediate mezzanines at one or both ends of the station train room depending on patronage levels. These mezzanines provide the transition area between the off-street, plaza-type entries and the platforms and contain fare vending equipment, system maps, telephones, and fare collection gates. All public facilities are fully accessible to the handicapped and elderly through the provision of elevators serving the platforms from the surface level entries and mezzanines. Stairs and escalators (predominantly for up movements) are provided for all vertical transitions within the stations. In addition, emergency evacuation stairs are provided off the ends of the platforms to street level.

2. Station Agent's Booth

A basic issue affecting the design of stations is whether the stations will be attended or unattended. If a station is to be attended, provision must be made for such personnel and the equipment to support them. While certain transit systems, primarily those with stations at or above-grade, have opted for economic reasons to operate with unattended stations, attended stations will promote a greater sense or perception of safety and security by patrons and will permit direct personal assistance to be rendered, if and when needed. The station attendent would be responsible for assisting and directing patrons, overseeing the operation of station equipment such as ticket vending machines, fare gates, and escalators and elevators, making announcements, and general surveillance of the station area. Pending a final decision in Milestone 12, it is recommended that a station agent's booth be provided at each station. (for major stations which usually have two separate mezzanines, a second agent's booth may be provided.) The booth should be in line with and part of the fare collection barrier to permit access to both free and paid mezzanine. It should be located to maximize the agent's direct view of the mezzanine area. By providing a booth and the associated electrical and communication conduits the District will have the flexibility to operate with or without attendants.

3. Artwork

To help provide stations with an individual, unique identity and to provide an aesthetic experience at each station it is recommended that an artwork program be established. It is proposed that the program include procedures for the acceptance of donated artwork and for the commissioning of artwork by the District. With reference to the commissioning of artwork it is recommended that 1/2 of one percent of the estimated construction cost for each station be budgeted for artwork at that station.

4. General Plans

As mentioned above, General Architectural Plans for all stations, except the Union Station, Wilshire/Crenshaw Station and Hollywood Bowl Stations have been provided in Chapter II. These plans define: the location and number of station entries; the number and types of vertical circulation devices; the spatial relationships between station elements such as fare gates and escalators and stairs; the number and location of mezzanines; the type of platform, and the location of ancillary space. These plans will represent, when completed and combined with the structural, mechanical and electrical general plans, the definitive design for each station. It is recommended that the General Architectural Plans presented in Chapter II be approved as the basis for completion of Preliminary Engineering for each station.

B. Right-of-Way Tunnels

The line sections of the Starter System will be constructed primarily by bored tunneling methods, the twin tunnels varying in depth from 25 ft. to 125 ft. beneath city streets and up to 700 ft. in depth beneath the Santa Monica Mountains.

Interconnecting cross passages will be mined between the tunnels to provide passenger access to the adjacent tunnel in the event of a safety related incident requiring evacuation.

Certain special structures which are required for train operations during normal and emergency conditions will be constructed by the cut-and-cover method and located integral with stations to minimize the overall costs of construction and disruption to local streets. These include crossovers, which permit trains to switch tracks and/or directions along the line; pocket tracks which allow storage of defective trains between the running tracks; and ventilation shafts which house ventilation fans used for extracting excess heat from the line tunnels and the stations.

C. Yard and Maintenance Facility

As described in Chapter III, a comprehensive support system of yards and shops is essential to proper operation of the transit system. Possible future as well as present needs must be considered in selecting the site for this facility. The site selected must be of sufficient size and satisfactorily configured to accommodate all anticipated functions. The ability to accommodate future system expansion must be considered. The yard location should be selected to minimize system operation costs. Environmental impact is also a critical concern with reference to adjacent neighborhoods. And, the site should be buildable, i.e. not require expensive construction procedures and techniques. Based on the above stated criteria, the recommended location for Main Yard and Shops is the site shown in Chapter III. The site is located between the Santa Fe Railway (which is immediately west of the Los Angeles River) on the east, and Santa Fe Avenue on the west. The site extends south from the Santa Ana Freeway to a point about 1100 feet south of the Sixth Street Bridge. The area of the site is approximately 45 acres.

D. Central Control Facility

As described in Chapter III, the Central Control Facility will be the nerve center of the Metro Rail System. All revenue service operations will be coordinated from this facility. Metro Rail security forces will be directed from this location and television surveillance of station will be monitored here.

The major criteria governing the location of this facility are:

- o The Central Control Facility should be located near the "hub" of the future regional transit system to facilitate centralized communications capability.
- o It should be located close to the trackway to minimize interconnecting cable lengths.
- o The facility should be located near the terminal station to facilitate handling of collected fare revenues.

Other desirable location factors are that the facility be located near a station to permit employee use of the system and that the facility be near the maintenance shops for ease of access to work space and maintenance skills.

Based on these criteria, it is recommended that the Central Control Facility be located adjacent to the east entrance to the Metro Rail Station at Union Station. The proposed location is indicated in Figure II-5.

E. Intermediate Traction Power Substations and Ventilation Shafts

As described in Chapter IV, most traction power substation (facilities to rectify and convert conventional alternating current to the direct current used to power the Metro Rail trains) and ventilation shafts will be located in or near stations; however, four substations and five ventilation shafts will be located along the alignment between stations. Four of the five ventilation shafts are proposed to be located contiguous to the intermediate traction power substations. The substations and shafts are required wherever there are long runs between stations; e.g, between the Wilshire/Western and Wilshire/La Brea Stations, between the Hollywood/-Cahuenga and Universal Stations and between the Universal and North Hollywood Stations.

The Traction Power Substations are proposed to be located above ground at the following specific locations (the locations are shown graphically on the alignment plans and profiles presented in Chapter III).

a. On the north side of Wilshire Boulevard, mid-block between Murfield Road and Rimpau Boulevard.

b. In the Hollywood Hills, west of the Hollywood Bowl and east of Mulholland Drive.

c. In the Hollywood Hills, west of Passmore Drive, south of Bonnie Hill Drive and north of Woodrow Wilson Drive.

d. On the east side of Lankershim Boulevard, mid-block between Kling Street and Blix Street.

The intermediate ventilation shaft mechanical rooms are proposed to be located under the adjacent street in the first and last instances and within the substation structure for the two Hollywood Hills locations. The substations will be approximately 50' x 160' x 18' in size and will be designed to be compatible with the area in which they are located. It is proposed that the remaining intermediate ventilation shaft be located at Fairfax Avenue and 6th Street. The mechanical room would be located below-grade in the street.

F. Station Access Facilities

1. Bus Facilities

Chapter II of this report presents the recommended Architectural General Plans for each station. These plans show off-street bus facilities at Union Station, Wilshire/Vermont, Wilshire/Western, Wilshire/Fairfax, Hollywood/Cahuenga, Universal City, and North Hollywood Station. In addition, new bus pull-off lanes are indicated

at Civic Center, Wilshire/Alvarado, Wilshire/Vermont, Wilshire/-Normandie, Wilshire/Western, Wilshire/Fairfax, Fairfax/Beverly, Fairfax/Santa Monica, and North Hollywood Stations. If it is determined that a station should be located at Wilshire/Crenshaw, an off-street bus facility is proposed for this station. These recommended bus facilities are based on requirements developed and presented as part of Milestone 9.

2. Park-and-Ride Facilities

Park-and-ride facility requirements were determined in Milestone 9 as follows: the Union Station - 2500 spaces, Wilshire/Fairfax - 1000 spaces, Fairfax/Beverly - 1000 spaces, Universal City - 2450 spaces and North Hollywood - 2200 spaces. The station site plans presented in Chapter III show the areas designated for parking. These areas have been configured to permit the developemnt of parking structures. However, in the interest of reducing the initial cost of the system, it is recommended that the sites be developed for surface parking only and that the District seek out alternative means of funding the development of parking structures, such as joint development or franchising of the parking operation. The approximate number of surface parking to be provided at each station are; Union Station - 600 spaces, Wilshire/Fairfax Station - 250 spaces, Fairfax/Beverly Station - 250 spaces, Universal City Station - 1175 spaces, North Hollywood Station - 1350 spaces.

3. Kiss-and-Ride Facilities

Kiss-and-ride facilities are used primarily during the peak one or two hours of each day. Based on the comparison between this limited use of land and the high cost of land acquisiton, it is recommended that off-street kiss-and-ride facilities be provided only in those instances where land is to be acquired for bus or park-and-ride facilities or station construction.

4. Bicycle Parking Facilities

In the current stage of station design, it has not been possible to quantify exactly the requirements for bicycle parking. However, it is expected that a demand for such parking will exist. Therefore, it is recommended that a limited number of bicycle lockers or racks be provided at all stations, except those in the Central Business District. If the initially provided bicycle parking is fully used, then consideration should be given to providing additional facilities. Tentative locations for bicycle parking have been indicated on the Station General Plans. The two major criteria for location are:

A. Bicycle racks or lockers shall be located in close proximity to station entrances for convenience.

B. They shall be located in a highly visible area, close to pedestrian ways, to promote security.

It is recommended that the exact location at each station for bicycle parking should be determined by the section designer during the Continuing Preliminary Engineering phase of design.

5. Bicycles on Trains

A related but different issue, whether or not bicycles should be permitted on trains, has been considered as part of the Milestone 10 process because of the potential impact on station design that might be caused by accommodating the movement of bicycles through stations.

The major objections to allowing bicycles to be carried on trains centers on concern for passenger safety, convenience and comfort. These concerns arise not only in regard to bicycles on the trains but also in regard to transporting the bicycles to and from the surface on stairs, escalators or elevators. A review of the experience of other rail transit systems has found that none permit bicycles on trains during peak operating conditions when trains are crowded and stations are busy. Several transit systems have expermented with permitting bicycle carry-ons during off-peak hours and have adopted policies allowing this activity. Other systems have adopted contrary policies. However, no transit system is known to have adopted a policy prior to beginning operations permitting bicycle carry-ons.

The exact knowledge of patronage, its peaking characteristics, and other such information are necessary to create an informed policy regarding bicycle carry-ons which will respect the needs and desires of bicycle riders while not inconveniencing or threatening the safety of other patrons. Therefore, it is recommended that initially bicycles be prohibited in stations or on trains and that a final policy allowing or prohibiting the transporting of bicycles through stations and on trains be established after actual operation begins and sufficient experience has been gained to determine whether bicycles can be accommodated safely. It has been determined that stations designed to meet handicapped accessibility requirements will also be able to physically accommodate the transporting of bicycles, provided that the stations are not operating at or near capacity. Therefore, in terms of station design no actions are being taken which would prohibit the future adoption of a policy permitting bicycle carry-ons.

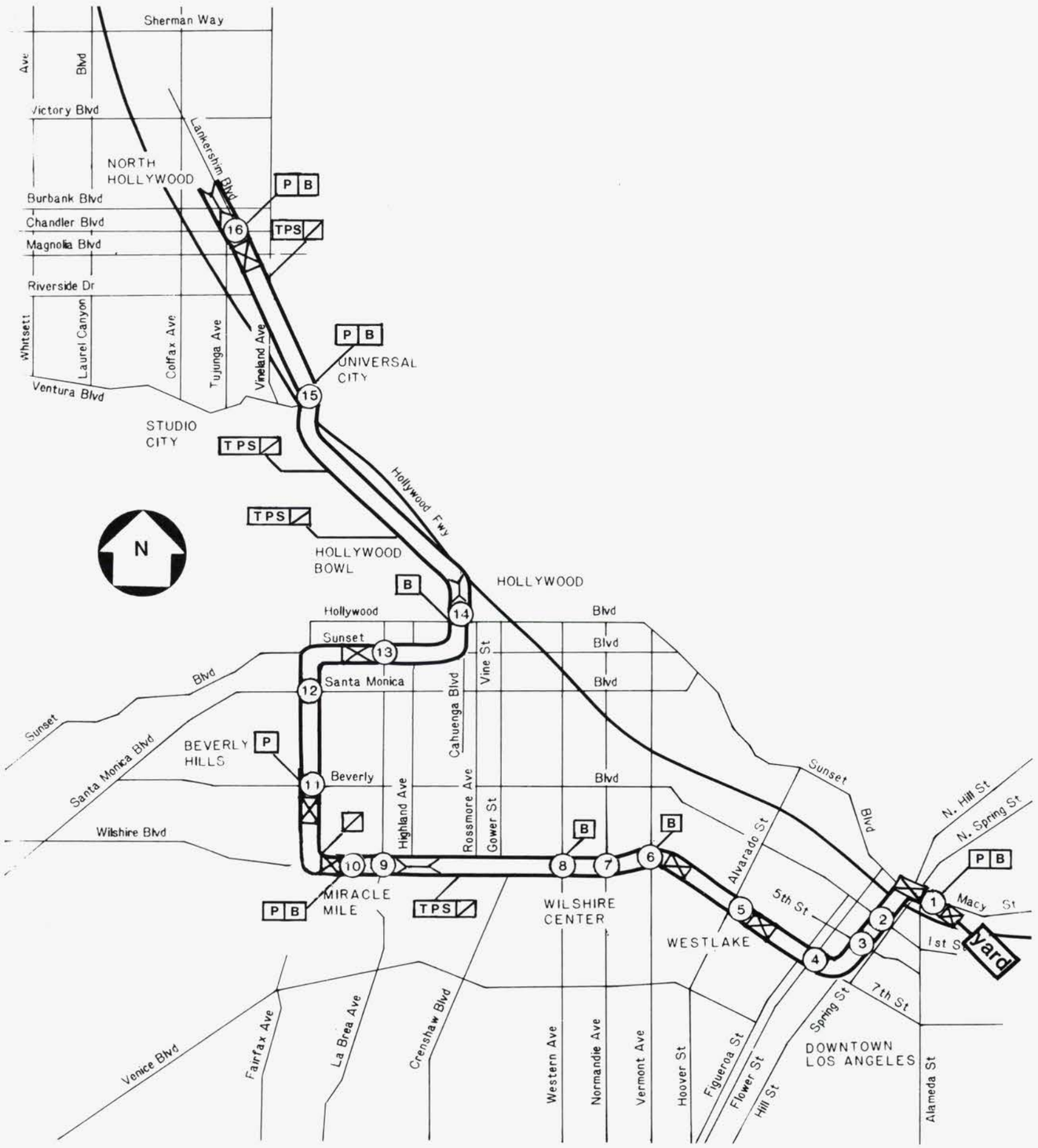


FIGURE 1

METRO RAIL PROJECT
RECOMMENDED ALIGNMENT STARTER SYSTEM

Legend

	Alignment
	Stations
	Cross over
	Pocket track
TPS	Intermediate Traction Power Substation With Vent Shaft
	Intermediate Vent Shaft
P	Parking
B	Bus Facilities
1	Union Station With Central Control Facility and TPS
2	Civic Center With TPS
3	5th/Hill
4	7th/Flower With TPS
5	Wilshire / Alvarado With TPS
6	Wilshire /Vermont With TPS
7	Wilshire / Normandie
8	Wilshire / Western With TPS
9	Wilshire / La Brea With TPS
10	Wilshire / Fairfax With TPS
11	Fairfax / Beverly With TPS
12	Fairfax / Santa Monica With TPS
13	La Brea / Sunset With TPS
14	Hollywood / Cahuenga With TPS
15	Universal City With TPS
16	North Hollywood With TPS

I. INTRODUCTION

1. INTRODUCTION

A BACKGROUND

The California State Legislature created the Southern California Rapid Transit District (SCRTD) in 1964 with a legislative mandate to design, construct, and operate a rail rapid transit system within the Los Angeles County area. The success of such a program is dependent upon the availability of funds. On three occasions, SCRTD attempted to obtain countywide voter approval of rapid transit funding through increases in local sales taxes. Finally, in June 1974, Proposition 5 was passed by a solid majority, allowing for the use of a portion of state gasoline taxes for rapid transit development. This measure provided a local source of funds for SCRTD to begin its rail rapid transit development program in Los Angeles.

SCRTD also received federal funding in 1974 to evaluate 16 transit corridors in the Los Angeles metropolitan area. A Rapid Transit Advisory Committee (RTAC), composed of representatives of local and state agencies, guided this effort. The result of the evaluations was the identification of a rapid transit corridor that justified further development and evaluation.

Based on the results of the RTAC study, a Regional Transit Development Program was adopted by state and local jurisdictions. In September 1976, representatives of the City of Los Angeles, Caltrans, Southern California Association of Governments, the County of Los Angeles, and SCRTD applied to the Urban Mass Transportation Administration (UMTA) for assistance in financing the Regional Transportation Development Program. Designed to focus on transportation problems in the Los Angeles area, this four-part program included improvements to the existing street system, freeway transit projects, a proposed Downtown People Mover System, and an evaluation of alternative transit solutions for the Regional Core, the approximately 55-square-mile portion of the metropolitan center of Los Angeles. The program was immediately endorsed by the newly established Los Angeles County Transportation Commission in 1977.

Having received UMTA and Proposition 5 funds to evaluate transit corridors, SCRTD began in 1977 an in-depth analysis for 11 alternatives: a "status quo", five rail-bus, and five all-bus alternatives. The critical issues considered during the evaluation included:

- Which alternative could serve the largest number of people?
- Which corridor was experiencing the greatest surface traffic congestion without any plans for relief?
- Which alternative would reduce the greatest number of auto trips per day?
- Which corridor would best accommodate city and county land use plans?
- Which corridor might have the greatest impact on local air quality and energy savings?
- Which alternative would offer the best opportunity for efficient operations?
- Which alternative might provide the greatest economic benefits to the Los Angeles metropolitan area?

Concurrently, a comprehensive environmental impact analysis was conducted to examine the effects of each of the alternatives on the affected communities. In September 1979, the District Board of Directors selected its "preferred alternative" - an 18-mile rapid transit line extending from the Central Business District through the Wilshire Boulevard area to Fairfax Avenue, and northerly through Hollywood to North Hollywood.

The results of this analytical work were published in the final Alternatives Analysis/Environmental Impact Statement/Report (AA/EIS/EIR) and were submitted to UMTA for evaluation in April 1980. Two months later, SCRTD was allocated $12 million from UMTA and $3 million from local sources to begin the first phase of the 10-year project - preliminary engineering. This phase includes additional environmental analysis and the basic work leading to the final design and construction. UMTA noted that the Metro Rail Project is one of the most carefully studied and thoroughly justified projects of its kind in the country. It is the only new rail start for which the current federal and state administrations and congress have been willing to grant funds for preliminary engineering.

To date, combined government funding totals approximately $39 million which will allow completion of preliminary engineering. In addition, approximately $19 million has been received for Continuing Preliminary Engineering which will further advance designs.

B. COMMUNITY PARTICIPATION PROGRAM

An important factor in the development of the Metro Rail Project has been regionwide public support. This broad-based support has been demonstrated on numerous occasions. Particularly impressive were the public hearings conducted in 1979 when businessmen, officials, organizations, and citizens from all areas of Los Angeles testified that this project was the one with which to begin rail rapid transit system development in the Los Angeles community.

As part of the process of designing and developing the rail system, the SCRTD Metro Rail Project Team is now involved with land use planning, service criteria, social issues, energy concerns, and environmental impact and aesthetic considerations. The Project Team recognizes that designers and decision makers must be responsive to the public's needs and desires.

Given the history of experiences in other cities, it is most essential that the Team maintain sensitivity to public concerns by means of a public participation process before definitive plans are made. An extensive Community Participation Program has been established to meet that need. The purpose of the Program, as adopted by the SCRTD Board of Directors, is to provide interested, concerned, and affected citizens of the Los Angeles area a means to interact with and provide input to the Project Team, city and county officials, and the Board in regard to Metro Rail preliminary engineering issues as well as on related areas of planning and development.

The key element of this Program is the policy decision-making process, or Milestone Process. Community participants will help the Project Team make decisions on 12 basic, interrelated points of development - called milestones - that must be made during the preliminary engineering phase of the subway project. (These are the 12 most critical decision points of the project such as route selection, station location, vehicle design, and cost estimates.) It is through this mechanism that community participants will be informed of and able to provide input to the most significant aspects of the Metro Rail Project.

This does not mean, however, that the District Board of Directors and involved local elected officials will relinquish their respective responsibilities where decisions are concerned. But it does mean that important decisions will be made with the overall values, needs, and priorities of the community in mind. Since the greatest amount of public interest is expected from those who live and work in the areas most directly affected by the Metro Rail Project, the Community Participation Program has been structured to encourage and accommodate participation by means of three levels of organization:

- o The Sector Level. This base organization level has been divided into six key geographical areas along the subway alignment, called "sectors". Representatives from each of these sectors will participate in the appropriate groups of the next level of organization. Special organized groups will be encouraged to participate at this level.

- o The Segment Level. Sector representatives will form this second level of community organization. The sector representatives will be grouped into three geographic segments along the alignment (i.e., the Central Business District segment, the Wilshire segment, and the Fairfax/Hollywood/North Hollywood segment). They will discuss issues that affect these three broad segments of the alignment. Representatives from each segment group will participate in the next level of organization.

- o The System Level. Segment participants will join other interested citizens, established organizations, and special interest groups in forming this final level of community organization. The system level will convene meetings on more general issues that concern all segment and sector level groups. This level will function as the primary group for conflict resolution of Community and Project Team concerns and recommendations.

The above structure has been developed for citizens to review, comment on, and have input to the 12 project milestone reports that relate directly to the design, engineering, and environmental impact of the Metro Rail Project. These milestones will be presented to the public in a series of community meetings throughout preliminary engineering. Through the community participation process, the public will have three opportunities to review and comment on the Milestone Ten proposal:

- o Preliminary Draft Report. At the community meetings the Project Team will present its initial recommendations and discuss the issues. Copies of the preliminary draft report will be distributed to each participant for review and comment. Subsequent meetings may be necessary to answer participants' questions.

- o Draft Report Meeting. A second public review will occur upon publication of a draft milestone report, which will include comments relative to the particular initial milestone data along with the Project Team's responses to that input.

- o Board Hearing. Prior to adopting each milestone report, the SCRTD Board of Directors will convene a hearing, thus giving the participants a final opportunity to comment on that specific milestone.

These three key input points will occur in the overall community participation process, which will take approximately 45 to 60 days to implement for each milestone. This process will be conducted for each of the 12 milestones, thus meeting the mid-1983 preliminary engineering completion deadline. (See Table I-1 for a list of the project milestones and the general timetables for public reviews.)

The SCRTD believes that through the Community Participation Program, the Metro Rail Project design alternatives adopted at the conclusion of preliminary engineering will best represent the needs and desires of the community.

Table I-1

TIMETABLE FOR MILESTONE REVIEWS

Community Review Schedule	Milestone	SCRTD Board Hearing Date
March-April 1982	1. Preliminary System/ Operational Plan 2. System Design Criteria	October 12, 1982
May-June 1982	3. Route Alignment 4. Station Location	December 8, 1982
June-July 1982	5. Relocation Policy	August 12, 1982
August-September 1982	6. Development/Land Use	February 10, 1982
September-October 1982	7. Safety, Security, System Assurance	December 2, 1982
November-December 1982	8. Systems and Subsystems	January 13, 1983
January-February 1983	9. Supporting Service	March 25, 1983*
February-March 1983	10. Fixed Facilities	April 14, 1983*
March-April 1983	11. Cost Estimate	May 11, 1983*
May-June 1983	12. System Plan	June 27, 1983*

*Approximate

II. STATION DESIGN

A. DEFINITIVE DESIGN DESCRIPTION

During the Milestone 4 process, a number of station location alternatives were studied and numerous public meetings were held. Subsequently a specific location for each station was fixed by the RTD Board, forming the basis for the next step: definitive design. It is during definitive design that the major decisions regarding station design are reached. Among these decisions are the number and location of entries in accordance with the anticipated patronage demand; the fare collection configuration--in an above-grade concourse or in a below-grade mezzanine; platform type and size; and the number/locations of required stairs, escalators, and elevators. In addition, and no less importantly, the substantial mechanical and electrical ancillary spaces must be accommodated as efficiently as possible in order to minimize capital, operating and maintenance expenses. A decision made regarding any of these elements affects other decisions. For example, the need to place an entrance at a specific location can require a particular mezzanine configuration; conversely, the selection of a particular mezzanine layout will affect where entries can be placed.

The first part of the chapter will describe in general terms the station design philosophy and its application to particular station elements such as entrances and other components. The remainder of the Chapter will present station specific information in support of station plans which illustrate the basic station and site layout.

1. Architectural Design

The overall design of each station will provide a site-specific approach to the basic disposition of all functional elements such as, mezzanines, platforms, and ancillary rooms. The basic architectural framework will be established by providing for a clear span structural shell (without columns) and a ceiling-mounted low velocity air distribution duct running down the length of the trainroom. In addition, all stairs, escalators, and elevators will be standardized with regard to finishes, spatial relations between vertical access devices, fare collection areas, mezzanines, and platforms. Lighting will be provided by a standard type of fixture although their placement may vary depending on the differing configurations provided in each station.

Materials and finishes will be determined in the next stage of design following Preliminary Engineering, from a limited palette of choices to assure high durability, and straightforward maintenance within a pre-established budget. Signing will be unified throughout the stations with regard to placement and types of messages. All ancillary and equipment rooms will be standardized with regard to functional layouts, materials, lighting, and other utility requirements to permit a unified program for maintenance and to minimize capital costs.

2. Station Entrances

Plaza - type entrances and entrances within existing or planned developments are preferred; these "off-street" entrances have been planned to relate to business and urban activities in addition to serving their transit function. "On-street" entrances with stairs, escalators and elevators leading directly from the sidewalk to the fare collection areas have been avoided.

A number of factors have been considered in determining the number and location of entrances. Patronage projections and expected mode of arrival at each station are basic determinants. And, particular attention was given to rail, bus and auto interface and pedestrian flows. Future development plans in each station area have been noted and the potential for joint development has been considered. Among the findings was the determination that expected patronage levels high enough to support the cost of constructing entrances at each end of a station (which requires two fare collection areas) occur only at the LACBD stations and at the Wilshire/Fairfax Station. Particular site considerations also lead to a double-ended station at North Hollywood.

The next determination - to have one, or more than one, entrance into each mezzanine - is based on both the projected patronage levels and site specific considerations. The heavy bus transfers, for example, that will occur on each side of Vermont lead to planning for an entrance on each side. On the other hand, the lack of a suitable, economical location for a second entrance at the Wilshire/Normandie Station dictated only a single entrance.

Determination of the entrance orientation, i.e. whether the entry parallels, runs perpendicular or at some other angle to the major street, is usually the result of weighing several considerations. The existence of below surface utility lines, anticipated pedestrian flows, and the location of bus stops help determine the best orientation. When the entry is to be located on a developable parcel, consideration is given to maximizing the development potential of the parcel. This is usually accomplished by orienting the entry perpendicular to the major street thus leaving the maximum frontage along the major street available for development. A final consideration which relates to decisions concerning both entry locations and mezzanine configurations is the desire to maximize the potential for the construction of additional entrances either by SCRTD or by others, either during initial construction or in the future.

CLEARSPAN END MEZZANINE

SCRTD Metro Rail
HWA
January 1983

FIGURE II-1

3. STATION COMPONENTS

In addition to the entrances that will be at or near the surface as discussed above, all stations will have the following components:

- o Mezzanine/Concourse. This component functions as a transition area between the entrance to the station and the train platform. It may be at a point between the surface and the platforms(s) where it is called a mezzanine, or at street level where it is called a concourse. Wilshire/Alvarado is the only concourse type station currently being designed.

  The mezzanine/concourse provides space for various functions and typically includes fare collection, directional and information signage, and amenities for the patron's needs such as telephones and maps. The space that a patron enters prior to fare collection is designated a "free" area, with a corresponding space after fare collection designated "paid" area.

  The mezzanine may extend for the full length of the station (none of the Metro Rail starter line stations have this configuration), be at any point along the platform, or at one or both ends of the station. As mentioned above, the mezzanine configuration is determined by the expected patronage levels and the desired number and location of entrances.

- o Platforms. Metro Rail station platforms will be approximately 450 feet long to accommodate trains consisting of six 75-foot-long cars. The platform configuration proposed for all stations is a "center" type, where a single platform is flanked by the two tracks. Patron orientation is much easier with a center platform since a directional decision can be made at the platform. Also the cost of a station with a center platform is typically lower compared to a side platform station.

- o Equipment Spaces. Electrified rail transit stations require substantial amounts of space to house such elements as traction power substations, electrical distribution rooms, and fan rooms. These areas are typically located at track level beyond the platforms and at mezzanine level beyond the public spaces.

  Where a pocket track (a train storage track usually located between through tracks) or a crossover track (a location where a train can switch from one track to another) is located at the end of a station, the station "box" - the area to be constructed by the cut-and-cover method - is extended. A traction power substation can often be located in this box over the crossover or pocket track. More than thirty different service and equipment rooms are needed to support the operation of the station. Certain spatial relationships must be maintained in the locating or placing of these rooms while at the same time keeping unusable space to a minimum.

4. Patron Movement Within Stations

Of prime importance in station design is the movement of patrons, both horizontally and vertically, between the station entrance and the trains. Minimizing both travel times and capital/operating costs, as well as providing for ease of movement, is an essential design goal.

For horizontal movements, the distances between travel points located at the same level have been held to the least practical amount, considering all functional factors. Vertical movements, i.e., connecting the various levels within the station, utilize stairs principally for down-travel plus a limited amount of up-travel, and escalators as the principal means of up-travel. For those stations with extremely long vertical movements, escalators have been proposed for down-travel as well. An elevator from street level to the free area of a mezzanine has been planned to make the system accessible to the handicapped at the primary entrance to each mezzanine type station. A second elevator will provide access from the paid area on the mezzanine to the platform level. The numbers of stairs and escalators provided at each station are determined by patronage forecasts and the directional split of patrons (boarding or deboarding) during the morning and evening hours. Additional stairs will be provided at each end of the platform to permit evacuation of the stations during any emergency conditions.

5. Parking

Patronage projections have been analyzed in terms of expected mode of access to each station. Based on this analysis, park-and-ride facilities have been programmed for Union Station, Wilshire/Fairfax Station, Fairfax/Beverly Station, Universal City Station, and North Hollywood Station. In each case a footprint for a parking structure sized to meet the expected demand has been developed to determine the appropriate site requirements. However, as a cost-saving measure, it is proposed that the initial construction provide for surface parking only. The construction of parking structures will be deferred.

6. Bus - Rail Interface Planning

Depending on site - specific considerations, such as existing street widths and the availability of undeveloped land in a station area, certain provisions are proposed for facilitating bus-rail connections. These provisions, which are discussed below, range from providing bus turnout lanes on existing streets to complete bus terminals with bus bays and layover space.

7. Construction

Stations will be constructed by a cut-and-cover method. With this method the work progresses from the street level down, and involves some surface disruption in the immediate vicinity of the station itself. Chapter IV - Construction Methods, describes the construction process in some detail.

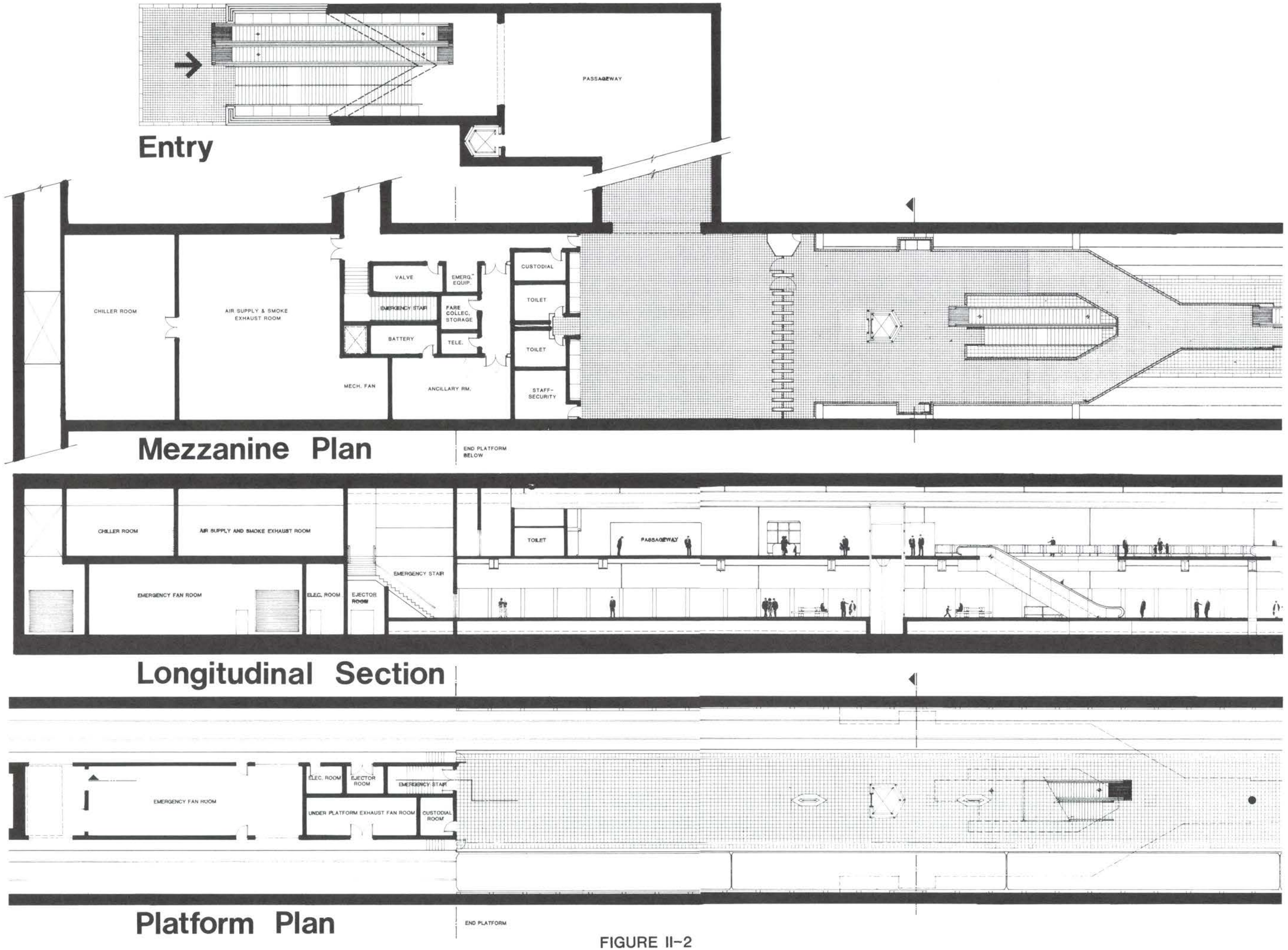

Entry
PASSAGEWAY
CHILLER ROOM
AIR SUPPLY & SMOKE EXHAUST ROOM
VALVE
EMERG. EQUIP.
EMERGENCY STAIR
FARE COLLEC. STORAGE
BATTERY
TELE.
MECH. FAN
ANCILLARY RM.
CUSTODIAL
TOILET
TOILET
STAFF-SECURITY
Mezzanine Plan
END PLATFORM BELOW
CHILLER ROOM
AIR SUPPLY AND SMOKE EXHAUST ROOM
EMERGENCY FAN ROOM
ELEC. ROOM
EJECTOR ROOM
EMERGENCY STAIR
TOILET
PASSAGEWAY
Longitudinal Section
EMERGENCY FAN ROOM
ELEC. ROOM
EJECTOR ROOM
EMERGENCY STAIR
UNDER PLATFORM EXHAUST FAN ROOM
CUSTODIAL ROOM
Platform Plan
END PLATFORM

FIGURE II-2

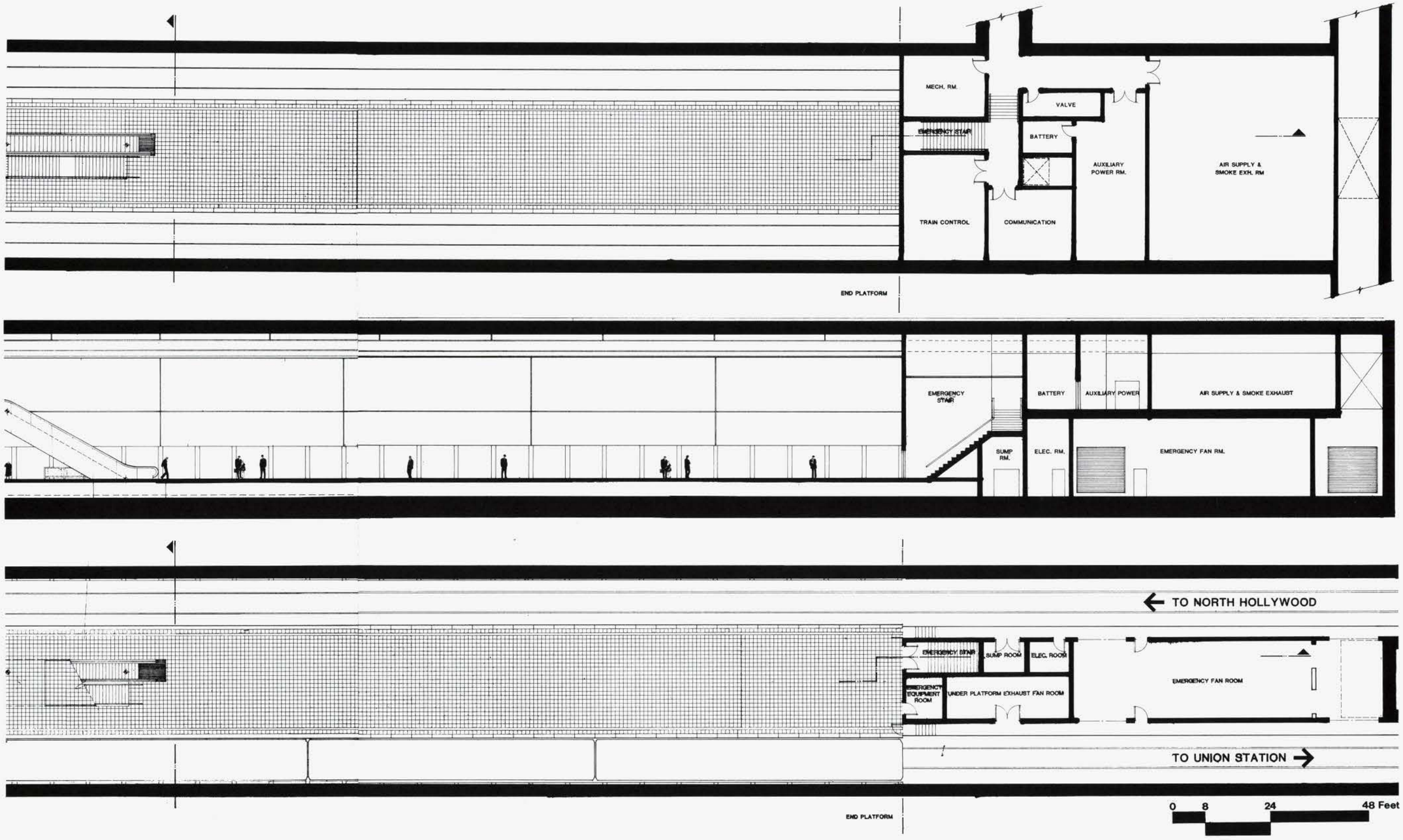

MECH. RM.
VALVE
EMERGENCY STAIR
BATTERY
AUXILIARY POWER RM.
AIR SUPPLY & SMOKE EXH. RM
TRAIN CONTROL
COMMUNICATION
END PLATFORM
EMERGENCY STAIR
BATTERY
AUXILIARY POWER
AIR SUPPLY & SMOKE EXHAUST
SUMP RM.
ELEC. RM.
EMERGENCY FAN RM.
TO NORTH HOLLYWOOD
EMERGENCY STAIR
SUMP ROOM
ELEC. ROOM
EMERGENCY EQUIPMENT ROOM
UNDER PLATFORM EXHAUST FAN ROOM
EMERGENCY FAN ROOM
TO UNION STATION
END PLATFORM
0 8 24 48 Feet

FIGURE II-3

B. STATION SITE AND DESIGN REPORTS

Introduction

The plans which are included in this section, although still in progress, present design conclusions regarding the functional disposition of the specific components of each station. The drawings indicate where the important elements of each subway station will be located in relation to all other components. They show, for example, how the fare gates relate to the escalators and elevators which bring people from the street into the mezzanine area They show, for each station, how station entrances relate to surrounding sidewalk spaces and buildings. The architectural, structural, mechanical and electrical aspects of these stations are also in progress and definitive design of these components will be completed during the course of Preliminary Engineering.

The station entry locations, as shown, are those presently comtemplated to be publicly funded; their final orientation and impact on exiting properties are subject to conclusive negotiation with landowners and/or developers once funding for construction has been obtained by the District. The precise location of all other structures which will impact station areas, such as vent shafts, fresh air intakes, and emergency exit stair hatches will be determined during the course of Continuing Preliminary Engineering and Final Design.

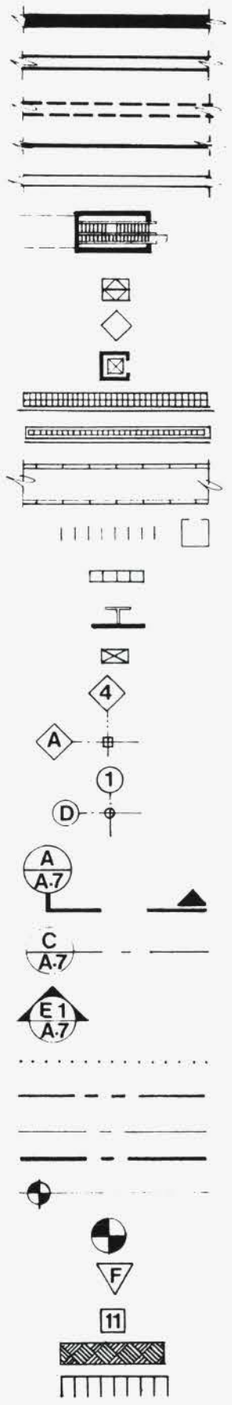
The plans aslo indicate potential future entries at selected station locations. Where feasible, the District does plan on providing knock-out panels as part of station construction to permit future construction of additional entries as a result of subsequent commercial development in the station area. Knockout panels are a type of wall structure which can be removed to permit the easy and inexpensive addition of entrances to a stations. The Civic Center and 5th/Hill Station plans are representative of such future potential.

The development of off-street facilities for long-term rail transit parking, kiss-and-ride, and bus facilities presented in this report indicate the recommended extent of development of these facilities with regard to property acquisition and quantities. Tables II-1 and II-2 explain the symbols and abbreviations used on the General Plans presented below.

Abbreviations

A.F.C.	AUTOMATIC FARE COLLECTOR
APX.	APPROXIMATE
@	AT
ATTDT.	ATTENDANT
BM.	BEAM
BET.	BETWEEN
B.R.S.	BLAST RELIEF SHAFT
B.S.	BOTH SIDES
BOT.	BOTTOM
BLDG.	BUILDING
C.B.	CATCH BASIN
CLG.	CEILING
C.L. or ℄	CENTER LINE
CCTV	CLOSED CIRCUIT TELEVISION
COL.	COLUMN
CONC.	CONCRETE
COND.	CONDENSER
CONDT.	CONDUIT
CONT.	CONTINUOUS
C.O.	CONVENIENCE OUTLET
DET.	DETAIL
DIA. or Ø	DIAMETER
DIM.	DIMENSION
DN.	DOWN
DWG.	DRAWING
E.	EAST
ELECT.	ELECTRICAL
EL.	ELEVATION
ELEV.	ELEVATOR
ENT.	ENTRANCE
ESC.	ESCALATOR
EXH.	EXHAUST
E.F.	EXHAUST FAN
EXIST.	EXISTING
EXT.	EXTERIOR
F.O.C.	FACE OF CONCRETE
F.O.S.	FACE OF STRUCTURE
F.O.W.	FACE OF WALL
FT.	FEET
FIN.	FINSIH
F.E.	FIRE EXTINGUSIHER
FL.	FLOOR
F.A.I.	FRESH AIR INTAKE
GRTG.	GRATING
HVAC	HEATING, VENTILATING AIR CONDITIONING
HT.	HEIGHT
HORZ.	HORIZONTAL
IN.	INCH
I.D.	INSIDE DIAMETER
INT.	INTERRIOR
JT.	JOINT
K.O.P.	KNOCK OUT PANEL
LVL.	LEVEL
LTG.	LIGHTING
LKR	LOCKER
MACH.	MACHINE
MAX.	MAXIMUM
MECH.	MECHANICAL
MEZZ.	MEZZANINE
MIN.	MINIMUM
MISC.	MISCELLANEOUS
N.	NORTH
N.T.S	NOT TO SCALE
NO. or #	NUMBER
O.D.	OUTSIDE DIAMETER
PLAT.	PLATFORM
PLUMB.	PLUMBING
PT.	POINT
P.S.F.	POUNDS PER SQUARE FOOT
P.S.I.	POUNDS PER SQUARE INCH
P.A.	PUBLIC ADDRESS
R.O.W.	RIGHT-OF-WAY
RM.	ROOM
SEC.	SECTION
SGNL.	SIGNAL
S.	SOUTH
S.F.	SQUARE FOOT
STD.	STANDARD
STA.	STATION
S.P.	SUMP PUMP
SWBD.	SWITCHBOARD
TEL.	TELEPHONE
T.O.C.	TOP OF CONCRETE
T.O.R.	TOP OF RAIL
T.P.S.	TRACTION POWER SUBSTATION
TRASF.	TRANSFORMER
TYP.	TYPICAL
U.P.E.	UNDER PLATFORM EXHAUST
UTIL.	UTILITY
VENT.	VENTILATION
VERT.	VERTICAL
WT.	WEIGHT
W.	WEST
W/	WITH
W.P.	WORKING POINT

Symbols



NEW BUILDING

EXISTING BUILDING TO REMAIN

EXISTING BUILDING TO BE REMOVED

WINDOW WALL

ARCHITECTURAL FENCE

STREET ENTRANCE PARAPET, STAIR AND ESCALATOR

EMERGENCY HATCH AT SIDEWALK

BUS STOP

ELEVATOR

FLUSH GRATING AT SIDEWALK

GRATING ON TOP OF 10 FT. 'HEADHOUSE'

PLATFORM EDGES

FARE GATES AND STATION AGENT'S BOOTH

FARE VENDORS

TELEPHONES

SHAFTS

EXISTING COLUMN REFERENCE GRID

NEW COLUMN REFERENCE GRID

SECTION

DETAIL

ELEVATION

LIMIT OF WORK LINE

PROPERTY LINE

CENTER LINE OF STREET

CENTER LINE OF TRACK

STATIONING LINE

ELEVATION AT ENTRY

REVISION

ROOM TYPE

EARTH

BICYCLE PARKING

UNION STATION

Background

The Metro Rail Station at old Union Station will be located below the railroad yards behind (to the east of) the Union Station Terminal Building. This area is at the edge of the downtown core, adjacent to El Pueblo de Los Angeles State Historic Park (a major tourist attraction) and close to the Civic Center and little Tokyo.

The station site is bounded by Alameda Street to the west, Macy Street to the north, Vignes Street to the east and Highway 101 to the south. Located within this area is the Union Station Terminal Building, freight buildings, surface parking, tracks, and a vacant, unimproved area east of the tracks.

Immediately to the north of the site is the Post Office Terminal Annex. The area to the east of the site is being developed primarily with governmental facilities. The County Jail and the City of Los Angeles Piper Technical Center are located there.

Intercity bus and railroad services operate from Union Station and local RTD buses use the turnaround at the north end of the terminal as a bus stop. Also, the State Department of Transportation (CALTRANS) has planned an extension of the El Monte Busway which will provide a bus stop for express buses serving the San Gabriel Valley on the southwest corner of the Union Station site (Alameda Street and Highway 101). There is pending litigation under a joint powers agreement between CALTRANS and the City of Los Angeles to acquire Union Station. In a separate action CALTRANS is pursuing acquisition of the southerly portion of Union Station to accommodate the extension to the El Monte Busway from Mission Street to Alameda Street.

Union Station is on the National Register of Historic Places.

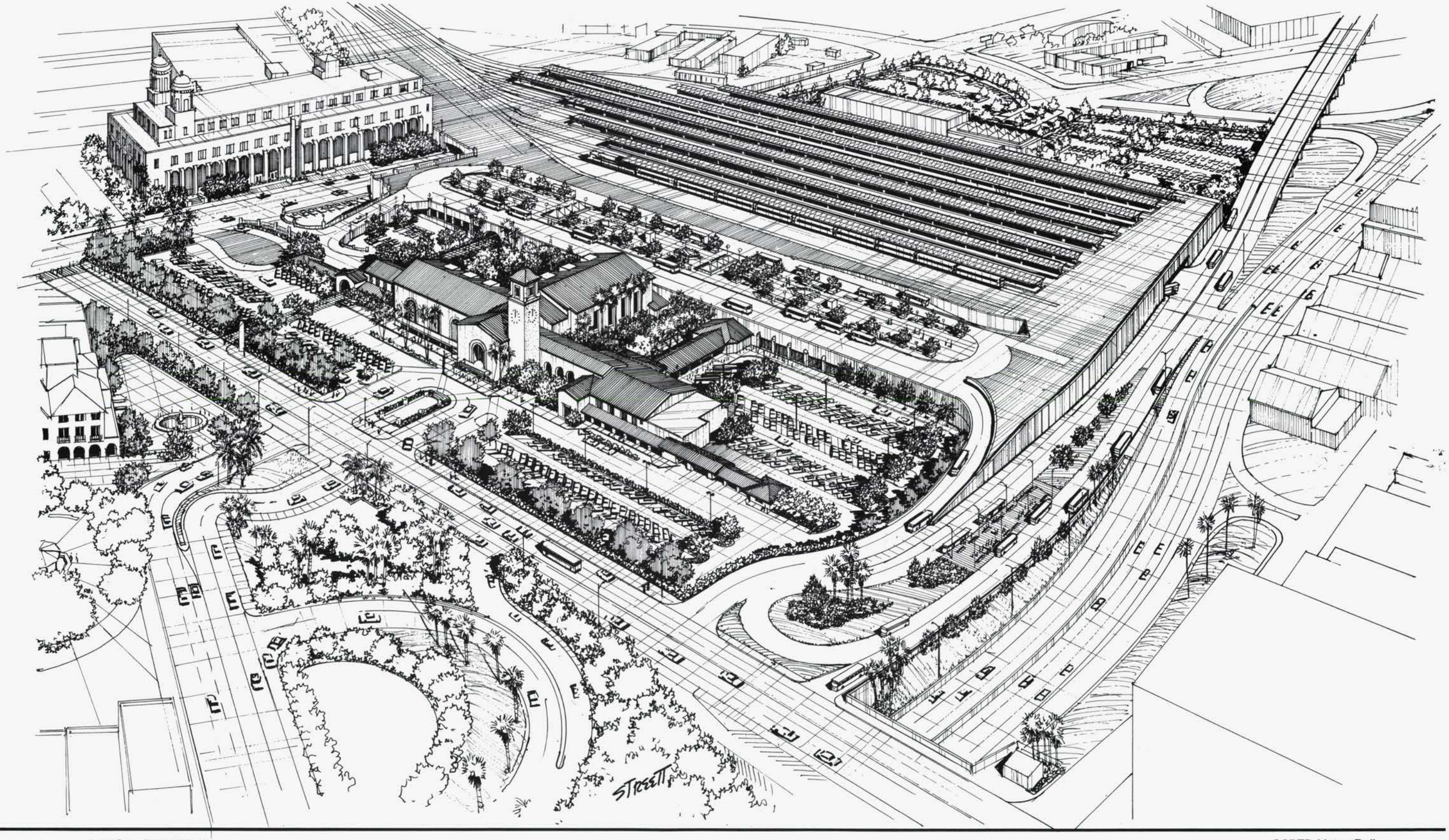
Station Site Design Parameters

The plan for Union Station calls for a bus terminal deck to be constructed on the present site of the Railway Express Agency building Ramps would be constructed to permit buses using the El Monte Busway to use the deck, either terminating or continuing through. Pedestrian access would be provided from the deck to both the Metro Rail Station and the intercity train station. The number of bus-rail transfers at Union Station will be great and many buses will terminate at the station rather than continuing on surface streets. This site proposal is being studied by appropriate City and State agencies and findings regarding its feasibility are expected in the near future.

Parking is proposed near the east station entry. Based on an analysis of the mode of access for the projected station patronage, the need (program) for park-and-ride facilities was determined to be 1500 parking spaces initially and an additional 1000 parking spaces to be provided in a second later phase. However, as a cost reduction measure, the parking structure(s) will be deferred until a later date. In the interim, surface parking will be provided in the area reserved for parking structures.

The small demand for kiss-and-ride parking at this station can be met on the streets in the morning and in a portion of the surface parking area during the afternoon and evening hours.

The Central Control Facility for the Metro Rail system, which is described in Chapter III of this report, will be located adjacent to the east entrance to the station.



UNION STATION
VIEW LOOKING NORTHEAST

SCRTD Metro Rail
HWA
March 1983

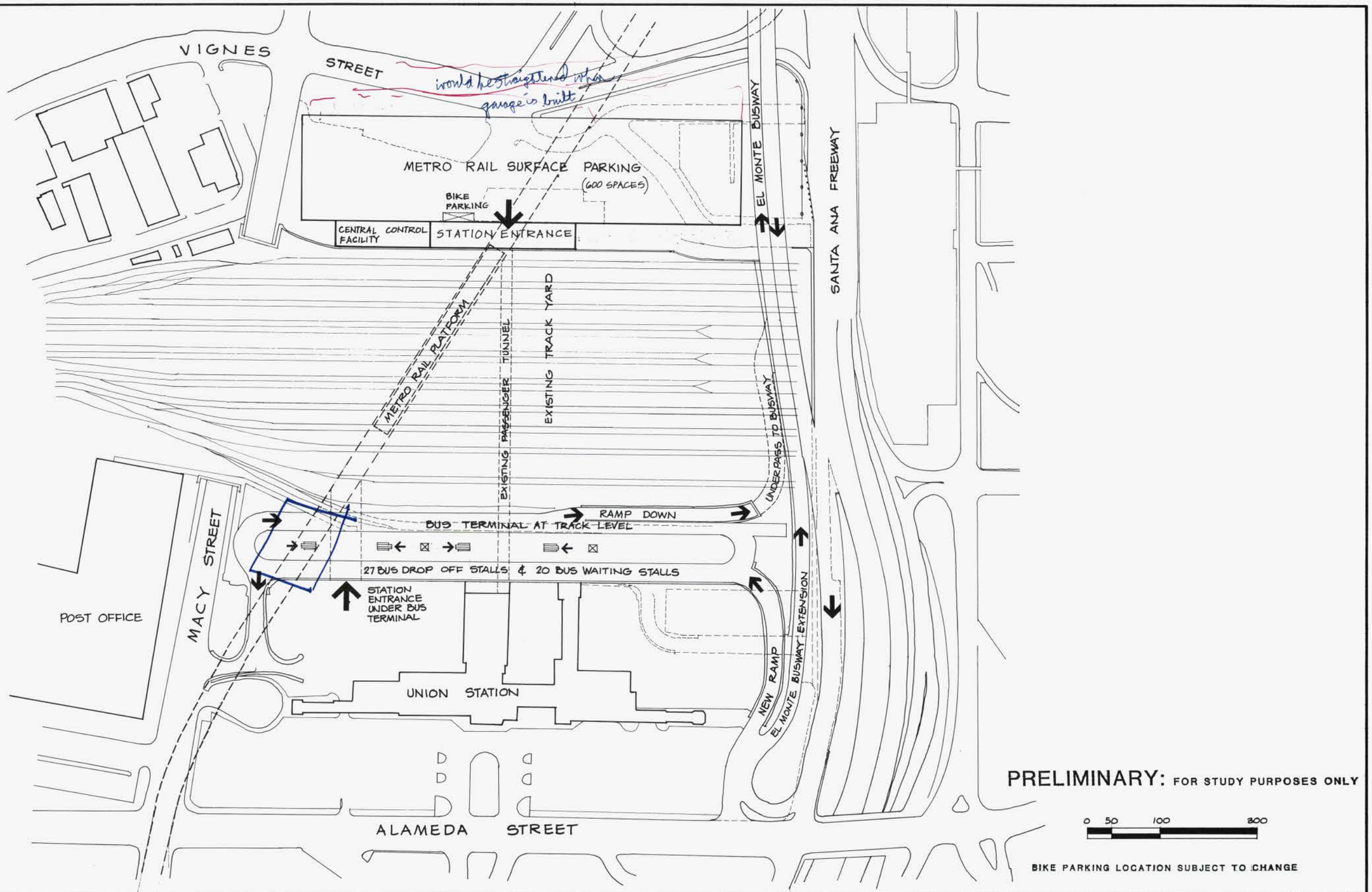
FIGURE II-4

Station Design Parameters

Union Station will be the first station on the alignment. Passengers arriving at the station on foot will be coming primarily from the west (downtown). However, passengers arriving by auto and bus will arrive predominantly from the east. These passenger arrival characteristics combined with high projected patronage levels led to the station being designed with an entry at each end of the platform. Since the railroad tracks are at a higher elevation than each point of entry, the mezzanines at each end of the station will be at the existing entry grade level and extend under the tracks. Having the east mezzanine at grade permits the development of a headhouse (above-grade entry) structure which can house many of the ancillary space requirements.

The Metro Rail Station east entrance will be located and designed to permit access from the existing Union Station railroad platform access tunnel (passageway). This will permit intercity train travelers to easily access the Metro Rail system.

Escalators and stairs will provide access from each mezzanine to a center platform. And, while the future need is unlikely, the mezzanine design will permit the retrofitting of additional devices.



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date HWA/GW/TAMB/TEC
DRAWN BY Date 2-13-83 M.POINDEXTER
CHECKED BY Date 2-14-83 J. Wiley

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

UNION STATION WITH INTERMODAL BUS DEVELOPMENT

CONTRACT NO.
DRAWING NO.
SCALE SEE ABOVE
SHEET NO.

FIGURE II-5

CIVIC CENTER STATION

Background

The Civic Center Station will be located under Hill Street between Temple and 1st Streets. Various Federal, State, County, and City office buildings are located in the station vicinity including the County Courthouse, Hall of Records, County Law Library, City Hall, Hall of Administration, State Office Building, Criminal Courts, and the Hall of Justice. Immediately to the west of Hill is the Civic Center Mall and to the east is the Court of Flags creating a major axis running from the Water and Power Building and the Music Center to the City Hall.

The southwest corner of 1st and Hill is part of several undeveloped parcels, two of which are owned by Los Angeles County. The Music Center's Performing Arts Council in conjunction with the Community Redevelopment Agency have announced plans for a large mixed-use development project with three theatres and office, residential, and commercial buildings for this site.

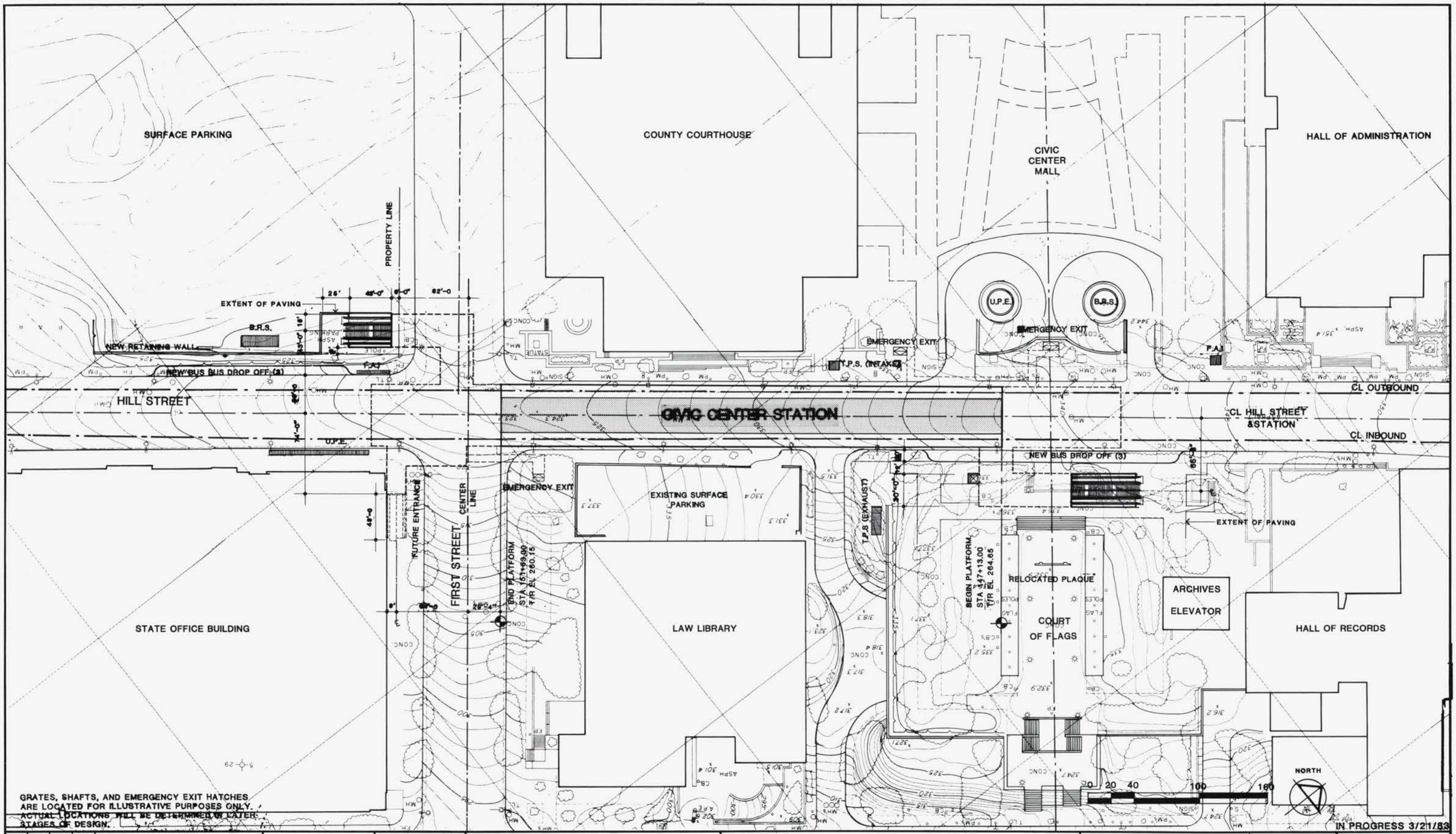
Station Site Design Parameters

A significant number of transfers are expected between the bus and rail systems at this station. However, since the buses will be continuing in service and not terminating at this location, two bus pull-out lanes are proposed - one on the west side of Hill, just to the south of 1st Street, the other on the east side of Hill adjacent to the Court of Flags. The program for this station site does not call for Park-Ride, Kiss-Ride or any other facilities. Therefore, prime consideration rests with pedestrian traffic, except for patrons transfering from buses. Pedestrian traffic at the intersection of 1st and Hill moves along both sides of each street in approximately equal flows. However, at the north end of the station the pedestrian flow is heaviest along the east-west axis running to the south of the Court of Flags. Entry locations which are discussed in the next section have been located to serve these movements while having a minimum impact on public parkland.

Station Design Paramenters

In response to the relatively high patronage levels projected and the expected pedestrian flow patterns, this station has been planned with entries and mezzanines at each end of the platform. The entries at the south end of the station are proposed for the southwest and southeast corners of 1st and Hill. The entry on the southwest corner will be designed to accommodate future development of the site. The southeast entry is designated for future construction. The north entry to the station will be located adjacent to the Court of Flags and will be designed to minimize any adverse impacts on this public park space.

A traction power substation will be located over the train room and ancillary space will be provided at the mezzanine and platform levels at each end of the station.



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3-15-83
DRAWN BY D.ZAPERES Date 3-15-83
CHECKED BY J.YEN Date 3/15/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

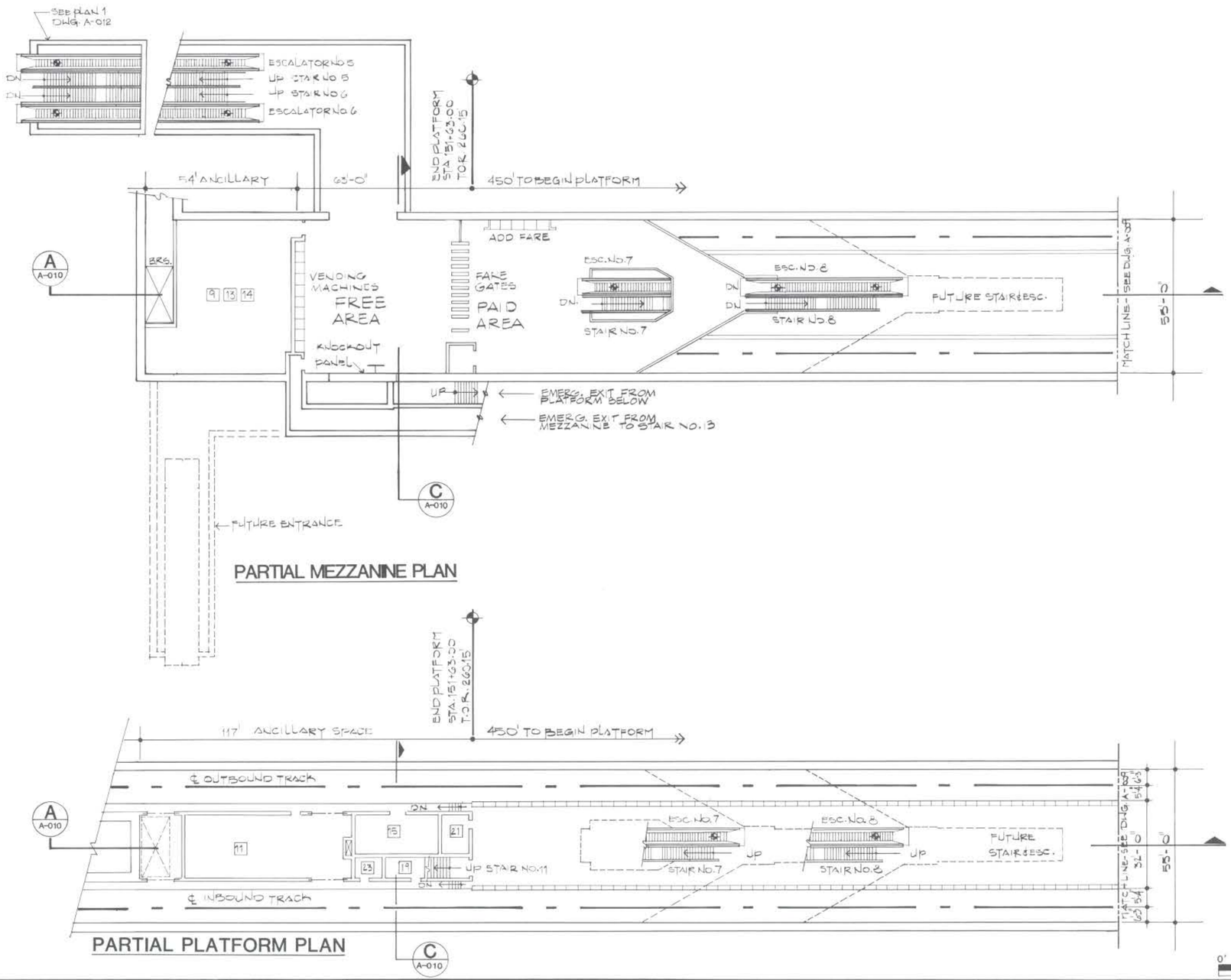
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

CIVIC CENTER STATION
SITE PLAN
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP16BAA-A-007
SCALE 1"= 40'-0"
SHEET NO.

BRUNING

FIGURE II-6



SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. **Deleted**
28. Trash
29. Staff **Security**
30. **Deleted**
31. Electric Incoming Service

IN PROGRESS 3/21/83
NORTH

0' 20' 40' 80'

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3-15-83
DRAWN BY D. ZAFEKES Date 3-15-83
CHECKED BY J. YEN Date 3-15-83 PIGATI

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

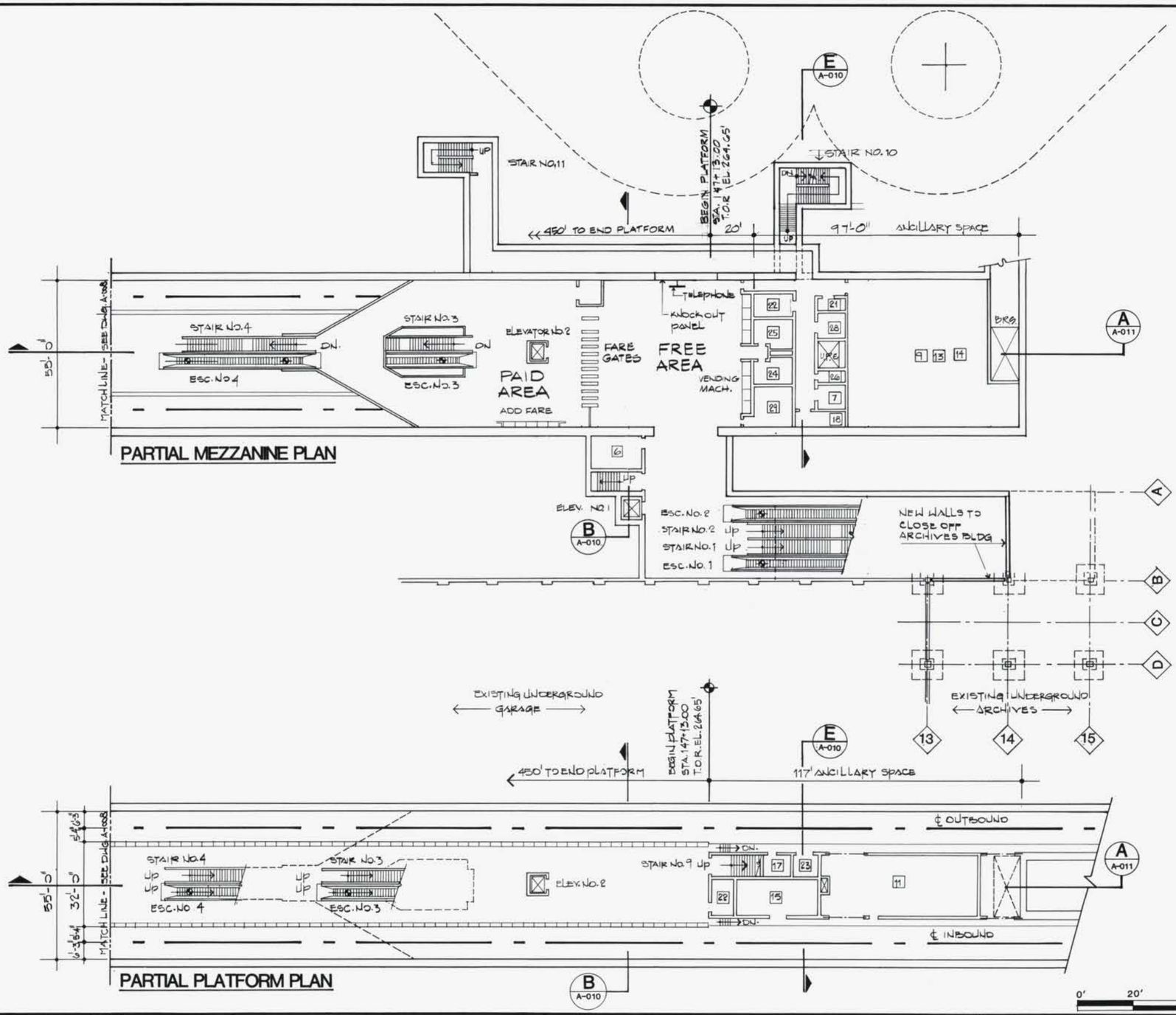
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

CIVIC CENTER STATION
MEZZANINE AND PLATFORM PLAN
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP 16 BAA-A-008
SCALE 1"=20'-0"
SHEET NO.

BRUNING 44-132

FIGURE II-7



SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. Deleted
28. Trash
29. Staff / Security
30. Deleted
31. Electric Incoming Service

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3-15-83
DRAWN BY D ZAFERES Date 3-15-83
CHECKED BY J. TEN / PIGATI Date 3-15-83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

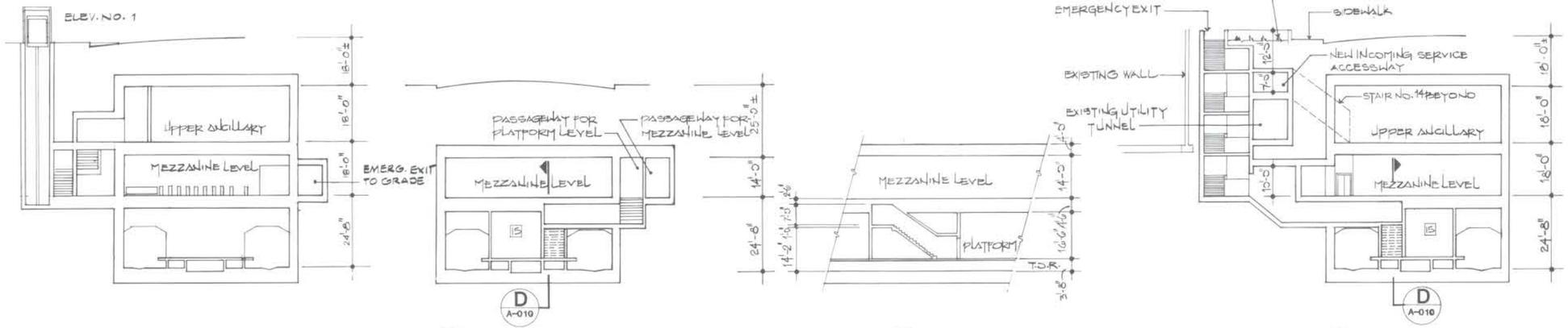
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date — MANAGER / CHIEF ENGINEER — Reg. No.

CIVIC CENTER STATION
MEZZANINE AND PLATFORM PLAN
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP 16 BAA-A-009
SCALE 1"=20'-0"
SHEET NO.

BRUNING 64-132

FIGURE II-8



B A-011 SECTION NORTH END

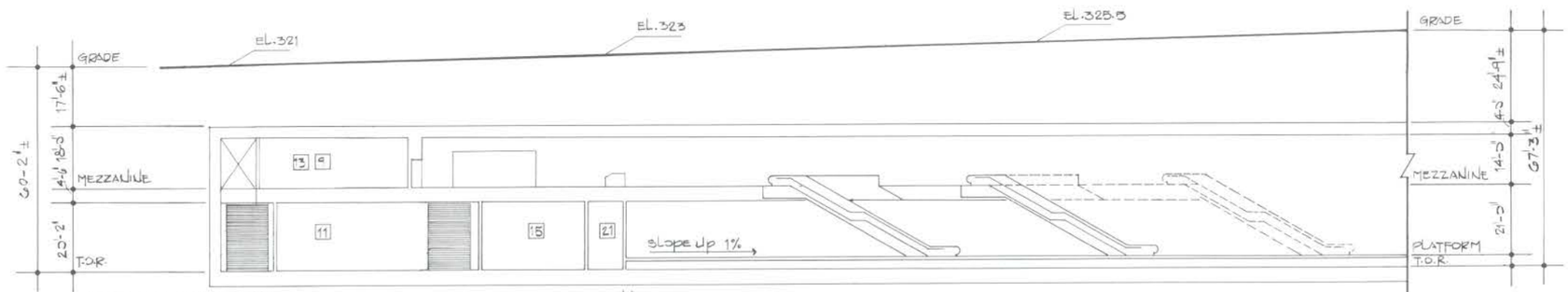
C A-008 SECTION SOUTH END

D A-010 SECTION PLATFORM EMERGENCY EXIT

E A-011 SECTION NORTH END

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. Deleted
28. Trash
29. Staff /Security
30. Deleted
31. Electric Incoming Service



A A-008 PARTIAL SECTION

IN PROGRESS 3/21/83
NORTH

0' 20' 40' 80'

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3-15-83
DRAWN BY D. ZAPERES Date 3-15-83
CHECKED BY J. YEN Date 3-15-83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

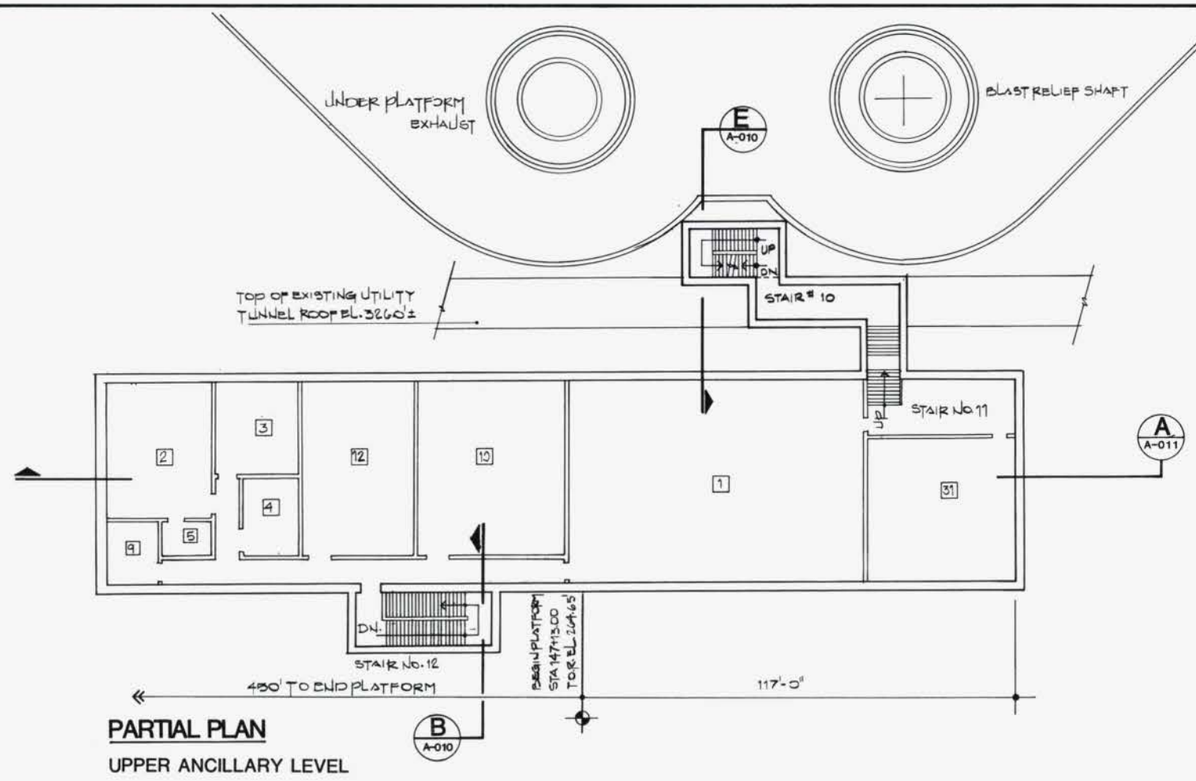
APPROVAL RECOMMENDED
Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

CIVIC CENTER STATION
SECTION
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP 16 BAA-A-010
SCALE 1"=20'-0"
SHEET NO.

BRUNING 44-132

FIGURE II-9

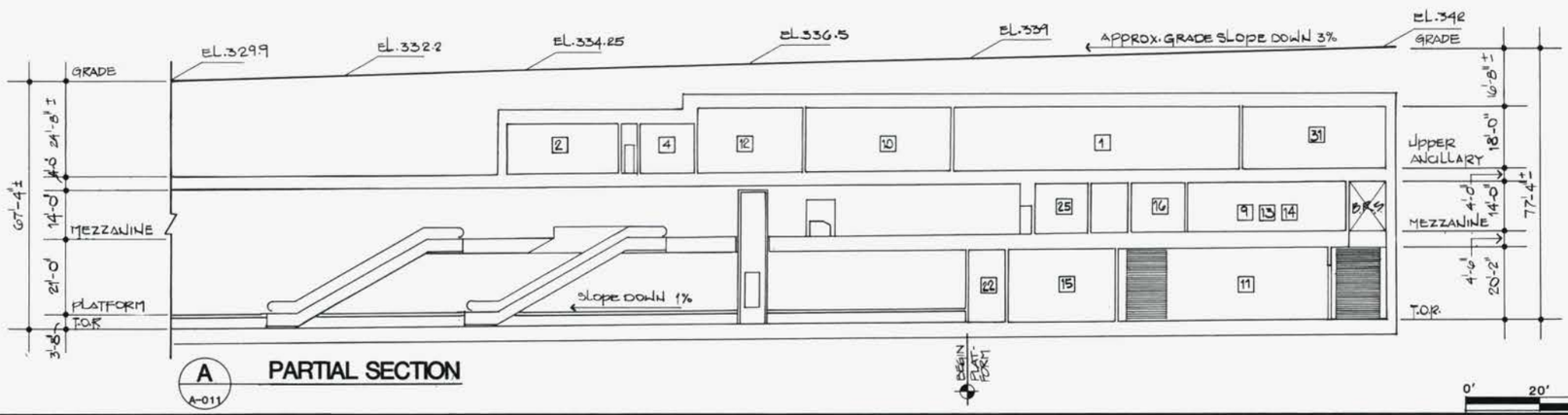


PARTIAL PLAN

UPPER ANCILLARY LEVEL

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. Deleted
28. Trash
29. Staff /Security
30. Deleted
31. Electric Incoming Service



A A-011 **PARTIAL SECTION**

IN PROGRESS 3/21/83

NORTH

0' 20' 80'

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3-15-83

DRAWN BY D. ZAFERES Date 3-15-83

CHECKED BY J. YEN Date 3.15.83 PIETTI

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations

SUBMITTED BY: PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED Reg. No.

