SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

RTD

PRELIMINARY ENGINEERING STATION DESIGN REPORT

MTA LIBRARY

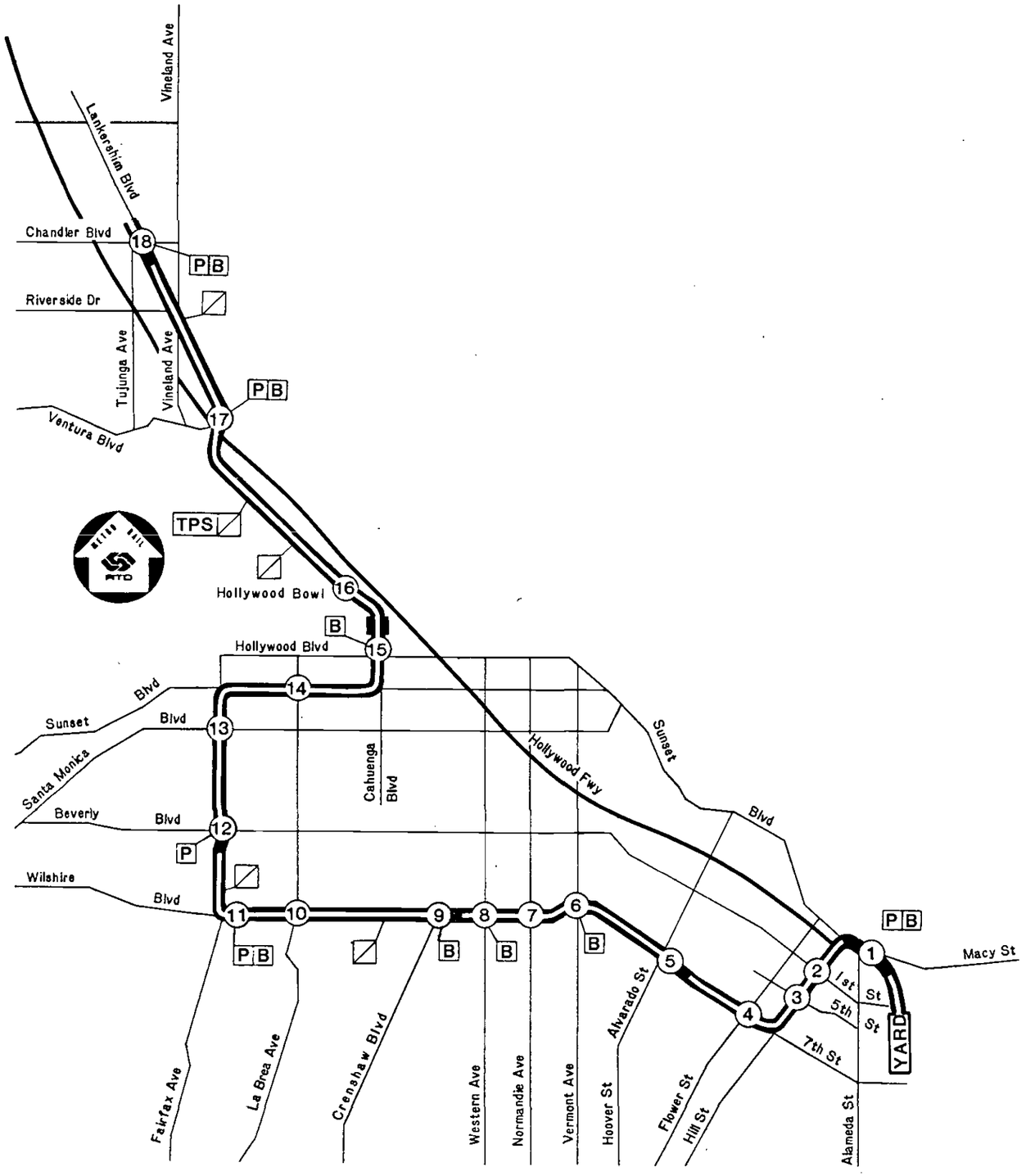
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE
GIN WONG ASSOCIATES

General Architectural Consultants: Stations

AUGUST 1983

JUN 1 8 '93
15069
SCRTD
1983
.P73
S82

The preparation of this report has been financed in part by grants from the U.S. Department of Transportation, Urban Mass Transportation Administration and the State of California.



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 / Crenshaw With TPS
10	Wilshire / La Brea With TPS
11	Wilshire / Fairfax With TPS
12	Fairfax / Beverly With TPS
13	Fairfax / Santa Monica With TPS
14	La Brea / Sunset With TPS
15	Hollywood / Cahuenga With TPS
16	Hollywood Bowl With TPS
17	Universal City With TPS
18	North Hollywood With TPS

TABLE OF CONTENTS

INTRODUCTION 1

I. STATION LOCATION & ENTRIES 5

II. STATION DESIGN & ARCHITECTURE 47

III. STATION EXITING REQUIREMENTS 55

A. NORMAL EXITING REQUIREMENTS
B. STATION EMERGENCY EXITING

IV. ENGINEERING 65

A. CIVIL SITE REQUIREMENTS
B. UTILITY REARRANGEMENT
C. MECHANICAL SYSTEMS
D. FIRE PROTECTION REQUIREMENTS
E. STRUCTURAL SYSTEMS
F. ELECTRICAL SYSTEMS & INCOMING POWER

V. STATION COST ESTIMATES 85

APPENDIX A - GENERAL PLANS 89

1. UNION STATION
2. CIVIC CENTER STATION
3. 5TH/HILL STATION
4. 7TH/FLOWER STATION
5. WILSHIRE/ALVARADO STATION
6. WILSHIRE/VERMONT STATION
7. WILSHIRE/NORMANDIE STATION
8. WILSHIRE/WESTERN STATION
9. WILSHIRE/CRENSHAW STATION
10. WILSHIRE/LA BREA STATION
11. WILSHIRE/FAIRFAX STATION
12. FAIRFAX/BEVERLY STATION
13. FAIRFAX/SANTA MONICA STATION
14. LA BREA/SUNSET STATION
15. HOLLYWOOD/CAHUENGA STATION
16. HOLLYWOOD BOWL STATION
17. UNIVERSAL CITY STATION
18. NORTH HOLLYWOOD STATION

APPENDIX B - ARCHITECTURAL STANDARD AND DIRECTIVE DRAWINGS 213

INTRODUCTION

INTRODUCTION

This report summarizes overall technical approach and the conclusions reached during the Preliminary Engineering Phase of Metro Rail Station Design. The Metro Rail Project undertaken by the Southern California Rapid Transit District is the first eighteen mile segment of rapid transit network for the Los Angeles region. The Preliminary Engineering phase started in September of 1981. During the ensuing period, decisions regarding the key elements of the subway were defined and designed. This included the selection of a precise route alignment, the station locations, the architectural and engineering design of stations, the vehicle types and exploration of the methods of construction and scheduling.

Station design was developed by the General Architectural Consultant, Harry Weese and Associates, working under the direction of the Southern California Rapid Transit District.

This report provides detailed background information regarding the design of stations which will be the basis for final design; the planning, architectural and engineering decisions made during the preliminary engineering phase are presented below. The report is divided into six chapters, each of which describes an important aspect of station design.

The first chapter contains a "footprint" drawing of each of the proposed stations. The drawings establish the platform location, the station entrances and mezzanines, in relation to the surrounding streets and buildings. A brief text provides background information.

The second chapter which deals with station design and architecture, is divided into two sections. The first section describes the range of components which form the basis of Metro Rail station design. It describes the basic architectural framework and explaines the rationale behind the desposition of functional elements. The second section on Station Architecture presents an overall philosophy for design within a framework of transportation functions and optimum costs.

Chapter Three deals with issues of moving people in and out of stations under normal and emergency situations. The relationship between station occupant load, train headways and station elements is described and the impact of this relationship on station sizing is discussed.

Chapter Four describes the station engineering design effort. This multifaceted task has been split into six subsections. Each of the sections addresses the specific issues and design solutions of respective engineering discipline.

The first subsection A, Civil Site Requirements, explores the extent to which ground surface features are changed and/or restored in the construction of each of the stations.

Subsection B, Utility Rearrangement, identifies the major utility relocation requirements along the alignment and relates the guidelines and procedures that were followed for resolving utility conflicts.

Subsection C deals with circulation of air within the station. The numerous alternatives that were investigated to ensure a comfortable yet cost-effective environmental control system for the traveling patron are described.

This subject is followed by subsection D on Fire Protection requirements which addresses the development of the Fire Protection Piping Schematic for stations.

The next subsection E describes Structural Systems alternatives considered in the cost conscious approach to trainroom design. Issues of seismic activity and oil and gas infiltration into the trainroom area are analyzed with several structural alternatives considered.

The last subsection F deals with Electrical Systems and Incoming Power. Electrical service to the station, equipment requirements and equipment location are described. The source and method of supplying emergency power and the critical loads that are served is also addressed.

The last chapter on Station Cost Estimates is a chronological synopsis of the station estimating functions performed during the Preliminary Engineering Phase. The iterative nature of station design required numerous comparative cost estimates, and the results of these estimates were critical to station design decisions.

The appendix to this report contains reductions of the Station General Plans - Site Plans, Civil Site Plans, Plans and Sections and Utility Rearrangement Plan. In addition, the Architectural Standard and Directive Drawings prepared for the project have been included.

CHAPTER I
STATION LOCATION & ENTRIES

STATION LOCATION AND ENTRIES

This chapter contains a "foot print" drawing of each of the stations, along with a brief description of the factors affecting station design.

The footprint drawings present design conclusions regarding the functional disposition of the specific components of each station. They indicate where the important elements of each subway station will be located in relation to all other components. They show, for example, the spatial relationship between faregates and escalators and elevators. They show, for each station, how station entrances relate to surrounding sidewalk spaces and buildings.

The station entry locations, as shown, are those presently contemplated to be publicly funded; their final orientation is subject to conclusive negotiations with landowners and/or developers once funding for construction has been obtained by the District. The general location of all other structures which will impact station areas, such as vent shafts, fresh air intakes, and emergency exit stair hatches has been determined during this phase. These functional elements are shown in the General Plans included in the appendix.

The footprint drawings also 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. The Civic Center and 5th/Hill Station plans, in particular, illustrate 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.

UNION STATION

Background

The Metro Rail Station at old Union Station will be located under the loading platforms of the Los Angeles Union Passenger Terminal (LAUPT). 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 a small portion of LAUPT site to accommodate the extension to the El Monte Busway.

Union Station is on the National Register of Historic Places.

Station Site Design Parameters

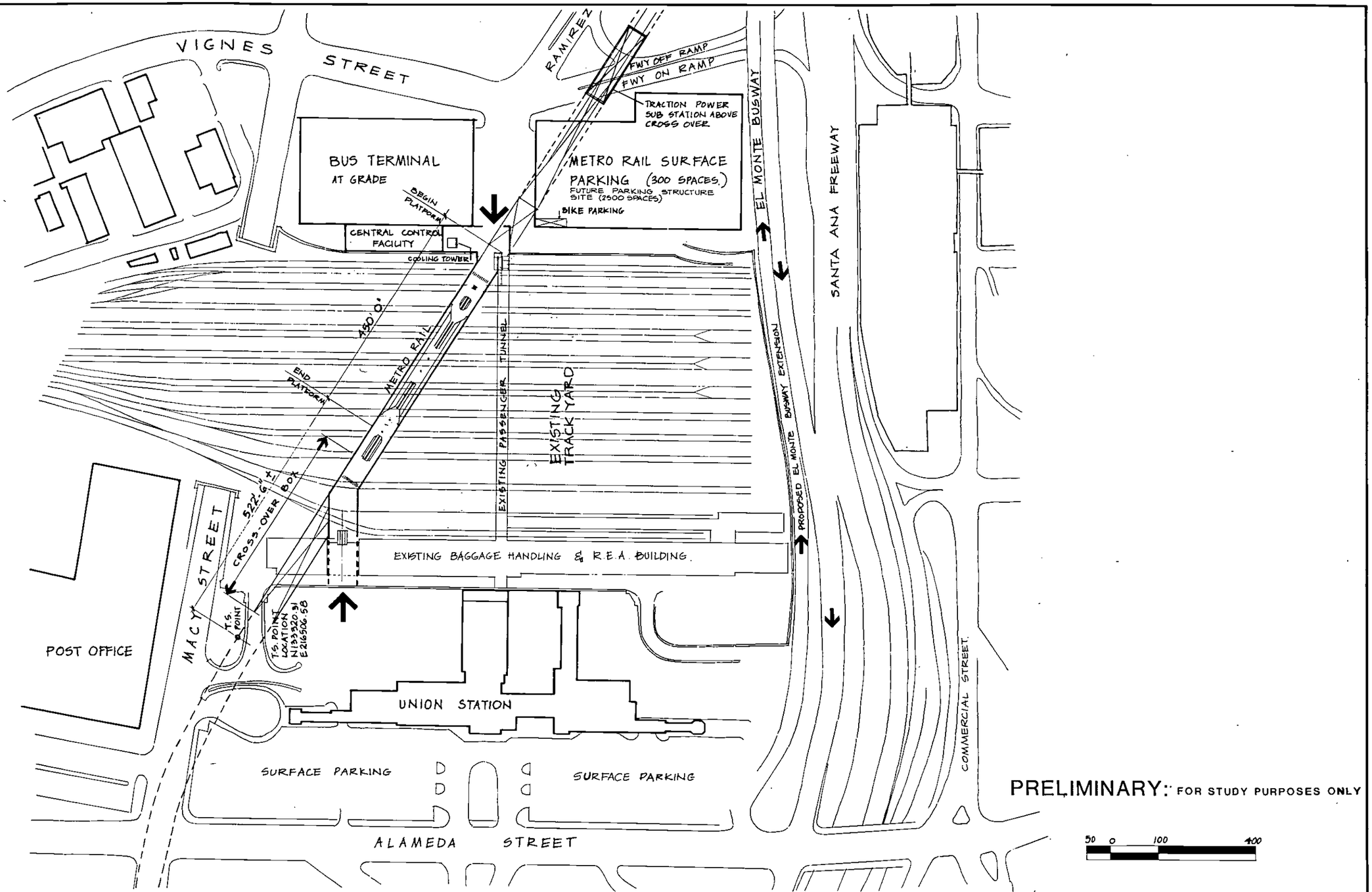
The Central Control Facility for the Metro Rail System will be located adjacent to the east entrance to the station. A bus terminal is planned for construction to the northeast of the east entrance. Parking will also be located adjacent to the east station entrance. Initially, 350 parking spaces will be provided in a surface park-and-ride area. Construction of a parking structure having spaces for 2,500 autos will be considered at a later date. The small demand for kiss-and-ride parking at this station will be accommodated either on surface streets or in a portion of the parking area. An off-street bus terminal will also be located northeast of the station entry, adjacent to the park-and-ride area.

Station Design Parameters

Union Station will be the first station on the alignment. Passengers walking to the station will come primarily from the downtown area to the west of the site (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, the mezzanine design will permit the retrofitting of additional devices if require to accommodate future patronage.



PRELIMINARY: FOR STUDY PURPOSES ONLY

REV.	DATE	BY	APP.	DESCRIPTION
2	6/6/83	A.V.		ENTRANCES REVISED & TRACTION POWER RELOC.
1	5/5/83	A.V.		ENTRANCES REVISED

DESIGNED BY HW/GW/TEC/TAMS Date 5/2/83
DRAWN BY A. VERMA. Date 3/2/83
CHECKED BY J. Wiley Date 3/3/83

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.

UNION STATION

CONTRACT NO.
DRAWING NO.
SCALE 1" 100'-0"
SHEET NO.

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.

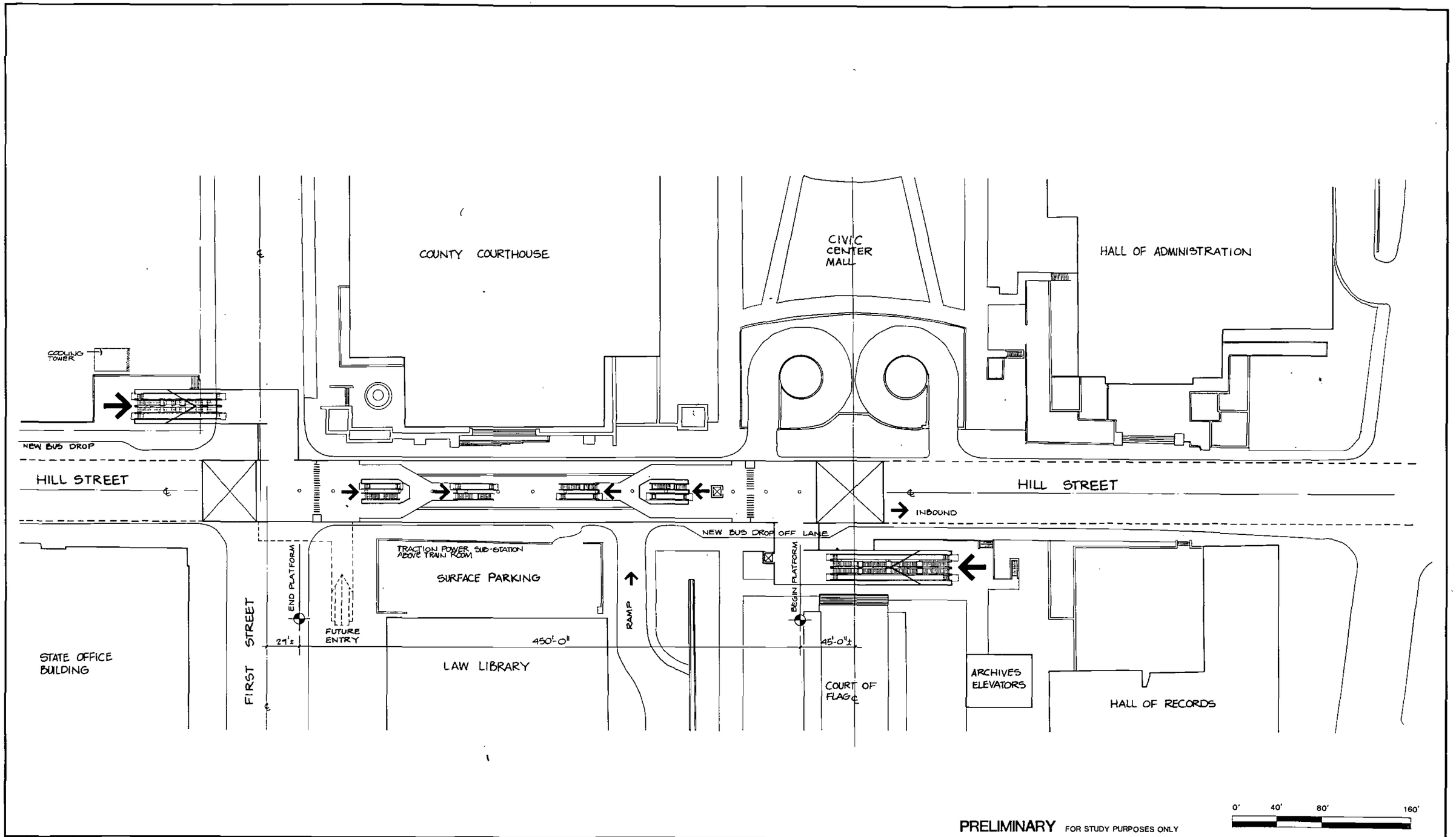
Station Site Design Parameters

A significant number of transfers are expected between the bus and rail systems at this station. The buses will be continuing in service and not terminating at this location. To accommodate this need, 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 for this station and the expected pattern of pedestrian flow, the Civic Center 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 northeast corners of 1st and Hill. The entry on the southwest corner will be designed to accommodate future development of the site. The northeast 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 enhance 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.



PRELIMINARY FOR STUDY PURPOSES ONLY

REV.	DATE	BY	APP.	DESCRIPTION
1	5-3-83			ANCILLARY ROOMS REVISED -

DESIGNED BY HNA/GW/TAMS/TEL Date 4-21-83
DRAWN BY M. POINDEXTER Date 4-21-83
CHECKED BY J Wiley Date 5/3/83

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

CONTRACT NO.
DRAWING NO.
SCALE 1"-40'-0"
SHEET NO.

5TH/HILL STATION

Background

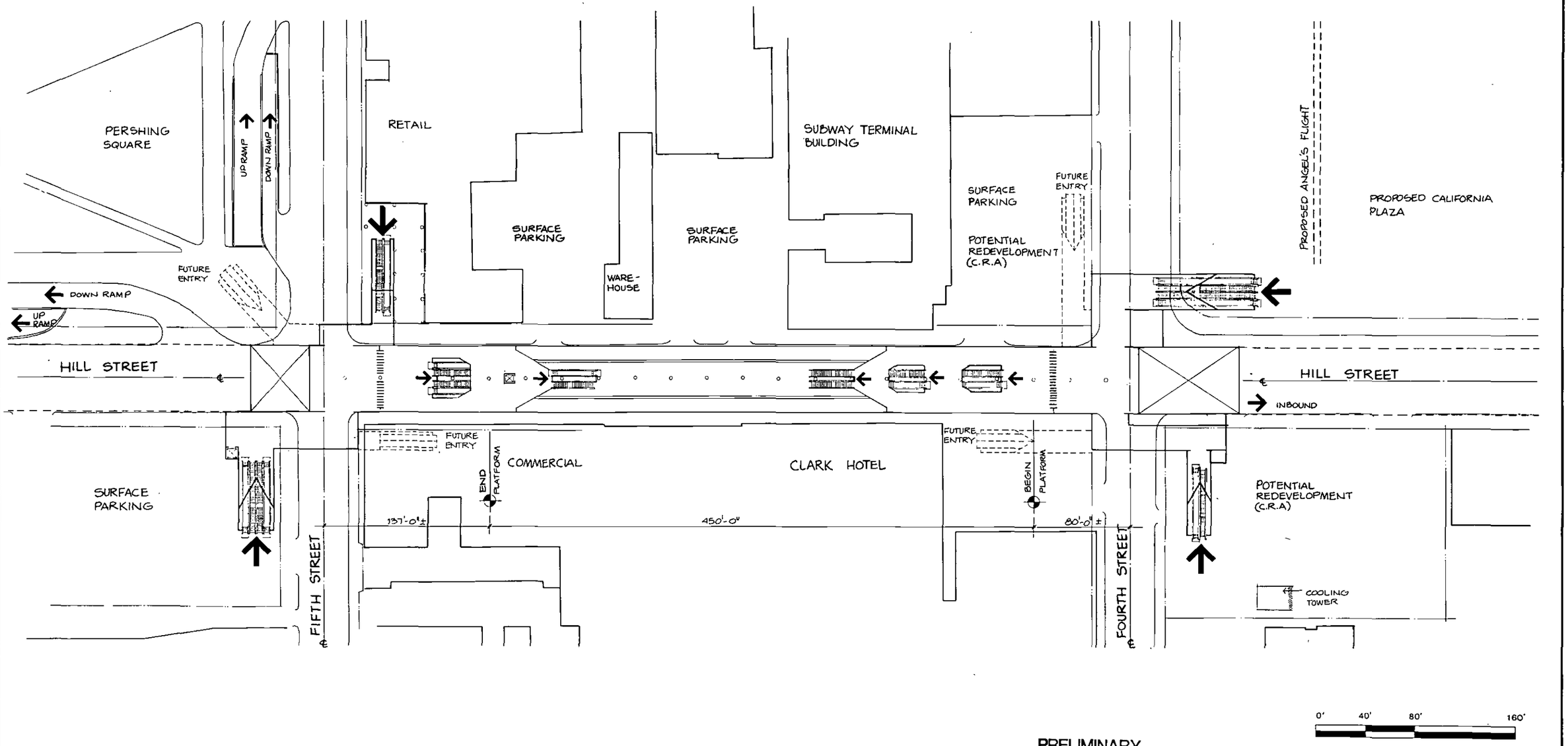
The 5th/Hill Station will be located under Hill Street between 4th and 5th Streets. The surrounding area contains the International Jewelry Center, the Grand Central Market, the Biltmore Hotel, and many retail, commercial and office buildings. Pershing Square Park is at the south end of the station and 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 International Jewelry Center 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 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. The site is presently undeveloped but is expected to house an expansion of the Jewelry Center. This entry is oriented parallel to Fifth Street to accommodate pedestrian flow from Broadway and Spring Streets. The entry orientation may be changed to permit its integration into future development.



PRELIMINARY FOR STUDY PURPOSES ONLY

REV.	DATE	BY	APP.	DESCRIPTION
	5-3-83			ANCILLARY ROOMS REVISED

DESIGNED BY HWA/GH/TAMS/TBC Date 2-19-83
DRAWN BY M. POINDEXTER Date 4-19-83
CHECKED BY JW Iley 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

APPROVAL RECOMMENDED
Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

FIFTH/HILL STATION

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

BRUNING

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 7th Streets. This site is the location for the proposed Pacific Plaza Project, which will 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.

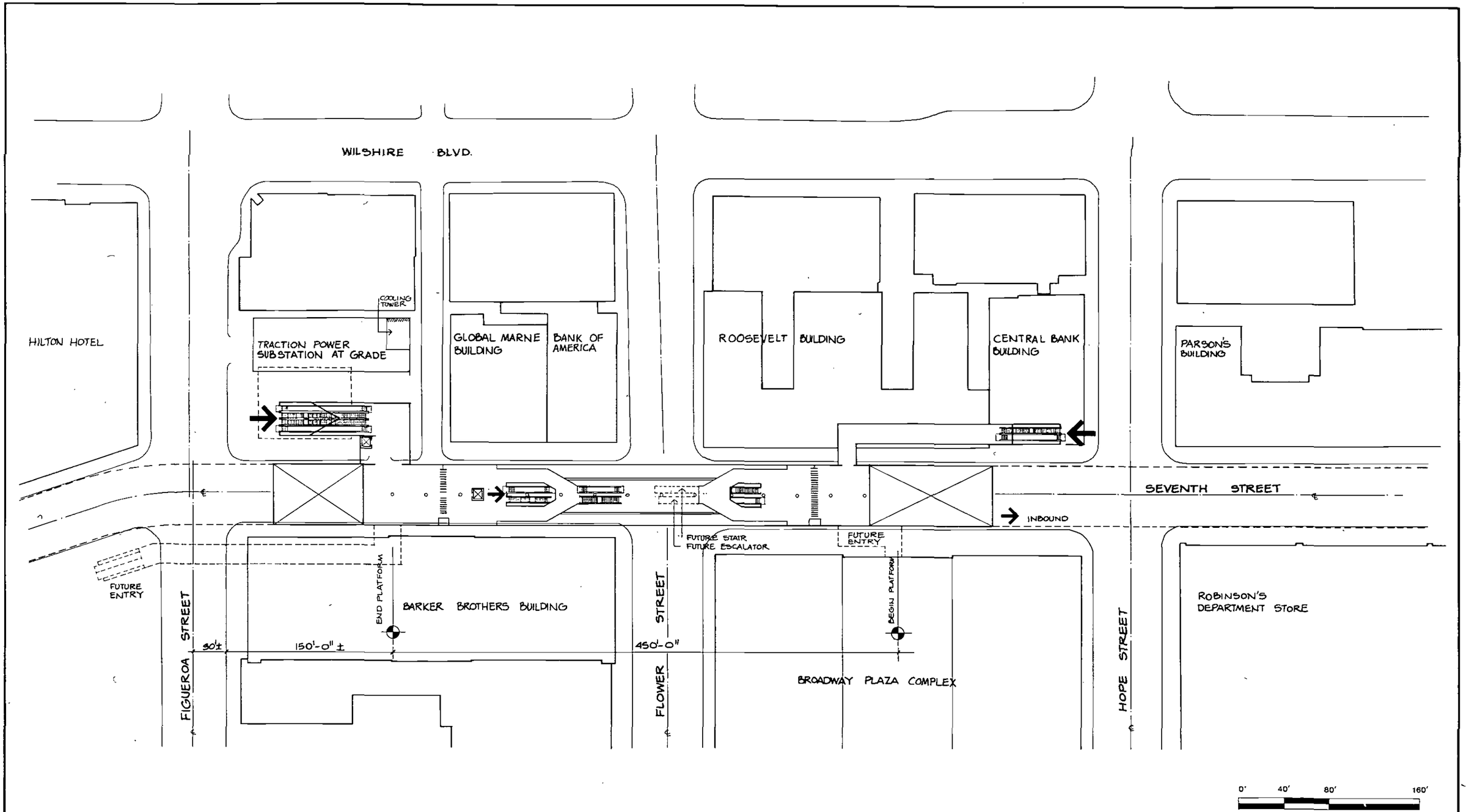
Station Site Design Parameters

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 on the cleared site. The entry at this 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 future construction of an entry from the proposed Pacific Plaza Project. The east mezzanine has been configured with a single entry. However, the future 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.



PRELIMINARY FOR STUDY PURPOSES ONLY

REV.	DATE	BY	APP.	DESCRIPTION
1	5-5-83	[illegible]		ADDED COOLING TOWER

DESIGNED BY HW/GW/[illegible] Date 4-21-83

DRAWN BY M. POINDEXTER Date 4-21-83

CHECKED BY J Wiley Date 5/3/83

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

SUBMITTED BY: [signature]
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

APPROVAL RECOMMENDED _____ Reg. No. _____

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

SEVENTH / FLOWER STATION

CONTRACT NO.

DRAWING NO.

SCALE 1"-40'-0"

SHEET NO.

WILSHIRE/ALVARADO STATION

Background

The Wilshire/Alvarado Station will be located off-street at mid-block between 7th Street and Wilshire, extending from Bonnie Brae to Alvarado Streets. This station is located in the Westlake Area. MacArthur Park, a heavily used public space, is just across Alvarado Street from the station site. The block facings along Alvarado and 7th Streets contains low-rise retail buildings with several mid-rise office buildings located along Wilshire. The center of the block is primarily devoted to parking.

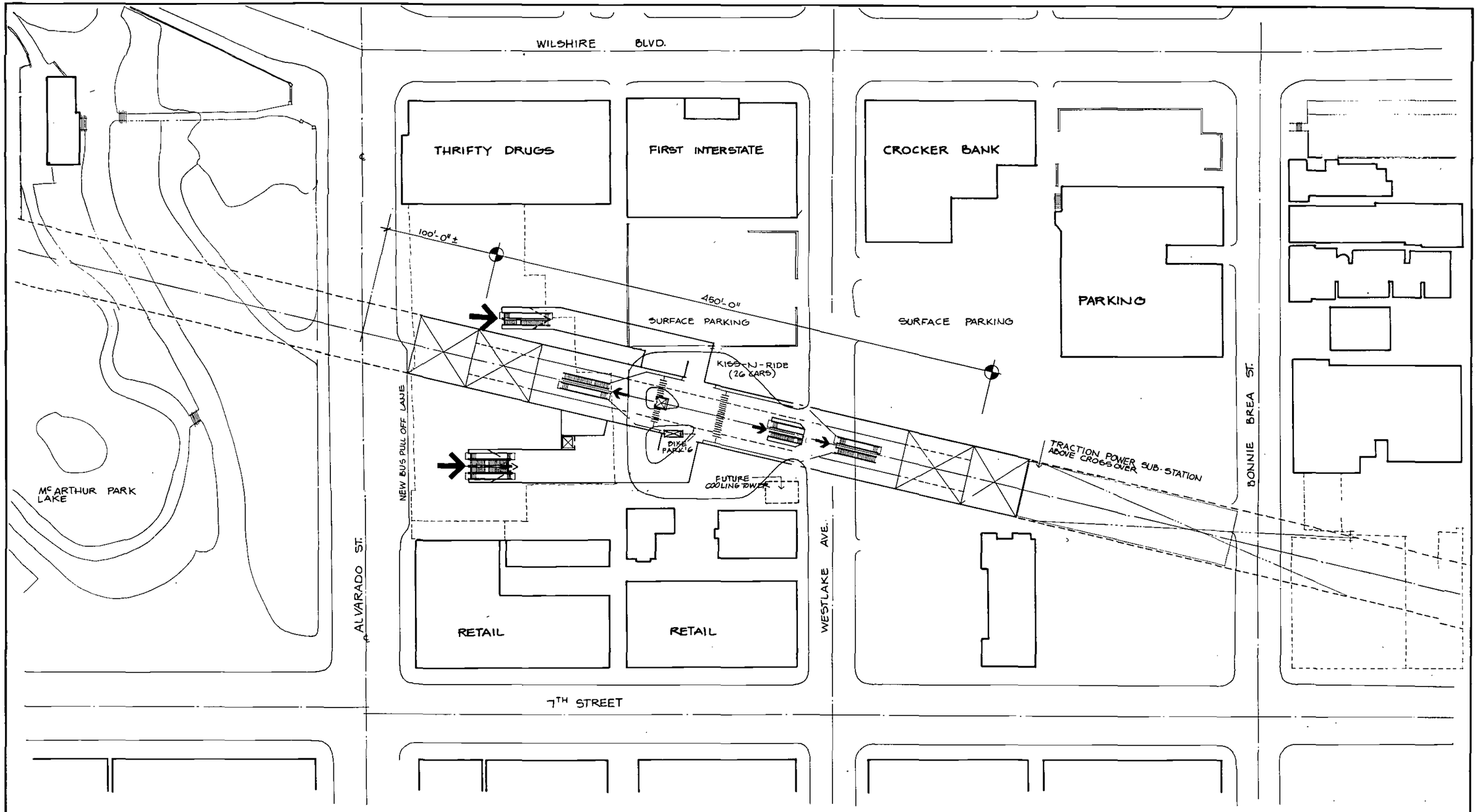
Station Site Design Parameters

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. 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 the east side of Alvarado in front of the station. No special provisions are planned for long-term parking; however, a kiss-and-ride parking area will be located on the west side of Westlake Avenue.