APPROVED Date MANAGER / CHIEF ENGINEER Reg. No.

CIVIC CENTER STATION
PLAN AND SECTION
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.

DRAWING NO. AP 16 BAA-A-011

SCALE 1"=20'-0"

SHEET NO.

BRUNING

FIGURE II-10

5TH/HILL STATION

Background

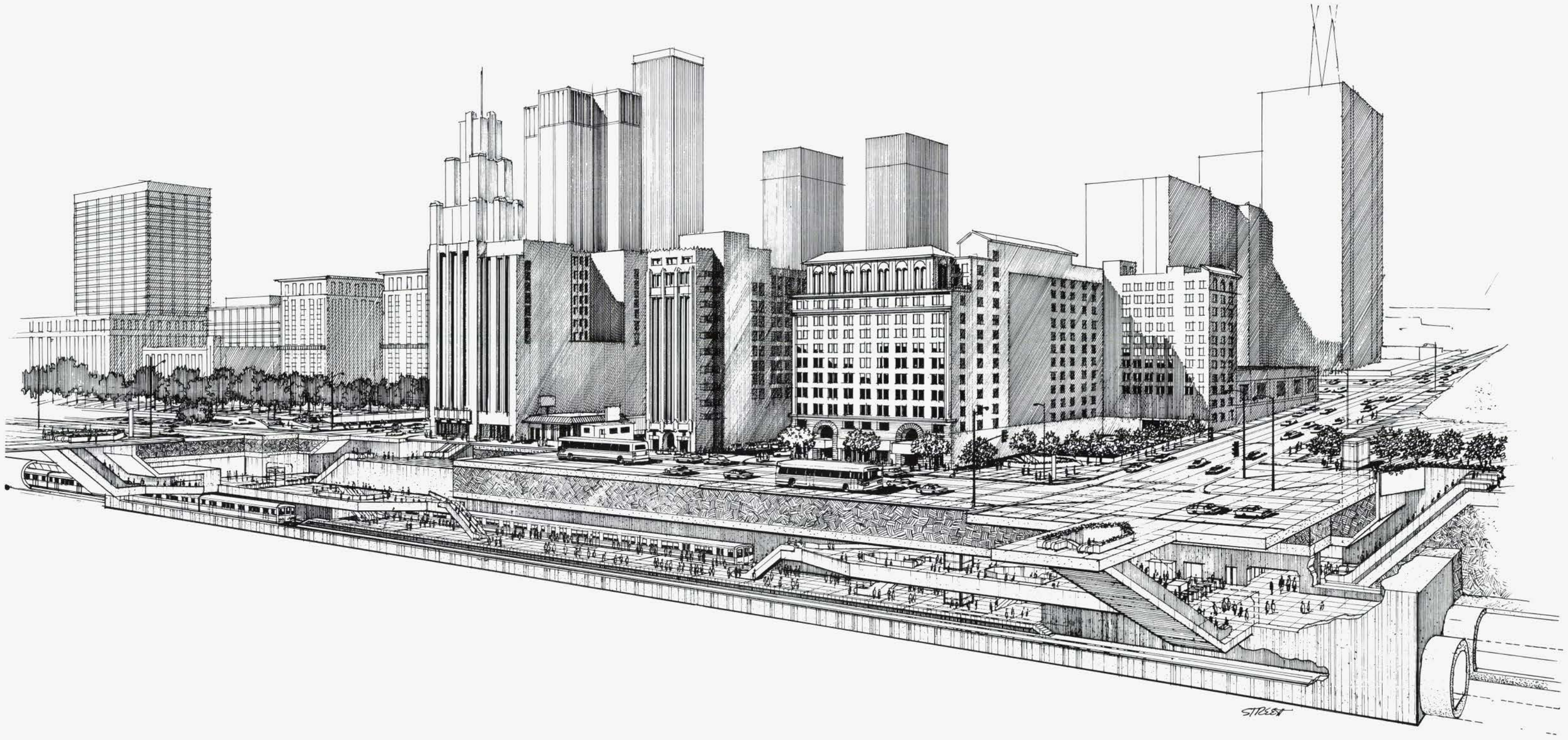
The 5th/Hill Station is to be located under Hill Street between 4th and 5th Streets. The surrounding area contains the Jewelry Mart, Grand Central Market, Biltmore Hotel, and many retail, commercial and office buildings. Pershing Square Park is at the south end of the station and is the focus for the surrounding area. Several major new developments are proposed for this area including the California Plaza $1.2 billion mixed-use development on the northwest corner of 4th and Hill; and the proposed expansion of the Jewelry Mart on the southeast corner of 5th and Hill.

Station Site Design Parameters

The primary site design concern at this station is to orient the entrances to pedestrian flows and to design the entrances so as to minimize adverse impacts on the future development of the entry sites. The major bus transfer point for the station will be at the 5th and Hill intersection. Three corners of the intersection are fully developed which increases the complexity of locating entrances. The 4th and Hill end of the station will be the primary access point for pedestrians from east of Hill Street and from the proposed California Plaza Development. There is a strong desire by the Community Redevelopment Agency to see a pedestrian link (possibly a mechanized device) between Hill Street and a new pedestrian plaza to be developed above Hope and Grand as part of this development project which, if constructed, would be a major pedestrian path to the north station entries.

Station Design Parameters

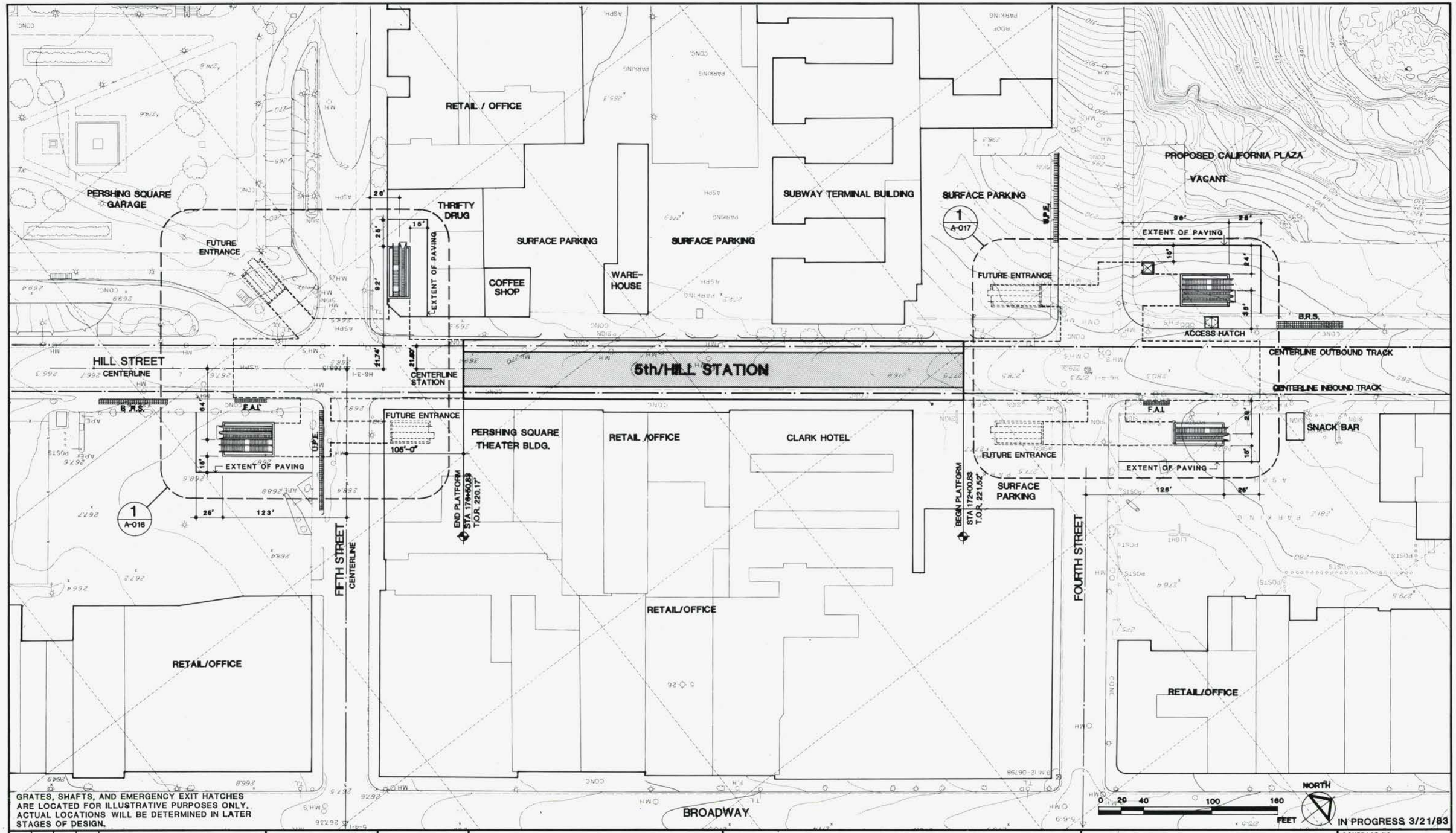
This station has one of the highest patronage projections for the system and is planned with mezzanines at each end of the platform. The mezzanines have been located so as to not preclude the locating of entries on any or all four corners of the 4th and Hill and 5th and Hill intersections. At the 4th and Hill intersection two initial entries are proposed, one on the northwest corner serving the proposed California Plaza project and other pedestrian traffic from the west, and the other located on the northeast corner to serve pedestrian movements from the east and north. Both sites are undeveloped but have projects proposed for them. The final orientation of the entries may be modified to permit their integration into future development. Two initial entries are also proposed for the 5th and Hill intersection. One entry is proposed to be built into the existing 401 Hill Street Building and will require careful design to protect and enhance the commercial viability of the ground floor of the building. The other entry is proposed for the corner adjacent to the International Jewelry Center, and has a site presently undeveloped but expected to house an expansion of the Jewelry Center. This entry is oriented parallel to Fifth Street for bus transfer movements. The entry orientation may be changed to permit its integration into future development.



STATION AT 5TH / HILL

FIGURE II-11

SCRTD Metro Rail
HWA
January, 1983



GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL LOCATIONS WILL BE DETERMINED IN LATER STAGES OF DESIGN.

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY H.W.A. Date 5/11/83
DRAWN BY K. LIM Date 5/11/83
CHECKED BY J.YEN PIGATTI Date 5.11.83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY: PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date MANAGER / CHIEF ENGINEER Reg. No.

5th/HILL STATION
SITE PLAN
PRELIMINARY:
FOR STUDY PURPOSES ONLY

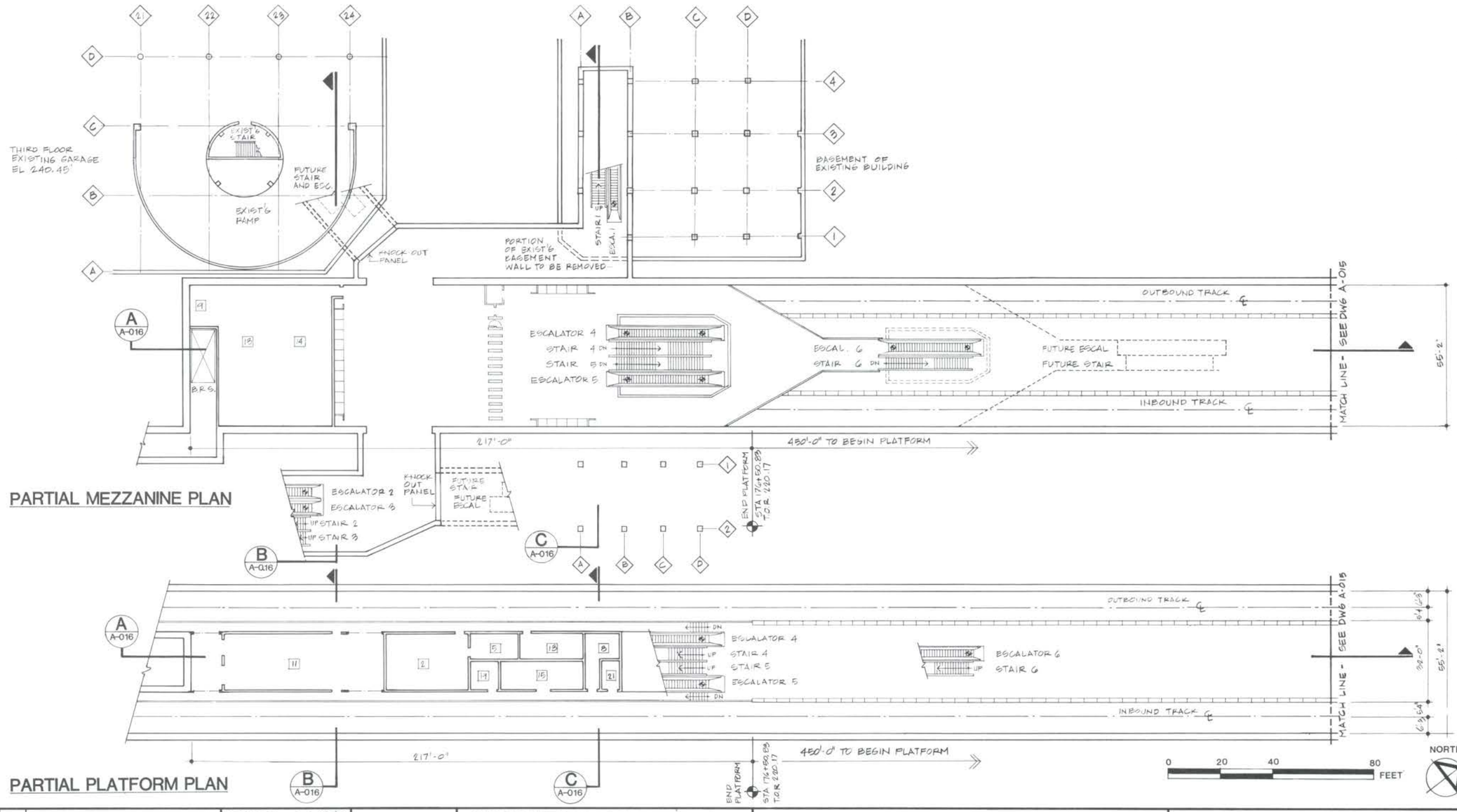
CONTRACT NO.
DRAWING NO. AP-16BAA-A-013
SCALE 1"- 40'
SHEET NO.

BRUNING 44-132

FIGURE II-12

SERVICE AND EQUIPMENT ROOMS

1 Traction Power Substation
2 Auxiliary Power
3 Train Control
4 Communications
5 Batteries
6 Elevator Equipment
7 Fare Collection Storage
8 Storage
9 Mechanical
10 Fan
11 Emergency Fan
12 Chiller
13 Air Supply Unit
14 Smoke Exhaust
15 Under Platform Exhaust
16 Under Platform Exhaust Plenum
17 Ejector
18 Sprinkler Valves
19 Sump Pump
20 Gap Breaker Station
21 Emergency Equipment
22 Custodial
23 Electrical Equipment
24 Men
25 Women
26 Telephone Equipment
27 DELETED
28 Trash
29 Staff / SECURITY
30 DELETED
31 Electric Incoming Service



PARTIAL MEZZANINE PLAN

PARTIAL PLATFORM PLAN

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3/11/83
DRAWN BY K. LIM Date 3/11/83
CHECKED BY J.YEN Date 3/14/83

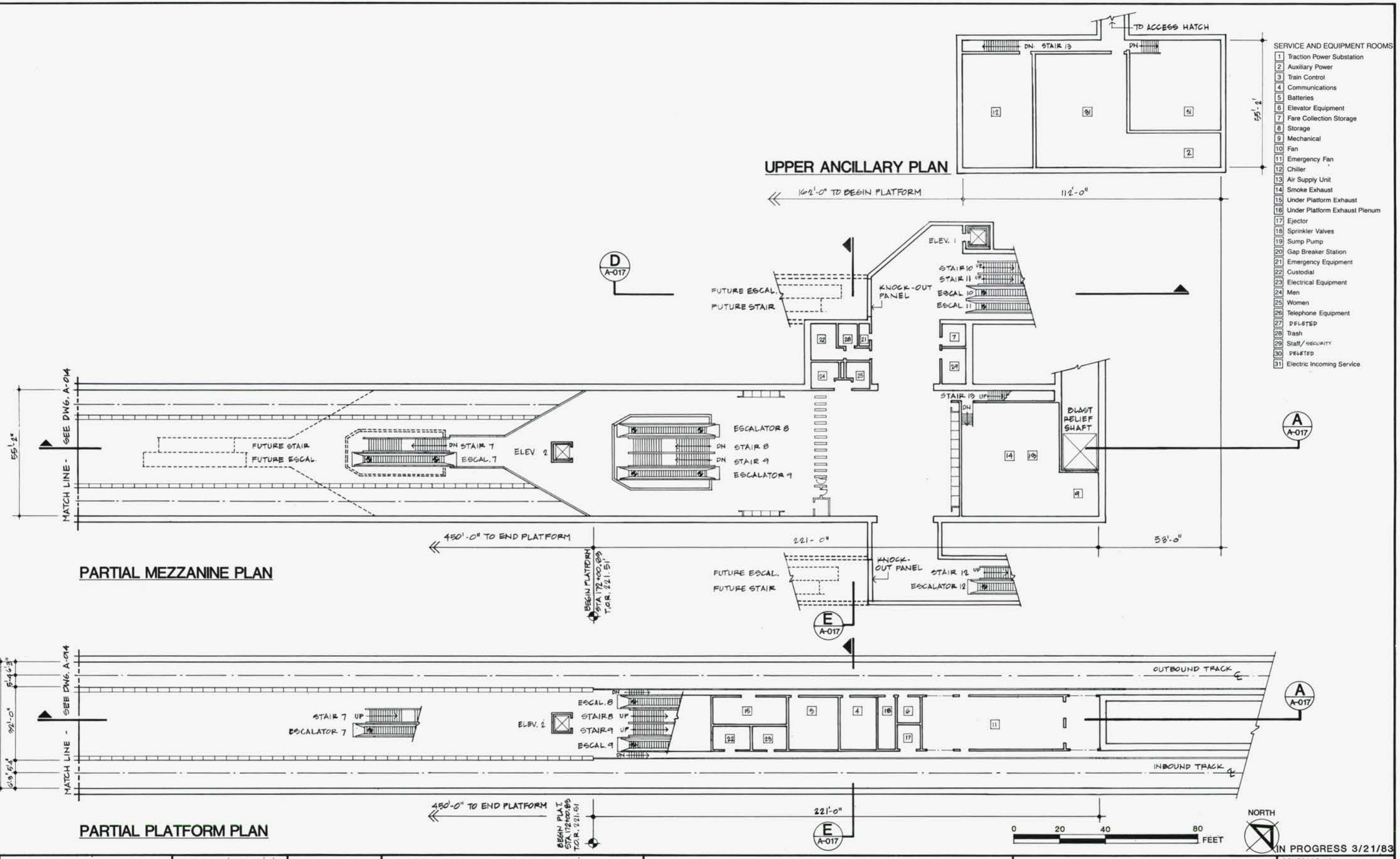
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY: PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date MANAGER / CHIEF ENGINEER Reg. No.

5th/HILL STATION
PLANS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-014
SCALE 1"= 20'
SHEET NO.

FIGURE II-13



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY H.W.A. Date 3/11/83
DRAWN BY K. LIM Date 3/11/83
CHECKED BY J.YEN Date 3.14.83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

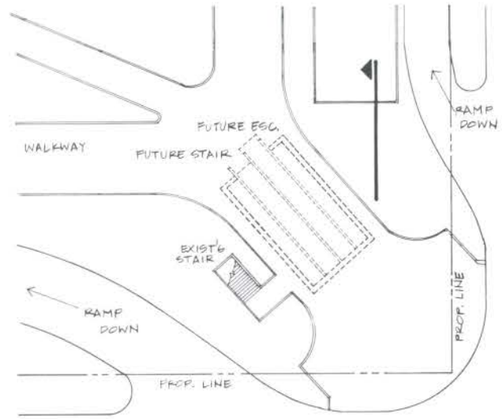
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

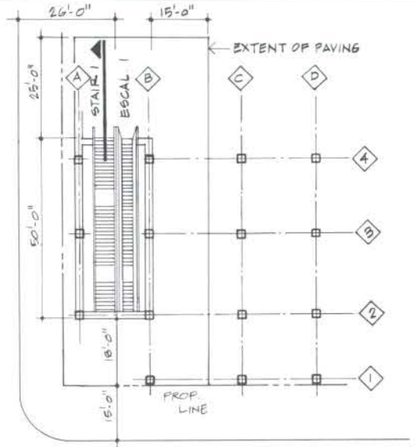
5th/HILL STATION
PLANS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

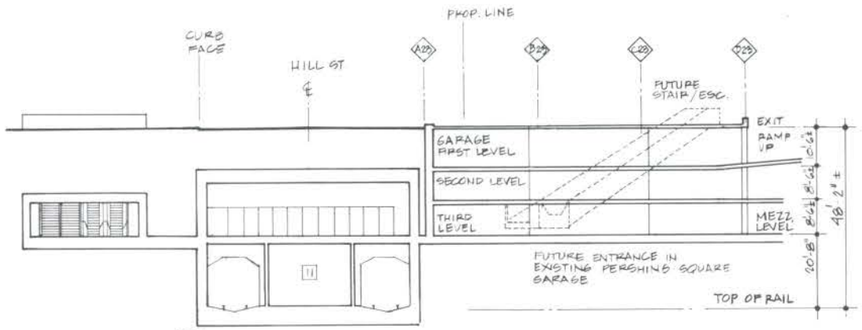
CONTRACT NO.
DRAWING NO. AP-16BAA-A-015
SCALE 1"= 20'
SHEET NO.

BRUNING 44-132

FIGURE II-14







B SECTION

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
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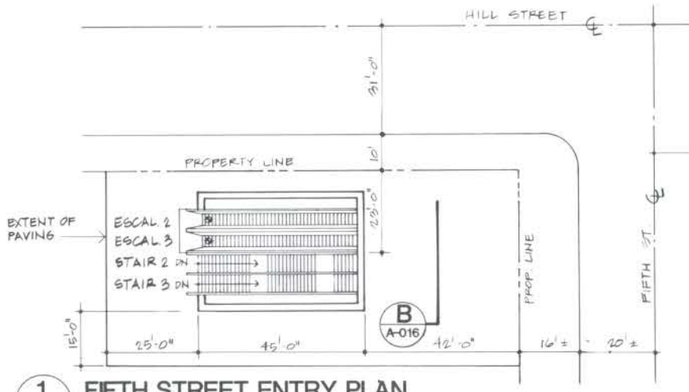
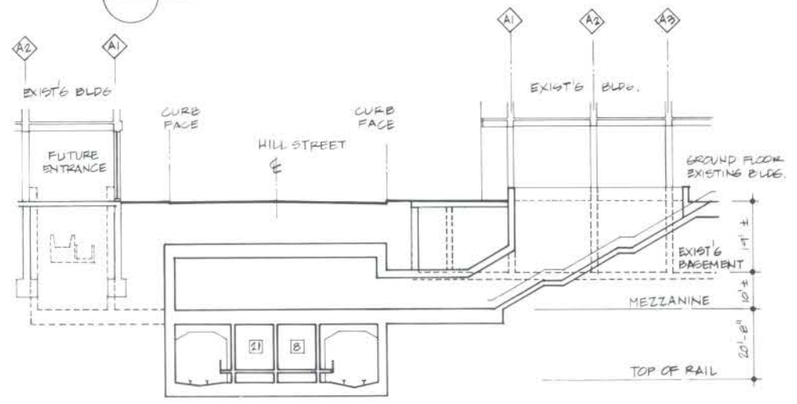
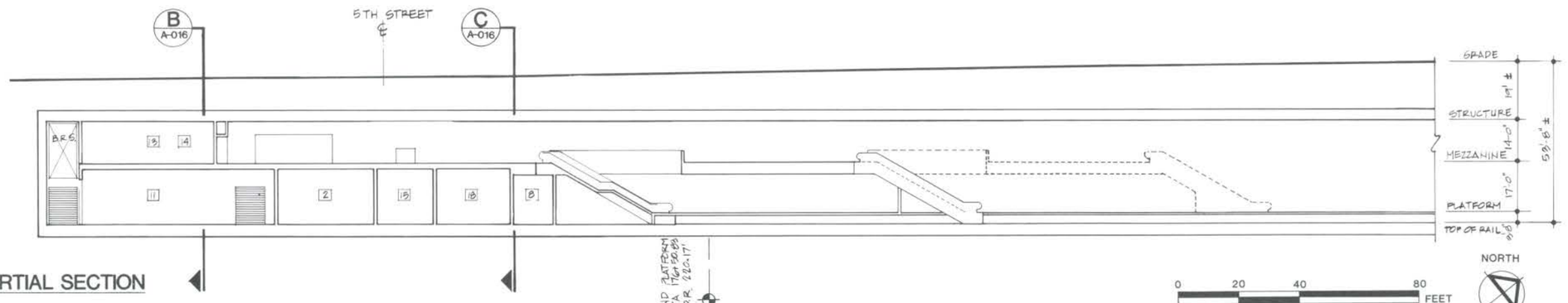
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. DELETED
28. Trash
29. Staff / SECURITY
30. DELETED
31. Electric Incoming Service



1 FIFTH STREET ENTRY PLAN



C SECTION



A PARTIAL SECTION

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3/11/83
DRAWN BY K. LIM Date 3/11/83
CHECKED BY J. YEN Date 3-14-83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Date
Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

5th/HILL STATION
PLANS AND SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-016
SCALE 1" = 20'
SHEET NO.

FIGURE II-15

7TH/FLOWER STATION

Background

The 7th/Flower Station will be located under 7th Street between Hope and Figueroa Streets. Land uses in the station area are high-rise office towers, street level retail and commercial space, department stores and restaurants. First Interstate Tower, Robinson's Department Store, Arco Plaza, Hilton Hotel, Barker Brothers, and the Broadway Plaza are major activity centers in the immediate vicinity. 7th Street is a major auto, bus and pedestrian artery through the CBD. The immediate area contains very little undeveloped land with the notable exception of the southwest corner of Figueroa and Seventh Streets. This site is the location for the proposed Pacific Plaza Project, which is planned to provide over 3 million square feet of office and commercial/retail space. Three historic landmark buildings are located in the vicinity of 7th and Figueroa - the Barker Bros. Building, Global Marine House, and Engine Company No. 28.

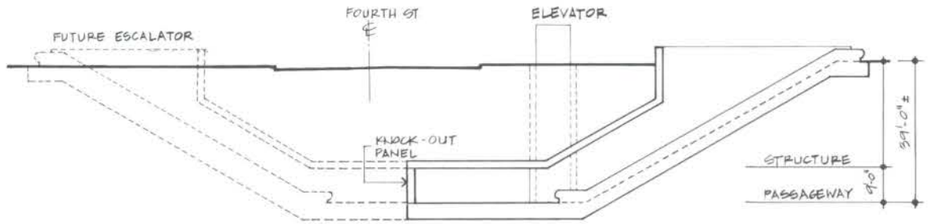
Station Site Design Parameters

Due to the geometry of the alignment and the station configuration it appears most economical to locate the traction power substation needed at this station in an off-street location. Since the entry proposed for the northeast corner of 7th and Figueroa will require the acquisition of the existing structure on this site, the substation and its ancillary space are to be located below-grade on the cleared site. The entry at that location will be the primary entry to the station and will include an elevator to provide handicapped accessibility from the surface to the station mezzanine.

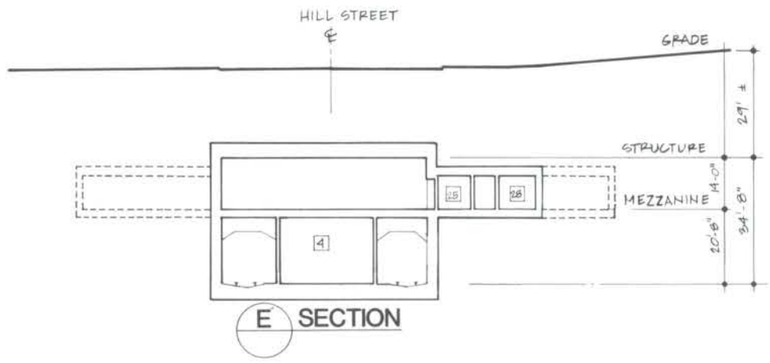
The entry and substation will be located on the site in a manner to facilitate future development. The second entry to the station will be constructed into the corner of the Central Bank Building at 7th and Hope. This entry will be designed to minimize its impact on the commercial space located in this corner of the building. No special provisions for buses, and autos, are planned at this station.

Station Design Parameters

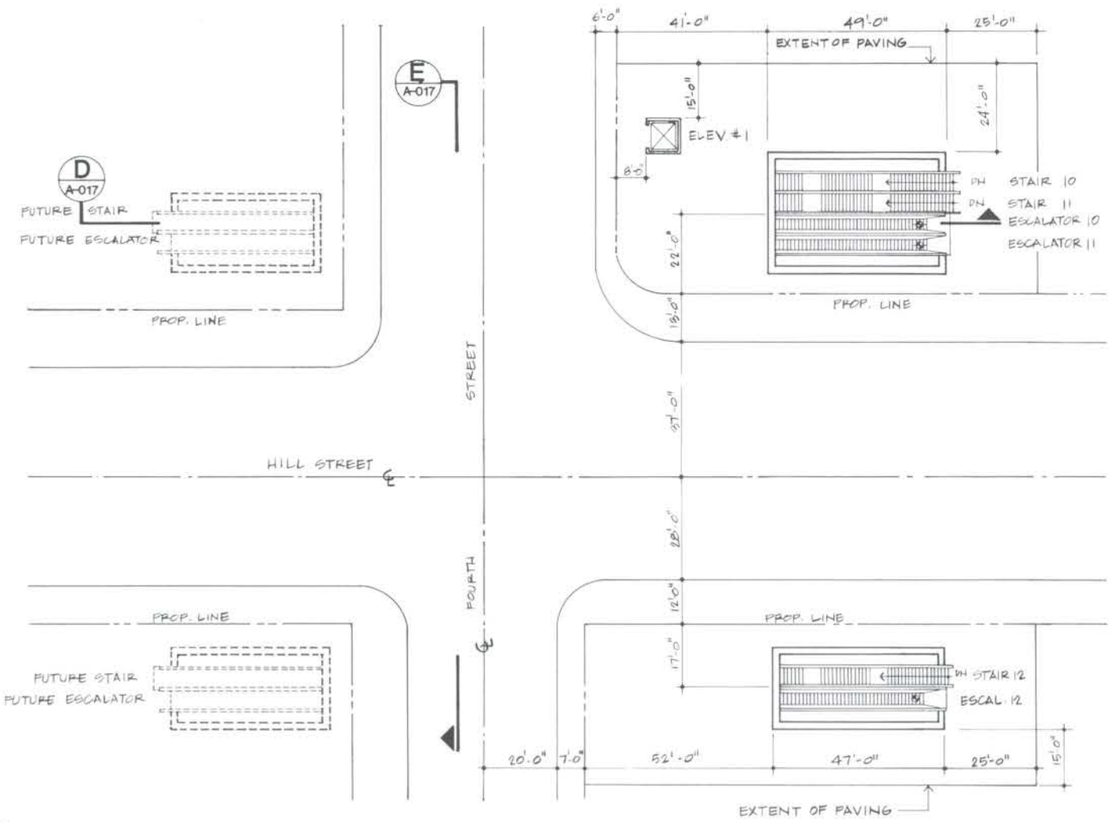
In response to the moderately high patronage projected for this station it has been planned with a mezzanine at each end providing access to a center platform. The west mezzanine has been configured to permit the construction of another entry from the proposed Pacific Plaza Project to the station. The east mezzanine has been similarly configured with a single entry. The addition of an entry from the garden level of the Broadway Plaza is possible. Station ancillary space will be located at each end of the platform.



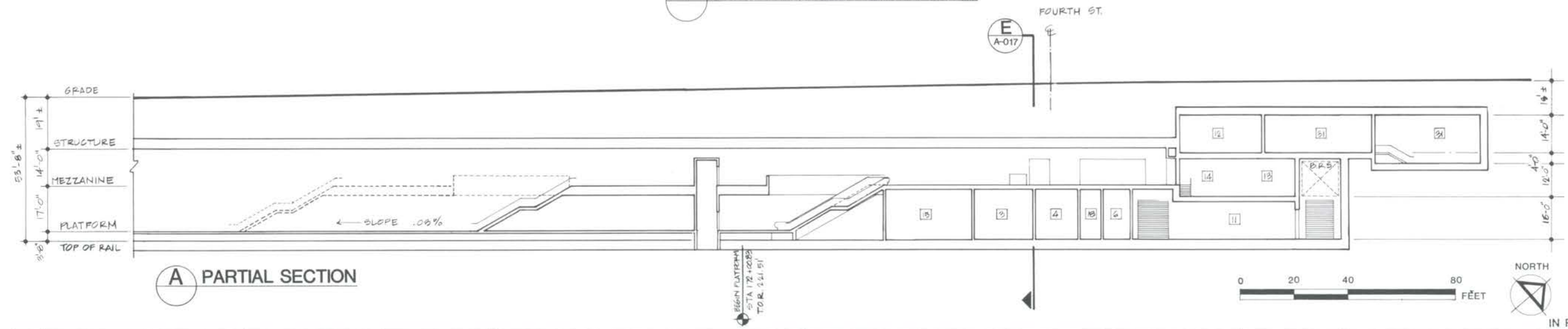
D SECTION



E SECTION



1 FOURTH STREET ENTRY PLAN



A PARTIAL SECTION

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. DELETED
28. Trash
29. Staff / SECURITY
30. DELETED
31. Electric Incoming Service

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY H.W.A. Date 3/11/83
DRAWN BY K. LIM Date 3/11/83
CHECKED BY J. YEN Date 3.14.83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date — MANAGER / CHIEF ENGINEER — Reg. No.

5th/HILL STATION
PLANS AND SECTIONS

PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-017
SCALE 1"= 20'
SHEET NO.

IN PROGRESS 3/21/83

BRUNING 44-132

FIGURE II-16

CL WILSHIRE BOULEVARD

CL LEBANON STREET

HILTON HOTEL

HOME SAVINGS & LOAN SITE

TPS INTAKE

TPS EXHAUST

EXTENT OF PAVING

75'

66'

F.A.I.

U.P.E.

B.R.S.

GLOBAL MARINE BUILDING

BANK OF AMERICA

ROOSEVELT BUILDING

CENTRAL BANK BUILDING

62'

56'

PARSON'S BUILDING

CL OUTBOUND

CL INBOUND

CL SEVENTH STREET

7TH / FLOWER STATION

CL STATION

SEVENTH STREET

CL

PURGE

PROPOSED PACIFIC PLAZA DEVELOPMENT

CL FIGUEROA STREET

BARKER BROTHERS BUILDING

END PLATFORM STA. POINT 204+84.23' TOP OF RAIL EL. 223.7'

150'

CL FLOWER STREET

BROADWAY PLAZA COMPLEX

BEGIN PLATFORM STA. POINT 200+44.23' TOP OF RAIL EL. 223.7'

HYATT REGENCY HOTEL

CL HOPE STREET

ROBINSON'S DEPARTMENT STORE

BROADWAY DEPARTMENT STORE

0 20 40 100 160 FT.

NORTH

GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL LOCATIONS WILL BE DETERMINED IN LATER STAGES OF DESIGN.

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA/JW Date 3/9/83

DRAWN BY WOOLSEY Date 3/9/83

CHECKED BY J.YEN Date 3/15/83 PIGMATI

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations

SUBMITTED BY:

PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

RTD

APPROVAL RECOMMENDED

Reg. No.

APPROVED Date

MANAGER / CHIEF ENGINEER Reg. No.

7TH / FLOWER STATION
SITE PLAN

PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.

DRAWING NO. AP-16BAA-A-018

SCALE 1"= 40'-0"

SHEET NO.

BRUNING

FIGURE II-17

HILTON HOTEL

BLAST RELIEF SHAFT

℄ SEVENTH STREET

℄ FIGUEROA STREET

A A-019

KNOCK-OUT PANEL FOR POSSIBLE FUTURE ENTRY

PACIFIC PLAZA DEVELOPMENT (FUTURE)

STAIR #7

EMER. EXIT

31 (40'x40')

10 (40'x40')

1 TRACTION POWER SUBSTATION (51'x80')

GLOBAL MARINE BLDG.

BANK OF AMERICA BLDG

ESCALATOR NO. 6

STAIR NO. 6

STAIR NO. 5

ESCALATOR NO. 5

ELEV. NO. 1

20

12

FRESH AIR INTAKE ABOVE

℄ LEBANON STREET

UNDER-PLATFORM EXHAUST ABOVE

5 7 13 14 9 2 21 18 29 22 24 U.P.E. 25 26

STAIR NO. 8

℄ STATION

EEC. # 4

STAIR # 4

ELEVATOR # 2

ESCALATOR NO. 3

STAIR NO. 3

MATCHLINE - SEE SHEET A-020

158'

30'

450' TO BEGIN PLATFORM

BARKER BROTHERS STORE

END PLATFORM STA 204+94.23' T/R EL 223.1'

PARTIAL MEZZANINE PLAN

℄ OUTBOUND

A A-019

11 15 6 22 23 17

STAIR "B"

℄ STATION

ELEVATOR #2

ESCALATOR NO. 4

STAIR NO. 4

ESCALATOR NO. 3

STAIR NO. 3

℄ INBOUND

MATCHLINE SEE SHEET A-020

32'-0"

55'-4"

PARTIAL PLATFORM PLAN

℄ FIGUEROA STREET

EL. 278.25'

END PLATFORM STA 204+94.23' T/R EL 223.1'

BRS 9 13 14 2 7 U.P.E. 24 11 15 6 22

GRADE

UNDERSIDE STRUCTURE

MEZZANINE

PLATFORM T/R

13'-4½"

12'-0"

45'-8"

16'-8½"

A PARTIAL SECTION

STA. 204+94.23' END PLATFORM T/R EL 223.1'

0 20 40 80 FT.

NORTH

SERVICE AND EQUIPMENT ROOMS

1 Traction Power Substation
2 Auxiliary Power
3 Train Control
4 Communications
5 Batteries
6 Elevator Equipment
7 Fare Collection Storage
8 DELETED
9 Mechanical
10 Fan
11 Emergency Fan
12 Chiller
13 Air Supply Unit
14 Smoke Exhaust
15 Under Platform Exhaust
16 Under Platform Exhaust Plenum
17 Ejector
18 Sprinkler Valves
19 Sump Pump
20 Gap Breaker Station
21 Emergency Equipment
22 Custodial
23 Electrical Equipment
24 Men
25 Women
26 Telephone Equipment
27 DELETED
28 Trash
29 Staff/SECURITY
30 DELETED
31 Electric Incoming Service

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HLA/JW Date 3/1/83
DRAWN BY WOOLSEY Date 3/9/83
CHECKED BY J.YEN Date 3/15/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

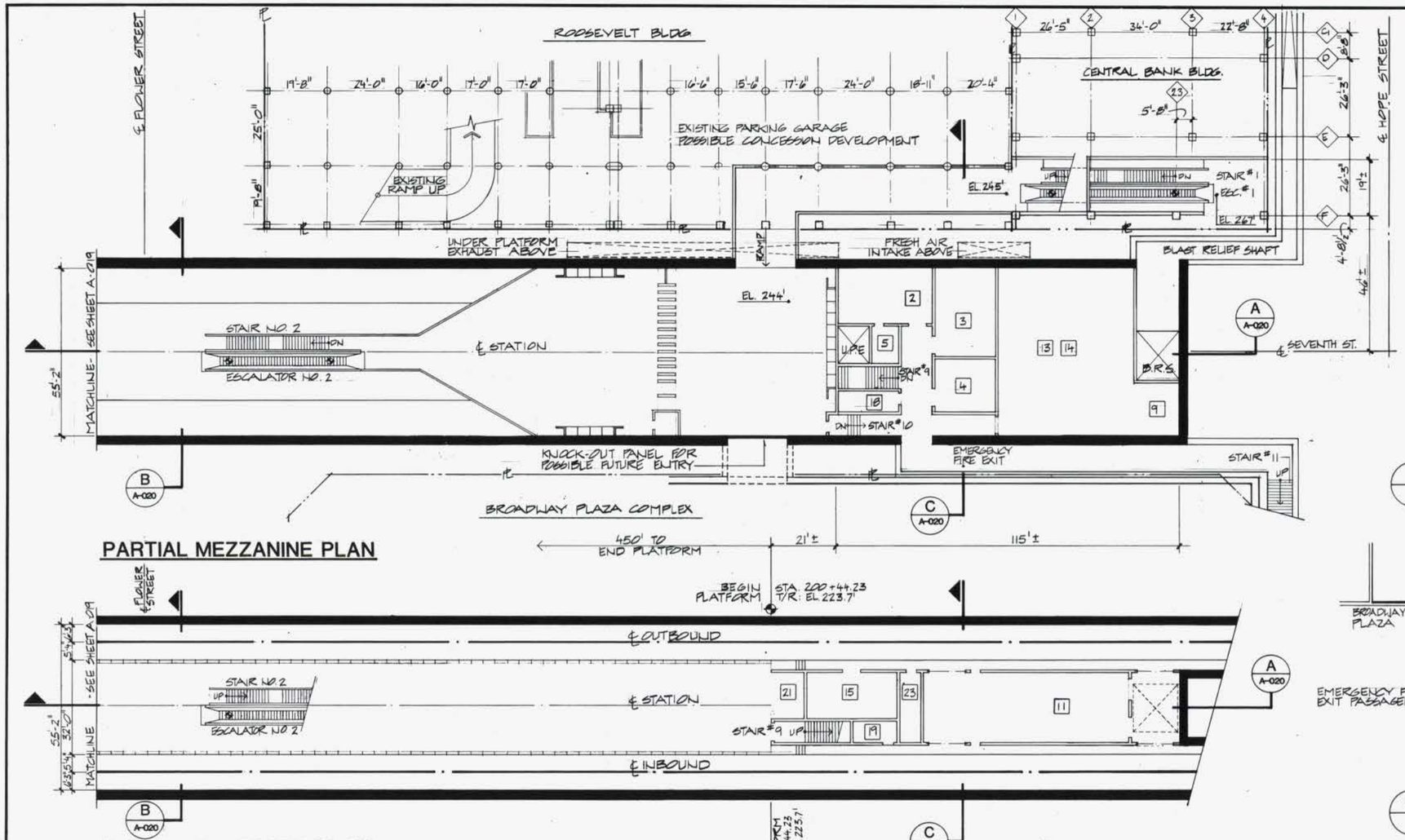
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

7TH / FLOWER STATION
PLANS & SECTIONS

PRELIMINARY:
FOR STUDY PURPOSES ONLY

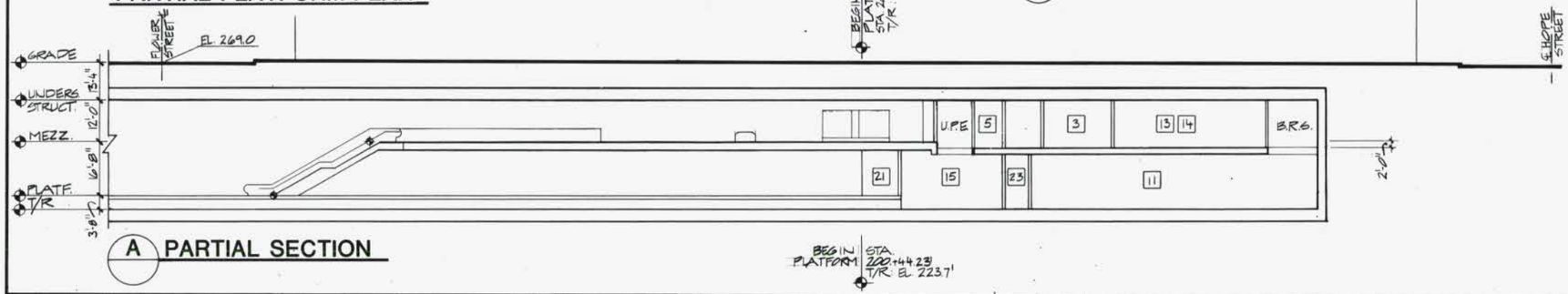
CONTRACT NO.
DRAWING NO. AP-16BAA-A-019
SCALE 1"=20'-0"
SHEET NO.

FIGURE II-18

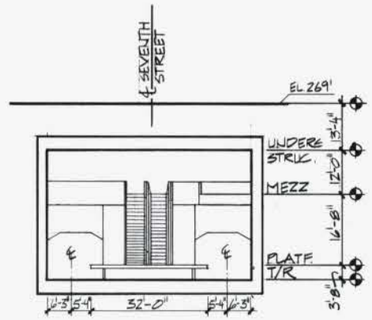


PARTIAL MEZZANINE PLAN

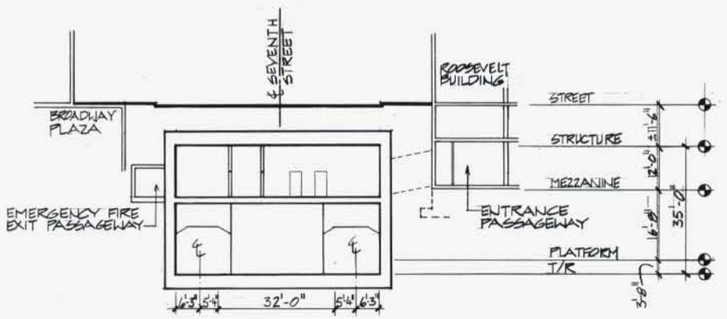
PARTIAL PLATFORM PLAN



A PARTIAL SECTION



B SECTION



C SECTION

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. DELETED
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. DELETED
28. Trash
29. Staff/SECURITY
30. DELETED
31. Electric Incoming Service

0 20 40 80 FT.

NORTH

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA/JW Date 3/7/83
DRAWN BY WOOLSEY Date 3/9/83
CHECKED BY J.YEN PIC#1 Date 3/15/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date MANAGER / CHIEF ENGINEER Reg. No.

7TH / FLOWER STATION
PLANS & SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-020
SCALE 1"=20'-0"
SHEET NO.

FIGURE II-18

WILSHIRE/ALVARADO STATION

Background

The Wilshire/Alvarado Station will be located off-street at mid-block between 7th Street and Wilshire running from Bonnie Brae to Alvarado. The station vicinity is known as the Westlake Area. Across Alvarado from the station is MacArthur Park, which is a heavily used public space during daytime hours. The block facing along Alvarado and 7th Street contains low-rise retail buildings with several mid-rise office buildings located along Wilshire. The center of the block is primarily devoted to parking.

Station Site Design Parameters

The station will be constructed by the cut-and-cover method. As a result, the mid-block area will be cleared and could possibly be available for new development upon completion of station construction. The alignment of the station is on a skew to Alvarado, which impacts the siting of the above-grade concourse and the site plan. Consideration may be given to the creation of a mid-block mall or pedestrian pathway from Alvarado to Westlake.

The station will also receive a significant number of passengers transferring from buses running on Alvarado. To facilitate this transfer movement a bus turnout lane is planned for each side of Alvarado in front of the station. No special provisions are planned for parking or pick-up and drop-off by auto.

Station Design Parameters

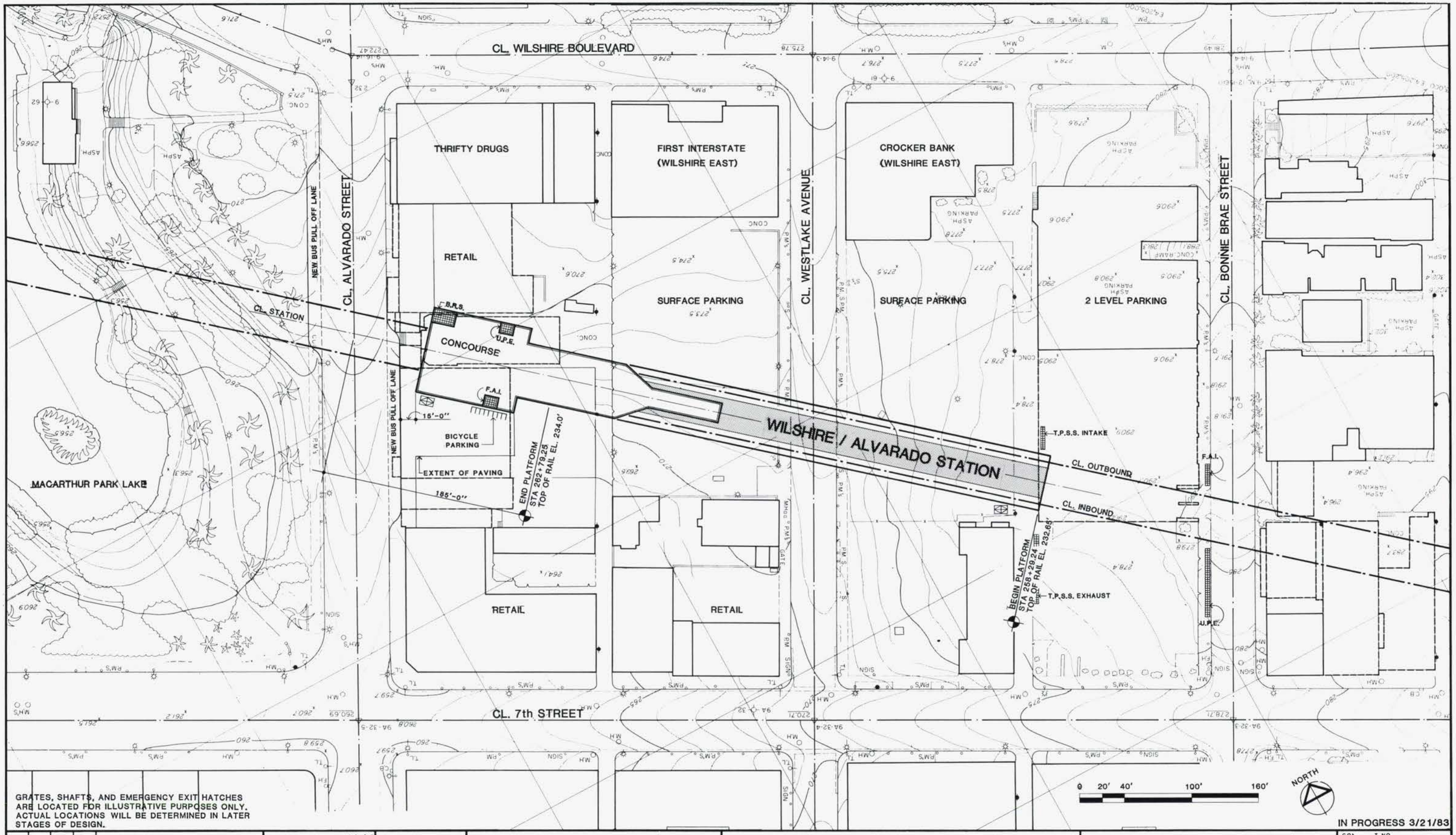
Patronage is projected to be moderate at this station. In response to the station's off-street location and relatively shallow depth, it has been planned as a concourse station, rather than the more typical mezzanine. Patrons will enter a concourse structure at-grade, pass through fare-collection devices and then move by escalator, stair or elevator directly to the center platform. The entry concourse will be adjacent to Alvarado at the west end of the station. While not planned as part of the initial station construction package, it will be possible to add a second concourse entry at the east end of the station at a later date. Ancillary space will be provided at each end of the station and a double crossover track will be located at the east end of the station. A traction power substation will be located below-grade over the crossover track.

WILSHIRE / ALVARADO STATION

VIEW LOOKING NORTHEAST

SCRTD Metro Rail
HWA
March 1983

FIGURE II-20



GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL LOCATIONS WILL BE DETERMINED IN LATER STAGES OF DESIGN.

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY H.W.A. Date 3/11/83
DRAWN BY B. KAPLAN Date 3/11/83
CHECKED BY J. YEN PIGATI Date 3/11/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE / ALVARADO STATION
SITE PLAN
PRELIMINARY:
FOR STUDY PURPOSES ONLY

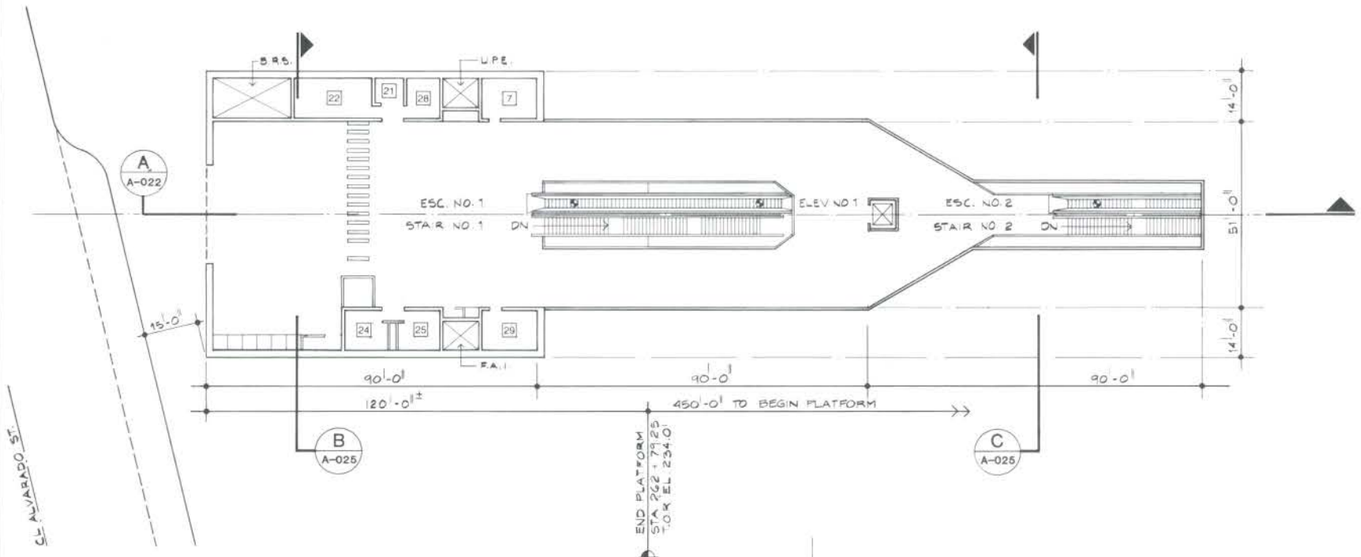
CONTRACT NO.
DRAWING NO. AP-16BAA-A-021
SCALE 1"=40'-0"
SHEET NO.

BRUNING

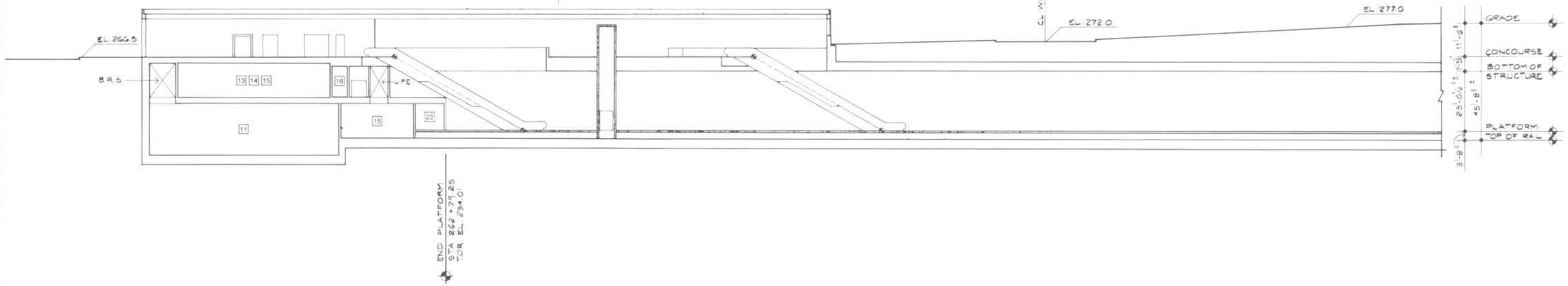
FIGURE II-21

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. DELETED
28. Trash
29. Staff / Security
30. DELETED
31. Electric Incoming Service



CONCOURSE PLAN



A PARTIAL SECTION

0' 20' 40' 80'

NORTH

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY H.W.A. Date 3/11/83
DRAWN BY B. KAPLAN Date 3/11/83
CHECKED BY J. YEN PIC'd T1 Date 3/11/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date
MANAGER / CHIEF ENGINEER — Reg. No.

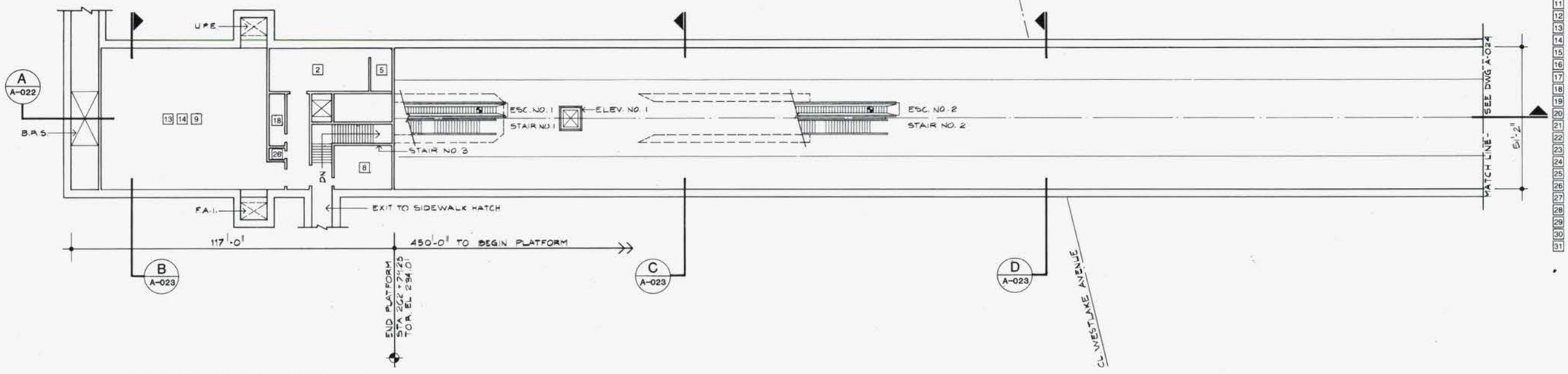
WILSHIRE / ALVARADO STATION
PLAN / SECTION

PRELIMINARY:
FOR STUDY PURPOSES ONLY

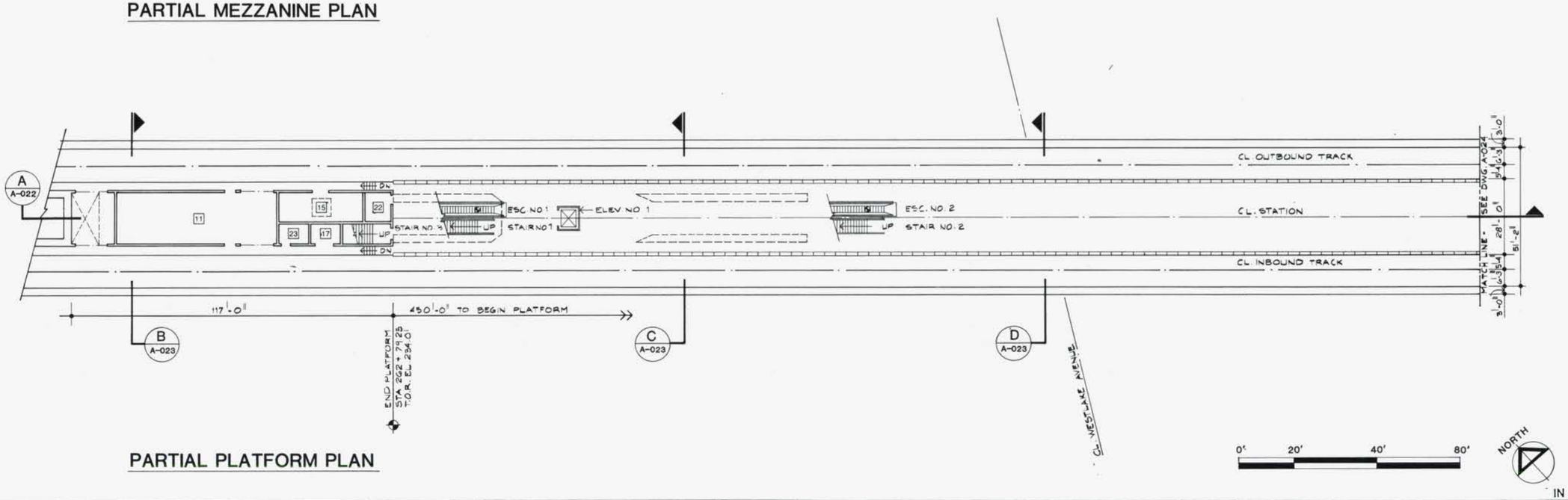
CONTRACT NO.
DRAWING NO. AP-16BAA-A-022
SCALE 1"-20'-0"
SHEET NO.

BRUNO No. 44-122

FIGURE II-22



PARTIAL MEZZANINE PLAN



PARTIAL PLATFORM PLAN

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
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14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. DELETED
28. Trash
29. Staff / Security
30. DELETED
31. Electric Incoming Service

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA. Date 3/11/83
DRAWN BY B. KAPLAN Date 3/11/83
CHECKED BY J. YEN PIGATI Date 3/11/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

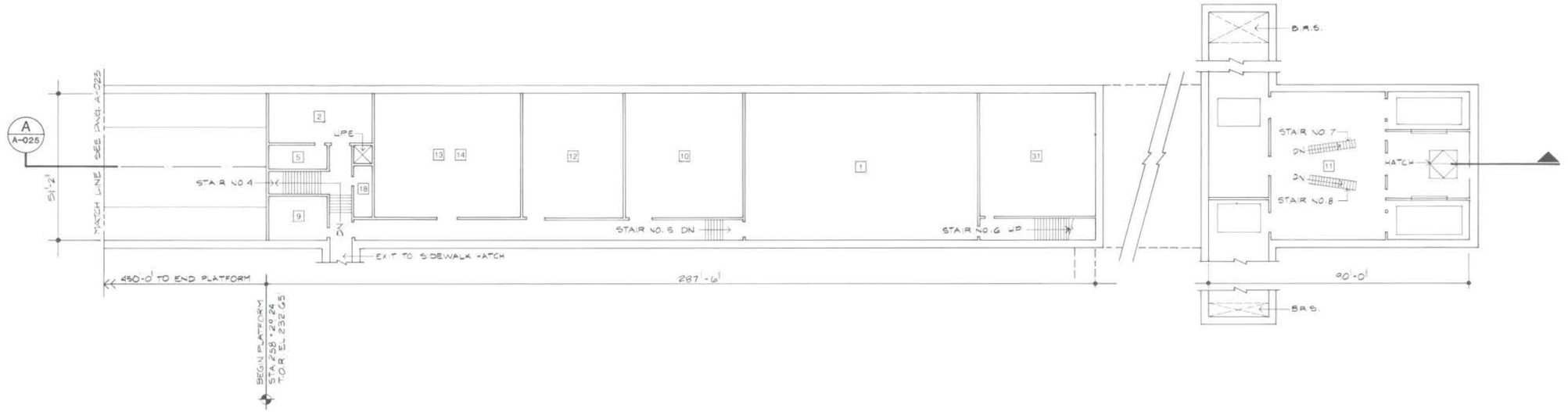
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE / ALVARADO STATION
PLANS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-023
SCALE 1"-20'-0"
SHEET NO.

JRUNING 44 132

FIGURE II-23



SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
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16. Under Platform Exhaust Plenum
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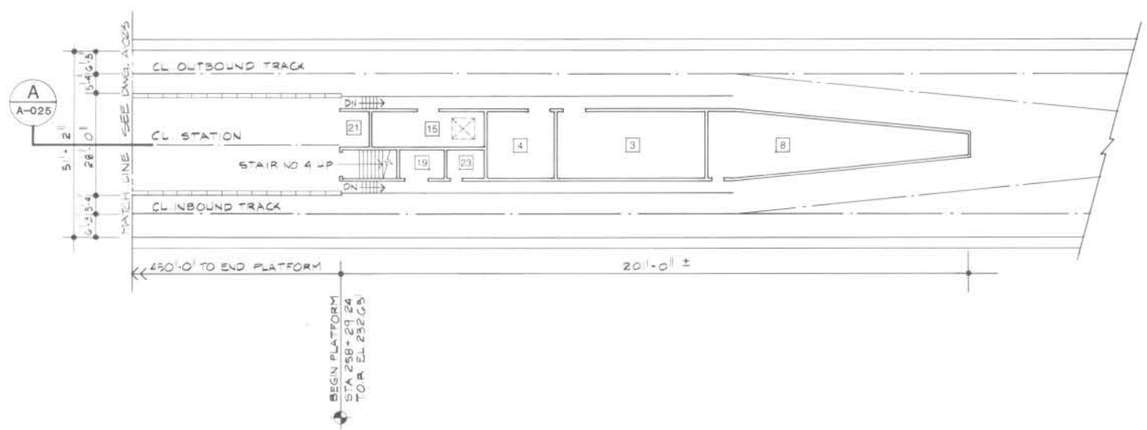
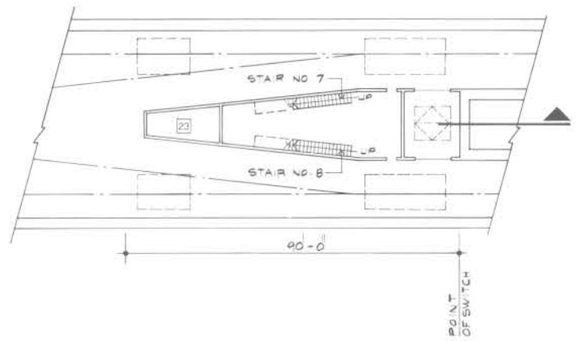
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. DELETED
28. Trash
29. Staff / Security
30. DELETED
31. Electric Incoming Service

PARTIAL MEZZANINE PLAN



PARTIAL PLATFORM PLAN

CROSSOVER



0' 20' 40' 80'

NORTH

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY H.W.A. Date 3/11/83
DRAWN BY B. KAPLAN Date 3/11/83
CHECKED BY J. YEN Date 3/11/83 (PIGGAT)

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED Date
Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

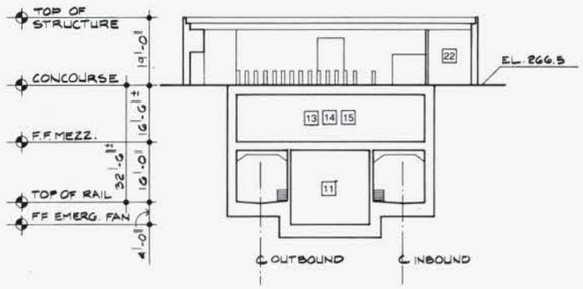
WILSHIRE / ALVARADO STATION
PLANS

PRELIMINARY:
FOR STUDY PURPOSES ONLY

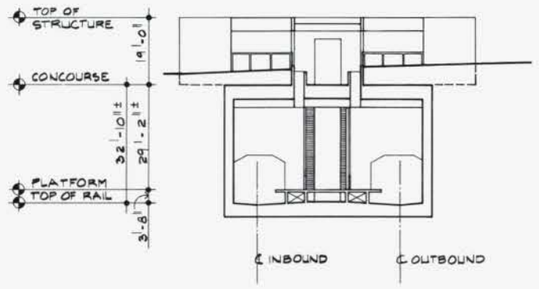
CONTRACT NO.
DRAWING NO. AP-16BAA-A-024
SCALE 1"=20'-0"
SHEET NO.

BRUNO NO 44132

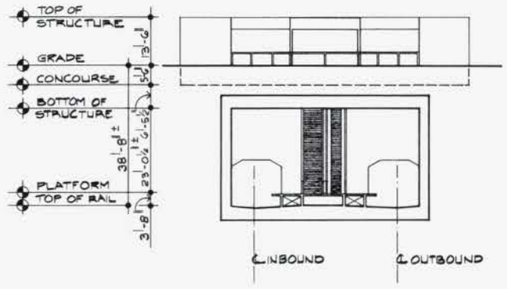
FIGURE II-24



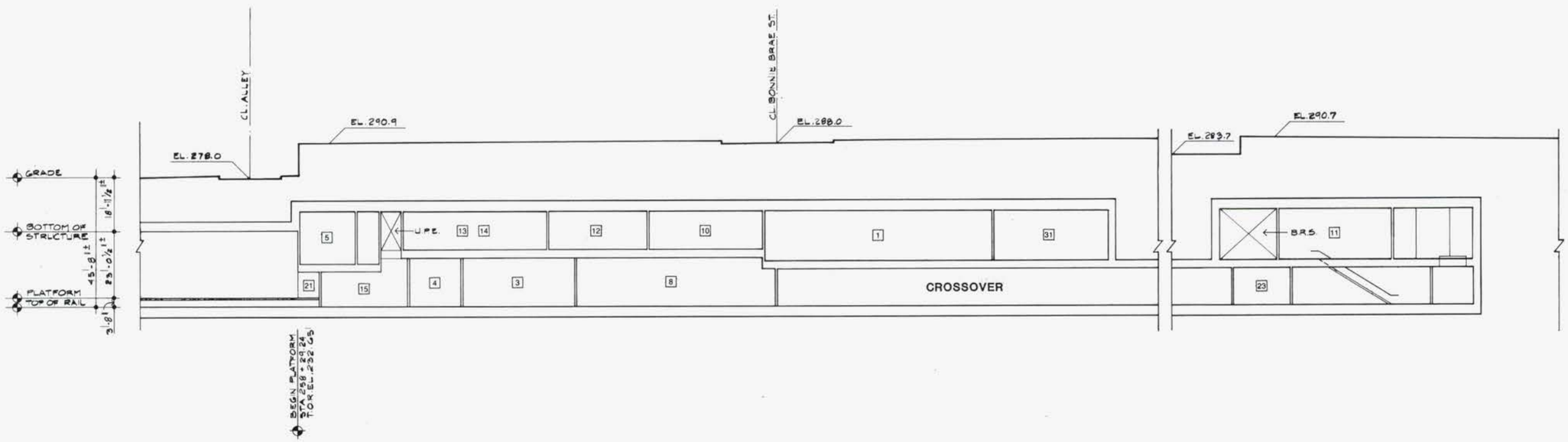
B SECTION



C SECTION



D SECTION



A PARTIAL SECTION

0' 20' 40' 80'

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. DELETED
28. Trash
29. Staff / Security
30. DELETED
31. Electric Incoming Service

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3/11/83
DRAWN BY B. KAPLAN Date 3/11/83
CHECKED BY J. YEN / PIGATI Date 3/11/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE / ALVARADO STATION
SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-025
SCALE 1"-20'-0"
SHEET NO.

BRUNING 44-132

FIGURE II-25

WILSHIRE/VERMONT STATION

Background

The Wilshire/Vermont Station will be located off-street at mid-block between Wilshire and 6th Street straddling Vermont Avenue. The block facings in the immediate area of the station have primarily office and retail development. The development along Wilshire is high-rise structures with low-rise development predominating along the north-south streets. The surrounding area is primarily residential. A Bank of America branch bank is located adjacent to the station on the northeast corner of Wilshire and Vermont and a service station is located on the other adjacent corner. Bullock's Wilshire, a historic landmark, is located nearby on Wilshire. The mid-block area which will be the most impacted by station construction is primarily used for parking. The Vermont bus lines which serve the station location have one of the highest patronage levels in the city.

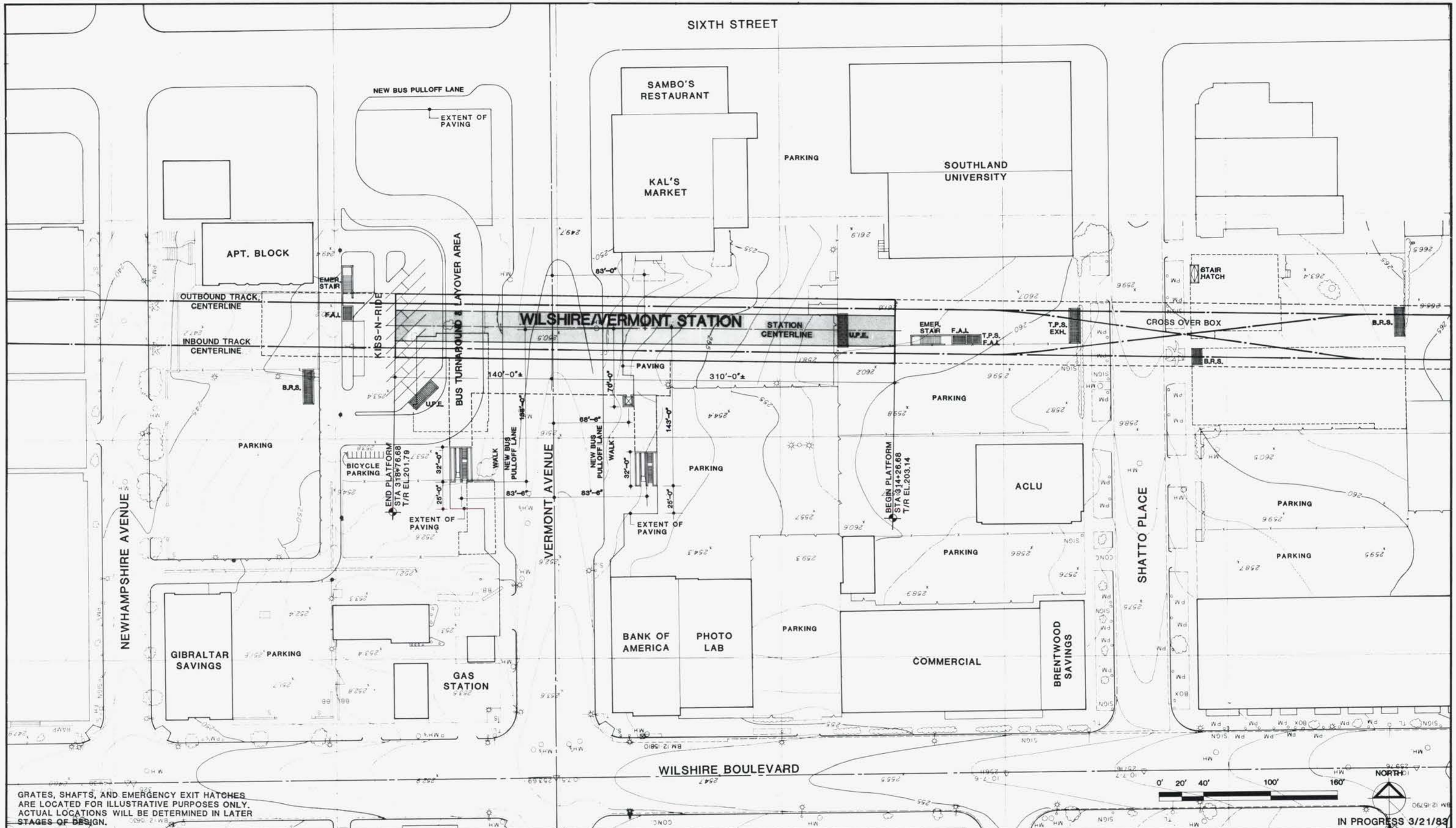
Station Site Design Parameters

A major factor considered in the site design for this station is the transit interface between bus and Metro Rail. Some buses will be terminating at this location while others will be picking up and dropping off passengers and continuing on. It is planned for all Vermont bus boarding to occur in bus turn-out lanes located on each side of Vermont, each adjacent to a station entry. Deboarding points for terminating buses will be located off-street just north of the west station entry. The site used for the unloading of buses will also be designed to provide bus layover spaces (e.g. spaces where a bus can be parked until it is time to start its next run). In addition, a bus turnout lane is planned for the south side of 6th Street just to the west of Vermont to serve buses running on 6th Street.

A small number of kiss-and-ride parking spaces are also planned for the site. The station entries will be oriented towards Wilshire, the direction of the major pedestrian flow. The location of the station entries will offer strong potential for future adjacent and air-rights development.

Station Design Parameters

The station is planned with a single mezzanine located near the center of the station. To facilitate the bus-rail transfer, two entries into the mezzanine are planned, one on each side of Vermont. The mezzanine will have stairs and escalators at each end connecting to a center platform. The entrance on the west side of Vermont (adjacent to the off-street bus area) is the primary station entrance and will have an elevator from the surface to the mezzanine level to provide handicapped access. A second elevator will run from the paid zone of the mezzanine down to the center platform. Ancillary space will be provided at each end of the station. A double crossover track will be located on the east end of the station and a traction power substation will be located below grade over the crossover track.



GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL LOCATIONS WILL BE DETERMINED IN LATER STAGES OF DESIGN.

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY H W A Date 2/13/83
DRAWN BY S. DEBNATH Date 3/2/83
CHECKED BY J. YEN Date 3/10/83

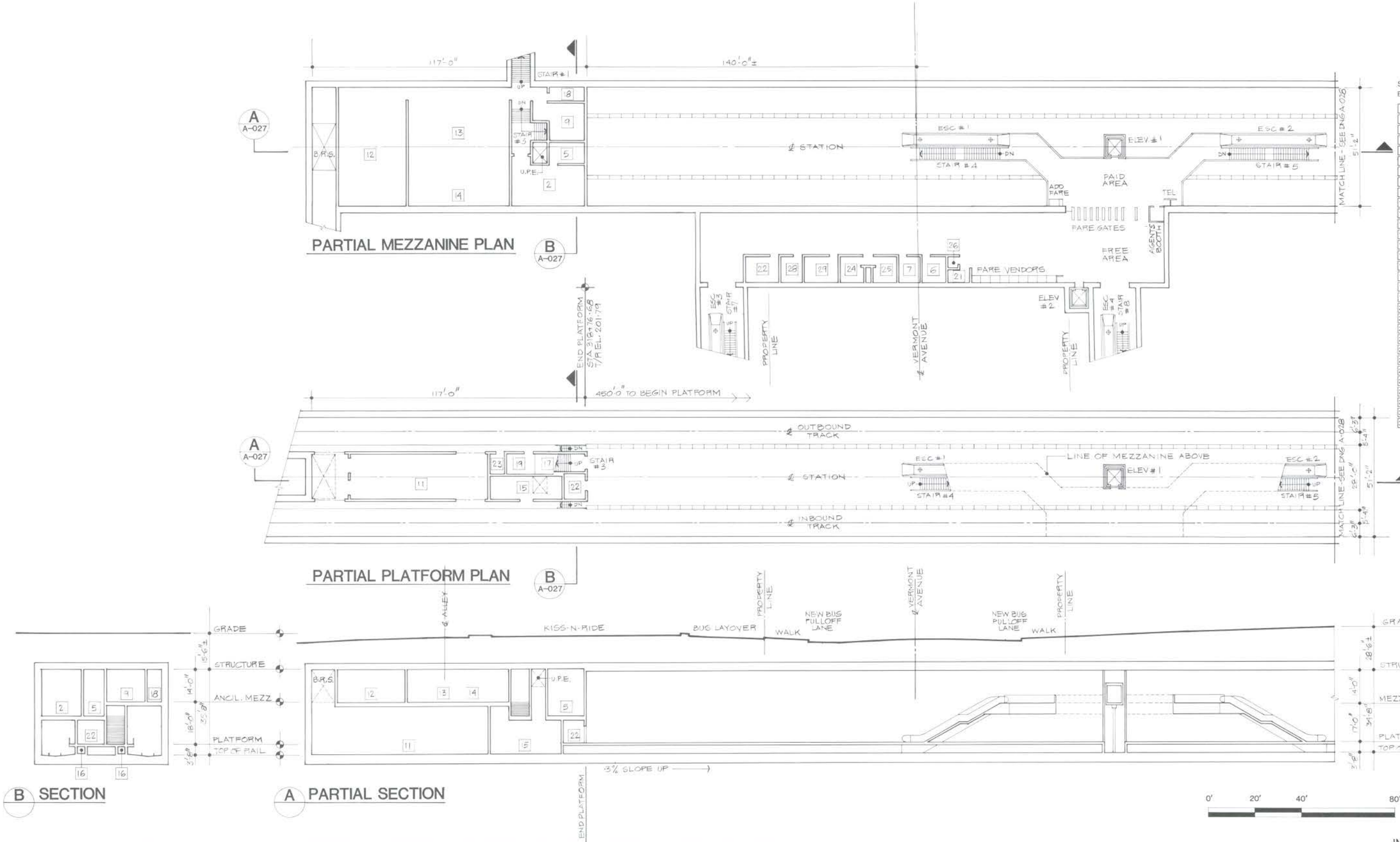
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY: PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE/VERMONT STATION
SITE PLAN
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-026
SCALE 1"= 40'-0"
SHEET NO.

FIGURE II-26



SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. **Deleted**
28. Trash
29. Staff / Security
30. **Deleted**
31. Electric Incoming Service

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY H.W.A. Date 3/3/83
DRAWN BY S.DEBNATH Date 3/3/83
CHECKED BY J.YEN. Date 3/16/83 Plot AT1

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY: PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

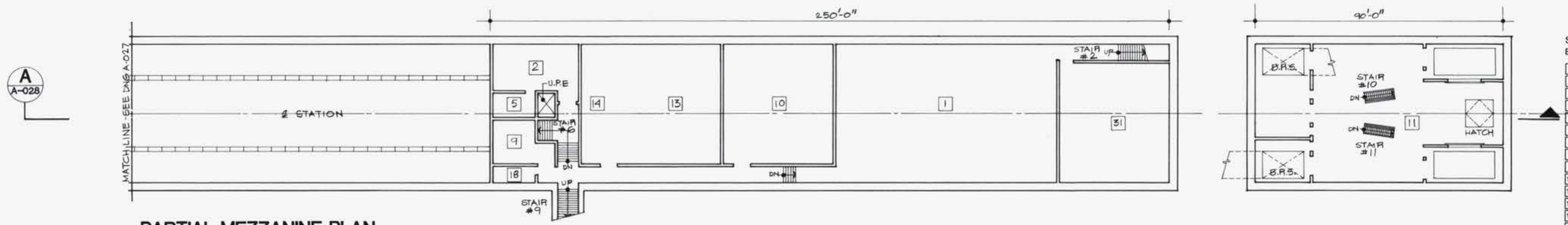
APPROVAL RECOMMENDED Reg. No.
APPROVED Date MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE/VERMONT STATION
PLANS & SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-027
SCALE 1"= 20'-0"
SHEET NO.

BRUNING 44-132

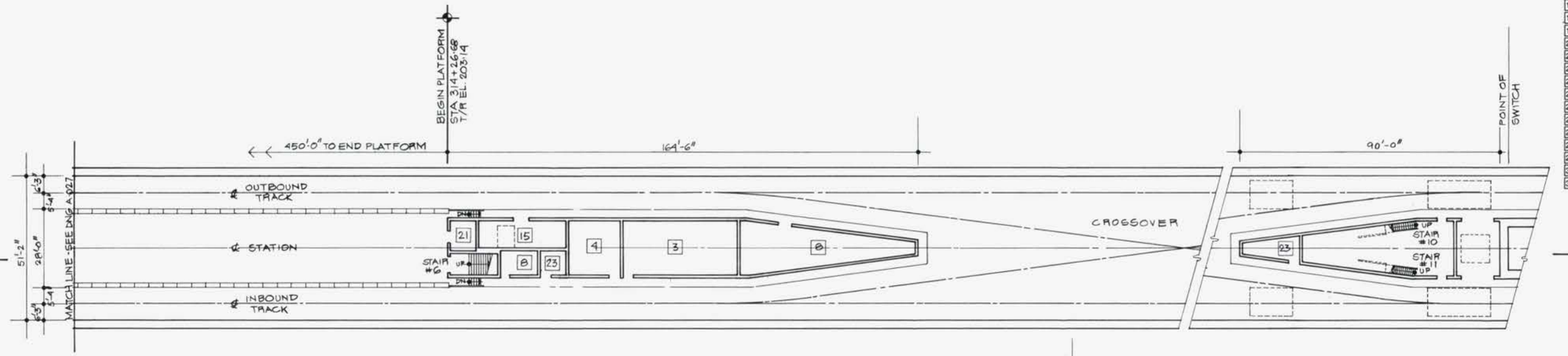
FIGURE II-27



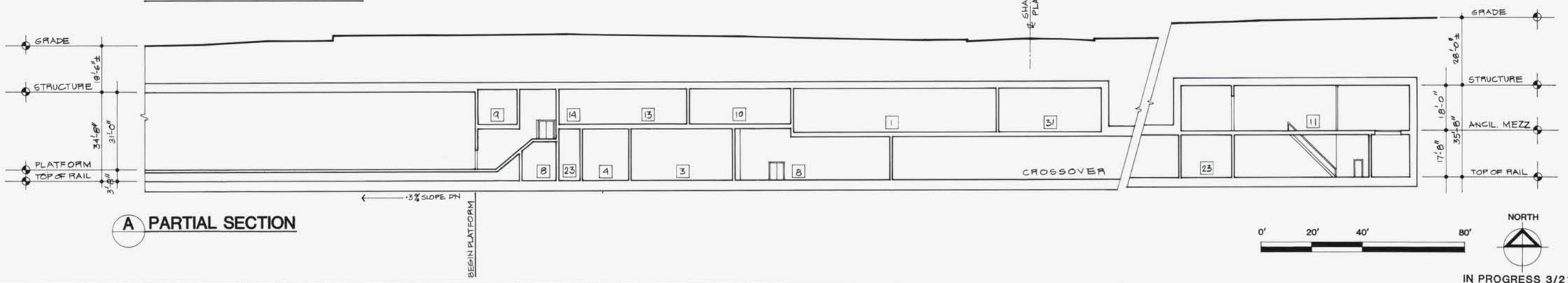
PARTIAL MEZZANINE PLAN

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. **Deleted**
28. Trash
29. Staff / Security
30. **Deleted**
31. Electric Incoming Service



PARTIAL PLATFORM PLAN



A PARTIAL SECTION

0' 20' 40' 80'

NORTH

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 5/3/83
DRAWN BY S. DEBNATH Date 3/3/83
CHECKED BY J. YEN PIGATI Date 3/10/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE/VERMONT STATION
PLANS & SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-028
SCALE 1"=20'-0"
SHEET NO.

BRUNING 44-132

FIGURE II-28

WILSHIRE/NORMANDIE STATION

Background

The Wilshire/Normandie Station will be located under Wilshire Boulevard between Ardmore and Normandie Streets. A number of high-rise office buildings are located along Wilshire near the station location. In addition two major hotels are close by. The Wilshire Hyatt Hotel is immediately adjacent to the station and the Ambassador Hotel is one block away. Areas to the north and south of Wilshire are residential in character. The Ambassador Hotel, the Wilshire Christian Church (on the northeast corner of Wilshire and Normandie) and the Brown Derby are historic landmarks.

Several sites fronting on Wilshire are being considered for new development. A six story office building is planned for the site adjacent to the Glendale Federal Bank and the owners of the Ambassador Hotel are considering the development of the area in front of the hotel. There have also been plans for developing the Brown Derby site.

Irolo Street next to the Glendale Federal Bank is little used and is under consideration for vacation by the City of Los Angeles.

Station Site Design Parameters

Major utilities passing through the intersection of Normandie and Wilshire have limited the opportunity to locate an entrance east of Normandie. West of Normandie the right-of-way of Irolo Street offers the opportunity to locate the required entry on public land not needed for other transportation purposes. The entry will, to the extent possible, be designed and located to complement the proposed development on the adjacent site. Because of the bend in Normandie, southbound buses will need a turn-out lane near the intersection of Normandie and Irolo. This will improve the flow of traffic on Normandie and will be convenient for transferring passengers.

The feasibility of locating a station entrance on the northwest corner of Normandie and Wilshire (presently occupied by the Hyatt Conference Center) was investigated and found to be difficult to design and expensive to construct but remains an option that could be carried out in the future.

Station Design Parameters

Major utility conflicts have been avoided by locating the station platform west of Normandie. The strong desire to locate the station entrance close to Normandie to facilitate bus transfer and pedestrian access determined that the station would have an end mezzanine with the entry located in Irolo Street. As indicated above, a second entry onto this mezzanine is possible but the moderate patronage projected for this station suggests that it will not be necessary. Ancillary space will be provided at each end of the station. A traction power substation is not required at this location.

KEMPER INSURANCE

ARDMORE AVENUE

WILSHIRE - HYATT HOTEL

CONFERENCE BUILDING

NORMANDIE AVENUE

WILSHIRE CHRISTIAN CHURCH

ATLANTIC RICHFIELD COMPANY

MARIPOSA AVENUE

EQUITABLE BUILDING

U.P.E

EMERG. EXIT

B.R.S

F.A.I

NORMANDIE AVENUE STATION

WILSHIRE BOULEVARD

CL OUTBOUND TRACK

CL WILSHIRE BOULEVARD

CL STATION

CL INBOUND TRACK

PARAMOUNT PLAZA

TITLE INSURANCE

PROPOSED OFFICE COMPLEX

GLENDALE FEDERAL SAVINGS

CL NORMANDIE AVENUE

A-031

EXTENT OF PAVING

CENTRAL PLAZA TISHMAN COMPLEX

END PLATFORM
STA. POINT 349 + 76.88'
T.O.R EL. 167.75'

NEW BUS DROP

BEGIN PLATFORM
STA. POINT 345 + 26.88'
T.O.R EL. 166.75'

NORTH

0 20 40 100 160

GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL LOCATIONS WILL BE DETERMINED IN LATER STAGES OF DESIGN.

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date ____

DRAWN BY M. POINDEXTER Date 2/4/83

CHECKED BY R. PIGATI / J. YEN Date 2/9/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations

SUBMITTED BY:

PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

APPROVAL RECOMMENDED ____ Reg. No. ____

APPROVED ____ Date ____

MANAGER / CHIEF ENGINEER Reg. No. ____

WILSHIRE / NORMANDIE STATION

SITE PLAN

PRELIMINARY:
FOR STUDY PURPOSES ONLY

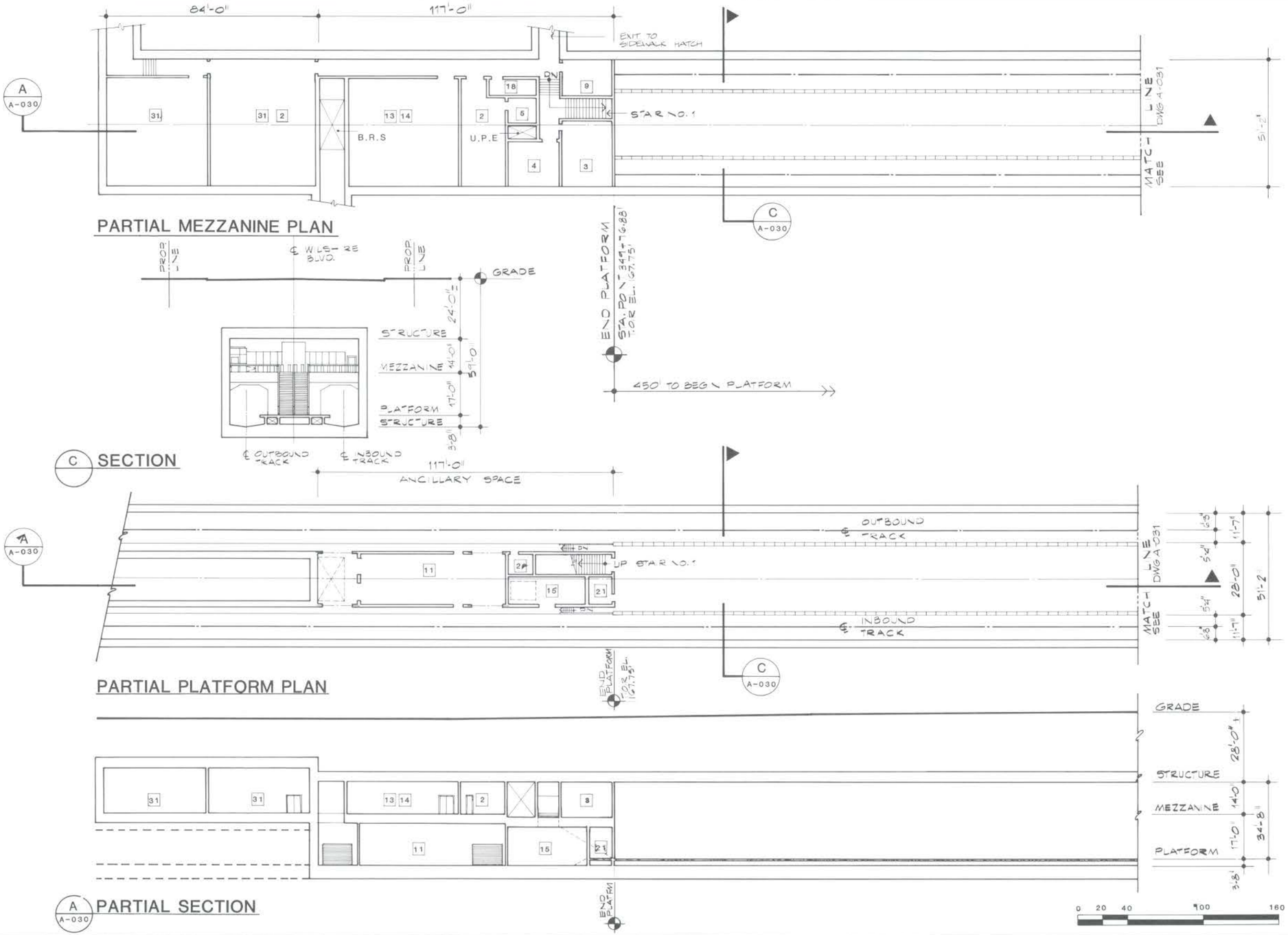
CONTRACT NO.

DRAWING NO. AP-16BAA-A-029

SCALE 1"= 40'-0"

SHEET NO.

FIGURE II-29



SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. DELETED
28. Trash
29. Staff
30. DELETED
31. Electric Incoming Service

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date

DRAWN BY M. PONDEXTER Date 2/9/83

CHECKED BY R. PIGATI/J. YEN Date 2/2/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations

SUBMITTED BY:

PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED Reg. No.

APPROVED Date

MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE / NORMANDIE STATION
PLANS & SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.

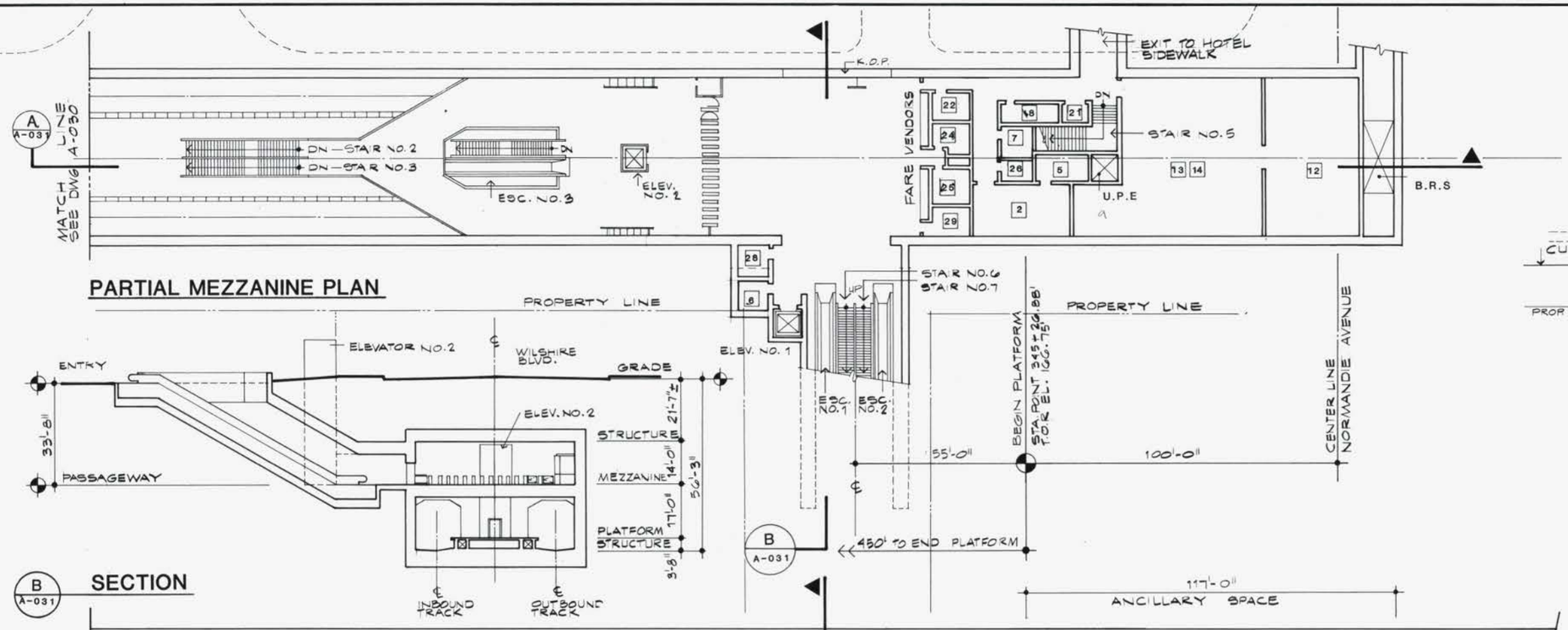
DRAWING NO. AP-16BAA-A-030

SCALE 1" = 20'-0"

SHEET NO.

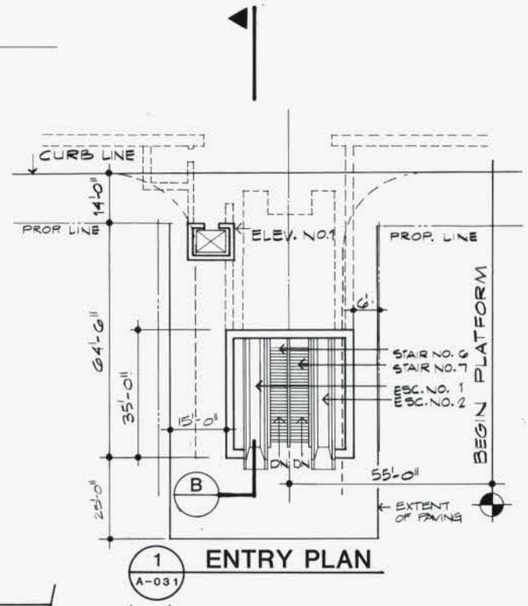
FIGURE II-30

PARTIAL MEZZANINE PLAN



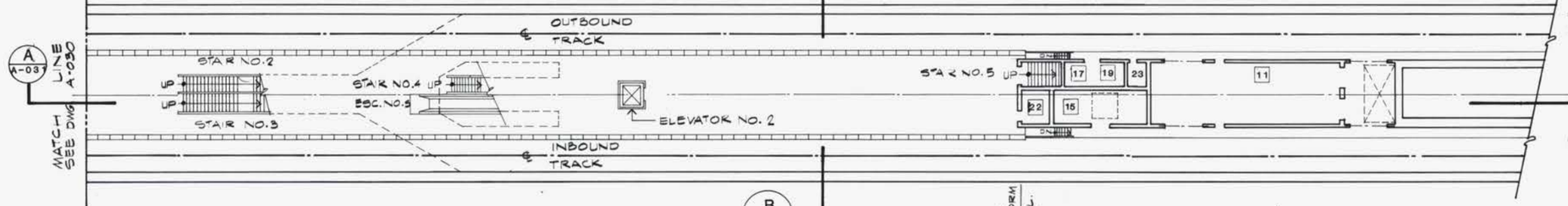
SECTION

ENTRY PLAN

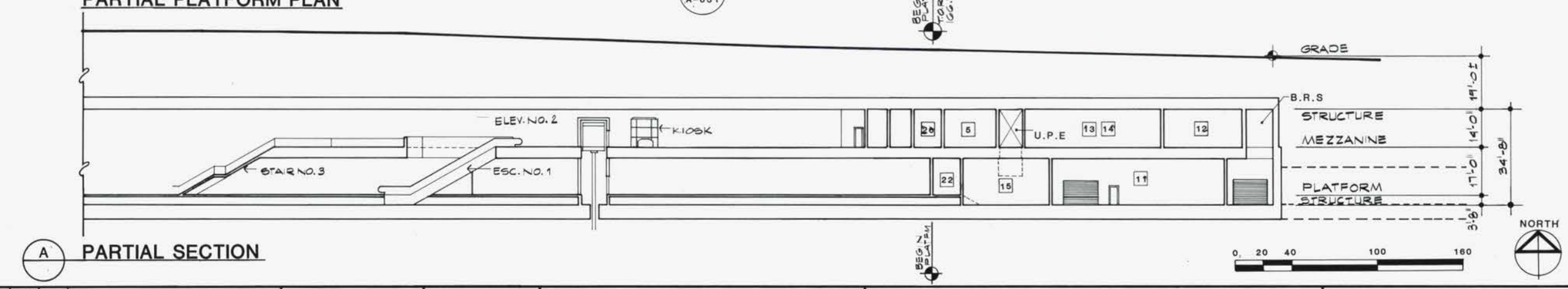


1 A-031

PARTIAL PLATFORM PLAN



PARTIAL SECTION



A

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. DELETED
28. Trash
29. Staff
30. DELETED
31. Electric Incoming Service

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date ____
DRAWN BY M. POINDEXTER Date 2/4/83
CHECKED BY R. PUGATI / J. YEN Date 2/10/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY: PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED ____ Reg. No. ____
APPROVED ____ Date ____
MANAGER / CHIEF ENGINEER Reg. No. ____

WILSHIRE / NORMANDIE STATION
PLANS & SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-031
SCALE 1" = 20'-0"
SHEET NO.

BRUNING

FIGURE II-31

WILSHIRE/WESTERN STATION

Background

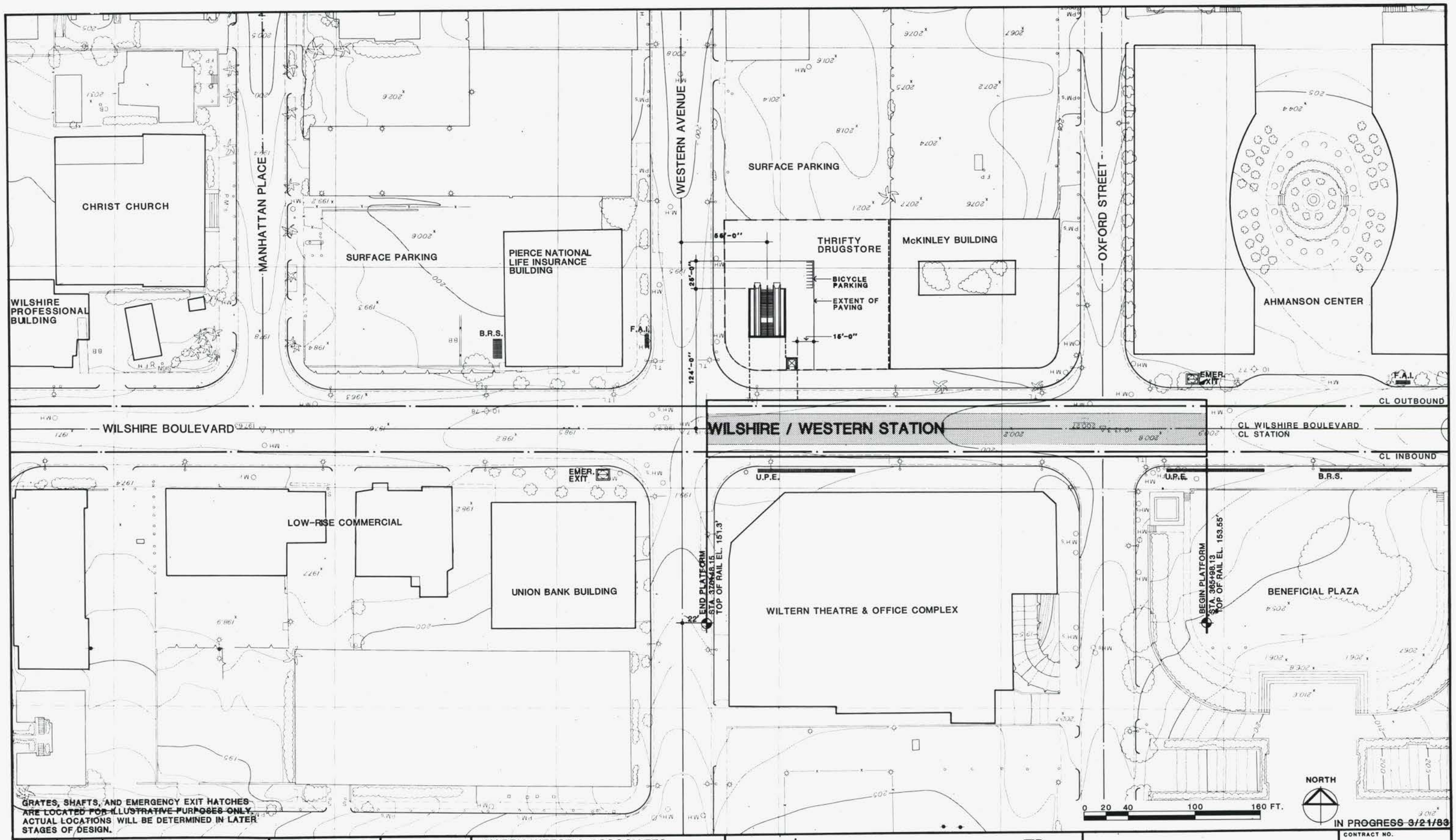
The Wilshire/Western Station will be located under Wilshire Boulevard between Western and Oxford Streets. This area is on the western edge of a high-rise segment of the Wilshire Corridor office core. The other major streets have low to medium rise mixed-use buildings. The remainder of the surrounding area is in residential use. All four corners of the intersection of Wilshire and Western are developed. The historic landmark Wiltern Theater is located on the southeast corner and is undergoing renovation. A Union Bank building is on the southwest corner; the Pierce National Life Insurance Building is on the northwest corner and a one story Thrifty Drug Store is on the northeast corner adjacent to the historic landmark McKinley Building.

Station Site Design Parameters

All corners of the intersection of Western and Wilshire were investigated as potential entry locations. It was determined that it would be difficult and costly to construct a station entry at all but one corner location. The northeast corner is occupied by the smallest existing structure and is therefore proposed for the single entry planned for this station. This station is expected to have a relatively high volume of bus-rail transfer and, therefore, bus turnout lanes on each side of Western north of Wilshire are planned. Certain bus lines will terminate at this station and will need to turnaround and, at times, layover. To facilitate the bus operation a bus only right-of-way connecting Western Avenue to Oxford Street is proposed. The right-of-way would be sufficiently wide to have one parking lane and one passing or through lane. The station entry will be oriented parallel to Western to facilitate future site development.

Station Design Parameters

This station has been planned with a single mezzanine on the west end of the station. This configuration will permit an additional entry to be constructed into the Union Bank Building if needed to meet patronage requirements, or if constructed by others. Ancillary space will be located at each end of the station, and, because a crossover or pocket track is not located at either end of this station, the required traction power substation will be located over the platform in the trainroom.



GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ~~ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY.~~ ACTUAL LOCATIONS WILL BE DETERMINED IN LATER STAGES OF DESIGN.

IN PROGRESS ~~3/21/83~~

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3-14-83
DRAWN BY JMW Date 3-14-83
CHECKED BY J. YEN Date 3-14-83

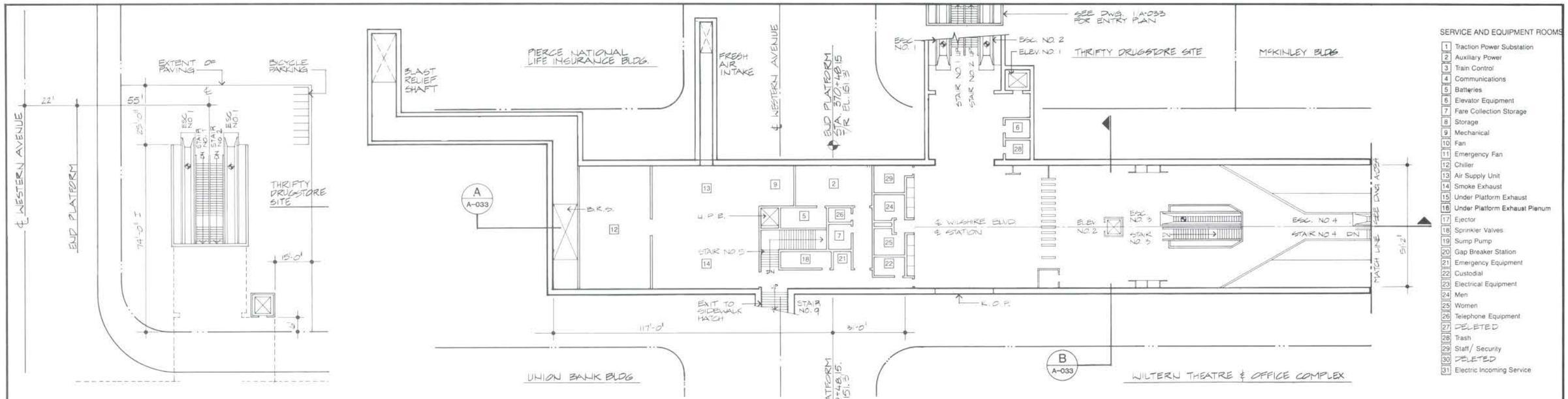
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE / WESTERN STATION
SITE PLAN
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-032
SCALE 1"= 40'-0"
SHEET NO.

FIGURE II-32



SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. **Under Platform Exhaust Plenum**
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. DELETED
28. Trash
29. Staff/ Security
30. DELETED
31. Electric Incoming Service

I ENTRY PLAN AT GRADE

PARTIAL MEZZANINE PLAN

B SECTION

PARTIAL PLATFORM PLAN

C SECTION

A PARTIAL SECTION

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3-14-83
DRAWN BY JMW Date 3-14-83
CHECKED BY J.YEN Date 3-14-83 PGMTI

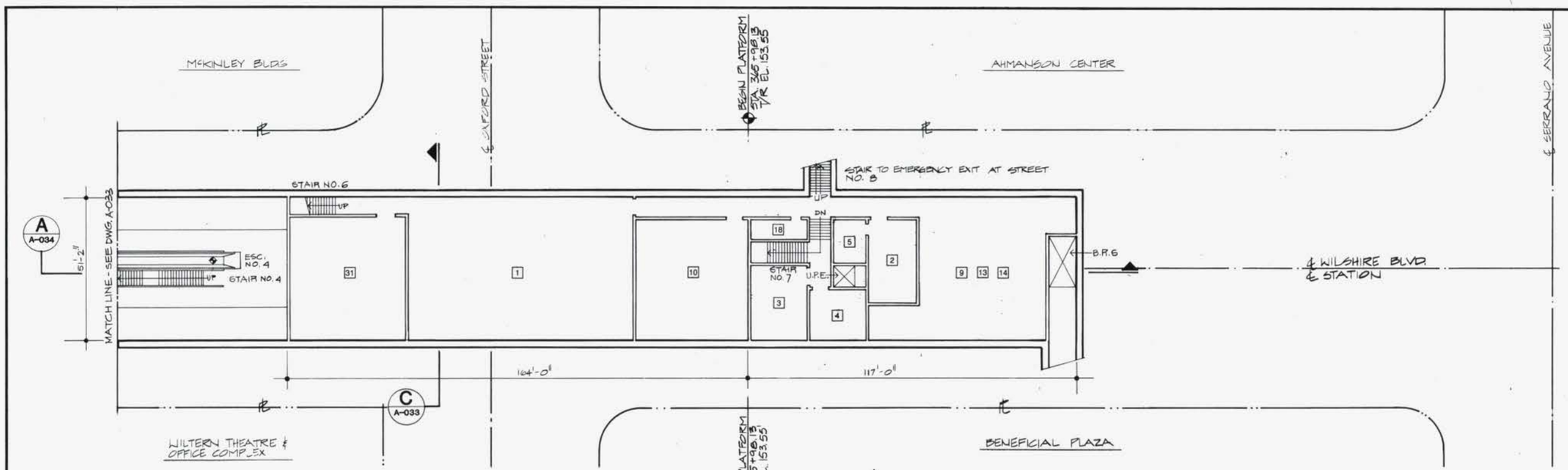
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

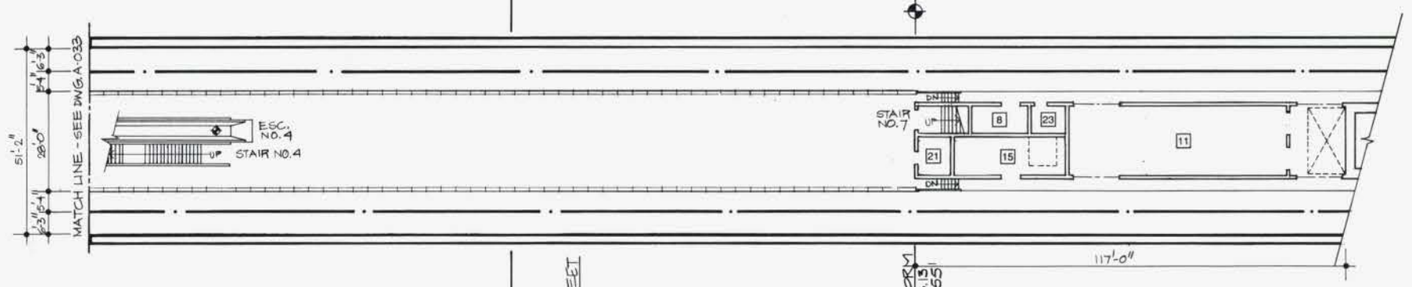
WILSHIRE / WESTERN STATION
PLANS AND SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-033
SCALE 1"=20'-0"
SHEET NO.

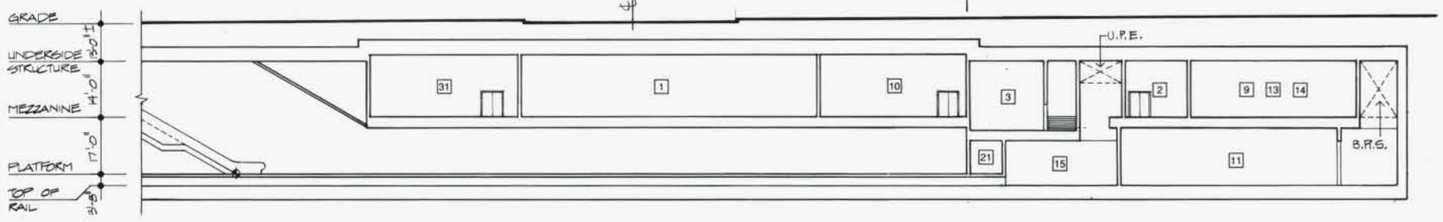
FIGURE II-33



PARTIAL MEZZANINE PLAN



PARTIAL PLATFORM PLAN C A-033



A PARTIAL SECTION

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. DELETED
28. Trash
29. Staff/Security
30. DELETED
31. Electric Incoming Service

NORTH

0 20 40 80 FT.

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3-14-83
DRAWN BY JMW Date 3-14-83
CHECKED BY J.YEN Date 3-14-83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED ____ Reg. No. ____
APPROVED ____ Date ____
MANAGER / CHIEF ENGINEER Reg. No. ____

WILSHIRE / WESTERN STATION
PLANS AND SECTIONS

PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-034
SCALE 1"=20'-0"
SHEET NO.

BRUNING

FIGURE II-34

WILSHIRE/LA BREA STATION

Background

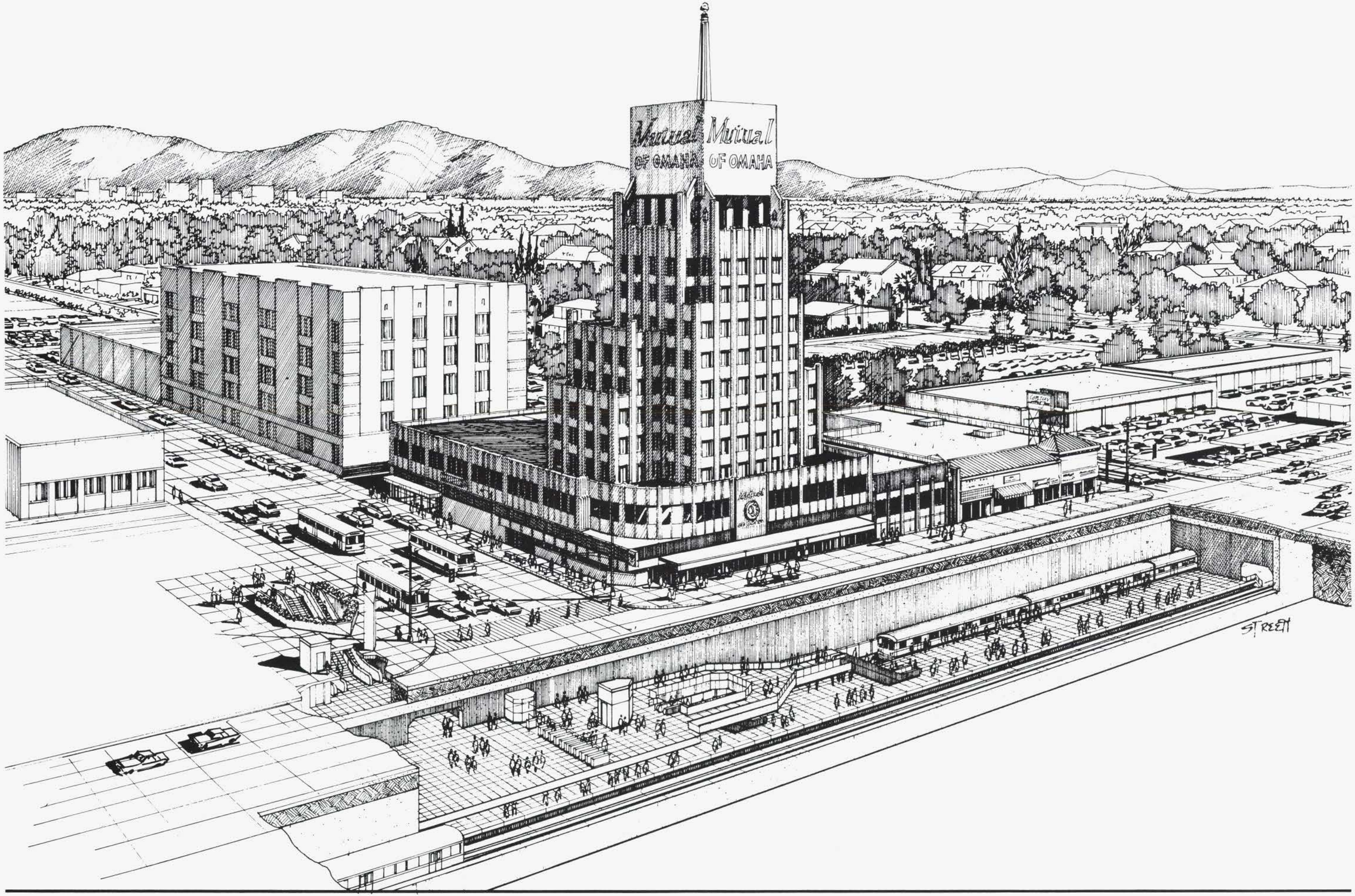
The Wilshire/La Brea Station will be located under Wilshire Boulevard between Detroit Street and Sycamore Avenue. The surrounding area along Wilshire is mostly low-rise commercial and retail development with the exception of the medium-rise historic landmark Mutual of Omaha Building, which is located on the northeast corner of the intersection of Wilshire and La Brea. The areas north and south of Wilshire are residential in character. Presently, there are no major destinations or public spaces and attractions at this location. The many under-utilized parcels of land which exist in the station vicinity will have increased development potential as a result of the construction of the Metro Rail station.

Station Site Design Parameters

The moderate patronage level projected for this station requires only a single entrance. The northwest corner of the Wilshire/La Brea intersection is the least developed and is therefore proposed for the entry. The site is occupied by low-rise commercial structures and surface parking. To facilitate bus-rail transfer a bus turnout lane is proposed on the west side of La Brea adjacent to the station entry. The entry is oriented parallel to the La Brea axis to preserve the maximum frontage along Wilshire for future development and to increase the convenience of the bus-rail transfer.

Station Design Parameters

Based on the moderate patronage projection, this station has been planned with a single mezzanine at the west end. It will have a center platform with ancillary space provided at each end of the station. A pocket track will be constructed at the east end of the station and a traction power substation will be constructed over the pocket track.

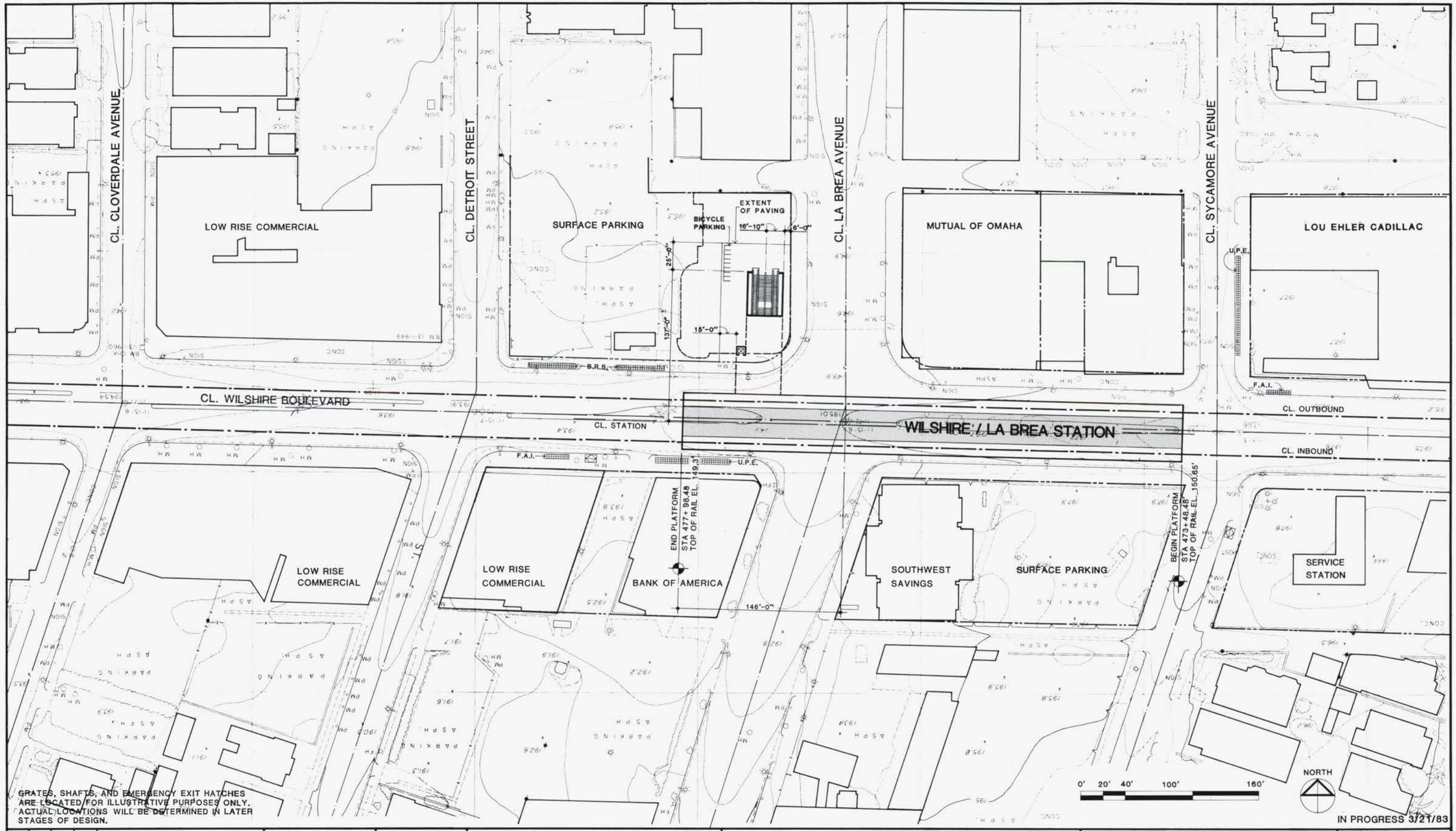


WILSHIRE / LA BREA STATION

CUTAWAY VIEW LOOKING NORTH

SCRTD Metro Rail
HWA

FIGURE II-35



GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL LOCATIONS WILL BE DETERMINED IN LATER STAGES OF DESIGN.

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 2/1/83
DRAWN BY B KAPLAN Date 2/1/83
CHECKED BY R. PIGATI / J.YEN Date 2/9/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations

SUBMITTED BY: _____ PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

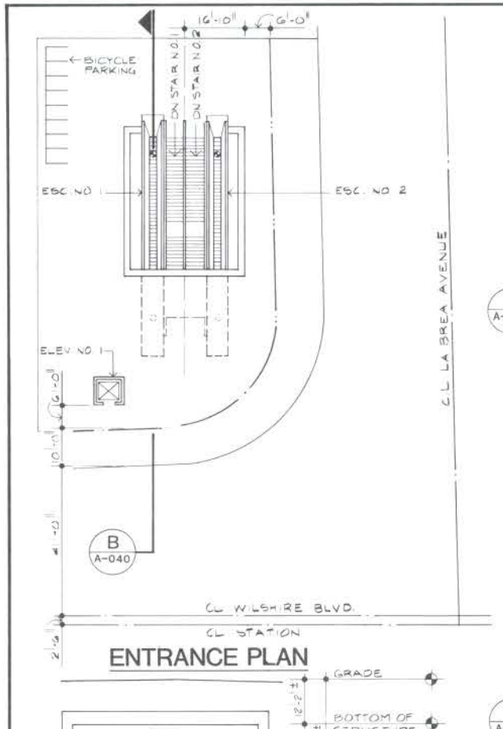
APPROVAL RECOMMENDED _____ Reg. No. ____
APPROVED _____ Date ____ MANAGER / CHIEF ENGINEER Reg. No. ____

WILSHIRE / LA BREA STATION
SITE PLAN
PRELIMINARY:
FOR STUDY PURPOSES ONLY

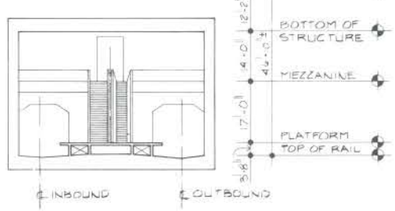
CONTRACT NO.
DRAWING NO. AP-16BAA-A-038
SCALE 1"= 40'-0"
SHEET NO.

BRUNING

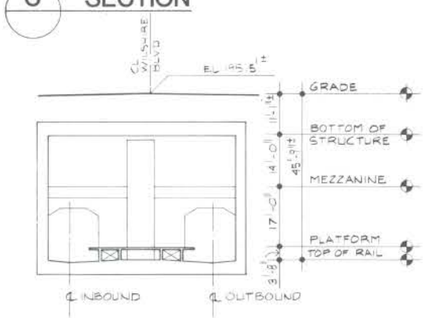
FIGURE II-36



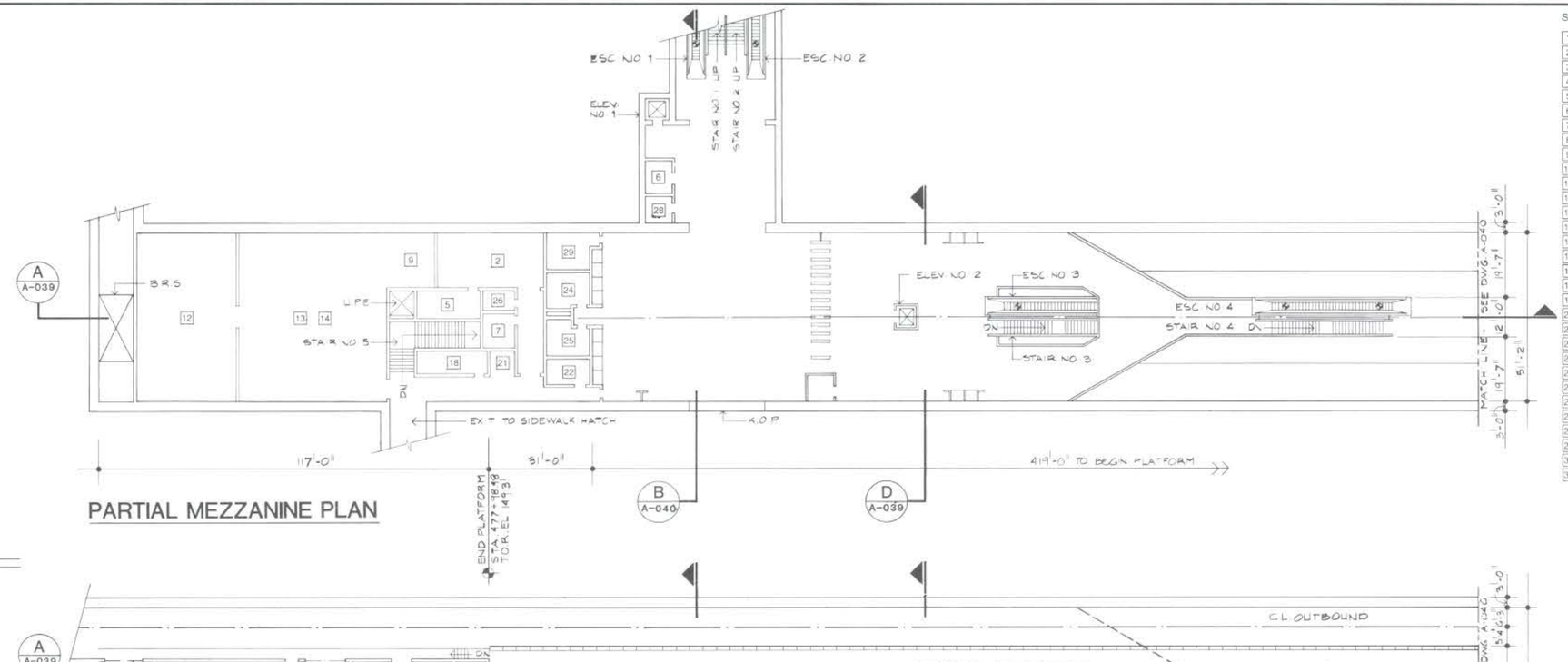
ENTRANCE PLAN



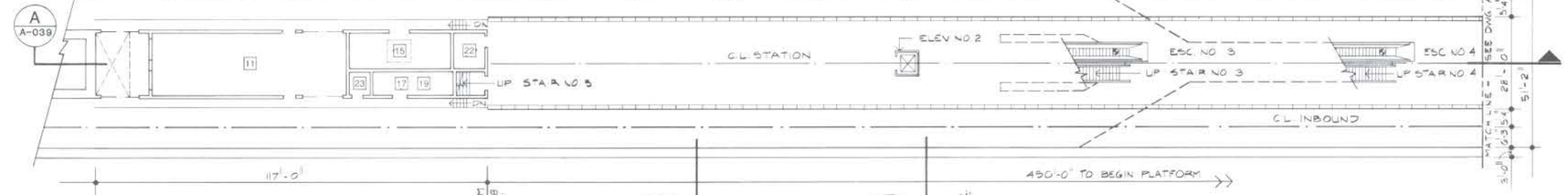
C SECTION



D SECTION



PARTIAL MEZZANINE PLAN



PARTIAL PLATFORM PLAN

A PARTIAL SECTION

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. DELETED
28. Trash
29. Staff / Security
30. DELETED
31. Electric Incoming Service

0' 20' 40' 80'

NORTH

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 2/1/83 H.W.A.
DRAWN BY Date 2/1/83 B. KAPLAN
CHECKED BY Date 2/8/83 R. PIGATI / J. YEN

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

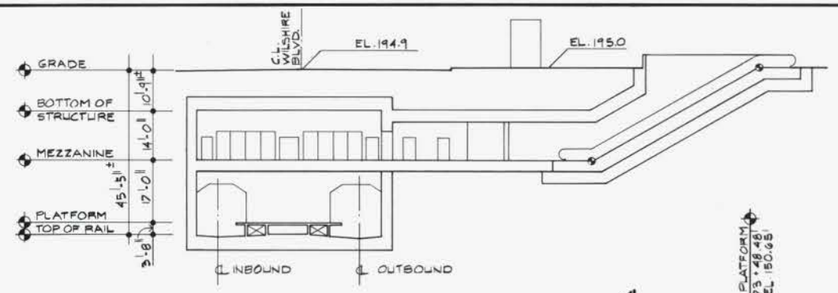
WILSHIRE / LA BREA STATION
PLANS / SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-039
SCALE 1"=20'-0"
SHEET NO.

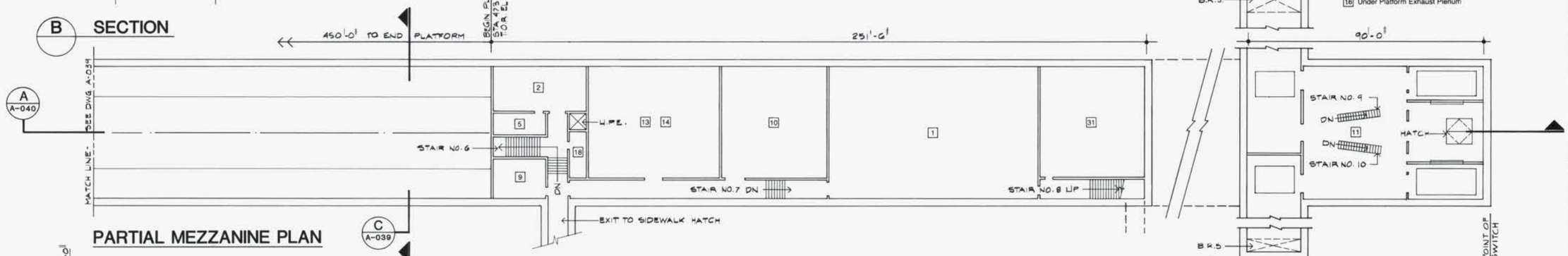
FIGURE II-37

SERVICE AND EQUIPMENT ROOMS

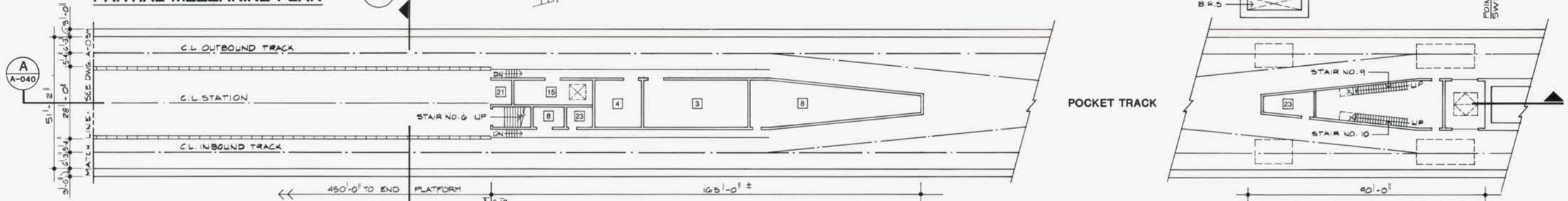
1	Traction Power Substation	17	Ejector
2	Auxiliary Power	18	Sprinkler Valves
3	Train Control	19	Sump Pump
4	Communications	20	Gap Breaker Station
5	Batteries	21	Emergency Equipment
6	Elevator Equipment	22	Custodial
7	Fare Collection Storage	23	Electrical Equipment
8	Storage	24	Men
9	Mechanical	25	Women
10	Fan	26	Telephone Equipment
11	Emergency Fan	27	DELETED
12	Chiller	28	Trash
13	Air Supply Unit	29	Staff/Security
14	Smoke Exhaust	30	DELETED
15	Under Platform Exhaust	31	Electric Incoming Service
16	Under Platform Exhaust Plenum		



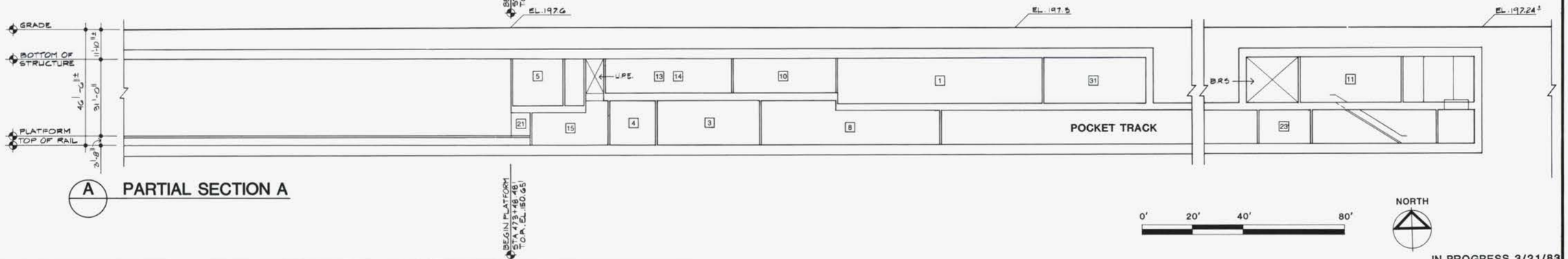
B SECTION



PARTIAL MEZZANINE PLAN



PARTIAL PLATFORM PLAN



A PARTIAL SECTION A

0' 20' 40' 80'

NORTH

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY H.W.A. Date 2/1/83
DRAWN BY B. KAPLAN Date 2/1/83
CHECKED BY R. PIGATI / J. YEN Date 2/6/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED ____ Reg. No. ____
APPROVED ____ Date ____
MANAGER / CHIEF ENGINEER Reg. No. ____

WILSHIRE / LA BREA STATION
PLANS / SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-040
SCALE 1"= 20' - 0'
SHEET NO.

BRUNING

FIGURE II-38

WILSHIRE/FAIRFAX STATION

Background

The Wilshire/Fairfax Station is located under Wilshire Boulevard between Curson and Spaulding Avenues. The surrounding area is heavily residential but also contains major public attractions. The Los Angeles County Museum of Art, the Rancho La Brea Tar Pits and the Page Museum of Natural History are all located on the north side of Wilshire adjacent to the station. Two blocks west of the station, at the intersection of Fairfax and Wilshire, is a major retail shopping area containing both The May Company and Orbachs Department Stores. The May Company is considering plans to redevelop its properties by building a major multi-use complex. Adjacent to the station on the south side of Wilshire is a large undeveloped parcel of land. The surrounding residential areas contain high-rise, multi-family and single-family housing units.

Station Site Design Parameters

This is the last outbound station before the alignment turns north along Fairfax Avenue. Thus, the station will be a major receptor for patrons arriving by auto and bus from the south and west. A future parking structure is proposed for this station accommodating 1000 parking spaces, but only surface parking will be provided initially. In addition, a major off street bus facility is planned. A bus turnout lane will be provided on the south side of Wilshire just west of Curson Avenue. Wilshire and Fairfax buses terminating at the station will unload in this turnout and passengers transferring to Metro Rail will use a station entrance adjacent to the turnout to access the station. The buses will then use the terminal to turnaround and/or layover. Patrons boarding buses will use either of the south station entrances to access the bus platform. To minimize traffic conflicts and congestion the future parking facility is proposed with entry only from Spaulding Avenue and exit only onto Curson. The bus terminal will conversely have entry only from Curson and exit only onto Spaulding. The two facilities have been sited to permit the concurrent or future development of the Wilshire frontage. The bus terminal is entirely on-grade and can accommodate development in the air space over it. The proposed station site development will require acquisition of several existing structures along Wilshire, west of Curson.

Station Design Parameters

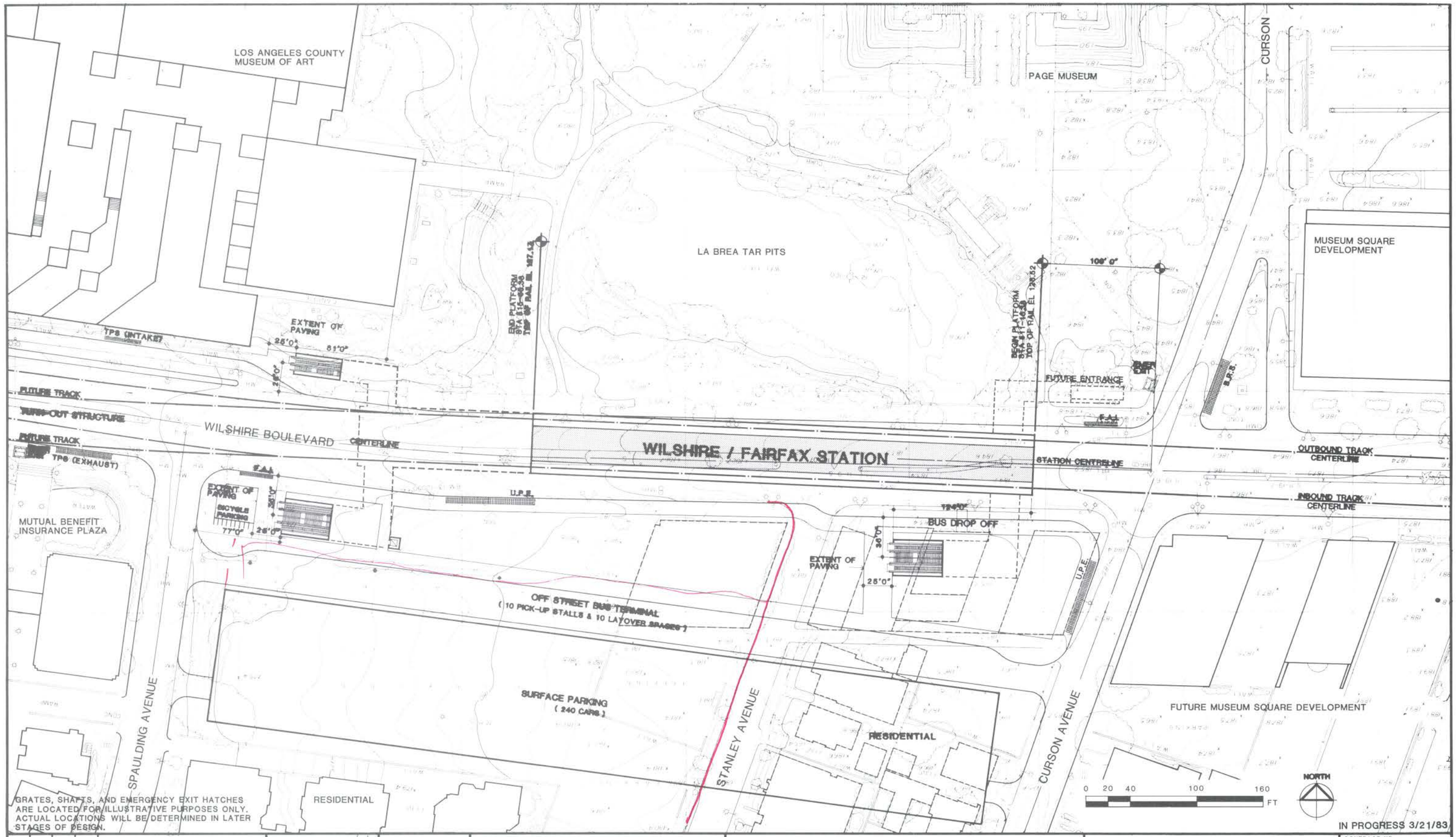
To accommodate the moderately high patronage projected for this station and in response to the station location and site development potential it has been planned with a mezzanine at each end of the platform. This configuration will permit a large number of entrances to be developed. Initial plans call for two entries at the west end of the station and one entry on the east end. The northwest entry will be sited and oriented to serve the County Museum of Art and pedestrians from the west. The southwest entry will serve the bus terminal and pedestrian from the west. The east entry will serve deboarding bus patrons and pedestrians from the Page Museum and from the east. Ancillary space will be provided at each end of the station and turnouts for a future line extension will be located at the west end of the station. A traction power substation will be located over the turnout tracks. Special construction procedures will be implemented to locate and protect potential paleontological finds.

WILSHIRE / FAIRFAX STATION

VIEW LOOKING SOUTHEAST

SCRTD Metro Rail
HWA
March 1983

FIGURE II-39



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY H.W.A. Date 2/28/83
DRAWN BY A.VERMA Date 2/28/83
CHECKED BY J.YEN Date 3-14-83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

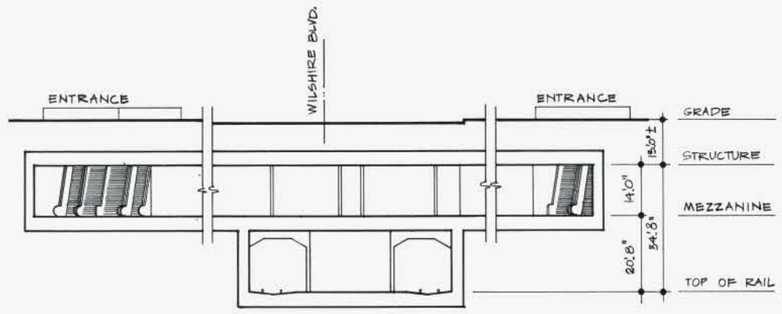
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Date
Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE / FAIRFAX STATION
SITE PLAN
PRELIMINARY:
FOR STUDY PURPOSES ONLY

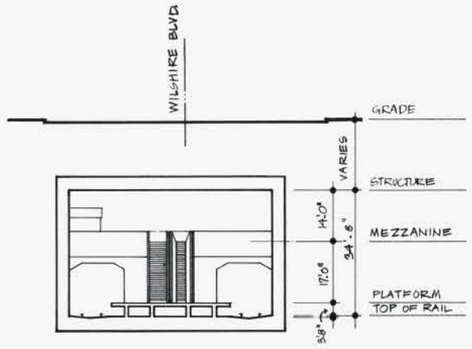
CONTRACT NO
DRAWING NO. AP-16BAA-A-041
SCALE 1"=40'-0"
SHEET NO.

BRUNING

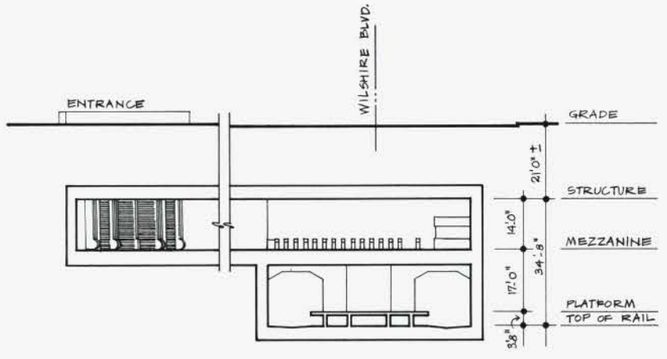
FIGURE II-40



B SECTION



C SECTION



D SECTION

0 20 40 80 FT

NORTH

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY H.W.A. Date 2/28/83
DRAWN BY A. VERMA. Date 2/28/83
CHECKED BY J. TEN Date 6-14-83 (PLOT)

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

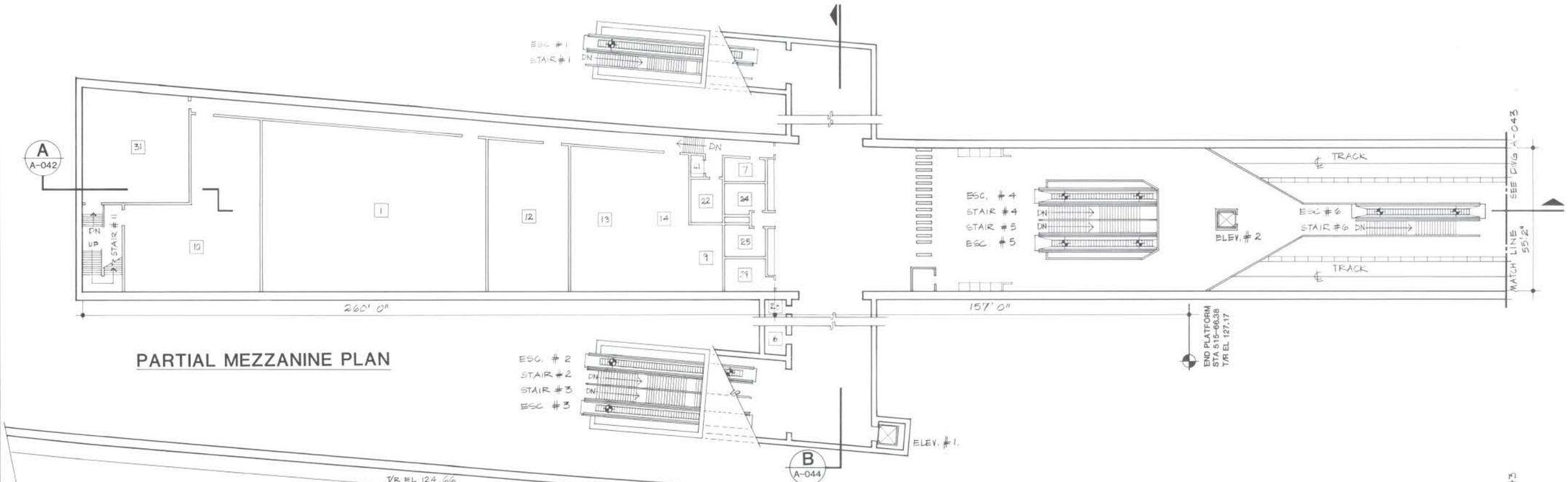
WILSHIRE / FAIRFAX STATION
PLANS AND SECTION

PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-044
SCALE 1"-20' 0"
SHEET NO.

BRUNING 44-132

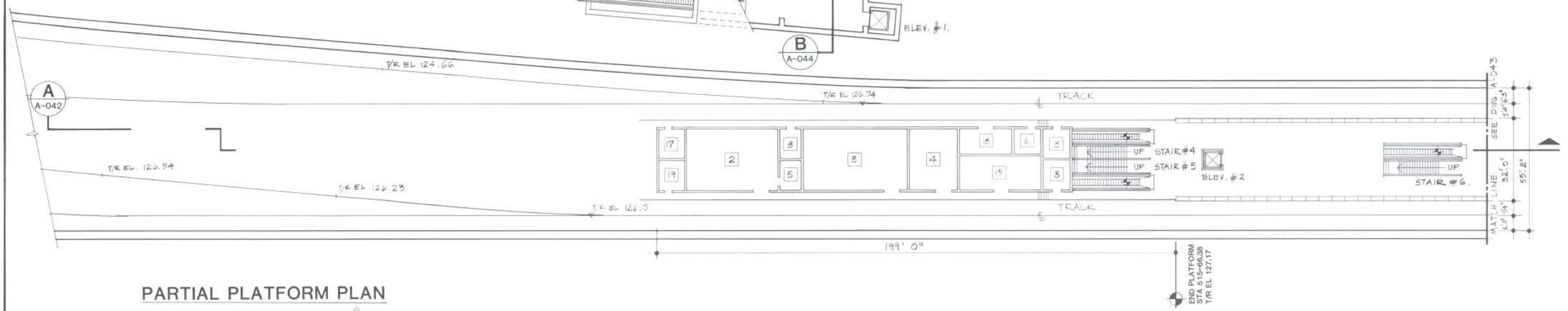
FIGURE II-41



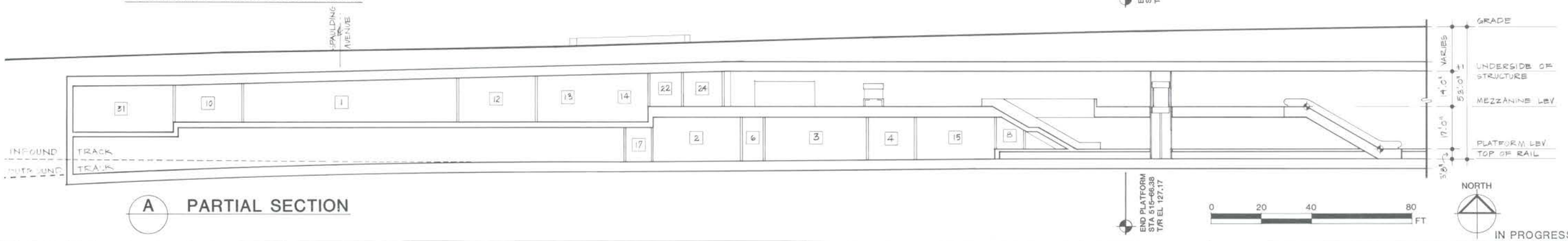
PARTIAL MEZZANINE PLAN

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. **Deleted**
28. Trash
29. Staff / **Security**
30. **Deleted**
31. Electric Incoming Service



PARTIAL PLATFORM PLAN



A PARTIAL SECTION

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY H.W.A. Date 2/28/83
DRAWN BY A.VERMA Date 2/28/83
CHECKED BY J.YEN Date 3/14/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date
MANAGER / CHIEF ENGINEER — Reg. No.

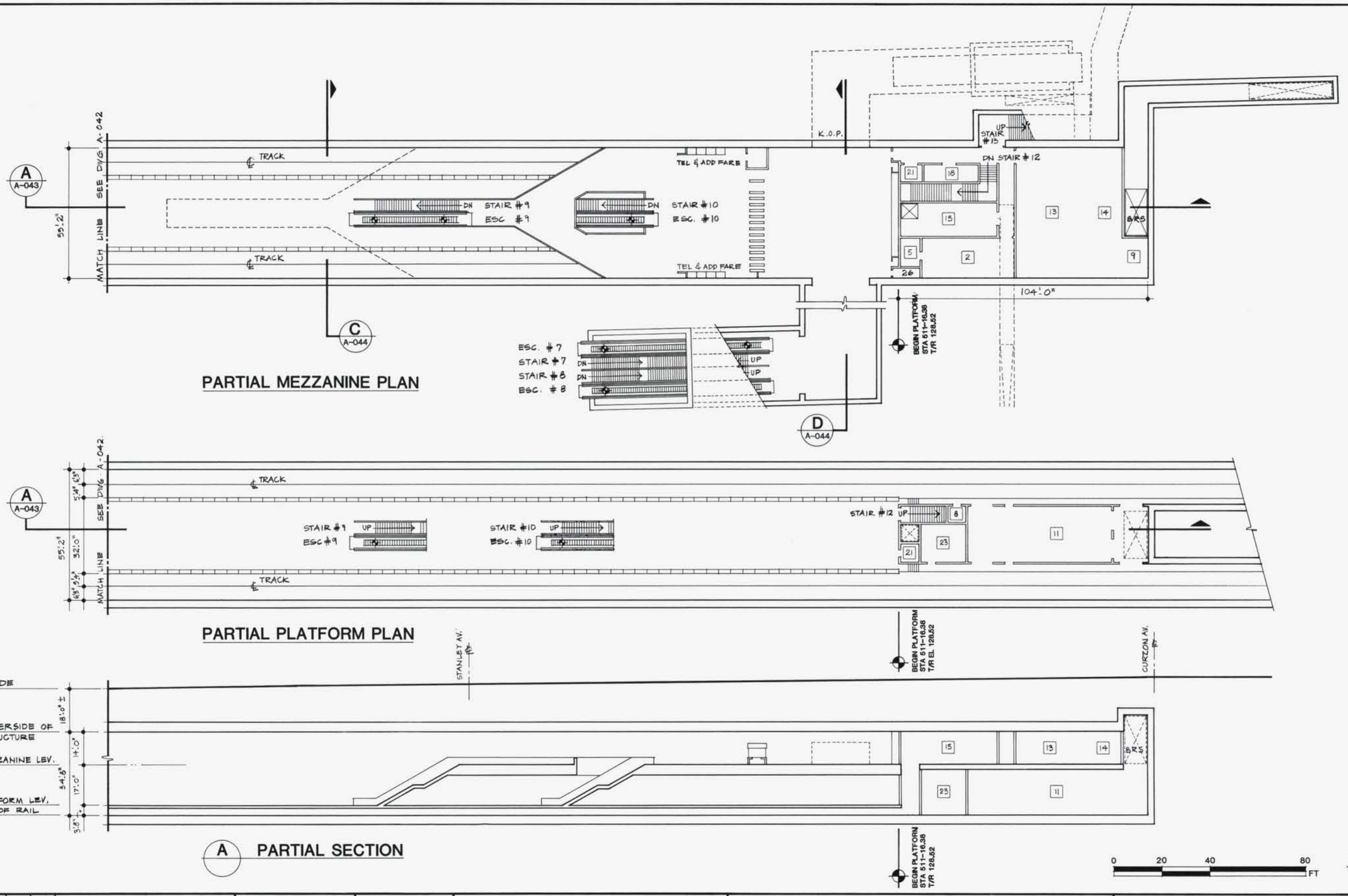
WILSHIRE / FAIRFAX STATION
PLANS AND SECTION

PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-042
SCALE 1"-20' 0"
SHEET NO.

IN PROGRESS 3/21/83

FIGURE II-42



SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. **Deleted**
28. Trash
29. Staff /**Security**
30. **Deleted**
31. Electric Incoming Service

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY H.W.A Date 2/28/83
DRAWN BY A.VERMA. Date 2/28/83
CHECKED BY J.YEN Date 3.14.83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date — MANAGER / CHIEF ENGINEER — Reg. No.

WILSHIRE / FAIRFAX STATION
PLANS AND SECTION

PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-043
SCALE 1"-20' 0"
SHEET NO.

FIGURE II-43

FAIRFAX/BEVERLY STATION

Background

The Fairfax/Beverly Station will be located off-street on a north-south axis about 100 feet east of and parallel to Fairfax. The north end of the station will be just south of Beverly Boulevard. The proposed station site is currently used as surface parking for CBS Television City. Immediately to the south of the station is the historic landmark, Farmer's Market--a major tourist and retail attraction. Other land use in the area is characterized by retail, commercial, and mixed uses along Fairfax and Beverly, with an immediate shift to residential housing on other streets. The land use west of the station is primarily low-density, single-family housing; to the east are medium and high-density apartments. Pedestrian activity is high throughout the area, particularly during the daytime hours.

Station Site Design Parameters

Based on moderate patronage projections for this station it is planned with a single entrance at the southeast corner of the intersection of Fairfax and Beverly. A bus turnout lane is proposed adjacent to the station entry to serve bus lines running on Beverly and for a possible neighborhood shuttle bus service. A future parking structure accommodating 1000 parking spaces will be developed for this location, but only surface parking will be provided initially.

Station Design Parameters

The single entry planned for this station will provide access to a mezzanine at the north end of the station and then to a center platform. The addition of a second entry and mezzanine at the south end of the platform can be accomplished in the future, if patronage and future development justify another entry. Ancillary space will be provided at each end of the station and a double crossover track will be located at the south end of the station. A traction power substation will be located over the crossover track.