Station Design Parameters

Patronage is projected to be moderate to high at this station. In response, the station has been designed with two entrances, one on each side of the station box. Patrons will move by escalator, stair or elevator down to a mezzanine centered over the length of the platform. After obtaining a fare card, they may pass through fare gates located on each side of the mezzanine and proceed down to the platform level. 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.



PRELIMINARY FOR STUDY PURPOSES ONLY

REV.	DATE	BY	APP.	DESCRIPTION
2	5-19-83	MRP		NEW ENTRANCE AND EXPANDED MEZZANINE.
1	5-3-83	MRP		ANCILLARY ROOMS AND ENTRANCE REVISED

DESIGNED BY HWA/GW/TAMS/TEC Date
DRAWN BY M. POINDEXTER Date 5-19-83
CHECKED BY J Wiley Date 5/3/83

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 / ALVARADO STATION

CONTRACT NO.
DRAWING NO.
SCALE 1"-40'-0"
SHEET NO.

WILSHIRE/VERMONT

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. Development along Wilshire includes some high-rise structures; low-rise development predominates 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, an 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..

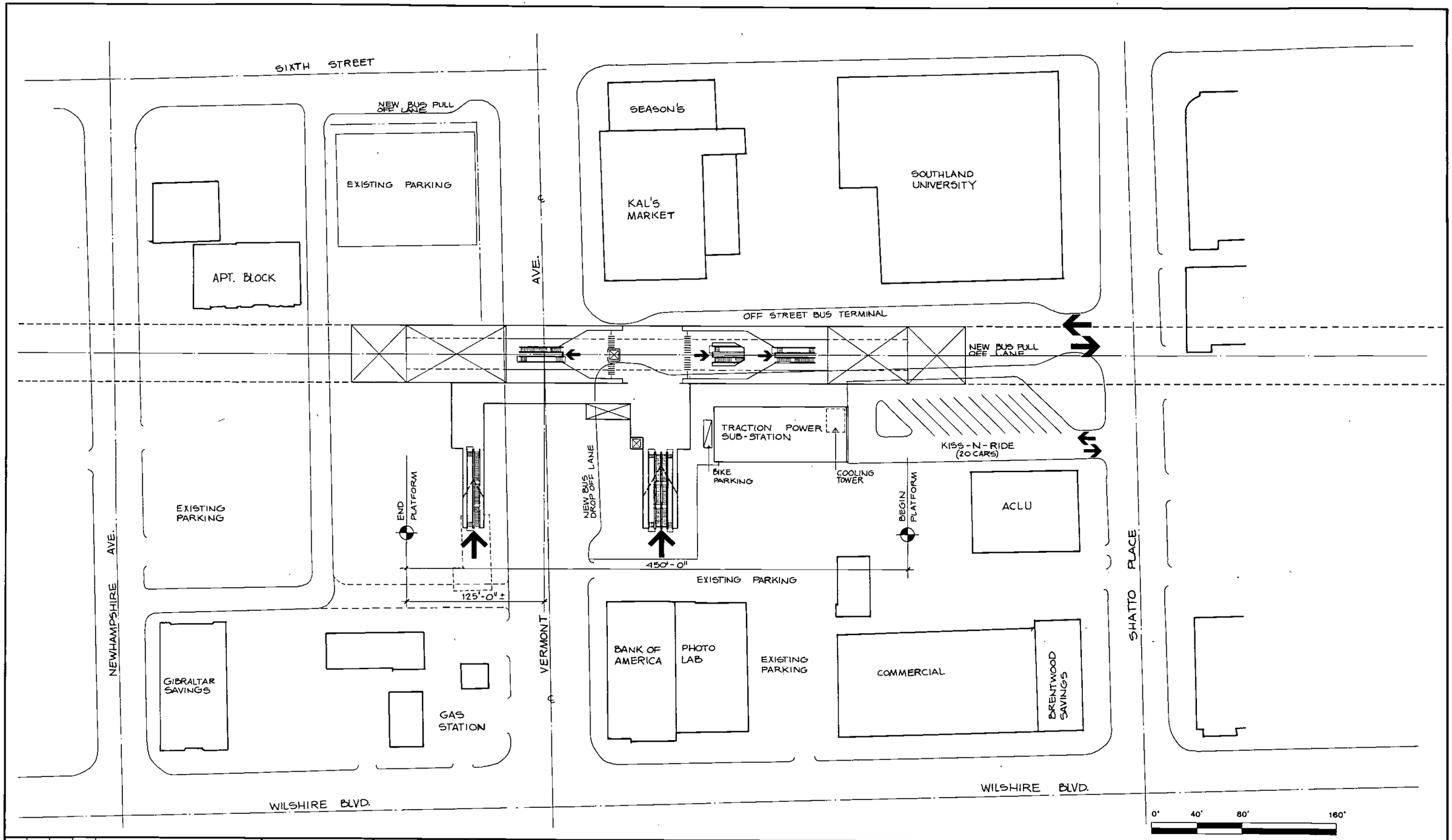
Station Site Design Parameters

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 buses continuing in service to load and unload in bus turn-out lanes located on each side of Vermont, each adjacent to a station entry. Bus bays for terminating coaches will be located off-street just north of the east station entry. Bus layover spaces (e.g. spaces where a bus can be parked until it is time to start its next run) will also be provided. 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 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 east 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 traction power substation will be located at grade adjacent to the off-street bus facility.



REV.	DATE	BY	APP.	DESCRIPTION
2	5/19/83	MRP		NEW ENTRANCE AND EXPANDED MEZZANINE
1	5/4/83	MRP		ANCILLARY ROOMS REVISED

DESIGNED BY Date

DRAWN BY M. POINDEXTER Date 5-19-83

CHECKED BY J.Wing Date 5/19/83

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 / VERMONT STATION

CONTRACT NO.

DRAWING NO.

SCALE 1"-40'-0"

SHEET NO.

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 at the request of the adjacent landowners is under consideration for vacation by the City of Los Angeles.

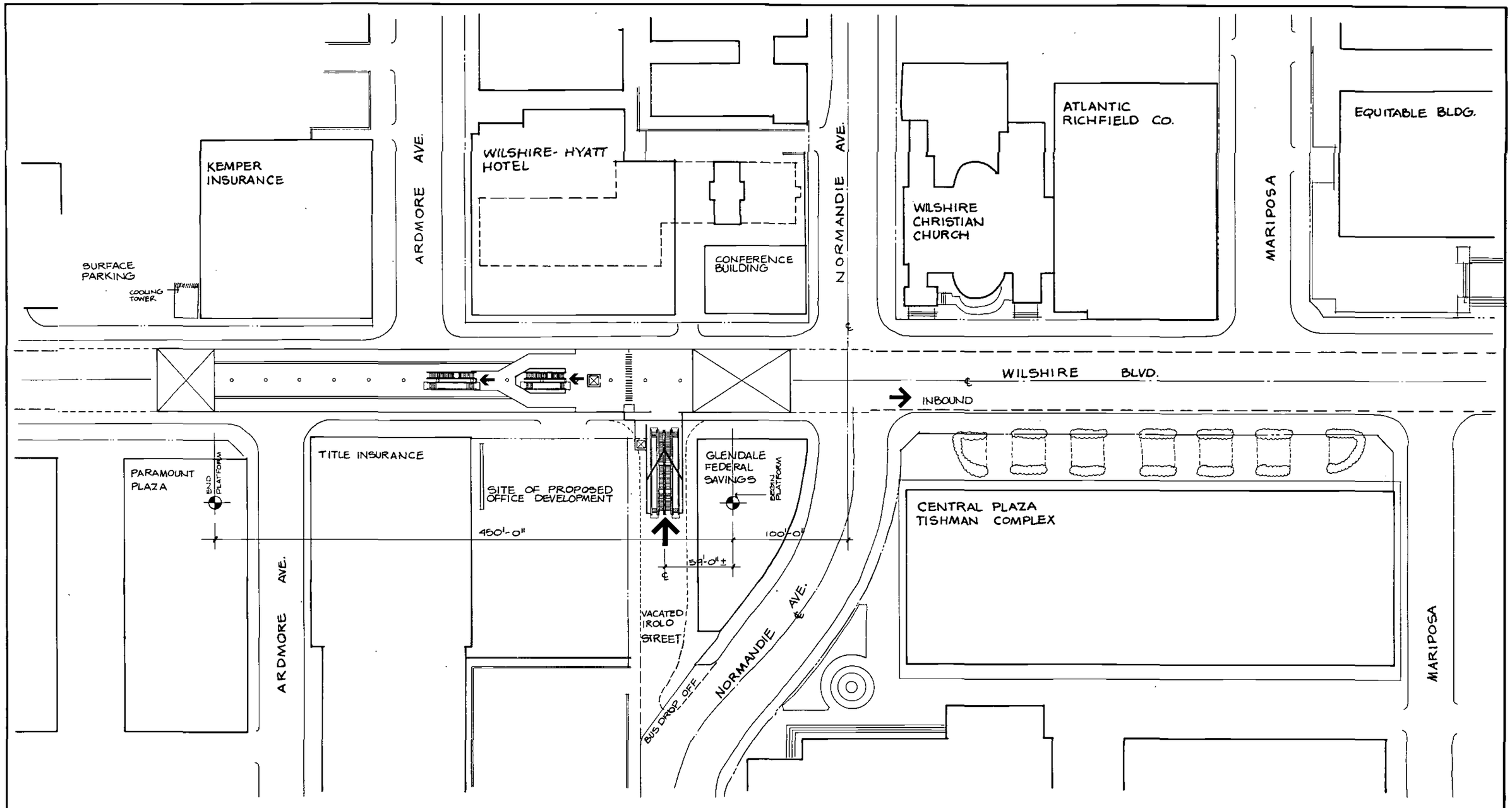
Station Site Design Parameters

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; it nevertheless remains an option for future development.

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 led to the station being designed with 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.



PRELIMINARY: FOR STUDY PURPOSES ONLY

REV.	DATE	BY	APP.	DESCRIPTION
	5-3-83			[illegible]

DESIGNED BY Date 1-18-83 DWA/GW/TAMS/TEC
DRAWN BY Date 1-18-83 M.POINDEXTER
CHECKED BY Date 1-5-83 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
RTD

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

WILSHIRE / NORMANDIE STATION

CONTRACT NO.
DRAWING NO.
SCALE 1"-40'-0"
SHEET NO.

WILSHIRE/WESTERN STATION

Background

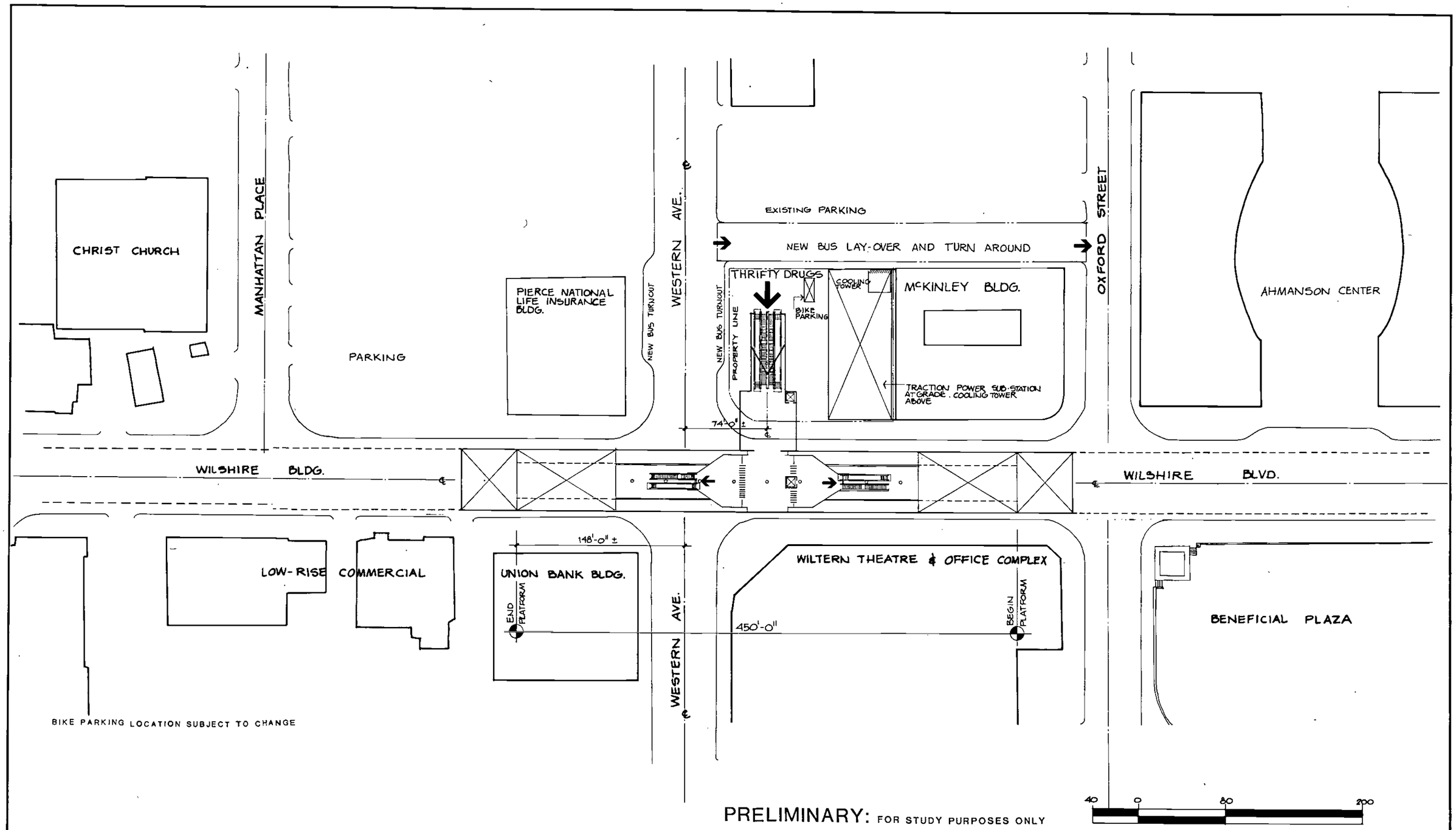
The Wilshire/Western Station will be located under Wilshire Boulevard between Western and Oxford Streets. This area is on the western edge of a high-rise segment of the Wilshire Corridor office core. The other major streets have low - to medium-rise mixed-use buildings. The remainder of the surrounding 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 McKinley Building, another historic landmark.

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 structure and was therefore selected for the single entry planned for this station. The station is expected to have a relatively high volume of bus-rail transfers 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

The station has been planned with a single mezzanine centered over the length of the platform. This configuration will permit an entry to be constructed into the Union Bank Building if needed in the future to meet patronage requirements, or if constructed by others. Ancillary space will be located at each end of the station. Because a crossover or pocket track is not located at either end of this station, the required traction power substation will be located at grade adjacent to the station entrance.



PRELIMINARY: FOR STUDY PURPOSES ONLY

REV.	DATE	BY	APP.	DESCRIPTION
1	5-3-83	[illegible]		ANCILLARY ZOOMS AND EN RANGE REVISED

DESIGNED BY HWA/GW/TAMS/TEC Date 1-18-83
DRAWN BY M. POINDEXTER Date 1-18-83
CHECKED BY J. Wiley Date [illegible]

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

CONTRACT NO.
DRAWING NO.
SCALE 1"-40'-0"
SHEET NO.

WILSHIRE/CRENSHAW STATION

Background

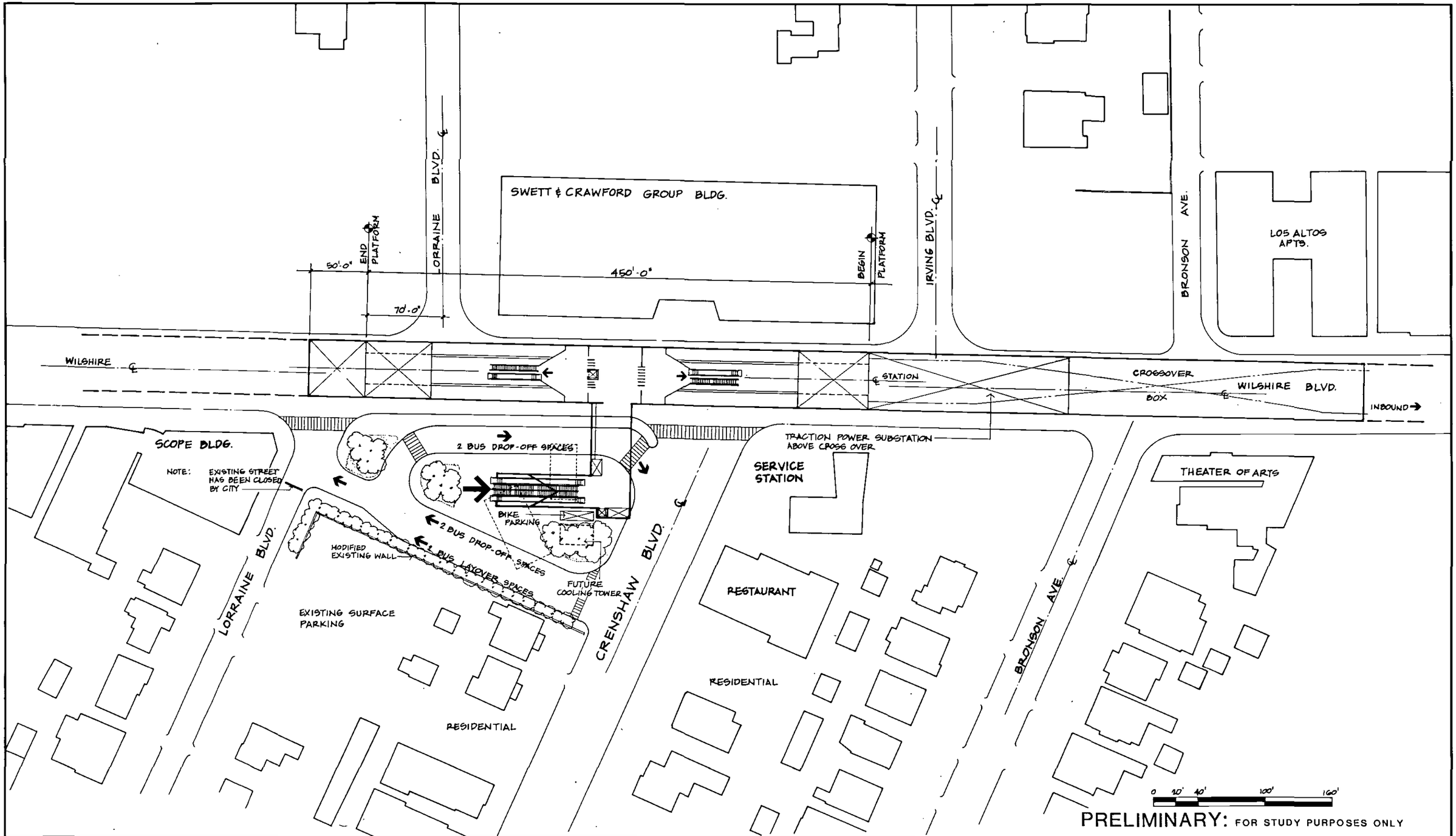
The Wilshire/Crenshaw Station will be located under Wilshire between Lorraine Boulevard and Bronson Avenue. The surrounding land use is primarily low density residential with apartments and commercial office buildings along Wilshire Boulevard in the station vicinity. Construction was initiated and halted 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 will 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. The site, through the use of raised planted berm areas, will 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 will provide access from each side of the mezzanine to the center island platform. A double crossover track will be located on the east end of the station and a traction power substation will be located over the crossover track. Station ancillary space will be provided at each end of the station.



PRELIMINARY: FOR STUDY PURPOSES ONLY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 5-26-88
HWA/EW/TAMS/TEC
DRAWN BY Date 5-26-88
K. LIM
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

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

WILSHIRE / CRENSHAW STATION

CONTRACT NO.
DRAWING NO.
SCALE 1"-40'-0"
SHEET NO.

WILSHIRE/LA BREA STATION

Background

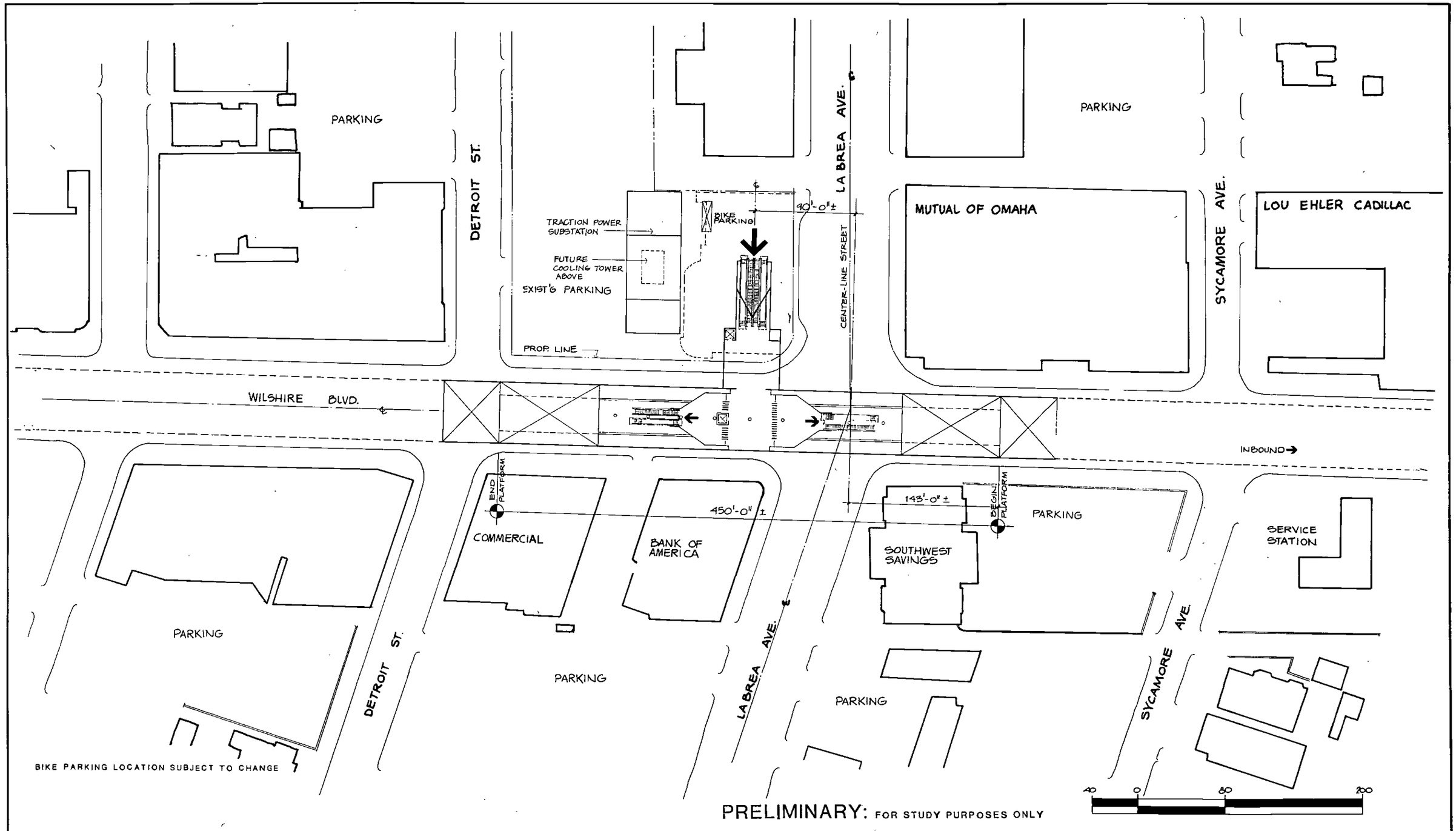
The Wilshire/La Brea Station will be located under Wilshire Boulevard between Detroit Street and Sycamore Avenue. The surrounding area along Wilshire contains mostly low-rise commercial and retail development with the exception of the medium-rise historic landmark Mutual of Omaha Building, which is located 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 underutilized 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. It will have a center platform with ancillary space provided at each end of the station. A traction power substation will be constructed at grade adjacent to the station entrance.



PRELIMINARY: FOR STUDY PURPOSES ONLY

REV.	DATE	BY	APP.	DESCRIPTION
2	8/12/83	KL		[illegible] T.P.S. RELOCATED
1	5/3/83	WRP		[illegible]

DESIGNED BY HWA/GW/TAMS/TEC Date 1-18-83
DRAWN BY M. POINDEXTER Date 1-18-83
CHECKED BY J. Wiley Date 2-9-83

METRO RAIL RTD

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

CONTRACT NO.
DRAWING NO.
SCALE 1"-40'-0"
SHEET NO.

WILSHIRE/FAIRFAX STATION

Background

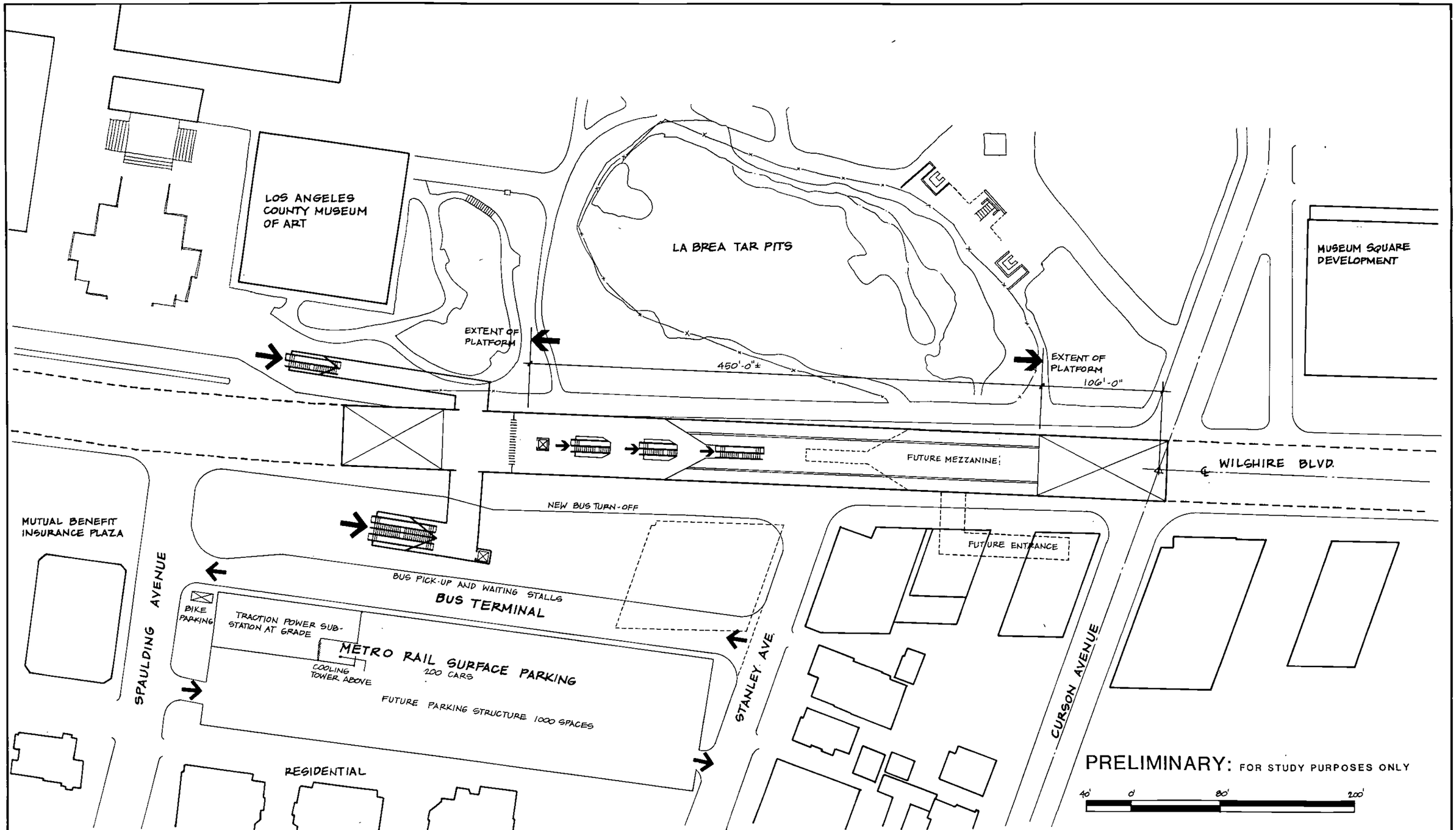
The Wilshire/Fairfax Station will be located under Wilshire Boulevard between Curson and Spaulding Avenues. The surrounding area is heavily residential but also contains major public attractions. The Los Angeles County Museum of Art, the Rancho La Brea Tar Pits and the Page Museum of Natural History 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 Ohrbach's 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 station along Wilshire Boulevard before the alignment turns north along Fairfax Avenue. As the western most station on the Wilshire Corridor, it will be a major receptor for patrons arriving by auto and bus from the south and west. Surface parking for 200 autos will be provided; the construction of a parking structure with 1,000 spaces will be considered at a future date. 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 Stanley 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. To minimize traffic conflicts and congestion the future parking facility is proposed with entry only from Spaulding Avenue and exit only onto Stanley. The bus terminal will, conversely, have entry only from Stanley 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 existing structures along Wilshire, west of Stanley.

Station Design Parameters

At the west end of the station, two entrances will be constructed leading onto a single mezzanine. The northwest entrance will be oriented to serve the County Museum of Art and pedestrian traffic from the west; the southwest entrance will serve the bus terminal and pedestrian traffic from the south and west. At the east end of the station, another mezzanine will be constructed but will be left unfinished to permit additional entrances to be constructed at a future time. Ancillary space will be provided at each end of the station, and a traction power substation will be located at ground level in the area designated for parking.



REV.	DATE	BY	APP.	DESCRIPTION
1	5/9/82	MRP		ANCILLARY ROOMS REVISED

DESIGNED BY HWA/GW/TAMS/TEC Date ____
DRAWN BY K. LIM Date ____
CHECKED BY J Wiles Date 5/4/82

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 / FAIRFAX STATION

CONTRACT NO.
DRAWING NO.
SCALE 1"-40'-0"
SHEET NO.

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 a surface parking lot 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

The station is planned with two entrances, each parallel to Fairfax, one oriented to Beverly and the other to the south. A bus turnout lane is proposed on the southside of Beverly 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 two entries planned for this station will provide access to a mezzanine centered over the length of the platform. Access from mezzanine to platform will be by stairs, escalators or an elevator. 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.

CBS TELEVISION CITY

FARMER'S MARKET

METRO RAIL SURFACE PARKING (250 SPACES)

FUTURE PARKING STRUCTURE (1000 SPACES)

BUS DROP LANE

SURFACE PARKING

SURFACE PARKING

GREAT WESTERN SAVINGS

BIKE PARKING

COOLING TOWER

TRACTION POWER SUB-STATION ABOVE CROSS OVER

CROSS OVER

PROP. LINE

96'-9" ±

150'-0" ±

FAIRFAX AVE.

END PLATFORM

450'-0"

BEGIN PLATFORM

FAIRFAX AVE.