FAIRFAX / BEVERLY STATION ENTRANCE
VIEW LOOKING SOUTHEAST

SCRTD Metro Rail
HWA
March 1983

FIGURE II-44

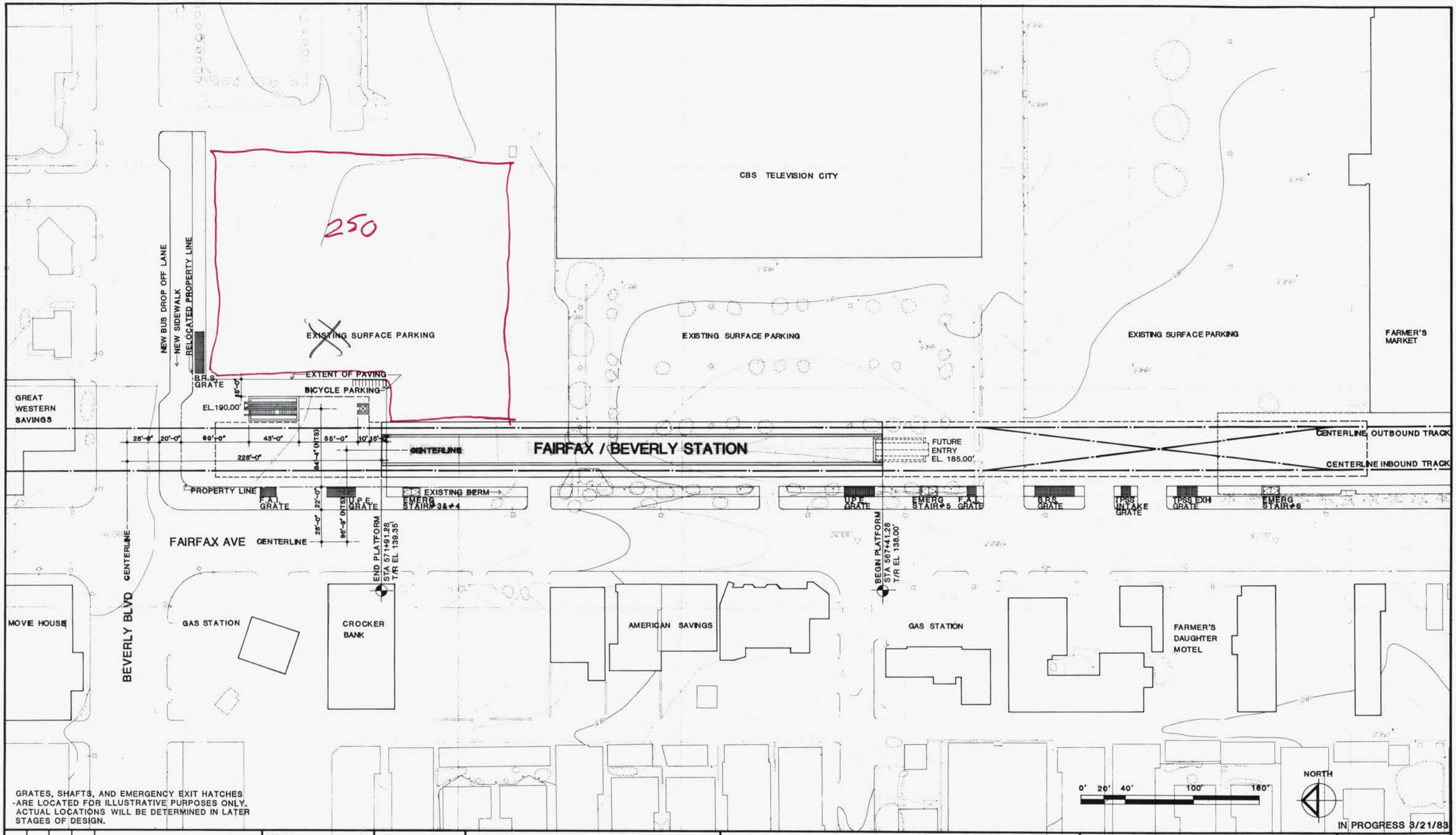
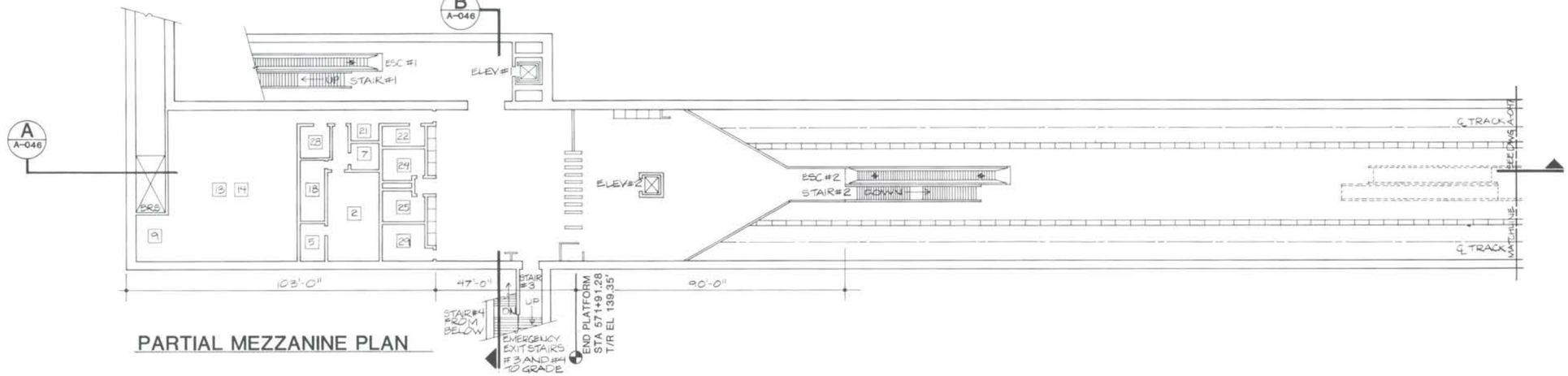

250
CBS TELEVISION CITY
EXISTING SURFACE PARKING
EXISTING SURFACE PARKING
EXISTING SURFACE PARKING
FARMER'S MARKET
NEW BUS DROP OFF LANE
NEW SIDEWALK
RELOCATED PROPERTY LINE
B.R.S. GRATE
EXTENT OF PAVING
BICYCLE PARKING
EL.190.00'
GREAT WESTERN SAVINGS
FAIRFAX / BEVERLY STATION
CENTERLINE
FUTURE ENTRY EL. 185.00'
CENTERLINE OUTBOUND TRACK
CENTERLINE INBOUND TRACK
PROPERTY LINE
F.A.I. GRATE
SUPE. GRATE
EXISTING BERM
EMERG STAIR #3&4
UPE GRATE
EMERG STAIR #5
F.A.I. GRATE
B.R.S. GRATE
TPSS UNTAKE GRATE
TPSS EXH GRATE
EMERG STAIR #6
FAIRFAX AVE
CENTERLINE
BEVERLY BLVD
CENTERLINE
END PLATFORM STA 571+91.28 T/R EL 139.35'
BEGIN PLATFORM STA 567+41.28 T/R EL 138.00'
MOVIE HOUSE
GAS STATION
CROCKER BANK
AMERICAN SAVINGS
GAS STATION
FARMER'S DAUGHTER MOTEL
0' 20' 40' 100' 160'
NORTH
GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL LOCATIONS WILL BE DETERMINED IN LATER STAGES OF DESIGN.
IN PROGRESS 3/21/83
DESIGNED BY HWA Date 1-10-83
DRAWN BY A. SNIDER Date 1-10-83
CHECKED BY J.YEN Date 2/10/83
REV. DATE BY APP. DESCRIPTION
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED
Reg. No.
APPROVED
Date
MANAGER / CHIEF ENGINEER
Reg. No.
FAIRFAX / BEVERLY STATION
SITE PLAN
PRELIMINARY:
FOR STUDY PURPOSES ONLY
CONTRACT NO.
DRAWING NO. AP-16BAA-A-045
SCALE 1"=40'-0"
SHEET NO.

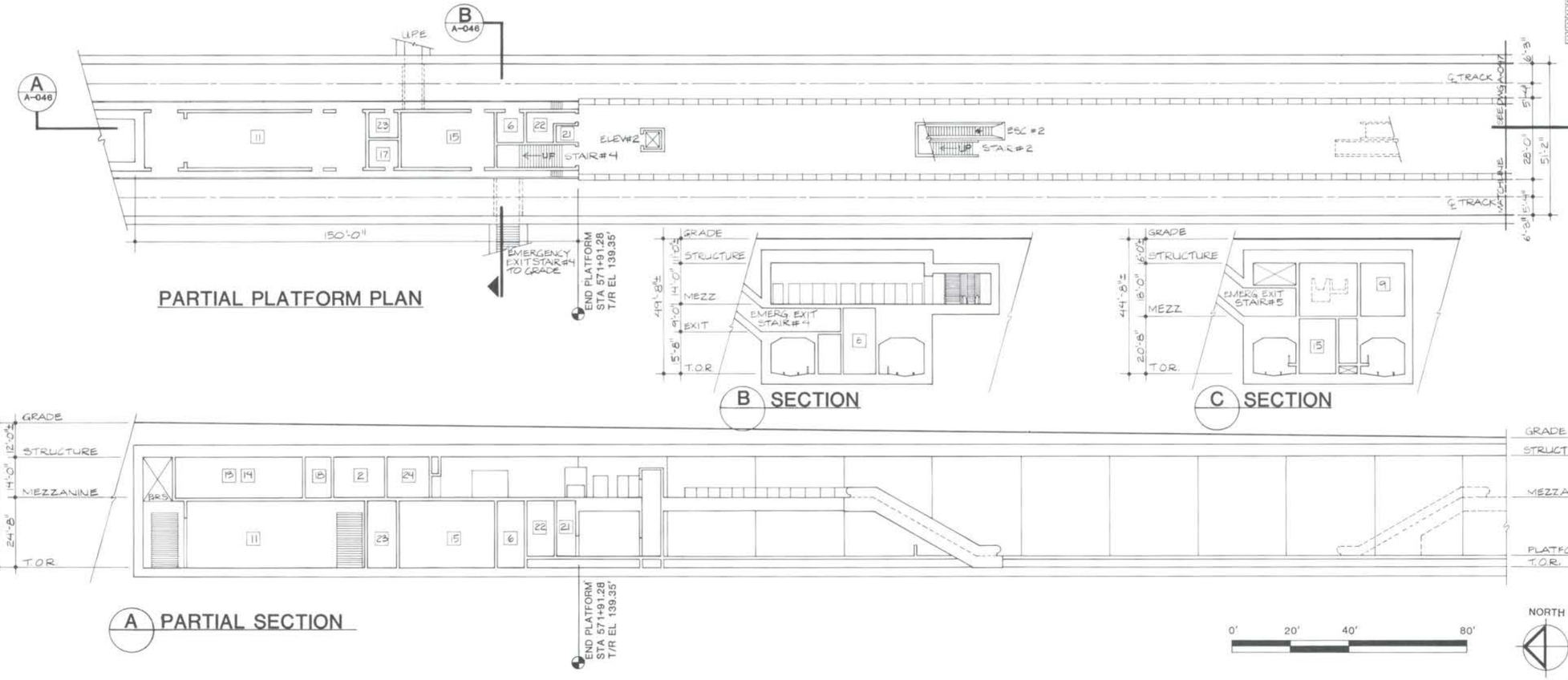
FIGURE II-45



PARTIAL MEZZANINE PLAN

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Deleted
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. Deleted
28. Trash
29. Staff/Security
30. Deleted
31. Electric Incoming Service



PARTIAL PLATFORM PLAN

B SECTION

C SECTION

A PARTIAL SECTION

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 1-10-83
DRAWN BY A. SNIDER Date 1-10-83
CHECKED BY J. YEN Date 2/10/83 PIGAT I

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

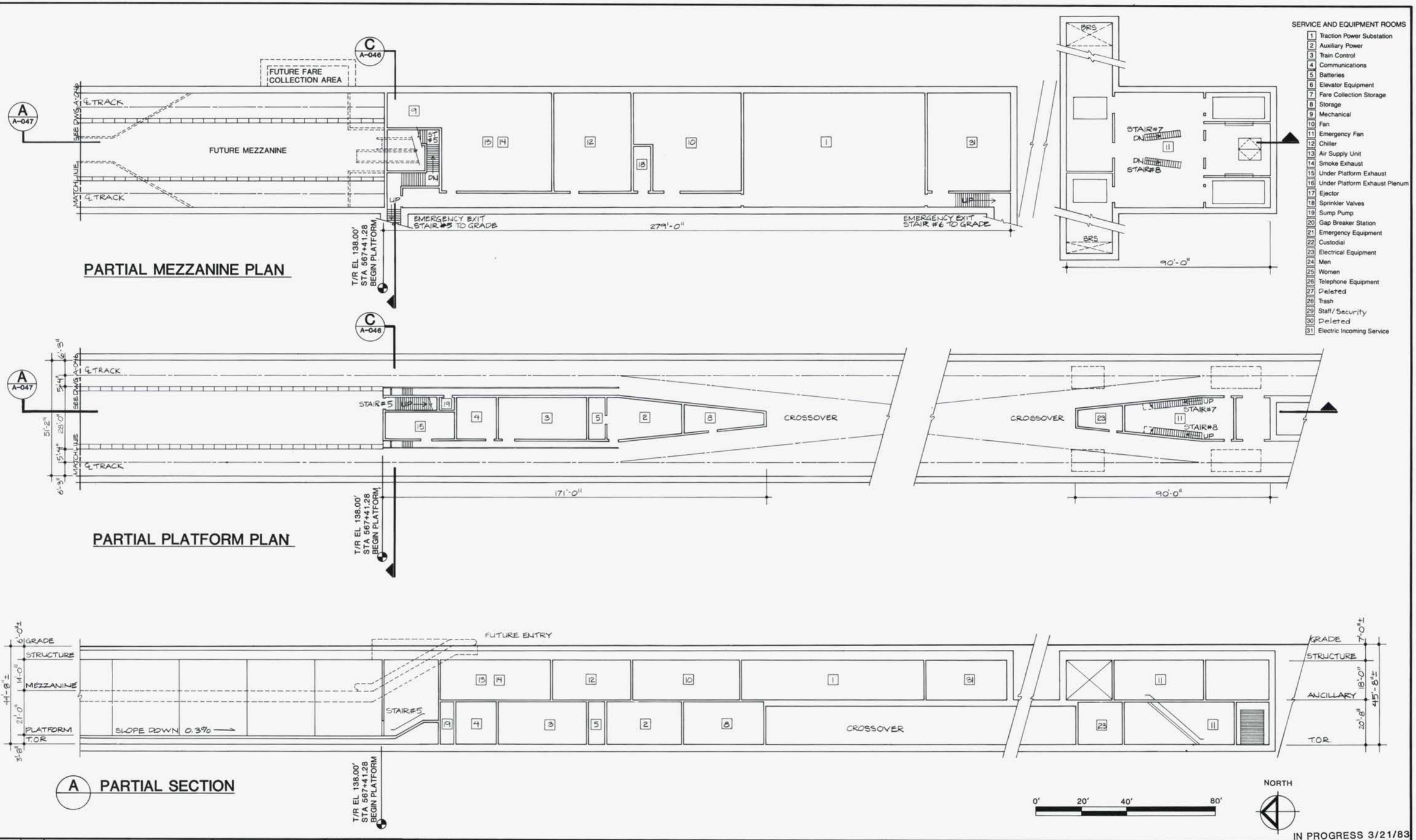
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

FAIRFAX / BEVERLY STATION
PLANS AND SECTION

PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-046
SCALE 1"=20'-0"
SHEET NO.

FIGURE II-46



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 1-10-83
DRAWN BY A. SNIDER Date 1-10-83
CHECKED BY J. YEN Date 3/10/83 PIGATI

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date MANAGER / CHIEF ENGINEER Reg. No.

FAIRFAX / BEVERLY STATION
PLANS AND SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-047
SCALE 1"=20'-0"
SHEET NO.

BRUNING

FIGURE II-47

FAIRFAX/SANTA MONICA STATION

Background

The Fairfax/Santa Monica Station will be located under Fairfax Avenue between Romaine and Norton Streets. Land use along the major streets in this station area is primarily low-rise, storefront retail and small neighborhood shopping centers. There are many vacant lots and parking lots interspersed with a gererally low level of development. The areas off the major streets are primarily residential land uses with a variety of housing types.

Station Site Design Paramenters

In addition to patrons arriving on foot to the station, the major mode of access will be via bus. The buses will be primarily arriving from and departing to the west and some buses may terminate at the station. Therefore, to facilitate the rail-bus transfer movement, the single entry to this station is planned for the northwest corner of the intersection of Fairfax and Santa Monica. A bus turnout lane is proposed for the north side of Santa Monica adjacent to the station entry. Although locating the entry on this corner will require the demolition of an existing service station, the corner will offer great development potential after the entry is in place.

Station Design Parameters

A single mezzanine located on the north end of the station will provide sufficient space to meet the projected moderate patronage demand but still permit the later construction of a station entry on the northeast corner of Fairfax and Santa Monica if future development or patronage warrants the addition. The station is planned with a center platform and with ancillary space provided at each end of the station. Since neither a crossover or pocket track is proposed for this station, the required traction power substation will not be located in the station structure. The facility is proposed to be at-grade in an off-street location east of Fairfax and south of Santa Monica.

ORANGE GROVE AVE

SHOPPING CENTER

PARKING

BRS

EMERGENCY STAIR#5

END PLATFORM STA 629+15.03 T/R EL 221.35'

UPE

COMMERCIAL

PARKING

ELECTRIC SUB STATION

TRACTION POWER SUBSTATION AT GRADE

BEGIN PLATFORM STA 624+15.03 T/R EL 220.00'

EMERG STAIR#6

RESIDENTIAL

PARKING

CENTERLINE OUTBOUND TRACK

FAIRFAX AVE

STATION CENTERLINE

OLD FAIRFAX CENTERLINE

FAIRFAX / SANTA MONICA STATION

CENTERLINE INBOUND TRACK

PROPERTY LINE

SERVICE STATION

POST OFFICE

RETAIL

F.A.I.

NORTON AVE

BICYCLE PARKING

EXTENT OF PAVING

NEW BUS DROP OFF LANE

CENTERLINE

SANTA MONICA BLVD

RETAIL

LEE STRASBURG ACTING SCHOOL

UPE

BRS

WEST HOLLYWOOD OPPORTUNITY CENTER

MULTIPLE FAMILY RESIDENTIAL

ROMAINE ST

NORTH

0' 40' 100' 160'

GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL LOCATIONS WILL BE DETERMINED IN LATER STAGES OF DESIGN.

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 2.7.83

DRAWN BY A. SNIDER Date 2.7.83

CHECKED BY J. YEN PIGATI Date 2/16/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations

SUBMITTED BY: J. Ivett
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

APPROVAL RECOMMENDED ____ Reg. No. ____

APPROVED ____ Date ____
MANAGER / CHIEF ENGINEER Reg. No. ____

FAIRFAX / SANTA MONICA STATION
SITE PLAN
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.

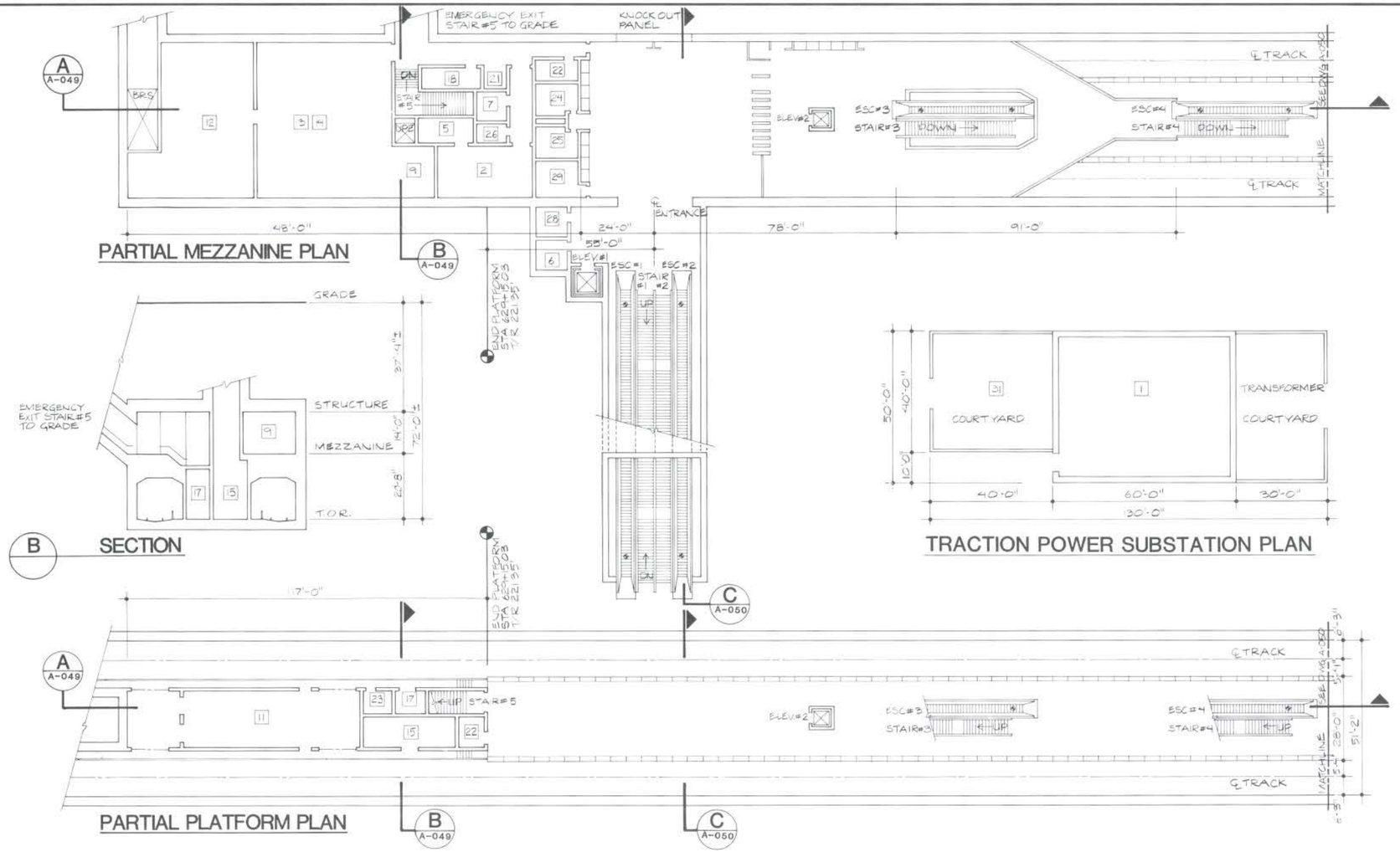
DRAWING NO. AP-16BAA-A-048

SCALE 1"= 40'-0"

SHEET NO.

BRUNING

FIGURE II-48



SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Deleted
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. Deleted
28. Trash
29. Staff / Security
30. Deleted
31. Electric Incoming Service

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 2.7.83
DRAWN BY A. SNIDER Date 2.7.83
CHECKED BY J. YEN Date 3/16/83 PIGATI

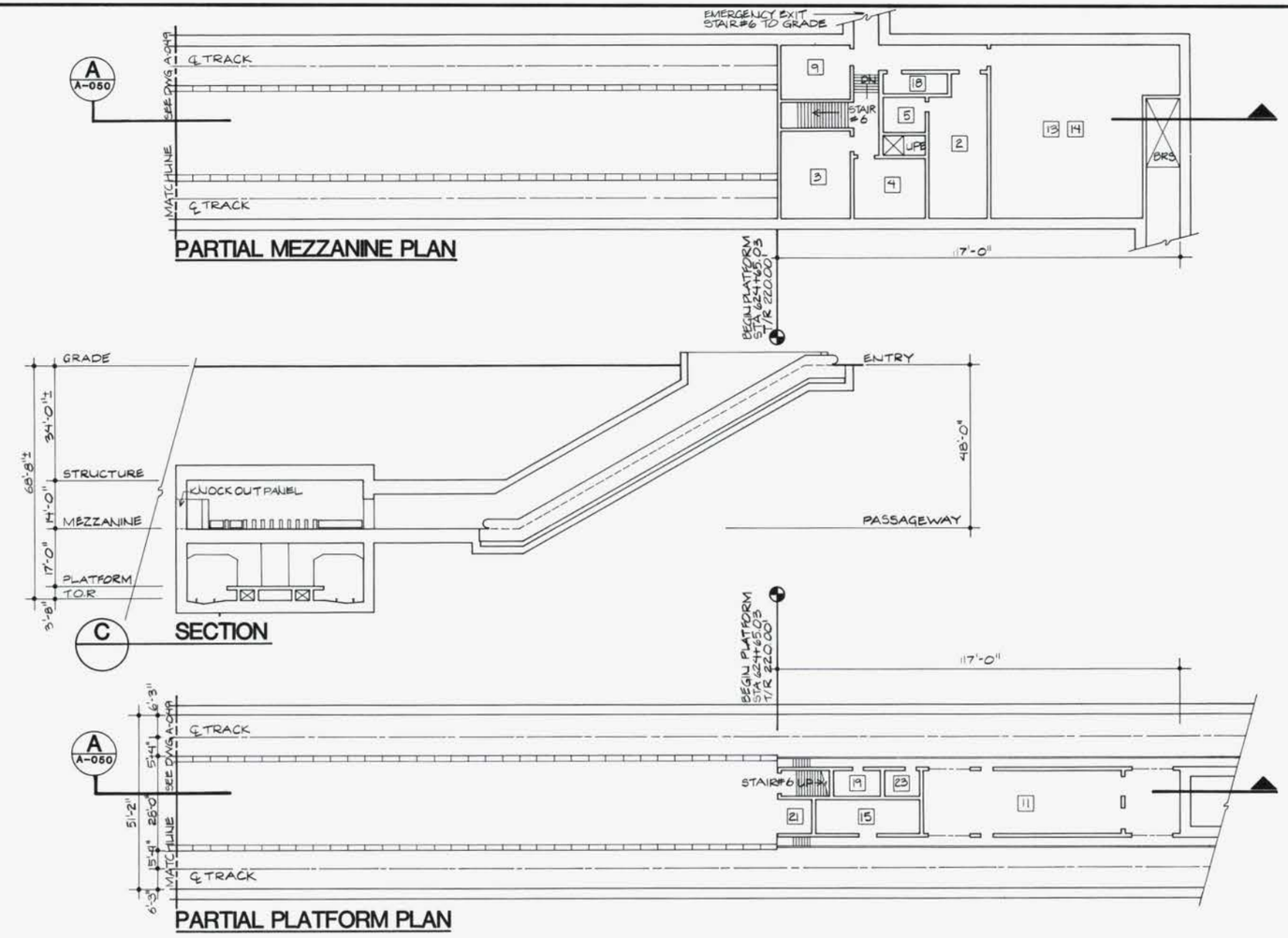
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

FAIRFAX / SANTA MONICA STATION
PLANS AND SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-049
SCALE 1"=20'-0"
SHEET NO.

FIGURE II-49



SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Deleted
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. Deleted
28. Trash
29. Staff/Security
30. Deleted
31. Electric Incoming Service

IN PROGRESS 3/21/83

NORTH

0' 20' 40' 80'

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 2.7.83

DRAWN BY A. SNIDER Date 2.7.83

CHECKED BY J. YEN PIGATI Date 2/10/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations

SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

FAIRFAX / SANTA MONICA STATION
PLANS AND SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-050
SCALE 1"=20'-0"
SHEET NO.

FIGURE II-50

LA BREA/SUNSET STATION

Background

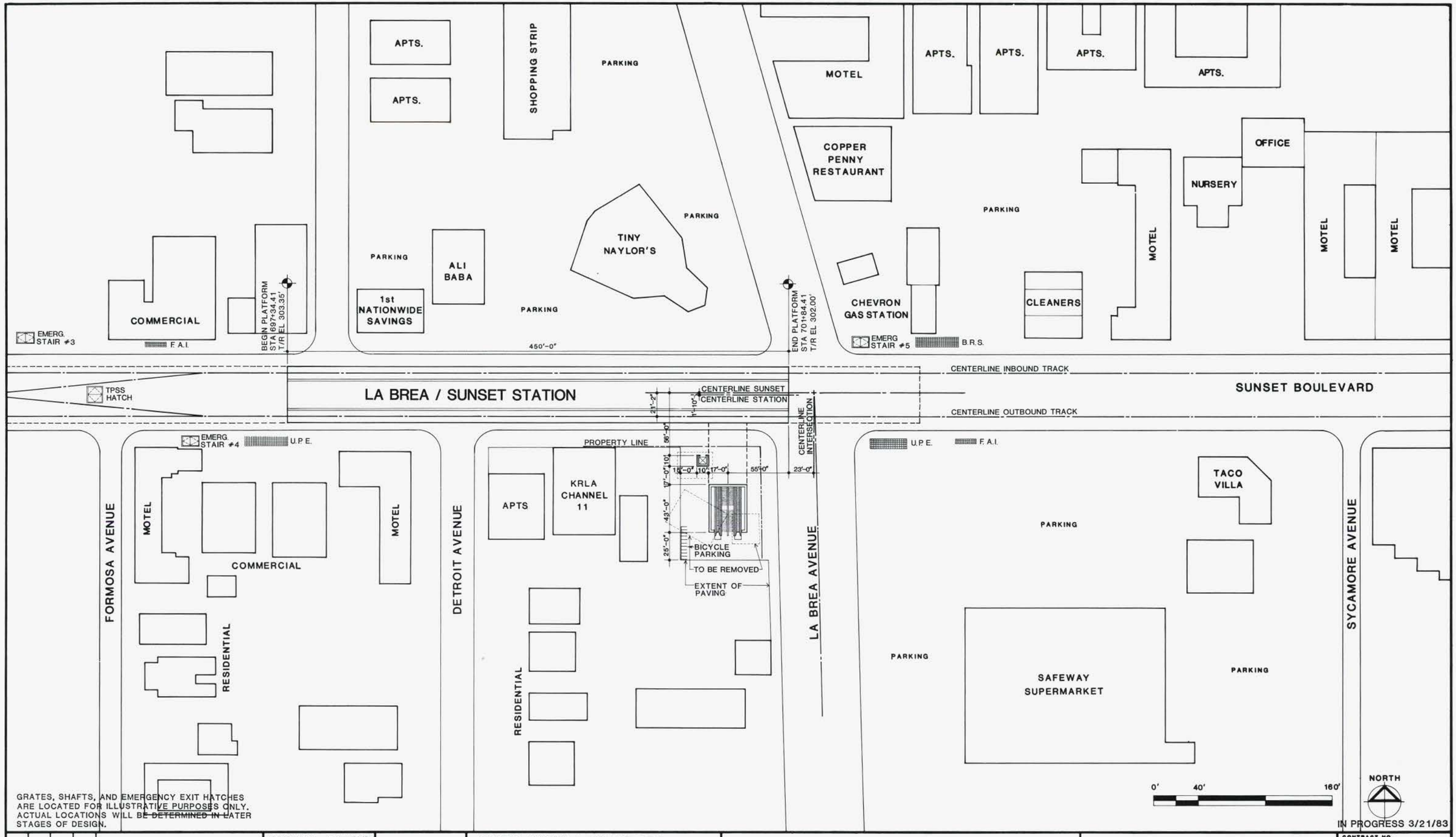
The La Brea/Sunset Station will be located under Sunset Boulevard between Formosa and La Brea Avenues. The station area is characterized by mixed-use development. The major streets, Sunset and La Brea, have low-rise commercial facilities. The areas behind the major streets are primarily single-family residential. Hollywood High School is located nearby. A Safeway Supermarket is located on the southeast corner of La Brea and Sunset, service stations are on the northeast and southwest corners, and a Tiny Naylor's Restaurant is on the northwest corner.

Station Site Design Parameters

The expected patronage for this station is among the lowest on the system. It is planned with a single entry to be located on the southwest corner of the intersection of Sunset and La Brea. The construction of the entry will require the removal of an existing service station, but the site will have future development potential.

Station Design Parameters

In response to the low patronage projection the station is planned with a single mezzanine at the east end of the station. The station will have a center platform with ancillary space provided at each end of the station. A double crossover track will be located at the west end of the station and the required traction power substation will be located over the cross-over track.



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 12/1/83
DRAWN BY A. SNIDER Date 12/1/83
CHECKED BY J. YEN Date 3/14/83 PIGRATI

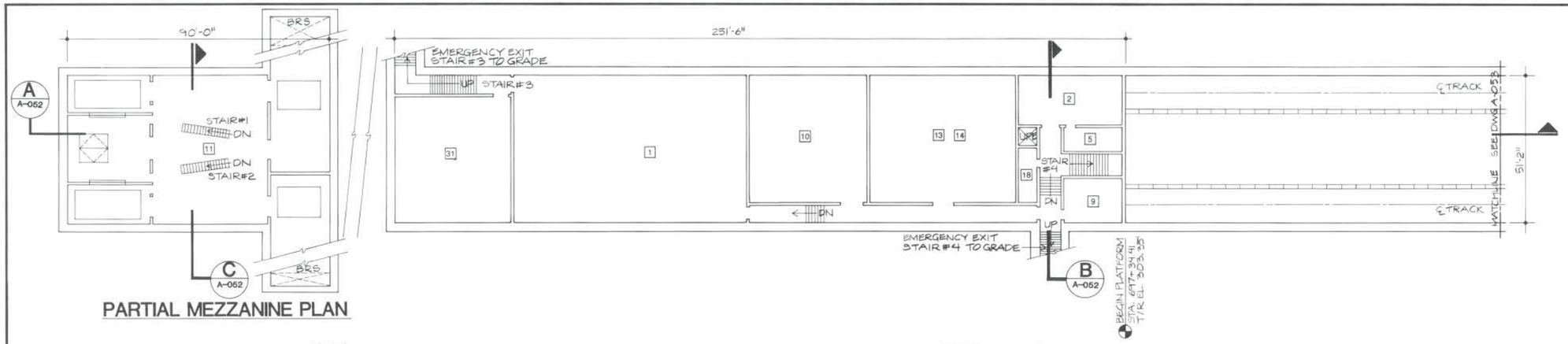
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

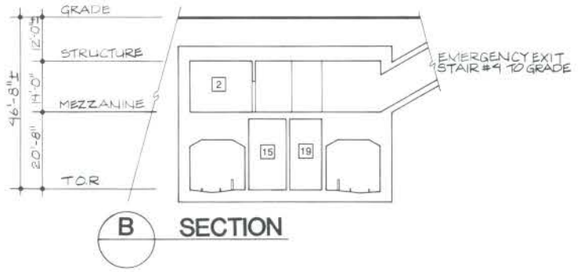
LA BREA / SUNSET STATION
SITE PLAN
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-051
SCALE 1"=40'-0"
SHEET NO.

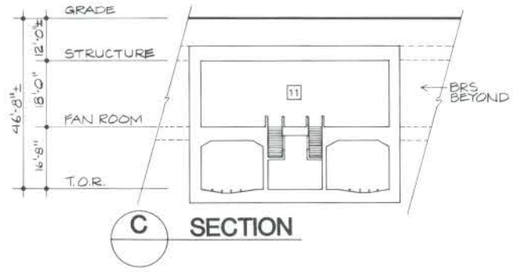
FIGURE II-51



PARTIAL MEZZANINE PLAN



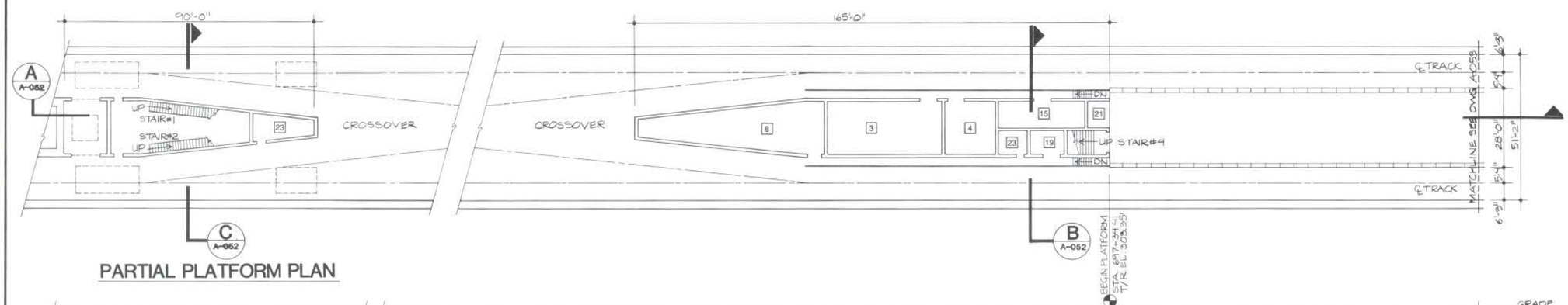
B SECTION



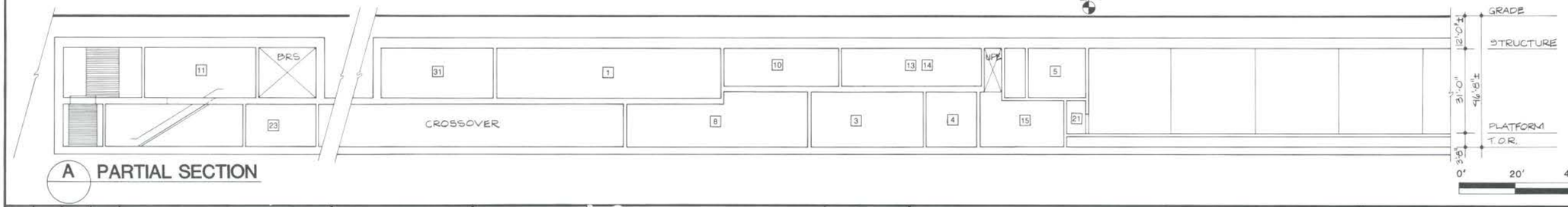
C SECTION

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. Deleted
28. Trash
29. Staff/Security
30. Deleted
31. Electric Incoming Service



PARTIAL PLATFORM PLAN



A PARTIAL SECTION

IN PROGRESS 3/21/83

NORTH

0' 20' 40' 80'

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 1.21.83
DRAWN BY A. SNIDER Date 1.21.83
CHECKED BY J. YEN Date 2.14.83 PIGATI

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

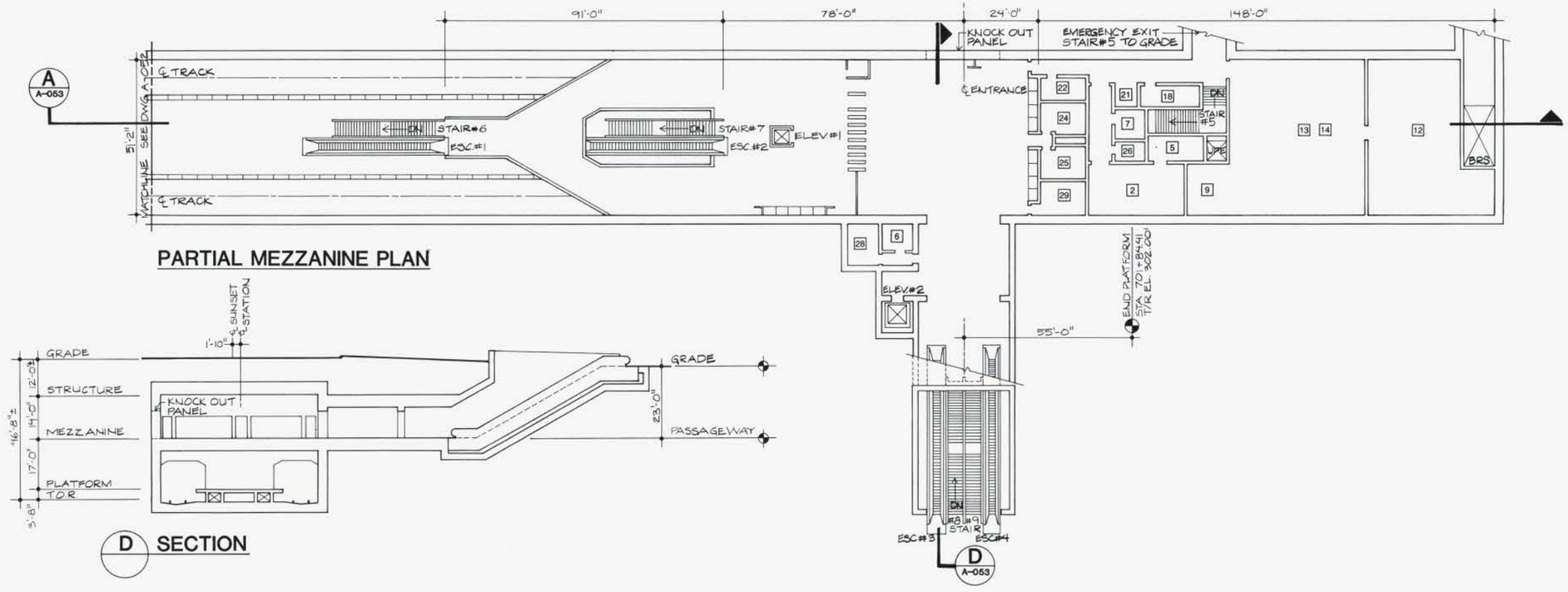
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED
Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

LA BREA / SUNSET STATION
PLANS AND SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

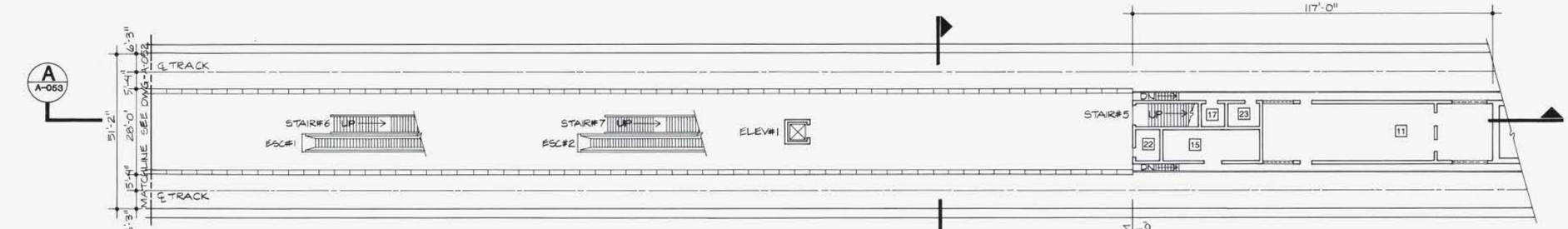
CONTRACT NO.
DRAWING NO. AP-16BAA-A-052
SCALE 1"=20'-0"
SHEET NO.

FIGURE II-52

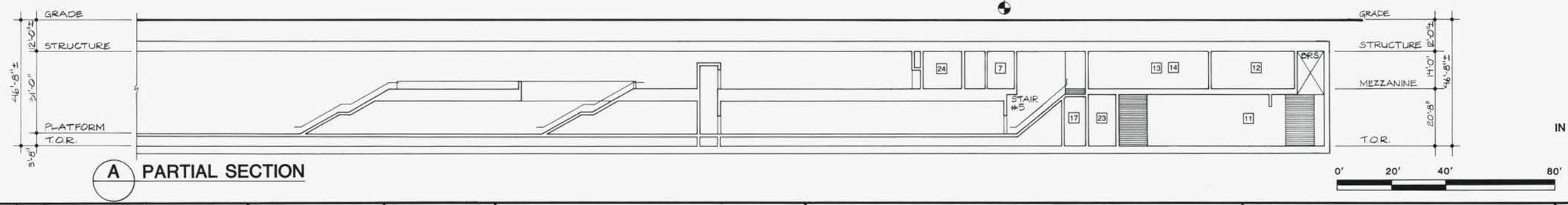


PARTIAL MEZZANINE PLAN

D SECTION



PARTIAL PLATFORM PLAN



A PARTIAL SECTION

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Deleted
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. Deleted
28. Trash
29. Staff/Security
30. Deleted
31. Electric Incoming Service

IN PROGRESS 3/21/83

NORTH

0' 20' 40' 80'

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 1.21.83
DRAWN BY A. SNIDER Date 1.21.83
CHECKED BY J. YEN / P. GATTI Date 2.14.83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED ____ Reg. No. ____
APPROVED ____ Date ____
MANAGER / CHIEF ENGINEER Reg. No. ____

LA BREA / SUNSET STATION
PLANS AND SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-053
SCALE 1"=20'-0"
SHEET NO.

FIGURE II-53

HOLLYWOOD/CAHUENGA STATION

Background

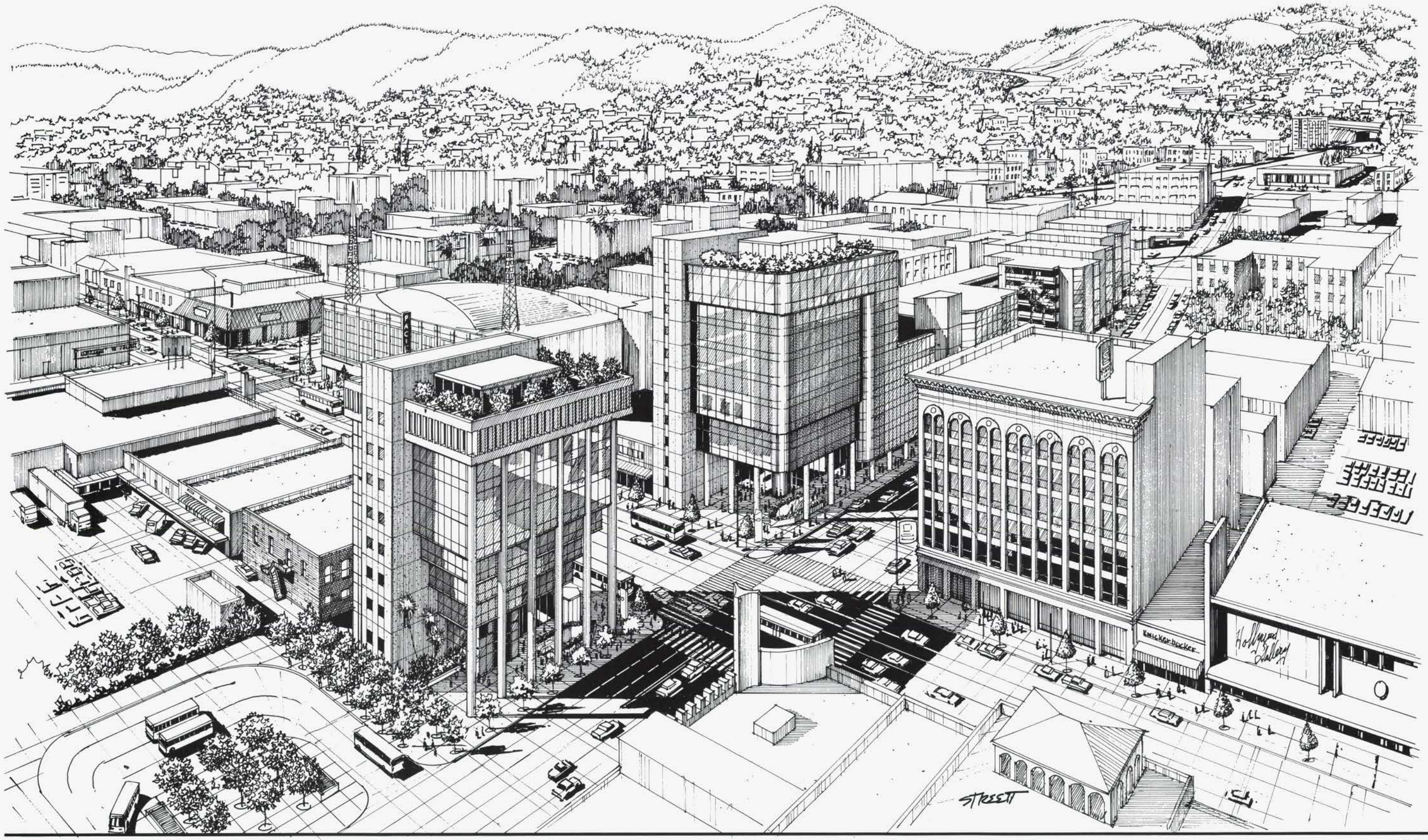
The Hollywood/Cahuenga Station will be located off-street running north-south along the west side of Cahuenga Boulevard from a point just south of Hollywood Bouelvard up to Yucca Street. The station area is in the commercial center of Hollywood. The development along Hollywood Boulevard is low and medium rise commercial with a number of theaters and other entertainment users. A mixture of commercial and industrial buildings are located on Cahuenga Boulevard. North of Hollywood Boulevard and west of Cahuenga are high density residential areas.

Station Site Design Parameters

In addition to serving passengers whose destination is the station area, many station users will be transferring to buses running in both directions on Hollywood Boulevard. Some bus lines will terminate at the station and others will continue on. In response to expected pedestrian activity and the bus movements, the station has been planned with two entries, one on the northwest and one on the southwest corner of Hollywood and Cahuenga. An area immediately to the south of the station is planned for use as a bus turnaround and layover area. This area is also used as a staging area for buses serving the Hollywood Bowl. A pocket track will be located at the north end of the station. Both the station and the pocket track will be constructed by the cut-and-cover method which will result in the removing of most of the existing structures facing on Cahuenga Boulevard between Hollywood Boulevard and Yucca Street. This area, which will be adjacent to a station entry, will upon completion of station construction, be available for new development. The off-street station location will reduce traffic impacts normally caused by construction activities.

Station Design Parameters

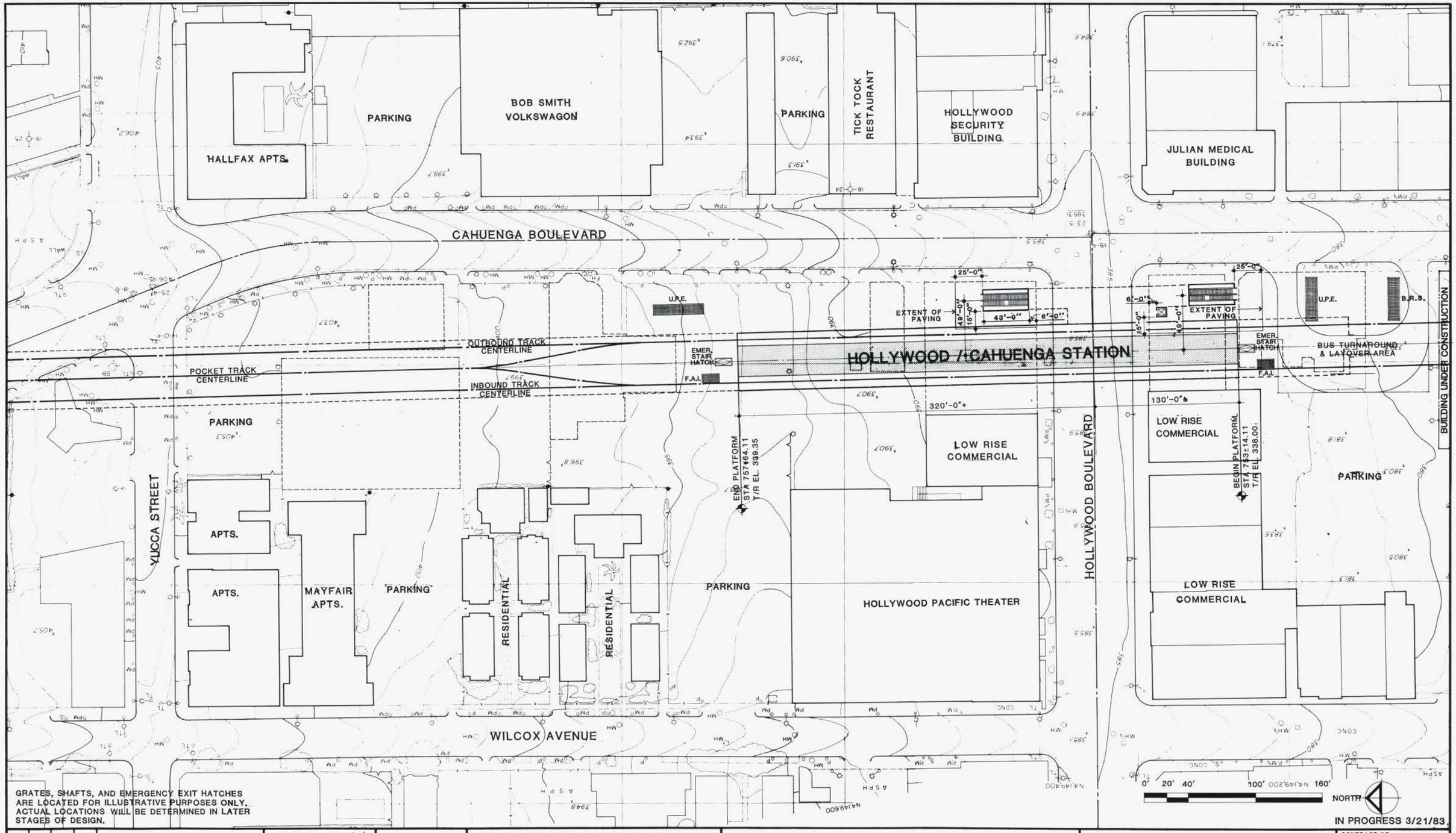
The station, which has moderately high patronage projections, is planned with a single mezzanine located at the south end of the station connecting to two station entries. Ancillary space will be provided at each end of the station and a traction power substation will be located over the pocket track described above.



HOLLYWOOD / CAHUENGA STATION
VIEW LOOKING NORTHWEST

SCRTD Metro Rail
HWA
March 1983

FIGURE II-54



GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL LOCATIONS WILL BE DETERMINED IN LATER STAGES OF DESIGN.

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3/11/83
DRAWN BY S.DEBNATH Date 3/11/83
CHECKED BY J.YEN Date 3/11/83

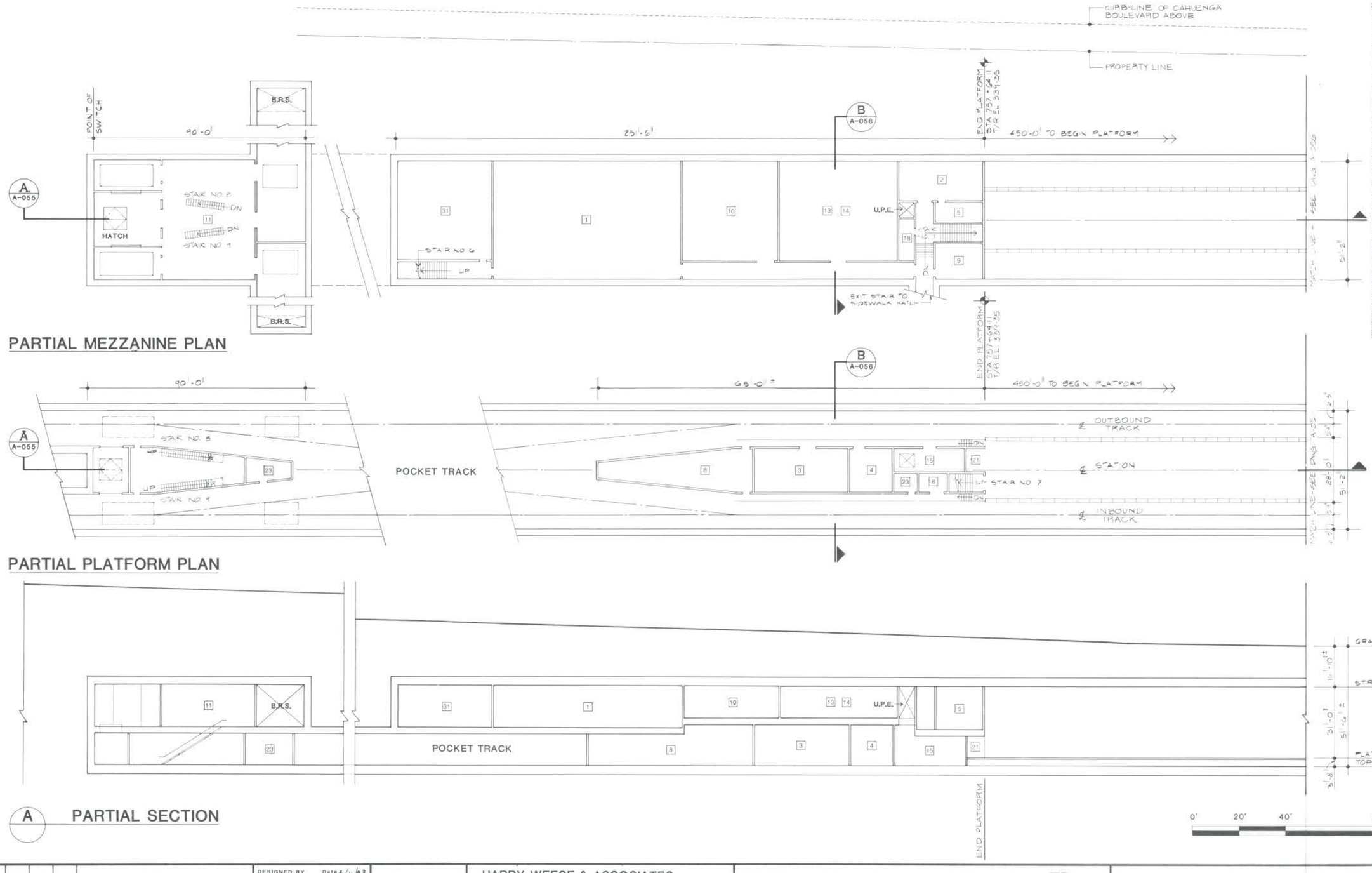
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

HOLLYWOOD/CAHUENGA STATION
SITE PLAN
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-054
SCALE 1"= 40'-0"
SHEET NO.

FIGURE II-55



PARTIAL MEZZANINE PLAN

PARTIAL PLATFORM PLAN

A PARTIAL SECTION

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. DELETED
28. Trash
29. Staff / Security
30. DELETED
31. Electric Incoming Service

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3/11/83
DRAWN BY S. DEBNATH Date 3/11/83
CHECKED BY J. YEN PIGATI Date 3/16/83

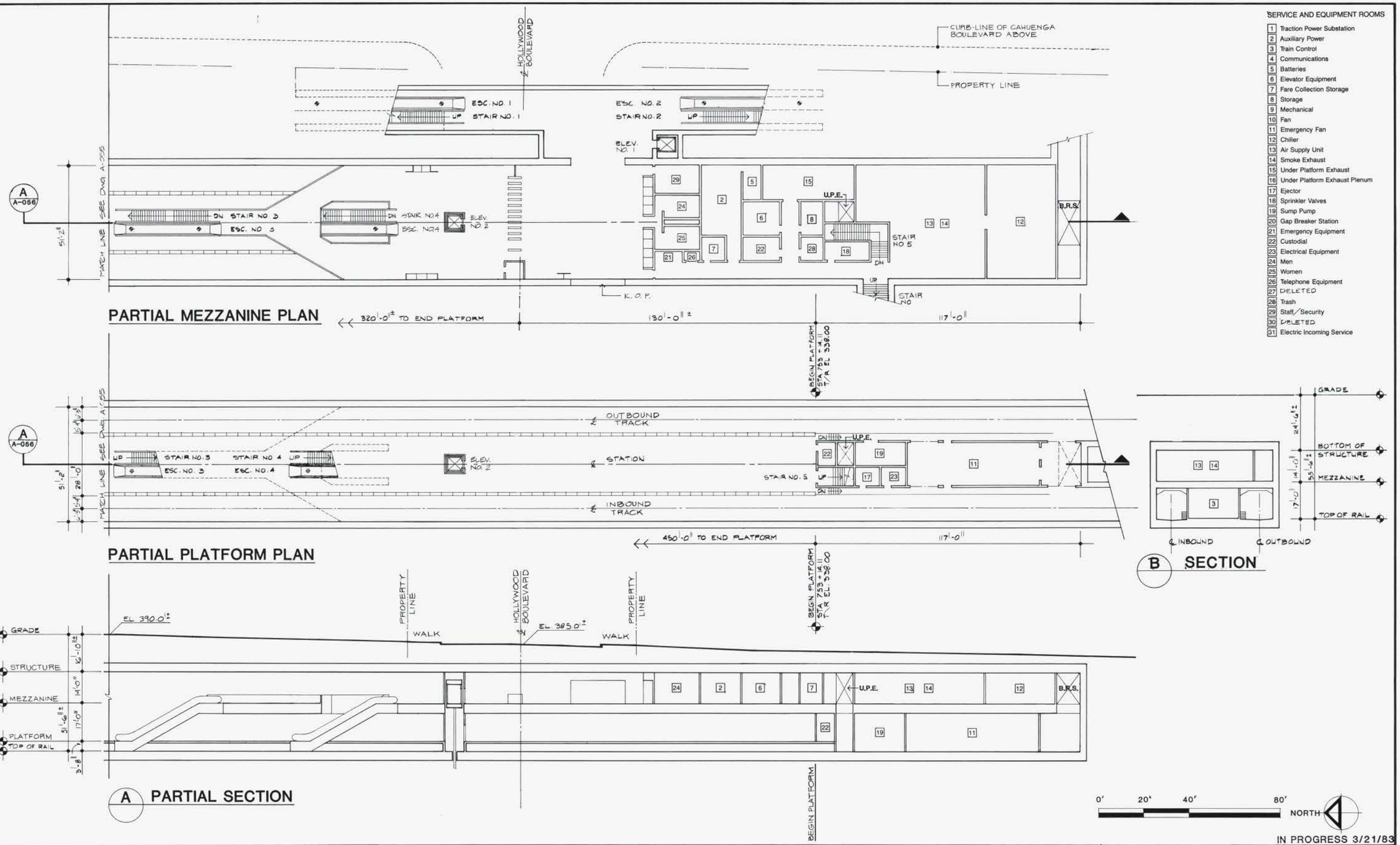
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

HOLLYWOOD/CAHUENGA STATION
PLANS & SECTION
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-055
SCALE 1"=20'-0"
SHEET NO.

FIGURE II-56



PARTIAL MEZZANINE PLAN

PARTIAL PLATFORM PLAN

A PARTIAL SECTION

B SECTION

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. DELETED
28. Trash
29. Staff/Security
30. DELETED
31. Electric Incoming Service

0' 20' 40' 80' NORTH

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3/11/83
DRAWN BY S. DEBNATH Date 3/11/83
CHECKED BY J. YEN Date 3/11/83 PIGATI

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

HOLLYWOOD/CAHUENGA STATION
PLANS & SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-056
SCALE 1"= 20'-0"
SHEET NO.

BRUNING

FIGURE II-57

UNIVERSAL CITY STATION

Background

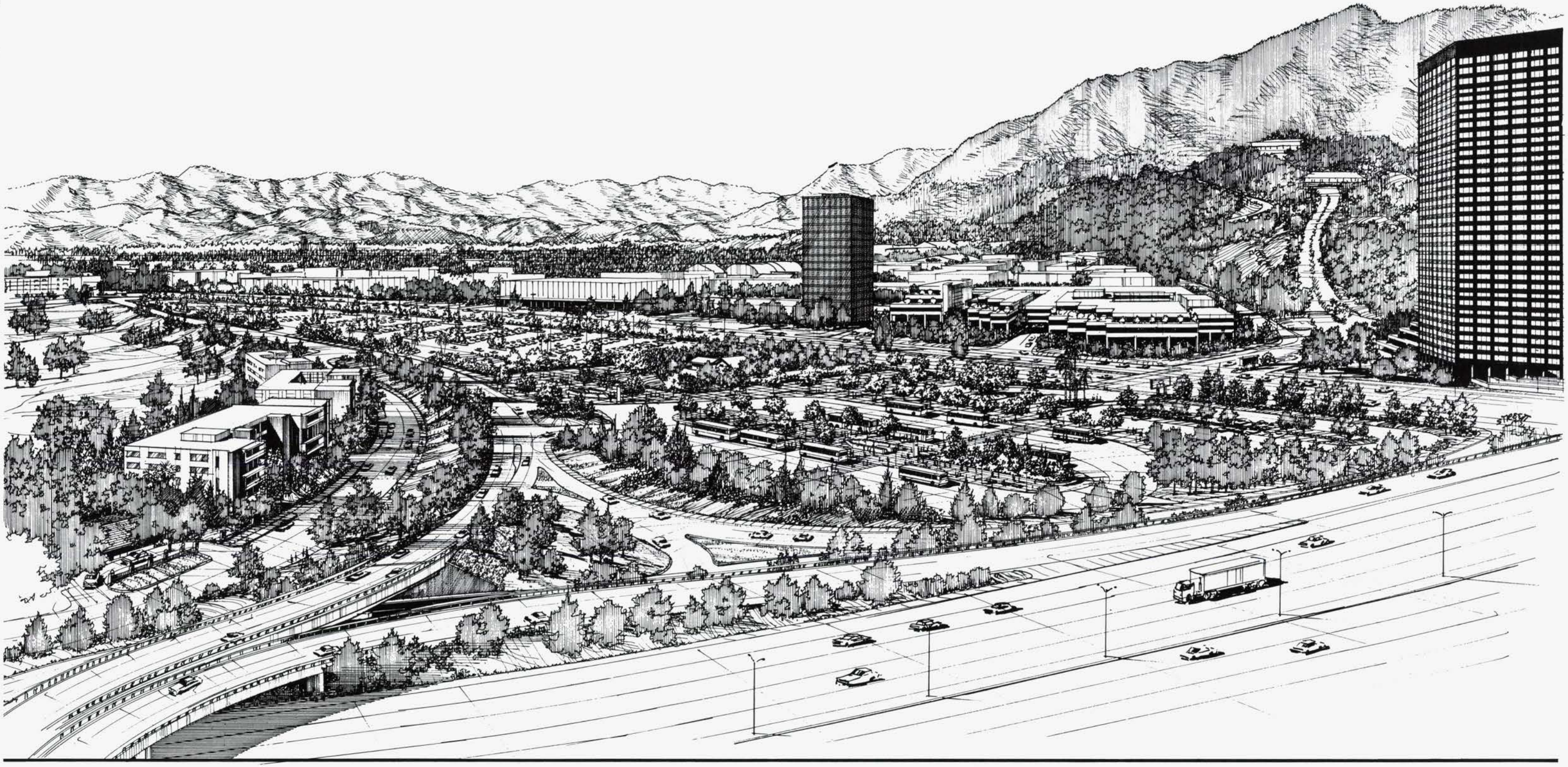
The Universal City Station will be located off-street in an area bounded by Lankershim Boulevard on the east, Universal Place on the south, and Bluffside Drive on the west and north. MCA Headquarters and Universal Studios are located immediately to the east. Areas to the west are either residential or parkland. Within the station site boundaries is located the Campo de Cahuenga--a historic landmark park. The Hewlett Packard Company which currently occupies a facility in the station area is relocating to new facilities in the near future. A 36 story, 700,000 sq. ft. office building, which will be the headquarters for the Getty Oil Corporation, is under construction on the east side of Lankershim adjacent to the Hollywood Freeway.

Station Site Design Parameters

The program for the station site includes a future parking structure, but surface parking only in the first phase; 40 space Kiss-Ride area; and a bus terminal with boarding locations for 8 bus lines and layover capacity for 10 buses. Vehicular access problems to the site will be mitigated by the construction of a separate roadway, parallel to but separate from Bluffside Drive, over the Hollywood Freeway to Vineland Avenue. Also, Universal Place will be changed to a one-way westbound street. Extensive landscaped berms will be provided to further mitigate adverse impacts from the new roadway and overpasses. The station site entry from Lankershim will be configured to permit Universal Studio Trams to cross Lankershim and load/unload passengers convenient to a station entry. The existing RTD Park-Ride lot and the tennis courts west of the Hollywood Freeway will be used for additional surface parking. Buses accessing the station by the new access road will pick-up and discharge patrons at these surface lots thus providing a shuttle service to the station. Landscaping and setbacks will be used to mitigate any adverse impacts on the Campo de Cahuenga. All other structures in the station area will be removed. The station entries and vehicular access areas are being designed to provide a parklike setting and enhance the neighborhood.

Station Design Parameters

Two entrances are planned for this station, one serving the bus terminal and the other oriented towards the parking areas and serving pedestrians. The entrances will lead to a single mezzanine located in the center of the station. Ancillary space will be provided at each end of the station with a traction power substation located below-grade over the ancillary space at the south end of the station.

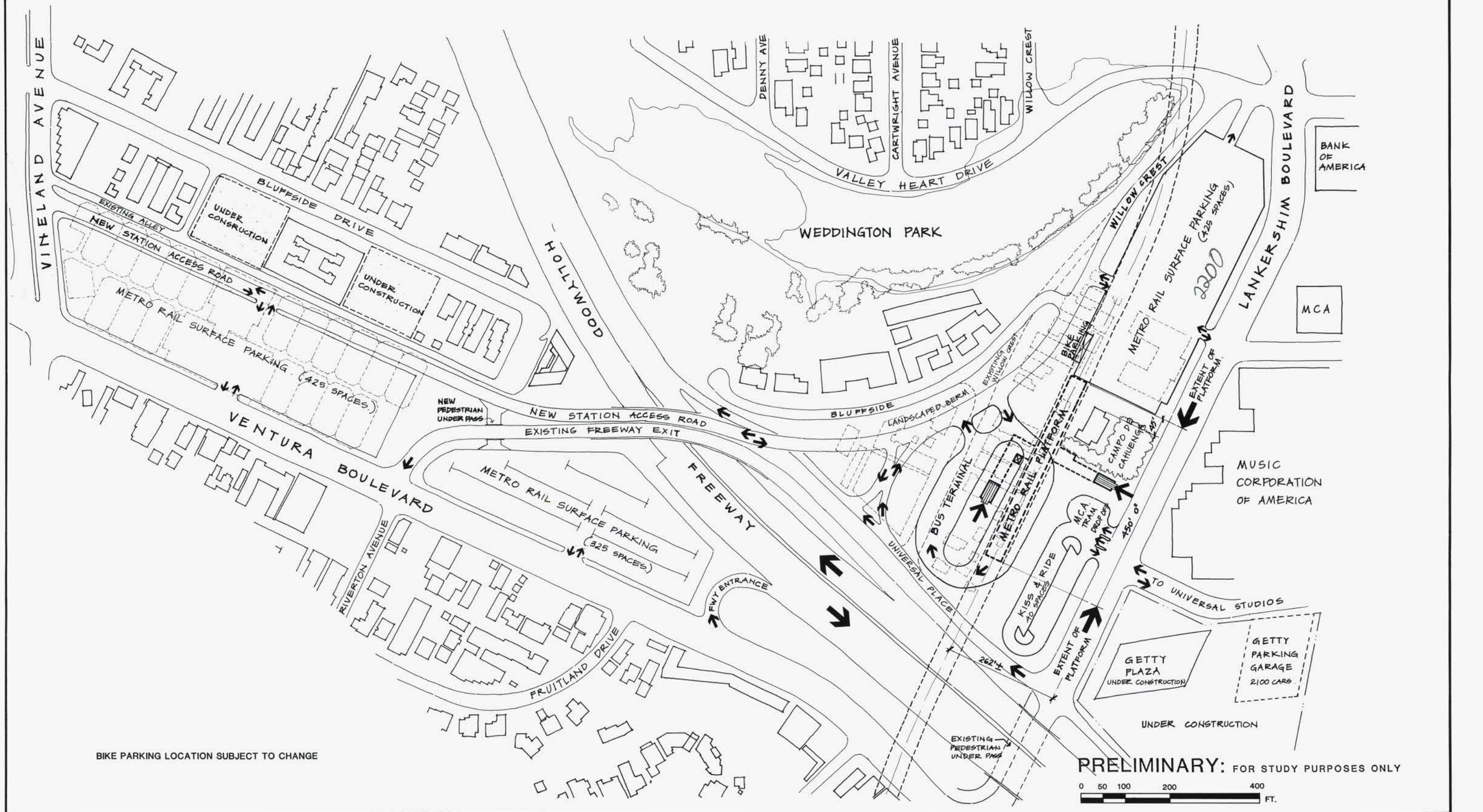


PROPOSED UNIVERSAL CITY METRO RAIL STATION

HOLLYWOOD FREEWAY, LANKERSHIM BLVD.
& PROPOSED NEW ACCESS ROAD

SCRTD Metro Rail
HWA
February, 1983

FIGURE II-58



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA/TAMS/TEC/GWA. Date 3/8/83
DRAWN BY A. VERMA Date 3/8/83
CHECKED BY J Wiley Date 3/14/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

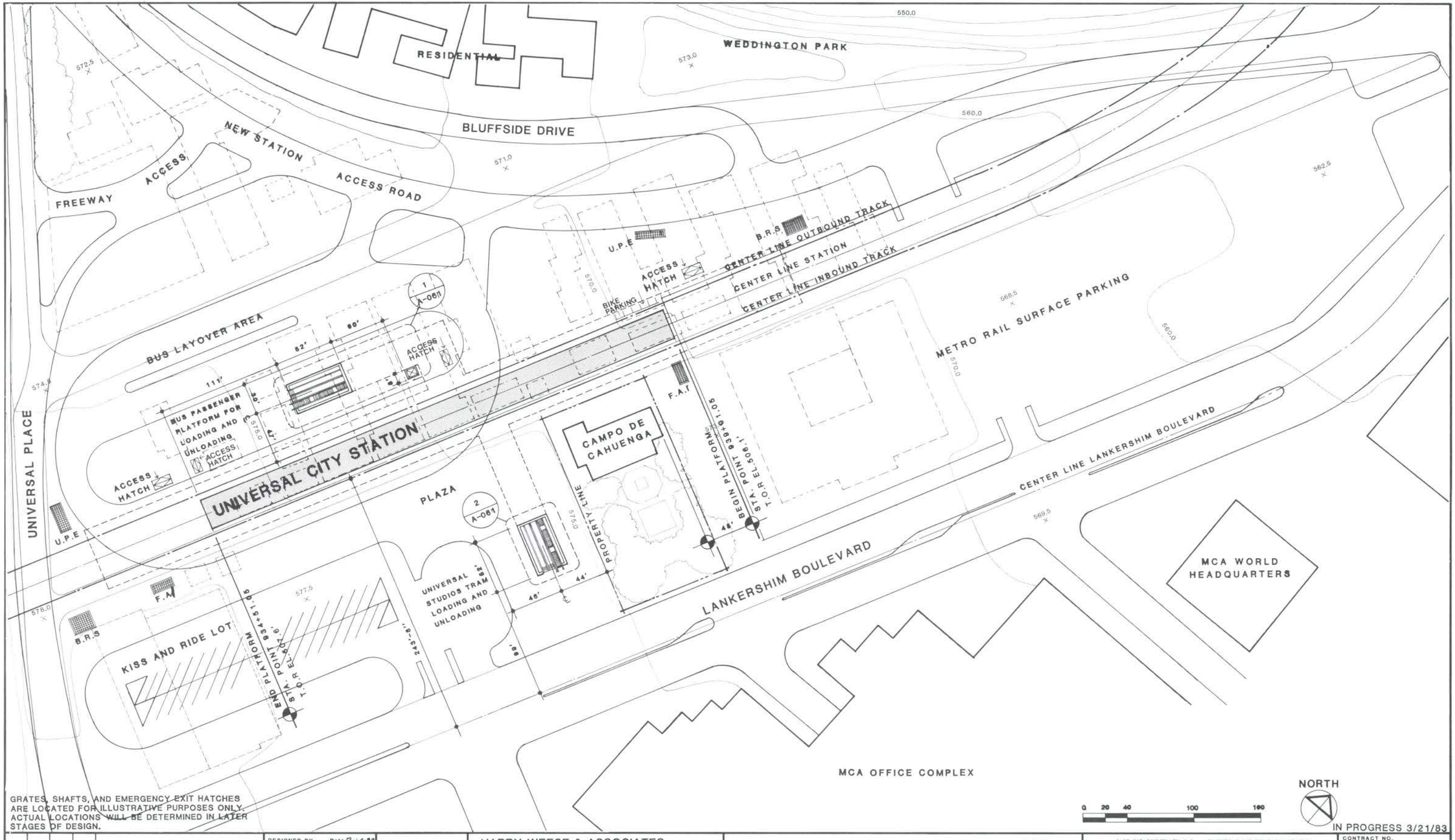
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date — MANAGER / CHIEF ENGINEER — Reg. No.

UNIVERSAL CITY STATION
OVERALL SITE DEVELOPMENT

CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO.

BRUNING

FIGURE II-59



GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL LOCATIONS WILL BE DETERMINED IN LATER STAGES OF DESIGN.

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3-14-83
DRAWN BY M. POINDEXTER Date 3-14-83
CHECKED BY J. YEN Date 3-14-83

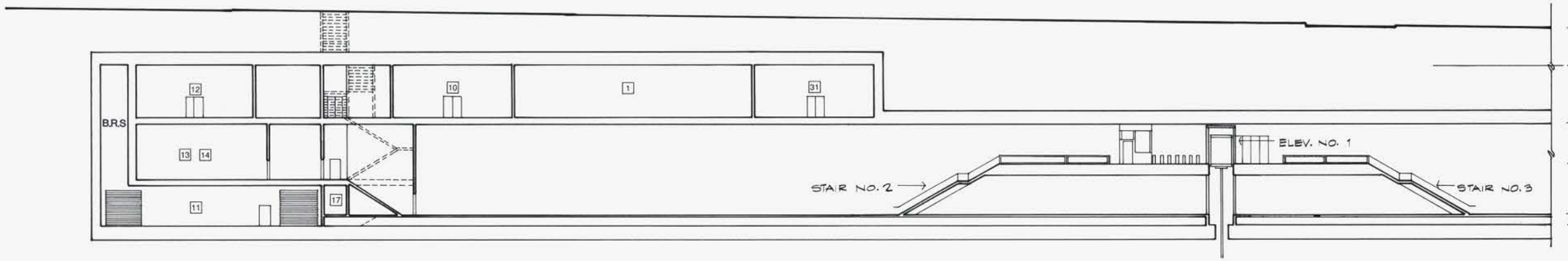
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

UNIVERSAL CITY STATION
SITE PLAN
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-058
SCALE 1"= 40'-0"
SHEET NO.

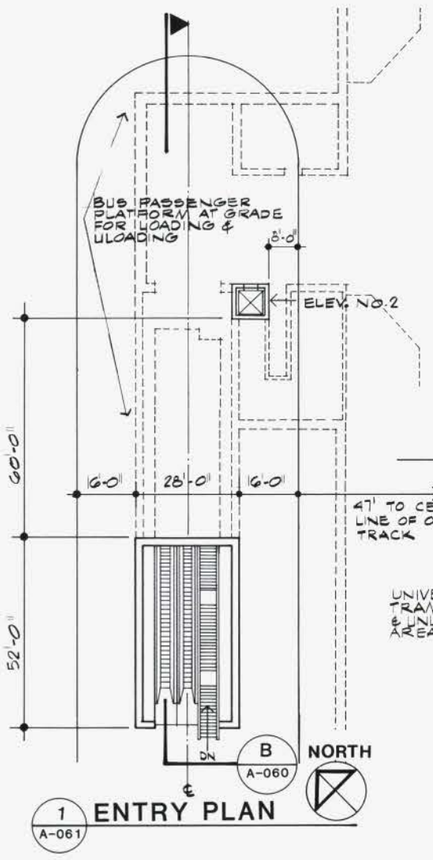
FIGURE II-60



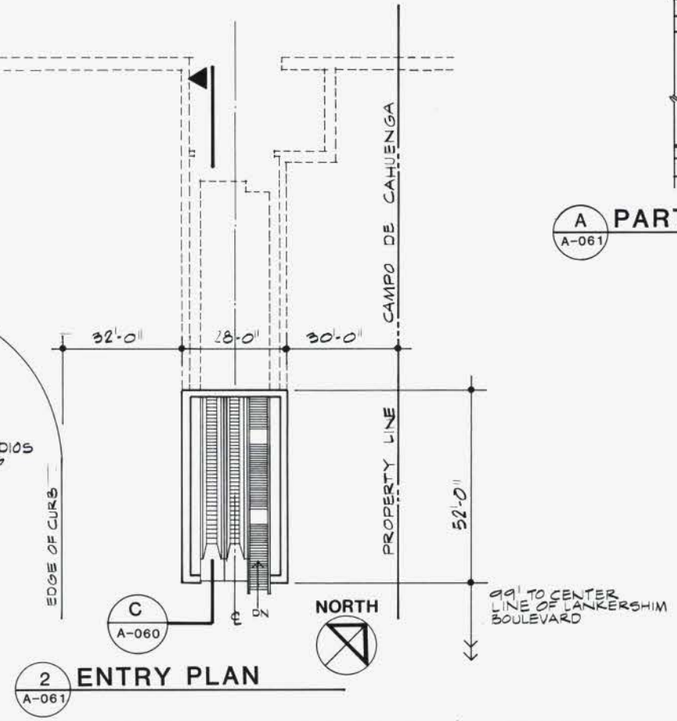
A A-061 **PARTIAL SECTION**

SERVICE AND EQUIPMENT ROOMS

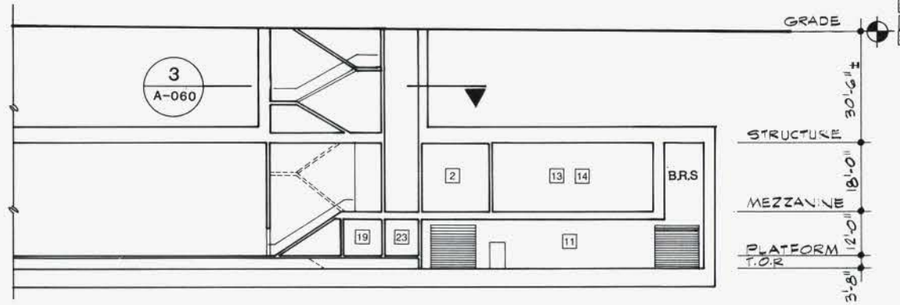
1 Traction Power Substation
2 Auxiliary Power
3 Train Control
4 Communications
5 Batteries
6 Elevator Equipment
7 Fare Collection Storage
8 Storage
9 Mechanical
10 Fan
11 Emergency Fan
12 Chiller
13 Air Supply Unit
14 Smoke Exhaust
15 Under Platform Exhaust
16 Under Platform Exhaust Plenum
17 Ejector
18 Sprinkler Valves
19 Sump Pump
20 Gap Breaker Station
21 Emergency Equipment
22 Custodial
23 Electrical Equipment
24 Men
25 Women
26 Telephone Equipment
27 DELETED
28 Trash
29 Staff
30 DELETED
31 Electric Incoming Service



1 A-061 **ENTRY PLAN**



2 A-061 **ENTRY PLAN**



A A-061 **PARTIAL SECTION**

0 10 20 50 80

NORTH

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3-14-83
DRAWN BY M. POINDEXTER Date 3-14-83
CHECKED BY J.YEN PIGATI Date 3-14-83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

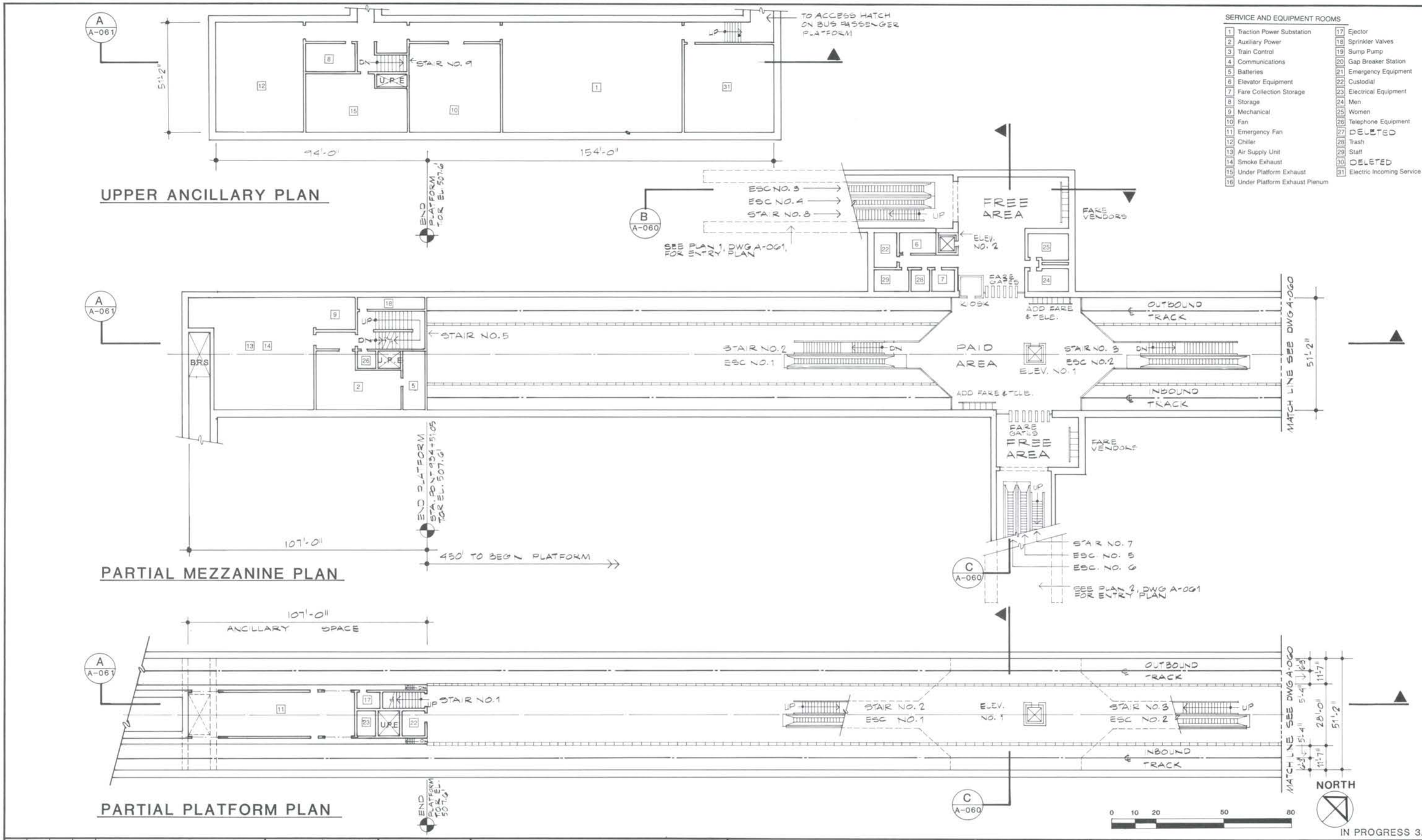
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

UNIVERSAL CITY STATION
PLANS & SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-061
SCALE 1" = 20'-0"
SHEET NO.

BRUNING 44-132

FIGURE II-61



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3-14-83
DRAWN BY M. POINDEXTER Date 3-14-83
CHECKED BY J. YEN Date 3-14-83 PIGATI

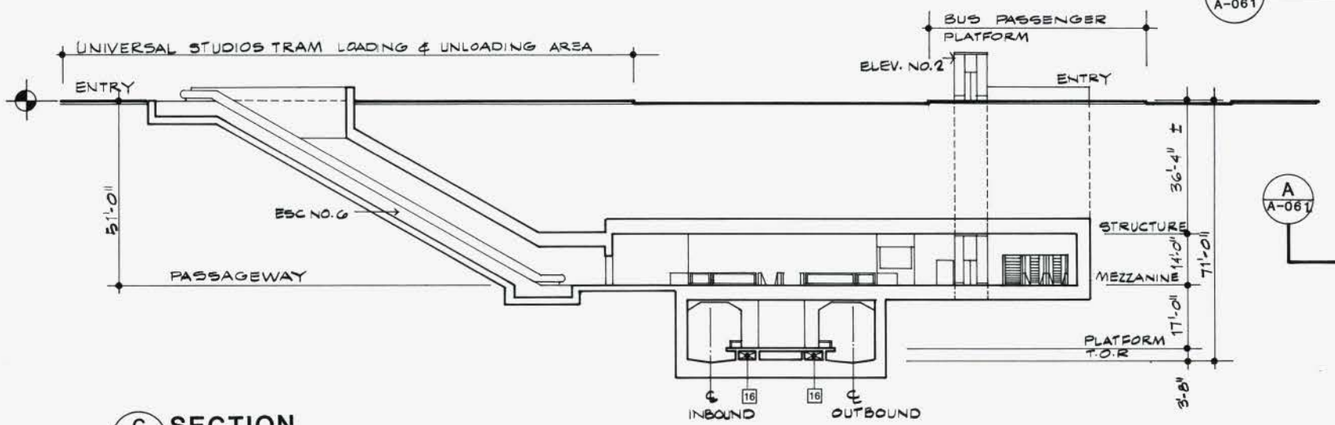
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED
Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

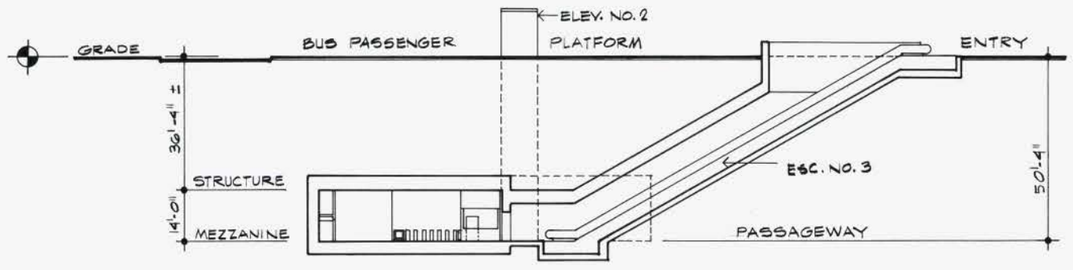
UNIVERSAL CITY STATION
PLANS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-059
SCALE 1" = 20'-0"
SHEET NO.

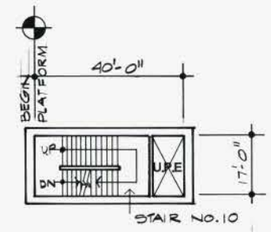
FIGURE II-62



C A-060 **SECTION**



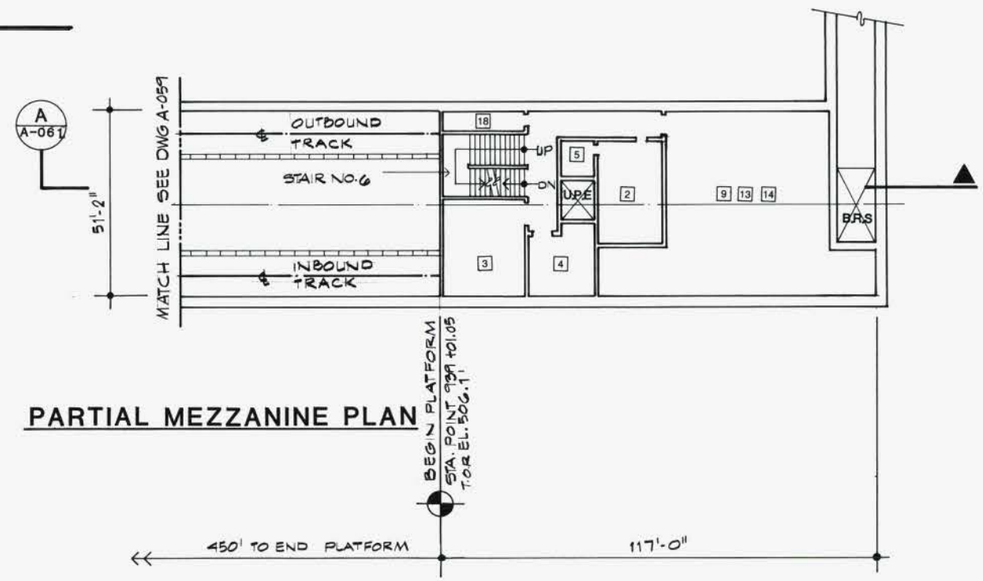
B A-060 **SECTION**



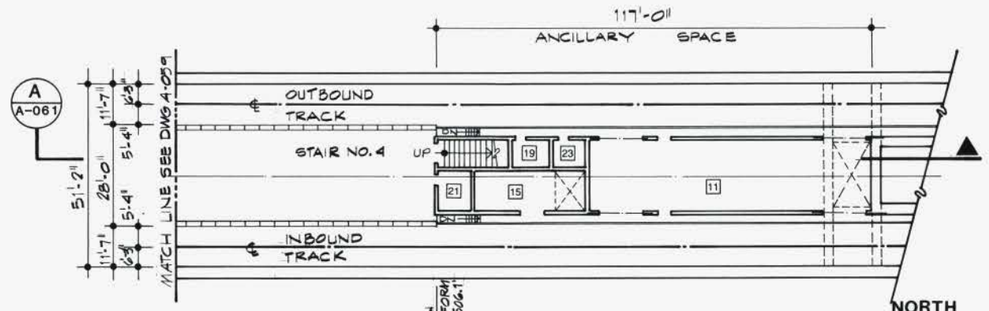
3 A-061 **UPPER EXIT STAIR PLAN**

SERVICE AND EQUIPMENT ROOMS

1	Traction Power Substation	17	Ejector
2	Auxiliary Power	18	Sprinkler Valves
3	Train Control	19	Sump Pump
4	Communications	20	Gap Breaker Station
5	Batteries	21	Emergency Equipment
6	Elevator Equipment	22	Custodial
7	Fare Collection Storage	23	Electrical Equipment
8	Storage	24	Men
9	Mechanical	25	Women
10	Fan	26	Telephone Equipment
11	Emergency Fan	27	DELETED
12	Chiller	28	Trash
13	Air Supply Unit	29	Staff
14	Smoke Exhaust	30	DELETED
15	Under Platform Exhaust	31	Electric Incoming Service
16	Under Platform Exhaust Plenum		



PARTIAL MEZZANINE PLAN



PARTIAL PLATFORM PLAN

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3-14-83
DRAWN BY M. POINDEXTER Date 3-14-83
CHECKED BY J. YEN PIGATI Date 3-14-83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date — MANAGER / CHIEF ENGINEER — Reg. No.

UNIVERSAL CITY STATION
PLANS & SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-060
SCALE 1"= 20'-0"
SHEET NO.

BRUNING 44-132

FIGURE II-63

NORTH HOLLYWOOD STATION

Background

The North Hollywood Station will be located under Lankershim Boulevard straddling Chandler Boulevard. The area around the station has many different land uses. Auto dealerships are located along Lankershim to the north. Low-rise commercial--retail space predominates along Lankershim to the south. The area along Chandler is used for industrial and warehousing purposes. An office/warehouse facility extending from Tujunga westward along Chandler was recently completed. The station lies within the boundaries of the North Hollywood Redevelopment Area. The first phase of redevelopment is planned for the area south of Chandler and east of Lankershim. Residential land use exists to the north and east of the station.

Station Site Design Parameters

The program for the station site includes a future 2300 space parking structure, but initially only surface parking will be provided. A bus turnaround and layover area are also planned. In response to the need to serve both the redevelopment area and the surface parking area, the station has been planned with an entry at each end. Parking has been sited just north of the Chandler Boulevard on the east side of Lankershim. The face of the future parking structure will be held back to permit commercial/retail development to occur along Lankershim. A bus turnout lane is planned on the south side of Chandler just east of Lankershim. Buses unload at this location and proceed left onto Fair Avenue and then into the turnout lane proposed for the north side of Chandler, adjacent to the south face of the parking site. Buses will also board passengers from this turnout lane on Chandler. It is proposed to widen the section of Chandler between Lankershim and Fair to permit the striping of a left-hand turn pocket lane for buses and also for cars using Fair Avenue. The south station entry is located on the southeast corner of Lankershim and Chandler and can be oriented to the south or east depending on future development plans for the corner.

Station Design Parameters

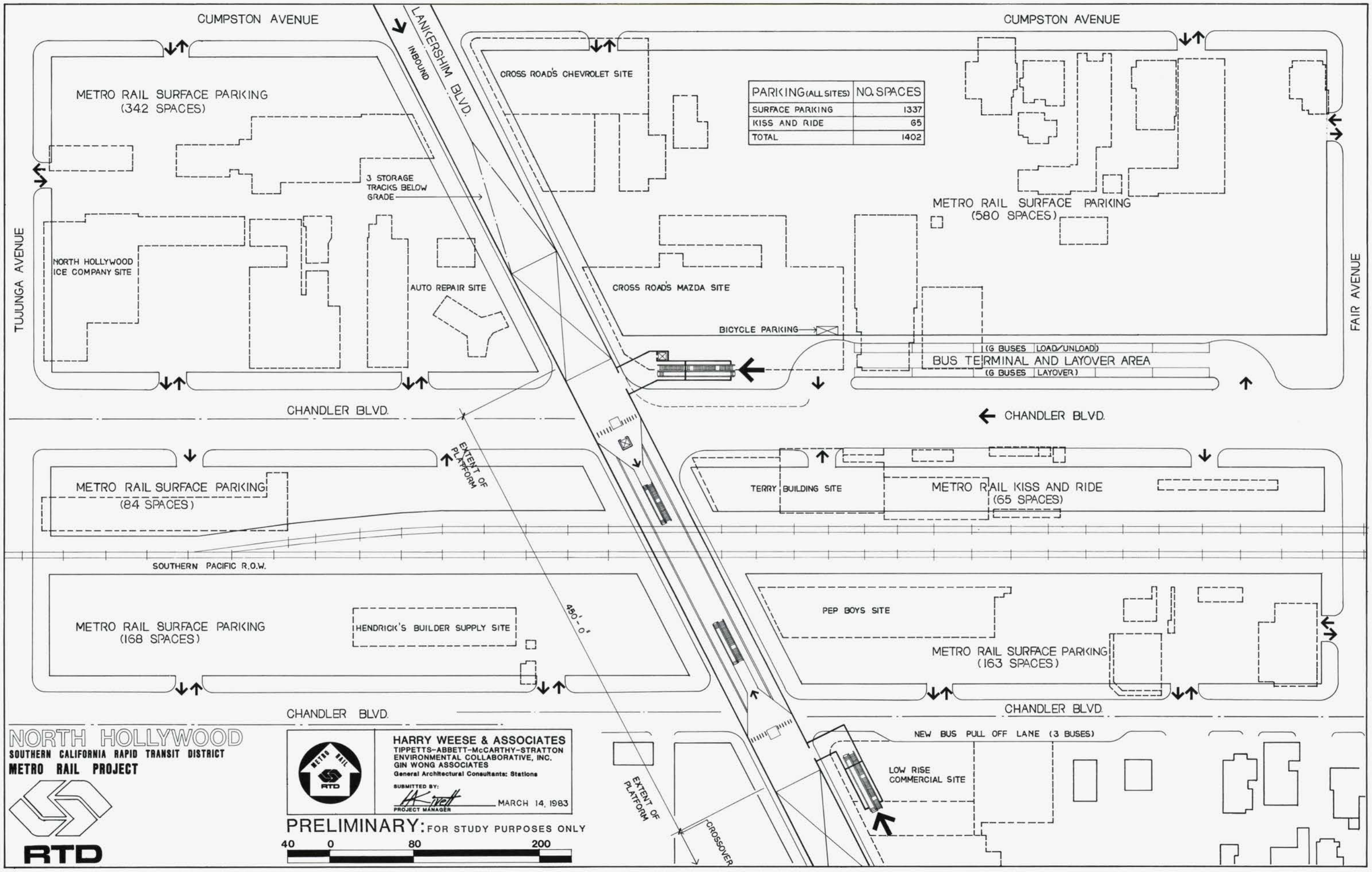
To accommodate the two widely spaced entrances the station has been planned with a mezzanine at each end of the platform. A double crossover track will be located at the south end of the station and a pocket track at the north end. The station, pocket track, and crossover track areas will all be constructed by the cut-and-cover method and a traction power substation will be located over the crossover track.

NORTH HOLLYWOOD STATION ENTRANCE

VIEW LOOKING NORTHEAST

SCRTD Metro Rail
HWA
March 1983

FIGURE II-64



PARKING (ALL SITES)	NO. SPACES
SURFACE PARKING	1337
KISS AND RIDE	65
TOTAL	1402

NORTH HOLLYWOOD
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

RTD

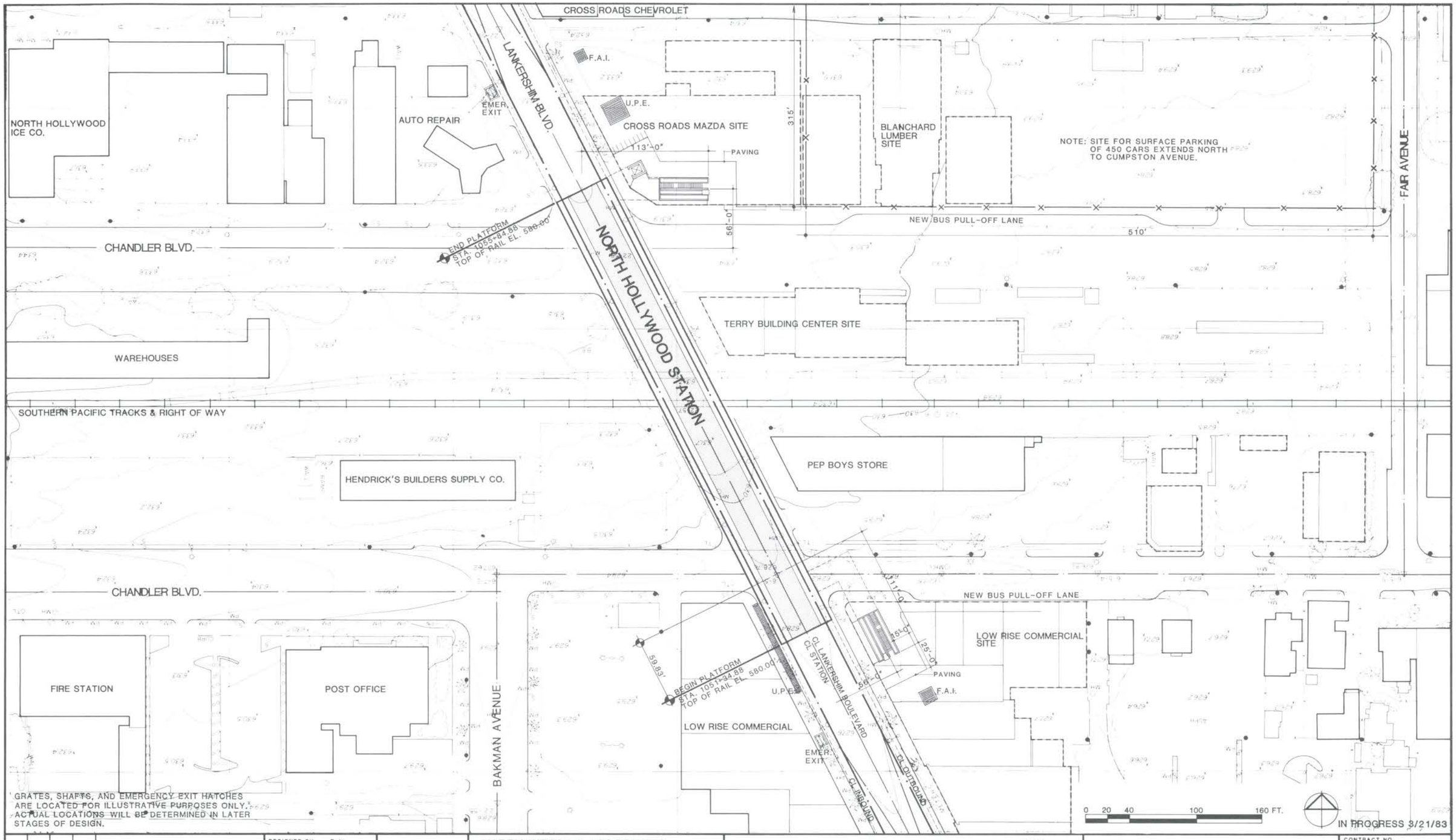
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations

SUBMITTED BY:
PROJECT MANAGER
MARCH 14, 1983

PRELIMINARY: FOR STUDY PURPOSES ONLY

40 0 80 200

FIGURE II-65



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date
DRAWN BY WOOLSEY Date
CHECKED BY Date

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED
Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

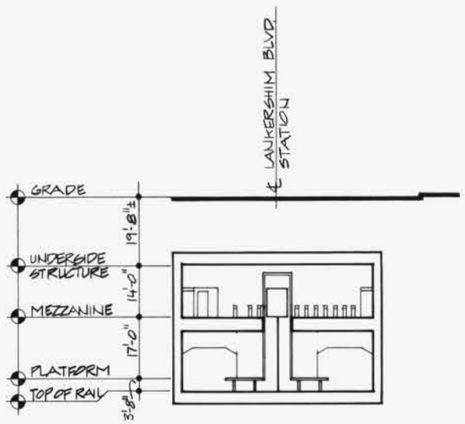
NORTH HOLLYWOOD STATION

SITE PLAN FOR ENTRY LOCATIONS ONLY
SEE FIGURE II-65 FOR SITE DEVELOPMENT

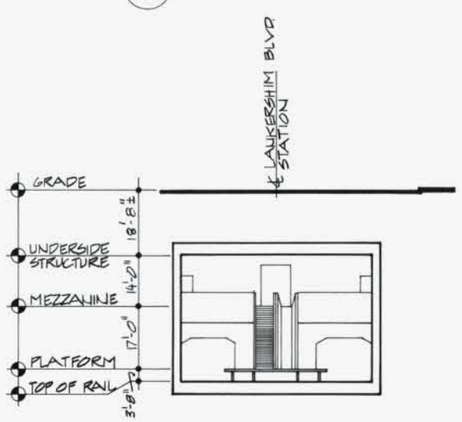
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-063
SCALE 1"=40'-0"
SHEET NO.

FIGURE II-66



B SECTION A-064



C SECTION A-064

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3/11/83
DRAWN BY WOOLSEY Date 3/11/83
CHECKED BY J.YEN PIGATI Date 3/11/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

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METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED ____ Reg. No. ____
APPROVED ____ Date ____
MANAGER / CHIEF ENGINEER Reg. No. ____

NORTH HOLLYWOOD STATION
SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-066
SCALE 1"=20'-0"
SHEET NO.

BRUNING 44-132

FIGURE II-67

CROSS-ROADS MAZDA SITE

UNDER PLATFORM EXHAUST

FRESH AIR INTAKE

BLAST RELIEF SHAFT

ELEVATOR #1

END PLATFORM STA 1055+84.88 T/R EL 581.75'

STAIR #4

ESCALATOR #4

CHANDLER BLVD

TERRY BUILDING CENTER

STAIR #7

STAIR #8

HATCH

90'-0"

STAIR #6

147'-0"

K.O.P

ELEVATOR #2

ESCALATOR #3

STAIR #3

STAIR #5

MATCH LINE - SEE DNG A-065

SOUTHERN PACIFIC TRACKS

A A-064

B A-066

C A-066

PARTIAL MEZZANINE PLAN

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Fare Collection Storage
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector
18. Sprinkler Valves
19. Sump Pump
20. Gap Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. Men
25. Women
26. Telephone Equipment
27. Deleted
28. Trash
29. Staff/SECURITY
30. Deleted
31. Electric Incoming Service

OUTBOUND TRACK

INBOUND TRACK

(POCKET TRACK)

93'-0"

75'-0"

END PLATFORM STA 1055+84.88 T/R EL 581.75'

CHANDLER BLVD

PARTIAL PLATFORM PLAN

GRADE

UNDERSIDE STRUCTURE

PLATFORM TOP OF RAIL

A PARTIAL SECTION

NORTH

0 20 40 80 FT.

IN PROGRESS 3/21/83

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HLA Date 3/11/83

DRAWN BY WOOLSEY Date 3/11/83

CHECKED BY J. YEN PIGATI Date 3/11/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations

SUBMITTED BY: PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

APPROVAL RECOMMENDED Reg. No.

APPROVED Date MANAGER / CHIEF ENGINEER Reg. No.

NORTH HOLLYWOOD STATION
PLANS & SECTIONS

PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.

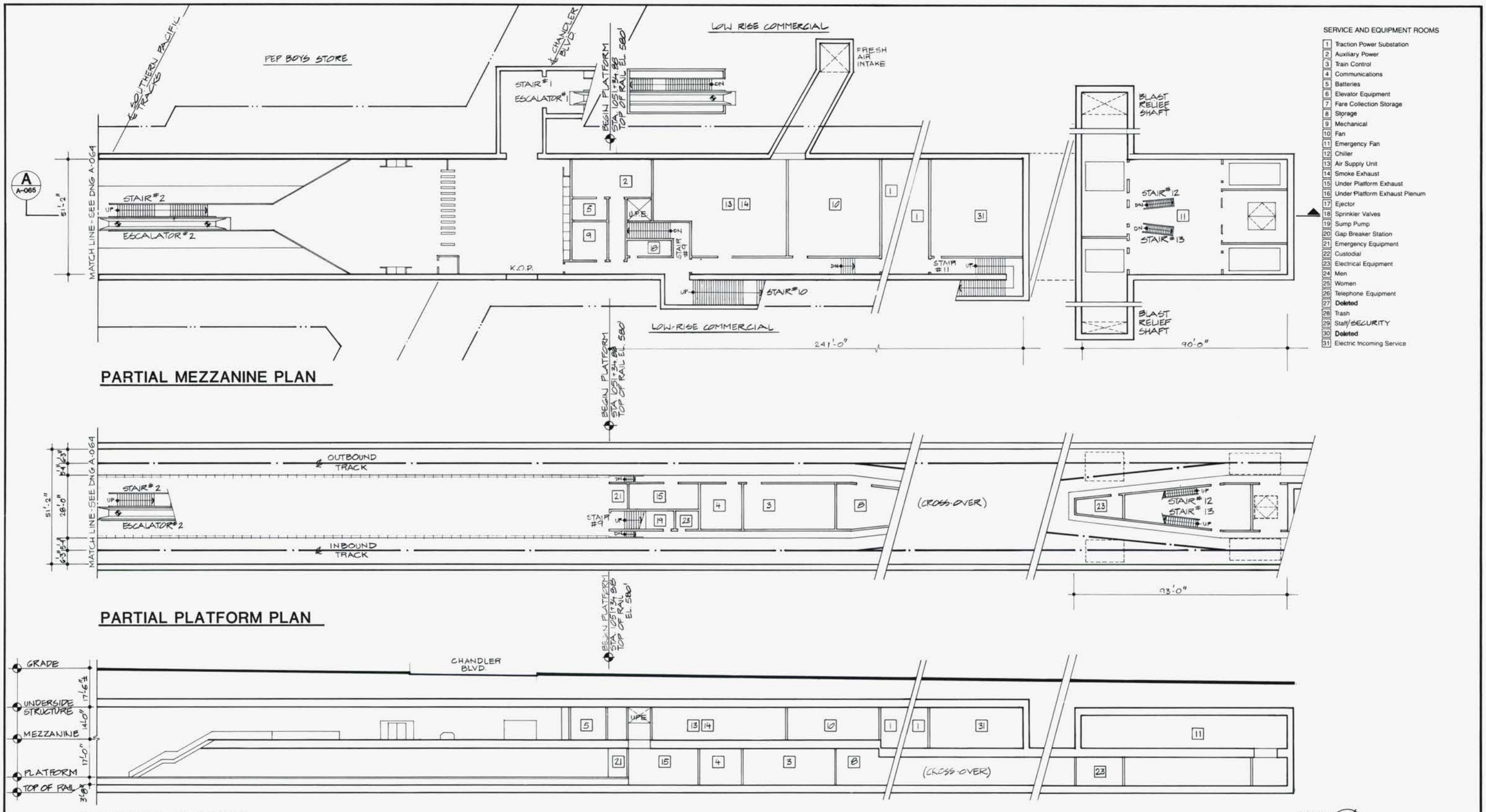
DRAWING NO. AP-16BAA-A-064

SCALE 1"= 20'-0"

SHEET NO.

BRUNING

FIGURE II-68



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 3/11/83
DRAWN BY WOOLSEY Date 3/11/83
CHECKED BY J. YEN PIGATI Date 3/11/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

NORTH HOLLYWOOD STATION
PLANS & SECTIONS
PRELIMINARY:
FOR STUDY PURPOSES ONLY

CONTRACT NO.
DRAWING NO. AP-16BAA-A-065
SCALE 1"= 20'-0"
SHEET NO.

BRUNING 44-132

FIGURE II-68

C. WILSHIRE/CRENSHAW STATION

Background

On August 26, 1982 the SCRTD Board of Directors adopted the alignment and station locations recommended in Milestone 4 for the line segment from the Central Business District to the Fairfax and Santa Monica Boulevard Station. However, as a part of this same action the Board determined that no decision should be made regarding a Crenshaw Station until the City of Los Angeles acts to resolve any inconsistency such a station might have with the Park Mile Specific Plan and the Wilshire District Plan, and the 1974 General Plan for the City of Los Angeles.

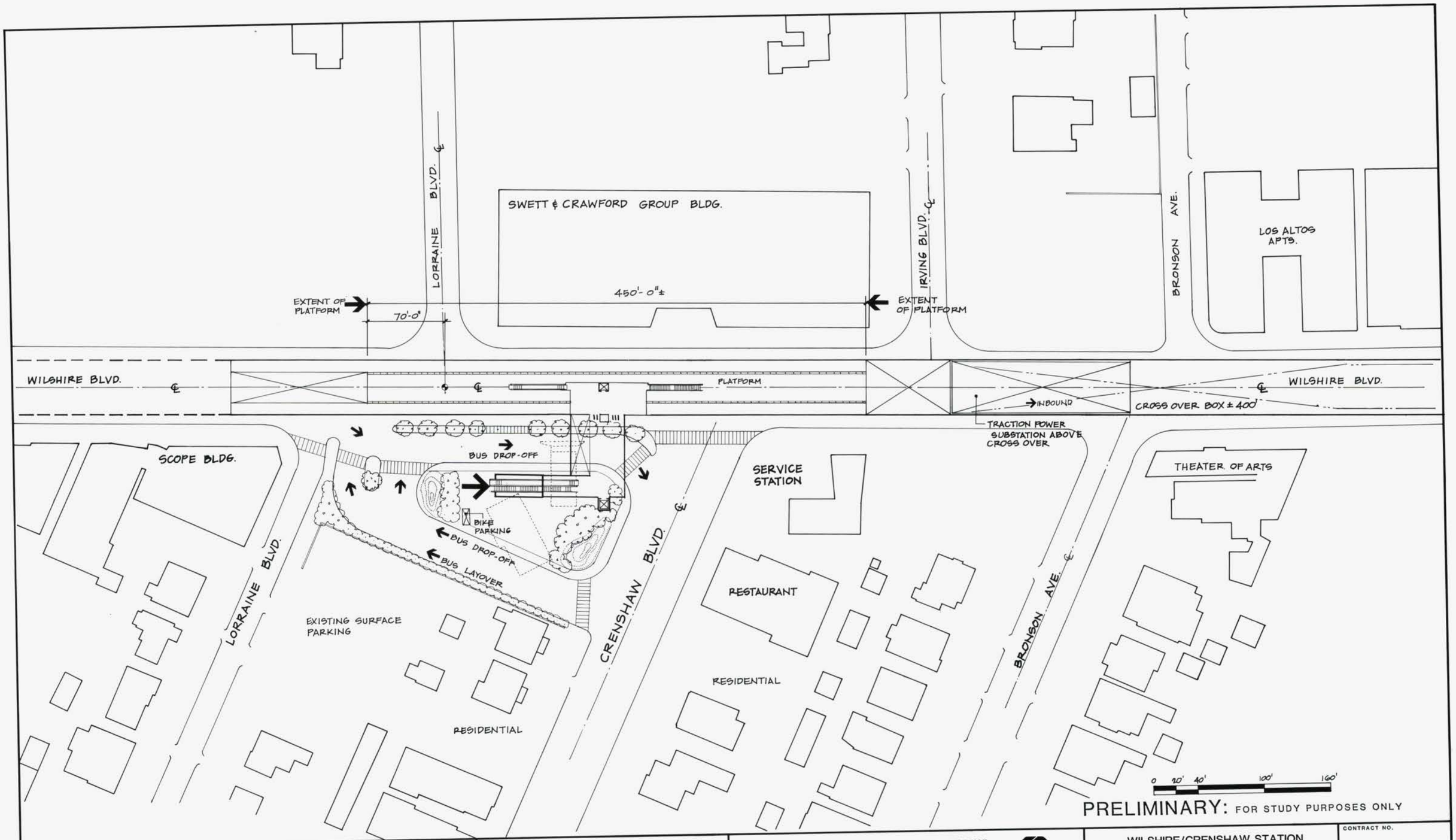
A conceptual plan is shown in Figure II-70. If a decision were made to construct a Wilshire/Crenshaw Station, it would be located under Wilshire between Lorraine Boulevard and Bronson Avenue. The surrounding area land use is primarily low density residential with apartments and commercial office buildings along Wilshire Boulevard in the station vicinity. Construction was initiated and halted for a 140,000 square foot office building on the northwest corner of Wilshire and Lorraine.

Station Site Design Parameters

A major factor influencing the site design for the Wilshire/Crenshaw Station is that four bus lines are projected to terminate at the station creating a need for an off-street bus turnaround with layover and boarding bays. The site offers certain opportunities and constraints for providing this service. The major constraint is accommodating a bus turning radius while confining most of the bus movements within the proposed site. However, the site dimensions are adequate to accomplish this goal while still providing space to construct walls and planted berms to adequately buffer the site from the surrounding residential area. The site boundary on the south is an existing wall adjacent to the first existing structure south of Wilshire Boulevard. This wall would be renovated or reconstructed and extended through to Lorraine Boulevard. A ten foot wide planting berm will be constructed along the north side of the wall. A landscaped and paved bus platform island will be constructed and the station entry will be located in this island. Four bus loading and drop-off bays would be provided, two on each side of the island. In addition, three bus layover positions would be provided. The proposed design minimizes bus-auto conflicts and the site, through the use of raised planted berm areas, would be an attractive addition to the community.

Station Design Parameters

This station, which is projected to have moderate patronage levels, is planned with a single mezzanine located near the mid-point of the station. A paired stair and escalator would provide access from each side of the mezzanine to the center island platform. A double crossover track would be located on the east end of the station and the traction power sub-station now indicated to be placed in an off-street location at Wilshire Boulevard and Mullen Avenue, would be constructed over the crossover track. Station ancillary space would also be provided at each end of the station.



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA/GW/TAMS/TEC Date 3/8/83
DRAWN BY K. LIM Date 3/8/83
CHECKED BY JWiley Date 3/8/83

METRO RAIL RTD

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY: H Kivett
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED _____ Reg. No. _____
APPROVED _____ Date _____
MANAGER / CHIEF ENGINEER Reg. No. _____

WILSHIRE/CRENSHAW STATION
SITE PLAN

CONTRACT NO.
DRAWING NO.
SCALE SEE ABOVE
SHEET NO.

BRUNING 44-132

FIGURE II-70

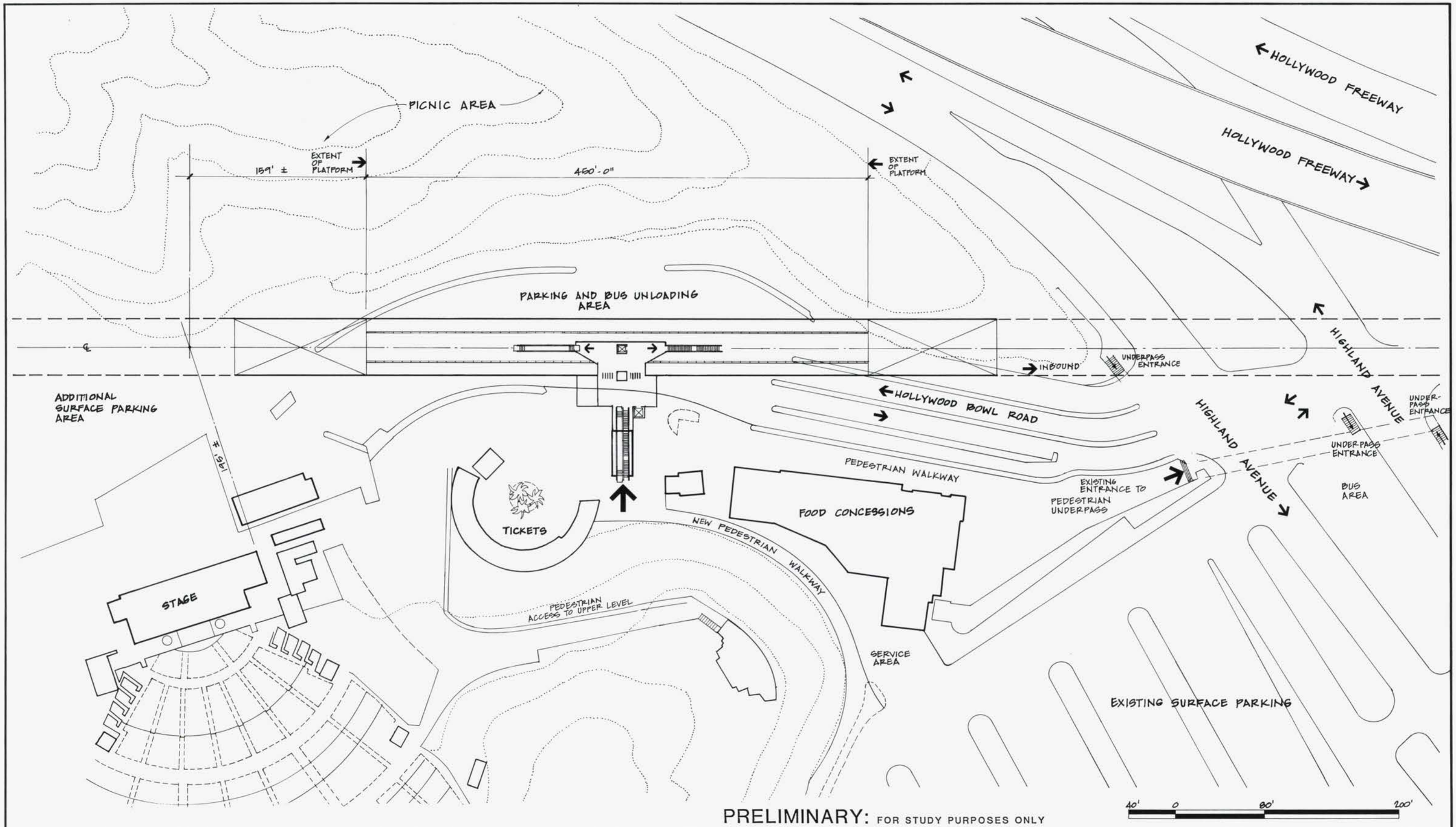
HOLLYWOOD BOWL STATION

Background

On December 20, 1982 the SCRTD Board of Directors adopted the location of stations at Sunset/La Brea and Hollywood/Cahuenga in Hollywood and also adopted the following statement:

". . . Resolved further, that during the Milestone 9 and 10 process, a technical analysis and opportunity for public input would be given for a Hollywood Bowl Station, with this analysis not to delay the project schedule."

As part of the Milestone 9 process, which will provide findings regarding the potential patronage levels for a Hollywood Bowl Station and its attributes with regard to mode of arrival, a recommendation will be made whether or not to locate a station at the Hollywood Bowl. This recommendation will be based in part on the comparison of station cost with added patronage. If a Hollywood Bowl Station is determined to be feasible then the station design shown in Figure II-71 will be further developed and appended to the Milestone 10 Report for public and Board consideration. Figure III-16 shows the proposed location for a Hollywood Bowl Station if a decision is made to proceed.



PRELIMINARY: FOR STUDY PURPOSES ONLY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY HWA Date 1/18/83
DRAWN BY K. LIM Date 1/18/83
CHECKED BY J Wiley Date 3/17/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED
Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

HOLLYWOOD BOWL STATION
CONCEPT DESIGN STUDY

CONTRACT NO.
DRAWING NO.
SCALE SEE ABOVE
SHEET NO.

FIGURE II-71

III. WAYS AND STRUCTURES DESIGN

A. ALIGNMENT DESCRIPTION, PLANS AND PROFILES

In the following description the alignment is divided into four segments. These four segments correspond to the phased construction of Metro Rail. Each of the segments could be built and put into operation sequentially should that be necessary. Each segment description is related to the attached detailed Plan and Profile drawings.

Los Angeles CBD - Union Station to Wilshire/Vermont Station

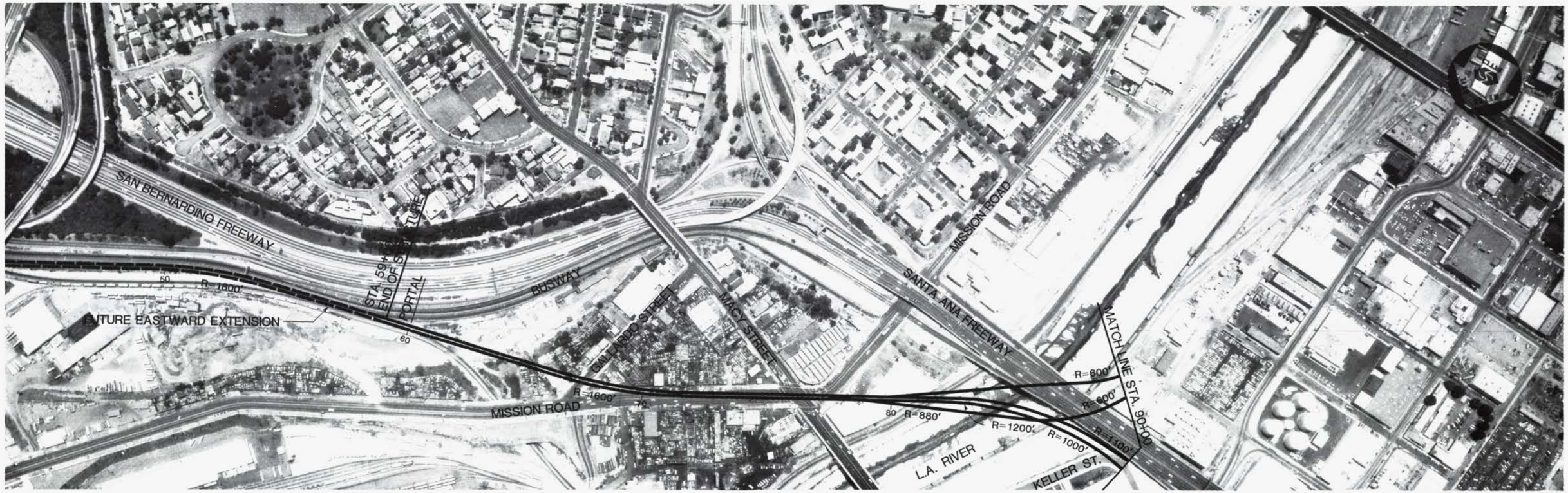
This route segment is shown in Figures III - 1, 2, 3, 4, 5, and 6 of the Plan and Profile drawings. Beginning at the storage and maintenance yard adjacent to the Los Angeles River, the line runs to Union Station. This portion of the line will be constructed by cut-and-cover methods and includes the yard leads and the wye branch which is used for turning trains. From the Metro Rail Union Station, which is located under the railroad boarding platforms, the alignment runs generally northwesterly to enter Macy Street at Alameda Street. Union Station and the adjacent crossover structure will be constructed by cut-and-cover methods. The line segments through this section will be constructed by tunnel methods. All stations and adjacent crossover structures in this segment are proposed for cut-and-cover construction procedures.

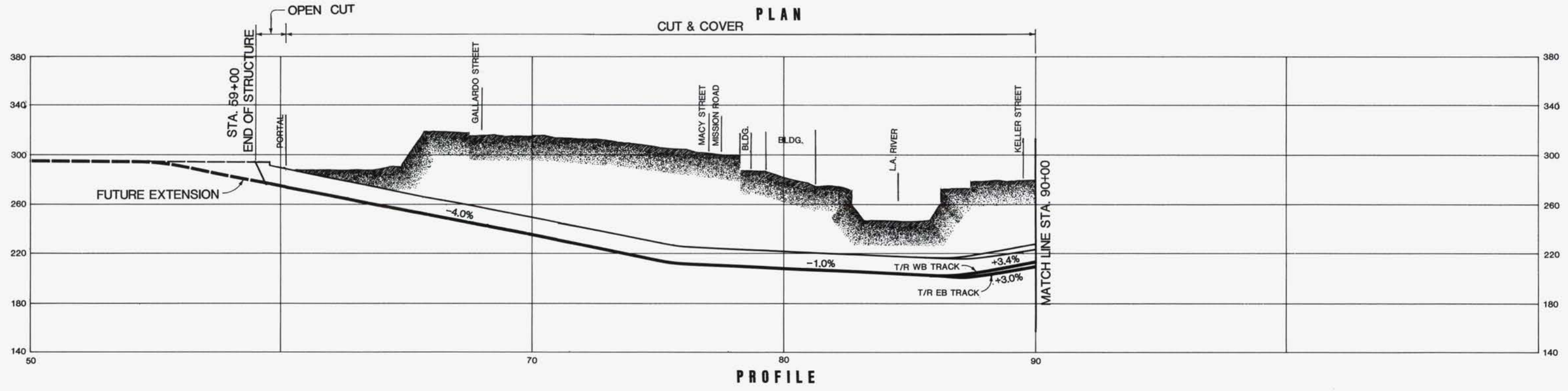
After entering Macy Street right-of-way, the alignment curves to the west, then on a short tangent enters another curve to the southwest under the Santa Ana Freeway and thence into the Hill Street right-of-way at Temple Street. The alignment continues along Hill Street to the Civic Center Station northeasterly of 1st Street.

Leaving the Civic Center Station, the alignment continues southwesterly along Hill Street to the 5th/Hill Station located between 4th and 5th Streets. After leaving the 5th/Hill Station, the alignment continues in Hill Street to about 6th Street where it begins a 1000-foot-radius curve westerly to enter 7th Street at about Grand Avenue. From there it proceeds to the 7th/Flower Station, which is centered on Flower Street.

Leaving the 7th/Flower Station, the alignment remains under 7th, to avoid the Hilton Hotel and continues under 7th Street crossing under the Harbor Freeway. The alignment remains under 7th Street to about Burlington Avenue where it enters an off-street alignment between 7th and Wilshire to reach the Wilshire/Alvarado Station located on the diagonal between Wilshire and 7th Street and just east of Alvarado Street as shown on Sheet 5 of the Plan and Profile drawings. A double crossover is to be constructed just east of the Alvarado station.

Upon leaving the Wilshire/Alvarado Station, the alignment proceeds on the diagonal westerly crossing under the lake in MacArthur Park to enter the Wilshire Boulevard right-of-way at Parkview Street as shown on Sheet 5 of the Plan and Profile drawings. The alignment then runs under Wilshire Boulevard to Hoover Street where Wilshire turns due west while the Metro Rail alignment will continue northwesterly entering an off-street alignment midway between Wilshire Boulevard and 6th Street to reach the off-street Wilshire/Vermont Station. This station would be located mid-block between Wilshire and 6th, straddling Vermont Avenue. A double crossover structure is to be constructed just east of the station.





REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 2/2/83
CZYZEWSKI
GARCIA / DHINSA / KARAT

DRAWN BY Date 2/9/83
IONESCU
MANUEL / CASTILLO / MACIS

CHECKED BY Date 2/9/83
LOGAN

DMJM/PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures

SUBMITTED BY:

PROJECT MANAGER Reg. No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.

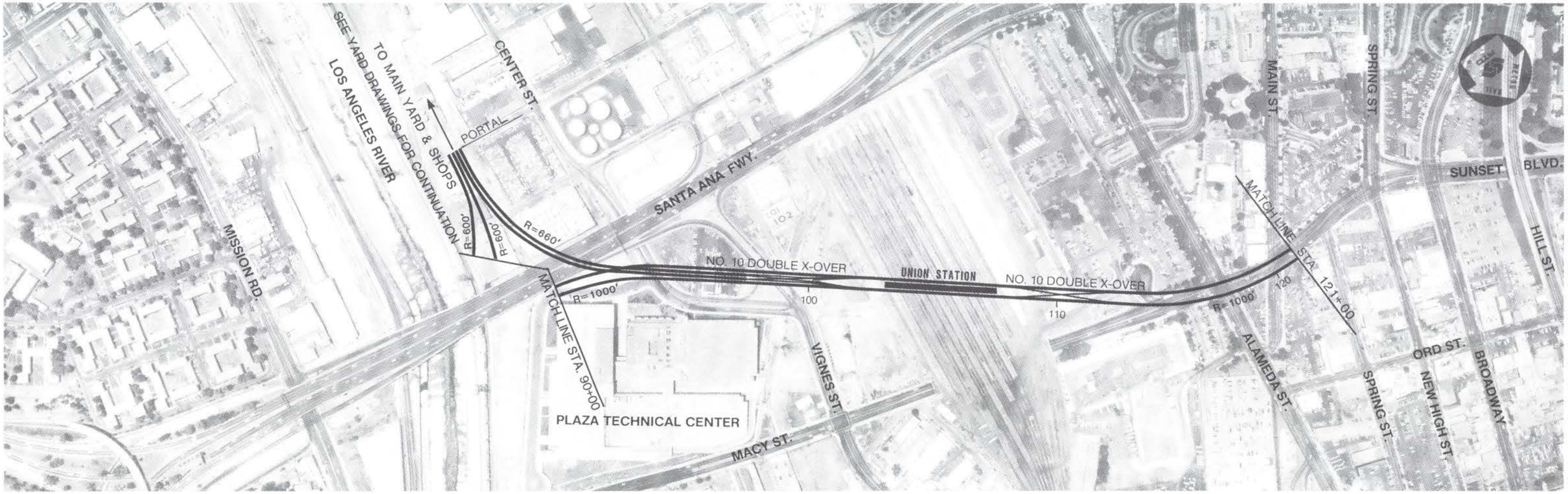
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS

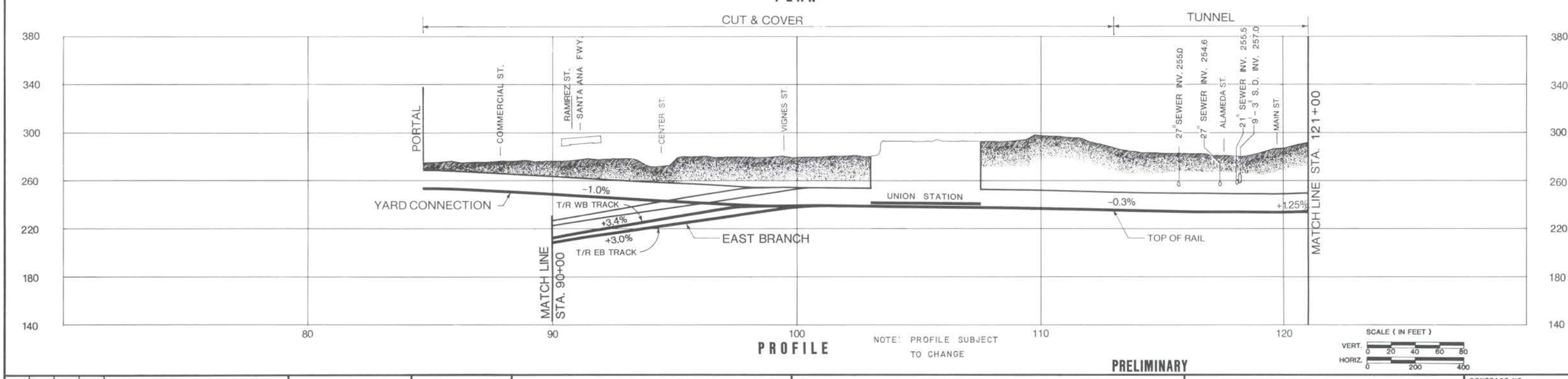
ALIGNMENT PLAN AND PROFILE
STATION 59+00 TO STATION 90+00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-001
SCALE AS SHOWN
SHEET NO. 1 OF 21

FIGURE III-1



PLAN



PROFILE

NOTE: PROFILE SUBJECT TO CHANGE

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 2/2/83
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IONESCU
MANUEL/CASTILLO/MACIS

CHECKED BY Date 2/9/83
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General Engineering Consultant - Ways and Structures

SUBMITTED BY:

PROJECT MANAGER Reg No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED Reg. No.

APPROVED Date

MANAGER / CHIEF ENGINEER Reg. No.

MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS

ALIGNMENT PLAN AND PROFILE

STATION 90+00 TO STATION 121+00

CONTRACT NO.

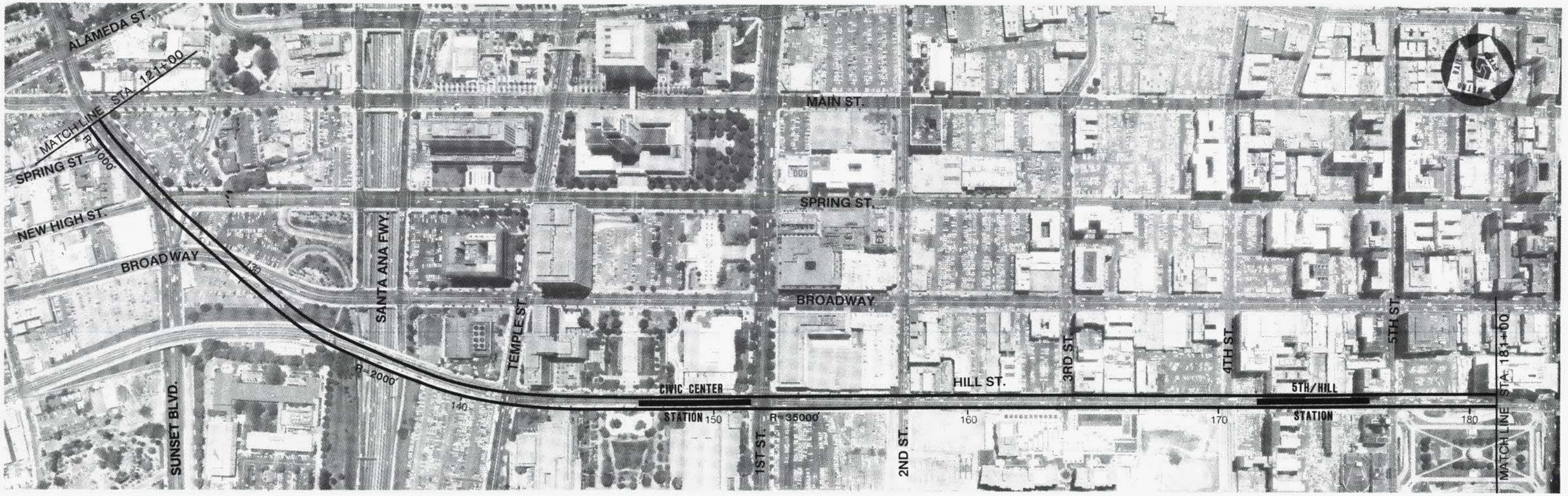
DRAWING NO. AP-16 AAA-C-002

SCALE AS SHOWN

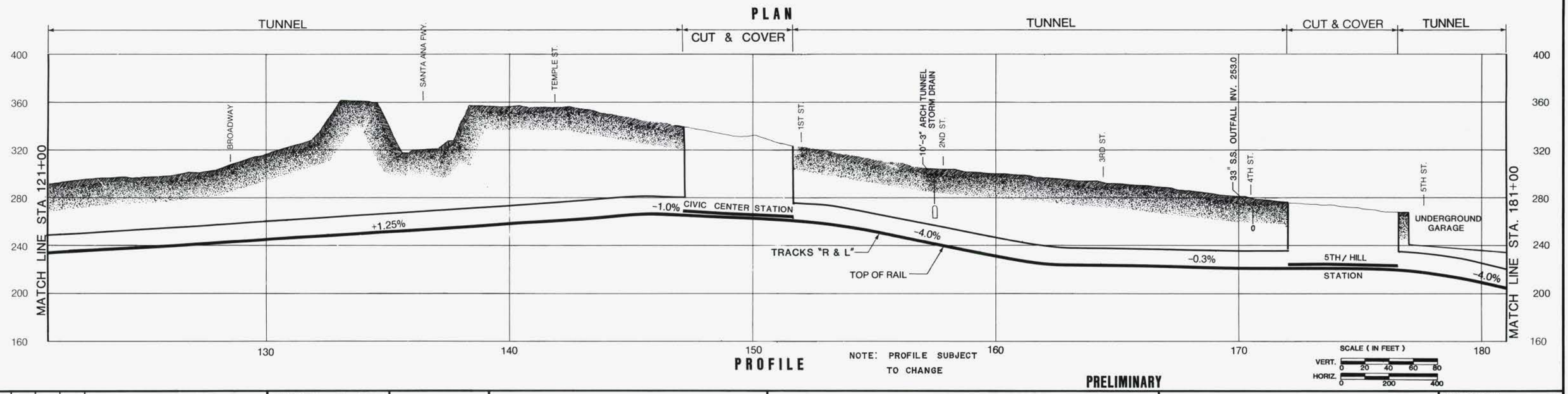
SHEET NO. 2 OF 21

BRUNING

FIGURE III-2



PLAN



PROFILE

NOTE: PROFILE SUBJECT TO CHANGE

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

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IONESCU
MANUEL/CASTILLO/MACIS

CHECKED BY Date 2/9/83
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General Engineering Consultant-Ways and Structures

SUBMITTED BY:

PROJECT MANAGER Reg No

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METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

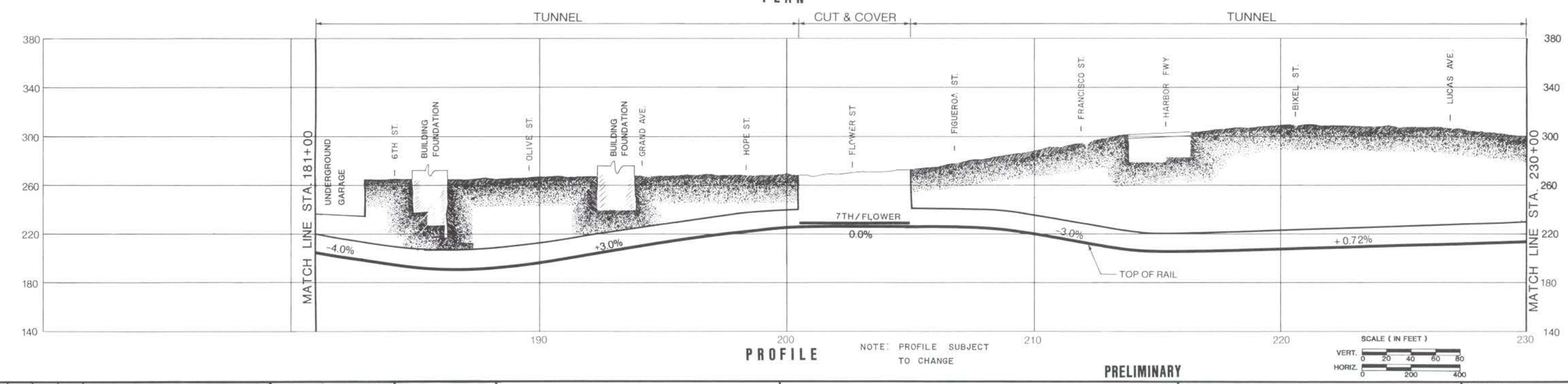
MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS

ALIGNMENT PLAN AND PROFILE
STATION 121+00 TO STATION 181+00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-003
SCALE AS SHOWN
SHEET NO. 3 OF 21

FIGURE III-3

PLAN



PROFILE

NOTE: PROFILE SUBJECT TO CHANGE

SCALE (IN FEET)
VERT. 0 20 40 60 80
HORIZ. 0 200 400

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
1	3/11/83	D.W.L.		REVISED PROFILE

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MANUEL/CASTILLO/MACIS

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PROJECT MANAGER Reg.No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS

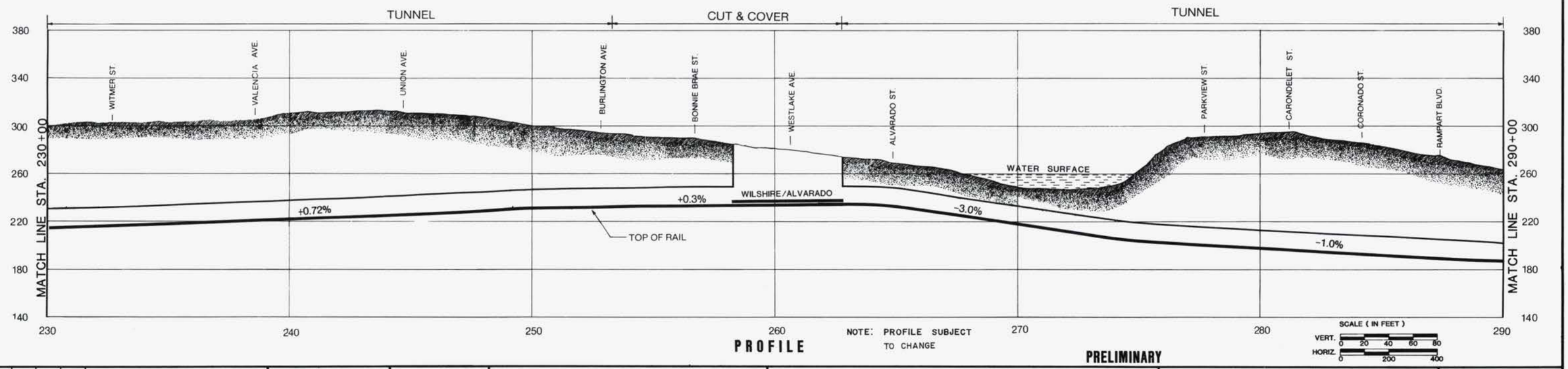
ALIGNMENT PLAN AND PROFILE
STATION 181+00 TO STATION 230+00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-004
SCALE AS SHOWN
SHEET NO. 4 OF 21

BRUNING

FIGURE III-4

PLAN



PROFILE

NOTE: PROFILE SUBJECT TO CHANGE

PRELIMINARY

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1	3/11/83	D.W.L.		REVISED PROFILE

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GARCIA / DHINSA / KARAT

DRAWN BY Date 2/9/83
IONESCU
MANUEL/CASTILLO/MACIS

CHECKED BY Date 2/9/83
LOGAN

DMJM/PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures

SUBMITTED BY:

PROJECT MANAGER Reg.No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

APPROVAL RECOMMENDED

DEPUTY CHIEF ENGINEER Reg. No.

APPROVED Date

MANAGER / CHIEF ENGINEER Reg. No.

MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS

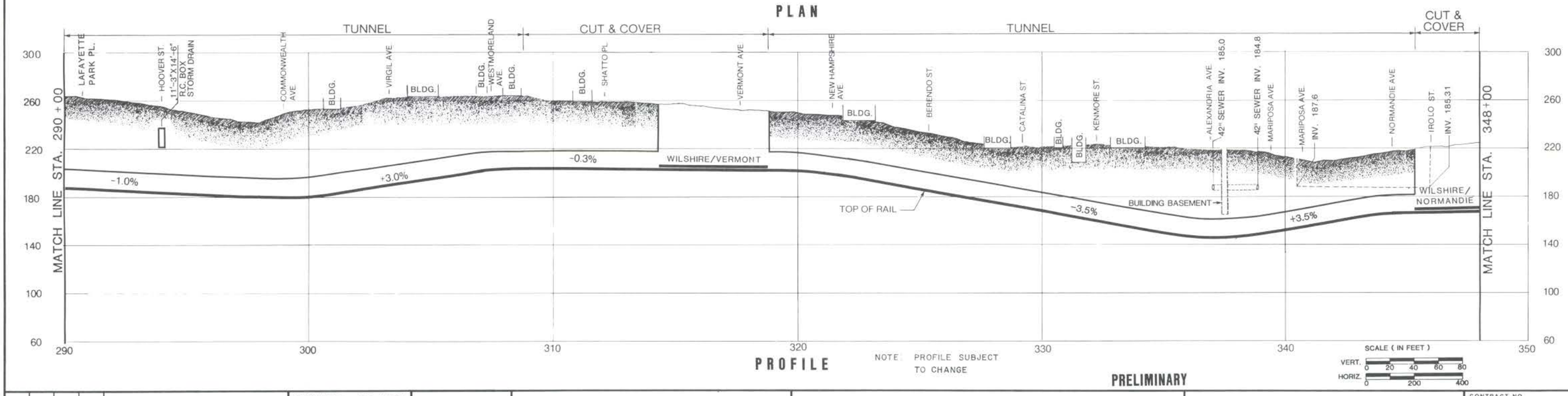
ALIGNMENT PLAN AND PROFILE
STATION 230+00 TO STATION 290+00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-005
SCALE AS SHOWN
SHEET NO. 5 OF 21

BROWNING

FIGURE III-5

PLAN



PROFILE

NOTE PROFILE SUBJECT TO CHANGE

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
1	3/11/83	D.W.L.		REVISED PROFILE

DESIGNED BY CZYZEWSKI GARCIA / DHINSA / KARAT Date 2/2/83
DRAWN BY IONESCU MANUEL / CASTILLO / MACIS Date 2/9/83
CHECKED BY LOGAN Date 2/9/83

DMJM / PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures
SUBMITTED BY:
PROJECT MANAGER Reg. No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS
ALIGNMENT PLAN AND PROFILE
STATION 290+00 TO STATION 348+00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-006
SCALE AS SHOWN
SHEET NO. 6 OF 21

FIGURE III-6

Vermont Street to Fairfax/Beverly Station
Figures III - 6, 7, 8, 9 and 10)

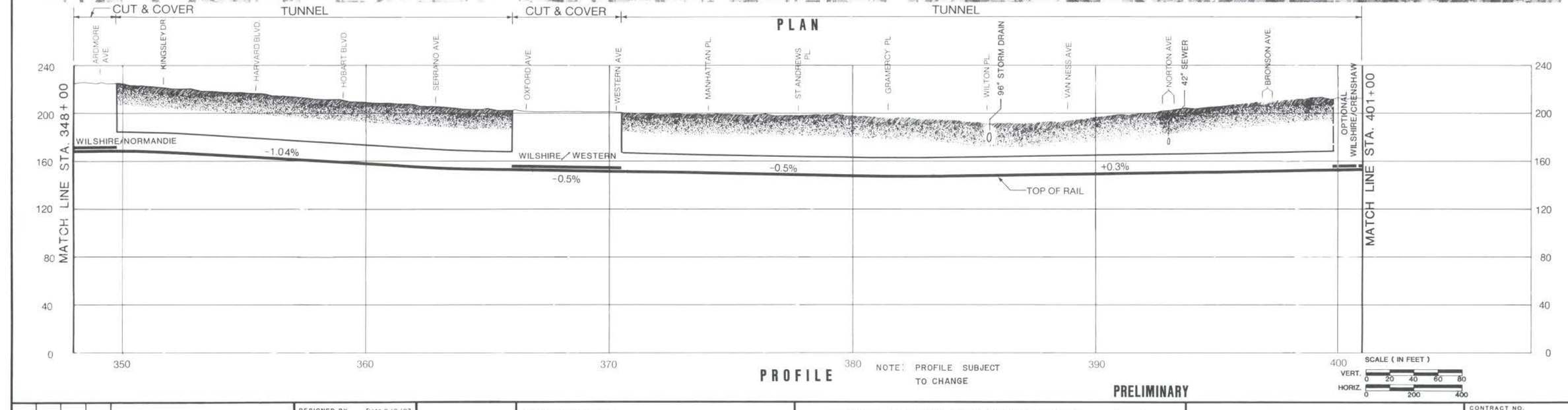
Through this section, all line segments are proposed for construction by tunneling methods and all stations, crossovers, or pocket track structures by cut-and-cover methods.

Leaving the Wilshire/Vermont Station, the alignment enters a set of reversing curves to reach the Wilshire Boulevard right-of-way at Alexandria Avenue. From that point, the alignment continues west under Wilshire Boulevard, through the Wilshire/Normandie Station located just east of Normandie, to the Wilshire/Western Station located just east of Western Avenue.

Leaving the Wilshire/Western Station, the alignment continues under Wilshire Boulevard to the Wilshire/La Brea Station that straddles La Brea Avenue. A pocket track is to be constructed just east of the Wilshire/La Brea Station. After leaving the Wilshire/La Brea Station, the alignment continues west under Wilshire Boulevard to the Wilshire/Fairfax Station.

After leaving the Wilshire/Fairfax Station, the line to North Hollywood turns north off a number 15 turnout from the Wilshire line. The inbound line passes under the future outbound line to Santa Monica, and a side-by-side configuration with the North Hollywood outbound line enters the Fairfax right-of-way.

After entering Fairfax Avenue near 6th Street, the alignment continues north under Fairfax to a point north of 4th Street, then the alignment passes through a set of short reverse curves to enter an off-street alignment under the western edge of the Farmers' Market and the CBS parking lot before reaching the Fairfax/Beverly Station just south of Beverly Boulevard, as shown on sheet 10 of the Plan and Profile drawings. A double crossover is to be constructed just south of the station.



PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
1	3/2/83	D.W.L.		ADDED OPTIONAL CRENSHAW STATION

DESIGNED BY CZYZEWSKI GARCIA / DHINSA / KARAT Date 2/2/83
DRAWN BY IONESCU MANUEL/CASTILLO/MACIS Date 2/9/83
CHECKED BY LOGAN Date 2/9/83

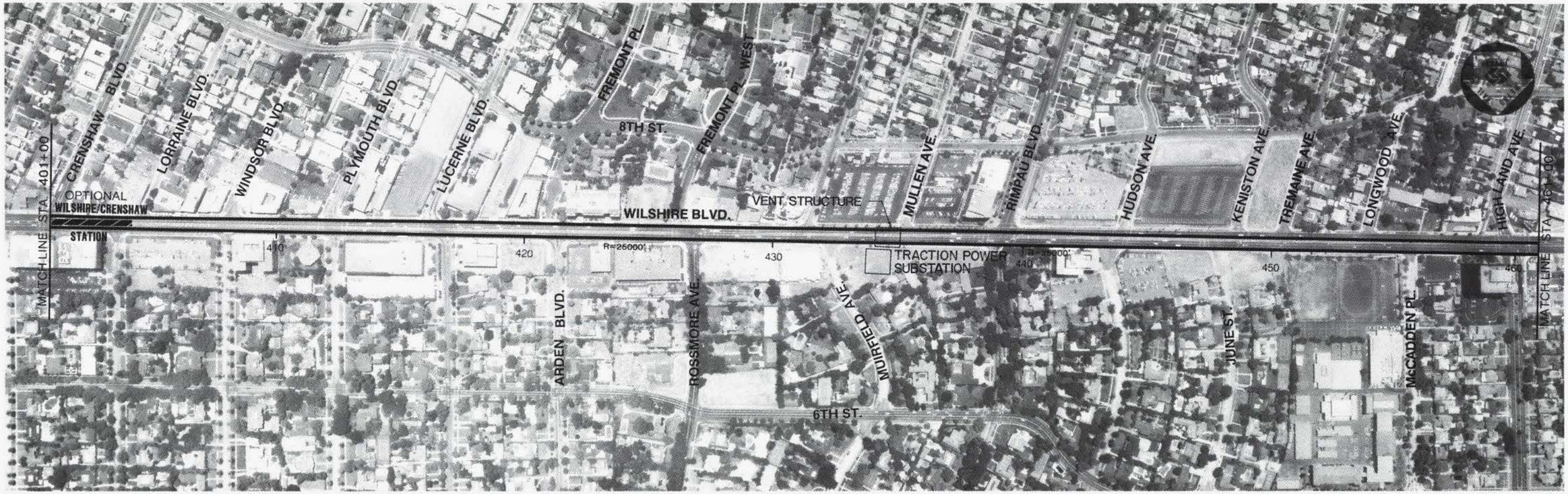
DMJM/PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures
SUBMITTED BY:
PROJECT MANAGER Reg.No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

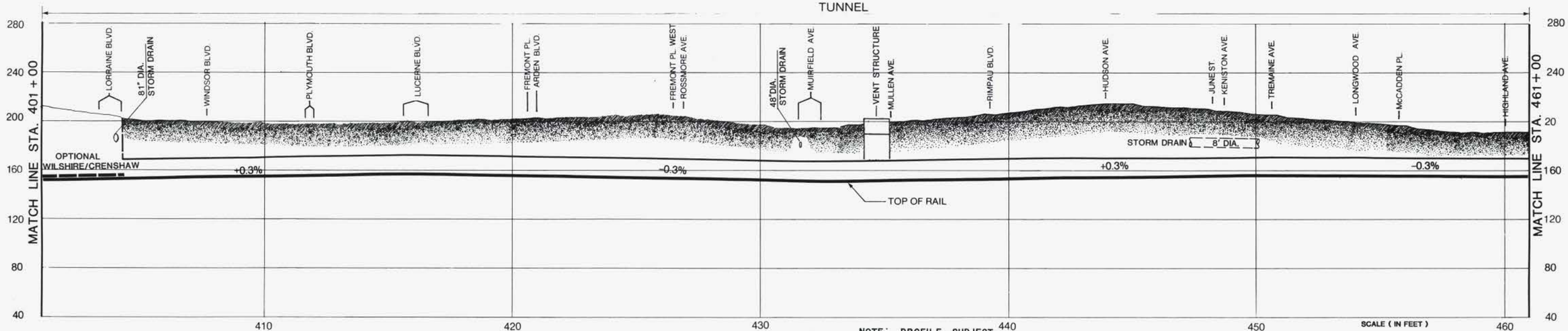
MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS
ALIGNMENT PLAN AND PROFILE
STATION 348+00 TO STATION 401+00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-007
SCALE AS SHOWN
SHEET NO. 7 OF 21

FIGURE III-7



PLAN



PROFILE

NOTE: PROFILE SUBJECT TO CHANGE

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
2	3/11/83	D.W.L.		ADDED TRACTION POWER SUBSTATION
1	3/2/83	D.W.L.		ADDED OPTIONAL CRENSHAW STATION

DESIGNED BY Date 2/2/83
CZYZEWSKI
GARCIA / DHINSA / KARAT

DRAWN BY Date 2/9/83
IONESCU
MANUEL/CASTILLO/ MACIS

CHECKED BY Date 2/9/83
LOGAN

DMJM/PBQD
A Joint Venture
General Engineering Consultant-Ways and Structures

SUBMITTED BY:

PROJECT MANAGER Reg.No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

RTD

APPROVAL RECOMMENDED

DEPUTY CHIEF ENGINEER Reg. No.

APPROVED Date

MANAGER / CHIEF ENGINEER Reg. No.

MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS

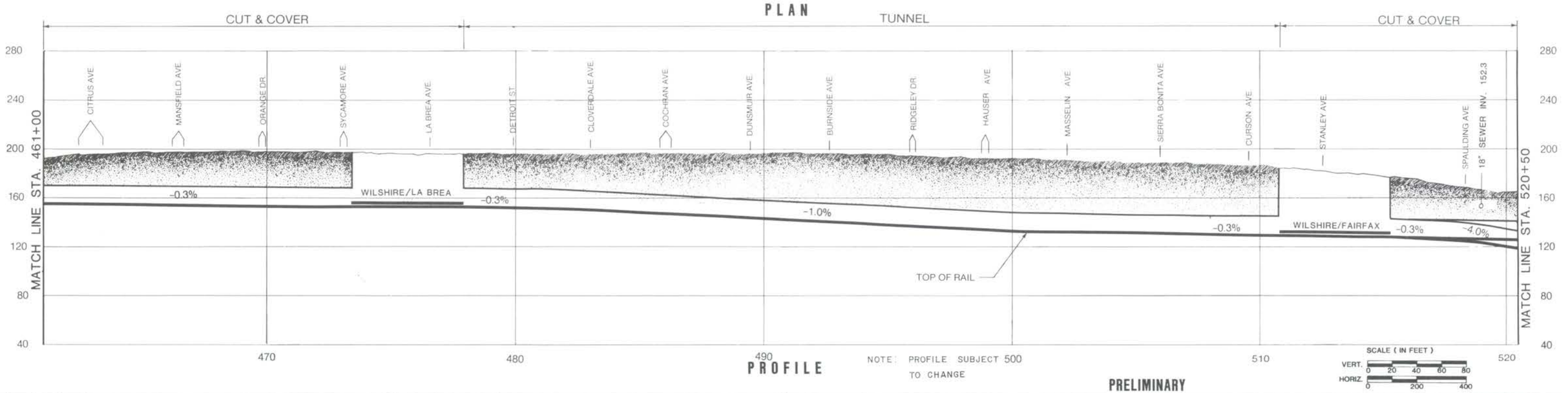
ALIGNMENT PLAN AND PROFILE
STATION 401+00 TO STATION 461+00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-008
SCALE AS SHOWN
SHEET NO. 8 OF 21

BRUNING

FIGURE III-8

PLAN



PROFILE

NOTE: PROFILE SUBJECT TO CHANGE

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 2/2/83
CZYZEWSKI
GARCIA / DHINSA / KARAT

DRAWN BY Date 2/9/83
IONESCU
MANUEL/CASTILLO/ MACIS

CHECKED BY Date 2/9/83
LOGAN

DMJM/PBQD
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SUBMITTED BY:

PROJECT MANAGER Reg.No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.

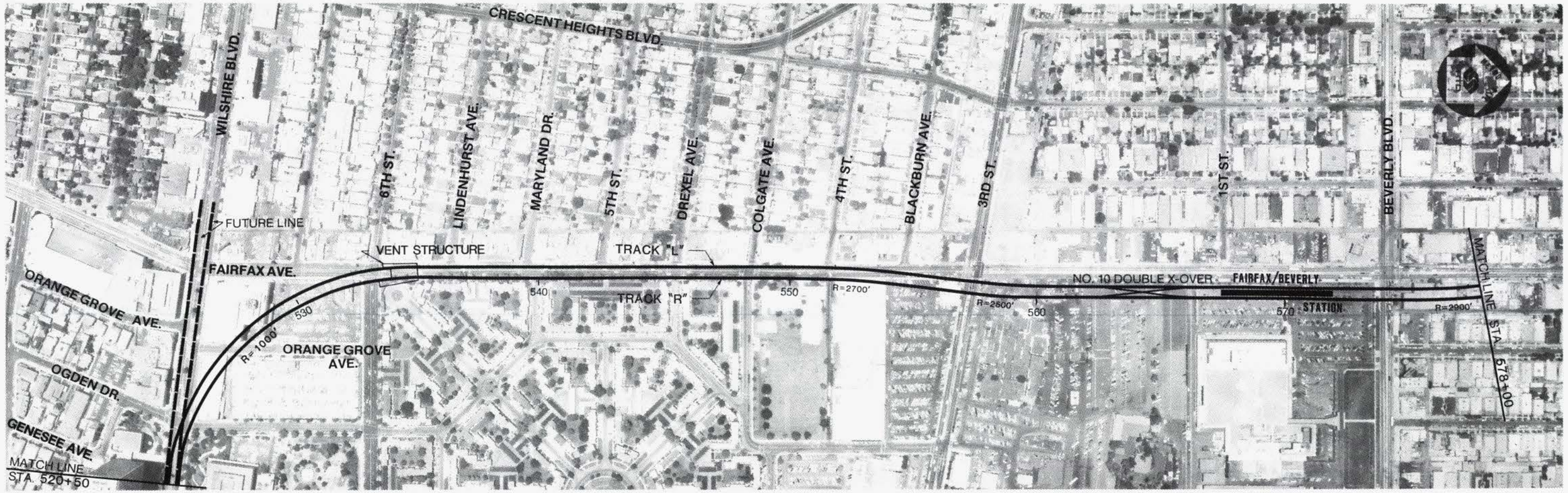
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

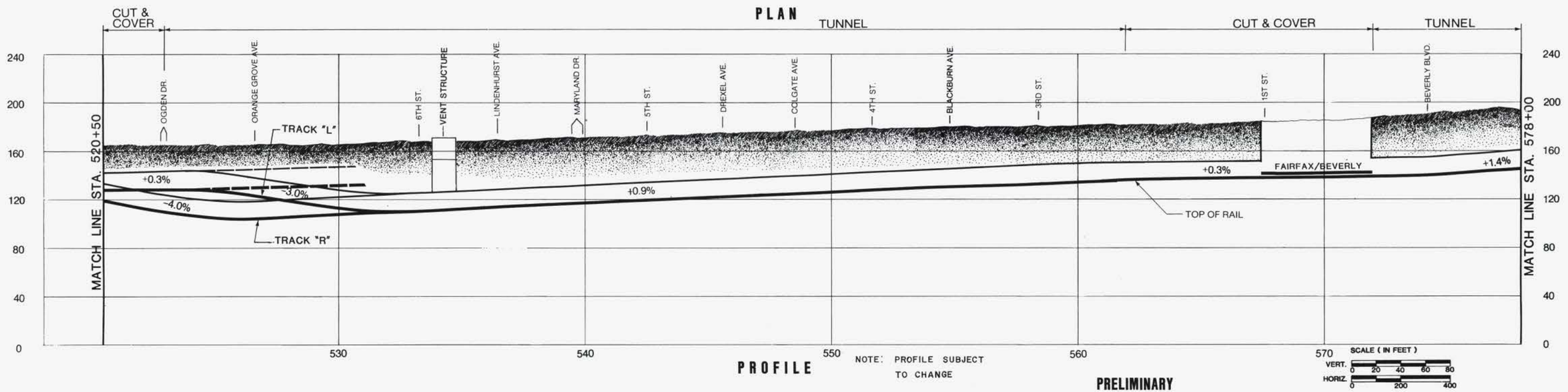
MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS

ALIGNMENT PLAN AND PROFILE
STATION 461+00 TO STATION 520+50

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-009
SCALE AS SHOWN
SHEET NO. 9 OF 21

FIGURE III-9





PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
1	3/11/83	D.W.L.		REVISED VENT STRUCTURE

DESIGNED BY Date 2/2/83
CZYZEWSKI
GARCIA / DHINSA / KARAT

DRAWN BY Date 2/9/83
IONESCU
MANUEL / CASTILLO / MACIS

CHECKED BY Date 2/9/83
LOGAN

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PROJECT MANAGER Reg.No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS

ALIGNMENT PLAN AND PROFILE
STATION 520+50 TO STATION 578+00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-010
SCALE AS SHOWN
SHEET NO. 10 OF 21

BRUNING

FIGURE III-10

Fairfax/Beverly to Hollywood/Cahuenga Station
Figures III - 10, 11, 12, 13, 14 and 15)

Through this segment, all line segments are proposed for construction by tunneling methods and all stations, crossovers, or pocket track structures by cut-and-cover methods.