MOVIE HOUSE

BEVERLY

GAS STATION

CROCKER BANK

PARKING

SAVINGS

DAUGHTER MOTEL

BIKE PARKING LOCATION SUBJECT TO CHANGE

40 0 80 200

PRELIMINARY: FOR STUDY PURPOSES ONLY

REV.	DATE	BY	APP.	DESCRIPTION
1	5-3-83			ANCILLARY ROOMS REVISED

DESIGNED BY Date 1-18-83 HWA/GW/TA115/TSC

DRAWN BY Date 1-18-83 M. POINDEXTER

CHECKED BY Date 2-2-83 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
RTD

APPROVAL RECOMMENDED Date ____ Reg. No. ____

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

FAIRFAX / BEVERLY STATION

CONTRACT NO.

DRAWING NO.

SCALE 1"-40'-0"

SHEET NO.

FAIRFAX/SANTA MONICA STATION

Background

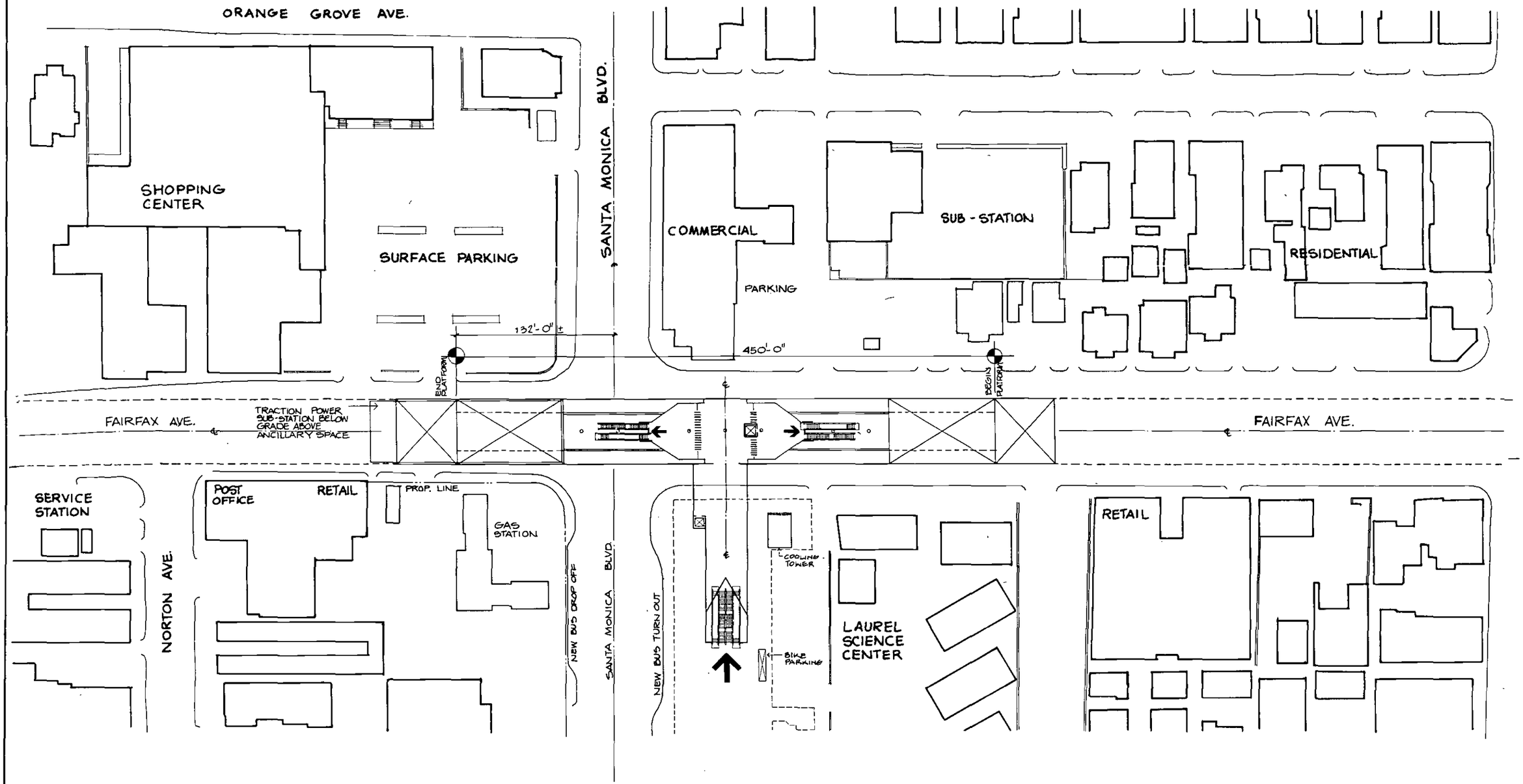
The Fairfax/Santa Monica Station will be located under Fairfax Avenue between Romaine and Norton Streets. Land use along the major streets in this station area is primarily low-rise, storefront retail and small neighborhood shopping centers. There are many vacant lots and parking lots interspersed with 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. The single entry to this station will be located on the southwest corner of the intersection of Fairfax and Santa Monica. Bus turnout lanes are proposed for the north and south sides of Santa Monica adjacent to the station entry. Locating the entry on this corner will require the demolition of an existing commercial building. However, the corner will have a great development potential after the entry is in place.

Station Design Parameters

A single mezzanine will provide sufficient space to meet the projected moderate patronage demand but still permit the later construction of additional station entries 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. A traction power substation will be located in the station structure.



BIKE PARKING LOCATION SUBJECT TO CHANGE

PRELIMINARY: FOR STUDY PURPOSES ONLY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 1-18-83 HWA/GW/AVS/TEC
DRAWN BY Date 1-18-83 M. POINDEXTER
CHECKED BY Date 1-19-83 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
RTD

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

FAIRFAX / SANTA MONICA STATION

CONTRACT NO.
DRAWING NO.
SCALE 1"-40'-0"
SHEET NO.

LA BREA/SUNSET STATION

Background

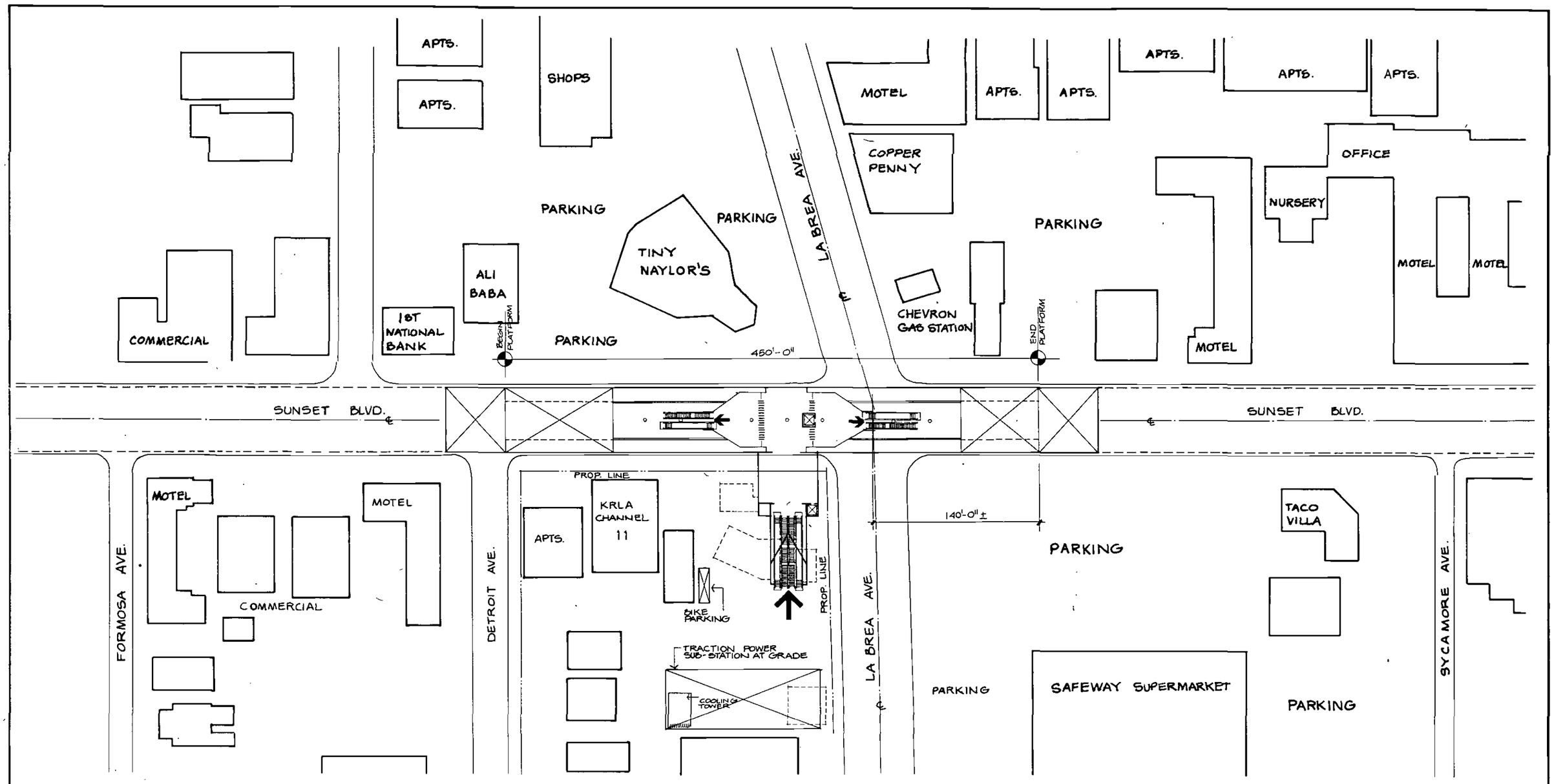
The La Brea/Sunset Station will be located under Sunset Boulevard between Formosa and La Brea Avenues. The station area is characterized by mixed-use development. The major streets, Sunset and La Brea, have low-rise commercial facilities. The areas behind the major streets are primarily single-family 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. The station will have a center platform with ancillary space provided at each end of the station. The required traction power substation will be located at grade immediately to the south of the station entrance.



BIKE PARKING LOCATION SUBJECT TO CHANGE

PRELIMINARY: FOR STUDY PURPOSES ONLY

40 0 80 200

REV.	DATE	BY	APP.	DESCRIPTION
1	5-3-83	[illegible]		ANCILLARY [illegible] REVISED

DESIGNED BY HWA/GW/TAMS/TEC Date 1-18-83
DRAWN BY M. POINDEXTER Date 1-18-83
CHECKED BY J. Wiley Date 2-8-83

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

CONTRACT NO.
DRAWING NO.
SCALE 1"-40'-0"
SHEET NO.

HOLLYWOOD/CAHUENGA STATION

Background

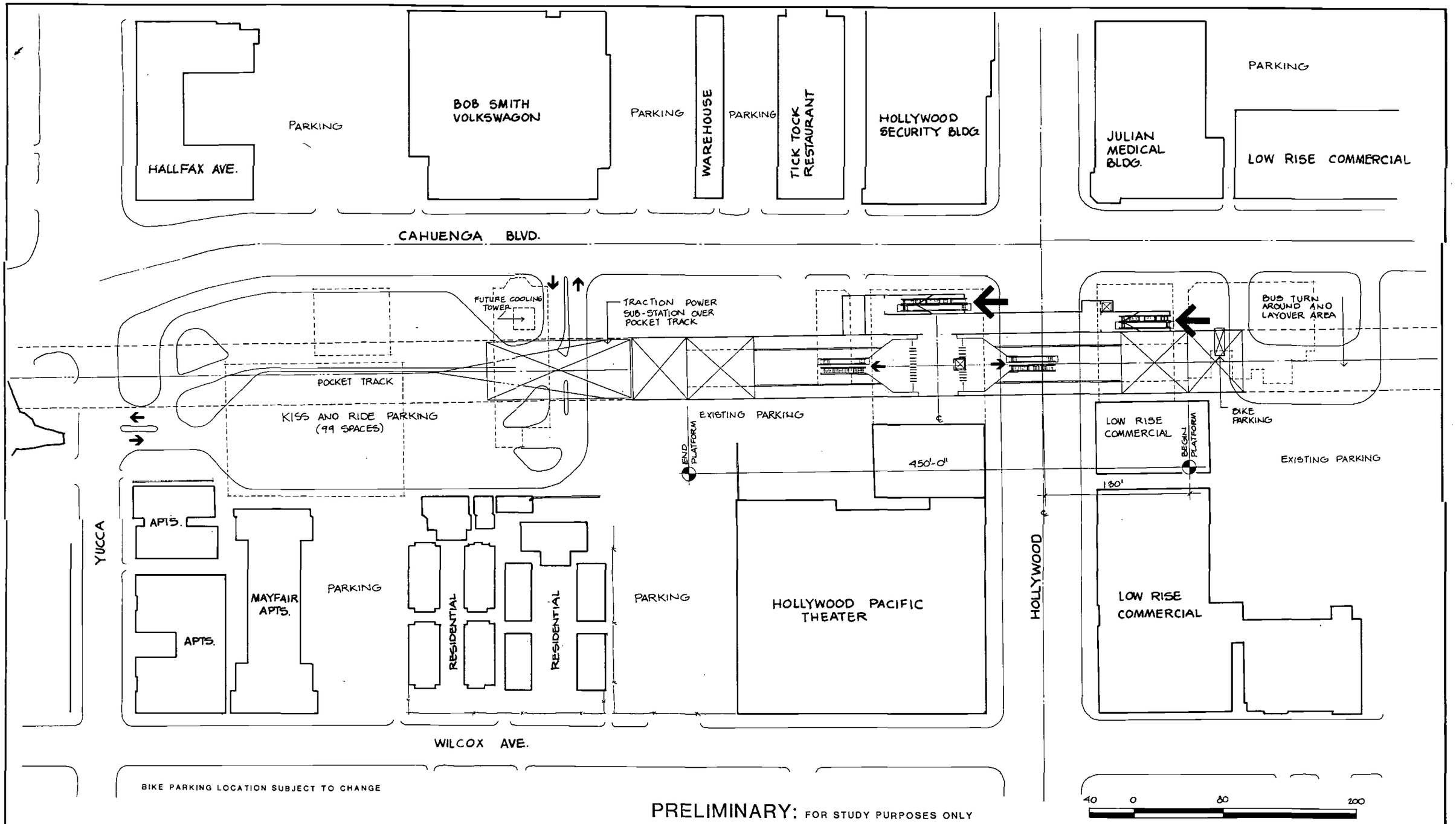
The Hollywood/Cahuenga Station will be located off-street running north-south along the west side of Cahuenga Boulevard from a point just south of Hollywood Bouelvard up to Yucca Street. The station area is in the commercial center of Hollywood. The development along Hollywood Boulevard is low and medium 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 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 end of the station is planned for use as a bus turnaround and layover area. This area will 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. The portion of the area adjacent to a station entry, will upon completion of station construction, be available for new development. A 99-space kiss-and-ride facility will be located at the southwest corner of Cahuenga Boulevard and Yucca Streets. The off-street station location will reduce traffic impacts normally caused by construction activities.

Station Design Parameters

The station, which has moderate patronage projections, is planned with a single mezzanine 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.



PRELIMINARY: FOR STUDY PURPOSES ONLY

REV.	DATE	BY	APP.	DESCRIPTION
1	5/4/93	MP		ENTRANCES AND AUXILIARY ITEMS

DESIGNED BY Date 1-19-93 H.WILLIAMS, EC
DRAWN BY Date 1-18-93 M. POINDEXTER
CHECKED BY Date 1-19-93 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.

HOLLYWOOD / CAHUENGA STATION

CONTRACT NO.
DRAWING NO.
SCALE 1"-40'-0"
SHEET NO.

HOLLYWOOD BOWL STATION

Background

The Hollywood Bowl - an open-air amphitheater - is a major entertainment center attracting large audiences for performances presented over an eleven week season. During the 1982 season there were 77 shows with a total attendance of 715,000. The Ford Theater, a sister facility to the Hollywood Bowl, is located on the east side of the Hollywood Freeway. Attendance at Ford Theater performances totaled 52,000 in 1982.

The area to the North of the Hollywood Bowl is Los Angeles County park land uses. The surrounding developed areas are a mix of low and medium density residential land uses.

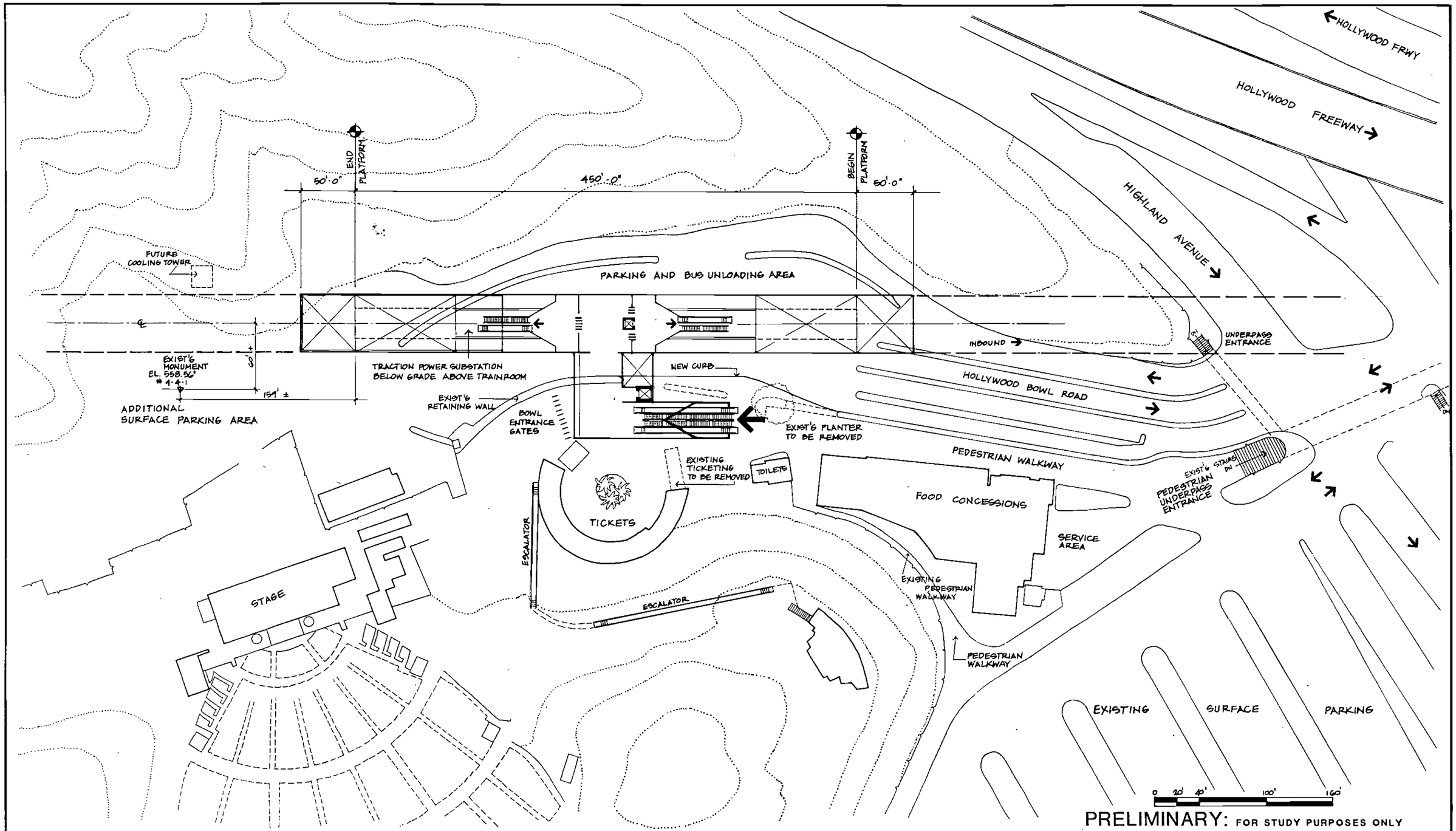
Station Site Design Parameters

Patronage for the station is expected to be the lowest on the system. However, the peak-hour patronage during Bowl events will be quite high. Since it would be very expensive to provide space below ground to hold crowds, it is planned that after performances admission into the at-grade station entrance will be manually metered to prevent overload of the mezzanine and platform. For the convenience of the transit patrons the station entrance is located close to the entrance to the Bowl, adjacent to the ticket offices. The entrance has been oriented to have the least conflict with the pedestrian flow of the non-user.

Since the provision of transit-related park-and-ride, kiss-and-ride and bus facilities would conflict with the use of the area for Bowl activities, none are provided.

Station Design Parameters

The station has been designed with a single mezzanine centered on the length of the station. Passengers can access the station platform from either end of the mezzanine, which both maximizes the passenger-handling capacity of the mezzanine and promotes a more even distribution of passengers along the platform. There will be two escalators and two stairs from entry to mezzanine and from mezzanine to platform. Ancillary space will be provided at each end of the station and a traction power substation will be located below-grade over the ancillary space on the outbound end of the station.



PRELIMINARY: FOR STUDY PURPOSES ONLY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 5-26-83
HWA/GW/TAMS/TEC

DRAWN BY Date 5-26-83
K. LIM

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

APPROVAL RECOMMENDED
Reg. No. ____

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

HOLLYWOOD BOWL STATION

CONTRACT NO.
DRAWING NO.
SCALE 1"-40'-0"
SHEET NO.

UNIVERSAL CITY STATION

Background

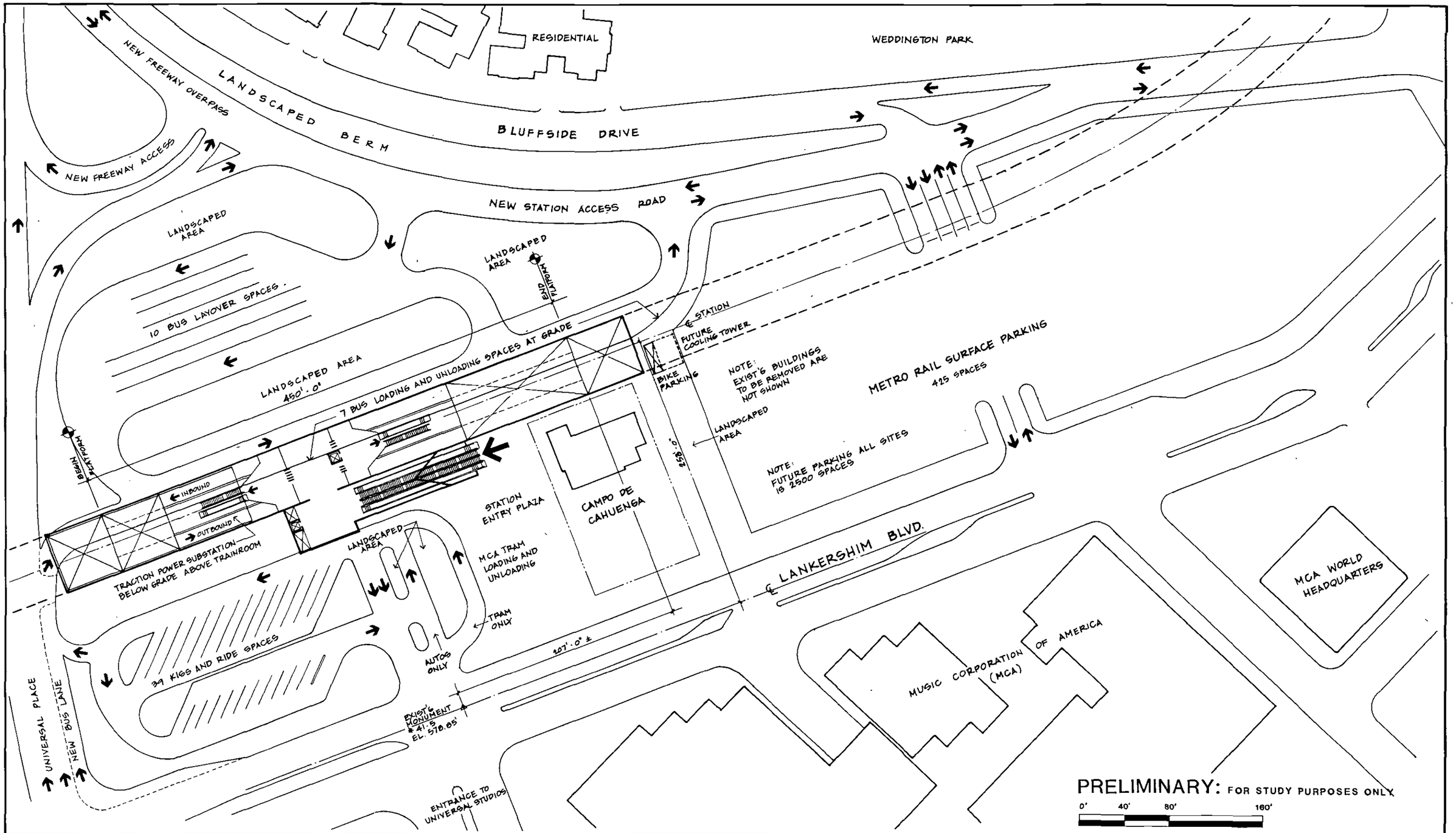
The Universal City Station will be located off-street in an area bounded by Lankershim Boulevard on the east, Universal Place on the south, and Bluffside Drive on the west and north. MCA Headquarters and Universal Studios are located immediately to the east. Areas to the west are either residential or parkland. Within the station site boundaries is located the Campo de Cahuenga--a historical 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 26 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 will be provided initially. Additionally, there will be a 40 space kiss-and-ride area and a bus terminal with boarding locations for 8 bus lines and layover capacity for 10 buses. Vehicular access to the site will be improved 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 roadway and overpasses. The existing RTD park-and-ride lot west of the Hollywood Freeway and the site between the new access road and Ventura Boulevard will be used to provide 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 provide the proper setting for the Campo de Cahuenga. All other structures in the station 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

The single entrance planned for this station will serve both the bus terminal and the parking area. The entrance 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.



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 6/3/83
HWA/TAMS/TEC/GWA

DRAWN BY Date 6/3/83
K. LIM

CHECKED BY Date

METRO RAIL RTD

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

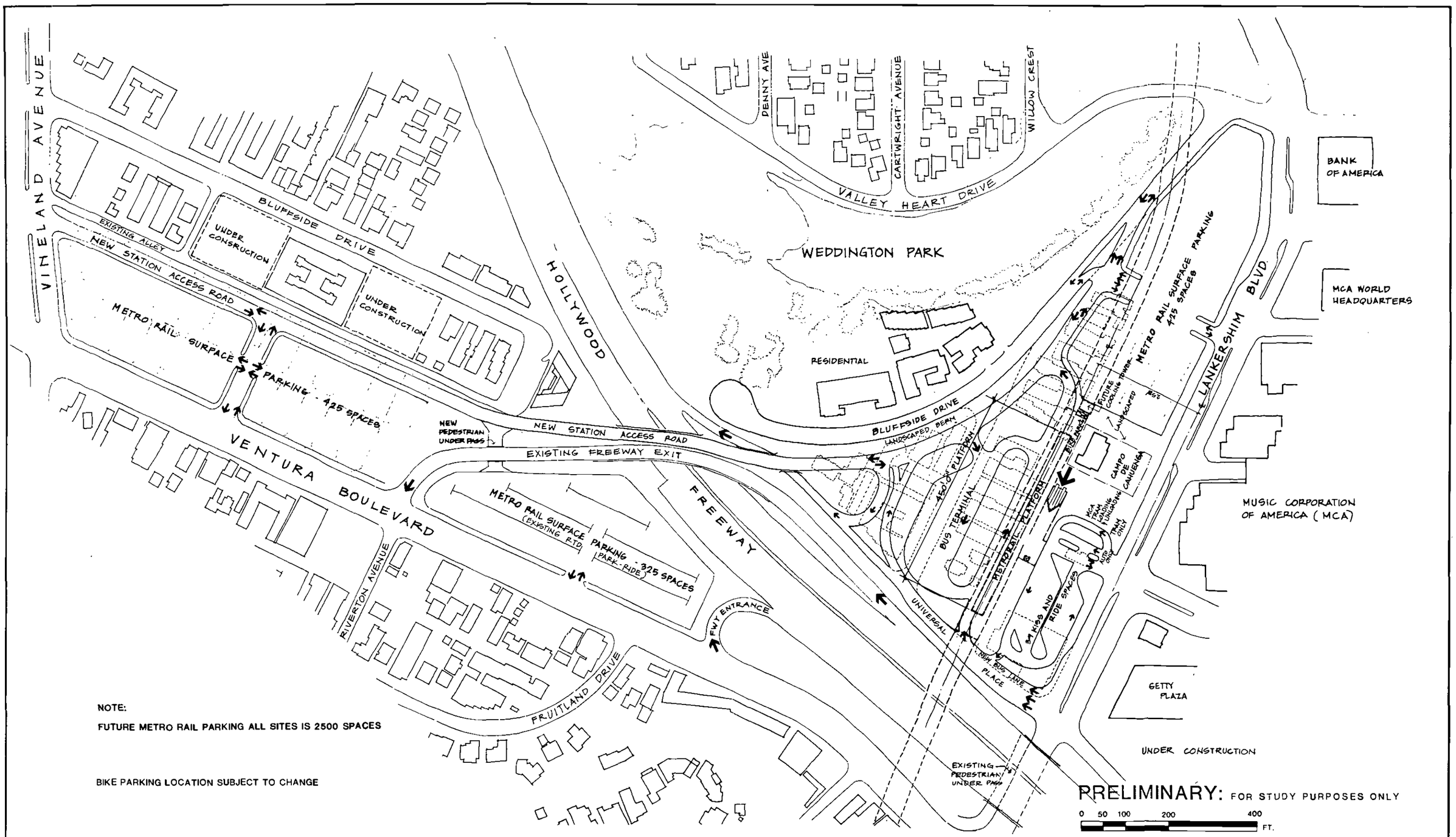
APPROVAL RECOMMENDED
Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

UNIVERSAL CITY STATION
STATION ENTRY SITE PLAN

CONTRACT NO.
DRAWING NO.
SCALE 1"-40'-0"
SHEET NO.

BRUNING 44 137



NOTE:

FUTURE METRO RAIL PARKING ALL SITES IS 2500 SPACES

BIKE PARKING LOCATION SUBJECT TO CHANGE

PRELIMINARY: FOR STUDY PURPOSES ONLY

0 50 100 200 400 FT.

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 6/5/83 HWA/TAMS/TEC/GWA.

DRAWN BY Date 6/5/83 K. LIM

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

APPROVAL RECOMMENDED Reg. No.

APPROVED Date

MANAGER / CHIEF ENGINEER Reg. No.

UNIVERSAL CITY STATION
VICINITY PLAN

CONTRACT NO.

DRAWING NO.

SCALE 1"= 100'-0"

SHEET NO.