After leaving the Fairfax/Beverly Station, the alignment passes through a set of short reverse curves and returns to the Fairfax Avenue right-of-way north of Oakwood Avenue and then proceeds north under Fairfax to the Fairfax/Santa Monica Station that straddles Santa Monica Boulevard.

The Metro Rail alignment through this segment remains under Fairfax Avenue extending north to a point north of Fountain Avenue where it curves eastward under the Sunset Boulevard right-of-way at Stanley Avenue. The alignment continues east to the La Brea/Sunset Station just west of La Brea Avenue. A double crossover is to be constructed just west of the station.

After leaving the La Brea/Sunset Station the alignment continues easterly under the Sunset Boulevard right-of-way to Hudson Avenue where it curves northerly to an off-street alignment west of Cahuenga Boulevard to the Hollywood/Cahuenga Station that straddles Hollywood Boulevard. Just north of the station a pocket track for storage of a six-car train is to be constructed.

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 2/2/83
CZYZEWSKI
GARCIA / DHINSA / KARAT

DRAWN BY Date 2/9/83
IONESCU
MANUEL/CASTILLO/MACIS

CHECKED BY Date 2/9/83
LOGAN

DMJM/PBQD
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General Engineering Consultant - Ways and Structures

SUBMITTED BY:

PROJECT MANAGER Reg.No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED

DEPUTY CHIEF ENGINEER Reg. No.

APPROVED Date

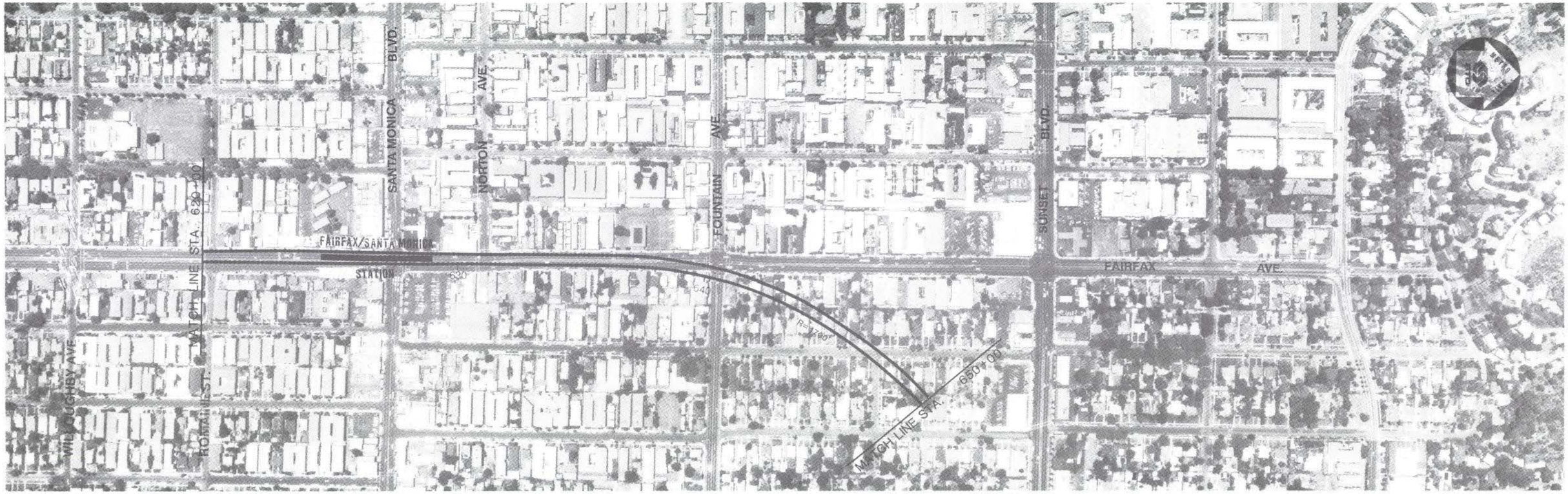
MANAGER / CHIEF ENGINEER Reg. No.

MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS

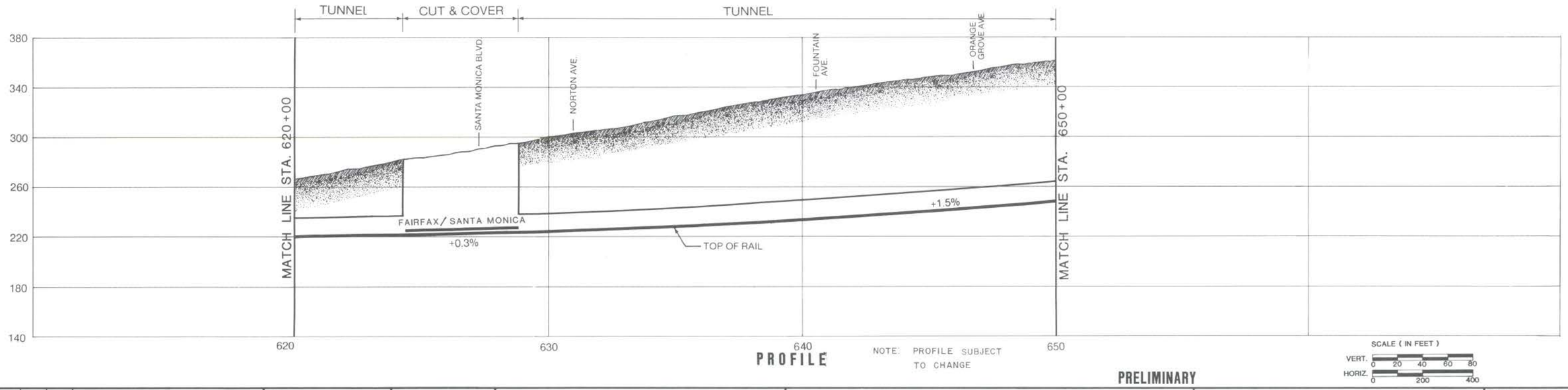
ALIGNMENT PLAN AND PROFILE
STATION 578+00 TO STATION 620+00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-011
SCALE AS SHOWN
SHEET NO. 11 OF 21

FIGURE III-11



PLAN



PROFILE

NOTE: PROFILE SUBJECT TO CHANGE

SCALE (IN FEET)
VERT. 0 20 40 60 80
HORIZ. 0 200 400

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 2/2/83
CZYZEWSKI
GARCIA / DHINSA / KARAT

DRAWN BY Date 2/9/83
IONESCU
MANUEL / CASTILLO / MACIS

CHECKED BY Date 2/9/83
LOGAN

DMJM / PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures

SUBMITTED BY:

PROJECT MANAGER Reg. No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

APPROVAL RECOMMENDED Reg. No.

APPROVED Date

MANAGER / CHIEF ENGINEER Reg. No.

MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS

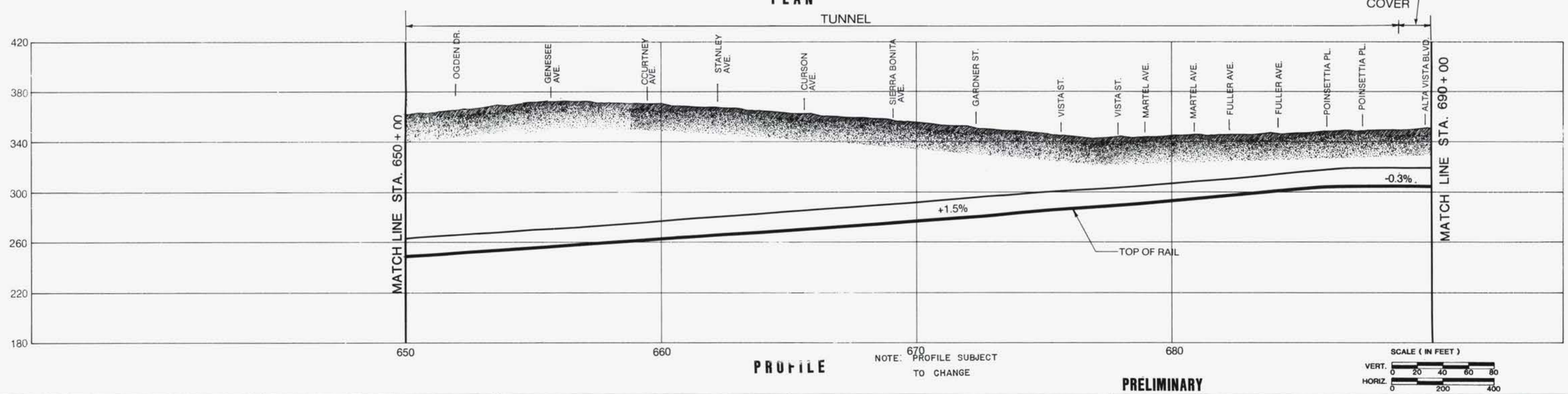
ALIGNMENT PLAN AND PROFILE
STATION 620 00 TO STATION 650 00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-012
SCALE AS SHOWN
SHEET NO. 12 OF 21

BRUNING

FIGURE III-12

PLAN



PROFILE

NOTE: PROFILE SUBJECT TO CHANGE

SCALE (IN FEET)
VERT. 0 20 40 60 80
HORIZ. 0 200 400

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 2/2/83
CZYZEWSKI
GARCIA/DHINSA/KARAT

DRAWN BY Date 2/9/83
IONESCU
MANUEL/CASTILLO/MACIS

CHECKED BY Date 2/9/83
LOGAN

DMJM/PBQD
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General Engineering Consultant - Ways and Structures

SUBMITTED BY:

PROJECT MANAGER Reg. No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

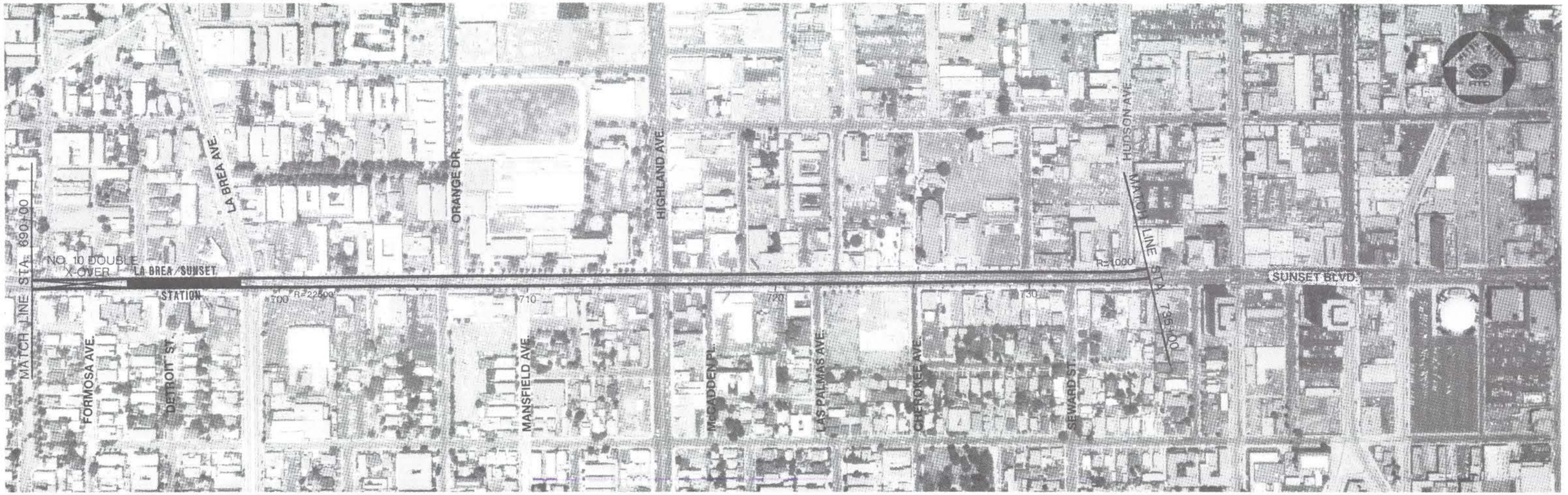
MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS

ALIGNMENT PLAN AND PROFILE
STATION 650+00 TO STATION 690+00

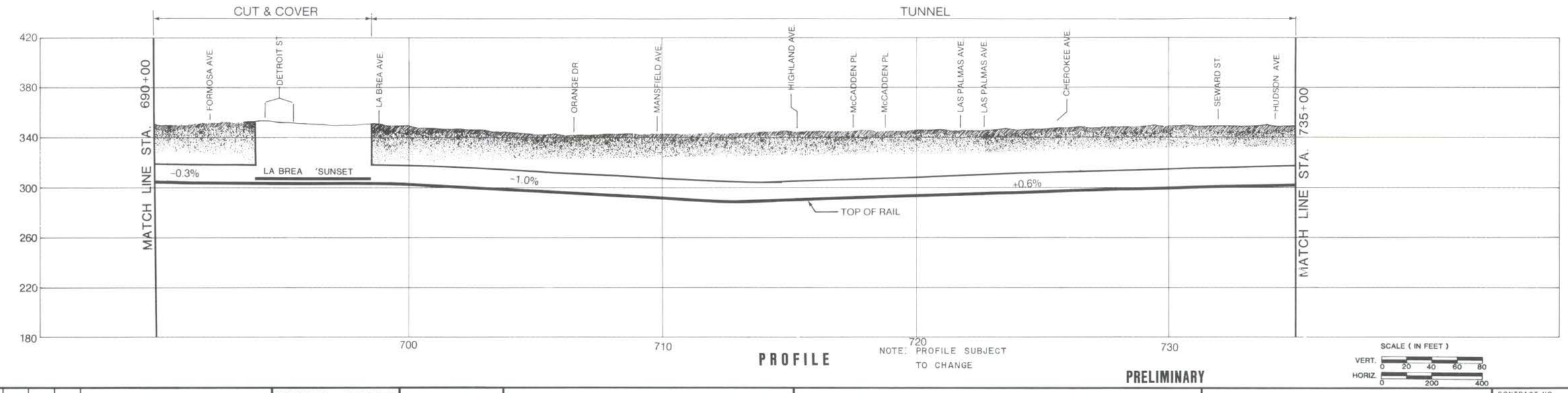
CONTRACT NO.
DRAWING NO AP-16 AAA-C-013
SCALE AS SHOWN
SHEET NO. 13 OF 21

BRUNING

FIGURE III-13



PLAN



PROFILE

NOTE: PROFILE SUBJECT TO CHANGE

SCALE (IN FEET)
VERT. 0 20 40 60 80
HORIZ. 0 200 400

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 2/2/83
CZYZEWSKI
GARCIA /DHINSA / KARAT

DRAWN BY Date 2/9/83
IONESCU
MANUEL/CASTILLO/MACIS

CHECKED BY Date 2/9/83
LOGAN

DMJM/PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures

SUBMITTED BY:

PROJECT MANAGER Reg. No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

APPROVAL RECOMMENDED

DEPUTY CHIEF ENGINEER Reg. No.

APPROVED Date

MANAGER / CHIEF ENGINEER Reg. No.

MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS

ALIGNMENT PLAN AND PROFILE

STATION 690+00 TO STATION 735+00

CONTRACT NO.

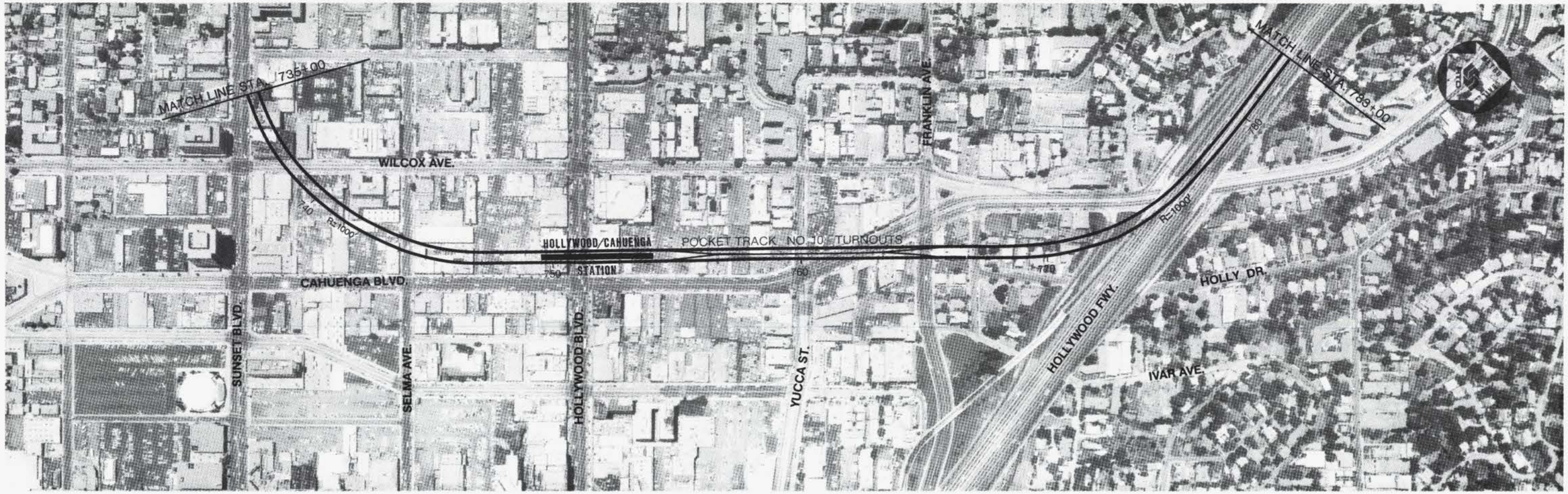
DRAWING NO. AP-16 AAA-C-014

SCALE AS SHOWN

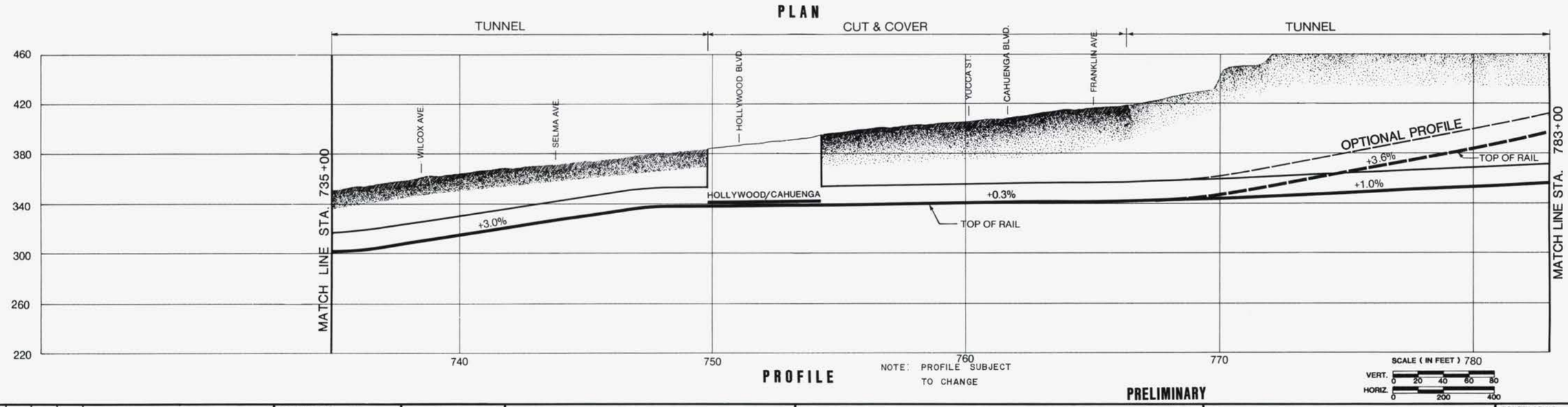
SHEET NO. 14 OF 21

BRUNING

FIGURE III-14



PLAN



PROFILE

NOTE: PROFILE SUBJECT TO CHANGE

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
1	3/2/83	D.W.L.		ADDED OPTIONAL PROFILE

DESIGNED BY CZYZEWSKI GARCIA/DHINSA/KARAT Date 2/2/83
DRAWN BY IONESCU MANUEL/CASTILLO/MACIS Date 2/9/83
CHECKED BY LOGAN Date 2/9/83

DMJM/PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures
SUBMITTED BY:
PROJECT MANAGER Reg. No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS
ALIGNMENT PLAN AND PROFILE
STATION 735+00 TO STATION 783+00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-015
SCALE AS SHOWN
SHEET NO. 15 OF 21

BRUNING

FIGURE III-15

Hollywood/Cahuenga Station to North Hollywood Station
Figures III - 15, 16, 17, 18, 19, 20 and 21)

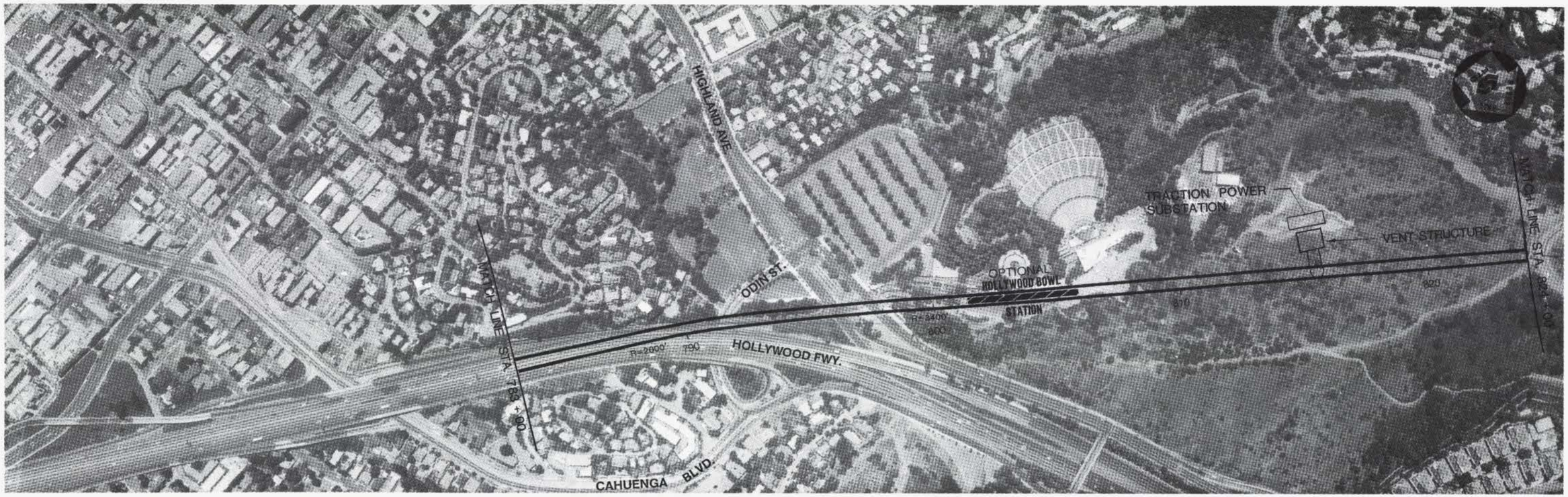
As in other sections, all line segments are proposed for construction by tunneling methods and all stations, crossovers, or pocket track structures by cut-and-cover methods.

After leaving the Hollywood/Cahuenga Station, the alignment continues to the Hollywood Freeway then curves westerly under the Hollywood freeway. Near Highland Avenue, the alignment leaves the freeway right-of-way and proceeds past the Hollywood Bowl in a deep tunnel under the Santa Monica mountains to the Universal City Station.

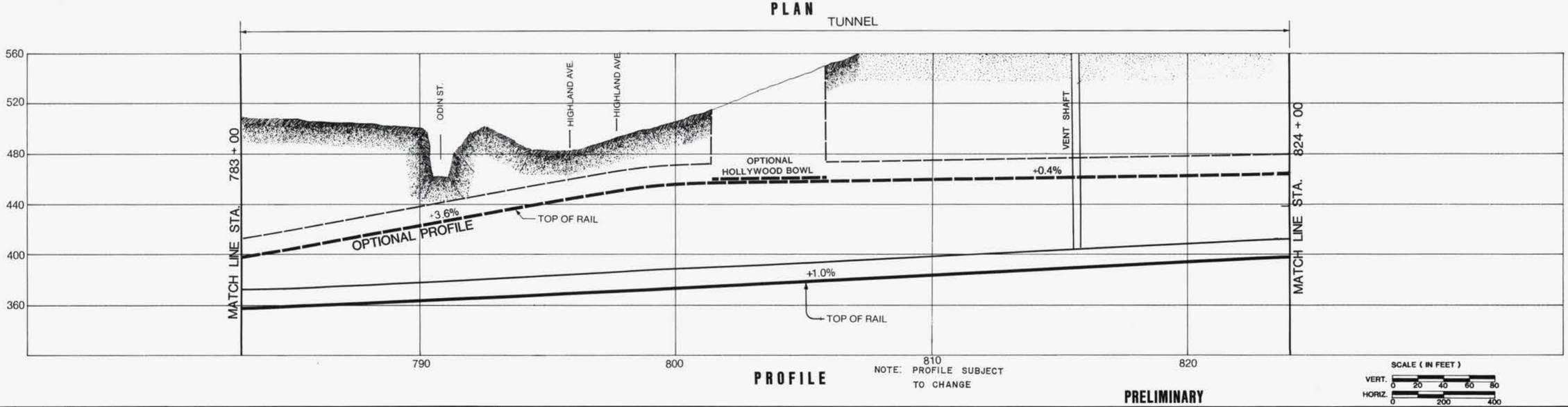
The Universal City Station is off the street west of and parallel to Lankershim Boulevard just north of the Hollywood Freeway.

After leaving the Universal City Station, the alignment will begin a 1500-foot radius curve to enter the Lankershim Boulevard right-of-way at about the Los Angeles River. After entering Lankershim the alignment will continue north to the North Hollywood Station, which is centered on the Chandler Boulevard right-of-way. This will be the terminal station for the initial phase Metro Rail Project.

A double crossover is to be constructed ahead of the station. Beyond the station a three-cell box structure, similar to a pocket track, will be provided for overnight storage of trains that will be needed for start-up in the morning.



PLAN



PROFILE

NOTE: PROFILE SUBJECT TO CHANGE

SCALE (IN FEET)
VERT. 0 20 40 60 80
HORIZ. 0 200 400

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
2	3/11/83	D.W.L.		REVISED VENT STRUCTURE ADDED SUBSTATION
1	3/2/83	D.W.L.		ADDED OPTIONAL HOLLYWOOD BOWL STATION

DESIGNED BY Date 2/2/83
CZYZEWSKI
GARCIA / DHINSA / KARAT

DRAWN BY Date 2/9/83
IONESCU
MANUEL / CASTILLO / MACIS

CHECKED BY Date 2/9/83
LOGAN

DMJM / PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures

SUBMITTED BY:
PROJECT MANAGER Reg. No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

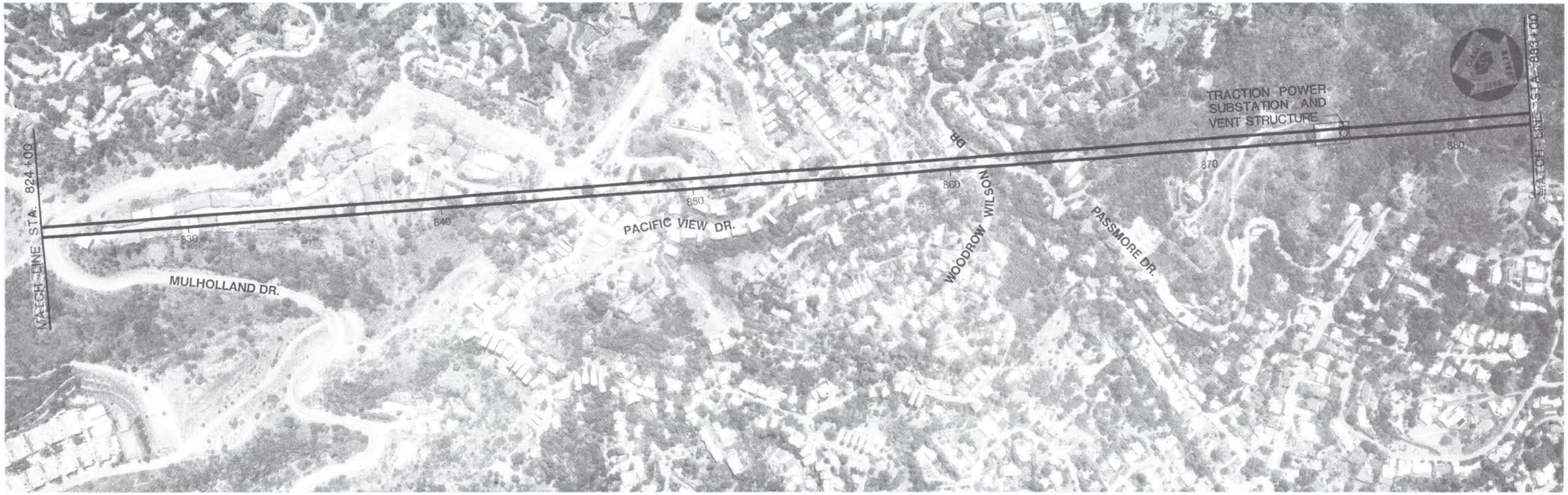
MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS

ALIGNMENT PLAN AND PROFILE
STATION 783+00 TO STATION 824+00

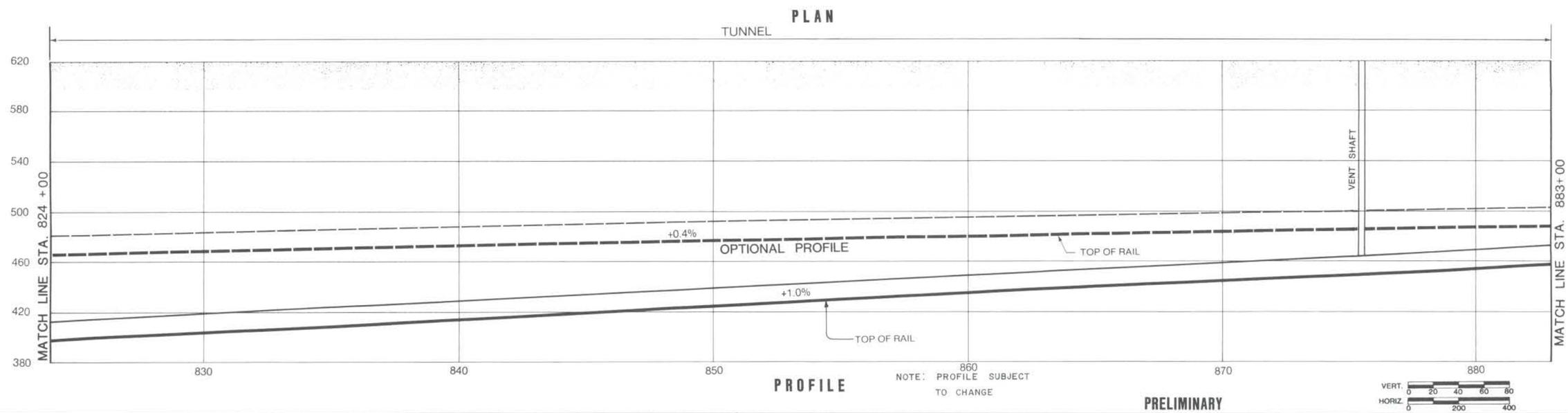
CONTRACT NO.
DRAWING NO. AP-16 AAA-C-016
SCALE AS SHOWN
SHEET NO. 16 OF 21

BRUNING

FIGURE III-16



PLAN



PROFILE

NOTE: PROFILE SUBJECT TO CHANGE

VERT. 0 20 40 60 80
HORIZ. 0 200 400

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
2	3/11/83	D.W.L.		REVISED VENT STRUCTURE ADDED SUBSTATION
1	3/2/83	D.W.L.		ADDED OPTIONAL PROFILE

DESIGNED BY Date 2/2/83
CZYZEWSKI
GARCIA /DHINSA / KARAT

DRAWN BY Date 2/9/83
IONESCU
MANUEL / CASTILLO / MACIS

CHECKED BY Date 2/9/83
LOGAN

DMJM / PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures

SUBMITTED BY:

PROJECT MANAGER Reg. No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

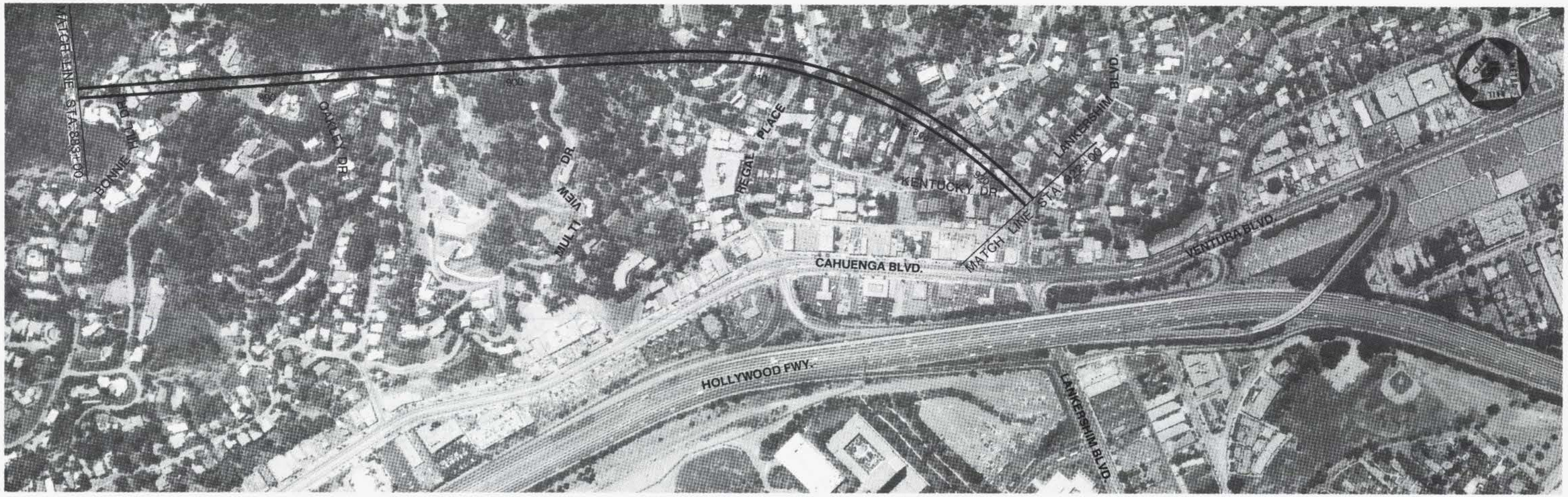
MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS

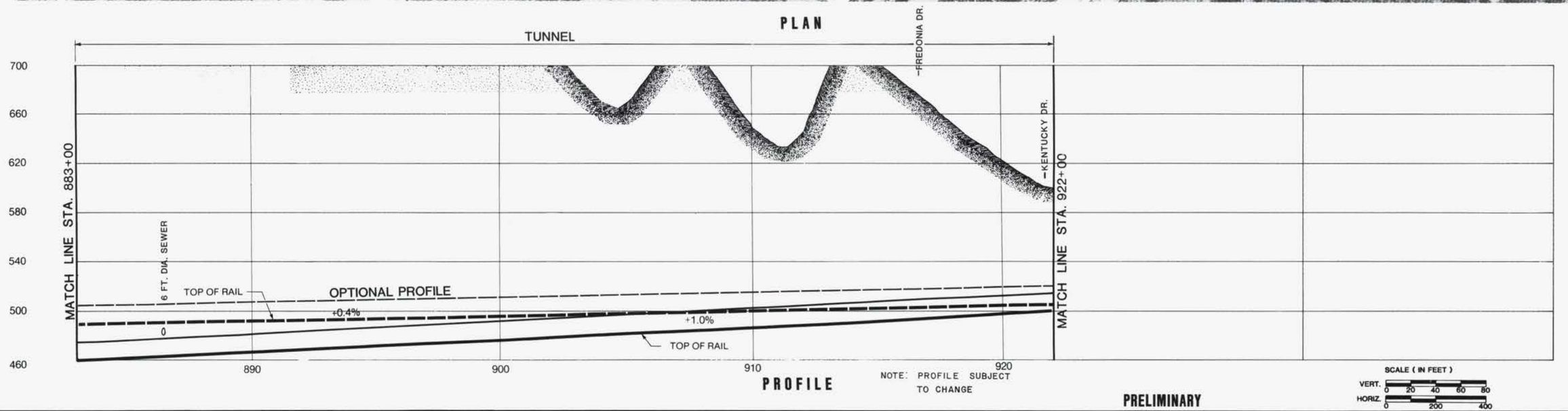
ALIGNMENT PLAN AND PROFILE
STATION 824+00 TO STATION 883+00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-017
SCALE AS SHOWN
SHEET NO. 17 OF 21

BRUNING

FIGURE III-7





PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
1	3/2/83	D.W.L.		ADDED OPTIONAL PROFILE

DESIGNED BY CZYZEWSKI GARCIA / DHINSA / KARAT Date 2/2/83
DRAWN BY IONESCU MANUEL / CASTILLO / MACIS Date 2/9/83
CHECKED BY LOGAN Date 2/9/83

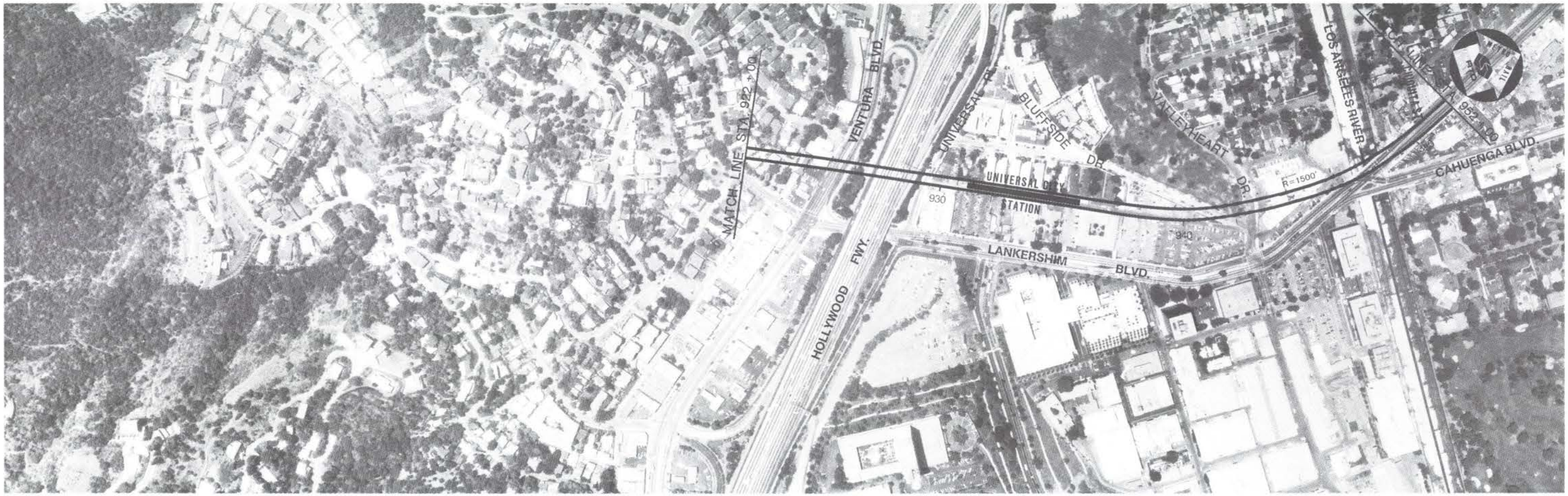
DMJM/PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures
SUBMITTED BY:
PROJECT MANAGER Reg.No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

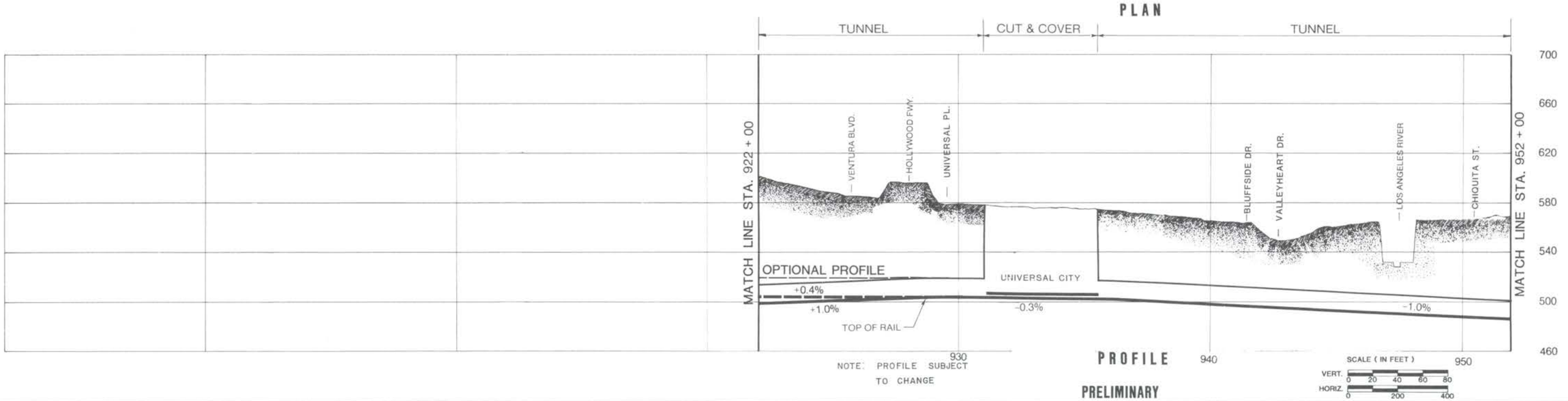
MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS
ALIGNMENT PLAN AND PROFILE
STATION 883+00 TO STATION 922+00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-018
SCALE AS SHOWN
SHEET NO. 18 OF 21

FIGURE III-18



PLAN



NOTE: PROFILE SUBJECT TO CHANGE

PROFILE

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
2	3/11/83	D.W.L.		REVISED PROFILE
1	3/2/83	D.W.L.		ADDED OPTIONAL PROFILE

DESIGNED BY Date 2/2/83
CZYZEWSKI/GARCIA/KARAT
DRAWN BY Date 2/9/83
IONESCU
MANUEL/CASTILLO/MACIS
CHECKED BY Date 2/9/83
LOGAN

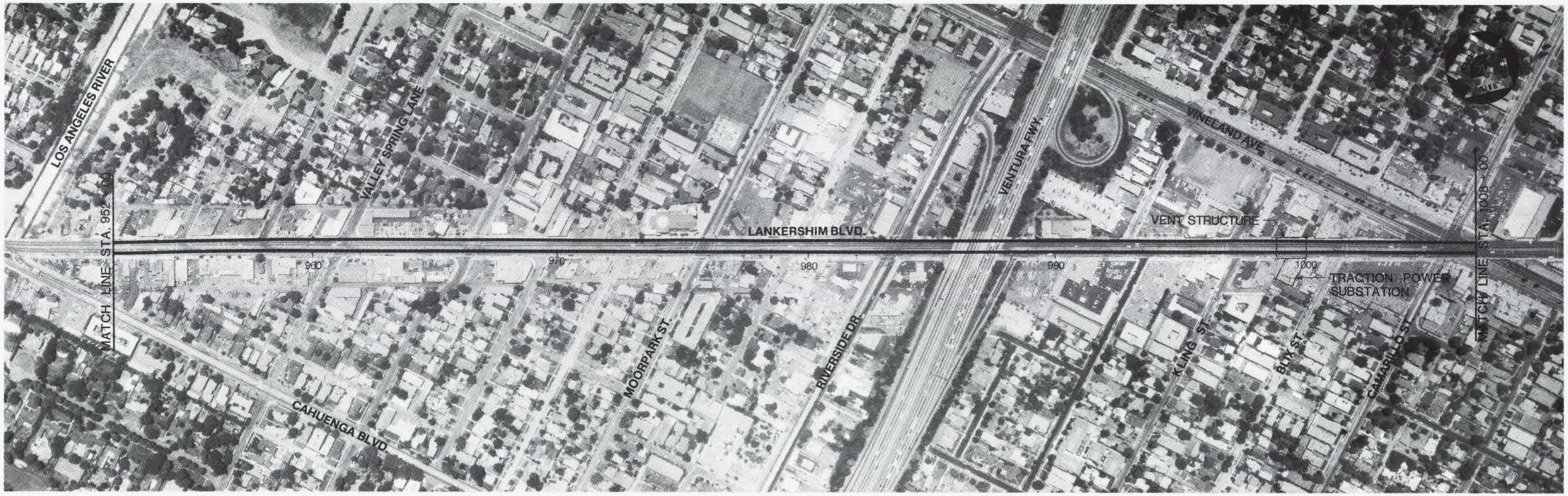
DMJM/PBQD
A Joint Venture
General Engineering Consultant-Ways and Structures
SUBMITTED BY
PROJECT MANAGER Reg. No.

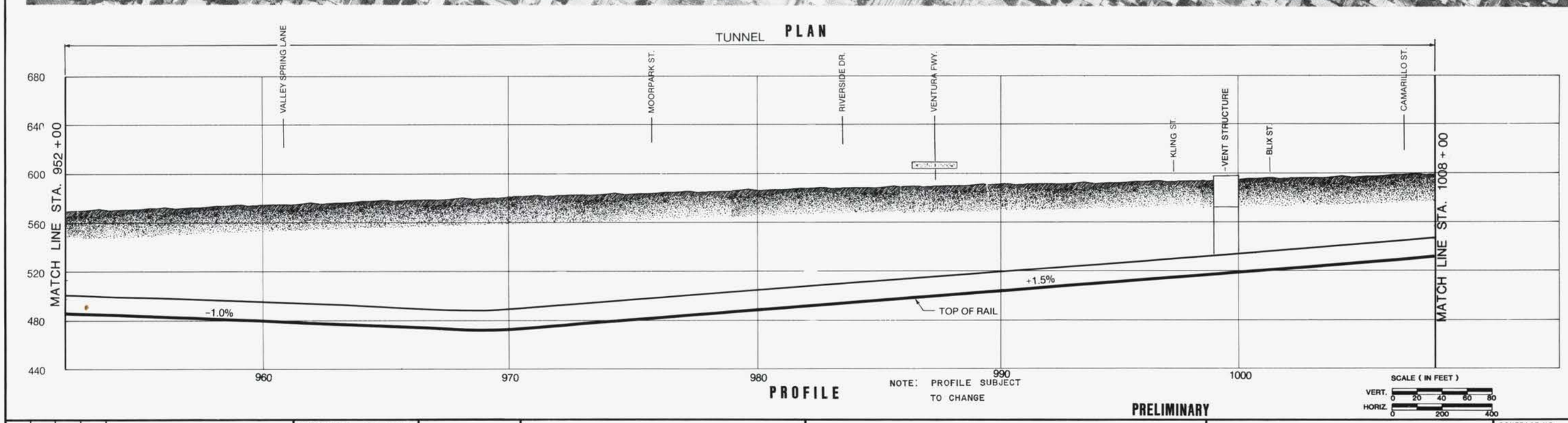
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS
ALIGNMENT PLAN AND PROFILE
STATION 922+00 TO STATION 952+00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-019
SCALE AS SHOWN
SHEET NO 19 OF 21

FIGURE III-19





PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
1	3/11/83	D.W.L.		REVISED PROFILE - ADDED SUBSTATION

DESIGNED BY Date 2/2/83
CZYZEWSKI/GARCIA/KARAT
DRAWN BY Date 2/9/83
IONESCU
MANUEL/CASTILLO/MACIS
CHECKED BY Date 2/9/83
LOGAN

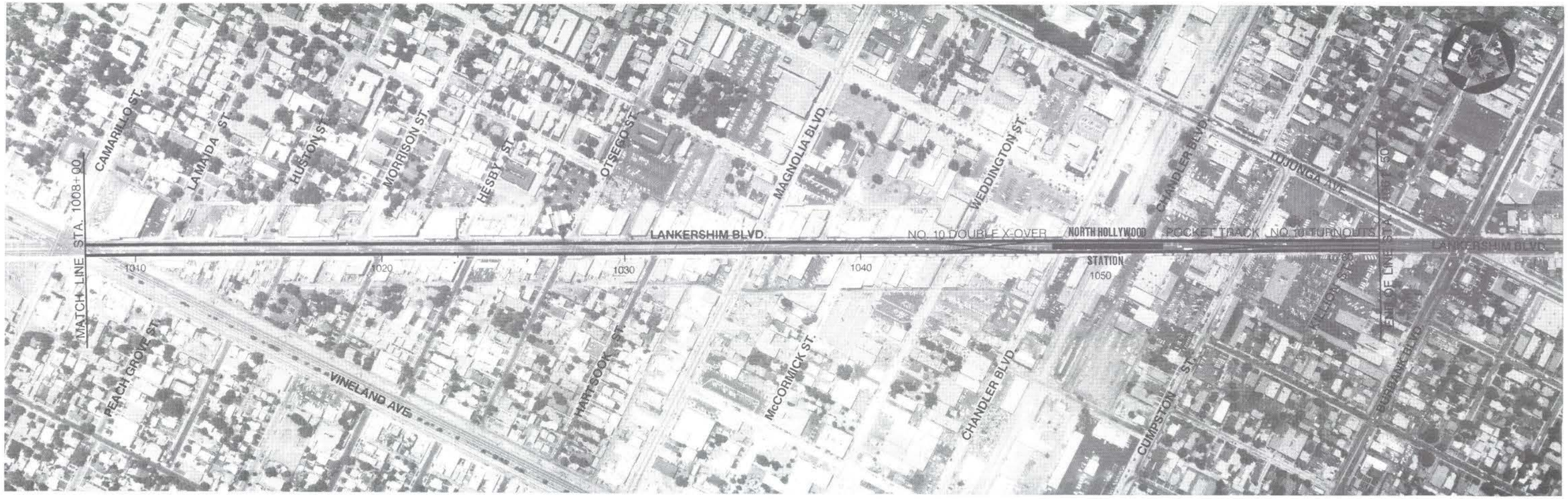
DMJM/PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures
SUBMITTED BY:
PROJECT MANAGER Reg.No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

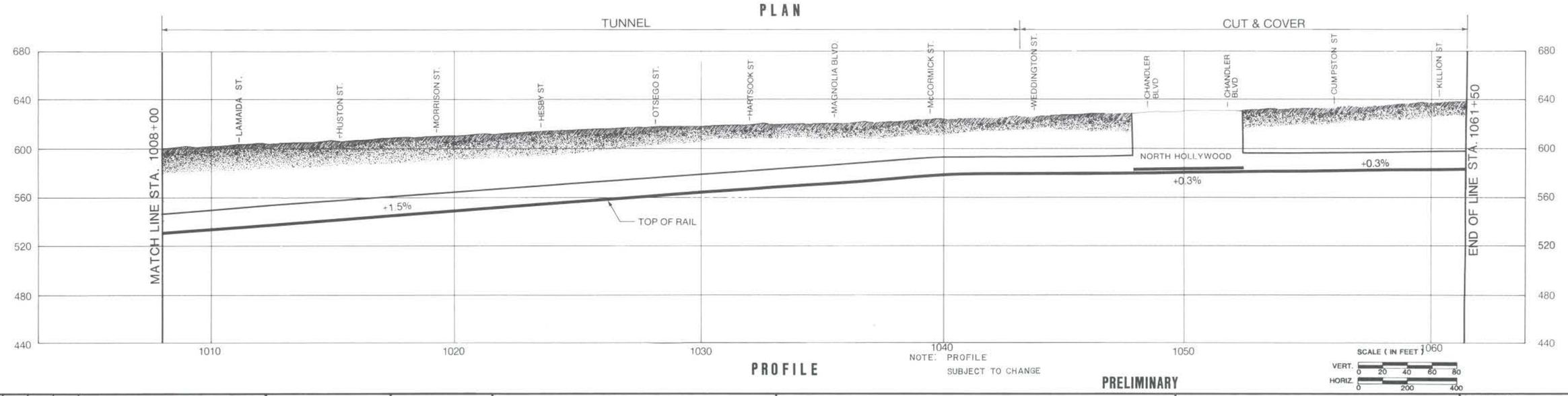
MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS
ALIGNMENT PLAN AND PROFILE
STATION 952+00 TO STATION 1008+00

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-020
SCALE AS SHOWN
SHEET NO. 20 OF 21

FIGURE III-19



PLAN



PROFILE

NOTE: PROFILE SUBJECT TO CHANGE

SCALE (IN FEET)
VERT. 0 20 40 60 80
HORIZ. 0 200 400

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
1	3/11/83	D.W.L.		REVISED PROFILE

DESIGNED BY Date 2/2/83
CZYZEWSKI/GARCIA/KARAT
DRAWN BY Date 2/9/83
IONESCU
MANUEL/CASTILLO/MACIS
CHECKED BY Date 2/9/83
LOGAN

DMJM/PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures
SUBMITTED BY:
PROJECT MANAGER Reg.No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

MILESTONE 10
DEFINITIVE FIXED FACILITIES PLANS
ALIGNMENT PLAN AND PROFILE
STATION 1008+00 TO STATION 1061+50

CONTRACT NO.
DRAWING NO. AP-16 AAA-C-021
SCALE AS SHOWN
SHEET NO. 21 OF 21

FIGURE III-20

B. YARD AND MAINTENANCE FACILITY DESIGN REPORT

The Southern California Rapid Transit District Metro Rail Project will require a comprehensive support system of yards and shops to provide for the storage of transit vehicles and for the proper and cost effective maintenance of the systems equipment and plant. This system of yards and shops will allow for the expeditious movement of trains between the yards and the revenue tracks without congestion or delay, and the safe and economical movement of trains and cars within the yard.

The yards and shops facilities reflect the complex and demanding requirement of function, as pertains not only to these facilities, but their relationship to the rest of the system. The yards are comprised of a number of related elements, each having unique operational requirements as well as those imposed by the relationships of the elements to each other. The shops are comprised of a number of functionally focal areas supported by a number of unique and in many cases, complex equipment repair and service shops.

For the 18-mile starter line, the design of the yards and shops has been based upon an ultimate operating capacity of six car trains operating at two minute headways. At this capacity the transit car fleet will consist of 214 cars (107 married pairs), with 180 cars for revenue service, 12 for standby consists and 22 for a maintenance margin. For the maintenance and storage of these transit cars one main yard with shops will be provided. Operating storage will be provided by three underground stub ended tail tracks, 500 feet long, beyond the North Hollywood Station.

1. Yard Site

The main yard will be located on a site east of the Central Business District of Los Angeles. It will be located between the Santa Fe Railway to the east, which is immediately west of the Los Angeles River, and Santa Fe Avenue on the west. This yard site extends south from the Santa Ana Freeway to a point about 1100 feet south of the Sixth Street Bridge. The site provides for a yard area of approximately 45 acres.

This yard site has a number of constraints. These are: existing highway bridges for the Santa Ana Freeway, First Street, Fourth Street, and Sixth Street crossing the yard site; an Amtrak Coach Yard south of the Seventh Street Bridge; and the Santa Fe Railway Facilities in this area. The yard layout must provide for maintaining the main track of the Santa Fe Railway, a principal lead, five storage tracks and track connections between the Santa Fe Railway and the freight spurs located west of the yard site. A yard at this site will require the removal, construction and relocation of railroad tracks and facilities.

2. Yard Layout

The main yard will extend about 5900 feet from a point between the Santa Ana Freeway and the First Street Bridge southward to a point below the Sixth Street Bridge. The east-west dimension varies, with the widest point being just north of the Fourth Street Bridge. At this point the yard will be 800 feet wide. North of the First Street Bridge and south of the Fourth Street Bridge, the yard narrows appreciably. The width of the site allows placement of the storage yard next to the main shops. The length of the site plus the narrowness of the available land at each end of the site rules out placing the storage yard and main shops end to end.

3. Yard Facilities

Entrance to the main yard will be provided from Union Station. Leaving Union Station, the future main tracks will descend so that they can pass under the Los Angeles River. The yard leads will ascend from Union Station, pass over the eastbound main track (future) and under the Santa Ana Freeway and a relocated freight spur to a portal at the north end of the yard. This portal will provide for four tracks. Two will be the yard leads from Union Station. The remaining two tracks will be the yard leads to the Metro Rail future eastward extension.

Immediately south of the portal is the transfer zone of the main yard. From the portal, the four yard leads proceed through an interlocking that allows each lead to have access to any one of the four transfer tracks. The most westerly track at the south end of the interlocking provides the lead into the maintenance-of-way shop and its storage tracks. The transfer tracks connect to the main shop tracks, the wash track and the blow down pit track. The layout described above allows access of any of the four leads from the mainline into any portion of the yard.

The main body of the yard south of the transfer zone, consists of the storage yard located on the east side of the yard. The storage yard is arranged to include as many as 12 tracks, each having a capacity of 18 cars, or three six-car trains, for a maximum total capacity of 216 cars. The tracks are alternately spaced at 14 feet and 19 feet centers. The storage yard is double ended, with access at each end between all other yard elements. Between the storage yard and the main repair shop will be the wash tracks, the blow-down pit, and the runaround track.

Adjacent to the storage yard will be the interior car cleaner's building, a small, single-level industrial type building containing an office, storage, equipment room and employee facilities. This building will support the interior car cleaning activities in the storage yard.

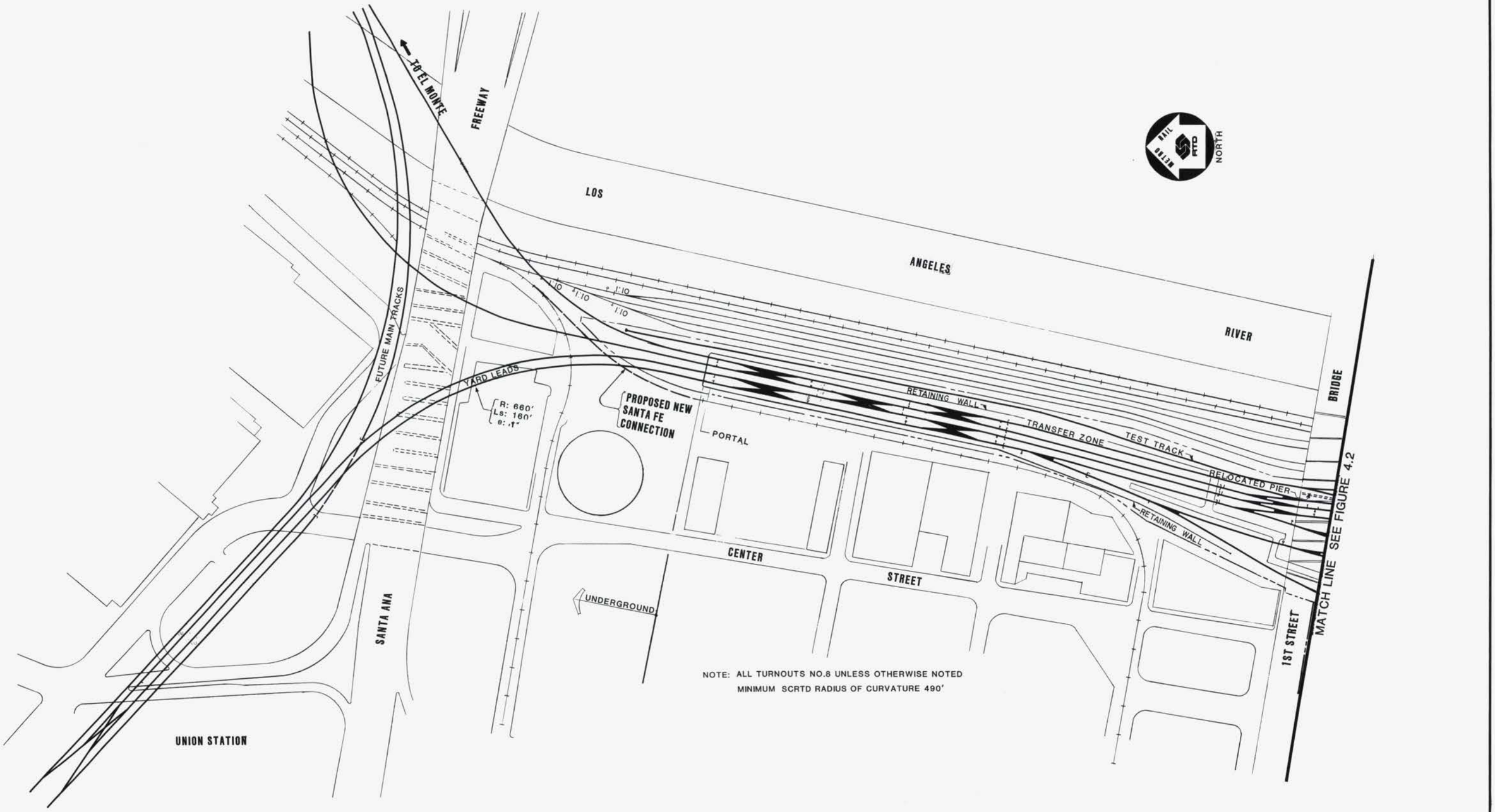
The main shop is located west of the storage yard just north of the Fourth Street Bridge. It is an industrial-type building, containing high bays for the heavy repairs and service and inspection areas. There are two-level areas on the west side of the building and in the center, separating the two high bays. These areas contain various component repair shops, support shops, employee facilities, offices, administrative areas, the stores, and equipment rooms. There is a loading dock adjacent to the stores, as well as access to the heavy repair bay where equipment may be unloaded from rail or highway vehicles. Rail access to the shop is at both ends. There are three tracks, each containing three married-pair positions throught the service and inspection area; two tracks, each containing two married-pair positions; and a single track for the wheel-truing equipment in the heavy repair area. An additional track is through the blow-down facility, which is located along the east side of the building. The yard control tower is placed in a centralized position over the blow-down pit adjacent to the main shop building.

To support the maintenance-of-way activities, support shops and administrative facilities will be provided in the maintenance-of-way shop. The maintenance-of-way shop is a single story industrial type building, comprised of a high bay containing general repair and automotive repair areas and an adjacent, single level area containing various smaller shops, stores, shop equipment rooms, employee facilities, and office and administrative areas. There is a loading dock adjacent to the stores, and road and rail access to the north end of the general repair area.

At the south end of the yard, all tracks within the main body of the yard connect into one of two tail tracks (800 feet and 1,050 feet in length). These tail tracks (with a test track) are between two operating railroad tracks. The easterly tail track provides a crossover to connect into the test track. Operations of the yard at the south end will be based on reverse moves. As an example, a train leaving the wash track would enter either of the tail tracks in a southward movement. It would then reverse direction and proceed northward into the storage yard.

4. Test Track

The test track is provided along the east side of the site between the main yard and the Santa Fe Railway. The test track will be about 5900 feet long extending from the south end of the tail tracks to a point just short of the Santa Ana Freeway. The northern end is determined by the location of railroad freight spur which crosses from the west over to the Santa Ana Railway main track. The south end is north of the Amtrak facilities in the vicinity of the Seventh Street Bridge. A service road is provided adjacent to the test track for most of its length. A test building with a run-through spur track is located south of the First Street Bridge. This test building is a small, single story, industrial type building containing a single track, connecting at both ends to the test track. This track is located in a general work area, one married-pair in length. The building also contains an office, storage, rest room, as well as an equipment room and train control room. Figures III - 22 through III - 32 illustrate the layout of the yard and maintenance facility.



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY G. P. STANSKE Date 1/18/83
DRAWN BY DEL CASTILLO Date 1/18/83
CHECKED BY D. MALICK Date 1/21/83

DMJM/PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

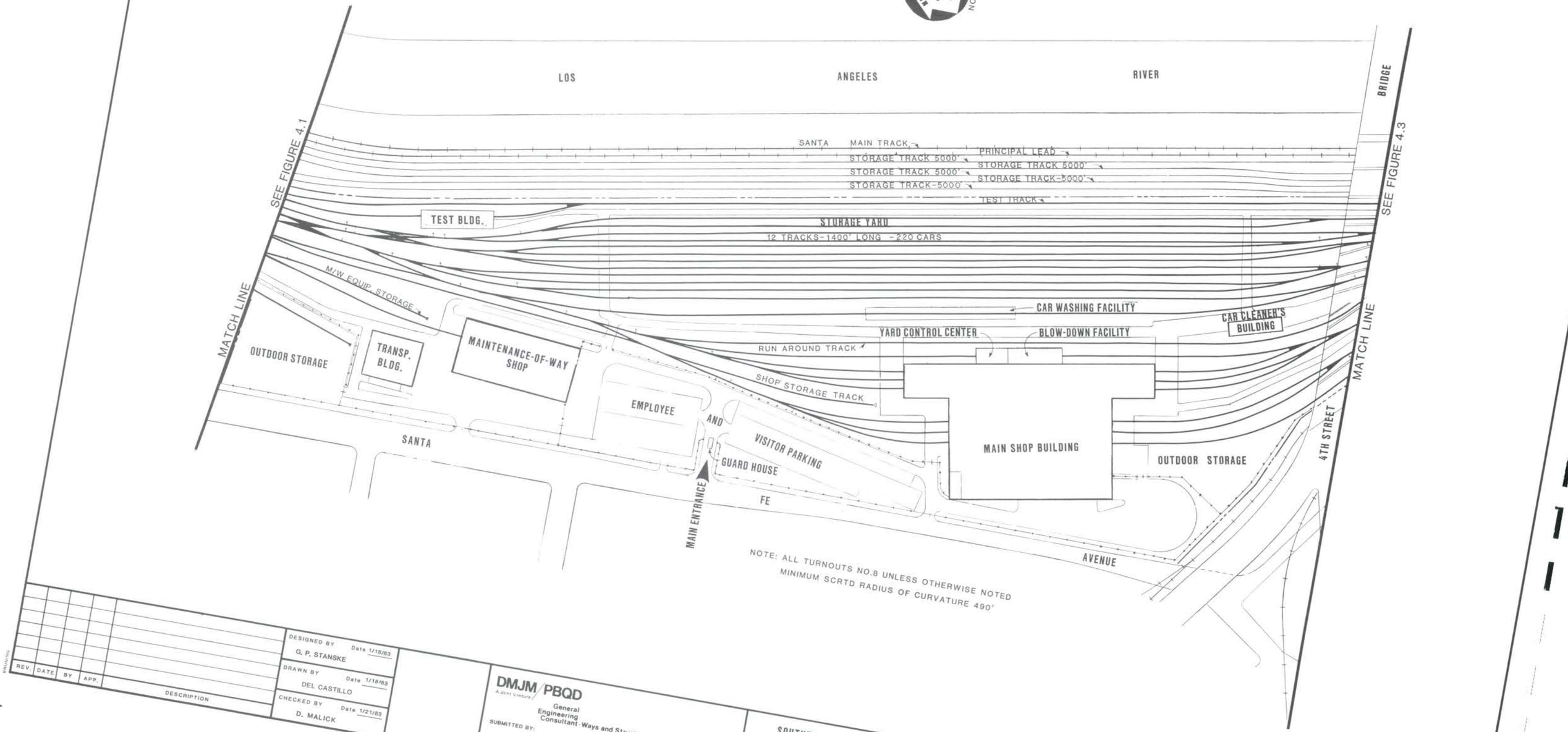
APPROVAL RECOMMENDED
Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

MAIN YARD AND SHOPS
YARD LAYOUT
TRANSFER ZONE AREA

CONTRACT NO.
DRAWING NO. AC-14AAG-C-013(0)
SCALE 1":100'-0"
SHEET NO. FIGURE 4.1

BRUNING

FIGURE III-22



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY G. P. STANSKE Date 1/18/83
DRAWN BY DEL CASTILLO Date 1/18/83
CHECKED BY D. MALICK Date 1/21/83

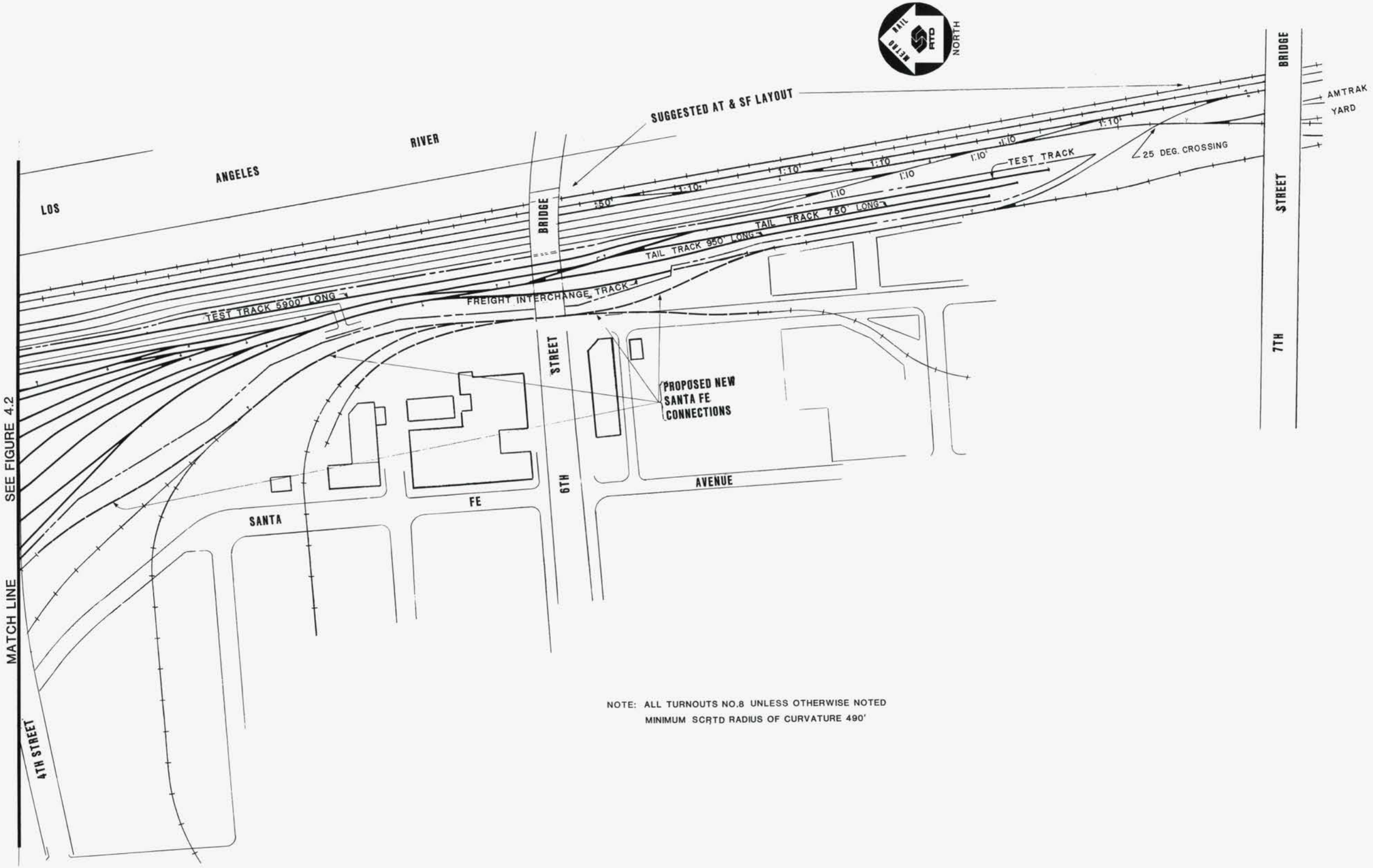
DMJM/PBQD
A Joint Venture
General Engineering Consultant-Ways and Structures
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
APPROVAL RECOMMENDED
Reg. No.
APPROVED
Date
MANAGER / CHIEF ENGINEER Reg. No.

MAIN YARD AND SHOPS
YARD LAYOUT

CONTRACT NO.
DRAWING

FIGURE III-23



NOTE: ALL TURNOUTS NO.8 UNLESS OTHERWISE NOTED
MINIMUM SCRTD RADIUS OF CURVATURE 490'

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY G. P. STANSKE Date 1/18/83
DRAWN BY DEL CASTILLO Date 1/18/83
CHECKED BY D. MALICK Date 1/21/83

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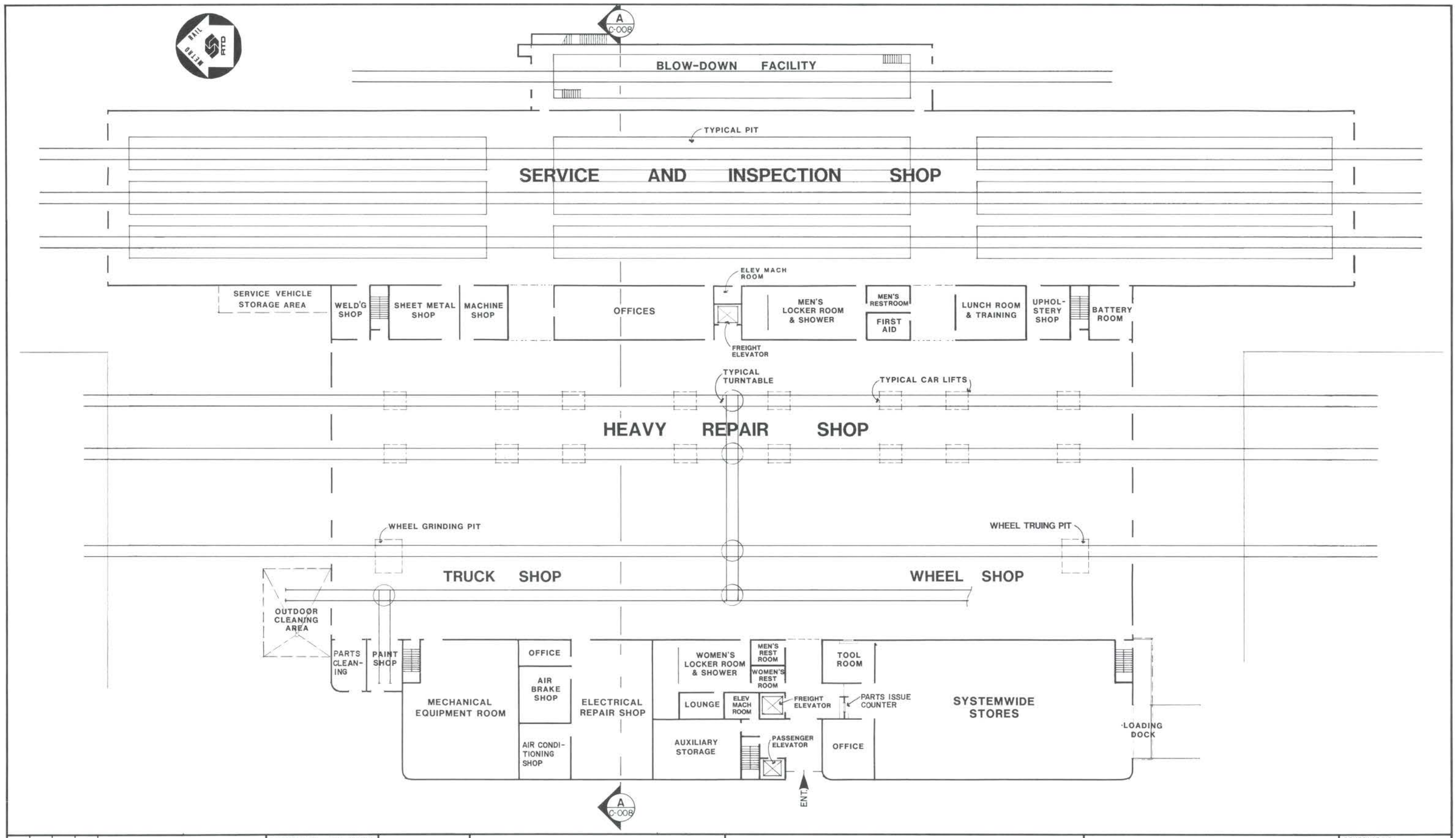
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

MAIN YARD AND SHOPS
YARD LAYOUT
TAIL TRACK AREA

CONTRACT NO.
DRAWING NO. AC-14AAG-C-015(0)
SCALE 1":100'-0"
SHEET NO. FIGURE 4.3

BRUNING

FIGURE III-24



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY C. BAHNG Date 9/24/82
DRAWN BY C. BAHNG Date 9/24/82
CHECKED BY G. P. STAN Date 9/29/82

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A Joint Venture
General Engineering Consultant - Ways and Structures
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PROJECT MANAGER

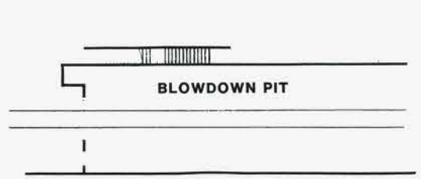
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

MAIN YARD AND SHOPS
MAIN SHOP BUILDING
LAYOUT OF GROUND FLOOR

CONTRACT NO.
DRAWING NO. AC-14AAG-C-006(0)
SCALE 1": 20'-0"
SHEET NO. FIGURE 4.4

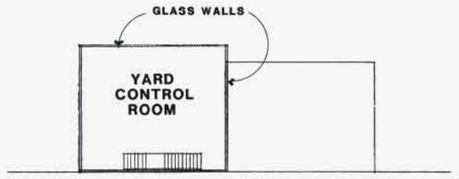
BRUNING

FIGURE III-25



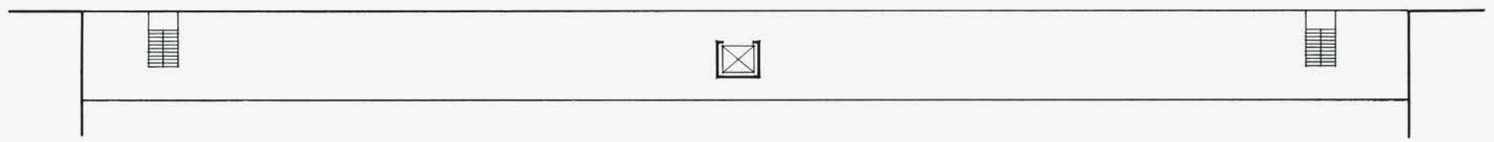
GROUND LEVEL

SECOND LEVEL

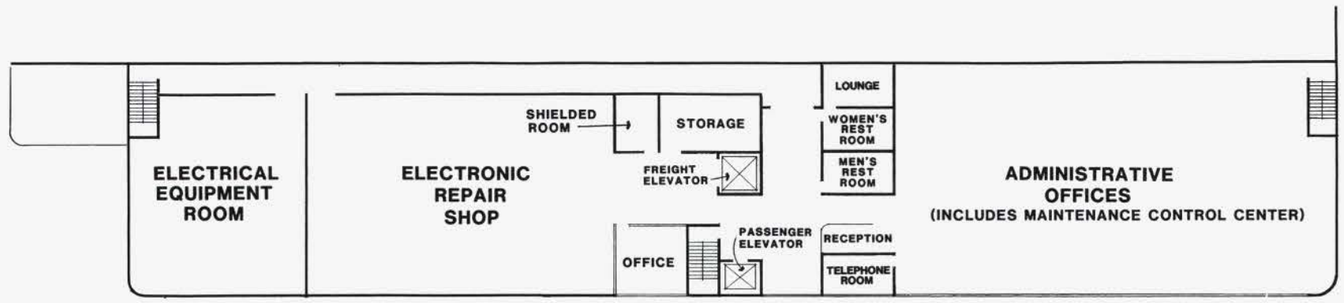


THIRD LEVEL

YARD CONTROL CENTER



OPTIONAL SECOND LEVEL for FUTURE EXPANSION



SECOND LEVEL

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY C. BAHNG Date 9/24/82
DRAWN BY C. BAHNG Date 9/24/82
CHECKED BY G. P. STANSKE Date 9/29/82

DMJM/PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures
SUBMITTED BY:
PROJECT MANAGER

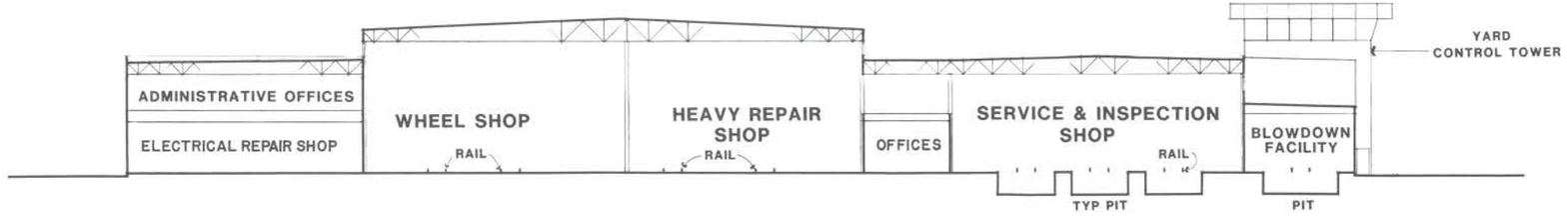
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

MAIN YARD AND SHOPS
MAIN SHOP BUILDING
LAYOUT OF UPPER LEVELS

CONTRACT NO.
DRAWING NO. AC-14AAG-C-007(0)
SCALE 1": 20'-0"
SHEET NO. FIGURE 4.5

BRUNING

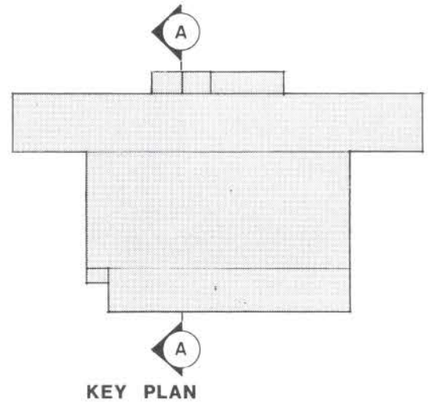
FIGURE III-26



A — A

SECTION

1":20'-0"



KEY PLAN

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY C. BANNS Date 8/24/82

DRAWN BY C. BANNS Date 8/24/82

CHECKED BY G. P. STANSKE Date 8/25/82

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A Joint Venture
General Engineering Consultant - Ways and Structures

SUBMITTED BY:

PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED — Reg. No.

APPROVED — Date — MANAGER / CHIEF ENGINEER — Reg. No.

MAIN YARD AND SHOPS
MAIN SHOP BUILDING
BUILDING SECTION

CONTRACT NO.

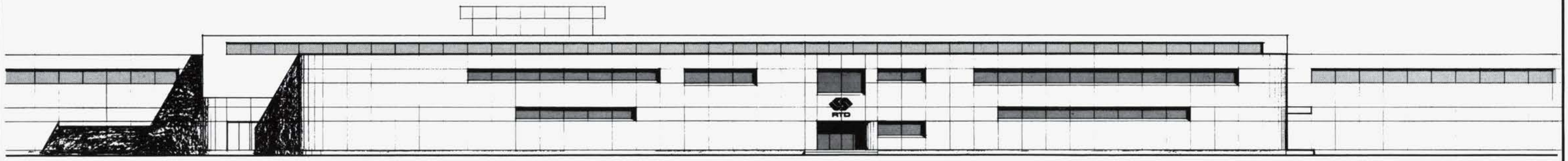
DRAWING NO. AC-14AAG-C-008(0)

SCALE 1": 20'-0"

SHEET NO. FIGURE 4.6

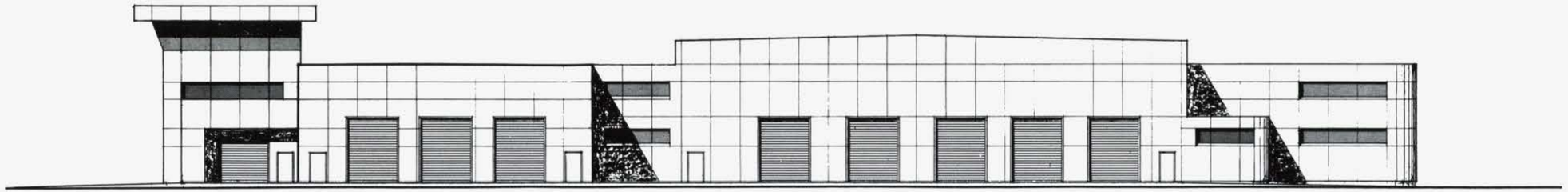
BRUNING

FIGURE III-27



FRONT (WEST) ELEVATION

SCALE : 1/16" = 1'-0"



SIDE (NORTH) ELEVATION

SCALE : 1/16" = 1'-0"

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date [illegible]
C. [illegible]
DRAWN BY Date [illegible]
C. [illegible]
CHECKED BY Date [illegible]
C. P. [illegible]

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A Joint Venture
General Engineering Consultant - Ways and Structures

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PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

RTD

APPROVAL RECOMMENDED — Reg. No. ____

APPROVED — Date ____

MANAGER / CHIEF ENGINEER — Reg. No. ____

MAIN YARD AND SHOPS

MAIN SHOP BUILDING

EXTERIOR ELEVATIONS

CONTRACT NO.

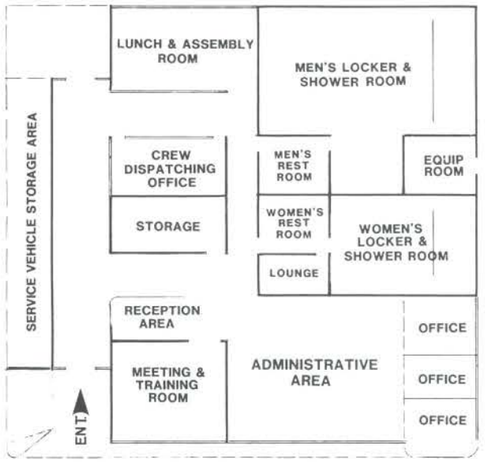
DRAWING NO. AC-14AAG-C-009(0)

SCALE 1/16" = 1'-0"

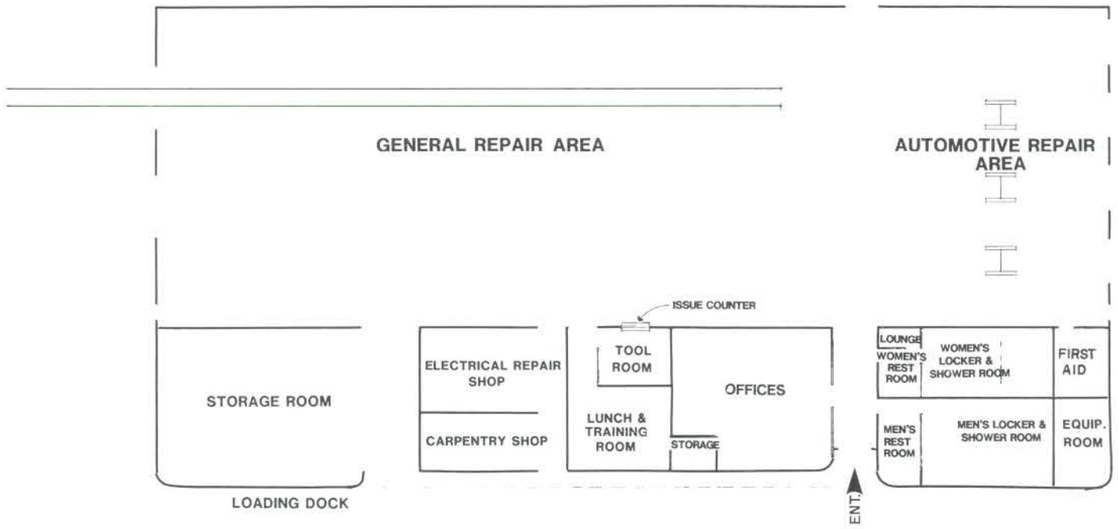
SHEET NO. FIGURE 4.7

BRUNING

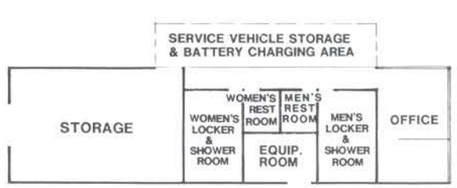
FIGURE III-28



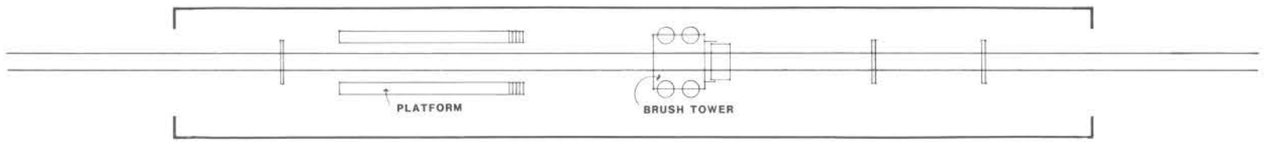
TRANSPORTATION BUILDING



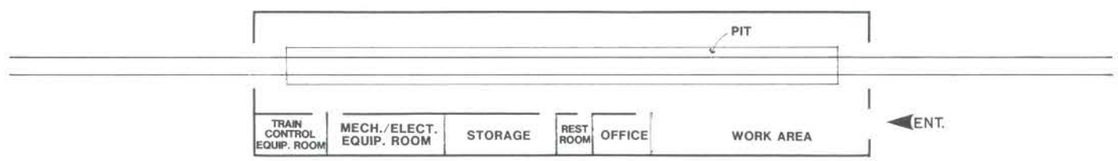
MAINTENANCE-OF-WAY SHOP



INTERIOR CAR CLEANER'S BUILDING



EXTERIOR CAR WASH FACILITY
(TENTATIVE)



TEST BUILDING

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY C. BAHNG Date 9/24/82
DRAWN BY C. BAHNG Date 9/24/82
CHECKED BY G. P. STANSKE Date 9/29/82

DMJM/PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures
SUBMITTED BY:
PROJECT MANAGER

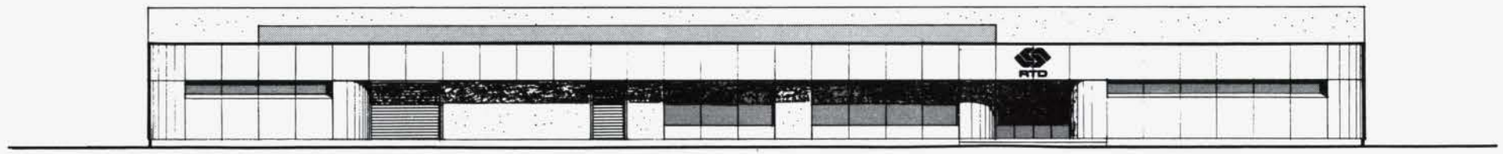
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date
MANAGER / CHIEF ENGINEER — Reg. No.

MAIN YARD AND SHOPS
MAINTENANCE-OF-WAY SHOP
TRANSPORTATION AND TEST BUILDINGS
CAR CLEANER'S BLDG. AND WASH FACILITY

CONTRACT NO.
DRAWING NO. AC-14AAG-C-010(0)
SCALE 1": 20'-0"
SHEET NO. FIGURE 4.8

BRUNING

FIGURE III-29

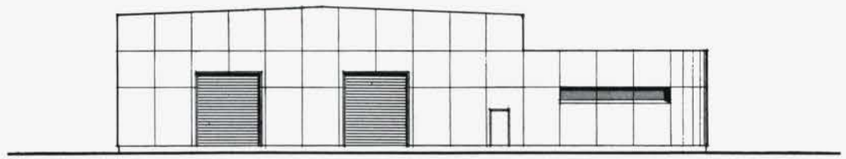


FRONT (WEST) ELEVATION

SCALE : 1/16" = 1'-0"

SIDE (SOUTH) ELEVATION

SCALE : 1/16" = 1'-0"



SIDE (NORTH) ELEVATION

SCALE : 1/16" = 1'-0"

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY G. BAHNG Date 5/24/82

DRAWN BY G. BAHNG Date 5/24/82

CHECKED BY G. P. STANSKE Date 5/25/82

DMJM/PBQD (A Joint Venture)
General Engineering Consultant - Ways and Structures

SUBMITTED BY:

PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

APPROVAL RECOMMENDED — Reg. No. ____

APPROVED — Date ____ — MANAGER / CHIEF ENGINEER — Reg. No. ____

MAIN YARD AND SHOPS
MAINTENANCE-OF-WAY SHOP
EXTERIOR ELEVATIONS

CONTRACT NO.

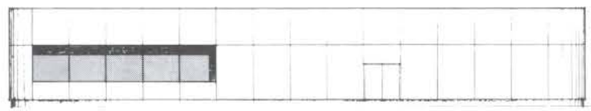
DRAWING NO. AC-14AAG-C-011(0)

SCALE 1/16" = 1'-0"

SHEET NO. FIGURE 4.9

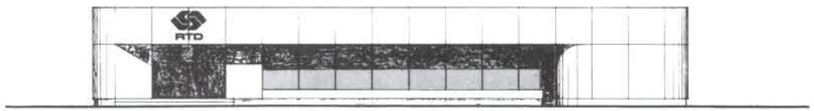
BRUNING

FIGURE III-30



SIDE (SOUTH) ELEVATION

SCALE : 1/16" = 1'-0"



FRONT (WEST) ELEVATION

SCALE : 1/16" = 1'-0"

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY C. BAHNG Date 8/24/92

DRAWN BY C. BAHNG Date 8/24/92

CHECKED BY G. P. STANSKE Date 8/25/92

DMJM/PBQD
A Joint Venture
General Engineering Consultant - Ways and Structures

SUBMITTED BY:

PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

APPROVAL RECOMMENDED

Reg. No.

APPROVED Date

MANAGER / CHIEF ENGINEER Reg. No.

MAIN YARD AND SHOPS
TRANSPORTATION BUILDING
EXTERIOR ELEVATIONS

CONTRACT NO.

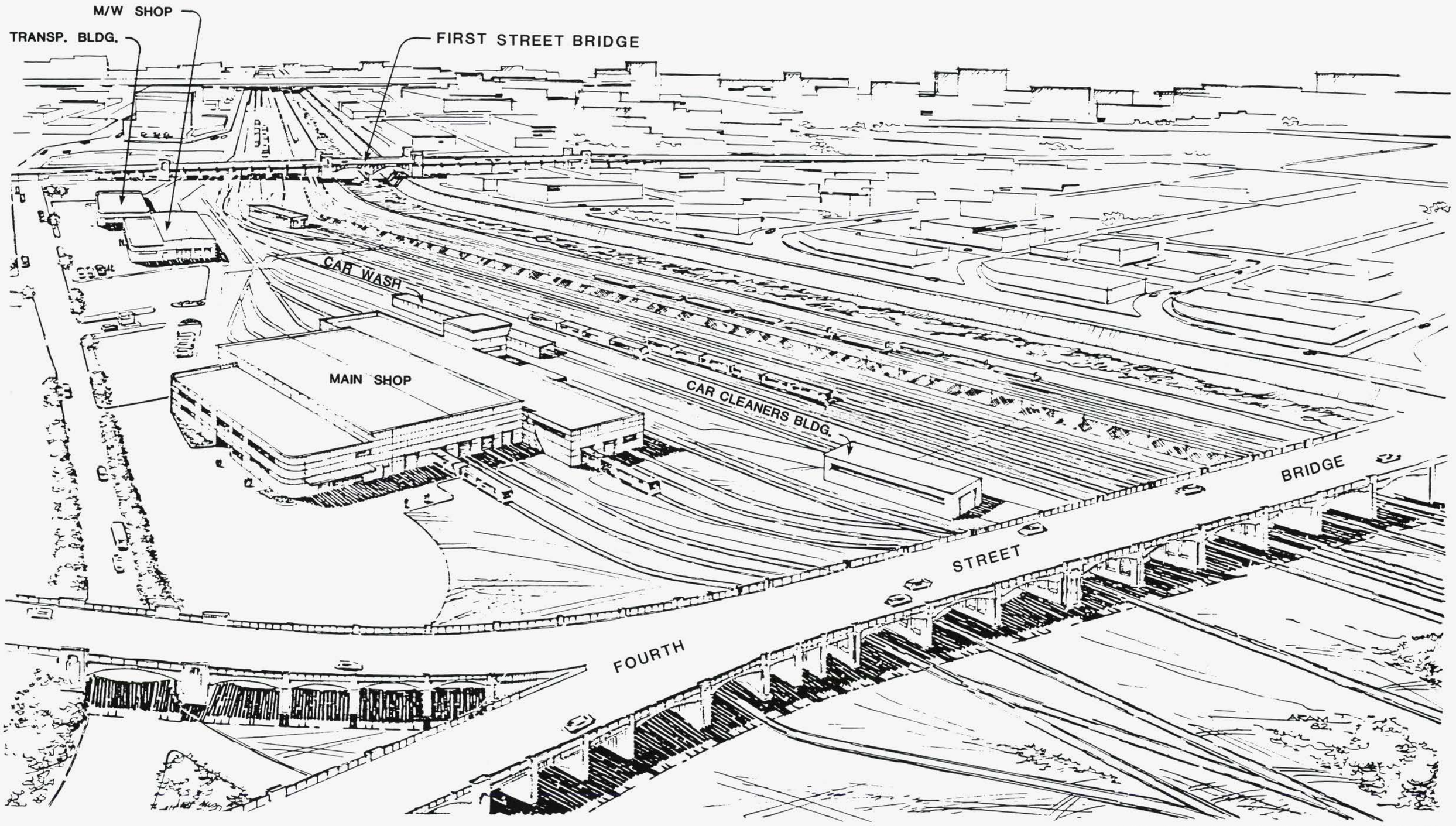
DRAWING NO. AC-14AAG-C-012(0)

SCALE 1/16" = 1'-0"

SHEET NO. FIGURE 4.10

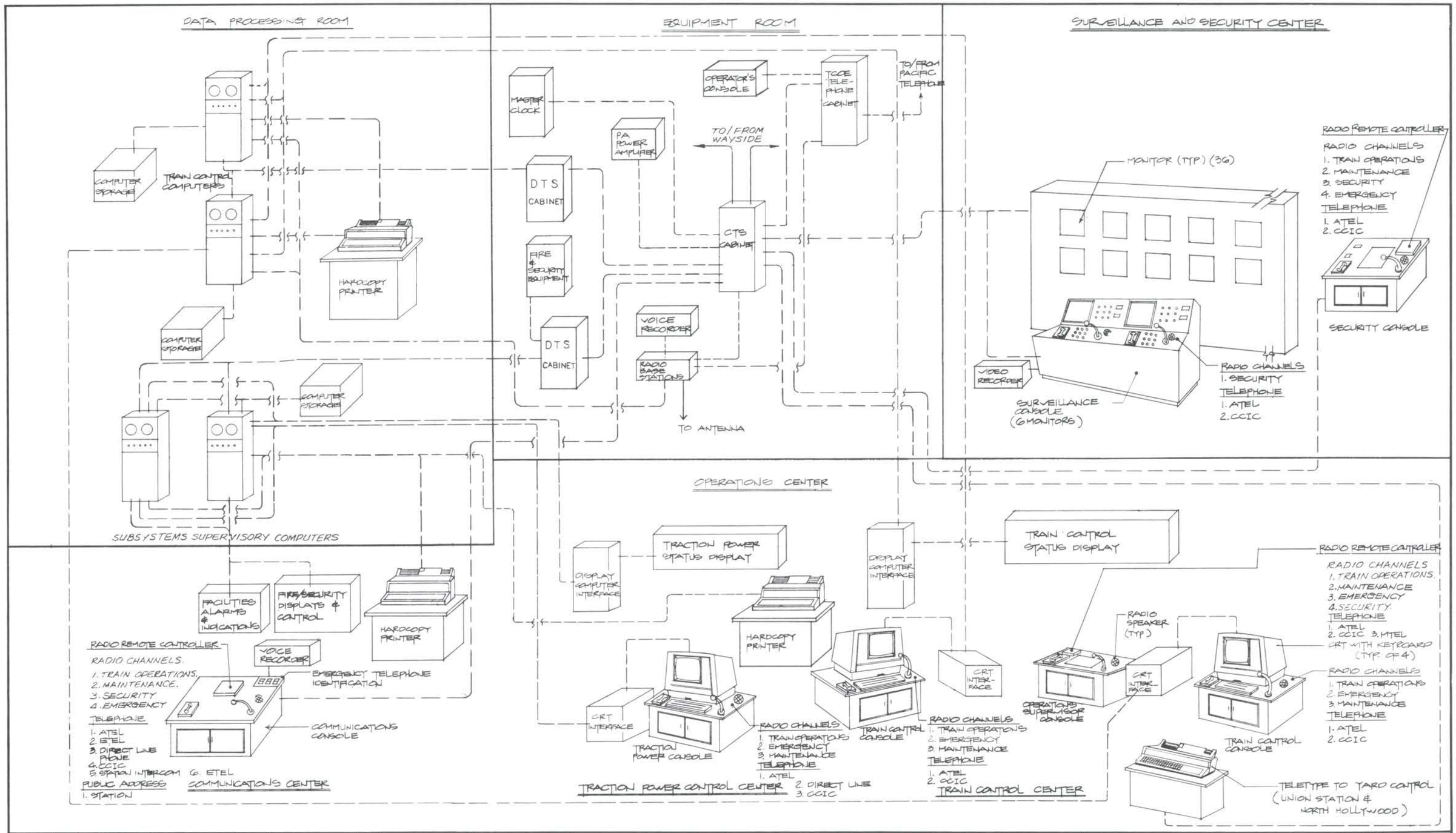
BRUNING

FIGURE III-31



CONCEPTUAL VIEW OF MAIN YARD AND SHOPS

FIGURE III-32



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY A.P. ADELA Date 3/17/82
DRAWN BY Y. S. CH Date 3/17/82
CHECKED BY D.E WELLINGTON Date 3/3/82

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED _____ Reg. No. _____
APPROVED _____ Date _____
MANAGER / CHIEF ENGINEER Reg. No. _____

FUNCTIONAL CENTER
CENTRAL CONTROL

CONTRACT NO.
DRAWING NO. 16CAC-C-002
SCALE NONE
SHEET NO. 2

BRUNING

FIGURE III-33

C. CENTRAL CONTROL FACILITY

Central Control will be the nerve center of the System and, as such, the focus of system operation. To enable efficient and safe system operations it will contain displays, controls, consoles, communications equipment, and operating personnel. It will be staffed continously during revenue service and as required during other hours. Upon detection of a failure or emergency condition affecting System operation, the Control Center personnel will implement corrective action to restore or maintain Metro Rail System operation.

Central Control will be divided into the following areas: operations center, surveillance and security center, data processing room, communications and electrical equipment room(s). Figure III - 33 illustrates the relationships between the various control components.

1. Operations Center

The Operations Center will contain status displays and controls for the automatic train control system and traction power system. The operating personnel will coordinate all activities within the operations room which affect revenue service operation from control consoles. Each display and control console will be equipped with radio, telephone and intercom communications. Central Control personnel will have provision for public address announcements to a selected train or all trains in revenue service. Data communications will be provided from field locations to Central Control for supervision of automatic train control and traction power systems.

a. Automatic Train Control. All train locations and movements will be monitored throughout the revenue line to enable the Central Control personnel to determine whether trains are operating on schedule within an acceptable limit. Train movements between stations, at interlockings, and to and from the yards, will be displayed on a train status board. The illuminated train status board will also indicate the position and status of each track switch throughout the mainline and yard lead tracks.

   All movement of trains between the yard and the revenue line will be coordinated between Yard Control personnel and Centrol Control personnel through a high speed printer with backup provided by telephone communications.

b. Traction Power. All traction power circuits throughout the revenue line will be monitored and controlled to enable Central Control personnel to manage the traction power system for proper train operation. Circuit breaker and power rail status will be displayed on a traction power status board.

2. Communications Center

The communications center will contain status displays for facilities alarms and indications, fire/security displays and controls, a supervisory computer hard copy printer, and a communications console. The communications console will be equipped with radio, administrative emergency telephones, station public address, and intercoms. The console will be capable of making public address announcements in individual or all passenger stations. Direct line communications to local fire and police will be provided to coordinate their activities. A voice recorder will record all emergency telephone and radio communications with Central Control. The intercoms will be able to communicate directly with the patron assistance intercoms in each of the stations when the stations are unattended or if the station attendant is unable to answer a call. The intercoms will also allow communications among all of the consoles and desks located within Central Control.

3. Surveillance and Security Center

a. T.V. Monitor Center

   A T.V. monitor room will contain video monitors (three monitors per passenger station) and a control console. Each video monitor normally will show sequenced image from the passenger stations. The console will have the capability to stop the sequencing and display the scene from only one camera. A video recorder will be provided to record selected video information. The console will be equipped with a telephone set and an intercom unit.

b. Security Center

   The security room will contain a security console. The security console will be equipped with radio, a telephone set and an intercom unit. From this center all Metro Rail security forces will be directed.

4. Data Processing Room

The data processing room will contain the dual redendant automatic train control computers, the dual redundant supervisory computers, the Management Information System Computer and data processing support equipment.

5. Communications Equipment Room

The communications equipment room will contain the cable transmission subsystem cabinet, the data transmission subsystem cabinet, telephone exchange(s), radio base stations(s), voice recorders and and other communications auxiliary equipment.

D. MISCELLANEOUS STRUCTURES

1. Intermediate Traction Power Substation

Preliminary analysis indicates that 19 traction power substations (facilities to rectify and convert alternating current to the direct current used to power the Metro Rail trains) will be required for the SCRTD 18.6 mile starter line. Fourteen of the 19 traction power substations will be located in or near the passenger stations. One traction power substation will be located in the train yard and the remaining 4 traction power substations will be located between the stations with long runs as follows (locations are shown on Alignment Plans and Profiles -see Chapter III):

a. On the north side of Wilshire Boulevard mid-block between Murfield Road and Rimpau Boulevard.

b. In the Hollywood Hills, west of the Hollywood Bowl and east of Mulholland Drive.

c. In the Hollywood Hills, west of Passmore Drive, south of Bonnie Hill Drive and north of Woodrow Wilson Drive.

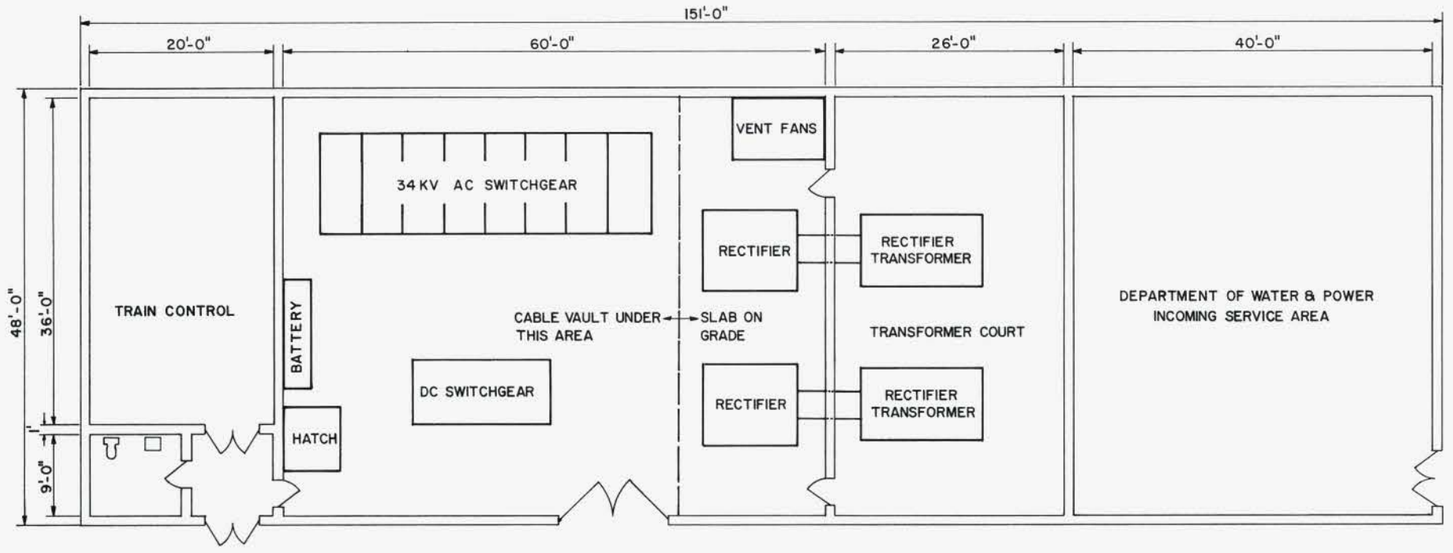
d. On the east side of Lankershim Boulevard, mid-block between Kling Street and Blix Street.

At each of the intermediate substations, Train Control rooms and space for mechanical ventilation equipment will also be provided.

The facilities will be approximately 50' by 150' in size and will be designed to be compatible with the area in which they are located. Figure III-34 shows a typical plan for an above-ground traction power substation.

2. Intermediate Ventilation Shafts

Ventilation shafts, in addition to those associated with stations, may be required at intermediate locations between widely spaced stations. The purpose of these ventilation shafts is to relieve the piston effect caused by trains moving in a tunnel. These shafts also serve as emergency fan shafts by which air can be drawn into the tunnels and air or smoke can be exhausted during an emergency. Fans would only be used in emergency situations to augment the natural functioning of the shaft. The shaft must penetrate the surface, preferably in an off-street, off-sidewalk location. However, in some cases the penetration may be through sidewalk grates. In an off-street, off-sidewalk configuration the vent may be through a chimney like structure rising 10' to 12' above surrounding or adjacent surfaces. Intermediate ventilation shafts are proposed for each location described above for intermediate traction power substations. In addition, it is proposed to locate an intermediate ventilation shaft at Fairfax and Sixth Street. Figure III -35 shows a typical plan for an intermediate ventilation shaft.



ABOVE GROUND
INTERMEDIATE TRACTION POWER SUBSTATION
EQUIPMENT PLAN

NOTES

1. ELECTRICAL INCOMING SERVICE AREA IS 40'X48' WITH 16' MASONRY WALL, NO ROOF. SLAB ON GRADE.
2. STRUCTURE FOR SWITCHGEAR, RECTIFIER & TRAIN CONTROL IS 80'X48', 16' CLEAR HEIGHT, MASONRY STRUCTURE, BAR JOIST, BUILT-UP ROOF.
3. CABLE VAULT SIZE IS APPROX. 40'X48' WITH 8' CLEAR HEIGHT.
4. TRANSFORMER COURT SIZE IS 26'X48', 16' MASONRY WALL, NO ROOF, GRAVEL FILLED SURFACE, CONCRETE FOUNDATIONS FOR TRANSFORMERS.

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY J. CHANG Date 3/9/83
DRAWN BY M. UDRESCU Date 3/9/83
CHECKED BY J. CHANG Date 3/10/83

HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

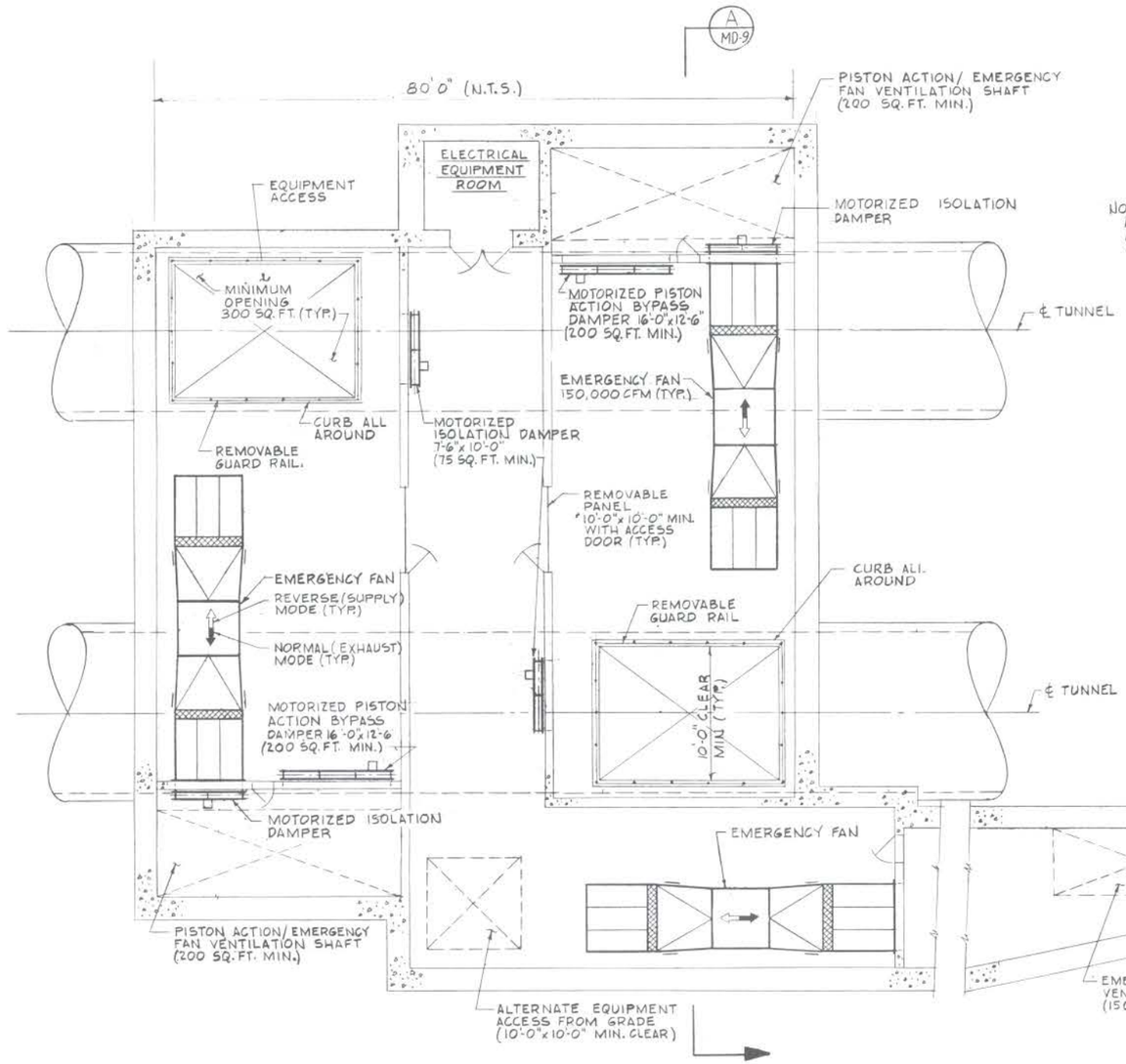
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

ABOVE GROUND
INTERMEDIATE TRACTION POWER SUBSTATION
EQUIPMENT PLAN

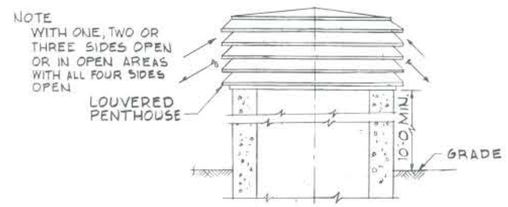
CONTRACT NO.
DRAWING NO.
SCALE 1/8"=1'-0"
SHEET NO.

BRUNING 44-132

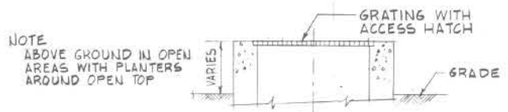
FIGURE III-34



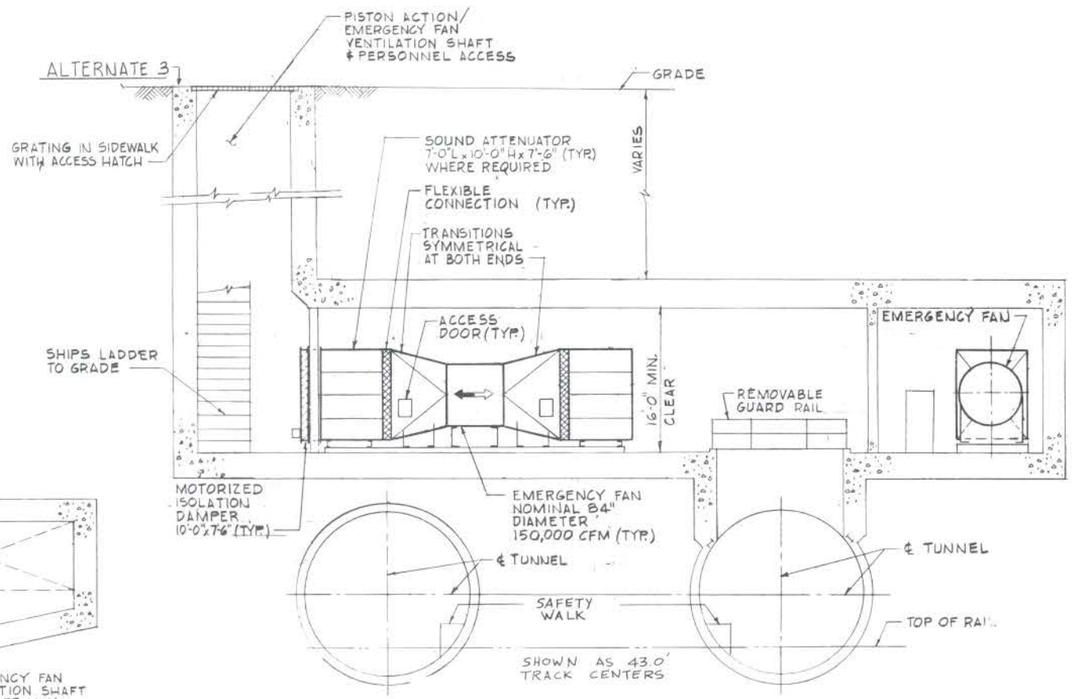
PLAN AT FAN ROOM LEVEL



ALTERNATE 1-OPEN AREA OUTLET



ALTERNATE 2-OPEN AREA OUTLET



SECTION A MD-9

GENERAL NOTES

1. VENTILATION SHAFTS SHOWN ARE TYPICAL. EXACT SHAFT CONFIGURATION SHALL BE DESIGNED TO SATISFY SITE CONDITIONS.
2. ALL ACCESS DOORS & REMOVABLE PANELS SHALL BE AIR TIGHT & SHALL BE CAPABLE OF WITHSTANDING A MINIMUM PRESSURE DIFFERENTIAL OF 50 LBS/SQ. FT. WITH A MINIMUM FREQUENCY 100,000 CYCLES PER YEAR.
3. LIFTING EYES FOR EQUIPMENT INSTALLATION & REMOVAL SHALL BE PROVIDED.
4. ALL VENTILATION SHAFTS SHALL TERMINATE AT OFF STREET LOCATIONS OR WITHIN SIDEWALKS.

1 0 2 4 6 8 10

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY T. HOWERTON Date 2-11-83
DRAWN BY J. LICKER Date 2-11-83
CHECKED BY A. R. JAHELKA Date 2-11-83

DMJM/PBQD (A Joint Venture)
General Engineering Consultant - Ways and Structures
SUBMITTED BY:
PROJECT MANAGER Reg. No.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED
DEPUTY CHIEF ENGINEER Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

MECHANICAL DIRECTIVE
VENTILATION & AIR COOLING SYSTEMS
EMERGENCY FAN ROOM/VENTILATION SHAFT SHALLOW TUNNEL LOCATION ALTERNATE I

CONTRACT NO.
DRAWING NO. AP-16AAQ-MD-009
SCALE 1/8" = 1'-0"
SHEET NO.

FIGURE III-35

IV. CONSTRUCTION METHODS

IV. CONSTRUCTION METHODS

A. STATION CONSTRUCTION METHODS

The underground stations of the Metro Rail Project will be constructed by cut-and-cover methods. Depths of trench excavations will be as shallow as possible consistent with a minimum earth cover allowance for utilities, the structural thicknesses required for the several levels of slabs and the interior vertical heights dictated by clearance requirements. Width of the trench excavations will depend on the platform and trackways widths and the calculated thickness of the structural walls. The widths of construction are further augmented by the thickness of the support of excavation sheeting systems installed. Figures IV - I through IV - 6 illustrate various aspects of station construction.

Since the underground stations are located in built-up urban areas, their construction must take into consideration the influence on adjacent structures, the impact on vehicular and pedestrian traffic, the effect on buried utilities and the necessity of final restoration of the street surfaces.

Various types of construction equipment will be operating at street level and below ground creating some visual impacts and perhaps even visual attractions. Noise emanating from this equipment will have to be maintained within acceptable levels. Transport of excavated muck and delivery of construction materials will be phased to minimize additional traffic flow in and around the project area.

1. Vehicular and Pedestrian Traffic

The construction of a cut-and-cover station in the roadway portion of the street will temporarily interfere with the normal flow of traffic causing some lanes to be closed to vehicles for short durations. Some lanes could be closed to non-construction vehicles, except emergency vehicles, for the entire period of construction.

The roadway widths in the Central Business District (CBD) are such that the widths of the Hill Street and the 7th/Flower Street station's cut-and-cover construction will overlap the sidewalks by varying amounts. In such cases a program to direct pedestrian traffic movement will be instituted.

2. Building Data

Consideration of adjacent buildings, with respect to the excavation for underground stations, is necessary to determine whether or not to underpin their foundations, or whether a protection type sheeting system is more suitable in lieu of underpinning. Building data will help determine whether tie-backs might be used or if only internal bracing of the sheeting is feasible. The concern for the integrity of the adjacent structures will also influence excavation and bracing procedures. Where subsidewalk vaults occur within the outline of the station construction, these vaults must be removed.

3. Geotechnical Conditions

Substrata conditions will determine whether a pervious type sheeting system such as soldier pile and timber lagging can be used, or whether a closed type, such as, interlocking sheet piling or concrete diaphragm wall, should be employed. The geology will also determine whether sheeting elements such as soldier piles or interlocking sheet piles can be driven to depths below subgrade, or whether predrilling or trench excavation prior to sheeting installation is necesary to accomplish the depth requirements.

Soil types can also affect the type of bracing selected. Tar sands and soft clays, for instance, will preclude the use of tie-backs. Excavation in soft clays will often limit successive depths of excavation below installed braces resulting in more tiers of bracing than would be employed in more competent material such as dense sand.

4. Underground Utilities

Subject to other constraints, underground stations will be located to avoid conflicts with the space occupied by utilities, but in certain instances the positioning of the station proper or locations of entrances and vent shafts dictate that conflicting utilities be relocated to clear the way for the station structures. This relocation to a new permanent location which would not be affected by the station construction work, is generally performed prior to the construction of the subway station.

Utilities, such as high pressure water mains and gas lines, which represent a hazard during cut-and-cover station construction and are not to be permanently relocated away from the work site, are removed from the cut-and-cover area temporarily to prevent any accidental damage to them and thus to the work and personnel. They are relocated temporarily by the station contractor at the early stages of his cut-and-cover operations and reset in essentially their original locations during the final backfilling above the constructed station. Utilities which need not be relocated, either permanently or temporarily, are uncovered during the early stages of excavation. These buried utilities, with the possible exception of sewers, are generally found within several feet of the street surface. They can be reinforced, if necessary, and supported by hanging from deck beams.

5. Sheeting Systems

A sheeting system of soldier piles and timber lagging has inherent characteristics that permits loss of ground such that important adjacent structures, whose foundations are within the zone of influence, would need to be underpinned to safeguard their integrity. In lieu of underpinning, the safety of adjacent structures can be accomplished by use of sheeting system types, which in conjunction with proper excavation and bracing procedures, can serve as protection to the adjacent structures. These sheeting systems have a degree of inherent stiffness which, together with controlled bracing supports, can acquire a serviceable amount of rigidity. The sheeting systems include interlocking sheet piling and reinforced concrete cylinders. Interlocking sheet piling would serve in relatively shallow cuts, such as those for entrances, while the others would be used for deep cuts.

6. Selection of Sheeting and Underpinning/Protection

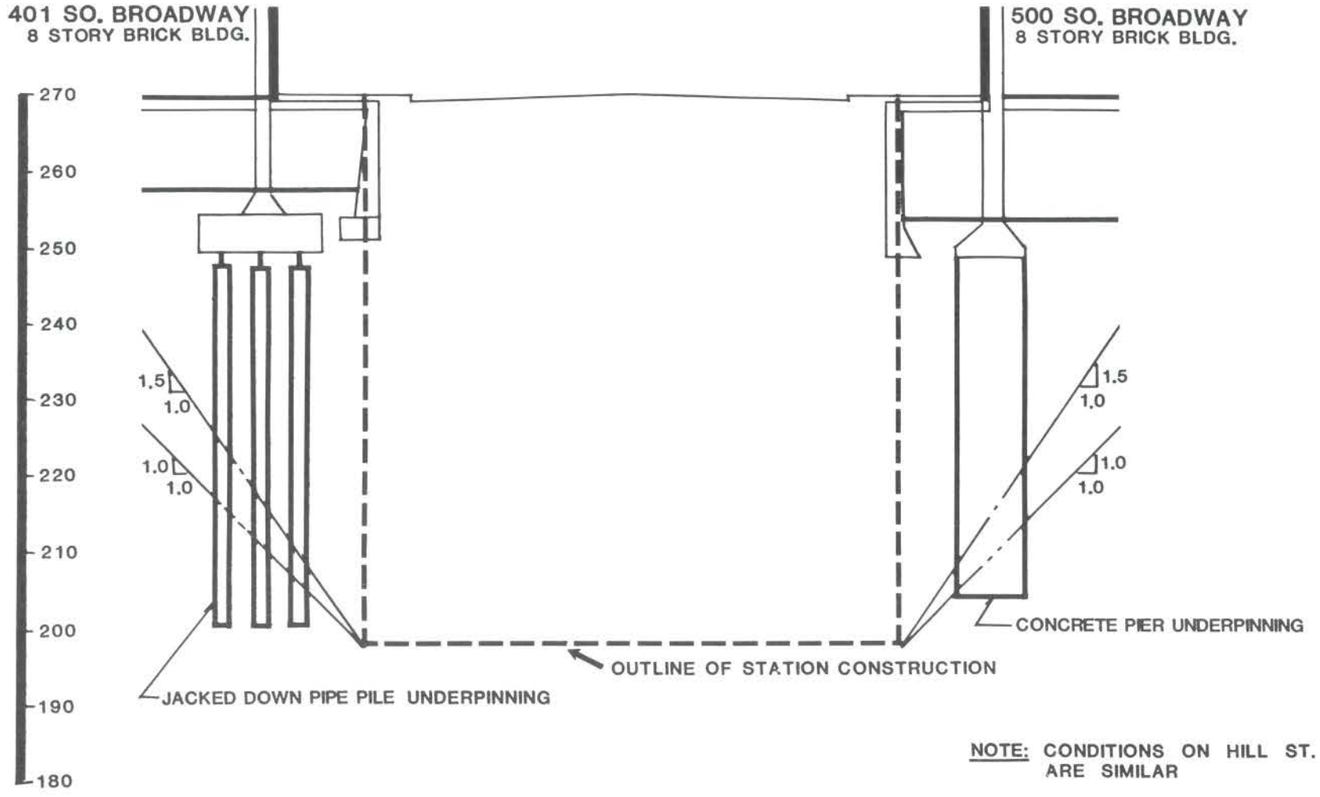
Present indications are that a soldier pile and timber lagging sheeting system would most likely be selected for virtually all of the cut-and-cover station constructions. This is because of the feasibility of its installation in the soil conditions known to exist along the route, the economy of the system, the minimum amount of underpinning that would be required in conjunction therewith, and the avoidance of a large amount of slurry use in the built-up urban environment. Soldier piles can also be installed between existing utility line house connections, thereby avoiding the need to shift or relocate them.

The tabulation that follows shows the present assessment of sheeting systems proposed for the support of excavation for each of the Metro stations. This tabulation is based on present limited knowledge of foundation characteristics of buildings adjacent to the stations. Also, since underpinning could cause some disruptions to the use of basement areas in some buildings, the economic value of such disruptions might rule in favor of utilizing a protection wall system of sheeting with total elimination of underpinning. Further studies of costs and public impacts will be made as more data becomes available.

Table IV-1

PROPOSED SHEETING SYSTEMS

Station	Soldier Pile & Timber Lagging	Underpinning Required with SPTL	Optional Use of Protection Wall
Union	Yes	None	No
Civic Center	"	Minimal	Maybe
5th & B'way or Hill	"	Moderate	Yes
7th & Flower	"	Moderate	Yes
Alvarado Street	"	Possible, Minimal	No
Vermont Avenue	"	None	No
Normandie Avenue	"	None	No
Western Avenue	"	Possible, Minimal	No
La Brea Avenue	"	Possible, Minimal	No
Fairfax Avenue	"	Moderate	Yes
Beverly Boulevard	"	Possible, Minimal	Maybe
Santa Monica Boulevard	"	Possible, Minimal	No
Hollywood Boulevard	"	Possible, Minimal	No
Hollywood Bowl	"	None	No
Universal City	"	Possible, Minimal	Yes
North Hollywood	"	Possible, Minimal	No



METHODS OF UNDERPINNING

FIGURE IV-1

7. Demolition of Subsidewalk Vaults

When the station arrangements make the removal of subsidewalk vaults unavoidable, knowledge of the vault structural details will assist the contractor in determining the demolition work he will have to perform. Initially, the portions of the subsidewalk vaults which are demolished are those which have to be cleared to enable the installation of the support of excavation sheeting systems. The demolition will involve at least portions of the sidewlak slab, the base slab and intermediate level slabs if more than one level of vault spaces are involved, and any cross-walls that might interfere with the sheeting arrangement. The outside retaining wall may or may not have to be demolished initially, depending upon whether the sheeting line falls inside the vault space or coincides with the retaining wall line. If not demolished initially, then the retaining wall is demolished during general excavation for the station structure. After removal of the subsidewalk vault, a structural closure wall is installed along the building line to seal the basement.

8. Maintenance of Traffic

The most economical and least time consuming condition for cut-and-cover station construction is one which permits the contractor to use equipment operating at street level. Auger drills, pile drivers and bucket excavators are employed for the installation of sheeting systems. Clam shell buckets are used for excavation, and high capacity trucks carry the muck away for disposal. Flat bed carriers transport reinforcing steel to the work site for cranes to lower the rebars down into the open trench. Ready-mix trucks bring concrete to the job, and dump either by chutes to the pour area, or into buckets for cranes to lower to the concreting locations. Cranes are required for the lowering and lifting of structural steel used for cross-lot bracing.

Equipment employed for cut-and-cover station construction is heavy duty and for large volumes. Such equipment requires certain amounts of space when standing still, more for swinging and additional for maneuvering. Review of expected equipment use shows that the contractor will be occupying a minimum 35 feet width of street surface with 40 feet or more desirable allowance for each of the various work operations.

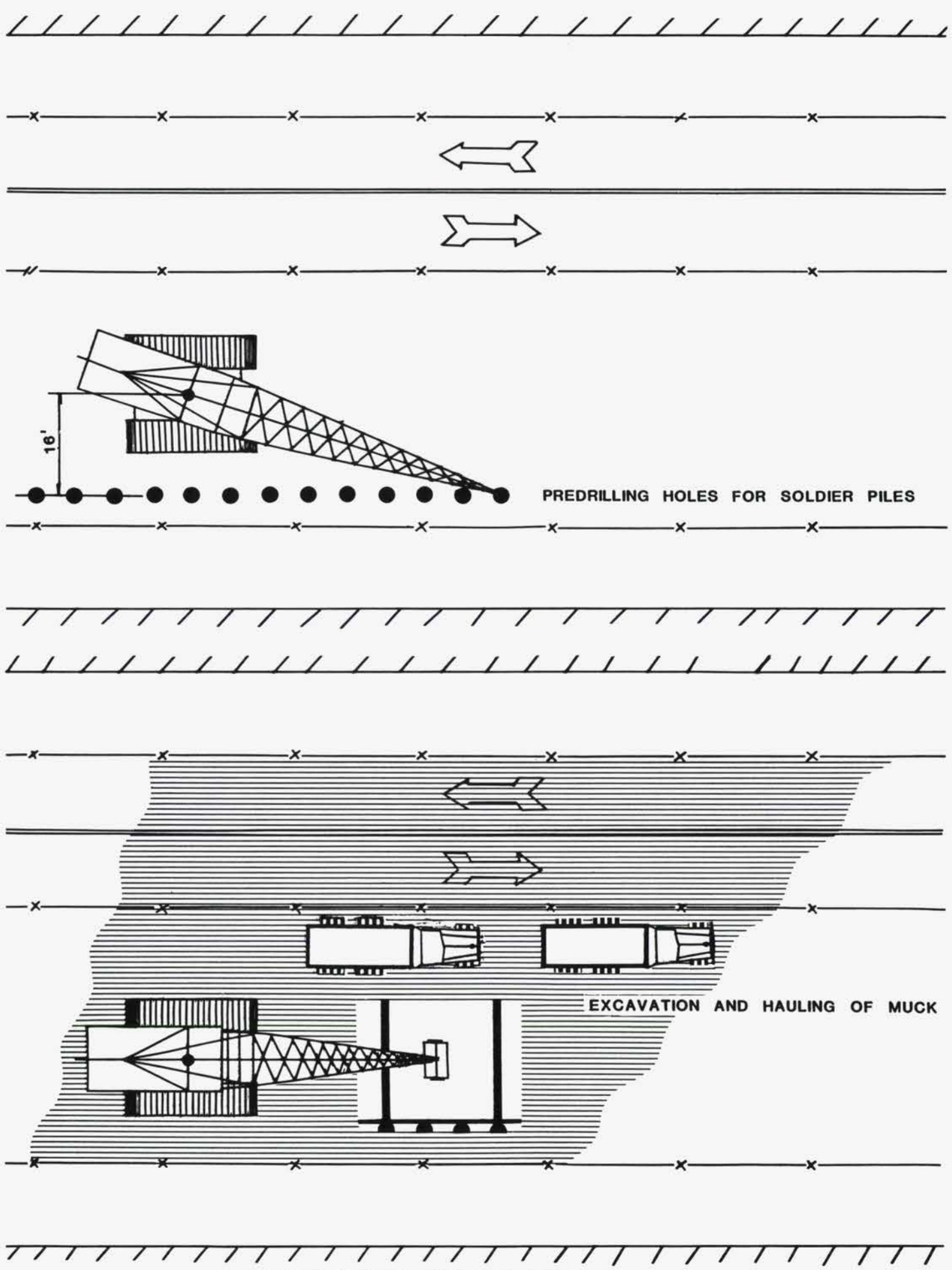


FIGURE IV-2

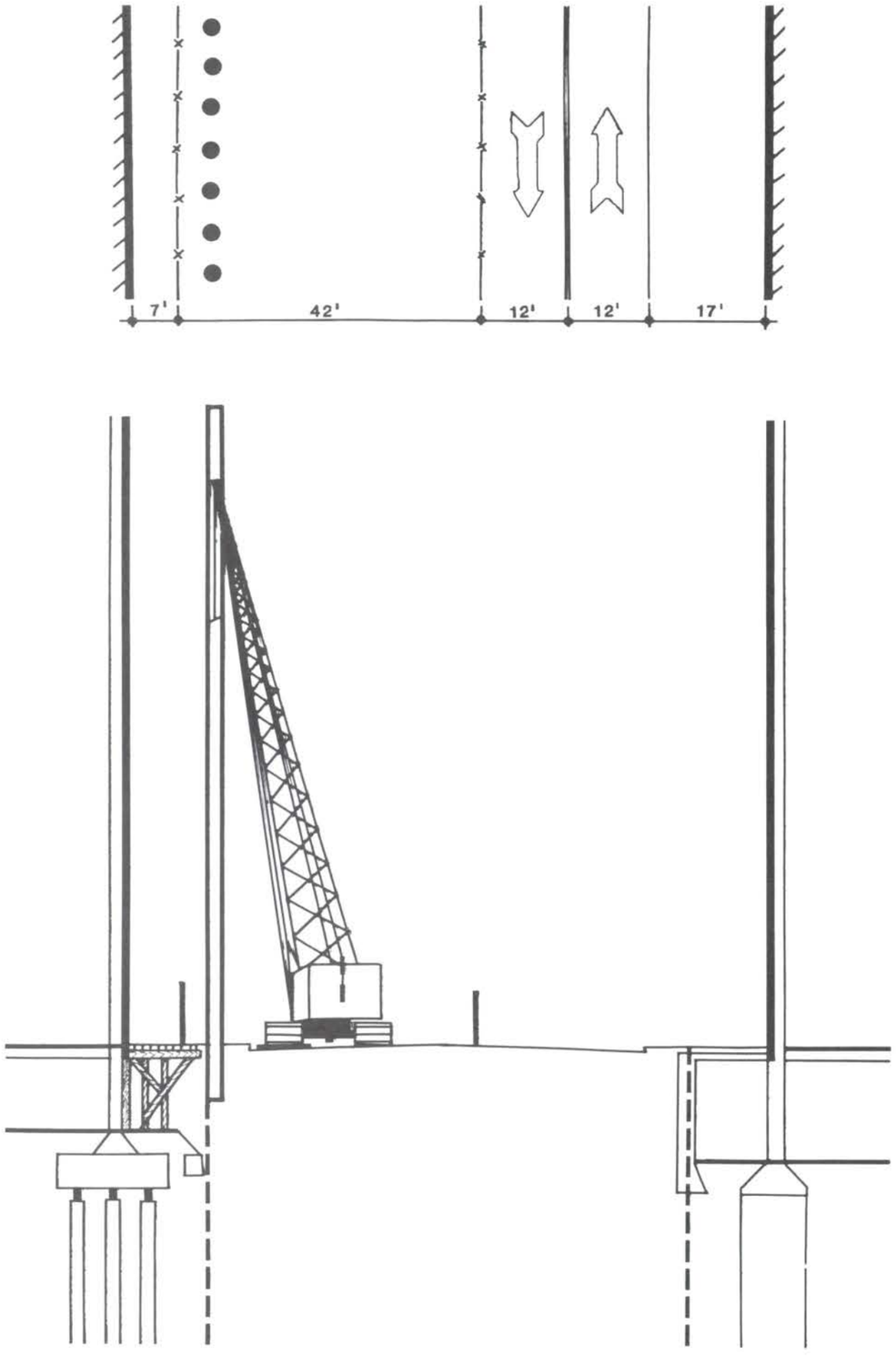
Because of the width of street surface that the contractor will occupy to perform the cut-and-cover construction operations, the flow of vehicular traffic will be limited in the direction parallel to the longitudinal axis of the station and will also be shifted from one side of the street to the other for the various states of construction. It has been determined that during the entire duration of cut-and-cover work on either Hill Street or 7th that a maximum of only two lanes of vehicular traffic can be accommodated at any time. On wider sections of Wilshire Boulevard it should be possible to maintain three lanes of vehicular traffic at all times during the construction of the stations.

Intersecting street traffic such as 4th Street, 5th Street, Flower Street, etc. will have intermittent reductions in traffic lanes to no more than half the present number while decking is installed and later when decking is removed and the street restored. During the period when all the decking is in place at the intersections, full cross-street lanes of traffic can be maintained.

9. Installation of Soldier Piles and Bearing Piles

In order to install the soldier piles for the support of excavation sheeting system, it is necessary to auger out holes for the placement of the piles. The predrilling of holes is necessary because of the types of soils encountered along the project route and because the depths of penetrations required for the station excavations make it impossible to drive the lengths of steel piles involved.

The contractor will first occupy one side of the street to install one line of soldier piles and the intermediate line of bearing piles. The amount of street width that his equipment requires will reduce the lanes of traffic on streets such as Hill and 7th to two lanes, and on the western portion of Wilshire Boulevard to three lanes; at this stage the traffic is still utilizing the existing pavement. After the contractor has decked the first side of the street, traffic is shifted onto the decked portion and the contractor moves his equipment to the other side of the street to install the second line of soldier piles.



SHEETING INSTALLATION REDUCES WIDTH OF PEDESTRIAN WALKWAY

FIGURE IV-3

10. Installation of Decking

It is assumed that none of the streets will be closed to either vehicular or pedestrian traffic where construction will take place in a street location. It is expected that the maximum amount of traffic flow will be taking place consistent with the practical surface needs of the contractor, as discussed previously. To satisfy the traffic flow and the contractor's operations, the site of the cut-and-cover work for the station core will be completely decked and where subside-walk vaults have been demolished, decking will be provided to replace the sidewalks destroyed.

The decking will be installed in stages. After the line of sheeting on one side of the station and the bearing piles near the centerline of the station have been installed, the deck beams and decking are placed on the one side of the street. After shifting of traffic to the decked portion of street and completion of sheeting installation on the other side of station, the deck beams and decking are placed for the remaining half of the street. Openings or removable panels are provided for raising and lowering of material. Decking at cross-streets is installed in stages to allow at least half of existing lanes for traffic at any time, then full cross street traffic is possible when all decking is in place.

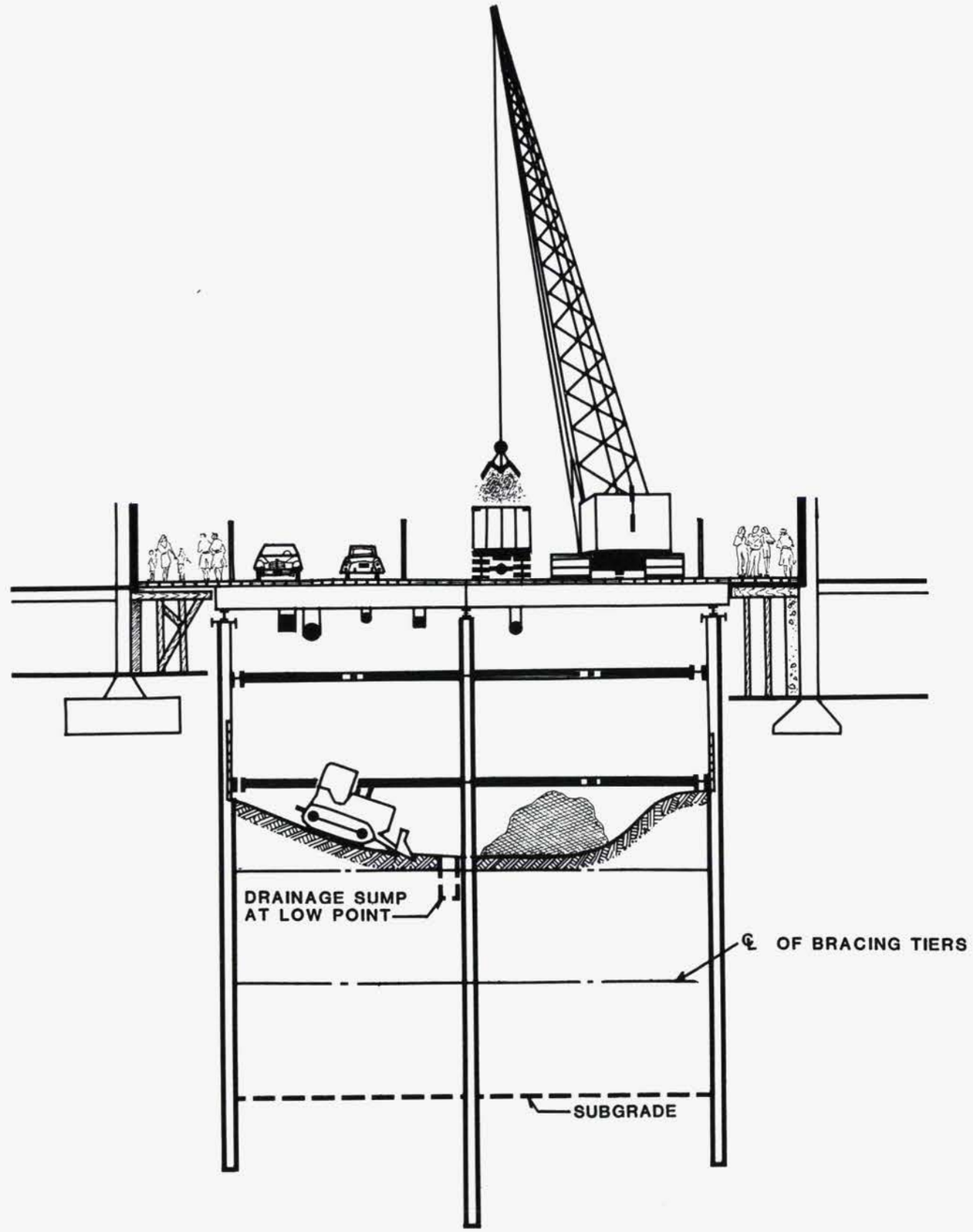
11. Excavation and Bracing

After the sheeting system and required interior bearing piles have been installed and prior to the placement of the deck beams, general excava-tion is made for a shallow depth, say to eight (8) feet below street surface. This shallow excavation is for the purpose of uncovering the buried utilities as well as to provide room for continuing the excavation below the erected decking.

Water mains and gas mains are relocated out of the excavation area since these utilities are deemed hazardous and are restored to their original positions, more or less, during the final backfilling operations.

As the deck beams are installed, the utilities that can remain in the trench area - such as telephone, traffic, electric, etc. - are cradled and picked up and hung from the deck beams. Sewer lines may show up at this shallow depth and will likewise be hung from the deck beams during the initial excavation stage or they may be deeper and uncovered fully after additional depth of excavation has been accomplished. Sometimes heavy utilities such as large sewer pipes are supported by an auxiliary set of beams spanning between sheeting systems rather than hanging them from the deck beams.

With the decking installed, the utilities supported, and the contractor's equipment occupying a prescribed area of the street surface, the major excavation work can proceed. The method of removing the muck for hauling away from the job site is entirely a choice to be made by the contractor. A typical operation would be for bulldozers and/or overhead loaders to move the dirt to a central pickup point or several such points, where a clam shell bucket, from a crane sitting on the decking, can hoist the material and place it into trucks waiting at the street surface.



EXCAVATION AND BRACING

FIGURE IV-4

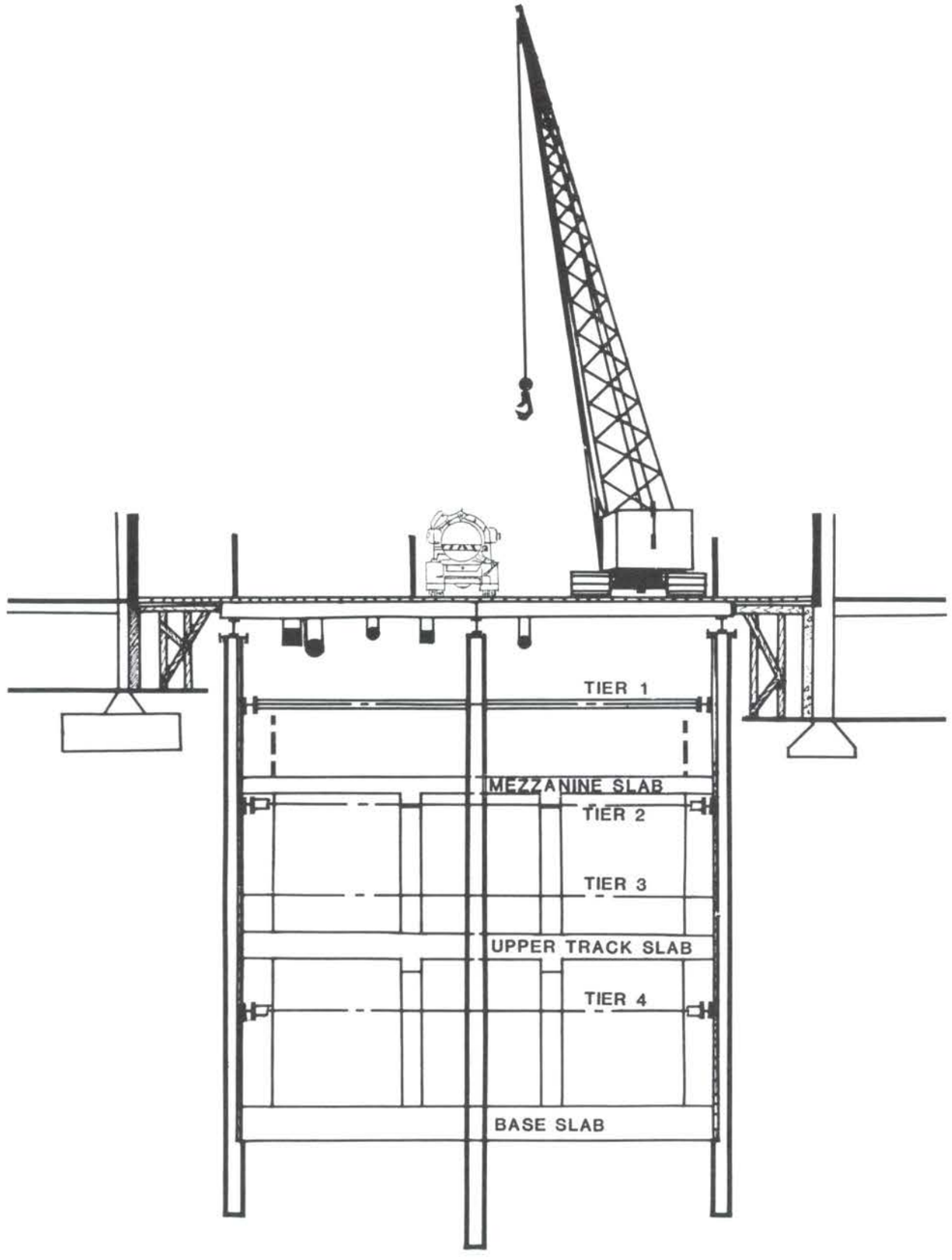
Bracing will be required at all of cut-and-cover stations. An internal bracing system rather than tie-backs will be used because, for the relatively narrow trenches involved, they will prove to be more economical. Also in certain station locations, such as Civic Center, 5th/Hill and 7th/Flower, the presence of adjacent building structures would preclude the use of tie-backs. Therefore, a planned sequence of excavation and installation of internal bracing will proceed downward until subgrade is reached.

12. Structure Installation and Bracing Removal

The station floor also known as invert or base slab, will be installed first. The slab is poured in longitudinal lengths of 30 to 50 feet and for the full transverse width. Invert slabs are generally poured in alternate sections so that the placement of reinforcing steel and the pouring of concrete do not interfere with each other.

After a reasonable length of continuous base slab has been completed, the installation of exterior walls and any interior column elements can proceed up to the underside of slab level that is to be supported by the walls and/or columns. Thus, the wall and column pour lifts might be to an upper track level, a mezzanine level, or a roof level. Then the suspended slabs are poured.

The exterior entrances are constructed after the station core has been completed.



STRUCTURE INSTALLATION AND BRACING AND REMOVAL

FIGURE IV-5

13. Backfilling and Surface Restoration

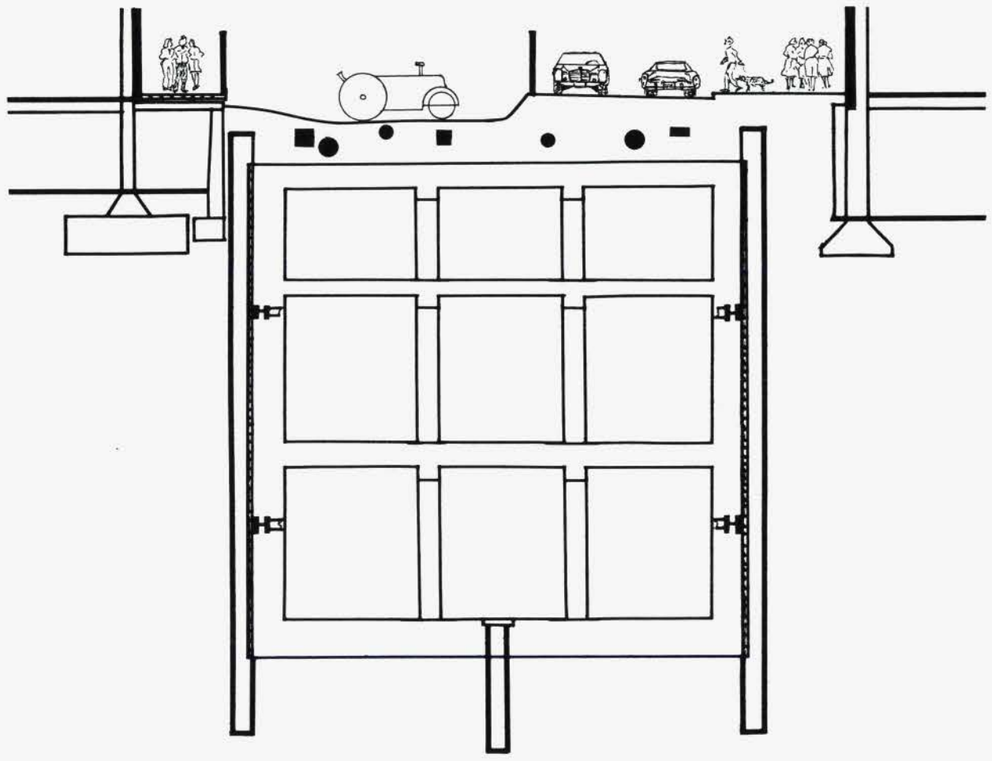
After the station structure has been completed and the roof slab allowed to cure for a specified period, the backfilling operation can begin. Where the subsidewalk vaults have been demolished, and a structural concrete closure wall, of necessity, has already been provided, the vault space is filled with compacted backfill. Prior to the backfilling operation the continuous sidewalk decking is removed, but access to building entrances is maintained by special bridgings.

During the backfilling operations, the utilities are restored to their permanent locations. The gas mains and water mains are brought back from their temporary locations. New sewer manholes and cable/duct vaults are usually built to replace the old ones either because the old ones are in poor condition or the locations of these structures within the station area have been changed for the restoration layout of the utilities.

Where the sidewalks have been demolished because of the cut-and-cover construction, they must be restored. This is done after the backfilling of vault spaces has beem completed or the reclaiming by the owner of the remaining vault area has been accomplished.

After the backfill has been completed on one side of the street, the permanent street pavement is installed to accommodate the lanes of traffic, two or three, that have been programmed for maintenance at all times along the particular street. Vehicular traffic shifts to the paved side and the contractor then shifts his operations to the other side of the street where he completes the remaining backfilling and utilities restoration work and can restore the sidewalk and the remainder of the street pavement.

With the restoration of roadway pavement and restoration of full vehicular traffic, the work of cut-and-cover subway structure is completed insofar as the station structure is concerned and continuing activity involving station finishes and equipment installations can continue beneath the surface with little, if any, disruption to street use by vehicles and pedestrians.



BACKFILLING AND SURFACE RESTORATION

FIGURE IV-6

B. LINE CONSTRUCTION

The line sections of the SCRTD Metro Rail Project will be constructed principally by bored tunneling methods, the twin tunnels varying in depth from 25 ft. to approximately 125 ft. beneath city streets and up to 700 ft. in depth beneath the Santa Monica Mountains.

In general the twin tunnels will be in the conventional side by side configuration. At frequent intervals along the line cross-passages will be mined between the tunnels to provide passenger access to the adjacent tunnel in the event of a safety-related incident requiring passenger evacuation.

Certain special structures will be constructed by cut-and-cover methods. These include crossovers, which allow the trains to switch tracks along the line; pocket tracks, which allow storage of defective trains between the running tracks; and ventilation shafts which house ventilation fans used for extracting excess heat from the line tunnels.

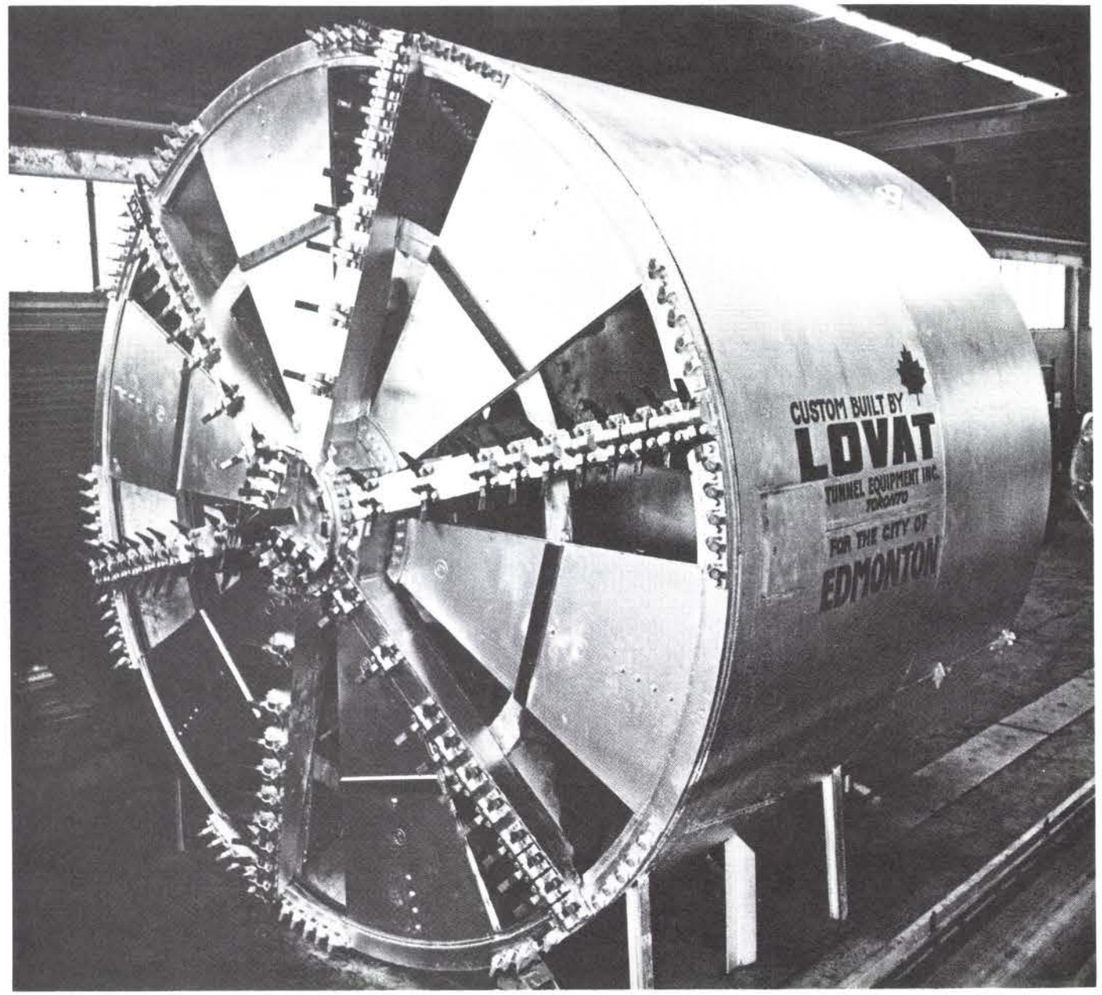
Finally, certain sections of non-revenue line beyond the terminal stations will be constructed by cut-and-cover construction. These include the underground lead tracks to the train storage yards and maintenance facilities east to Union Station and the three stub-ended tail tracks north of North Hollywood Station.

1. The Bored Tunnels

The twin bored tunnels connecting each station along the line will be contructed using mechanized tunnel boring machines (TBM's) which continuously support the ground during the tunneling operation. A typical TBM is shown in Figure IV-7. At the rear of these machines are tunnel liner erection devices that erect the precast segments that make up the permanent lining to the tunnels in the form of rings of precast concrete between 3 ft. and 4 ft. wide and approximately 18'-6" internal diameter. These rings serve to carry the earth and rock loads and to prevent groundwater from entering the tunnels and causing corrosion damage to the trains and fixed electrical/mechanical systems within the tunnels.

The tunnel boring machines (TBMs) will be placed in the ground generally at station or crossover structure excavations and driven to the next station or crossover using the previously placed tunnel liner rings to thrust off. When the TBM reaches the next station or crossover the machines will be skidded through the station excavation to recommence their construction of the next section of tunnel. Alternatively, the construction contractor may elect to lift the machines out using heavy mobile cranes and replace them at the other end of the station excavation, in order to avoid interfering with the construction of the station.

A tunnel staging site will be required at the starting point of each tunnel drive for tunnel liner storage; spoil removal, storage and loading facilities; and construction personnel facilities and offices. These sites may be combined with the station staging sites but will



CLOSED FACE TUNNEL BORER FLOOD DOORS IN THE FULLY OPEN POSITION

FIGURE IV-7

necessitate 2,500 to 5,000 square yards in area. They may be located in the excavations for the crossovers or on adjacent land leased temporarily for the purpose.