NORTH HOLLYWOOD STATION

Background

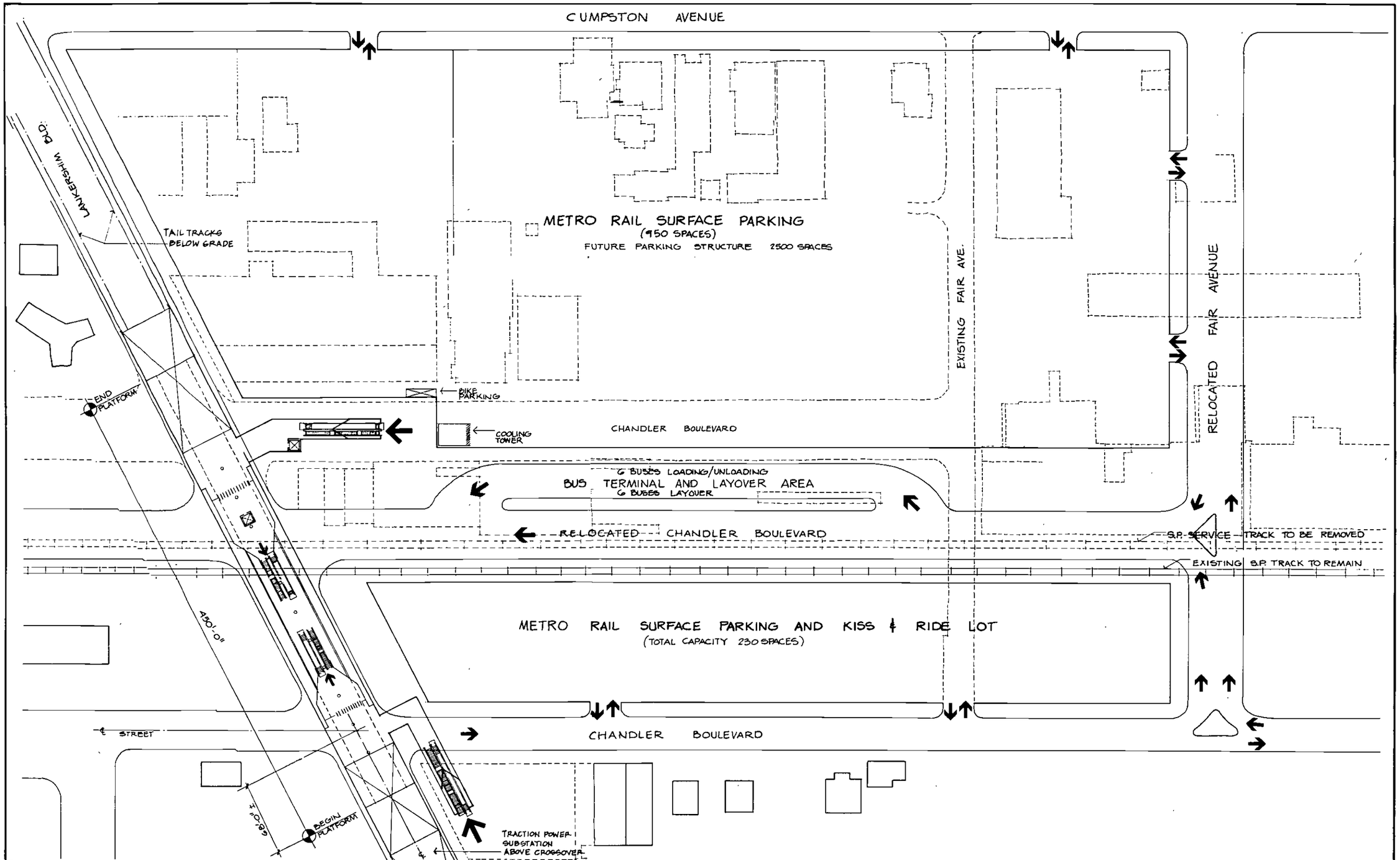
The North Hollywood Station will be located under Lankershim Boulevard spanning Chandler Boulevard. The area around the station has many different land uses. The Burbank Line of the Southern Pacific Railroad runs within the wide median divider of Chandler Boulevard. Auto dealerships are located along 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 plan for the station site includes surface parking for 1,180 autos, with possible future construction of a 2,500 space parking structure. The main parking site will be bounded by Fair and Cumpston Avenues and Lankershim and Chandler Boulevards. To accommodate this parking area, Fair Avenue will be relocated to the east, and the North Chandler right-of-way will be relocated to the south. A bus terminal facility, including a layover area, will be located on the north side of the relocated North Chandler Boulvard. A 65-space kiss-and-ride facility will be located in the median between the Southern Pacific tracks and the South Chandler right-of-way. To serve both the redevelopment area and the surface parking area, the station has been planned with two entrances and two mezzanines. The future parking structure will be set back to permit commercial/retail development along Lankershim.

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 two tail tracks at the north end. The station tail tracks, and crossover track areas will all be constructed by the cut-and-cover method and a traction power sub-station will be located over the crossover track.



REV.	DATE	BY	APP.	DESCRIPTION
2	5/31/83	HH		ONE WAY AUTOMOBILE CIRCULATION
1	5/3/83	[illegible]		[illegible] ROOMS AND ENTRANCES REVISED

DESIGNED BY Date 4-26-83
DRAWN BY M. POINDEXTER Date 4-26-83
CHECKED BY Date 5/3/83

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

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

CHAPTER II
STATION DESIGN & ARCHITECTURE

STATION DESIGN AND ARCHITECTURE

Station Design

The overall design of each station provides a site-specific approach to the basic disposition of all functional elements such as mezzanines, platforms, and ancillary rooms. The basic architectural framework is established by providing for a single column structural shell and a ceiling-mounted low velocity air distribution duct running down the length of the trainroom. In addition, all stairs, escalators, and elevators are 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.

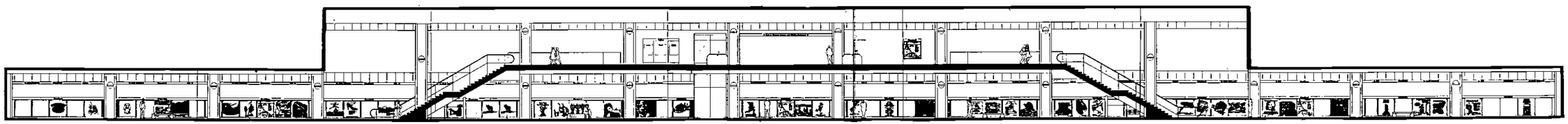
Materials and finishes for each station will be determined in the next stage of design following Preliminary Engineering, from a palette of choices chosen to assure high durability and straightforward maintenance within a pre-established budget. Signing will be unified throughout the stations with regard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

Station Entrances

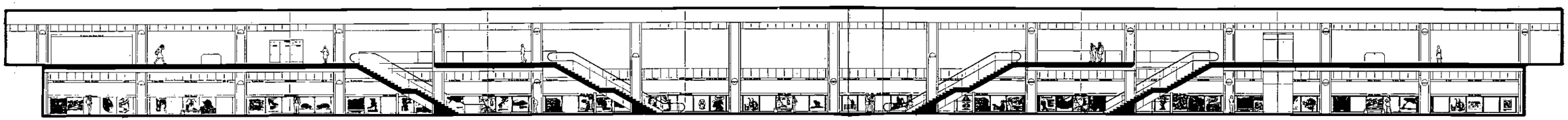
Plaza - type entrances and entrances within existing or planned developments are preferred; these "off-street" entrances have been planned to relate to business and urban activities in addition to serving their transit function. "On-street" entrances with stairs, escalators and elevators leading directly 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. Particular attention was given to rail--bus interface and pedestrian flows. Future development plans in each station area have been noted and the potential for joint development 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 or near the Central Business District stations. 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 led to planning for an entrance on each side.



Center Mezzanine Station



Double Er Mezzanine Station

TRAINR M ELEVATIONS

be spread far apart. Ticket vending machines, fare gates, addfare machines and telephones are all located on the mezzanines. Elevators for the handicapped, escalators, and stairs provide access to the platforms. Typically the ancillary space is beyond the station platforms both at platform level and at mezzanine level. The overall size of the station box in a two-end mezzanine station is larger than that of the center mezzanine station.

- 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 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 locating these rooms while at the same time keeping unusable space to a minimum.

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.

Station Architecture

The program objective has been to provide latitude for Section Designers to create an image which is unique to a particular station, within a framework optimizing transportation functions and minimizing cost and schedule impacts. The expectation is that each station design will respond to neighborhood characteristics, culture, and adjacent architecture. At the same time, certain "Elements of Continuity" have been established where systemwide transportation functions must be maintained and substantial cost savings can be achieved either in initial capital expenditures or later in lower maintenance cost or less frequent repairs, and where design and construction schedules are affected.

A. Elements of Continuity

The station elements listed on Table 1 have been developed as standards or directives to the Section Designers in order to achieve the above objectives and to assure the District of an optimized physical plant in terms of design, construction, operations, and maintenance costs.

Many of these elements leave open the question of specific materials, textures and site-specific locations of selected components in order to provide an opportunity for the Section Designers to utilize their creative talents to establish a visual environment which is suitable to a particular station.

In every case, establishing a standard has as its primary basis a commonality of function so that the patron has a consistent pattern of circulation and use with regard to all major processing elements within the station and which permits the District to have a common or unified program with regard to operations and maintenance.

B. Elements of Variability

The variable elements, as listed in Table 2, will provide considerable latitude for creativity and individuality in the architectural design of the stations. While most materials (textures, colors and finishes) must be selected from a controlled palette to assure durability and commonality with regard to long term operations and routine maintenance, the range of choices will be extensive. All of the above-ground components (entry portals, elevator housings, plazas, landscaping, lighting) are Elements of Variability. Certain limited functional boundaries have been established with regard to entry location and orientation. However, the section designer/architect will have the latitude to be fully responsive to existing and future land use, and the ethnic, cultural and social fabric of the neighborhood within predetermined construction budgets. Elements within the station interior such as railings, benches, advertising, artwork and all finish materials will provide opportunities for creating visual environments unique to a particular station while preserving functional integrity.

TABLE II-1

ELEMENTS OF CONTINUITY

ELEMENTS	DESCRIPTION
Platform Configuration	All platforms will be central island type; 28 or 32 feet wide depending on patronage; 450 feet long (6 car lengths).
Mezzanine Configuration	Mezzanine will be center, or double end configuration based on patronage and function requirements. Mezzanines will house all fare vending and fare collection equipment, telephones, maps and vertical circulation devices. Common distances and relationships between major processing functions and escalators, stairs and elevators have been established to assure adequate queuing distances for all patrons, avoid provision of excessive space, provide clarity of movement and maintain visual surveillance.
All Non-Public Operational Facilities	Room dimensions, equipment layouts. Facilities relationships between functions and materials/finishes have been standardized to assure optimized operation and maintenance of all support systems and accommodate equipment and devices which are common to the entire system.
Basic Structural Framing System	The structural framing system will consist of a longitudinal beam with a single row of columns on 30 foot centers and flat slabs for the station roof and mezzanine. Sizing of structural members will vary to accommodate site specific loads and soil conditions. Methane gas likely to be encountered within the Starter System precludes the use of coffers, transverse beams or other more complicated configurations. Column and beam shapes can vary depending on the overall architectural context of the station as determined by the Section Designer.
Air Handling System	The air-handling system will consist of continuous linear diffuser units running the entire length of the train room at both the platform and mezzanine levels providing all air supply to the public spaces and the smoke exhaust system. The units will also house platform lighting, the public address system, and signing/graphics.
Stairs, Escalators and Elevators	Escalators and elevator cabs are standardized to reduce procurement costs and to assure cost effective operation and maintenance. Equipment will be purchased on a system-wide basis with length of runs varying depending on station depth. Stair riser and tread relationships are fixed to assure safety of patron movement for normal as well as emergency use. Exterior elevator housing configurations can vary.
Signage and Related Graphics	Messages, type face and locations of signs and station identification pylon are all uniform to assure legibility and clarity of messages for efficient functioning of the overall station as well as economical purchase of the signs and their long term maintenance.
Transit - Related Specialty Equipment	All communications, train control, closed circuit TV, and fare collection equipment will be purchased on a system-wide basis to minimize capital costs and assure uniform operation and maintenance.
Platform Edge	A standard granite edge strip (texture, color and dimensions) to assure complete safety for normal as well as handicapped users has been specified.
Lighting Fixtures	Lighting fixtures and housings are standardized to minimize capital costs and assure a uniform maintenance program with regard to light source and spare parts. Lighting levels have been established for specific tasks. Placement of selected fixtures may vary to be compatible with architectural character.
Concession Vending Machines	If provided, standard configuration and materials will be specified to assure uniform stocking of repair parts and maintenance. Logos and messages may vary depending on type of products.
Doors, Gates and Hardware	Doors, gates and hardware have been standardized to permit large quantity purchase, uniform operations, security and maintenance.

TABLE II-2

ELEMENTS OF VARIABILITY

ELEMENT	DESCRIPTION
Site Development (Entry Portals, Elevator Housing, Plazas, Landscaping, Lighting, Off-Street Bus and Parking)	All architectural design aspects of the site are discretionary within predetermined locations for the entry portals and elevator from surface to passageway/mezzanine. Site design with regard to landscaping, paving and lighting may vary within a palette of materials and a predetermined budget for construction. Relationship to existing buildings, future joint developments as well as neighborhood, ethic and cultural characteristics should all be taken into consideration by the Section Designer for the design of the site.
Entry Configuration	The shape of the entry portal(s) as well as materials, textures and finishes (within a palette) are to be determined by the Section Designer.
Public Space Finish Materials	Station finishes may vary within a palette of materials to assure a high durability and common maintenance policy among the stations with regard to cleaning materials and equipment. A wide range of choices are available for material types, textures and colors as well as patterns on floors, walls, and ceilings.
Connections to Private Development	All mezzanines have provisions for knock-out panels in their side walls to permit future non RTD-funded passageway connections to existing or future developments. Design of the connections is only constrained by constructability and cost.
Lighting Fixture Locations	The location of light fixtures in the passageways and mezzanine ceilings can vary depending on the functional tasks as well as overall desired architectural character. Lighting levels are controlled by design criteria to avoid excessive or inadequate lighting of spaces within the stations.
Railings	All railings in public areas around mezzanines and adjacent to public stairs can vary in configuration and pattern within limits established by safety and handicapped codes.
Station Furniture	Benches can vary in configuration and materials (within a palette to minimize vandalism). Bench locations on platforms are controlled to avoid impacting functional requirements.
Artwork Programs	Original works of art will be commissioned by an Arts Council for each station. The artwork shall be located to avoid adversely impacting station functions. Artwork mediums are to be determined to assure longevity with regard to materials and to minimize vandalism and maintenance costs.
Advertising	Advertising within prescribed locations and housings in conjunction with station signing/graphics will provide opportunities for great diversity with regard to color and subject matter.

CHAPTER III
STATION EXITING REQUIREMENTS

A. NORMAL EXITING REQUIREMENTS

To adequately address the necessity of moving patrons through stations under normal day-to-day operations, vertical circulation elements were evaluated.

This section presents an analysis of the capabilities of vertical circulation elements planned for the SCRTD Metro Rail stations to accommodate projected peak period demand under 'normal' conditions. This investigation is concerned with whether capacity of planned stairs and escalators on the station platforms meets the required demand to serve peak period entering and detraining passengers. The "normal" station exiting requirements are discussed as follows.

- Theory and Assumptions
- Application of the Assumptions to Metro Rail Stations.

Theory and Assumptions

This analysis tests capacity of planned vertical circulation elements for two conditions: the first is the year 2000 (base year) peak 15 minute demand for both AM and PM peaks; the second is a '1.6 design contingency' (based on the year 2000 peak 15 minute demand levels multiplied by a factor of 1.6). For the year 2000, scheduled headways are assumed to be 3-1/2 minutes. For the 1.6 contingency, scheduled headways are assumed to be 2 minutes. The demand is based on patronage data shown in Table III-1. These peak hour volumes are contained in an SCRTD Planning Department memo dated 3/14/83.

Capacity assumptions for vertical circulation elements in this analysis are as follows:

- Escalator capacity is assumed to be 100 persons per minute per escalator.
- Stair capacity is assumed to be 66 persons per minute per device.
- All escalators have widths of 2 exit lanes per device.
- All planned stairs have widths of 3 exit lanes per device. Exit lanes have a standard 22 inch width.

For this analysis the normal exiting requirements for the simultaneous unloading of inbound and outbound trains is assumed. Of primary concern is the capacity of escalators needed to serve this detraining load during the peak 15 minute period.

Escalators should be capable of accommodating all detraining passengers so that the platform is cleared before the next simultaneous arrival of inbound and outbound trains. In the year 2000, with a 3-1/2 minute headway schedule, escalators should be capable of removing all detraining passengers within 2-1/2 minutes, or within 3/4 of a headway interval. For the 1.6 contingency and a 2 minute headway schedule, escalators should remove detraining passengers in 1-1/2 minutes.

Stair capacity should be sufficient to serve a continuous flow of boarding passengers during the peak 15 minutes. For the year 2000, stair capacity during a 3-1/2 minute period was tested against the demand. The 1.6 contingency stair capacity during a 2 minute period was also compared with the demand.

The demand was determined by first identifying the 'worst case' passenger volume for each station. Passenger detraining loads were compared for each station during the AM and PM peaks, and the higher volume peak was used as 'worst case'. The boarding volume forecast for the 15 minute peak that was designated as 'worst case', in terms of detraining volumes, was then identified for each station.

For the year 2000, station peak design load for detraining was determined by multiplying year 2000, peak 15 minute 'worst case' detraining volumes by a factor of 0.25, which represents the compliment of detraining passengers expected within scheduled headways of 3-1/2 minutes (3-1/2 minutes / 15 minutes = 0.25). For the year 2000, station peak design load for boarding was determined by multiplying peak 15 minute boarding by the same factor of 0.25.

The 1.6 contingency peak detraining and boarding design loads were determined by multiplying peak 15 minute 'worst case' volumes by a factor of 1/7. This factor is a conservative approximation of 2 minutes divided by 15 minutes.

Application to Metro Rail Stations

Table III-2 presents the number of vertical circulation elements provided for each station, and compares year 2000 peak design load with device capacity. At all stations, device capacity is sufficient to accommodate patron demand.

Table III-3 presents the same information for the 1.6 contingency. With the 1.6 contingency, all stations are shown to have device capacity in excess of demand except for Wilshire/Vermont. Escalators at (Wilshire/Vermont would remove 1.6 contingency peak design load detraining passengers from the platform before the next scheduled train, but not within the desired 90 seconds.) Subsequent refinements to the patronage forecasts indicates larger peak hour passenger volumes at Wilshire/Vermont, and the number of vertical elements has been increased to three stairs and three escalators. The increase also applies to the Wilshire/Alvarado Station.

At Wilshire/Vermont, stair usage under the 1.6 contingency condition would be 12 to 13 passengers per minute per foot exit width. This level of pedestrian flow corresponds to Level of Service D, which is "consistent with the more crowded public buildings and transportation terminals, subjected to relatively severe peak demands." (Fruin, Pedestrian Planning and Design, p. 82.).

TABLE III-1

YEAR 2000 PEAK HOUR PATRONAGE PROJECTIONS
SCRTD METRO RAIL PROJECT
3/14/83

STATION	AM PEAK HOUR PATRONAGE	PM PEAK HOUR PATRONAGE
Union Station	6555	8469
Civic Center	6600	7618
5th/Hill	9855	12207
7th/Flower	6186	8632
Wilshire/Alvarado	5049	5418
Wilshire/Vermont	5291	7101
Wilshire/Normandie	3076	3137
Wilshire/Western	4451	4880
Wilshire/Crenshaw	3465	3478
Wilshire/La Brea	1761	1609
Wilshire/Fairfax	6578	7916
Fairfax/Beverly	2620	2774
Fairfax/Santa Monica	3530	3012
Sunset/La Brea	2039	1709
Hollywood/Cahuenga	3359	3598
Universal City	4431	5051
North Hollywood	5058	2958

TABLE III-2

NORMAL EXITING
PATRONAGE AND VERTICAL DEVICE CAPACITY
3-1/2 Min. Headway

STATION	PATRONAGE PEAK HOUR 'WORST CASE'		VERTICAL CIRCULATION ELEMENTS		PEAK DESIGN LOAD 3-1/2 MIN HEADWAY YEAR 2000			STAIR CAPACITY 3-1/2 MIN	ESCALATOR CAPACITY 2-1/2 MIN
	2000	2020	STAIRS	ESC	BOARD	DETRAIN	TOTAL		
Union Station	8,469	13,551	4	4	272	523	795	924	1,000
Civic Center	7,616	12,185	4	4	220	401	621	924	1,000
5th/Hill	12,207	19,532	7	5	190	736	926	1,617	1,250
7th/Flower	8,632	13,812	3	3	122	458	580	693	750
Wilshire/Alvarado	5,418	8,669	2*	2*	209	301	510	462	500
Wilshire/Vermont	7,101	11,362	2*	2*	305	362	667	462	500
Wilshire/Normandie	3,137	5,020	2	2	134	155	289	462	500
Wilshire/Western	4,880	7,808	2	2	186	273	459	462	500
Wilshire/Crenshaw	3,473	5,557	2	2	102	225	327	462	500
Wilshire/LaBrea	1,761	2,818	2	2	55	97	152	462	500
Wilshire/Fairfax	7,914	12,663	3	3	329	414	743	693	750
Fairfax/Beverly	2,774	4,439	2	2	121	140	261	462	500
Fairfax/Santa Monica	3,530	5,648	2	2	149	183	332	462	500
Sunset/LaBrea	2,039	3,263	2	2	93	100	193	462	500
Hollywood/Cahuenga	3,359	5,375	2	2	154	161	315	462	500
Universal City	5,051	8,082	2	2	150	324	474	462	500
North Hollywood	5,058	8,093	2	2	148	224	372	462	500

*Subsequent refinements to Metro Rail patronage data increased the vertical element requirements at these stations to 3 stairs and 3 escalators.

TABLE III-3

NORMAL EXITING
PATRONAGE AND VERTICAL DEVICE CAPACITY
2 Min. Headway

STATION	PATRONAGE PEAK HOUR 'WORST CASE'		VERTICAL CIRCULATION ELEMENTS		PEAK DESIGN LOAD 2 MIN HEADWAY YEAR 2020			STAIR CAPACITY 2 MIN	ESCALATOR CAPACITY 90 SEC
	2000	2020	STAIRS	ESC	BOARD	DETRAIN	TOTAL		
Union Station	8,469	13,551	4	4	248	477	725	528	600
Civic Center	7,616	12,185	4	4	201	366	567	528	600
5th/Hill	12,207	19,532	7	5	173	673	846	924	750
7th/Flower	8,632	13,812	3	3	112	420	532	396	450
Wilshire/Alvarado	5,418	8,669	2*	2*	191	274	465	264	300
Wilshire/Vermont	7,101	11,362	2*	2*	278	331	609	264	300
Wilshire/Normandie	3,137	5,020	2	2	123	142	265	264	300
Wilshire/Western	4,880	7,808	2	2	170	249	419	264	300
Wilshire/Crenshaw	3,473	5,557	2	2	93	205	298	264	300
Wilshire/LaBrea	1,761	2,818	2	2	50	88	138	264	300
Wilshire/Fairfax	7,914	12,663	3	3	301	379	680	396	450
Fairfax/Beverly	2,774	4,439	2	2	110	128	238	264	300
Fairfax/Santa Monica	3,530	5,648	2	2	136	167	303	264	300
Sunset/LaBrea	2,039	3,263	2	2	84	91	175	264	300
Hollywood/Cahuenga	3,359	5,375	2	2	141	148	289	264	300
Universal City	5,051	8,082	2	2	137	296	433	264	300
North Hollywood	5,058	8,093	2	2	135	205	340	264	300

*Subsequent refinements to Metro Rail patronage data increased the vertical element requirements at these stations to 3 stairs and 3 escalators.

B. STATION EMERGENCY EXITING

Background

Considerable concern was given to the fire and safety aspects of station design during the Preliminary Engineering phase of the Metro Rail system. Provision for egress from stations in the event of an emergency is one of the most significant safety design considerations that was addressed. The proper number of station stairs, escalators, and normal and emergency exits had to be specified; and emergency ventilation and fire suppression exit paths and procedures for evacuation had to be established. This latter subject was investigated in depth by the SCRTD Fire/Life Safety Committee, assisted by the stations consultant.

To properly address these issues, the SCRTD Fire/Life Safety Committee performed an in-depth study of present and proposed codes, standards and guidelines to determine their most appropriate application in the development of egress criteria. Specifically, the codes, standards and guidelines used for the study were:

- o NFPA 101, Life Safety Code, 1981 Edition
- o NFPA 130, Standard for Fixed Guideway Transit Systems
- o Uniform Guilding Code, 1979 and 1982 Editions
- o APTA Guidelines for Design of Rapid Transit Facilities, June 1981.

The review of the above codes indicated that there was no single code or standard which could be applied in its entirety to satisfy the unique SCRTD's exiting needs in an efficient and cost effective manner.

The SCRTD Fire/Life Safety Committee then proceeded to develop a specific criteria for emergency egress from stations. A comprehensive analysis was conducted which compared the exiting requirements of the respective codes as applied to three typical Metro Rail stations.

1. 5th/Hill - A downtown high-volume station.

2. Wilshire/Western - A mid-line moderate-volume station.

3. Hollywood/Cahuenga - An outlying low-volume station.

The specifics and results of this analysis will not be discussed in this text and are contained in two documents:

1. Station Emergency Exiting - How it was solved at the Southern California Rapid Transit District (presented to APTA Annual Rapid Transit Conference, June 22, 1983).

2. "Station Emergency Egress Study," prepared by SCRTD Fire/Life Safety Committee and HWA/TAMS, August 1983.

The analysis clearly indicated that occupancy load and, therefore, exit width requirements, were a function of patronage levels, operational characteristics of the system, and station configuration. None of the existing codes appeared to encompass all of these factors. Thus, the Fire/Life Safety Committee developed criteria to satisfy the unique requirements of the Metro Rail System. These criteria are described below.

SCRTD Emergency Exiting Criteria

The "Metro Rail Fire/Life Safety Committee Criteria (F/LS Criteria)" was evolutionary and only the final version is discussed in this text.

Exiting provisions for the Metro Rail F/LS Criteria are similar in many respects to the methodology of NFPA 130. Both criteria rely on a dynamic modelling approach. For both criteria, the exit capacity required to remove passengers from the platform (area of immediate danger) and to evacuate passengers from the most remote point on the platform to a point of safety is determined.

Where the F/LS Criteria differs from NFPA 130 is in the definition of the occupant load and, thus, in the manner of calculating the occupant load. Under the F/LS Criteria, occupant load is the sum of the 'Calculated Train Load' and the entraining load. As in NFPA 130, the calculated train load in the F/LS Criteria represents the passenger volume on trains entering a station that would have to be off-loaded in an emergency.

The calculated train load in both criteria is determined for one train on each track in the station during the peak 15 minute period. However, under the FL/S Criteria, the number of persons on each train is assumed to be what would normally occur during the peak 15 minutes, if schedules were maintained (not twice the normal load as provided in NFPA 130). The number of persons on a train is calculated by multiplying the peak 15 minute link load by the scheduled headway and dividing by 15.

Under the F/LS Criteria, the maximum number of persons on any train cannot exceed the maximum practical capacity of the train. It is further assumed that trains on each track arrive and off-load simultaneously. The calculated train load is thus the sum of loads on an inbound and outbound train. Additionally, the calculated train load can be no less than the maximum capacity of a single train.

The entraining load was defined as the number of passengers that would accumulate on the platform in the time period equivalent to four headways during the peak 15 minute operating period. A further constraint was that the entraining load could not exceed the net platform area divided by 4 square feet per person. This constraint reflects a commitment of SCRTD to limit access to the station platform through operational measures whenever accumulation of entraining passengers bring the net platform area per passenger to 4 square feet per person.

Once the occupant load was determined under the F/LS Criteria, the remainder of the methodology followed the exiting requirements in the same manner as the procedure for NFPA 130.

Emergency exit capacity for the F/LS Criteria was measured in units of exit width equal to 22 inches per unit. Occupant capacity per unit of exit width varies by circulation element. Exit capacity required is determined to allow: (1) evacuation of the passengers from the station platform in 4 minutes; and (2) evacuation of passengers from the most remote part of the platform to a point of safety in 6 minutes.

The following figure summarizes the Metro Rail Fire/Life Safety Committee Criteria requirements.

METRO RAIL F/LS CRITERIA
EMERGENCY EXITING REQUIREMENTS

I BASIS FOR EXITING PROVISIONS

- o BUILDING CLASSIFICATION - UNDERGROUND STATION
- o OCCUPANT LOAD FACTOR - BASED ON ENTRAINING AND DESIGN TRAIN LOAD(S) THAT MAY OFF-LOAD IN AN EMERGENCY
- o UNIT OF EXIT WIDTH - 22 INCH EXIT LANE
- o OCCUPANT CAPACITY PER UNIT OF EXIT WIDTH - VARIES BY EGRESS ELEMENT

II SPECIFY EXIT REQUIREMENTS

- o STATION OCCUPANT LOAD
  - - ENTRAINING LOAD EQUAL TO PLATFORM ACCUMULATION OF 4 HEADWAY TIME PERIOD. PLATFORM VOLUME LIMITED TO 4 SF/PERSON
  - - LINK LOAD EQUAL TO SIMULTANEOUS OFF-LOAD OF TRAINS CARRYING DESIGN LOAD DURING PEAK 15 MINUTE PERIOD. MINIMUM TRAIN OFF-LOAD EQUAL TO ONE TRAIN OF MAXIMUM CAPACITY
- o EXIT CAPACITY TEST
  - - EVACUATE OCCUPANT LOAD FROM PLATFORM IN 4 MINUTES
  - - EVACUATE OCCUPANT LOAD FROM MOST REMOTE POINT ON PLATFORM TO A POINT OF SAFETY IN 6 MINUTES
- o MINIMUM EXIT REQUIREMENTS
  - - SUFFICIENT WIDTH TO ACCOMMODATE 7 SF/PERSON BASED ON NET PLATFORM AREA

The F/LS Criteria combine the merits of a patronage-based dynamic approach and the constraint that platform accumulation is limited by physical dimensions. This joint consideration dictates that operational measures are an integral part of the station emergency egress characteristics. In addition, by tying entraining loads to an accumulation of headways, the criteria assert that:

- o The time-lapse for identification of an emergency condition is <u>not</u> static and is a function of system operation which varies during the day and throughout the life of the system and that
- o The entraining portion of the station occupant load will vary as the headway is shortened or lengthened.

These two characteristics imply that actual operations directly affect the volume of patrons that may have to be evacuated during an emergency condition. They also imply that, as operational effectiveness improves, the element of risk is reduced and Fire/Life Safety response capabilities are enhanced. Likewise, if operations are not achieving the intended objectives, the increased risk will also be apparent.

For criteria to be appropriate, this flexibility to respond to and accurately assess the actual conditions is mandatory. The Metro Rail F/LS Criteria possess this flexibility.

As noted previously, the adopted criteria have been applied to all Metro Rail stations. A summary of evacuation times for all stations is shown in Table III-4. These times are based on patronage data issued on 3/14/83 and station configurations as of that date.

Table III-4

EMERGENCY EXITING ANALYSIS
EVACUATION TIMES UNDER FIRE/LIFE SAFETY CRITERIA

STATION	Year 2000 3-1/2 Headway Occ. Load	Platform Evacuation	Station Evacuation	1.6 Contingency 2 Min. Headway Occ. Load	Platform Evacuation	Station Evacuation	Exits Units Provided
Union	3005	3.58 min.	5.64 min.	2740	3.27 min.	5.33 min.	24
Civic Center	2913	2.98	5.54	2662	2.72	5.28	28
5th/Hill	4077	3.33	6.32	4077	3.33	6.32	35
7th/Flower	4047	4.63	6.85	3564	4.08	6.30	25
Wilshire/Alvarado	2812	4.47	6.01	2531	4.02	5.56	18
Wilshire/Vermont	2961	4.70	6.39	2735	4.35	6.04	18
Wilshire/Normandie	2297	3.46	5.42	2062	3.11	5.07	19
Wilshire/Western	2334	3.71	5.30	2089	3.32	4.91	18
Wilshire/Crenshaw	2059	3.27	5.18	1931	3.07	4.98	18
Wilshire/La Brea	1597	2.41	3.96	1540	2.32	3.87	19
Wilshire/Fairfax	2578	3.21	5.49	2377	2.96	5.24	23
Fairfax/Beverly	1787	2.69	4.17	1701	2.56	4.04	19
Fairfax/Sta.Monica	1795	2.85	4.86	1708	2.72	4.73	18
Sunset/La Brea	1570	2.37	3.88	1516	2.28	3.79	19
Hollywood/Cahuenga	1815	2.89	4.65	1726	2.74	4.50	18
Universal City	2368	3.76	5.80	2197	3.49	5.53	18
North Hollywood	2529	4.02	5.71	2335	3.71	5.40	18

NOTE: Based on patronage data issued 3/14/83.

CHAPTER IV
ENGINEERING

ENGINEERING

A. CIVIL SITE REQUIREMENTS

Civil site plans were prepared to show the scope and extent of the work to be performed at the surface as related to the cut-and-cover type of construction at the Metro Rail stations. This surface work is a result of constructing the subway stations and, therefore, the footprint of the station box has also been shown on all drawings to show the limits of underground construction, and to show the basis for surface construction requirements.

Generally, the surface features and/or restoration requirements depicted on the drawings can be placed into four general categories:

- o Concrete street paving
- o Asphalt concrete street paving
- o Existing sidewalk repaving
- o New sidewalk or station entrance paving

The extent and kind of surface for street repaving were based on architectural site plans and on the City of Los Angeles "Special Order" No. SO 13-1081 amending Section E422.2 (land its subsections), Bureau of Engineering Manual, Part E - Street Design. Interpretation of the "Special Order" was coordinated with the City of Los Angeles Engineering Bureau.

Specifically, for stations extending across an intersecting side street, concrete paving is shown to extend 150' in both directions on the "main street" from the corresponding points of the curb return (end of curve). Concrete paving on the side street is shown to extend 10' beyond the outermost wall of the underground station encroaching into the side street. This applies in both directions of the side street. Asphalt concrete pavement is shown to extend from the end of the concrete paving as described above, up to the point 10' beyond the end of the station structure along the main street.

Limits of the special paving at the station entrances were based on architectural site plans. The locations of existing fire hydrants, like all other topographic features, were obtained through the aerial survey and were supplemented by information from the City of Los Angeles Fire Department. Those fire hydrants expected to be affected by the Metro Rail construction are designated to be removed and relocated. All others are to be protected during the station construction and maintained in place. The City and County of Los Angeles Fire Departments did not specify the "station entrance for fire department response" at the respective stations during Preliminary Engineering. Therefore, additional hydrants may be required to comply with the hydrant access requirements at station entrances as specified in the SCRTD Systemwide Fire/Life Safety Criteria. This analysis must be performed during the Final Design phase of the project.

At all locations where the streets and/or sidewalks are shown to be repaved, or, where new sidewalks are to be constructed, a new curb and gutter is to be added.

The following items were not included in the preliminary design.

- o The kind of materials to be used for special paving at the station entrances and at new sidewalks.
- o Temporary and permanent signing, striping and signaling.
- o Pavement structure as well as all necessary transitions from the new pavement and the new standard curb and gutter to the existing conditions.
- o The extent of modifications to existing buildings at those station entrances which are to be located inside existing buildings.
- o The exact extent of necessary demolition.
- o Access to the dwelling - residential, commercial or industrial - in the case of a permanent or temporary closing of streets or modification of their layout.
- o The location of contractor staging areas (some of the potential locations have been designated on the drawings).

B. UTILITY REARRANGEMENT

The objective of the utility rearrangement effort was to identify major relocation requirements along the alignment and to specify feasible solutions, from which representative cost estimates could be developed. The majority of utility conflicts were at station locations where the subway structure was closest to the surface.

The following paragraphs describe the procedures and criteria used to identify utility conflicts and required rearrangements.

Procedure for Identifying and Resolving Potential Utility Conflicts Along The Metro Rail Project Alignment

Utility rearrangement cost was one of several factors integral to the final alignment decision. An interdisciplinary committee was formed and chaired by the Southern California Rapid Transit District Ways and Structures Division to ensure that utility issues were identified and given proper consideration. Participants included the City of Los Angeles - Bureau of Engineering, Los Angeles County Engineers, Los Angeles County Flood Control District, Ways and Structures Consultant, and Stations Consultant. The City of Los Angeles also served as the point of contact for other affected utilities.

Existing substructure maps from the City of Los Angeles Central Files were the primary data source for comparing proposed horizontal and vertical alignment with existing utility locations. This data was considered adequate to satisfy the primary objective of developing preliminary cost estimates for major utility rearrangements. It was also recognized that a more comprehensive analysis of existing conditions would be performed during the final design phase of the project.

The proposed location of stations along the main thoroughfares of the Los Angeles Regional Core posed immediate problems for maintaining utility lines in existing locations. Although efforts were made to maintain the top of structure at a minimum depth of eight feet below grade to minimize utility conflict, this was not always possible. In addition, several major lines were at depths greater than eight feet. Therefore, although most lines could be maintained and supported in place during cut-and-cover construction operations, some would have to be relocated. The recognition of this condition required considerable interaction among all parties to ensure that station locations and utility relocations were properly determined.

Basic guidelines were developed in coordination with the Los Angeles Bureau of Engineering to address the subject of utility conflict and rearrangement, particularly as it applied to gravity lines. The intent of this "criteria" was to establish a systematic approach to follow at each station location for utility rearrangement. It also served as guidance to the station consultant in locating station elements such as emergency stairs, ventilation and exhaust shafts, passageways, and station entrances.

The basic criteria is described in the following section and is followed by a summary of the impact of utility lines on station location and configuration.

Criteria for Relocating Gravity Lines (Sanitary Sewers and Storm Drains)

A criterion for gravity line rearrangement as shown on the preliminary drawings was to relocate the existing gravity lines from within the proposed "cut-and-cover" areas into the adjacent sections of pavement and/or sidewalk. Exceptions were made for those existing pipes located across the proposed "cut-and-cover" sections which were not in direct conflict with the structure. In these cases, it was proposed that the pipe crossing the "cut-and-cover" area be supported during construction according to city requirements.

Proposed sewer relocations were designed to carry at least the same capacity as the existing sewers. In addition, proposed pipe slopes were selected to enable the use of standard rather than drop manholes at the point of connection whenever possible.

At some locations, relocation of an existing sewer line around the station box was not feasible or desired because it required an extended length of run and resulted in a lower invert elevation at tie-in than that of the existing line. In these cases, the only recourse was a new line with the same horizontal alignment but at a "higher" elevation. This higher elevation of the new line required that the relocation go upstream for extended lengths (at a minimum slope for the given size of pipe) until a tie-in could be made with the existing line.

For proposed storm drain relocations the main objective was to assure that connections could be made to existing storm inlets. Neither the sewer house connections nor storm inlet connections were shown on the Preliminary Plans except where those connections had a significant impact on the proposed relocation.

All gravity line rearrangements were made to minimize conflicts with other existing utilities. Therefore, in most cases, non-gravity utility lines are expected to be supported in place during the cut-and-cover construction and placed in a fill during backfill operations. However, it is assumed that some relocation of these utilities may be required.

Impact of Major Utility Lines on the Station Location and Configuration

The location of existing major utility lines affected the preliminary vertical and horizontal alignment as well as the location and the configuration of the proposed subway stations. To reduce the adverse impact, some basic principles were taken into consideration during the preliminary phase of design.

Designers attempted to locate stations where the number of significant conflicts with existing utilities would be relatively low, unless other factors prevailed over the economic cost of these conflicts. While it was agreed that an existing utility should not control the station location, it was also recoginzed that alternative locations, offering similar entrance conditions with reduced extent of utility conflicts should be investigated.

This was particularly true for stations with one entrance and no preference for entrance locations. For stations with more than one entrance, preference was given to locating those entrances on one side of the station (either inbound or outbound) where the extent of utility conflicts was smaller, all other factors being the same. This approach would also leave one side clear for potential utility relocations.

Potential major utility conflicts directly contributed to modification of station location at some stations; and at other stations other factors dictated station location even in the light of major relocation. Wilshire/Normandie, Fairfax/Beverly, and Fairfax/Santa Monica were able to be located so as to avoid major conflict.

The station at Wilshire/Normandie was located west of Normandie Avenue to avoid conflict with two large reinforced concrete box storm drains that cross Wilshire Boulevard east of Normandie Avenue.

The Fairfax/Beverly station has been proposed in an off-street location just east of Fairfax Avenue and south of Beverly Boulevard. This location will avoid conflict with a 7.5' x 9' storm drain in Beverly Boulevard which connects to a 7.5' x 12' storm drain in Fairfax Avenue. Entrances to this station are proposed in an existing parking lot at a mid-block location and are free of utility conflicts.

Along Fairfax Avenue at Santa Monica Boulevard, a 7'-3"/8'-0"x12' storm drain design in progress was modified by the Los Angeles County Flood Control District. According to this modificaton the proposed storm drain will run east of the proposed station, but still remain within Fairfax Avenue. The modification to storm drain design and the change in Metro Rail alignment avoided a major conflict.

In some cases, factors other than the existence of utility conflicts prevailed and stations were located even with major relocations required. This was the case at the Wilshire/Crenshaw, Wilshire/La Brea, and 5th/Hill Stations.

At the Wilshire/La Brea site, the 210' of 57" diameter water main in Detroit Street at the west end of the proposed station and a 42" storm drain will have to be relocated. The length of this latter relocation is nearly 1100'. Also, relocations of sanitary sewers ranging in size from 12" to 39" add a total length in excess of 1500'.

At the site of the proposed Wilshire/Crenshaw station it is necessary to relocate 295' of 81" diameter storm drain at its section turning from Lorraine Boulevard west into Wilshire Boulevard.

The generally desirable location of the expected high patronage station at 5th/Hill and in particular a very convenient location of the four entrances in the vacant lots at both 4th Street and 5th Street was an over-riding factor against a need for an exceptionally long proposed sanitary sewer relocation in excess of 4100', ranging in size from 8" to 30".

C. MECHANICAL SYSTEMS

Trainroom Environmental Control System

At the beginning of the project many environmental control concepts were introduced by the systemwide ventilation designers (PBQD), covering air conditioning, and the options of mechanical ventilation or no mechanical ventilation.

One of the original schemes was to provide neither mechanical ventilation nor air conditioning. The rationale for this proposal was that riders would be on the platform for short durations, and a cooling effect would be created by the piston action of arriving and departing trains as they moved air through the station. This concept was highly desired by the architects, to minimize capital and operating costs and avoid exposed air-supply ductwork in the trainroom. However, this concept was determined to be unacceptable due to the large amount of heat that would be generated from the train's brakes, resistors, and motors, and the smaller amount from people, lights and tunnel. If the heat were not removed an unbearable condition would exist during the summer months.

The PBQD (ECS) program results favored mechanical ventilation for the three and a half minute headway condition and air conditioning for the two minute headway. Thus the air conditioning equipment such as the chiller, cooling towers, pumps and chilled water coils could be deferred to a later date. However, it was decided that space should be provided for the equipment, since there would be a problem retro-fitting these major components at a later date. It was agreed that some of the embedded chilled and condenser water lines should be installed with the initial construction of the station.

With the decision to provide mechanical ventilation, the question of where to locate the supply air was introduced. Efforts to reduce the size of the ducts led to the consideration of a high velocity (3000 to 4000 fpm) air distribution system. A high-velocity distribution concept was proposed, utilizing two high-velocity ducts, which would contain circular diffusers, signage, lights and speakers. The high-velocity ducts were to be located approximately 10 to 12 above the platform edge, and would extend the full length of the platform. The proposal also called for a split low-velocity distribution air system for the mezzanine and an air-curtain system at the train entry portals.As the development of the high-velocity concept continued, corollary approaches were investigated including a high-velocity pylon air distribution system, with pylons evenly spaced on the platform and the air-supply ducts run under the platform.

The high-velocity distribution system was rejected because of estimated increased annual operating cost, anticipated noise and no prior experience in using such a system in a Metro Station.

Many low-velocity schemes were then investigated, including:

A. A low-velocity pylon air distribution system. This scheme was abandoned due to the low-velocity ducts under the platform being too large and using too much space when combined with other utilities in the underplatform space. Also the low-velocity pylons on the platform were large and required too much platform space.

B. low-velocity high-discharge system either from the center of the trainroom ceiling or from the two upper corners of the trainroom. Although it was felt by some that this system would work, the system was rejected because of the relatively low temperature differential of the air (4°F) and fears that the piston action of the trains would distort the air-flow pattern set up by the high-discharge system.

C. A low-velocity sidewall-distribution system. The scheme was rejected due to the fact that the ductwork could not be adequately accommodated in the trainroom walls.

The adopted design evolved from a necessity to put the air closest to the people and the heat load, and from the fact that in the cost-cutting process the ancillary space was moved into the trainroom, which provided a ceiling from which to suspend the ducts at a reasonable height above the platform. The design consists of four low-velocity supply air ducts running above the platform edge and under the mezzanine and ancillary space in the trainroom. The terminal devices are of the low-velocity linear diffuser type. The duct enclosure also houses signage, lights, and speakers. The low-velocity mezzanine air supply was deleted as it was felt that the mezzanine was only a transition zone through which people passed to get to the platform.

The present design also includes a station smoke exhaust system that can purge smoke from the station in the event of a fire, and may also be used to exhaust methane gas from the station, if the need arises.

Analysis of Space Requirements for the Ancillary Equipment Rooms

The initial ancillary room sizes pertaining to mechanical equipment such as the HVAC mechanical equipment room, ejector room, sprinkler valve room, sump pump room, and traction power substation fan room were reduced at various stages as design progressed. The down sizing included the major fan rooms such as the air-supply room, underplatform exhaust room, emergency fan room, chiller room, HVAC ancillary room, and traction power substation fan room. The present sizes appear to be proper with minimal oversizing. The major reduction occurred in March 1983 with the relocation of the ancillary utility rooms into the trainroom.

Package Air-Supply Unit

The original concept of the supply air system was to have two supply air fans, locating one at each end of the station. Each air handler was to satisfy the requirements of half of the station. Due to the volume of air that the air handlers would have to handle, a standard size air handler was not readily available in the market place. Therefore, two package air handlers are provided at each end. A by-product of using a four package air handler scheme is the flexibility of operation in winter and intermediate seasons. When weather permits, some of these units may be shut-off without affecting the ambient conditions. Originally the package air handler rooms were to be separate from and independent of the ancillary space HVAC equipment room. With the March 1983 direction by the District to reduce all ancillary spaces, the air handling and HVAC equipment rooms were combined, which will save substantial space.

The standard layout consists of one large room at each end which houses two air-handling units, one underplatform exhaust fan and one smoke-exhaust fan. The mechanical equipment necessary to ventilate and air condition the ancillary spaces is also housed in this same room. This configuration is typical for the center mezzanine stations without a crossover.

The downtown double-end mezzanine stations and center mezzanine stations at crossovers have a different configuration from above. The two air-handling units, one smoke exhaust fan and the ancillary space mechanical equipment are placed in a mechanical room at each end of the station and the underplatform exhaust pan is located in a separate room.

Underplatform Exhaust

The original concept of the underplatform exhaust (UPE) system was to have four vane axial fans, each serving a quarter of the platform. During the review of the preliminary architectural drawings in March 1983 by the District it was decided to reduce the size of the ancillary spaces. Therefore, the original size of the UPE room was reduced dramatically. To make room for the UPE fans, a decision was made to combine the two fans into one fan at each end, with one exhaust fan for one track. Originally the UPE plenum was a constant size throughout. The UPE plenum design calls for a tapered UPE exhaust plenum to be connected to the single exhaust fan at each end.

Shafts and Grating for Air Intake and Exhaust

In April of 1983 a schedule of requirements for shafts and grating sizing was prepared. These sizes and recommended locations have been included on the Architectural General Plans.

Traction Power Substation (Below-Grade)

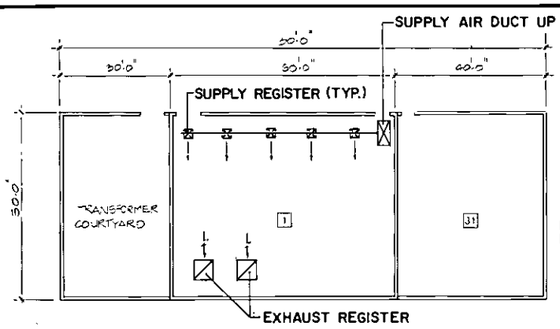
The Traction Power Substation ventilation system is the result of several iterative design stages. The initial design concept utilized two supply air built-up centrifugal air handlers and two exhaust vane axial fans. A fan room was developed to house the equipment. This fan room was found to be unusually difficult to fit into the given space. Therefore, a four vane axial fan scheme was created; two supply and two exhaust, which is the present layout.

Traction Power Station (Above-Ground)

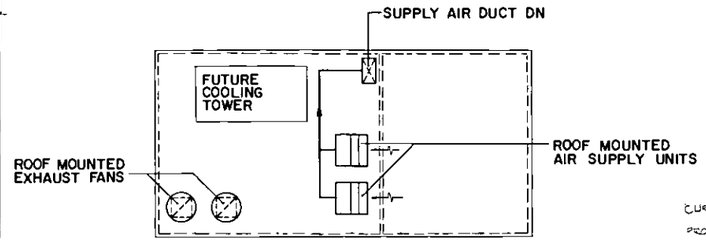
The ventilation system for the above-ground traction power substations consists of two roof-mounted supply air units and two roof-mounted exhaust fans.

Typical Drawing Schedule

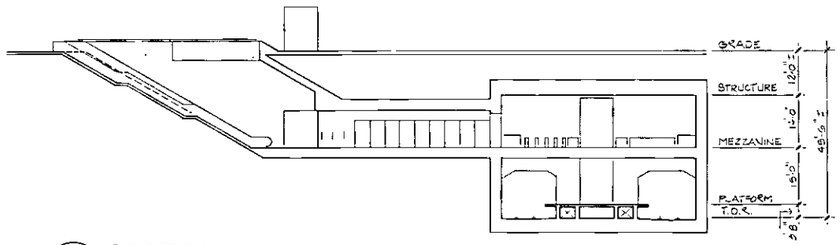
The adopted station mechanical systems resulted from the combined efforts of the systemwide ventilation consultant and the stations consultant. Appended to this section is a set of mechanical drawings for a typical station as prepared by the stations consultant. Also included are Directive Drawings prepared for the underground traction power substation fan room and the HVAC ancillary space flow diagram.



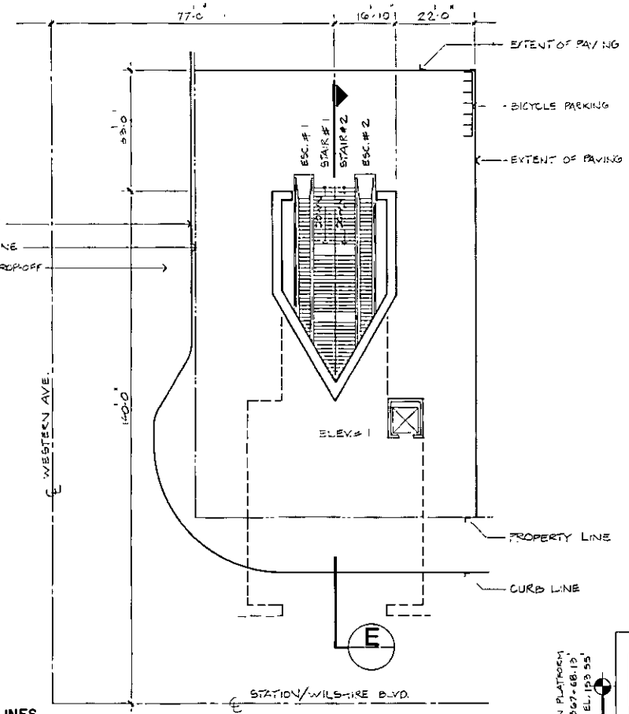
TRACTION POWER SUBSTATION PLAN



TRACTION POWER SUBSTATION ROOF PLAN



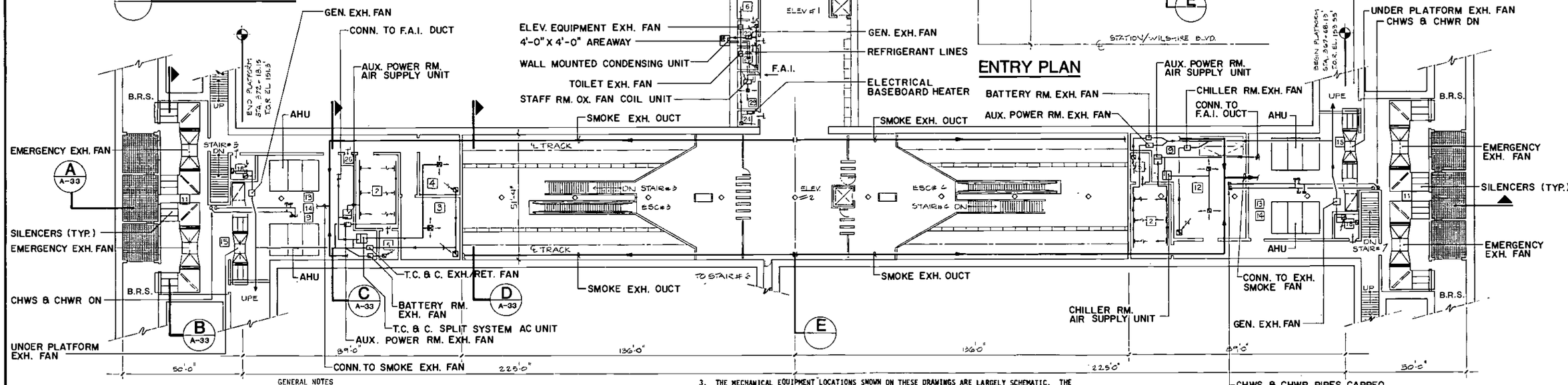
E SECTION



ENTRY PLAN

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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. **Toilet**
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. **Staff/Security**
30. **Deleted**
31. Electric Incoming Service



MEZZANINE PLAN

NORTH

0' 20' 40' 80'

GENERAL NOTES

1. FOR VERTICAL LOCATIONS OF AIR SUPPLY AND EXHAUST DUCTS SEE TRANSVERSE SECTIONS DWG. NO. SD-M-4.
2. THE ANCILLARY SPACE DUCT LOCATIONS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE FINAL DESIGNER.
3. THE MECHANICAL EQUIPMENT LOCATIONS SHOWN ON THESE DRAWINGS ARE LARGELY SCHEMATIC. THE FINAL DESIGNER SHOULD REFER TO THE MECHANICAL DIRECTIVE DRAWINGS FOR THE LAYOUT OF THE MAJOR MECHANICAL EQUIPMENT AND THEN ARRANGE THE ANCILLARY SPACE MECHANICAL TO SUIT SPECIFIC CONDITIONS. THE SMOKE EXHAUST FANS ARE NOT SHOWN ON THESE DRAWINGS.
4. THE FINAL DESIGNER SHALL INCLUDE THE CONDENSER WATER LINES FOR THE FUTURE COOLING TOWER AND CHILLERS IN THIS CONTRACT. THE EXACT ROUTING OF THE CHILLED WATER LINES SHALL BE DETERMINED BY THE FINAL DESIGNER.

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 5/26/83
DRAWN BY RMP/VI Date 5/26/83
CHECKED BY CWM Date 5/26/83

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

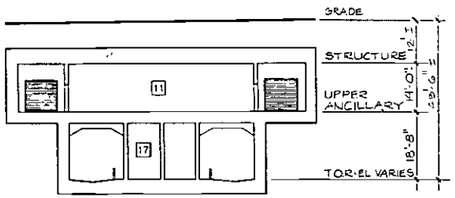
APPROVAL RECOMMENDED ____ Reg. No. ____
APPROVED ____ Date ____
MANAGER / CHIEF ENGINEER Reg. No. ____

WILSHIRE/WESTERN STATION

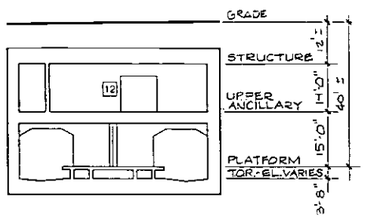
HVAC GENERAL PLANS
SINGLE LINE DIAGRAM

CONTRACT NO. A 220
DRAWING NO. M-20
SCALE 1"=20'-0"
SHEET NO. 39 OF 63

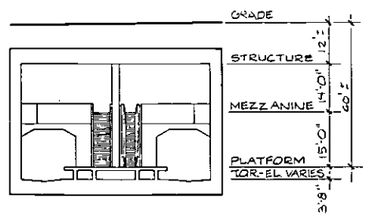
BRUNING 44-123



B TRANSVERSE SECTION



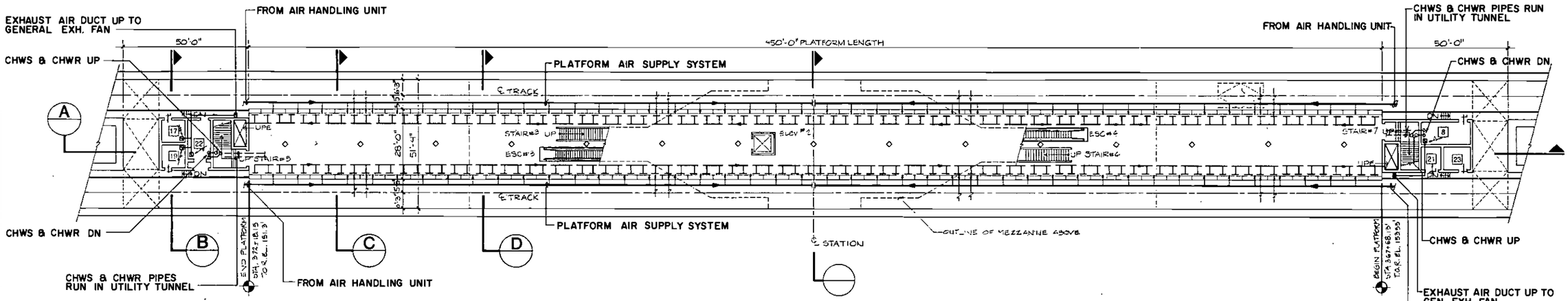
C TRANSVERSE SECTION



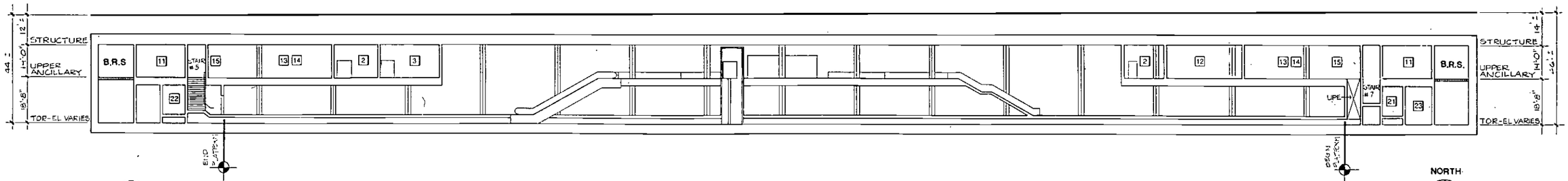
D TRANSVERSE SECTION

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	**Deleted**	23	Electrical Equipment
8	Storage	24	**Toilet**
9	Mechanical	25	**Deleted**
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		



PLATFORM PLAN



A LONGITUDINAL SECTION

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

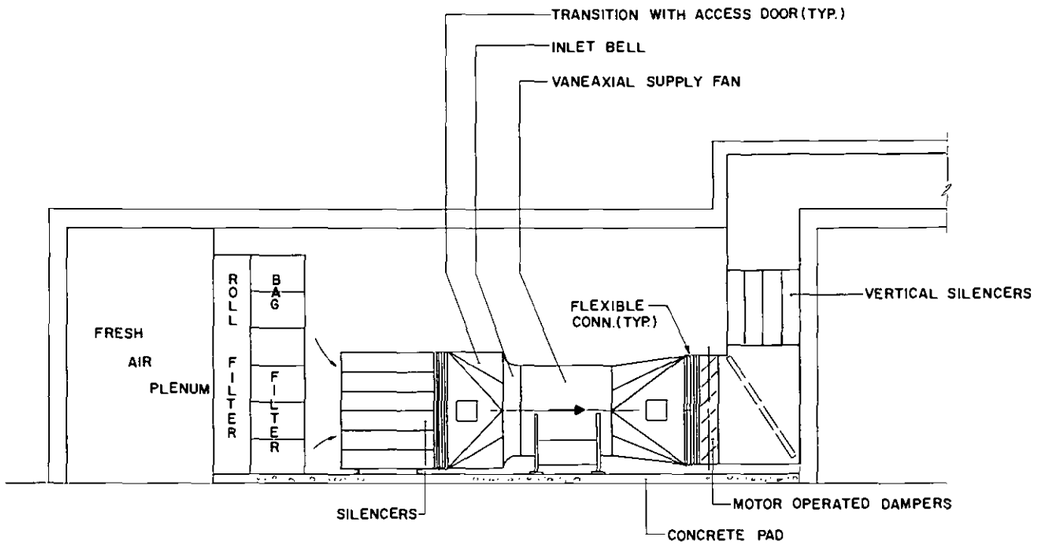
DESIGNED BY TAMS Date 5/26/83
DRAWN BY RMP/VI Date 5/26/83
CHECKED BY CWM Date 5/26/83

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

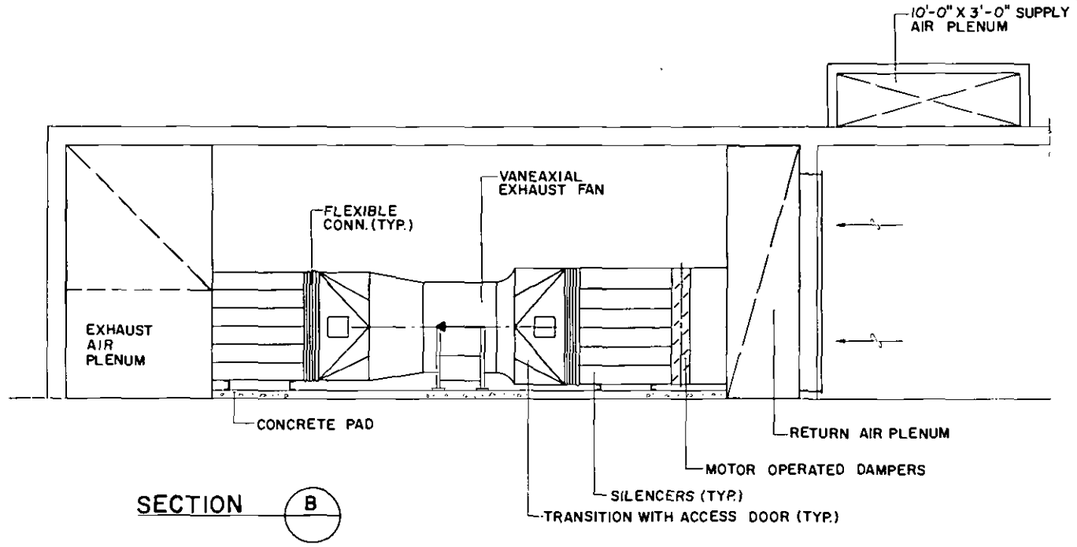
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date — MANAGER / CHIEF ENGINEER — Reg. No.