Upon completion of tunnel excavation and lining the cross-passages between the twin tunnels will be constructed by hand mining methods from openings formed in the tunnel liners. In addition, tunnel openings to ventilation shafts and low-point drainage sumps will be constructed.

Following these activities, first stage track bed construction will be carried out, together with the construction of an emergency evacuation walkway along the side of each tunnel to provide a safe evacuation route for passengers clear of the trainways.

2. Crossovers and Pocket Tracks

The crossover and pocket track structures are generally located immediately adjacent to stations and will be constructed, by cut-and-cover methods like the stations. Accordingly, all the design and construction requirements that are applicable to the station will be applicable to the crossovers and pocket tracks.

Crossover structures are approximately 450 ft. long, pocket tracks are approximately 1,100 ft. long, both consist of a concrete box approximately 60 ft. wide. At several locations traction power substations will be located on top of these structures since a considerable amount of underground space is available between the top of the crossover boxes and the ground surface.

3. Line Ventilation Shafts

Between certain stations on the line cut-and-cover ventilation shafts will be constructed to house ventilation fans used for extracting hot air from the tunnels. These shafts are generally required on sections of the line more than a mile between stations such as, between the North Hollywood and Universal City Stations.

Two types of shaft will be constructed; the first for tunnels less than 50 feet of cover; and the second for tunnels with more than 50 feet of cover.

The first type of shaft consists of a 50 feet wide three-cell horizontal concrete box 20 feet high joining openings in the top of the tunnels to a vertical shaft penetrating the ground in a convenient off-street location. Three ventilation fans and their control equipment are housed in this horizontal concrete box.

The second type of shaft is used when the tunnels exceed 50 feet in depth such as beneath the Santa Monica Mountains. Here a 20 feet diameter shaft will be sunk from the ground surface down to openings in the side of the tunnels. This type of shaft could be excavated from the bottom up using a raise bore drill so that all the excavated material is removed from the tunnels below, rather than from the shaft top. This would significantly reduce the impact of construction around the shaft top. The fans are then housed in a fan house at the top of the shaft just below ground level.

V. IMPLEMENTATION

V. IMPLEMENTATION

A. DESIGN COMPLETION

Upon completion of Preliminary Engineering, it is expected that the design of all fixed facilities will be approximately 30 percent complete. During the next phase of the project, "Continuing Preliminary Engineering," design work will be completed to the 50% level for most facilities and to 85% for some. Upon completion of the Environmental Impact Statement and approval by the funding authorities, a "Final Design" phase will complete the designs, ready for construction bidding. The goal of Preliminary Engineering is to define all elements of the Project and develop realistic cost estimates. Cost estimates will be presented in Milestone 11. The station and alignment plans that will be represented and referenced in the Final Draft of this report constitute the "General Plans" for fixed facilities and will guide the architects and engineers who will be further developing these designs during the next phase of the project.

SCRTD is in the process of selecting qualified architectural and engineering firms for each of the Continuing Preliminary Engineering design units. These design units have been determined based on the analysis of a number of factors such as:

- o Maximizing use of required expensive construction equipment such as Tunnel Boring Machines.
- o Planning design units to coincide with construction units.
- o Arranging scheduling and phasing to reduce total design time.
- o Encouraging wider competition by qualified firms for design work.
- o Providing manageable scopes of work.

In some cases design units may consist of a station only or a line segment only; in other cases a design unit will have both station and line elements. The objective of the Continuing Preliminary Engineering work will be to bring the design work on 6 stations and 2 tunnel segments from 30% complete to 85% complete. And, for the remaining 10 stations and 5 tunnel segments, to bring the design work from 30% complete to 50% complete. Figure V-1 lists and illustrates the design units.

B. CONSTRUCTION

When the design of a particular phase has been completed and all the contract drawings, specifications and quantities produced, the individual contracts will be offered to qualified and experienced contractors to bid on. The lowest bids fulfilling all the technical, financial, and other requirements of the SCRTD will be accepted and at the earliest possible time the successful contractors will be given permission to proceed with the construction.

The entire Metro Rail Project is devided into sixteen separate construction contracts. Eight contracts consist of the construction of single stations; two contracts consist of the construction of single lengths of twin-bore tunnel and five contracts consist of one or two stations together with connecting lengths of twin-bore tunnel. The remaining contract consists of the main storage yards and the connecting tunnels to Union Station.

The duration of each of these contracts conforms to the overall project schedule which provides for four phase openings along the line covering an eighteen month period.

C. SCHEDULE

The schedule for completion of the design and construction of the project is shown in Figure V-2.

Southern California Rapid Transit District
Metro Rail Project

DESIGN UNITS

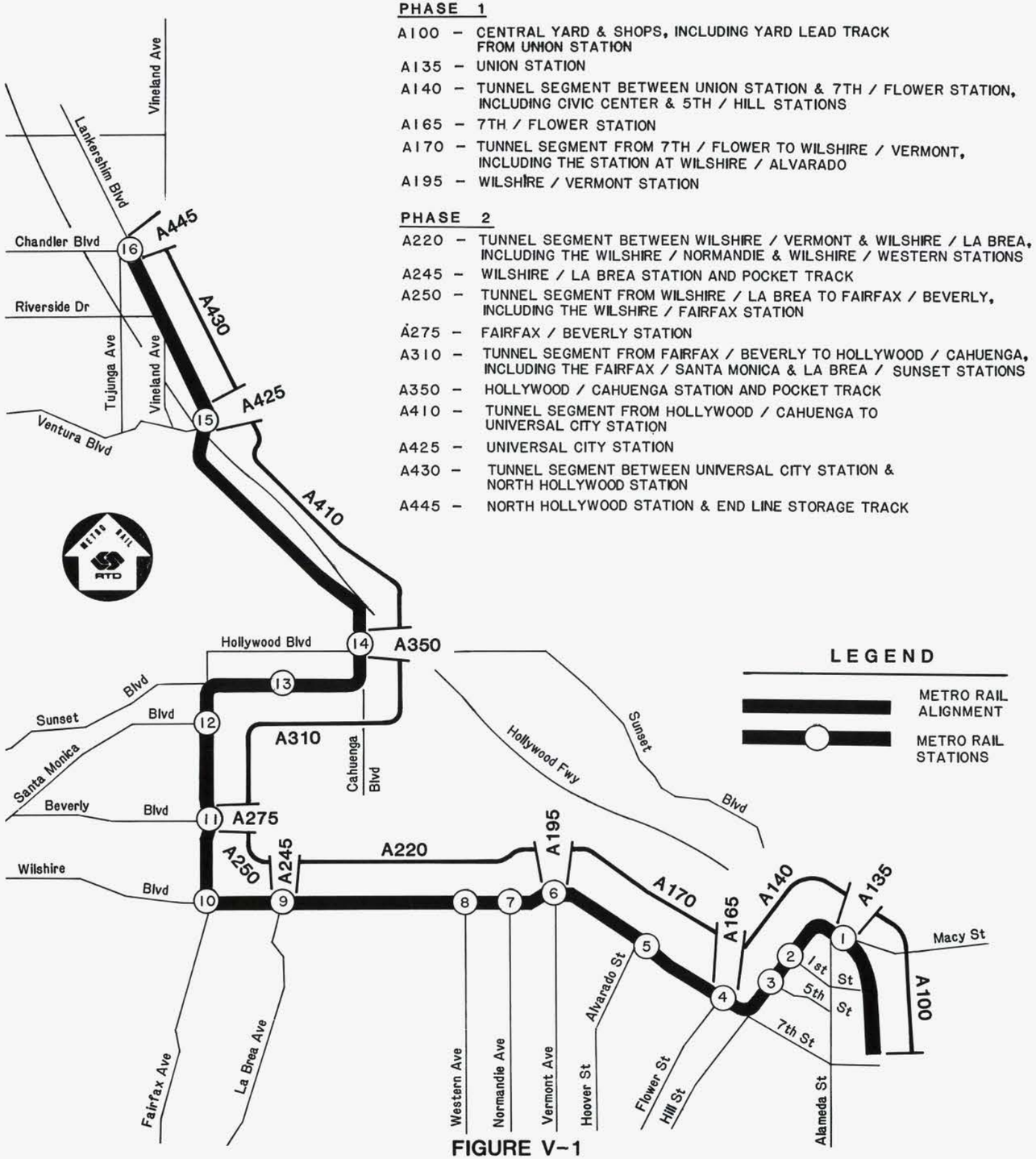


FIGURE V-1

PHASE 1

A100 – CENTRAL YARD & SHOPS, INCLUDING YARD LEAD TRACK FROM UNION STATION

A135 – UNION STATION

A140 – TUNNEL SEGMENT BETWEEN UNION STATION & 7TH / FLOWER STATION, INCLUDING CIVIC CENTER & 5TH / HILL STATIONS

A165 – 7TH / FLOWER STATION

A170 – TUNNEL SEGMENT FROM 7TH / FLOWER TO WILSHIRE / VERMONT, INCLUDING THE STATION AT WILSHIRE / ALVARADO

A195 – WILSHIRE / VERMONT STATION

PHASE 2

A220 – TUNNEL SEGMENT BETWEEN WILSHIRE / VERMONT & WILSHIRE / LA BREA, INCLUDING THE WILSHIRE / NORMANDIE & WILSHIRE / WESTERN STATIONS

A245 – WILSHIRE / LA BREA STATION AND POCKET TRACK

A250 – TUNNEL SEGMENT FROM WILSHIRE / LA BREA TO FAIRFAX / BEVERLY, INCLUDING THE WILSHIRE / FAIRFAX STATION

A275 – FAIRFAX / BEVERLY STATION

A310 – TUNNEL SEGMENT FROM FAIRFAX / BEVERLY TO HOLLYWOOD / CAHUENGA, INCLUDING THE FAIRFAX / SANTA MONICA & LA BREA / SUNSET STATIONS

A350 – HOLLYWOOD / CAHUENGA STATION AND POCKET TRACK

A410 – TUNNEL SEGMENT FROM HOLLYWOOD / CAHUENGA TO UNIVERSAL CITY STATION

A425 – UNIVERSAL CITY STATION

A430 – TUNNEL SEGMENT BETWEEN UNIVERSAL CITY STATION & NORTH HOLLYWOOD STATION

A445 – NORTH HOLLYWOOD STATION & END LINE STORAGE TRACK

METRO RAIL PROJECT- IMPLEMENTATION SCHEDULE (NORMAL)

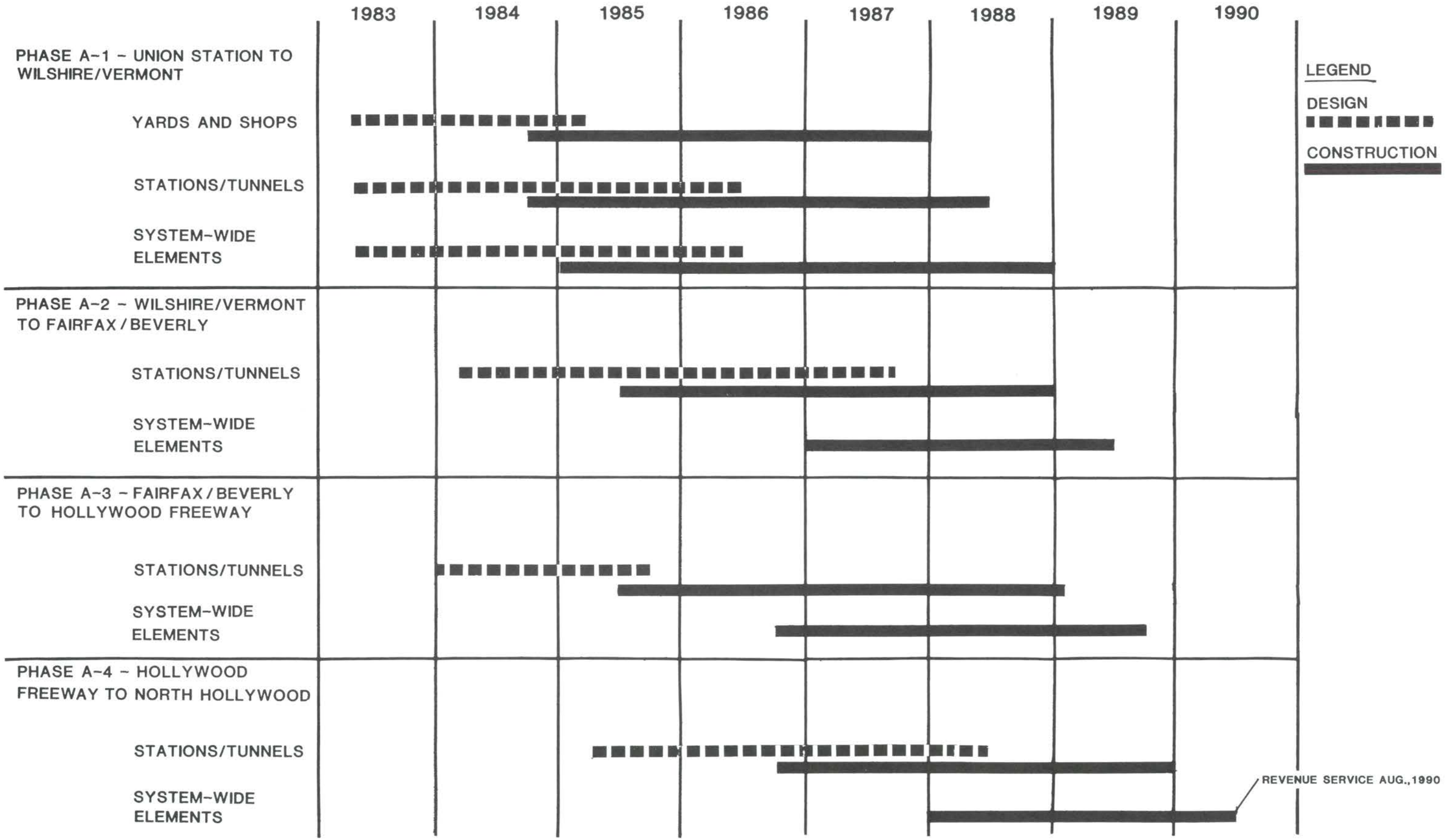


FIGURE V-2

APPENDIX A

APPENDIX A

MILESTONE 10

RESPONSE TO QUESTIONS AT BRIEFING SESSION
FOR ELECTED OFFICIALS ON 2/23/83

1. Q. What is the RTD rationale for deferring construction of parking structures?

   A. To reduce the initial capital cost of the Project.

2. Q. Why do you have a preference for off-street station entrances?

   A. They offer potential for joint development with private interests, and do not constrict sidewalk and street circulation space.

3. Q. Are you coordinating with your planning department the bus bay needs for the Wilshire/Fairfax (Museum) Station? How many bus routes do you have coming into this station? Can "free body" transfer mode be employed between bus and Metro Rail?

   A. Bus bay needs are being closely coordinated with the RTD Planning Department. For bus route information, please refer to Milestone 9. "Free body" transfer between bus and Metro Rail is being studied, with a decision to be made at or prior to Milestone 12. It has been found that few stations lend themselves to such a provision without substantial increased cost.

4. Q. Is RTD actively seeking joint development activity for the Museum Station?

   A. Yes. Joint development is particularly desirable at the Wilshire/Fairfax (Museum) Station because of the potential for air rights development over bus and parking facilities.

5. Q. Why do you have single entrances to stations? Your switching provisions are ample, more than adequate for the proposed construction and costly. Explain why you choose to have this disparity in expenditure for switching instead of station entrances?

   A. Numbers of initial station entrances have been determined on the basis of projected passenger volumes. Most stations have provisions for the addition of future entrances into "knock-out" panels at the mezzanine. In the case of cross-overs and pocket tracks, such provisions can not be deferred and must be provided initially.

6. Q. Where is your accommodation for the elderly and handicapped ridership if you only install upward escalators?

   A. The elderly and handicapped ridership will be accommodated on elevators connecting to all levels of the station.

7. Q. Does your station design at Hollywood/Cahuenga accommodate the addition of an ICTS extension?

   A. An ITCS extension at the Hollywood/Cahuenga Station can be accommodated with the present station design.

8. Q. What about the storage yard in North Hollywood?

   A. The storage yard in North Hollywood has been replaced by tail tracks all in subway extending north beyond the station.

9. Q. Where and when will RTD obtain the money to acquire land at Union Station?

   A. CalTrans and the City of Los Angeles are currently in the process of acquiring Union Station using a combination of state and local funds. Should the District be required to purchase land at Union Station in the event the current acquisition is not realized, purchase would probably begin soon after approval of federal funding for project implementation.

10. Q. Will you make a presentation on the yard and maintenance facility?

    A. The yard and maintenance facility were presented at the Central Business District sector meeting.

11. Q. How long will the tail tracks be at North Hollywood? Do they designate any future extension orientation.

    A. The North Hollywood tail tracks will be approximately 500 feet long. No future extension orientation is designated.

12. Q. Why aren't your station characteristics more exciting?

    A. Station design at the Preliminary Engineering stage deliberately avoids the final configuration of public spaces, and possible joint development arrangements. These design aspects will be addressed in the succeeding design phase.

13. Q. Have you made an invitation to the Art Community for art in the stations?

    A. Artwork in the stations is addressed in the Draft Milestone 10 report. The Art Community will be requested to participate in the artwork program.

14. Q. What are the operational cost aspects of additional entrances?

    A. When additional entrances are provided into a mezzanine already planned, operational costs are relatively minor. If a new entrance requires an additional mezzanine, or substantial enlargement of the present mezzanine, operational costs increase. For example, an additional station agent may be required.

Questions/Answers from the Preliminary Draft
Round 1 Presentation Meetings on
Milestone 10

CENTRAL BUSINESS DISTRICT SECTOR

1. Q. Can a walkway be built from Bunker Hill to the Metro Rail Line?

   A. Yes, such a connection is feasible, and could be part of the proposed California Plaza
   Project connecting to a station entrance at Fourth and Hill Streets. It is not included as part of the Metro Rail Project.

2. Q. Will people be able to transfer from the El Monte Busway to Metro Rail?

   A. The extension to the Busway proposed by CalTrans has a stop near Alameda Street that could provide a connection to Metro Rail. The preferred Union Station scheme in Milestone 10 indicates a more direct connection to Metro Rail via a looped bus facility near the station entrance.

3. Q. Why was the aligment changed from Broadway to Hill Street?

   A. The change was made because: Hill Street better serves the west side of the CBD while still providing a high level of service to Broadway and Spring Streets; it provides better access to the Music Center and County governmental facilities; it provides better joint development opportunities.

4. Q. Why aren't you doing more "self-financing" development at Union Station and other downtown stations?

   A. Joint development, contributing to "self-financing", is an evolving process at our stations. We are working closely with other agencies and developers and will have several related agreements in the near future.

5. Q. Are stations being built to accommodate six or eight-car trains?

   A. Station platforms are being built to accommodate six 75-foot long cars per train, for a total length of 450 feet.

6. Q. Will there be a joint development parking structure at Union Station?

   A. Parking structures at all stations are being deferred. When constructed, joint development will be encouraged. Such development could implement this additional parking at an earlier date than normally planned.

7. Q. Will there be an RTD real estate manager for the project?

   A. Yes.

8. Q. How long will streets be disrupted by construction?

   A. Disruption over tunnels will not occur. At stations, approximately one-half of the normal traffic flow will be disrupted initially for about four months. After that period, traffic can proceed, in most cases, at near normal rates, with occasional disruption. Station construction will take approximately 2-1/2 years.

9. Q. Are you documenting projected station-by-station disruption?

   A. The EIS/EIR will list the disruptions at those locations where disruption occurs.

10. Q. Is RTD working with the City to mitigate negative impacts on traffic?

    A. Yes. The Los Angeles Department of Transportation is under contract with the District for traffic analysis and other transportation-related matters.

11. Q. How can developers affect the design of stations?

    A. The location, orientation, and size of station entrances may be affected if integrated with joint development. Additional connections to the free ware of station mezzanines from adjacent structures may require modifications to the station design, or provisions for future incorporation.

12. Q. What is the difference between manual and automatic train operation?

    A. Manual operation is done by the train operator - starting or stopping the train, opening doors, closing doors and maintaining the correct safe speed. These same functions can also be done by electronic and electrical equipment, which is called automatic operation.

    A description of our planned train control system can be found in the Milestone 8 report, Systems and Systems Analysis.

13. Q. Will power come from overhead or a third rail?

    A. Our design contemplates using a third rail to supply power to the trains.

14. Q. What are the design specifics and criteria for bicycle storage?

    A. Bicycle storage will be accommodated in the form of lockers. The number, location, and criteria for these lockers will be coordinated with the Mayor's Bicycle Advisory Committee.

15. Q. Shouldn't sidewalks be enlarged at Wilshire/Fairfax where bus turnarounds are being planned?

    A. Because the bus facilities at this station are being provided off-street, enlargement of sidewalks along Wilshire for bus patron circulation should not be required.

16. Q. How are you planning for accidents like the BART tunnel fire?

    A. We have an extensive fire/life safety program designed to deal with emergencies such as BART tunnel fire. Detailed information on this program can be found in the Milestone 7 Report, Safety, Security and Systems Assurance.

17. Q. What is a traction power substation?

    A. A traction power substation is the set of electrical equipment that takes an alternating current from the local electrical utility companies and converts it to direct current which is needed for power to the trains.

18. Q. Will there be special provisions at Fifth/Hill station for bus transfers to Metro Rail?

    A. No special provisions are planned.

19. Q. Will there be special bus lanes on Fifth/Hill Streets

    A. Such lanes are not presently planned.

20. Q. What is the total cost for the Starter Line?

    A. This information will be made available in Milestone 11 - Preliminary Cost Estimate.

21. Q. What happens to the project if not enough dollars can be secured to build the system?

    A. Several options are possible: A portion of the system could be built (the alignment and stations from Union Station through Fairfax/ Beverly Station has been identified as A Minimum Operable Segment); the construction scehdule could be extended, if the rate of funds is not sufficient; or the project could be deferred until funds are secured.

22. Q. How do you propose to make Metro Rail safe?

    A. Safety is a paramount concern to us and we hve established an extensive safety program to make our system safe. Details of this program can be found in the Milestone Report, Safety, Fire/Life Safety, Security and System Assurance.

23. Q. Will there be advertising on Metro Rail cars? What about in the stations?

    A. No policy has been established on advertising, either in the stations or in the cars. This matter will be brought to the SCRTD Board of Directors for their consideration at a later stage in the design of the system.

24. Q. Why aren't there any pocket tracts or crossover tracks between Union Station and Seventh and Flower? What happens when a train becomes disabled in this area of the system?

    A. Studies reveal that the operations of the Metro would only be slightly inconvenienced by the lack of a crossover or pocket tract in this area.

25. Q. How will my building at the northwest corner of Fifth and Hill be impacted by construction?

    A. An entrance into the building adjacent to Fifth Street is planned. The arrangement of this entrance, will, of course, be coordinated with you.

26. Q. How will you be able to assess the structural impact of construction of buildings at Fifth and Hill? There are no building plans available.

    a. At present, what is visible offers no resistance to assessing the structural impact. During final design, a thorough investigation will be mde to plan fore the required construction.

WILSHIRE SECTOR

1. Q. Do you have a backup/contingency schedule for implementation of the system? What is the minimum operable segment of the transit line that can be operated?

   A. The Metro Rail Project has both "normal" and "accelerated" schedules for final design and construction. Since we are working to the accelerated schedule, the other constitutes a backup or contingency schedule. The ultimate schedule will depend on the rate of availability of federal funding, and the schedule will be revised accordingly as soon as the federal commitment is known.

   The minimum segment of the line that can be operated as currently designed is that from Union Station to Wilshire/Alvarado. The Union Station end is needed for access to the yards and shops, and Alvarado is the first station after Union Station equipped with a crossover to permit turnback of trains, bringing together experts in various disciplines from other agencies to review Metro Rail design development and provide advice based on their experience with their own systems. A total of eleven Peer Reviews have been held on specific system elements, plus two on the overall Preliminary Engineering programs.

2. Q. Will commercial development only be on the outside of the station?

   A. That is essentially correct. Connections from private development into the station mezzanine free area will be permitted and encouraged, but no commercial or retail activity will be allowed within the station proper.

3. Q. What provisions are being made to make the stations secure from crime?

   A. Stations will be designed to minimize security/crime problems. CCTV coverage and personnel surveillance will be provided throughout the station and its entrances. For more information, please see Milestone 7 - Safety, Security and System Assurance Plan.

4. Q. Are patronage figures based on existing commerical conditions or projected development as associated with Metro Rail?

   A. Projected development has been considered in the patronage figures. For additional information, please see Milestone 9 - Supporting Services Plan.

5. Q. Will there be both express and local service on Metro Rail?

   A. Present operational plans call for a stop at every station, and results in a total trip time from North Hollywood to Union Station of 28-32 minutes. For more details, please see Milestone 8 - Subsystem/System Configuration.

6. Q. What will be the fare to ride Metro Rail?

   A. Metro Rail fares will be set prior to the date of operation, and will be influenced by a number of factors including bus fares at the time, funding availability, cost and inflation factors, etc.

7. Q. Why isn't Crenshaw shown on your alignment map? The street, not to mention a station indication, doesn't even appear.

   A. The Crenshaw Station is considered an optional station at this time and will be so indicated in the Draft Report for Milestone 10.

8. Q. When will all station location be finalized?

   A. With the exception of the Hollywood Bowl and Crenshaw Optional Stations, all station locations were set with the conclusion of Milestone 4 - Station Location Alternatives, in December 1982.

9. Q. The stations should have adequate signage.

   A. A complete signage and related graphics program is currently underway. Results of this program will be incorporated into the System Design Criteria as part of Milestone 12.

10. Q. What has been media reaction to the Metro Rail Project?

    A. From a position that was mostly indifferent, media reaction has become increasingly positive as the funding and momentum have developed. Recent coverage of the first set of Milestone 10 public meetings attests to this fact.

11. Q. What percentage of traffic will Metro Rail take off the streets and highways in this area?

    A. A detailed answer to this question is available in Milestone 9 - Supporting Services Plan.

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WILSHIRE SECTOR (cont'd)

5. Q. Will there be both express and local service on Metro Rail?

   A. Present operational plans call for a stop at every station, and results in a total trip time from North Hollywood to Union Station of 28-32 minutes. For more details, please see Milestone 8 - Subsystem/System Configuration.

6. Q. What will be the fare to ride Metro Rail?

   A. Metro Rail fares will be set prior to the date of operation, and will be influenced by a number of factors including bus fares at the time, funding availability, cost and inflation factors, etc.

7. Q. Why isn't Crenshaw shown on your alignment map? The street, not to mention a station indication, doesn't even appear.

   A. The Crenshaw Station is considered an optional station at this time and will be so indicated in the Draft Report for Milestone 10.

8. Q. When will all station location be finalized?

   A. With the exception of the Hollywood Bowl and Crenshaw Optional Stations, all station locations were set with the conclusion of Milestone 4 - Station Location Alternatives, in December 1982.

9. Q. The stations should have adequate signage.

   A. A complete signage and related graphics program is currently underway. Results of this program will be incorporated into the System Design Criteria as part of Milestone 12.

10. Q. What has been media reaction to the Metro Rail Project?

    A. From a position that was mostly indifferent, media reaction has become increasingly positive as the funding and momentum have developed. Recent coverage of the first set of Milestone 10 public meetings attests to this fact.

11. Q. What percentage of traffic will Metro Rail take off the streets and highways in this area?

    A. A detailed answer to this question is available in Milestone 9 - Supporting Services Plan.

12. Q. Is there a provision for barrier-free transfer buses and Metro Rail stations?

    A. There currently is not. Study is continuing on the question of barrier-free bus/rail transfer and will be concluded in Milestone 12 - Preliminary Engineering System Plan. With few exceptions, implementation of such a program would require substantial capital cost additions at the stations.

13. Q. I've noted the Metro Rail signs in the city. Where has the $38 million in preliminary engineering been spent? Consultant work?

    A. The $38 million will have been spent on consultant work and completes Preliminary Engineering. Included is the work of the general consultant consortium and a host of special consultants.

14. Q. How many consulting firms are contracted with RTD's Metro Rail Project?

    A. Five firms have performed general consulting services and forty-one firms have performed varying amounts of special consulting services. The City and County of Los Angeles are also under contract for the Metro Rail Project.

15. Q. How much noise from the trains will be audible on the surface?

    A. This will vary somewhat with the depth of the line, but at most locations, noise should be inaudible.

16. Q. How much area will be required to construct the Wilshire/Fairfax and La Brea Stations? Will construction take place in phases or simultaneously?

    A. Construction of the stations will take place mostly within the area of the streets; however at the Wilshire/Fairfax Station, an area that is 250' wide between Spaulding and Curson on the south side of Wilshire, will be utilized for construction of a bus terminal and surface parking for 250 cars.

17. Q. Does Metro Rail route cross any major earthquake faults? What mitigation efforts have you made?

    A. The Metro Rail Project crosses a number of inactive and potentially active faults. These faults have been identified and categorized with respect to potential fault rupture. A study is underway with California Institute of Technology to develop a physical and analytical model to determine design measures which could lessen the potential of damage on the tunnel resulting from fault movement.

18. Q. How much disruption is caused by construction of vent shafts and structures? What is actually visible at the surface when completed? What kind of noise does this structure produce?

    A. It is estimated that 5 vent fan structures will be required at locations other than at stations. Two in the Santa Monica Mountains and 3 within street rights-of-way. Those in the streets will be constructed by cut-and-cover methods, and some disruption to traffic will occur at those locations. At the surface, it will be necessary to construct a minimum of 3 vents at each location. These vents may take the form of grating in the sidewalk areas or vertical structures above grade and off the street. These vertical structures will be approximately 10'x20' in size.

    The fans are to be equipped with sound attenuators (silencers) both upstream and downstream of the flow through the fans. The fans are for emergency purposes only and would be operated intermittently only for testing.

19. Q. Where are the vent structures proposed along Wilshire Boulevard?

    A. Vents are incorporated in the structures at each station. In addition, one vent will be in Wilshire Boulevard in the proximity of Wilton Avenue.

20. Q. What are RTD's changes for implementing the accelerated construction schedule?

    A. The major variable in implementing the accelerated construction schedule is of course funding. Present indications appear favorable regarding future funding acquisition.

21. Q. Will there be clocks in the stations, and will the train arrivals be announced?

    A. Clocks are not presently planned in the stations. Announcement of train arrivals is currently being studied, as part of the signage, and communications programs. Results will be available as part of Milestone 12 - Preliminary Engineering System Plan.

22. Q. What kinds of fire protection measures have been planned for Metro Rail?

    A. A comprehensive program for fire safety is being conducted. It is described in detail in the Milestone 7 report on Safety, Security and System Assurance Plan.

23. Q. When will the groundbreaking ceremony be?

    A. The first construction contracts should begin work in late 1984. The exact time of any ceremony will be determined at a later date.

24. Q. At what point do you start negotiations with affected property owners?

    A. Negotiations with some property owners and developers regarding joint development are presently underway. Several agreements for such development, subject to Final Design and Construction approval and funding of the Project, are expected shortly. Negotiations for property acquisition will not take place until funding for such acquisition is available.

25. Q. What type of fare system will you have, tokens? Tickets?

    A. The configuration of the fare system is being determined. Results will be available in Milestone 12 - Preliminary Engineering System Plan.

26. Q. Why are you skimpy on your entrances? Have you done adequate research that you are satisfied with just one entrance at most of the stations? How will this impact traffic and pedestrian flow in station areas?

    A. Entrances to subway stations are expensive. At stations with low projected patronage levels, one entrance satisfies all requirements except that for emergency exiting to additional surface points. Knock-out panels will be provided at most stations to accommodate future entrances, if required.

27. Q. Is there a fixed percentage of monies allotted for art in the stations?

    A. The amount for art allocations in the stations is described in Chapter II-A of the Milestone 10 Draft Report.

28. Q. Will there be special ramps for the handicapped and wheelchair patrons?

    A. Ramps for such low rise elements as street curbs at stations will be provided. Ramps between station levels would be very long and would require a great deal of space. Accordingly, elevators will be the method of access between levels for handicapped and elderly patrons.

29. Q. Will all stations be built by cut-and-cover method?

    A. Yes.

FAIRFAX SECTOR

1. Q. Everyone wants a Hollywood Bowl Station.

   A. Reaction to a Hollywood Bowl Station is mixed. A determination on this issue will be made in Milestone 9 - Supporting Services Plan.

2. Q. Wilshire/Fairfax Station is not convenient to bus riders. The Wilshire/Fairfax Station as proposed at Curson is not convenient to bus riders. It should be located under the May Company at the Fairfax intersection.

   A. The present station location was fixed in Milestone 3 - Route Alignment Alternatives and Milestone 4 - Station Location Alternatives, as determined by the RTD Bord of Directors in December 1982.

3. Q. Will drilling be felt at the surface?

   A. The sensation will be no more than that felt when a truck or bus passes by while you are standing on a nearby sidewalk.

4. Q. Are there emergency exits between stations?

   A. We plan to have cross-passages between the twin bores of the tunnels at a spacing of not more than about 750 feet. In an emergency where passenger evacuation is necessary, the passengers would be directed to use the nearest cross-passage to get to the adjacent tunnel which is considered a place of safe refuge. They could then be loaded onto assure train in that tunnel or if it is a short distance to a station, could walk out of the tunnel. Tunnels will have emergency walkways and emergency lighting.

5. Q. Where are the vent shafts located in the Hollywood alignment?

   A. Vent shafts in the immediate Hollywood area are located at the ends of stations. There are two vent shafts in the line betwee the Hollywood/ Cahuenga Station and the Universal City Station. The locations of these vents are determined in the drawings for Chaper III-A of the Milestone 10 Draft Report.

FAIRFAX (cont'd)

6. Q. What guarantee is there that sufficient funds are available to complete the Metro Rail system?

   A. There is no guarantee that all reuqired funds will be available. Present indications are favorable that the Project will be funded.

7. Q. How will you control runaway trains?

   A. We do not anticipate having runaway trains. Speed of the trains will be controlled by fail-safe equipment. This equipment is designed so that all failures lower the speed or stop the train.

   A description of this equipment, called automatic train proection, can be found in the Milestone 8 Report - Systems and Subsystems.

8. Q. Is there already a tunnel under Wilshire Bouelvard?

   A. No. The existing tunnel used by the Pacific Electric under Bunker Hill is not in Wilshire and not where it could be utilized by Metro Rail.

9. Q. Won't a station at Wilshire/Fairfax increase parking and traffic problems?

   A. Parking at this station is not expected to significantly increase traffic congestion. Traffic mitigation measures are being closely coordinated with the City of Los Angeles Department of Transportation. On an overall system basis, increases in traffic due to station parking will be more than offset by the reduction in auto trips due to Metro Rail.

10. Q. Will construction equipment be placed on surrounding residential areas?

    A. It is planned to provide construction areas within the limits of the construction. Use of vacant lots in the vicinity of the construction to "store" equipment or supplies is possible within the limits of legal restrictions.

11. Q. How many residents wil be displaced?

    A. Displacements are described in the Draft Environmental Impact Statement which will be available to the public in April.

12. Q. Aren't construction funds approved yet?

    A. Construction funding will not be available until approval of the Environmental Impact Statement and the federal grant application.

13. Q. Who has final say on joint development activities?

    A. Agreements are being developed between the various agencies that may be involved in joint development activities. These include the SCRTD, and the City and County of Los Angeles.

14. Q. How will stations accommodate bicycles?

    A. Bicycles will be accommodated at most stations, except in the Central Business District. Lockers will be provided at the surface, as close to a station entrance as possible.

15. Q. How will the buses actually access Metro Rail stations?

    A. At most stations, access will be in the form of street pick-up/drop-off areas adjacent to station entrances, and will include curb-cuts in some cases. At Union Station, Wilshire/Crenshaw (if provided), Wilshire/Fairfax, Hillywood/Cahuenga, and Universal City, off-street bus facilities wil be provided. In most cases, these off-street terminals will incorporate station entrances as part of the facility.

16. Q. Parking at the Fairfax stations will be chaotic. Are buses going to feed the system?

    A. Yes. A major bus terminal located off-street south of Wilshire will provide turnback capability for the majority of buses operating west of Fairfax. Traffic impacts will be coordinated with the LADOT.

17. Q. What will deter non-transit users from using Metro Rail parking lots?

    A. Metro Rail park-ride lots will fill at a time when most non-transit users will not be present. Where mixed-use parking difficulties arise, control measures may be required. These could iclude making payment provisions convenient to Metro Rail users but at location inconvenient for other users, or making parking payments in the station paid areas thus requiring a Metro Rail ticket purchase.

18. Q. How definite are station locations?

    A. Milestone 4 established the station locations, and except for a minimum shift in direction along the alignment, they are definite.

19. Q. How can I tell if my property is affected by station facilities.

    A. If it sppears that your property may be affected by station facilities, please contact the RTD Community Relations Staff who will put you in touch with an appropriate Metro Rail person. As the designs progress, we will be contacting many of the property owners involved. In all cases, property owners will be notified well in advance of any required property actions.

FAIRFAX (cont'd)

20. Q. What is the proposed fare structure?

    A. This is being presently determined. Results will be determined in Milestone 12 - Preliminary Engineering System Plan.

21. Q. How many cars per train wil be necessary during peak rush hours?

    A. Six cars per train will be required during peak hours. The basis for this is described in the Preliminary Operating Plan section of Milestone 1 - Preliminary System Definition and Operating Plan.

22. Q. Is a street affected by station construction completely closed during the construction period?

    A. Traffic can be maintained on half the street for the first four months of construction, and on all or most of the street for the remainder of the construction period.

23. Q. How far along is the Houston Metro in developing its system? Is Metro Rail competing with them?

    A. The Houston Metro is in approximately the same position as Metro Rail. We are indeed in competition with Houston for funds.

24. Q. Is Houston more densely populated than Los Angeles?

    A. Houston has only a fraction of the urbanized area Los Angeles density: 2300 persons per square mile vs. 5200 persons per square mile.

25. Q. How deep will you be tunneling in the Wilshire/Fairfax area?

    A. Tunneling will typically be at a depth of 30-40 feet to top of tunnel.

26. Q. How long will the ride take from end to end on Metro Rail?

    A. The ride from end to end on Metro Rail will require approximately 31 minutes. Approximate travel time between all Metro Rail stations are given in Table III-3 of Milestone 1 - Preliminary System Definition and Operating Plan.

27. Q. What's the maximum speed of trains?

    A. The maximum speed capability of the trains will be over 70 mph. However, the train control system will be designed to restrict speeds to safe limits for each particular section of track. Speed restrictions also will be imposed as appropriate on a segment-by-segment basis to avoid unproductive consumption of energy and unnecessary heat generation. In no cases will train speed be permitted to exceed 70 mph.

28. Q. Would you consider the feasibility of putting a safety rail along the station platforms for safety?

    A. Safety rails or platform barriers have been considered. We feel that they are not appropriate, however, because they may cause more severe safety problems than they are supposed to solve.

    These barriers would have to operate when a train arrives and, if they should fail, there would be great difficulty in unloading the train. Further, passengers waiting to board the train could try to squeeze past under, or over barriers, creating a severe potential safety hazard.

29. Q. Has there been any preliminary agreement among RTD, City of Los Angeles and the County of Los Angeles regarding security measures for Metro Rail?

    A. We have been working with both the Los Angeles City Police Department and the Los Angeles County Sheriff's Department in establishing our Metro Rail security program. A special committee to set down the program requirements has been at work for over a year, already. Details on the security program can be found in the Milestone 7 Report - Safety, Fire/Life Safety, Security and System Assurance.

30. Q. Can the Craft Museum be saved when the Wilshire/Fairfax Station is built? If not, is the museum eligible for relocation assistance?

    A. It appears that the Craft Museum site will be occupied by the station. As with all displaced businesses, relocation assistance will be provided.

31. Q. Does RTD support preferential parking?

    A. Other than preferential parking for the handicapped, no provisions have been made.

32. Q. Have the station colors been determined yet?

    A. Station colors will be determined by the station designer selected for Continuing Preliminary Engineering.

HOLLYWOOD SECTOR

1. Q. Was an alternative station site at Las Palmas and Selma ever considered?

   A. Yes. A Las Palmas/Selma Station location was considered during the Alternatives Analysis completed in 1980. It was rejected in favor of the present Hollywood/Cahuenga location, which better serves the Hollywood business area.

2. Q. Will the RTD put station design and location decisions to a popular vote in the districts affected?

   A. Station locations have been fixed in Milestone 4, completed in December 1982. Station design decisions will not be put to a popular vote, but will be thoroughly discussed with and influenced by the public.

3. Q. Does the RTD plan to work with the CRA on all joint venture proposals for the project?

   A. Final agreements with such agencies as the CRA have not been completed. Certainly in station areas within a CRA project, mutual joint development will take place.

4. Q. How does the RTD plan to account for public money spent and/or funds received in joint ventures?

   A. All such funding is a matter of public record, and is accounted for monthly, quarterly, and yearly, in reports which can be made available to the public.

5. Q. Why can't the RTD implement Milestone 6 (Development and Land Use) policies or incorporate them into Milestone 10 discussions?

   A. The implementation of Milestone 6 policies is not entirely a unilateral action on RTD's part. Agreements with the other affected agencies are in progress, and will be implemented when complete.

6. Q. How will buses exit the turnaround at the Cahuenga Station during rush hours?

   A. A traffic analysis of the Hollywood/Cahuenga Station will be shown as part of the public presentation of the Milestone 10 Draft report.

7. Q. How deep is the subway tunnel in the vicinity of the Cahuenga Station?

   A. Subway tunnel depth at the Hollywood/Cahuenga Station is approximately 30 feet at its minimum depth, to the top of the tunnel.

8. Q. How long is the tunnel from Sunset Boulevard to Hollywood Boulevard? What tunneling noise can be anticipated?

   A. The tunnel length, including the curve, is approximately 1800 feet. Since top of tunnel depth in this area is 30-35 feet, little if any noise from the tunneling operation should be heard or felt.

9. Q. Where will vent shafts be located?

   A. Vent shafts are typically at the ends of stations. Five additional mid-tunnel vents will be located as described in Chapter III-D of the Milestone 10 Draft report.

10. Q. Will there eventually be a general land use plan for station locations?

    A. Yes. The Specific Plan to be provided by the City and County of Los Angeles will be supplemented by a Station Area Development Plan.

11. Q. Why isn't parking planned at the Cahuenga Station?

    A. Parking in this dense urban area is not encouraged, as is the case in the Central Business District.

12. Q. Why haven't residents within a several-mile radius of the alignment been notified of the project by direct mail?

    A. Every reasonable effort is being made to notify property owners and residents in the station areas of all meetings to be held.

13. Q. How do you plan to tunnel in the LaBrea Tar Pits area?

    A. In the same manner as other soft-ground tunneling; however, special consideration will be given to materials handling.

14. Q. How deep is the alignment between Cahuenga and Universal City?

    A. The depth varies as the surface above the tunnel and is as much as 600 feet and as little as 30 feet above the tunnel top.

15. Q. Why are RTD public hearings scheduled at times inconvenient to working people?

    A. Almost all of our meetings are held at night so that they are convenient to most working people.

16. Q. Why not build a Hollywood Bowl Station if deep tunneling is needed anyway?

    A. The decision to add a station at the Hollywood Bowl is not dependent upon depth of tunnel. In fact, a deeper station would increase the cost of the station.

17. Q. How does eminent domain land acquisition affect adjacent parcels?

    A. If eminent domain is required for acquisition of certain parcels, there is no intrinsic effect on adjacent parcels.

18. Q. Why is there parking planned at the Wilshire/Fairfax Station?

    A. Parking at this station is an exception to the parking provisions at other Wilshire stations, and is required to intercept auto trips from the west and south.

19. Q. How real is this project? Will it really happen in Los Angeles?

    A. More than $120 million is in hand or committed to the Project. The reaction of Congress and the funding agencies appears favorable at this time for completion of required funding.

20. Q. Could a Hollywood Bowl Station be added after the system is constructed?

    A. Such an action is possible, but would be very expensive unless substantial provisions for the station were made initially. This in itself would be expensive.

21. Q. Are feeder buses on Hollywood Boulevard primarily east bound or west bound oriented?

    A. For existing and future bus service requirements, please see Milestone 9 - Supporting Services Plan.

22. Q. Why haven't alignment property owners listed on the tax rolls been directly contacted by the RTD?

    A. All property owners affected by the alignment and stations will be contacted well in advance of any required RTD actions.

23. Q. Why isn't there parking proposed at the Hollywood Stations?

    A. Please see the answer to Hollywood question number 11.

HOLLYWOOD SECTOR (cont'd)

24. Q. How can you say UMTA is against a Hollywood Bowl Station? Have you considered the benefits to the community other than "cost effectiveness?".

    A. We don't believe that UMTA is specifically against a Hollywood Bowl Station. We do believe that the service and relative merit in providing the station will be weighed against cost and operating considerations, by the funding agencies. There are other factors besides "cost effectiveness", which will be considered prior to the RTD Board's final decision.

25. Q. Hasn't the RTD reneged on its earlier commitment to a Hollywood Bowl Station? What about the concerns of the rest of the City?

    A. In effect, RTD "traded off" considerations for a Hollywood Bowl Station in favor of a Sunset/La Brea Station, which had not been previously provided. This action appeared to be supported by a majority of public opinion, at the time. The Hollywood Bowl Station issue has been reopened by the RTD Board, and is presently undergoing further examination.

26. Q. How would a contraflow bus lane on Cahuenga work?

    A. The City of Los Angeles Department of Transportation will answer this question at the public meeting for the Hollywood Sector on the Milestone 10 Draft Report, March 21, 1983.

27. Q. How much vehicular traffic will be the Cahuenga Station attract?

    A. This information is available in the Milestone 9 Draft Report on Supporting Services Plan.

28. Q. To what extent will the RTD recover the increased value of land adjacent to station locations?

    A. In the form of joint development agreements and/or value capture assessments, RTD will plan to benefit from the increased value of land and improvements in the station areas, in a ratio which mutually satisfies public and private goals. All RTD benefits are, of course, direct benefits to the public in the form of decreased station costs and reduced fares.

29. Q. Who will regulate zoning around station sites?

    A. Present planning provides for County zoning regulation at one station and City zoning regulation at all other stations in cooperation with RTD.

30. Q. Has RTD studied other systems to avoid repeating their mistakes?

A. Both RTD and its consultants have thoroughly studied other systems to gain from their experience. This study has focused on the more recent systems implemented: BART, WMATA and MARTA; and those currently under construction: Miami and Baltimore; but it has included all urban rail transit systems in North America. RTD also has participted in a series of Peer Reviews under joint sponsorship with the Urban Mass Transportation Administration. These Peer Reviews consist of bringing together experts in various disciplines from other agencies to review Metro Rail design development and provide advice based on their experience with their own systems. A total of eleven Peer Reviews have been held on specific system elements, plus two on the overall Preliminary Engineering programs.

SAN FERNANDO VALLEY SECTOR

1. Q. Why isn't Willowcrest Drive shown on the proposed station plan?

   A. Willowcrest Drive has been integrated into the overall site development scheme for the Universal City Station.

2. Q. Is the RTD proposing to do without a special analysis on station plans in the San Fernando Valley, thus ignoring the wishes of the community?

   A. The Special Analysis conducted in the Hollywood and San Fernando Valley areas was specifically constituted to address Milestone 3 and 4 concerns. While public input to other Milestones will be actively solicited, and such input will be carefully considered and incorporated where possible, additional special analysis is not planned.

3. Q. How much will it cost to ride Metro Rail?

   A. The fare to be charged for Metro Rail will not be determined until a point near revenue operations. Such fare must be integrated with the bus fare structure and must take into account many variables including funding support of operation, inflation rates, etc.

4. Q. At the Universal Station, how do patrons access the stations from the parking areas? Will there be access tunnels?

   A. No tunnels will be provided under the Hollywood Freeway. Access from the west parking lots across the freeway to the station will be provided by regular service buses acting as shuttle buses for this portion of their runs.

5. Q. Why aren't there kiss and ride facilities at the North Hollywood Station? Why so few parking spaces at the terminus station when you stated at Milestone 4 meetings that there would be a demand so great that a 2,500-car structure would be necessary?

   A. In response to your input, and additional study, both a kiss-ride area and an increase in initial parking at the station will be provided. Please see the revised station drawing in the Milestone 10 Draft Report.

6. Q. Why not develop parking on the land already owned by the RTD rather than acquiring new, more expensive land for parking?

   A. The land already owned by RTD at Universal City Station will be used for parking, but is much too small to accommodate the parking requirement. Accordingly, the additional area indicated on the drawings is required.

7. Q. Are you aware that the USTA uses the Racquet Center for tournaments and training?

   A. We are, and assure that if relocation of the facility is required, it will be in full accordance with federal and state requirements including assistance in locating a suitable replacement site.

8. Q. What happens to the 450 spaces at the North Hollywood Station when a parking structure is built?

   A. Parking structures can be constructed in sections, thus allowing use of the majority of surface parking spaces during construction.

9. Q. Have you considered current planned redevelopment impacts on parking at the North Hollywood Station?

   A. Yes. Initial parking requirements have been increased. Please see the answer to question number 5 for the San Fernando Valley.

10. Q. Can station construction schedules accommodate area development schedules?

    A. Yes. Whether or not construction is exactly concurrent, accommodation for mutual requirements can be made.

11. Q. Why isn't the RTD dealing directly with <u>local</u> CRA staff and the PAC?

    A. We are dealing directly with the local CRA staff and they will arrange meetings with the PAC.

12. Q. Why is the North Hollywood Station design being kept a secret?

    A. The station design was presented in Milestone 4, and in the Milestone 10 Preliminary Draft report. It will be presented in all subsequent Milestone 10 reports.

13. Q. How many spaces at the Hollywood Bowl could be used for park and ride?

    A. It is estimated that less than half of the present 4000 spaces could be used.

14. Q. How much will the system cost, and what is the funding formula?

    A. System costs will be presented in Milestone 11 - Preliminary Cost Estimate.

15. Q. Are we competing with Houston for transit funds

    A. Yes.

16. Q. Why eliminate freeway express buses for the San Fernando Valley?

    A. Since the Metro Rail System will replace parallel service presently provided by buses, most such bus service will not be required.

17. Q. What joint development alternatives hs the RTD considered to help subsidize construction of the North Hollywood Station?

    A. No specific joint development proposals are presently under consideration. A number of alternatives are possible as station area development evolves, including lease of air rights over RTD owned property, incorporation of station entrances into private structures, and private entrance connections to the station mezzanines.

18. Q. Concerning development, can the RTD ignore existing zoning for the parcels it acquires?

    A. For the transportation-related requirements of the station, the RTD has the power of eminent domain. For all joint development not related to transportation, City and County zoning are presently required. This zoning is to be part of the Specific Plan produced by the City and County.

19. Q. Has the RTD gone to other cities with rapid rail transit to observe and learn?

    A. Yes. Both RTD staff and consultants have extensive experience in other contemporary U.S. transit systems, and have studied other systems throughout the world.

20. Q. To what extent will traffic on Lankershim be disrupted by construction?

    A. Near Camarillo Street, a minor disruption will occur at the site of the mid-line vent structure. The station site between McCormick and Burbank Boulevard will be cut-and-cover construction and as such will have varying "patterns" of traffic disruption during construction, including no parking and reduction of lanes for traffic.

21. Q. What are the North Hollywood patronage projections?

    A. Please see Milestone 9 - Supporting Services Plan.

SAN FERNANDO VALLEY SECTOR (cont'd)

22. Q. Why is the San Fernando Valley leg of the alignment "low man on the totem pole" for funding and phased construction.

    A. It is RTD's position that the Project is the entire alignment between Union Station and North Hollywood. As to phased construction, the yard and maintenance facility below Union Station dictate that construction must proceed from that location outward, in order to provide, maintain, and test vehicles as each construction phase is completed.

23. Q. Will we have to wait for the Environmental Impact Statement to discover specific construction impacts and mitigating measures?

    A. The EIS is the primary vehicle for determination of such impacts and mitigating measures.

24. Q. Where are joint development areas in North Hollywood and Universal City?

    A. Specific joint development proposals have not as yet been formulated. Joint development can occur at any location in the station area.

25. Q. Why not dig up the park at Tujunga/Chandler and put in ample parking and then cover it back up and replace the park--just like they did at Pershing Square downtown?

    A. First, underground parking structures are much more expensive than above-ground parking structures. Secondly, parks are sensitive environmental areas, subject to intense scrutiny in the EIS, particularly when avoidable impacts are proposed.

26. Q. What accessibility provisions are being made for the handicapped from car to train?

    A. The Metro Rail System will be fully accessible to the handicapped. All federal and local regulations establishing handicapped accessibility requirements will be met. There will be elevators from the surface of stations to the train platforms and the trains will have one or more wheelchair positions adjacent to the doors.

27. Q. What hours will station entrances in building be open? How will access to these entrances be facilitated?

    A. Hours of station entrances in buildings will depend on whether these are primary entrances necessary for station operation or entrances of convenience. In the case of primary entrances, these will be kept open consistent with system hours (currently projected to be 5:30 am to 1:30 am) and will be designed to permit access from the street irrespective of building hours. Convenience entrances may be opened only concurrent with building hours or on an as-needed basis.

SAN FERNANDO VALLEY SECTOR (cont'd)

28. Q. Is the 160-mile system planned to go beyond North Hollywood?

    A. The 140-160 mile heavy/light rail rapid transit system approved by the voters of Los Angeles County on November 4, 1980 does go beyond North Hollywood to Van Nuys, Canoga Park, and even Sylmar.

29. Q. Why is RTD accommodating Universal Studios and their tram service?

    A. Since the Universal Studios tram will accommodate a number of potential Metro Rail patrons, convenient access to the station seems appropriate.

30. Q. Why haven't you done an extensive traffic analysis in North Hollywood?

    A. Traffic analysis has been performed in North Hollywood. Results of the analysis will be presented at the Milestone 10 Draft report public meeting in North Hollywood.

31. Q. What percentage of people would ride Metro Rail downtown instead of the bus? Why?

    A. A detailed analysis of bus/rail ridership is presented in Milestone 9 - Supporting Services Plan.

32. Q. Are there any plans to cut proposed parking at the Universal Station?

    A. Because of its location as a prime interceptor for auto trips, no reduction of parking at Universal City is planned.

33. Q. What guarantee does each community have that the full project and all 16 stations will be built?

    A. Such guarantees are not possible. Community support through their elected representatives will assist the process.

34. Q. How long will it take to go from North Hollywood to Union Station on Metro Rail? How long by bus?

    A. The trip on Metro Rail from North Hollywood to Union Station will require about 31 minutes. This is not a trip commonly made and cannot be made by bus without a transfer. A more common trip pattern which is directly comparable between bus and rail is from North Hollywood to Downtown Los Angeles (e.g., Pershing Square). This will be a trip of approximately 28 minutes on Metro Rail. It is currently a 49-minute trip by bus and will increase in future years.

RTD

METRO RAIL PROJECT

MILESTONE RESPONSE FORM

2-28-83

(PLEASE PRINT)

NAME: Celia Davis

REPRESENTING:

ADDRESS: 2818 N. Cahuenga Blvd #4 ZIP CODE: 90068

PHONE: 466-0322

MY COMMENTS ADDRESS ISSUES IN MILESTONE # 10.

☒ I HAVE THE FOLLOWING CONCERNS ON THIS PROJECT MILESTONE:

☒ I WOULD LIKE TO HAVE THE FOLLOWING QUESTIONS/STATEMENTS FILED FOR THE RECORD AND INCORPORATED IN YOUR NEXT MILESTONE REPORT:

Since you will be tunneling deeply between Hollywood-Cahuenga Sta and Universal Station I feel that more public hearing are needed to discuss the issue of a Hollywood Bowl Station - these need to be held (and publicized properly) in the evenings when working people can attend.

The people of Los Angeles, as well as tourists must not be cheated out of a Hollywood Bowl Station.

Also a Bowl station would reduce surface congestion greatly.

Please keep this issue alive beyond the March 9th deadline.

Thankyou. Celia Davis

P.S. Some of the things you are doing at Universal are great. Please keep it great with a Bowl Station.

MAIL THIS FORM IMMEDIATELY TO: METRO RAIL COMMUNITY RELATIONS
Southern California Rapid Transit District 425 South Main Street, Los Angeles, California 90013
(213) 972-6456

The Hollywood Bowl Station issue is being given further study. Recommendations regarding this station will be presented to the RTD Board for consideration as part of Milestone 9, Supporting Services Plan.

RTD

METRO RAIL PROJECT

MILESTONE RESPONSE FORM

(PLEASE PRINT)

NAME: Buzz Johnson

REPRESENTING: Hollywood Co Council

ADDRESS: ZIP CODE:

PHONE: 463-7576

MY COMMENTS ADDRESS ISSUES IN MILESTONE #

☒ I HAVE THE FOLLOWING CONCERNS ON THIS PROJECT MILESTONE:

☐ I WOULD LIKE TO HAVE THE FOLLOWING QUESTIONS/STATEMENTS FILED FOR THE RECORD AND INCORPORATED IN YOUR NEXT MILESTONE REPORT:

Even with the 5 lanes on Cahuenga I fail to see how traffic will be relieved. Also how buses will make left turns on Cahuenga during traffic peaks. This street is a problem tot today especially if any problem develops above Hollywood Blvd.

Why is there no Kiss & Ride and putting buses & Ride in traffic lanes on Cahuenga will stop traffic.

MAIL THIS FORM IMMEDIATELY TO: METRO RAIL COMMUNITY RELATIONS
Southern California Rapid Transit District 425 South Main Street, Los Angeles, California 90013
(213) 972-6456

Hollywood/Cahuenga Station - A traffic analysis will be provided as part of the next public presentation, which will show how the bus and auto volumes will be handled on Cahuenga. Kiss-ride parking is being studied as part of the traffic analysis, and will be included in the presentation.

RTD

METRO RAIL PROJECT

MILESTONE RESPONSE FORM

(PLEASE PRINT)

NAME: DARRELL CLARKE

REPRESENTING:

ADDRESS: 738 NAVY ST. SANTA MONICA ZIP CODE: 90405

PHONE: 399-8291

MY COMMENTS ADDRESS ISSUES IN MILESTONE # 10.

☐ ☐ ☐ ☐

☒ I HAVE THE FOLLOWING CONCERNS ON THIS PROJECT MILESTONE:

☒ I WOULD LIKE TO HAVE THE FOLLOWING QUESTIONS/STATEMENTS FILED FOR THE RECORD AND INCORPORATED IN YOUR NEXT MILESTONE REPORT:

SEVENTH & FLOWER STATION: I AM CONCERNED THAT THERE IS NO STAIR ACCESS AT FLOWER STREET, WHICH IS THE MAIN COMMERCIAL CORRIDOR DOWNTOWN.

WILSHIRE/WESTERN STATION: I AM PLEASED TO SEE THE HISTORIC MCKINLEY BUILDING PRESERVED NEXT TO THE STATION SITE.

☒ LA BREA/SUNSET STATION: A MAJOR REASON FOR SUBWAY ACCESS TO HOLLYWOOD IS TO VISIT THE MOVIE THEATERS ON HOLLYWOOD BLVD. NEITHER THIS NOR CAHUENGA/HOLLYWOOD STATION ARE WITHIN CONVENIENT WALKING DISTANCE TO HIGHLAND & HOLLYWOOD. WOULD PASSENGER VOLUME SWAMP A CONNECTING MINIBUS?

HOLLYWOOD BOWL: RAIL ACCESS TO SUCH A HIGH-PEDESTRIAN-VOLUME LOCATION IS ESSENTIAL! THIS SMALL AREA IS A DESTINATION FOR MANY TRIPS TO THE SAME PLACE IN A SHORT PERIOD OF TIME, FOR WHICH RAIL ACCESS IS MUCH SUPERIOR TO BUS OR AUTO.

MAIL THIS FORM IMMEDIATELY TO: METRO RAIL COMMUNITY RELATIONS

Southern California Rapid Transit District 425 South Main Street, Los Angeles, California 90013

(213) 972-6456

Hollywood Bowl - We are continuing to study the feasibility of this staion. A recommendation to the RTD Board will be made in Milestone 9, Supporting Services Plan, for their action.

Seventh/Flower Station - An entrance at Flower Street was studied. The entrances at Figueroa Street offer joint development potential and provide access to patrons in this area. The entrances at Hope Street and at Broadway Plaza provide important access for patrons originating further east in the Central Business District. A third entrance at Flower Street is difficult to implement, would be costly and would add an operational complexity in the station.

Wilshire/Western Station - We are preserving historic structures wherever possible along the alignment.

LaBrea/Sunset Station - Your minibus connection to Hollywood Boulevard suggestion will be forwarded to our bus planning and operations personnel for further study.

RTD
METRO RAIL PROJECT

MILESTONE RESPONSE FORM

RECEIVED
MAR - 4 1983

(PLEASE PRINT)

NAME: ROGER MICHALEK

REPRESENTING:

ADDRESS: 1534 N. FORMOSA #2 ZIP CODE: 90046

PHONE: 874-3246

MY COMMENTS ADDRESS ISSUES IN MILESTONE # 10

☒ I HAVE THE FOLLOWING CONCERNS ON THIS PROJECT MILESTONE:

☐ I WOULD LIKE TO HAVE THE FOLLOWING QUESTIONS/STATEMENTS FILED FOR THE RECORD AND INCORPORATED IN YOUR NEXT MILESTONE REPORT:

MY CONGRADULATIONS, THE PLANS TO THIS POINT ARE WELL THOUGHT AND VERY FEASIBLE. I ESPECIALLY AGREE WITH THE DECISION TO DROP THE HOLLYWOOD BOWL STATION. IT HAS APPEARED TO ME THAT BUS PATRONAGE TO THE BOWL WAS NOT BEING FULLY UTILIZED, THUS I DOUBT MUCH SUPPORT FOR THE RAIL EXISTS TO JUSTIFY THE EXPENSE OF A BOWL STATION. KEEP UP THE GOOD WORK.

MAIL THIS FORM IMMEDIATELY TO: METRO RAIL COMMUNITY RELATIONS
Southern California Rapid Transit District 425 South Main Street, Los Angeles, California 90013
(213) 972-6456

Thank you for your comments.

RTD
METRO RAIL PROJECT

MILESTONE RESPONSE FORM

RECEIVED
MAR - 3 1983

(PLEASE PRINT)

NAME: DON-MARTIN NIELSEN

REPRESENTING: Homeowner

ADDRESS: 10724 AQUA VISTA st. N. Hollywood ZIP CODE: 91602

PHONE: (213) 985-3535

MY COMMENTS ADDRESS ISSUES IN MILESTONE # 10

☒ I HAVE THE FOLLOWING CONCERNS ON THIS PROJECT MILESTONE:

☒ I WOULD LIKE TO HAVE THE FOLLOWING QUESTIONS/STATEMENTS FILED FOR THE RECORD AND INCORPORATED IN YOUR NEXT MILESTONE REPORT:

I am extremely concerned about the parking situation! Even though time limits are posted, they are rarely enforced in my neighborhood (Aqua Vista st - the part off Cahuenga Blvd). The parking situation in my neighborhood is bad now, and without adequate parking facilities, it will be unacceptable.

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Southern California Rapid Transit District 425 South Main Street, Los Angeles, California 90013
(213) 972-6456

Responding to your concern, and that of others, we have increased the amount of initial parking to be provided at the North Hollywood Station.

6

T.A. NELSON, P.E.

CONSULTING ENGINEER
TRANSPORTATION CONSULTANT
2563 Dearborn Dr., Los Angeles, CA 90068 (213) 462-5500

February 28, 1983

Mr. Lou Collier, Manager
Community Relations Dept.
RTD Metro Rail Project
425 S. Main St., 6th Floor
Los Angeles, CA 90013

Dear Mr. Collier:

The following are my comments on the Milestone 10 Preliminary Draft Report distributed at the Metro Rail meeting in the Wilshire Blvd. area on February 22, 1983.

Station Platforms — As stated on page 6 in the section on Station Components, platform lengths will accommodate trains of six 75-foot cars. However, the station descriptions and location plan drawings starting on page 14 generally mention and show ancillary space at the ends of each platform. Would this space be available to extend platform lengths to handle longer trains in the future if necessary? SCAG projections, upon which patronage estimates were based, may be too conservative.

Bus - Rail Interface — The second paragraph on page 6 states that particular attention was given to this subject, and further mention appears on page 12. Although several of the station-location plan drawings show off-street bus-loading areas, none of them seem to be of a type that would permit barrier-free transfer between bus and Metro Rail. The economics of such an arrangement might tend to disfavor it slightly, but where off-street transfer facilities are provided, passenger convenience and speed of travel should be given considerable weight in the decision before barrier-free transfer is rejected.

Union Station — Is provision being made for an indoor pedestrian passageway between the west end of the Metro Rail station and the main concourse in Union Station? The station-location plan drawing on page 17 does not indicate such a connection.

Hollywood/Cahuenga Station — The station-location plan drawing on page 43 shows a pocket track north of the passenger platform. I am pleased to see this, as it will facilitate turn-back service from this station if such is desired in the future. Also, it is in the proper location for a future line to branch from this station on a direct route to downtown Los Angeles, which I feel will eventually be built. It would be wise to make other modest provisions at this station for such a future connection.

Sincerely,

T. A. Nelson

Electric Utility Operations
Manufacturing Quality Control
of Power System Equipment

Railroad Transportation
Coal by Rail
Fixed Guideway Transit

Station Platforms - Extending ancillary space at the ends of the present 450-foot platform to accommodate a future platform extension would be extremely costly. Our analysis indicates that six car trains can handle the projected patronage demands.

Bus-Rail Interface - There are several stations that might readily accommodate a barrier-free bus to rail transfer. At most stations, such an accommodation would involve more than a slight cost disadvantage. Final resolution will be made in Milestone 12.

Union Station - The west station entrance will be at the same level as the existing passenger tunnel under the Southern Pacific Railroad tracks. Connection between those points can be accommodated in the form of a pedestrian passageway.

Hollywood/Cahuenga Station - Your comment regarding a possible future branch line to downtown Los Angeles is appreciated, and noted.

RTD
METRO RAIL PROJECT

(PLEASE PRINT)

NAME: STAN FOLKOMAN

REPRESENTING: BICYCLING COMMUTERS

ADDRESS: 524 W. WILSHIRE #3 ZIP CODE: 90036

PHONE: 477-3675

MY COMMENTS ADDRESS ISSUES IN MILESTONE # 10

☒ I HAVE THE FOLLOWING CONCERNS ON THIS PROJECT MILESTONE:

☐ I WOULD LIKE TO HAVE THE FOLLOWING QUESTIONS/STATEMENTS FILED FOR THE RECORD AND INCORPORATED IN YOUR NEXT MILESTONE REPORT:

I AM GLAD TO HEAR OF BASIC SPECIFICS INCORPORATING BIKE LOCKERS INTO STATION DESIGN. LOCKERS MAY WELL BE KEEP A BICYCLING COMMUTERS CYCLE HISTORY DURING THE COMING TIME WAS AWAY FROM IT. I STRONGLY SUPPORT THESE INCORPORATION INTO THE SYSTEM.

MAIL THIS FORM IMMEDIATELY TO: METRO RAIL COMMUNITY RELATIONS
Southern California Rapid Transit District 425 South Main Street, Los Angeles, California 90013
(213) 972-6456

Your comment regarding bicycle lockers at stations is appreciated.

MILESTONE RESPONSE FORM

METRO RAIL PROJECT

(PLEASE PRINT)

NAME: Alan C Reilly

REPRESENTING: Homeowner & MCA Condominium P.A.C.

ADDRESS: 5216 Stanley Ave ZIP CODE: 91601

PHONE: 762-6062

MY COMMENTS ADDRESS ISSUES IN MILESTONE # 10

☐ I HAVE THE FOLLOWING CONCERNS ON THIS PROJECT MILESTONE:

☒ I WOULD LIKE TO HAVE THE FOLLOWING QUESTIONS/STATEMENTS FILED FOR THE RECORD AND INCORPORATED IN YOUR NEXT MILESTONE REPORT:

I'M SURE THAT YOU'VE HEARD MANY TIMES THAT THE TOTAL "TEMPORARY" PARKING THAT YOU'RE PROPOSING IS TOTALLY INADEQUET SO I SHANT DWELL ON THAT MATTER, ALTHOUGH I TOTALLY AGREE. ANOTHER REASON A SURFACE PARKING LOT WOULD BE SELF DEFEATING IS THAT BY THE TIME THE R.T.O. GETS AROUND TO BUILDING ITS PARKING STRUCTURE THE AREA THAT LIES NORTH OF CUMPTSTON AVE COULD BE RADICALLY CHANGED. THIS AREA HAS BE REZONED TO HIGH DENSITY TO ACCOMODATE METRO RAIL POTENTIAL DEVELOPMENT AND THESE NEW TENANTS MAY OBJECT SO VEHEMENTLY TO

MAIL THIS FORM IMMEDIATELY TO: METRO RAIL COMMUNITY RELATIONS
Southern California Rapid Transit District 425 South Main Street, Los Angeles, California 90013
(213) 972-6456

COVER

THE ADDED TRAFFIC CONGESTION THAT THE PARKING STRUCTURE WOULD NEVER GET BUILT. WE WILL ALSO HAVE TO ENDURE THE UNSIGHTLYNESS THAT SEEMS ATTRACTED TO LARGE SURFACE LOTS IN THE FORM OF TRASH DUMPING, LITTER AND ABANDONED AUTOMOBILES.

I FEEL THAT I MUST DEMAND VERY STRONGLY THAT THE PARKING STRUCTURE AND STATION BE BUILT AT THE SAME TIME AS THE INCONVENIENCE AND RISK TO NO. HOLLYWOOD AND TO METRO RAIL PASSENGERS MAKES IT FOOLHARDY TO CONCEIVE OF ANYTHING ELSE.

ANOTHER AREA YOUR PLANNING DOES NOT ADDRESS FULLY IS BUS-BAYS AND A KISS AND RIDE FACILITY. THE MODELS OF MILESTONE #9 PREDICTED A KISS & RIDE PATRINAGE OF 10,000. TO EVEN THINK OF FORCING THIS TRAFFIC INTO A TEMPORARY PARKING SITUATION AT CURBSIDE IS LUDICROUS AT BEST. TRY DRIVING PAST A SCHOOL WITH ONLY MAYBE 30 CARS TRYING TO DROP OFF PASSENGERS!!

OUR TRAFFIC CONGESTION IN NO. HOLLYWOOD WILL BE SO TIGHT THAT THE BUSSES MUST HAVE BUS BAYS TO PULL IN TO DROP OFF PASSENGERS BOTH FOR THEIR CONVENIENCE AND SAFTY AND TO FACILITATE THE FREE FLOW OF

#2

RTD

METRO RAIL PROJECT

MILESTONE RESPONSE FORM

(PLEASE PRINT)

NAME: _____

REPRESENTING: _____

ADDRESS: _____ ZIP CODE: _____

PHONE: _____

MY COMMENTS ADDRESS ISSUES IN MILESTONE # 10.

☐ ☐ ☐ ☐

☐ I HAVE THE FOLLOWING CONCERNS ON THIS PROJECT MILESTONE:

☒ I WOULD LIKE TO HAVE THE FOLLOWING QUESTIONS/STATEMENTS FILED FOR THE RECORD AND INCORPORATED IN YOUR NEXT MILESTONE REPORT:

TRAFFIC.

I FEEL ANOTHER STATION ENTRANCE IS NEEDED ON THE WEST SIDE OF LANKERSHIM BLVD. THIS WILL ALLOW PEOPLE EASIER ACCESS TO METRO RAIL AND KEEP WALKING PATRONS FROM AROUND THE PARK FROM HAVING TO CROSS LANKERSHIM AND ~~NOT~~ DISRUPT THE TRAFFIC FLOW.

MORE STUDY NEEDS TO BE DONE ON CREATING NEW TRAFFIC FLOW PATTERNS TO LESSEN THE IMPACT OF R.T.P PATRONAGE TRAFFIC ON NO. HOLLYWOODS MAJOR ARTERIES. THIS STUDY NEEDS TO BE DONE NOW WITH THE POSSIBILITY OF RE ROUTING SOME STREETS ETC. AS IT IS IT IS PUT OFF UNTIL SOME "LATER DATE" FUTURE DEVELOPMENT MAY MAKE THE ARTERIAL ALTERATIONS IMPOSSIBLE.

Alan P. Reilly

MAIL THIS FORM IMMEDIATELY TO: METRO RAIL COMMUNITY RELATIONS
Southern California Rapid Transit District 425 South Main Street, Los Angeles, California 90013
(213) 972-6456 (OVE)

Regarding parking, we concur that additional parking is required at the North Hollywood Station and have indicated this in the Milestone 10 Draft Report Drawings.

Traffic analysis is being conducted with both the City of Los Angeles Department of Transportation and a private consultant. Results will be shown at the Milestone 10 Draft Report public meeting on March 23, 1983.

RECEIVED
MAR - 2 1993
LOW COLLEX
COMMUNITY RELATIONS MGR.

RTD
METRO RAIL PROJECT

MILESTONE RESPONSE FORM

(PLEASE PRINT)

NAME: MR + MR STANLEY K. WEITKAMP

REPRESENTING: _____

ADDRESS: 11536 KILLION ST ZIP CODE: 91601

PHONE: 762-4813

MY COMMENTS ADDRESS ISSUES IN MILESTONE # 16.

□ □ □ □

☑ I HAVE THE FOLLOWING CONCERNS ON THIS PROJECT MILESTONE:

□ I WOULD LIKE TO HAVE THE FOLLOWING QUESTIONS/STATEMENTS FILED FOR THE RECORD AND INCORPORATED IN YOUR NEXT MILESTONE REPORT:

We believe, as several persons brought up at the Feb. 23, 1993 meeting that the parking facilities as proposed are inadequate. We are sure that more persons would be likely to drive to the North Hollywood station from the north and north west Valley if proper parking were available. A parking BUILDING should be built that could be expanded at a later date without loosing the only parking that is then available.

One other thought might be to contact some of the comercial development that is going to be built in this area and see if they might either help in this parking facility or add to their own parking that could be used by the rail commuters.

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Southern California Rapid Transit District 425 South Main Street, Los Angeles, California 90013
(213) 972-6456

Your concern regarding parking at North Hollywood Station has been shared by others. In response, and after reassessing parking needs in this area, we have added to the quantity of surface parking to be initially provided. This will allow a good deal of flexibility in provisions for future parking structures when funding is available.

We will seek assistance, in offsetting costs of parking structures, from private development, as you suggest.

RTD
METRO RAIL PROJECT

MILESTONE RESPONSE FORM RECEIVED
MAR - 4 1993

(PLEASE PRINT)

NAME: ALEX BAUM

REPRESENTING: Chairman of the bicycle advisory Committee

ADDRESS: 5437 Cartwin Pl. N. Hollywood Calif 91607 ZIP CODE: _____

PHONE: (213) 761-5576

MY COMMENTS ADDRESS ISSUES IN MILESTONE # 10

□ □ □ □

☑ I HAVE THE FOLLOWING CONCERNS ON THIS PROJECT MILESTONE:

☑ I WOULD LIKE TO HAVE THE FOLLOWING QUESTIONS/STATEMENTS FILED FOR THE RECORD AND INCORPORATED IN YOUR NEXT MILESTONE REPORT:

The B.A.C thanks you for recommending bicycle parking at subway stations.
The B.A.C feels that bicycle parking should be at all the stations, plus bike access to the metrorail
Thank you for your attention.

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Southern California Rapid Transit District 425 South Main Street, Los Angeles, California 90013
(213) 972-6456

We have provided bicycle parking at all stations where it is feasible to do so. Whether bicycles are to be allowed on the trains will be determined after a period of system operation.

RAPID

PUBLIC RESPONSE FORM

METRO RAIL PROJECT

(PLEASE PRINT)

NAME: LINDA GRACE

REPRESENTING:

ADDRESS: 936 S. GENESEE AVE. LA ZIP CODE: 90036

PHONE: 931-9236

MY COMMENTS ADDRESS ISSUES IN MILESTONE # 10

☒ I HAVE THE FOLLOWING CONCERNS ON THIS PROJECT MILESTONE:

☒ I WOULD LIKE TO HAVE THE FOLLOWING QUESTIONS/STATEMENTS FILED FOR THE RECORD AND INCORPORATED IN YOUR NEXT MILESTONE REPORT:

I URGE CONSIDERATION OF ADDITIONAL STATION ENTRANCES, AS FOLLOWS.

CIVIC CENTER — A MIDBLOCK ENTRANCE ON FIRST ST. BETWEEN BROADWAY AND HILL ST. THIS WOULD PERMIT PEDESTRIANS COMING FROM THE EAST TO ENTER WITHOUT CLIMBING TO THE LEVEL OF HILL ST. IF EXISTING UNDERGROUND FACILITIES PRECLUDE AN ENTRANCE AT THIS LOCATION, A LOW LEVEL ENTRANCE FROM THE COURT OF FLAGS TO THE NORTH END OF THE STATION WOULD BE AN ALTERNATE.

ALVARADO — IF THIS STATION WERE TO BE BUILT WITH A MEZZANINE RATHER THAN AN ABOVE-GROUND CONCOURSE, A PEDESTRIAN TUNNEL UNDER ALVARADO ST. WOULD PROVIDE DIRECT ACCESS

MAIL THIS FORM IMMEDIATELY TO: METRO RAIL COMMUNITY RELATIONS (OVER)

Southern California Rapid Transit District 425 South Main Street, Los Angeles, California 90013

(213) 972-6456

Civic Center Station Entrances - The midblock entrance you propose between Broadway and Hill on First Street would be extremely costly and would not be technically practicable; however, the Court of Flags entrance you suggest can be accommodated and is planned.

Alvarado Station - The shallow depth of this station precludes the possibility of providing a mezzanine in lieu of the surface concourse presently planned. To deepen the station to allow for a mezzanine would add substantially to the cost. A pedestrian crossing on Alvarado, mid-block between Wilshire and 7th will provide convenient access to the station for south-bound bus patrons.

RTD
METRO RAIL PROJECT

MILESTONE RESPONSE FORM

(PLEASE PRINT)

NAME: Barbara Morris

REPRESENTING:

ADDRESS: 630 S. Cochran, #9 ZIP CODE: 90036

PHONE: 935-3643 work 628-4384

MY COMMENTS ADDRESS ISSUES IN MILESTONE # 7?

☐ I HAVE THE FOLLOWING CONCERNS ON THIS PROJECT MILESTONE:

☐ I WOULD LIKE TO HAVE THE FOLLOWING QUESTIONS/STATEMENTS FILED FOR THE RECORD AND INCORPORATED IN YOUR NEXT MILESTONE REPORT:

Safety regarding people being pushed into tracks — Recent problems in Paris? : they are putting up or experimenting with barriers put up at the edge of the platform so that no one can be pushed over. When the trains pull in, they ~~time~~ doors line up with doors on the barriers. (In other words, two sets of doors which open simultaneously).

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(213) 972-6456

Our studies indicate that provision of train screens, that is barriers between the platform edge and the train, does not appreciably increase safety on the platform, results in potential operating and maintenance problems, and has a high capital cost. Rapid transit platforms have proven to be among the safest regarding accidents of all transportation modes.

RTD
METRO RAIL PROJECT

MILESTONE RESPONSE FORM

(PLEASE PRINT)

NAME: WILLIAM WARREN

REPRESENTING:

ADDRESS: 1437 1/2 ALLISON AVE. ZIP CODE: 90026

PHONE:

MY COMMENTS ADDRESS ISSUES IN MILESTONE #

☐ I HAVE THE FOLLOWING CONCERNS ON THIS PROJECT MILESTONE:

☒ I WOULD LIKE TO HAVE THE FOLLOWING QUESTIONS/STATEMENTS FILED FOR THE RECORD AND INCORPORATED IN YOUR NEXT MILESTONE REPORT:

POSSIBLE CONSIDERATIONS (FUTURE)
FAIRFAX & WILSHIRE LINE A (AND ALTERNATE
CAHUENGA & WILSHIRE LINE B MINUTES, MINUTES APART)

ANOTHER SUBWAY LINE ON EITHER SUNSET OR SANTA MONICA BLVD.

THE PACIFIC ELECTRIC RAN STREET CARS FROM HOLLYWOOD BLVD. & SANTA MONICA BLVD. AT AN ANGLE ITS AN RIGHT OF WAY

MAIL THIS FORM IMMEDIATELY TO: METRO RAIL COMMUNITY RELATIONS
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(213) 972-6456

The present Metro Rail Project alignment is based on the Locally Preferred Alternative (LPA) adopted in the Alternative Analysis completed in April 1980, and variations to that alignment incorporated in Milestone 3, Route Alignment Alternatives adopted by the SCRTD Board of Directors in December 1982. Future extensions to this basic "Starter Line" are being studied by the Los Angeles County Transportation Commission and may be recommended as either Metro Rail or Light Rail in configuration.