WILSHIRE/WESTERN STATION
HVAC GENERAL PLANS
SINGLE LINE DIAGRAM

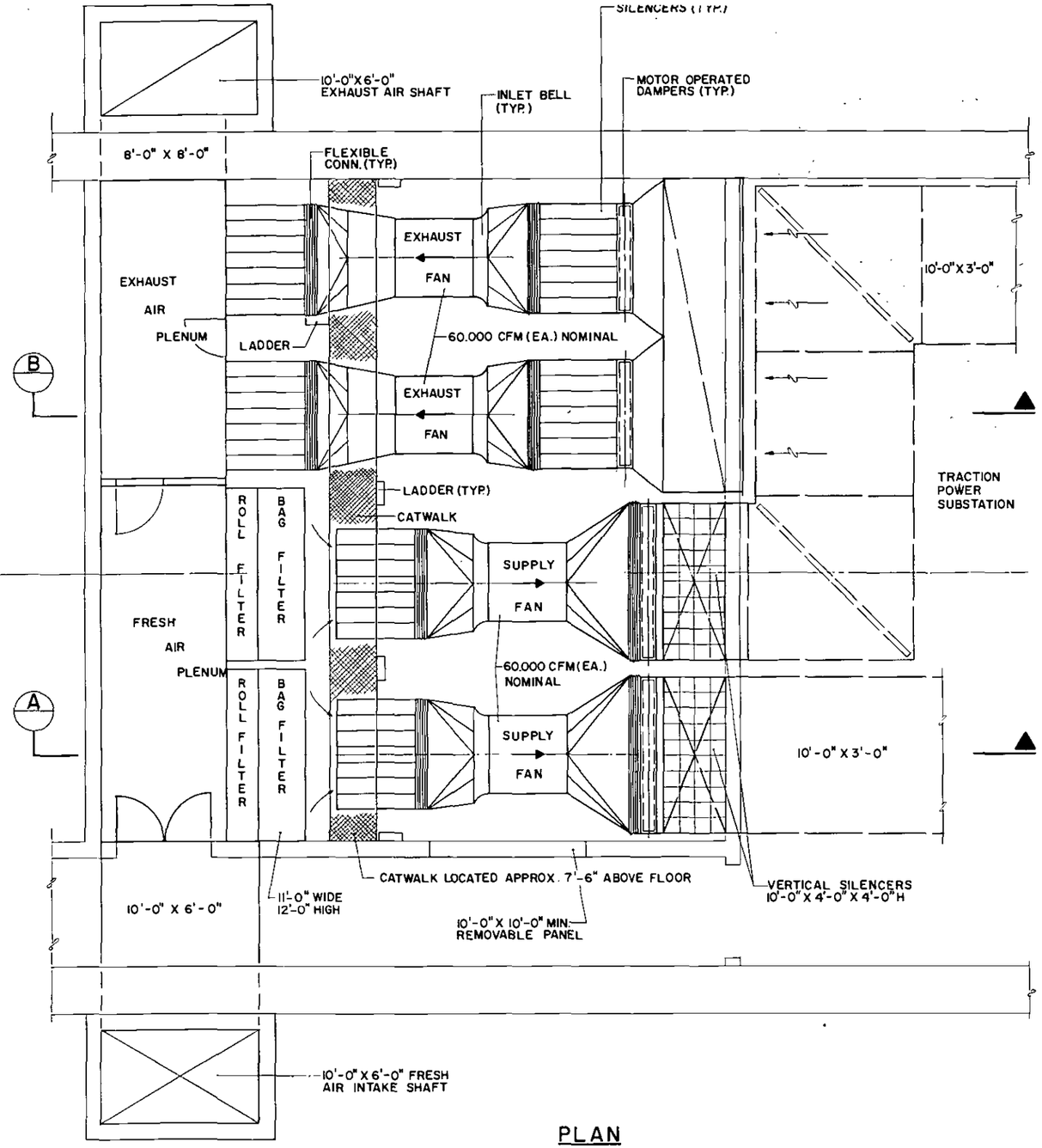
CONTRACT NO. A220
DRAWING NO. M-21
SCALE 1"-20'-0"
SHEET NO. 60 OF 63



SECTION A



SECTION B



PLAN

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY TAMS
DRAWN BY RMP/VI
CHECKED BY CWM
IN CHARGE
DATE 8-15-83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

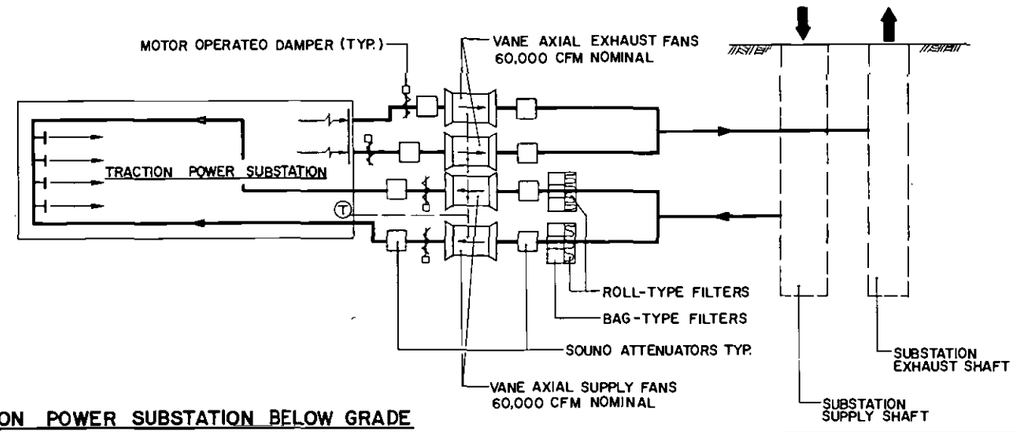
SUBMITTED

DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

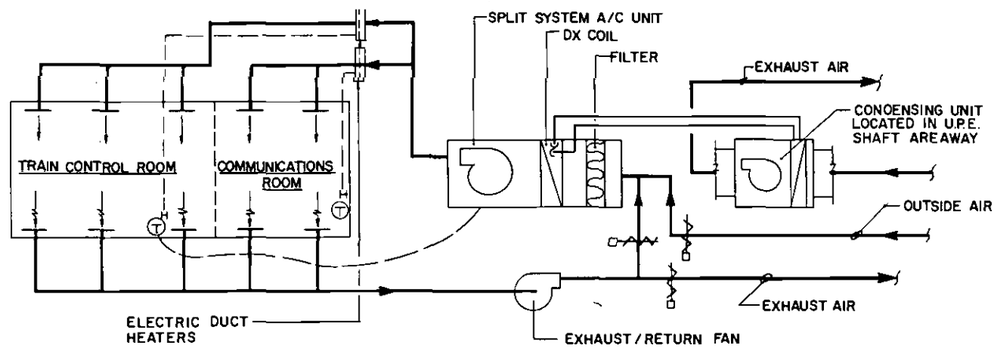
APPROVED

MECHANICAL DIRECTIVE
UNDERGROUND TRACTION POWER SUBSTATION
FAN ROOM PLAN AND SECTIONS

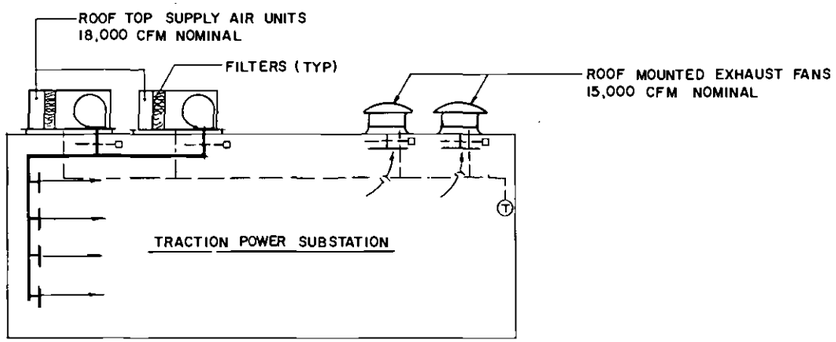
CONTRACT NO.
DRAWING NO. MD-007
REV.
SCALE NO SCALE
SHEET NO.



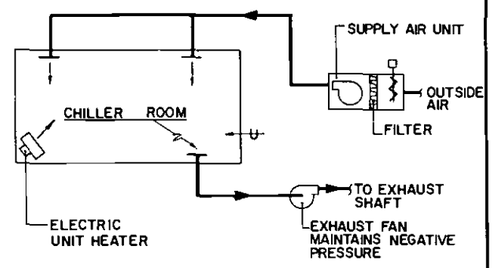
TRACTION POWER SUBSTATION BELOW GRADE



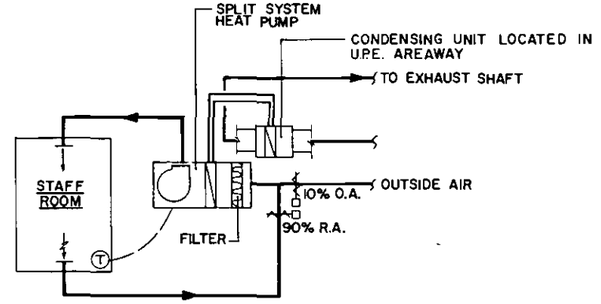
TRAIN CONTROL AND COMMUNICATIONS



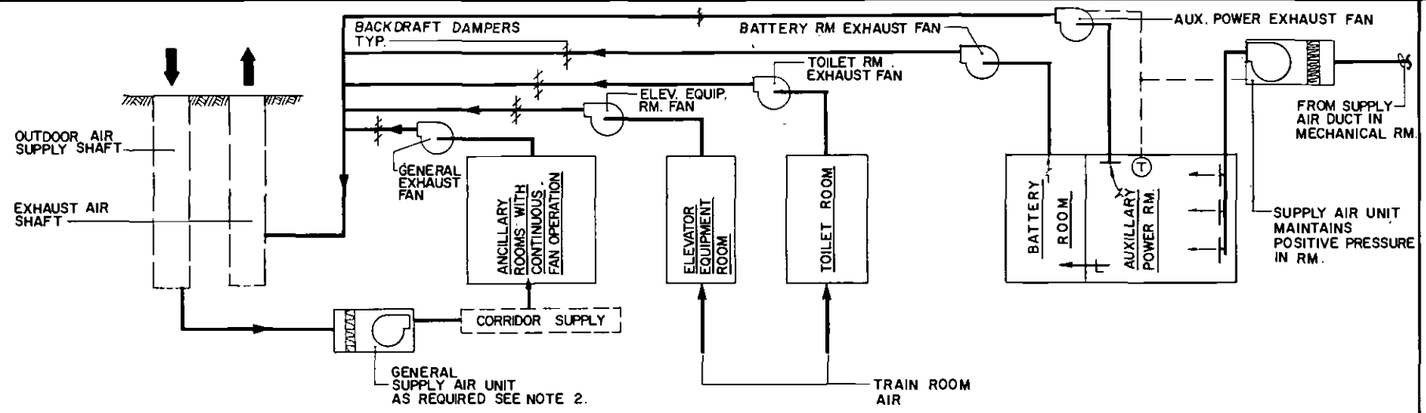
TRACTION POWER SUBSTATION ABOVE GRADE



CHILLER ROOM



STAFF ROOM



GENERAL ANCILLARY ROOMS

GENERAL NOTES:

1. ANCILLARY ROOMS WITH CONTINUOUS FAN OPERATION INCLUDE, FARE COLLECTION STORAGE, STORAGE RM. EJECTOR RM., VALVE RM., SUMP PUMP RM., EMERGENCY EQUIPMENT, CUSTODIAL AND TRASH ROOM. REFER TO SITE SPECIFIC GENERAL PLANS FOR LOCATIONS.
2. IN CERTAIN STATIONS CORRIDOR AIR SUPPLY MAY NOT BE NECESSARY IF THERE IS SUFFICIENT MAKE-UP AIR FROM THE TRAIN ROOM.

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY TAMS
DRAWN BY RMP/VI
CHECKED BY CWM
IN CHARGE
DATE 8-15-88

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

SUBMITTED

DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED

MECHANICAL DIRECTIVE
HVAC ANCILLARY SPACE FLOW DIAGRAM

CONTRACT NO.
DRAWING NO. MD-008
REV.
SCALE NO SCALE
SHEET NO.

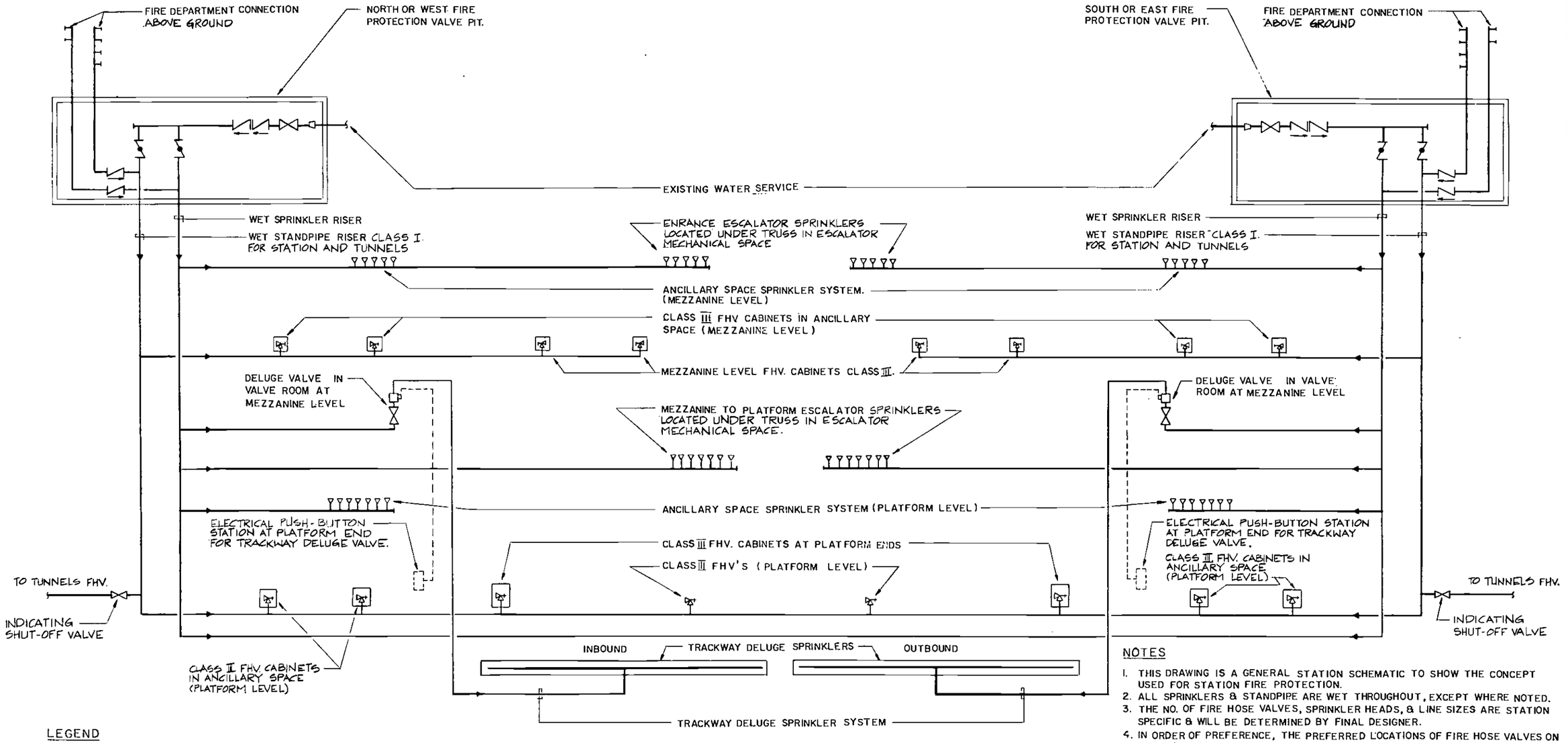
D. FIRE PROTECTION REQUIREMENTS

The Systemwide Fire/Life Safety Criteria forms the basis for the development of fire protection systems in the station and covers, structural, mechanical, electrical, and egress requirements. A mechanical Fire Protection Piping Schematic was prepared in coordination with the SCRTD Fire/Life Safety Committee. This drawing conceptually addresses the sprinkler and standpipe systems within the station.

Characteristics of the total response capabilities include Type III Standpipe System throughout the station allowing for 1-1/2" and 2-1/2" hose connections at each cabinet. The criteria prescribes that every area in the station must be reached with 100 feet of hose and 30 feet of stream. Specific hose cabinet locations for each station were not specified and must be determined during the final design phase of the project, when detailed hydraulic calculations are performed and station-specific constraints are addressed.

Automatic sprinkler protection is provided in elevator machine rooms, escalator truss spaces, and ancillary rooms. An under vehicle water spray extinguishing system is also provided on each trackway. This deluge system operates as a single zone on each of the inbound and outbound tracks. Each zone is independently actuated by an electrical switch at separate ends of the platform.

The accompanying drawing reflects the interaction of the respective systems.



LEGEND

——— PIPING
- - - - - ELECTRICAL CONDUIT
FHV FIRE HOSE VALVE

PRELIMINARY FIRE PROTECTION SCHEMATIC

NOTES

1. THIS DRAWING IS A GENERAL STATION SCHEMATIC TO SHOW THE CONCEPT USED FOR STATION FIRE PROTECTION.
2. ALL SPRINKLERS & STANDPIPE ARE WET THROUGHOUT, EXCEPT WHERE NOTED.
3. THE NO. OF FIRE HOSE VALVES, SPRINKLER HEADS, & LINE SIZES ARE STATION SPECIFIC & WILL BE DETERMINED BY FINAL DESIGNER.
4. IN ORDER OF PREFERENCE, THE PREFERRED LOCATIONS OF FIRE HOSE VALVES ON PLATFORM ARE:
   A. AT PLATFORM ENDS IN FIRE CABINET.
   B. UNDERNEATH ESCALATORS OR STAIRWELLS.
   C. INTEGRAL WITH BENCH OR OTHER STRUCTURES ON PLATFORM IN FIRE CABINET.
   D. UNDER PLATFORM WITH ACCESS PANEL.
5. TRACKWAY DELUGE VALVES MAY BE OPERATED BY ELECTRICAL PUSH BUTTON STATIONS AT EITHER PLATFORM END.
   THE DELUGE VALVES WILL BE CONNECTED TO THE UNINTERRUPTED POWER SUPPLY AND WILL ALSO HAVE A MANUAL OVER-RIDE.

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY TAMS
DRAWN BY RMP/VI
CHECKED BY CWM
IN CHARGE
DATE 8-15-83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

SUBMITTED

APPROVED

MECHANICAL DIRECTIVE

FIRE-PROTECTION SCHEMATIC

CONTRACT NO.
DRAWING NO. MD-030
REV.
SCALE NO SCALE
SHEET NO.

E. STRUCTURAL SYSTEMS - TRAINROOM DESIGN

The objective to build a cost-effective rapid transit system dictated that the trainroom structural costs be minimized. Typically, for all underground structures constructed by the cut-and-cover method, costs of excavation and supports as well as the final structural members required to support the overburden can be astronomical.

General station location and design concepts for the Metro Rail Project emphasized this cost-conscious approach. The vertical alignment was set to minimize earthcover and yet still maintain adequate clearance for utility lines. A center platform configuration was prescribed for all stations to minimize the trainroom width and, thereby, the excavation and property acquisition requirements.

Other factors carried equal priority in specifying feasible structural alternatives. As for all underground facilities in Southern California, precautionary measures are necessary for existing hazardous environmental conditions. First, all structures are subjected to seismic activity; and second, structures in certain areas are subject to oil and gas infiltration. Hence, the trainroom structural design must properly address, check, and/or mitigate these conditions.

Several trainroom configurations were developed and thoroughly analyzed. Basically, design concepts were of two types: clear span, and column support. The clear span concept was favored by the client at the outset of the project. To further explore this concept, several structural alternatives were introduced and analyzed for comparison. These were:

1. Vaulted Roof
2. Flat Slab
3. Beam and Slab Alternatives
   a. Flat Slab
   b. One-way Joist Slab
   c. Waffle Slab

The following paragraphs describe the iterative process that ultimately resulted in the selected structural system.

The vaulted roof concept was the most ideal for accumulating and exhausting methane gas. However, it was not considered appropriate due to its limited vertical clearance to accommodate the required ancillary areas. Additional costs of lowering the system alignment to gain the necessary heights for ancillary spaces were economically unjustified. The initial decision was in favor of a flat slab spanning across two exterior walls. This alternative promoted "openness" in the trainroom and accommodated a methane gas exhaust system.

After continued analysis, the flat slab system was considered too costly to construct for trainrooms with significant earth cover. The required roof slab was impractical because it was too thick to support overburden loads; and the thickness of the roof slab unacceptably increased the size of exterior walls and the invert slab. Consequently, the beam and slab alternatives, both flat-slab and joist construction, were reexamined. Still, neither alternative gave satisfactory results. The flat slab with transverse beams spaced far apart was still too massive. The slab with close-spaced beams concept and joist slab approach, on the other hand, would create checker-board type pockets in which methane gas could accumulate and make the exhaust system inefficient.

Finally, the beam-and-column alternative was reconsidered. The double-column theme never materialized due to circulation requirements on the platform and the desire to maintain an open space concept. It was decided that columns should be spaced as far apart as possible and should still maintain reasonable and practical beam-and-slab sizes. Thus, a 30 foot spacing between each column support was arbitrarily set for analysis. Again, both the joist construction and two-way slab systems created a waffle effect for methane gas accumulation and were considered unacceptable.

Ultimately, attention turned to the design of a flat slab on a single longitudinal beam supported by a single column at 30 feet on center. This alternative offered two large smooth-surface continuous compartments running side-by-side which would be ideal for exhausting methane gas. A concept was developed around the idea that a column was a major structural member which could reduce the sizes of all members that it supported, and yet it could possess a unique and eye-pleasing appearance. This concept led to the present design which utilizes full column capacity while maintaining an architectural appearance. The final structural design incorporates 21" wide a column with an elongated section. The column width perpendicular to the trainway will be maintained, if possible, at 27 inches to assure adequate platform edge to vertical obstruction clearances. The longitudinal dimension will vary depending upon structural requirements.

Mezzanine structural framing was another major structure that evolved through several design changes. As an integral part of the trainroom, mezzanine framing depended upon the trainroom structure. For example, during the clear-span design concept, structural steel framing was considered for the mezzanine structure because a reinforced concrete frame was not feasible due to long spans and limited height clearance. However, steel framing would require fire-proofing and possible a decorative ceiling for concealment. A mezzanine structure using steel frames would also be quite expensive. Therefore, a single-column design concept offered possibly the best result and was selected. With single column, the mezzanine structure is a relatively inexpensive reinforced concrete framed around trainroom columns.

The final trainroom design configuration offers an appropriate compromise among several criteria. The selected structure is of medium price range, practical, fully ventilated and easy to construct.

F. INCOMING POWER AND ELECTRICAL SYSTEMS

The electrical engineering effort in the preliminary engineering phase of the station design consisted of providing electrical services to the station, coordinating these electrical services with the system design and assisting the station architectural designers in specifying space requirements for the electrical equipment.

In the initial stage of the work, the electrical systems of other modern transit systems were analyzed to determine what is "state of the art" design for the modern transit system. Visits were made to several transit systems to discuss design philosophy and operating problems with the property staff and to observe the strong points and pitfalls of the actual installations.

As time progressed, the design philosophy for the electrical design gradually formed as a result of numerous discussions and concerted efforts by HWA/TAMS, SCRTD staff engineers and other consulting engineers working on the project. It was apparent that the most advantageous method of electrical service for a subway station was to obtain two individual high voltage feeders, preferably from separate substations of the serving utility company. One of these two feeders serves as the normal supply while the other is considered the back up power supply.

The feeders are brought to the traction power substation located within the underground station or in an above-grade structure near the station. The power is then distributed to the traction power rectifiers and to the station auxiliary power transformers. In stations where a traction power substation is not required, a station power substation is provided to house the distribution and transformation equipment.

The physical locations and layout of the incoming service equipment room, traction power substation and station power substation have been one of the major elements in the station design. Consideration was given to the size of the room, clear height of the space, and the equipment access to the room for large equipment such as transformers, rectifiers and switchgear. The incoming service equipment room as required by the Los Angeles Department of Water and Power (DWP) necessitates an 18' clear height room of 40' X 40' at this time. Further negotiation is still pending with DWP to refine this requirement. Any reduction in height or in room size would significantly reduce construction costs.

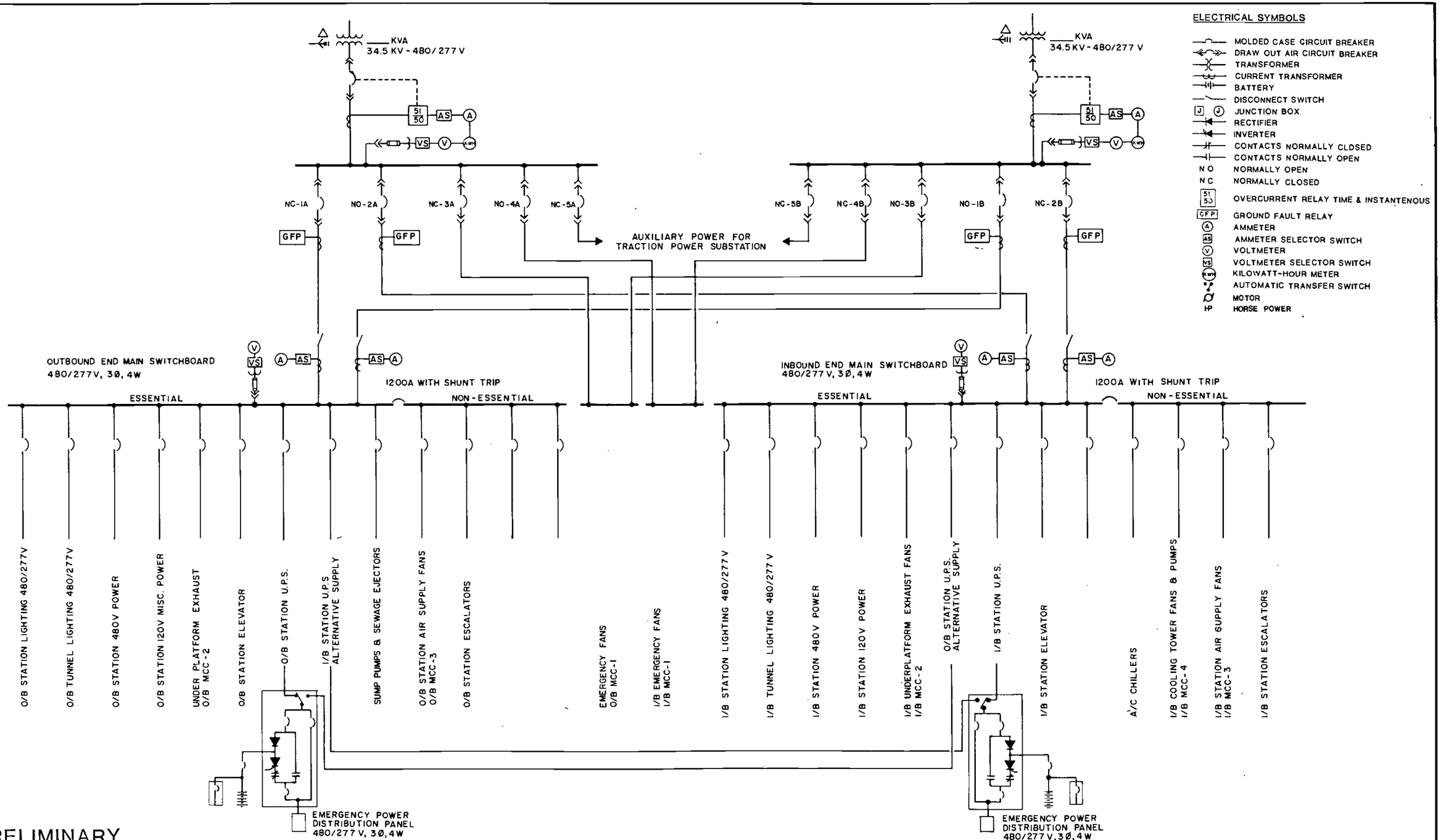
The space requirements for the traction power and station power substations have also been reduced to a functional and operable minimum. Equipment access to the underground substation is currently through a hatchway in the substation ceiling to the street or sidewalk above.

The locations of the substations, whether above ground or below ground, were a subject of study. Because of the size of the substation along with its ventilation and fan room requirements, the construction cost for an underground substation is higher than for an above-ground substation. But this final cost has to be offset by the cost of land if it is to be located above ground. Architectural General Plans currently reflect station substations as underground unless a parcel of land is available or must be purchased by the District for other purposes as well.

The source and method of supplying the emergency loads in the station has been an important subject in the preliminary engineering effort as it relates to the life and safety of the general public. The sources under consideration were Uninterrupted Power Supply (UPS), emergency generator, and separate power supply from the utility company. There are advantages and disadvantages for each of the sources considered. At the present time, the final arrangement of the incoming service has not been finalized, and it is assumed that each station will be served by two reliable feeders. Based on this assumption, the UPS system was chosen for its reliability and uninterrupted transfer to the loads. The latter is especially important for emergency lighting if high intensity discharge lamps are used in the station lighting system. As currently planned, UPS will power station emergency lighting, communications, train control, and tunnel lighting. However, due to the inherent cost escalation of UPS systems as load capacity increases, the current UPS is only designed to handle the selected small loads that are listed above. Other large mechanical loads such as the emergency ventilation fans and the smoke exhaust fans are not currently to be supplied by any back-up system other than the two feeders from the DWP. The requirement of an emergency generator for such mechanical loads has to be further studied.

As a result of the above investigations and analyses, a set of General Plans were developed which reflect the preliminary electrical system for each of the transit stations. It is noted that there are still issues to be resolved and further engineering details to be developed to complete the electrical system.

Appended to this section are a set of electrical engineering drawings for a "typical" station.



PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 5/20/83
DRAWN BY M.UDRESCU Date 5/20/83
CHECKED BY Date 5/20/83

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
STATION ELECTRICAL SERVICE
SINGLE LINE DIAGRAM

CONTRACT NO. A-220
DRAWING NO. E-35
SCALE NO SCALE
SHEET NO. 61 OF 69

MOTOR CONTROL CENTER SCHEDULE

MCC No. O/B MCC-1 LOCATION O/B AUXILIARY POWER ROOM
VOLTAGE 480V MAIN SIZE 800A BKR./FUSIBLE DISC. SW. / M.L.O.
INTERRUPTING CAPACITY _____ SYM. AMP.

CKT. No.	EQUIPMENT	KW/HP	COMBINATION STR. CKT. BKR. PLS	CKT. BKR. AMP.	STR. SIZE	BRANCH CKT. WIRE	BRANCH CKT. CONDUIT	REMARKS
	EMERGENCY VENTILATION FAN	150						
	EMERGENCY VENTILATION FAN	150						

MOTOR CONTROL CENTER SCHEDULE

MCC No. I/B MCC-1 LOCATION I/B AUXILIARY POWER ROOM
VOLTAGE 480V MAIN SIZE 800A BKR./FUSIBLE DISC. SW. / M.L.O.
INTERRUPTING CAPACITY _____ SYM. AMP.

CKT. No.	EQUIPMENT	KW/HP	COMBINATION STR. CKT. BKR. PLS	CKT. BKR. AMP.	STR. SIZE	BRANCH CKT. WIRE	BRANCH CKT. CONDUIT	REMARKS
	EMERGENCY VENTILATION FAN	150						
	EMERGENCY VENTILATION FAN	150						

MOTOR CONTROL CENTER SCHEDULE

MCC No. I/B MCC-4 LOCATION I/B CHILLER ROOM
VOLTAGE 480V MAIN SIZE 200A BKR./FUSIBLE OISC. SW. / M.L.O.
INTERRUPTING CAPACITY _____ SYM. AMP.

CKT. No.	EQUIPMENT	KW/HP	COMBINATION STR. CKT. BKR. PLS	CKT. BKR. AMP.	STR. SIZE	BRANCH CKT. WIRE	BRANCH CKT. CONDUIT	REMARKS
	CHILLED WATER PUMP	7 1/2						
	CHILLED WATER PUMP	7 1/2						
	CONDENSING WATER PUMP	15						
	CONDENSING WATER PUMP	15						
	COOLING TOWER FAN	25						
	COOLING TOWER FAN	25						

MOTOR CONTROL CENTER SCHEDULE

MCC No. O/B MCC-2 LOCATION O/B AUXILIARY POWER ROOM
VOLTAGE 480V MAIN SIZE 400A BKR./FUSIBLE DISC. SW. / M.L.O.
INTERRUPTING CAPACITY _____ SYM. AMP.

CKT. No.	EQUIPMENT	KW/HP	COMBINATION STR. CKT. BKR. PLS	CKT. BKR. AMP.	STR. SIZE	BRANCH CKT. WIRE	BRANCH CKT. CONDUIT	REMARKS
	UNDER PLATFORM EXHAUST FAN	75						
	SMOKE EXHAUST & RETURN AIR	75						

MOTOR CONTROL CENTER SCHEDULE

MCC No. I/B MCC-2 LOCATION I/B AIR SUPPLY UNIT ROOM
VOLTAGE 480V MAIN SIZE 400A BKR./FUSIBLE DISC. SW. / M.L.O.
INTERRUPTING CAPACITY _____ SYM. AMP.

CKT. No.	EQUIPMENT	KW/HP	COMBINATION STR. CKT. BKR. PLS	CKT. BKR. AMP.	STR. SIZE	BRANCH CKT. WIRE	BRANCH CKT. CONDUIT	REMARKS
	UNDER PLATFORM EXHAUST FAN	75						
	SMOKE EXHAUST & RETURN AIR	75						

MOTOR CONTROL CENTER SCHEDULE

MCC No. O/B MCC-3 LOCATION O/B AIR SUPPLY UNIT ROOM
VOLTAGE 480V MAIN SIZE 400A BKR./FUSIBLE DISC. SW. / M.L.O.
INTERRUPTING CAPACITY _____ SYM. AMP.

CKT. No.	EQUIPMENT	KW/HP	COMBINATION STR. CKT. BKR. PLS	CKT. BKR. AMP.	STR. SIZE	BRANCH CKT. WIRE	BRANCH CKT. CONDUIT	REMARKS
	STATION SUPPLY FAN	50						
	STATION SUPPLY FAN	50						

MOTOR CONTROL CENTER SCHEDULE

MCC No. I/B MCC-3 LOCATION I/B AIR SUPPLY UNIT ROOM
VOLTAGE 480V MAIN SIZE 400A BKR./FUSIBLE OISC. SW. / M.L.O.
INTERRUPTING CAPACITY _____ SYM. AMP.

CKT. No.	EQUIPMENT	KW/HP	COMBINATION STR. CKT. BKR. PLS	CKT. BKR. AMP.	STR. SIZE	BRANCH CKT. WIRE	BRANCH CKT. CONDUIT	REMARKS
	STATION SUPPLY FAN	50						
	STATION SUPPLY FAN	50						

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

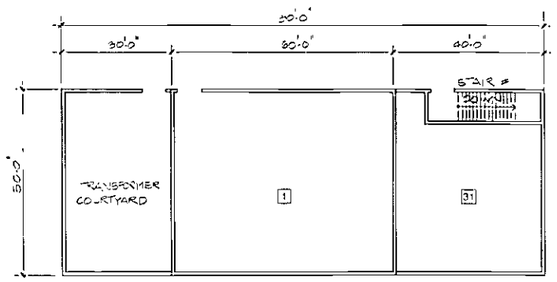
DESIGNED BY TAMS Date 5/2/83
DRAWN BY Date 5/2/83
CHECKED BY Date 5/2/83

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

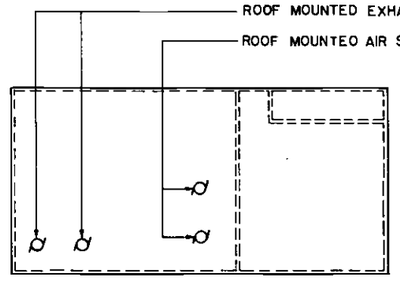
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE / WESTERN STATION
MOTOR CONTROL CENTER SCHEDULE

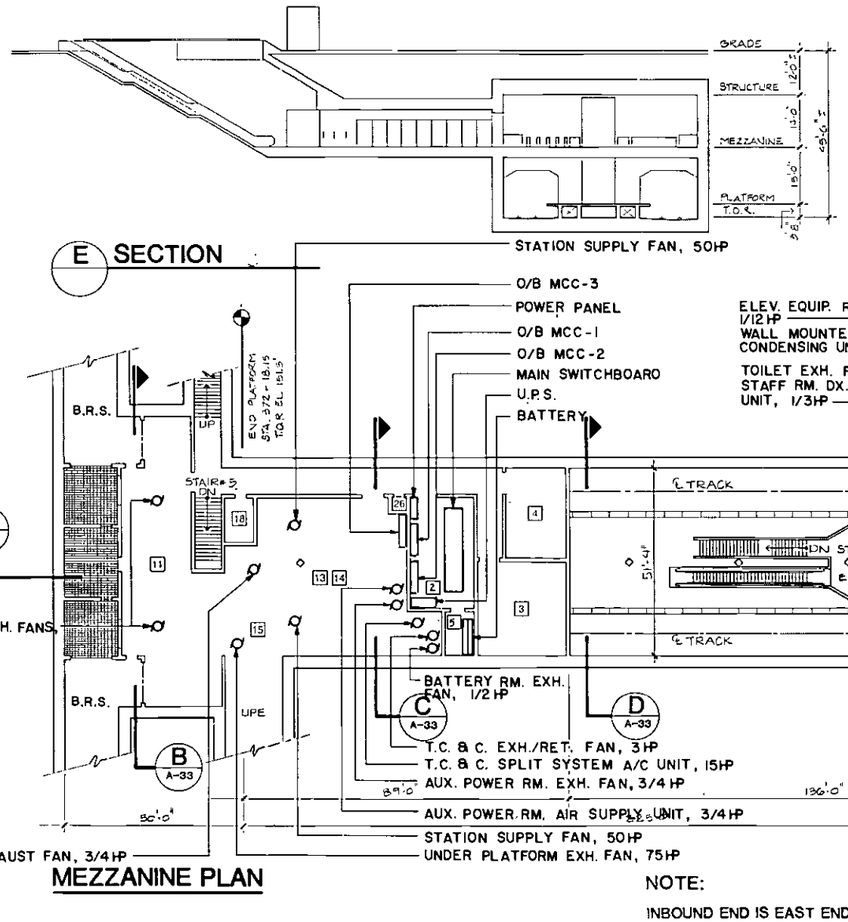
CONTRACT NO. A-220
DRAWING NO. E-36
SCALE NO SCALE
SHEET NO. 62 OF 63

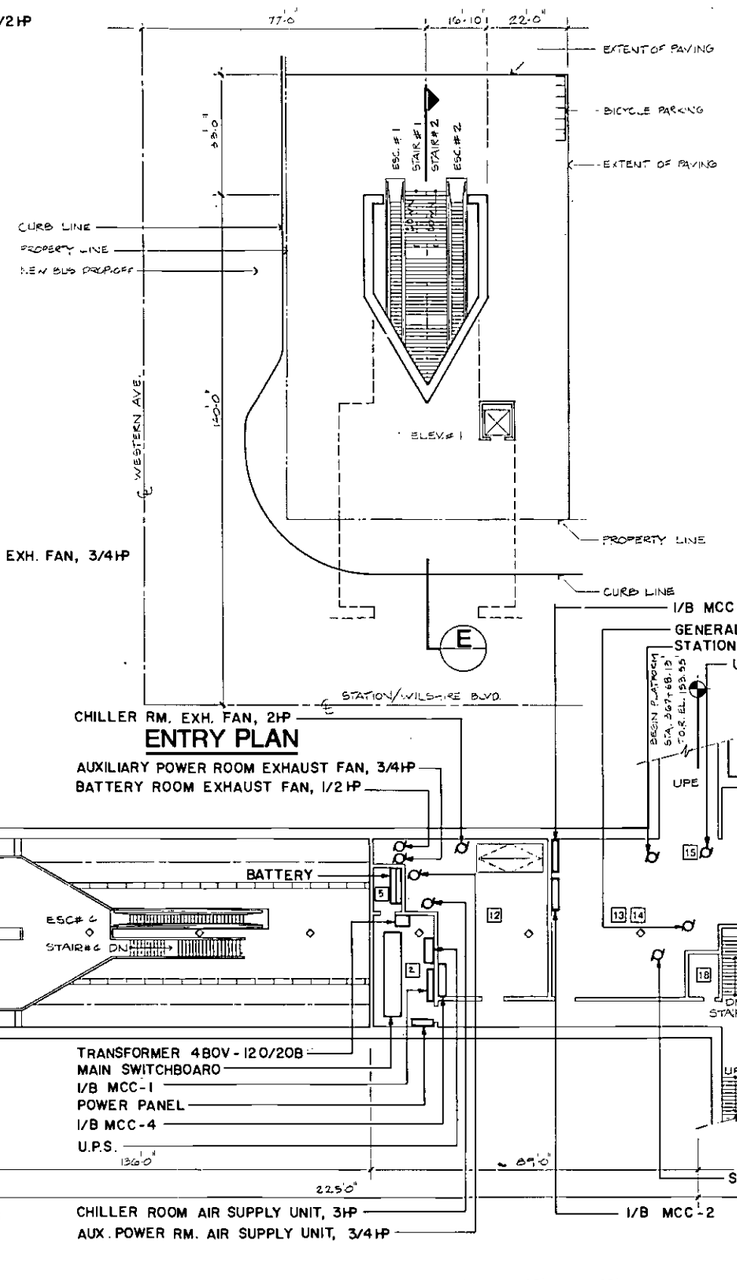


TRACTION POWER SUBSTATION PLAN



TRACTION POWER SUBSTATION ROOF PLAN





SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Contr'
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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. **Toilet**
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. **Staff/Security**
30. **Deleted**
31. Electric Incoming Service

NOTE:

INBOUND END IS EAST END OF STATION
OUTBOUND END IS WEST END OF STATION

0' 20' 40' 80'

NORTH

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 5/20/83
DRAWN BY M. UDRESCU Date 5/20/83
CHECKED BY H.T.J. CHANG Date 5/20/83

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
ELECTRICAL PLANS
MEZZANINE
SUBSTATION

CONTRACT NO. A-220
DRAWING NO. E-37
SCALE 1"=20'-0"
SHEET NO. 63 OF 63

CHAPTER V
STATION COST ESTIMATES

STATION COST ESTIMATES

During the preliminary engineering phase of the Los Angeles Metro Rail project, several alternative designs and concepts were developed. Similarly, many cost estimates were prepared associated with these alternatives. The following narrative is a chronological synopsis of the estimating functions performed for this project.

The estimating role for preliminary engineering was separated into three major cost development exercises. The first of these major estimates was called the 14 Series Estimates. These took place in late September and early October, 1982.

As background information for these estimates, "typical" cross sections for an over/under station and a center platform station were provided. In addition, preliminary site plans or footprint drawings showing the site location for each station were used. This series of estimates was based on a double column scheme.

Several cost alternatives and studies were developed and analyzed as a guide for station design. A complete listing of all alternatives estimated is not pertinent here. However, a small list of a few significant ones is appropriate:

1. Cost per vertical foot of station depth.
2. No. 8 versus No. 10 crossover savings.
3. Center versus end mezzanine configuration.
4. 32' versus 28' platform widths.
5. Column-free versus single or double column station framing system.
6. Traction power substation at-grade versus underground.

In addition to these, there were numerous detailed cost examinations of different entrance locations at specific stations.

The WBS 16 Series estimates went into much greater detail than the predecessor 14 Series. This time, there were separate cross sections, longitudinal sections, and site plans for each of the stations. Instead of using square footage costs for station finishes, a complete breakdown listing individual categories such as electrical, mechanical, architectural finishes, HVAC, etc. was used. This breakdown also served as the standard format for station cost estimates.

For the 16 Series estimates, a clear-span configuration was used as the estimating basis, not the double column scheme as in the 14 Series. Also, various design elements were changed. By the introduction of variables caused by changes in station design, etc., no meaningful comparison between the 16 and 14 Series estimates could be made.

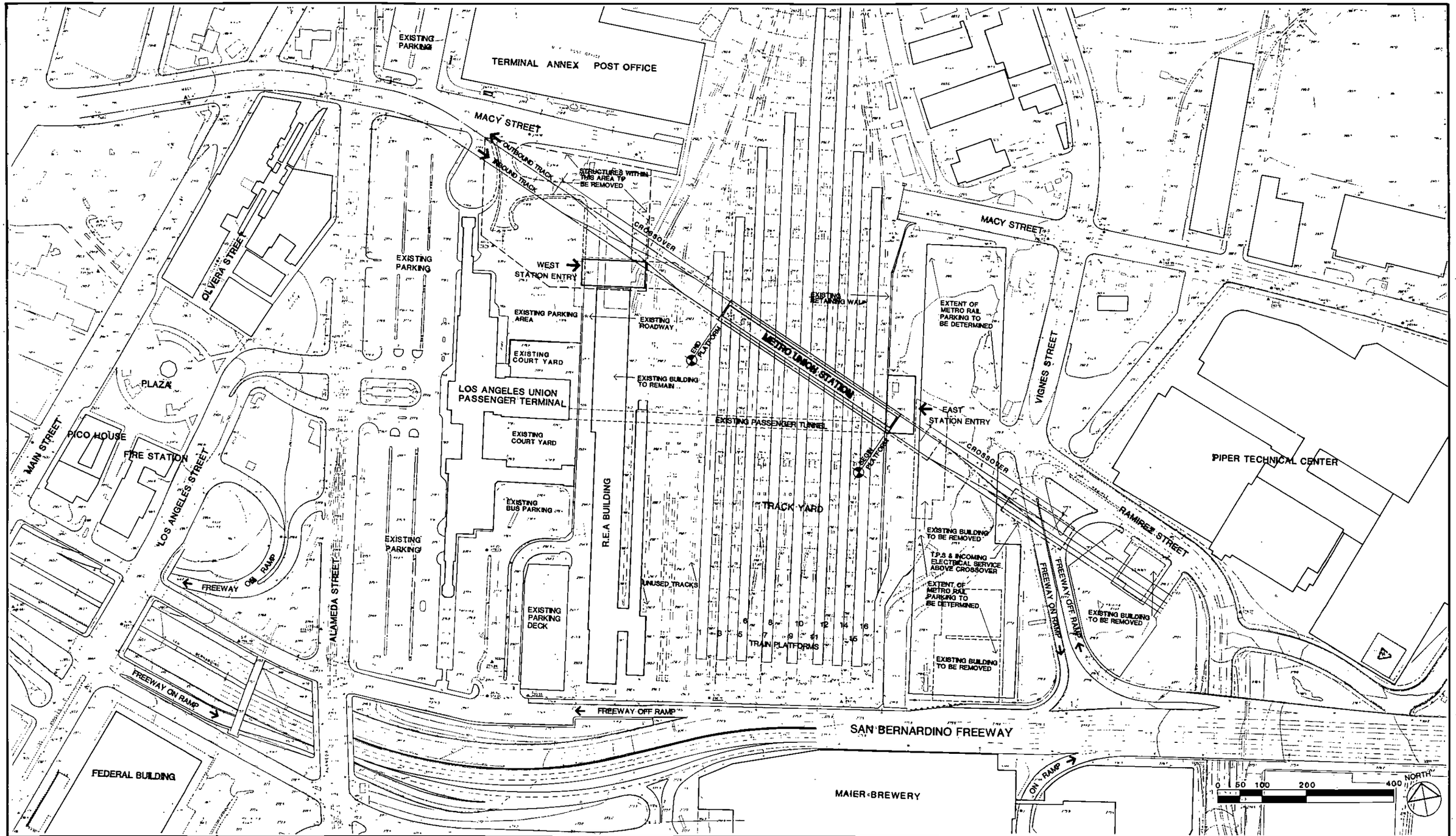
Because of the length of station cut-and-cover box and other factors, the station costs were high. A cost reduction program went into effect listing possible cuts. These solutions varied from decreasing the number of vertical elements within the station to shortening the box length and going to a single column configuration. This latter idea was finally adopted, leading to a new revised 16 Series estimate. As a result of the cost reduction program, a new estimate based on the following major revisions:

1. Reduction of overall box length.
2. Use of a single column in place of the clear-span concept.
3. Deleting specific entrances and elevators/escalators.
4. Deferral of HVAC cooling apparatus.
5. Reduction of parking facilities.

The last major task was the final Preliminary Engineering Cost Estimate for stations. This activity was considered both a WBS 16 Series and 17 Series task. Once again, revisions to the previous cost estimate iteration were made. For example, several stations were changed from end to center mezzanine configuration. Also, two stations, Wilshire/Crenshaw and the Hollywood Bowl were added to the starter line for Preliminary Engineering purposes.

In conclusion, it is readily apparent that the estimating function of the Metro Rail Project has played a key role in selecting route location, station design, and other significant parameters. From the inception of this project, numerous studies and alternative analyses were conducted to optimize design and efficiency with minimum cost implications.

APPENDIX A
GENERAL PLANS



REV	DATE	BY	APP.	DESCRIPTION
	7/6/83	J.Y.		REVISIONS TO ANCILLARY ROOMS FOR COURT REDUCTION

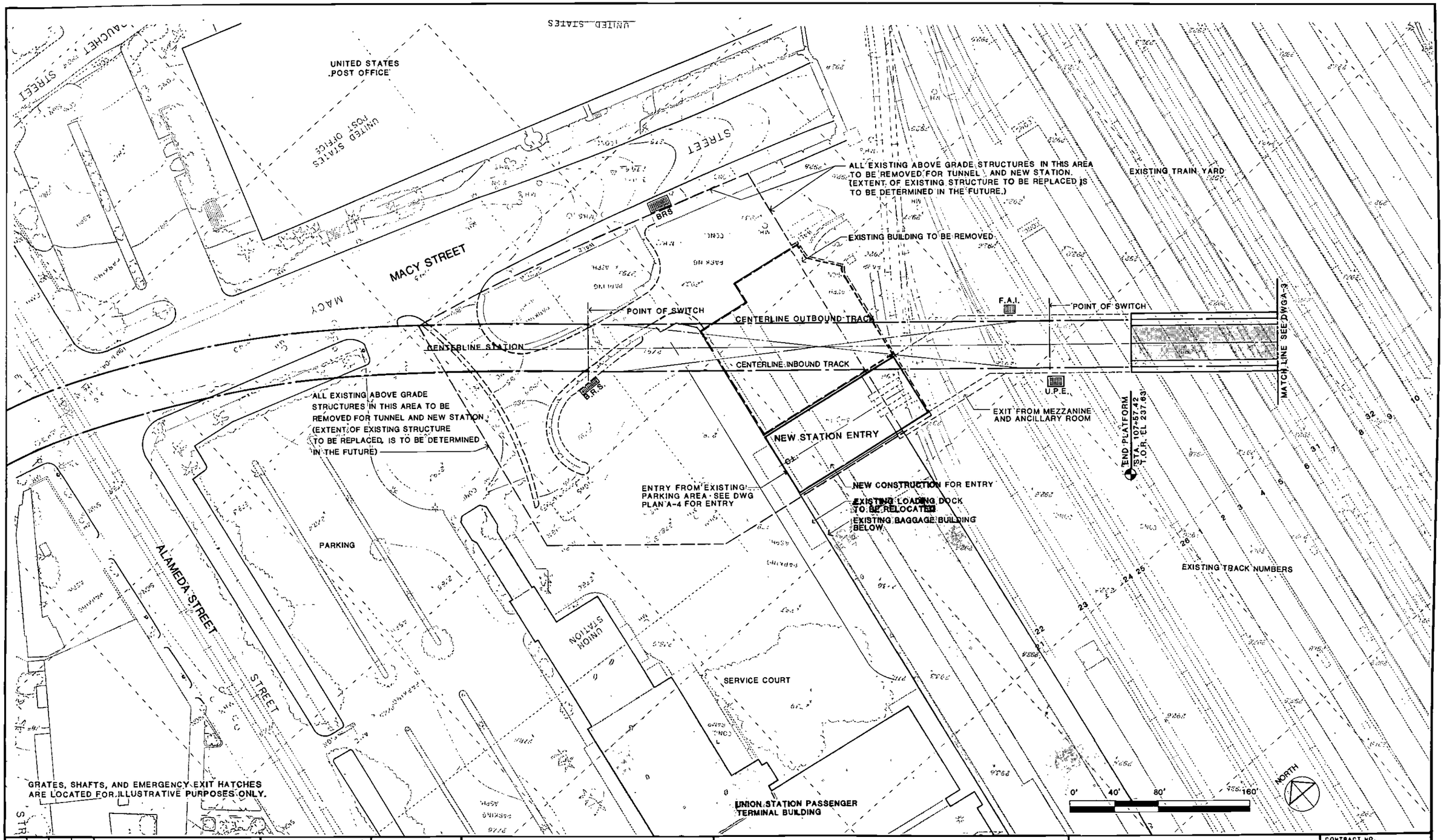
DESIGNED BY HWA Date 6-27-83
DRAWN BY M.POINDEXTER Date 6-27-83
CHECKED BY J.YEN Date 6-30-83

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.

UNION STATION
SITE PLAN
PRELIMINARY

CONTRACT NO. A135
DRAWING NO. A-1
SCALE 1" = 100'
SHEET NO. 10 OF 31



REV.	DATE	BY	APP.	DESCRIPTION
	6-20-83	MP	J.Y.	ENTRANCE REVISIONS
	6/20/83		PP	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY HWA Date 4/20/83
DRAWN BY M.HOMER Date 4/20/83
CHECKED BY J.TEN PEATI Date 4/20/83

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

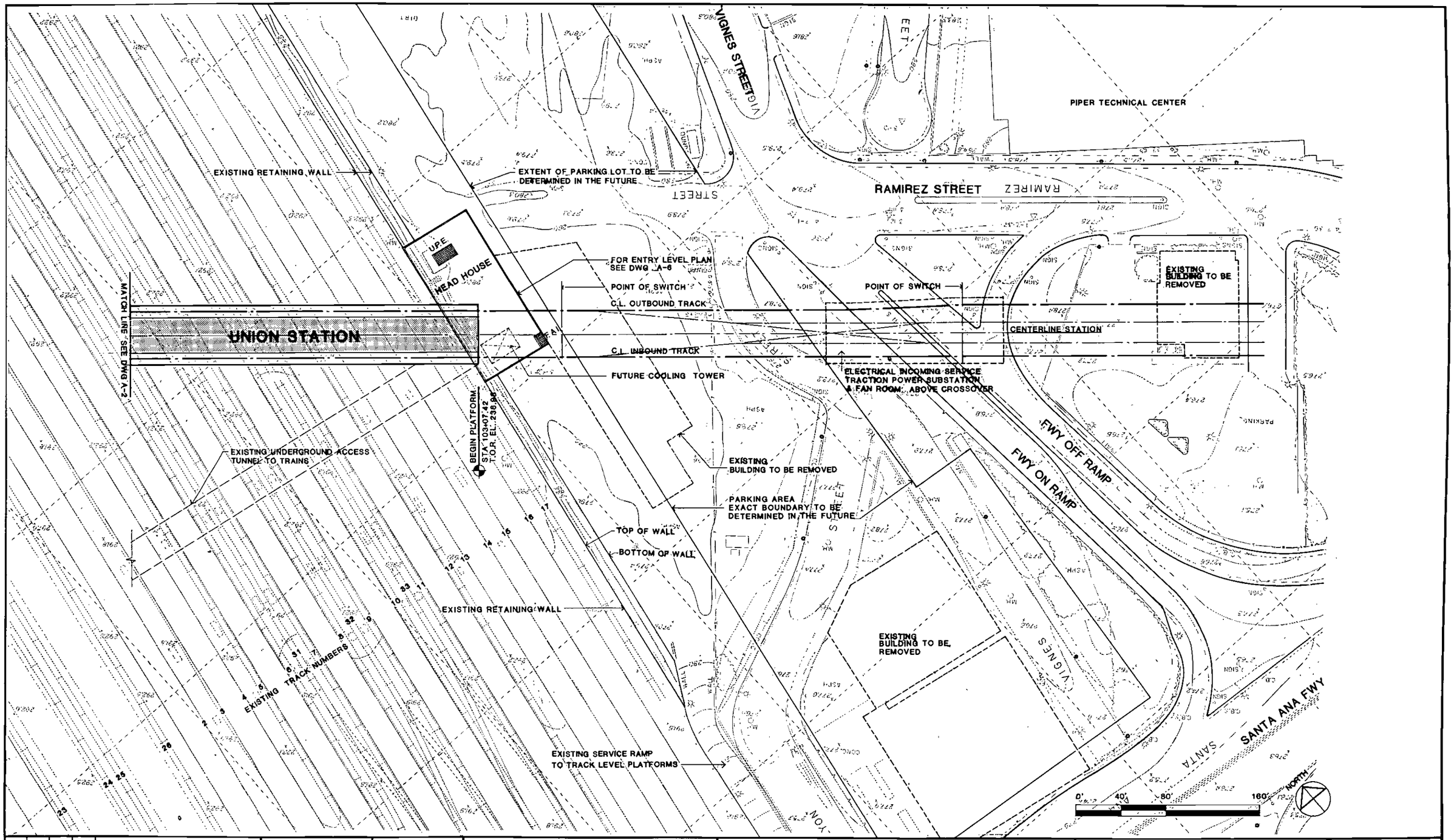
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED
Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

UNION STATION
SITE PLAN-WEST ENTRANCE
PRELIMINARY

CONTRACT NO. A135
DRAWING NO. A-2
SCALE 1"=40'-0"
SHEET NO. 11 OF 31



REV.	DATE	BY	APP.	DESCRIPTION
	4/26/83		RP	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

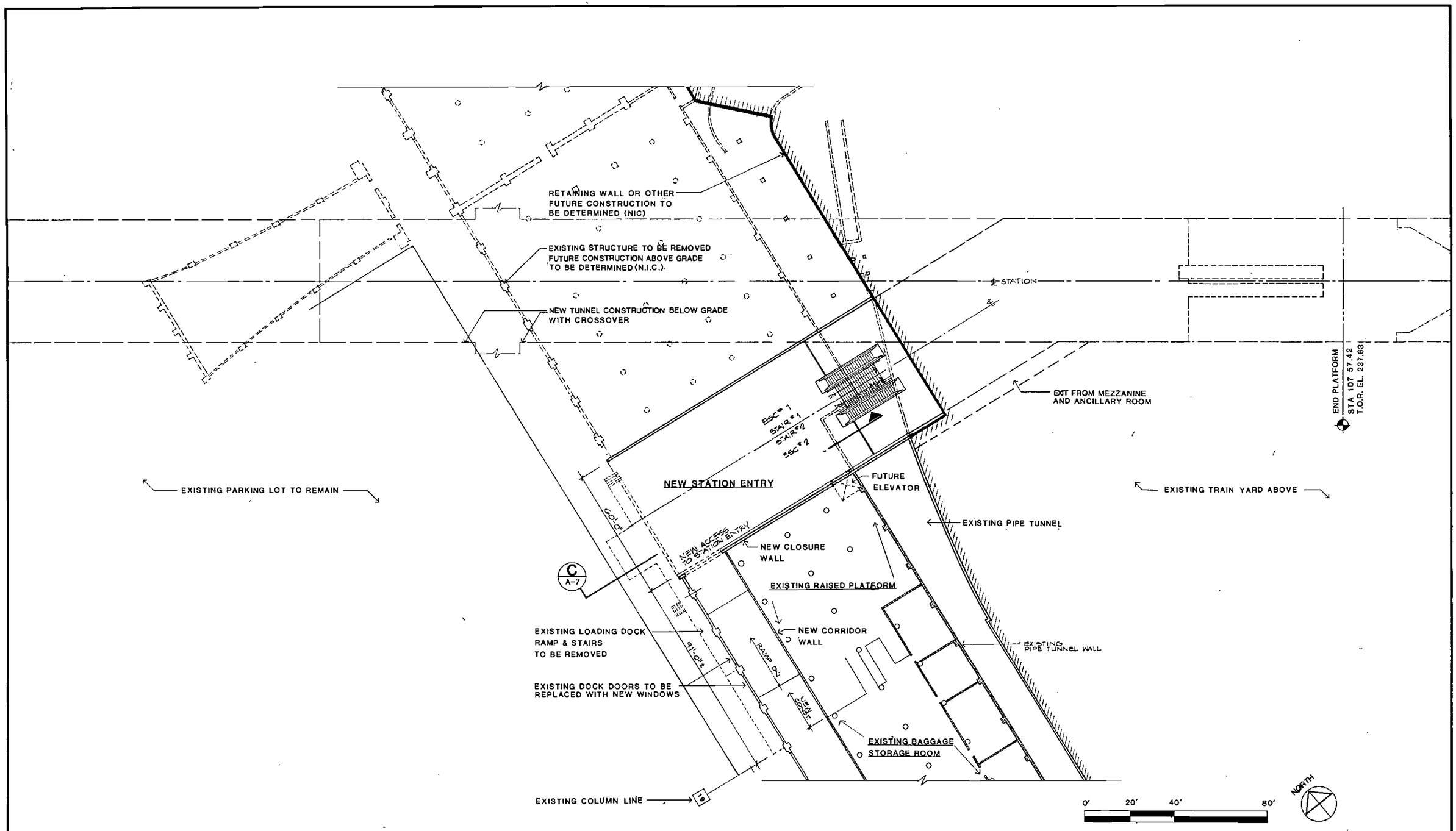
DESIGNED BY HWA Date 4/15/83
DRAWN BY M.HOMER/B.KAPLAN Date 4/15/83
CHECKED BY J.TEN PIGATI Date 4/20/83

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.

UNION STATION
SITE PLAN - EAST ENTRANCE
PRELIMINARY

CONTRACT NO. A135
DRAWING NO. A-3
SCALE 1"=40'-0"
SHEET NO. 12 OF 31



REV.	DATE	BY	APP.	DESCRIPTION
	6-23	SD	J.Y.	ENTRANCE REVISIONS
	4/20/83		PP	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY HWA Date 4/20/83
DRAWN BY M. HOMER Date 4/20/83
CHECKED BY J. YEN Date 4/20/83 PICATI

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

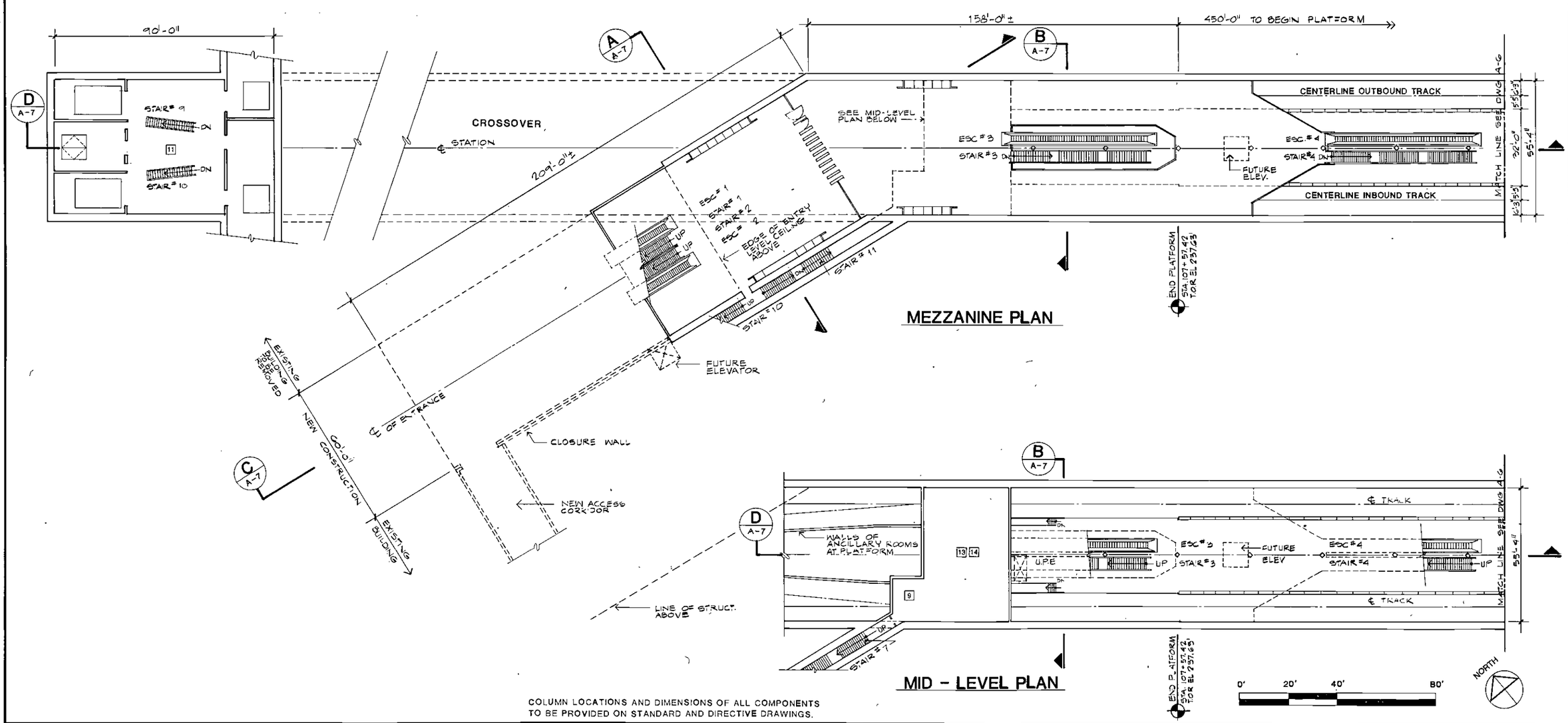
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

UNION STATION
STATION ENTRY PLAN
WEST ENTRANCE
PRELIMINARY

CONTRACT NO. A135
DRAWING NO. A-4
SCALE 1"=20'-0"
SHEET NO. 17 OF 31

SERVICE AND EQUIPMENT ROOMS

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



COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

REV.	DATE	BY	APP.	DESCRIPTION
	6-20-83	MP	J.T.	ENTRANCE REVISIONS
	2-20-85		J.T.	REVISIONS TO ANCILLARY ROOMS FOR CITY INSTALLATION

DESIGNED BY H'WA Date 6-9-83
DRAWN BY M. POINDEXTER Date 6-9-83
CHECKED BY J.TEN Date 6-30-83

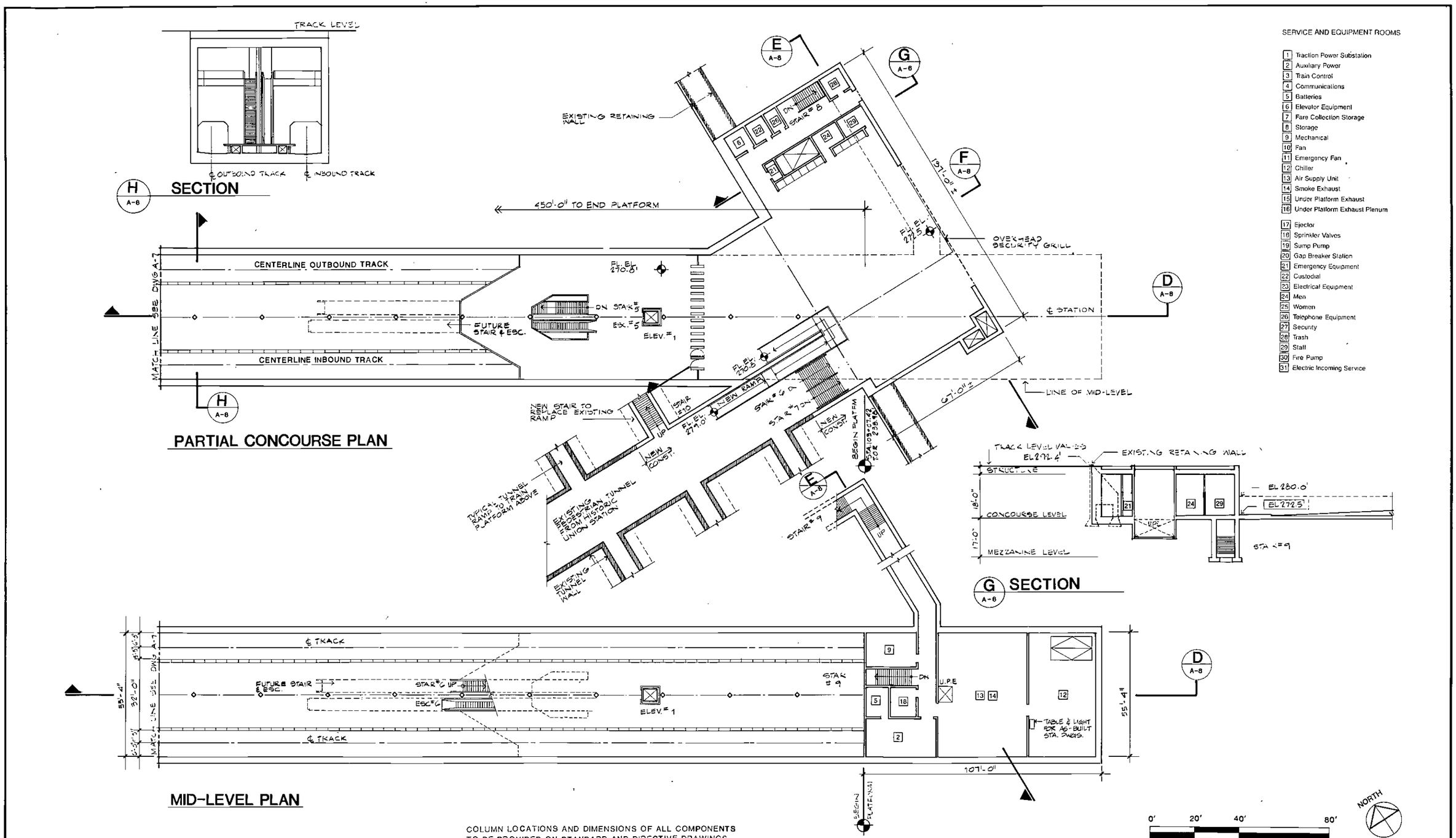
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY: PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

UNION STATION
MEZZANINE LEVEL PLAN
WEST ENTRANCE
PRELIMINARY

CONTRACT NO. A135
DRAWING NO. A-5
SCALE 1"=20'-0"
SHEET NO. 18 OF 31



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. Security
28. Trash
29. Staff
30. Fire Pump
31. Electric Incoming Service

COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

REV.	DATE	BY	APP.	DESCRIPTION
	6/10/83	V.P.	J.Y.	ENTRANCE REVISION
	4/83		J.Y.	[illegible]

DESIGNED BY HWA Date 6/10/83
DRAWN BY A. VERMA. Date 6/10/83.
CHECKED BY J. YEN Date 6-30-83

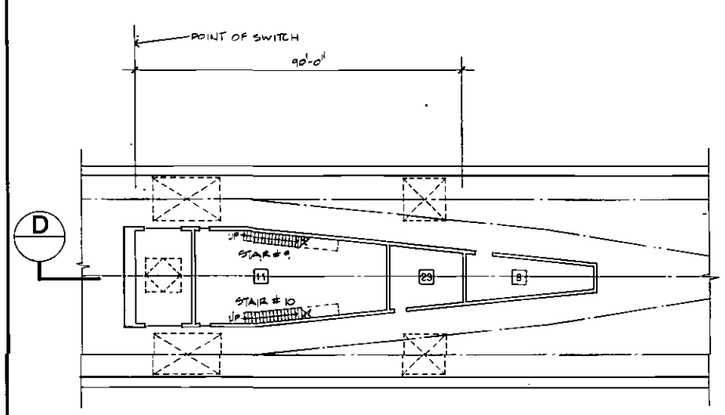
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

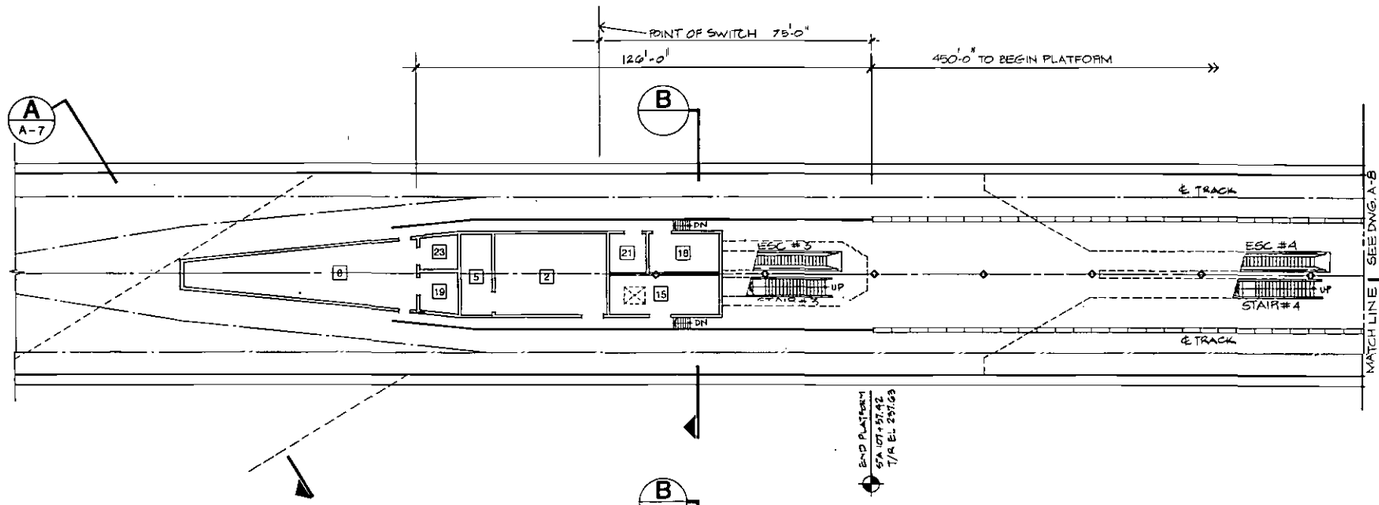
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

UNION STATION
PLANS / SECTIONS EAST ENTRANCE
PRELIMINARY

CONTRACT NO. A 135
DRAWING NO. A-6
SCALE 1"=20'-0"
SHEET NO. 19 OF 31

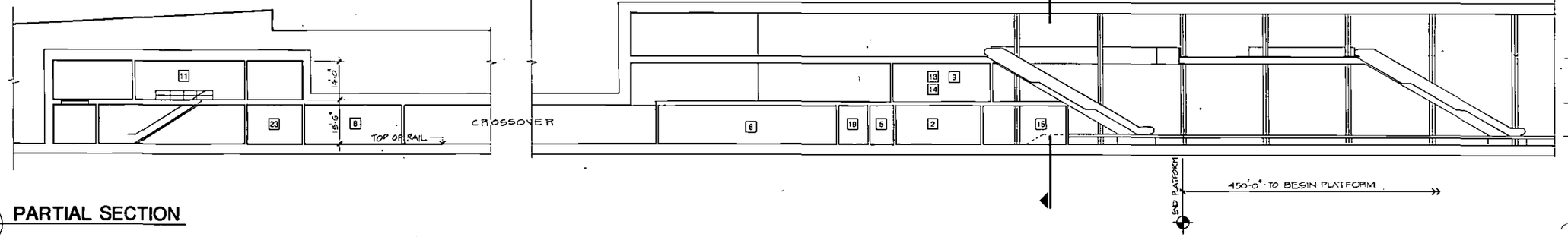




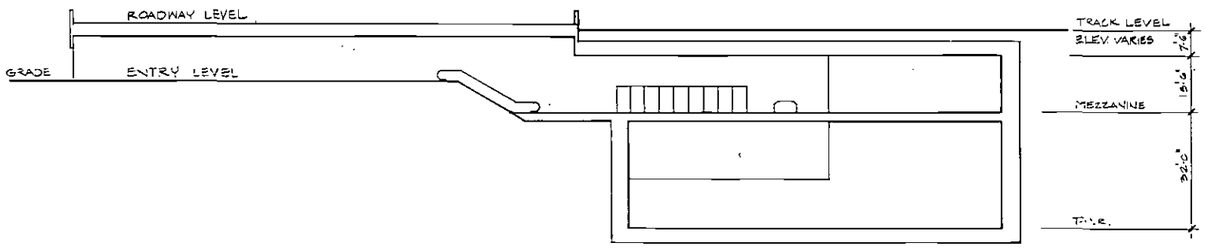
PARTIAL PLATFORM PLAN

SERVICE AND EQUIPMENT ROOMS

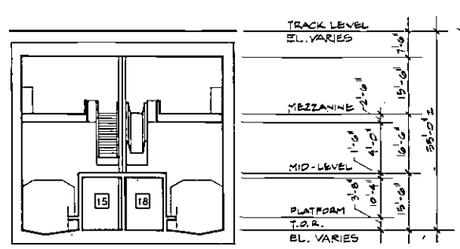
1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector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



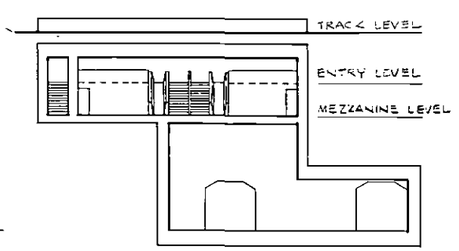
D PARTIAL SECTION



C SECTION



B SECTION



A SECTION

NORTH

0' 20' 40' 80'

COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

REV.	DATE	BY	APP.	DESCRIPTION
2	6/10/83	JY		ENTRANCE REVISIONS
1	5/24/83	RP		REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY HWA Date 4/20/83
DRAWN BY RBJ Date 4/20/83
CHECKED BY J.YEN PIGATI Date 4/20/83

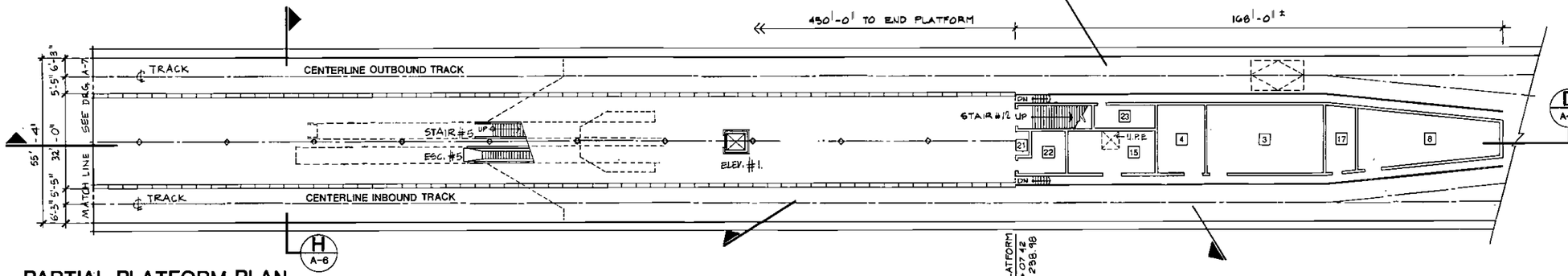
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

UNION STATION
PLATFORM LEVEL PLAN
WEST ENTRANCE
PRELIMINARY

CONTRACT NO. A135
DRAWING NO. A-7
SCALE 1"-20'-0"
SHEET NO. 20 OF 31

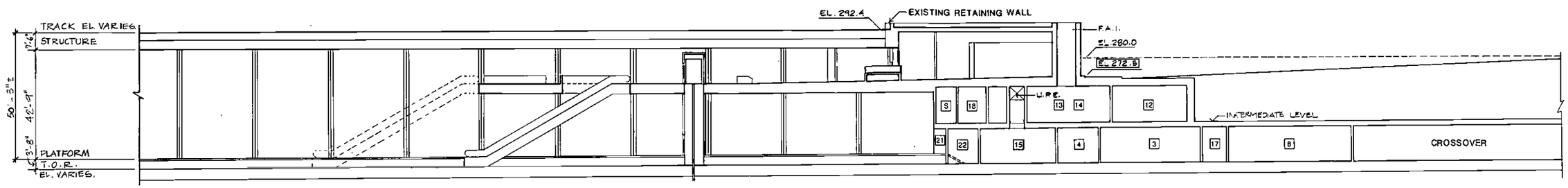


F A-8 E A-8 D A-8 H A-8

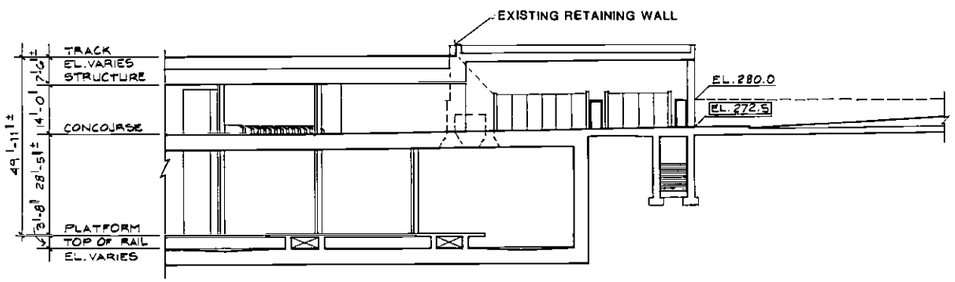
PARTIAL PLATFORM PLAN

SERVICE AND EQUIPMENT ROOMS

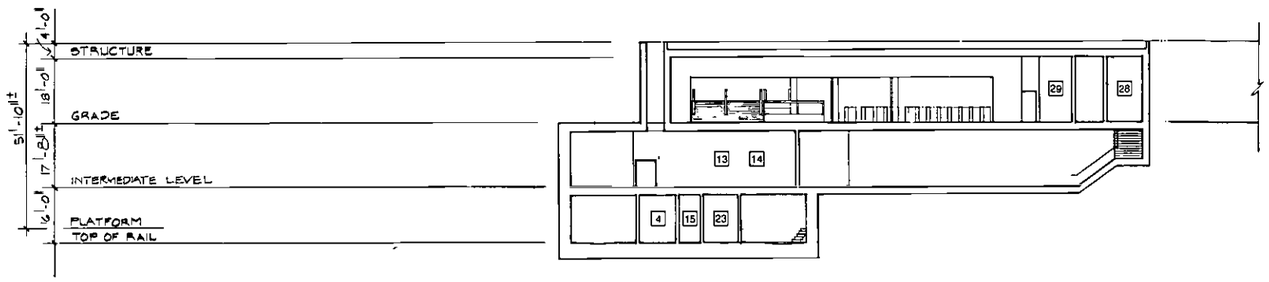
1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector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



D A-8 PARTIAL SECTION



F A-8 SECTION



E A-8 SECTION

0' 20' 40' 80'

NORTH

COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

REV.	DATE	BY	APP.	DESCRIPTION
	6-10-83	J.Y.		REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

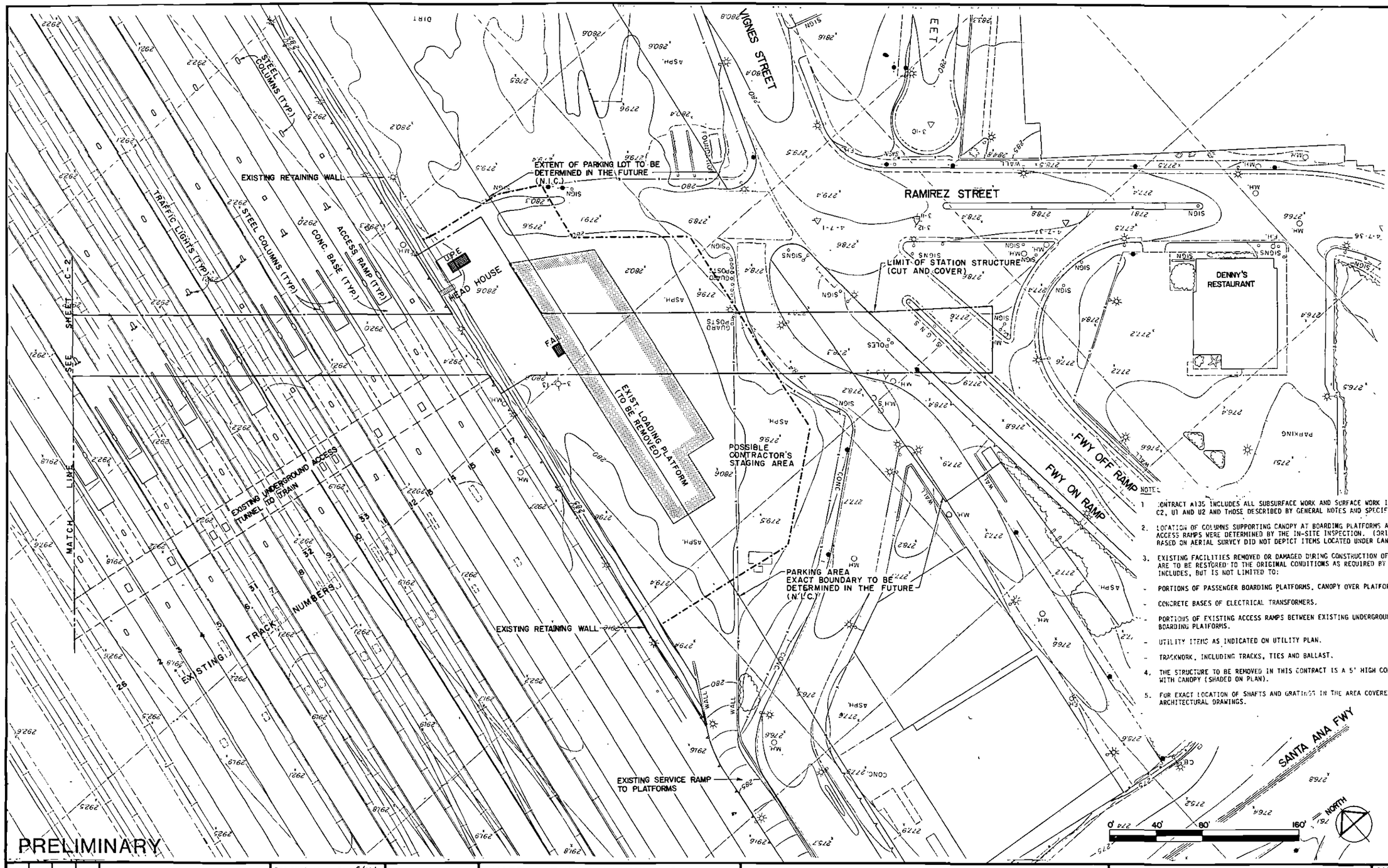
DESIGNED BY HWA Date 6/10/83
DRAWN BY A. VERMA Date 6/10/83
CHECKED BY J. YEN Date 6-30-83

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.

UNION STATION
PLANS / SECTIONS EAST ENTRANCE
PRELIMINARY

CONTRACT NO. A 135
DRAWING NO. A-8
SCALE 1"-20'-0"
SHEET NO. 21 OF 31



NOTES:

1. CONTRACT A135 INCLUDES ALL SUBSURFACE WORK AND SURFACE WORK ITEMS SHOWN ON SHEETS C1, C2, U1 AND U2 AND THOSE DESCRIBED BY GENERAL NOTES AND SPECIFICATIONS.
2. LOCATION OF COLUMNS SUPPORTING CANOPY AT BOARDING PLATFORMS AND LOCATION OF EXISTING ACCESS RAMPS WERE DETERMINED BY THE IN-SITE INSPECTION. (ORIGINAL TOPOGRAPHY PLAN BASED ON AERIAL SURVEY DID NOT DEPICT ITEMS LOCATED UNDER CANOPY).
3. EXISTING FACILITIES REMOVED OR DAMAGED DURING CONSTRUCTION OF THE STATION STRUCTURE ARE TO BE RESTORED TO THE ORIGINAL CONDITIONS AS REQUIRED BY THE RAILROAD. THIS INCLUDES, BUT IS NOT LIMITED TO:
   - PORTIONS OF PASSENGER BOARDING PLATFORMS, CANOPY OVER PLATFORMS, STEEL COLUMNS.
   - CONCRETE BASES OF ELECTRICAL TRANSFORMERS.
   - PORTIONS OF EXISTING ACCESS RAMPS BETWEEN EXISTING UNDERGROUND TUNNEL AND SURFACE BOARDING PLATFORMS.
   - UTILITY ITEMS AS INDICATED ON UTILITY PLAN.
   - TRACKWORK, INCLUDING TRACKS, TIES AND BALLAST.
4. THE STRUCTURE TO BE REMOVED IN THIS CONTRACT IS A 5' HIGH CONCRETE LOADING PLATFORM WITH CANOPY (SHADED ON PLAN).
5. FOR EXACT LOCATION OF SHAFTS AND GRATINGS IN THE AREA COVERED BY SHEETS C1 AND C2 SEE ARCHITECTURAL DRAWINGS.

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

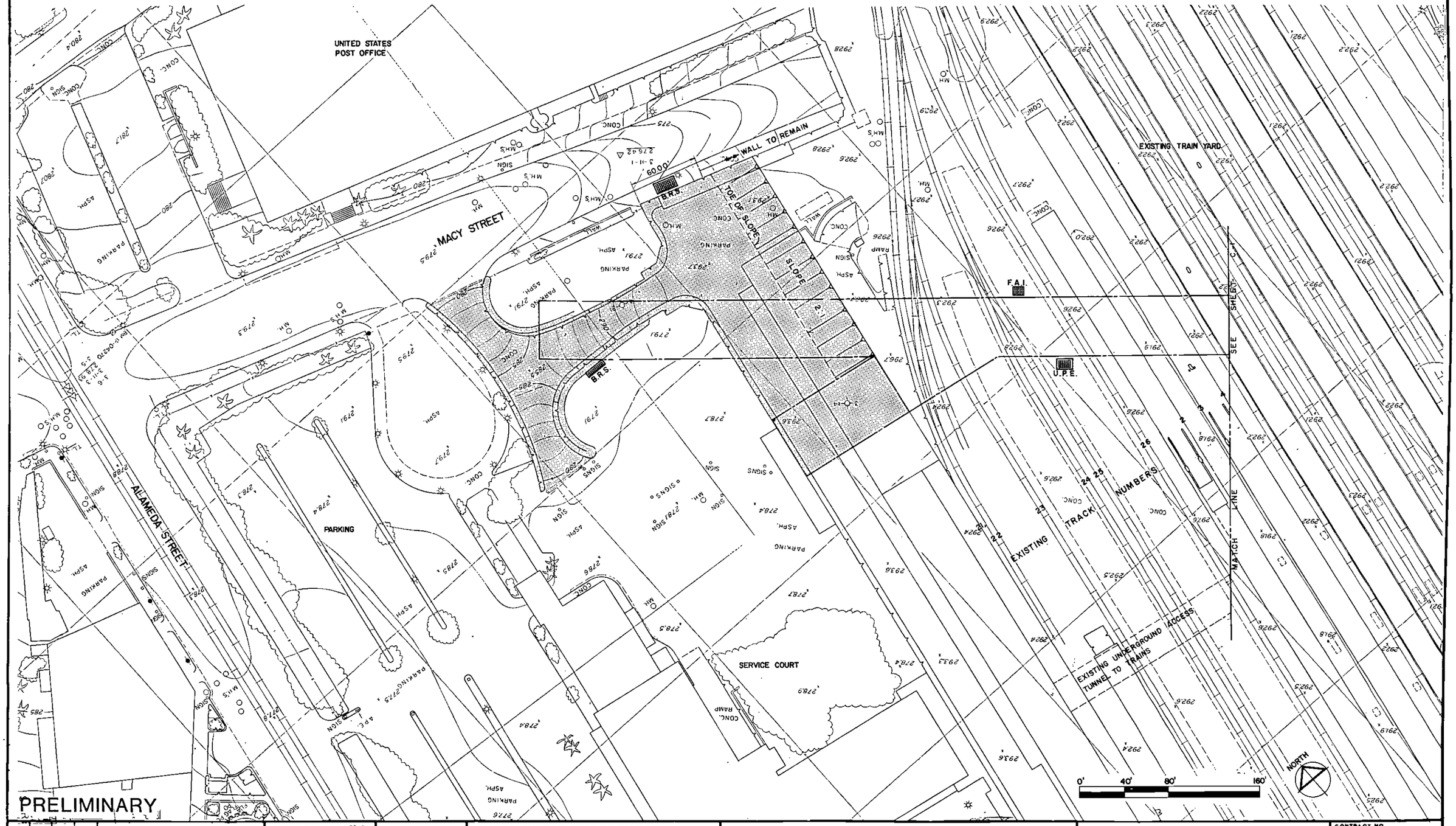
DESIGNED BY TAMS Date 5/12/83
DRAWN BY RGL / S.AN Date 5/12/83
CHECKED BY JLD Date 5/12/83

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.

UNION STATION
CIVIL SITE PLAN-EAST ENTRANCE

CONTRACT NO. A135
DRAWING NO. C-1
SCALE 1" = 40' - 0"
SHEET NO. 13 OF 31



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 5/2/83
DRAWN BY S.AN / RGL Date 5/3/83
CHECKED BY JLD Date 5/13/83

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

SUBMITTED BY:
PROJECT MANAGER

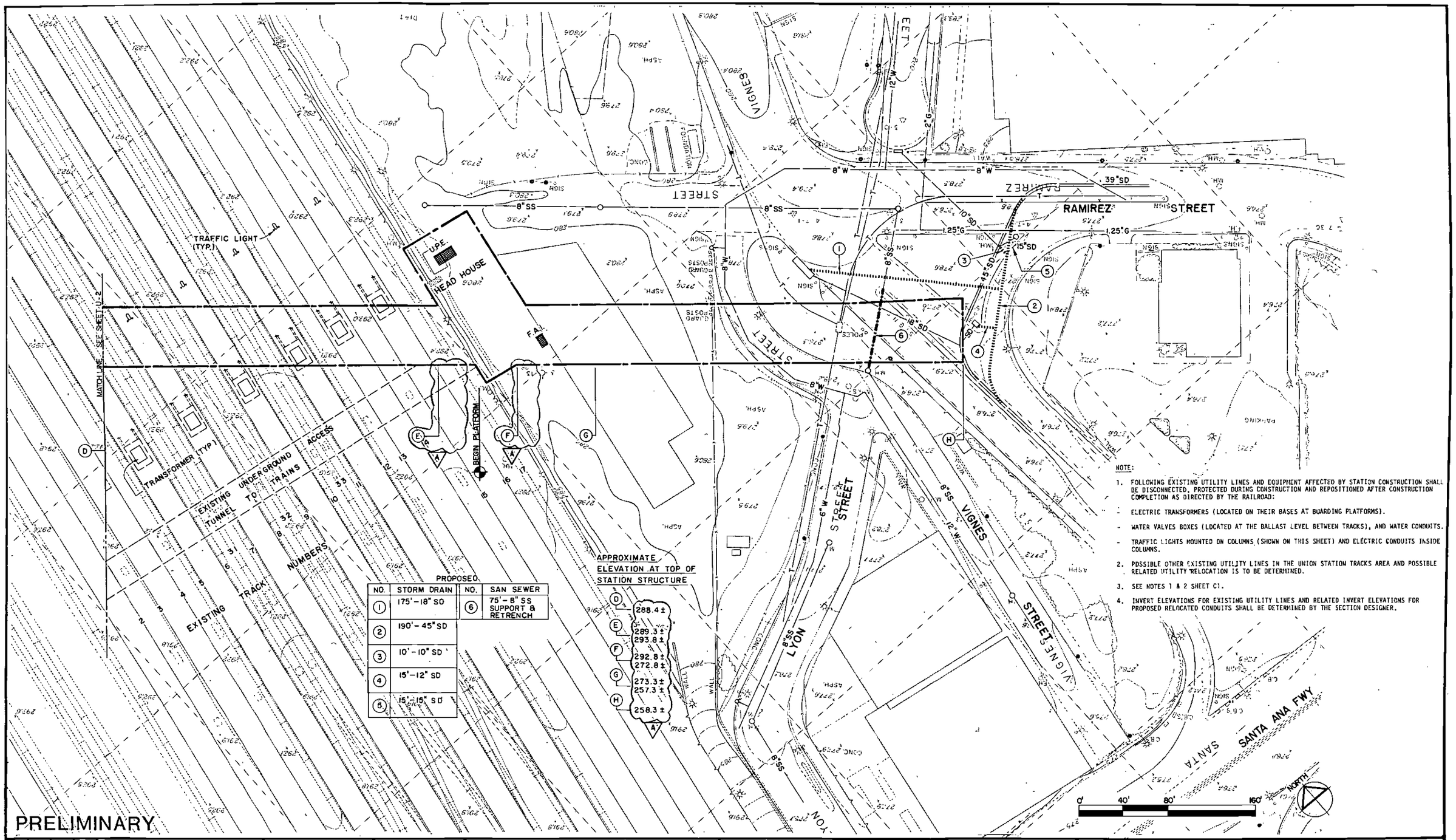
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

APPROVAL RECOMMENDED
Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

UNION STATION
CIVIL SITE PLAN-WEST ENTRANCE

CONTRACT NO. A135
DRAWING NO. C-2
SCALE 1" = 40' - 0"
SHEET NO. 14 OF 31



PROPOSED

NO.	STORM DRAIN	NO.	SAN SEWER
(1)	175'-18" SD	(6)	75'-8" SS SUPPORT & RETRENCH
(2)	190'-45" SD		
(3)	10'-10" SD		
(4)	15'-12" SD		
(5)	15'-15" SD		

APPROXIMATE ELEVATION AT TOP OF STATION STRUCTURE

(D)	288.4±
(E)	289.3±
	293.8±
(F)	292.8±
	272.8±
(G)	273.3±
	257.3±
(H)	258.3±

NOTE:

1. FOLLOWING EXISTING UTILITY LINES AND EQUIPMENT AFFECTED BY STATION CONSTRUCTION SHALL BE DISCONNECTED, PROTECTED DURING CONSTRUCTION AND REPOSITIONED AFTER CONSTRUCTION COMPLETION AS DIRECTED BY THE RAILROAD:
   - ELECTRIC TRANSFORMERS (LOCATED ON THEIR BASES AT BOARDING PLATFORMS).
   - WATER VALVES BOXES (LOCATED AT THE BALLAST LEVEL BETWEEN TRACKS), AND WATER CONDUITS.
   - TRAFFIC LIGHTS MOUNTED ON COLUMNS (SHOWN ON THIS SHEET) AND ELECTRIC CONDUITS INSIDE COLUMNS.
2. POSSIBLE OTHER EXISTING UTILITY LINES IN THE UNION STATION TRACKS AREA AND POSSIBLE RELATED UTILITY RELOCATION IS TO BE DETERMINED.
3. SEE NOTES 1 & 2 SHEET C1.
4. INVERT ELEVATIONS FOR EXISTING UTILITY LINES AND RELATED INVERT ELEVATIONS FOR PROPOSED RELOCATED CONDUITS SHALL BE DETERMINED BY THE SECTION DESIGNER.

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
1	7/20/83	JLD		REVISED ELEVATIONS & SECTION LINES ON STATION STRUCTURE

DESIGNED BY TAMS Date 5/12/83
DRAWN BY RGL / S.AN Date 5/13/83
CHECKED BY JLD Date 5/13/83

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

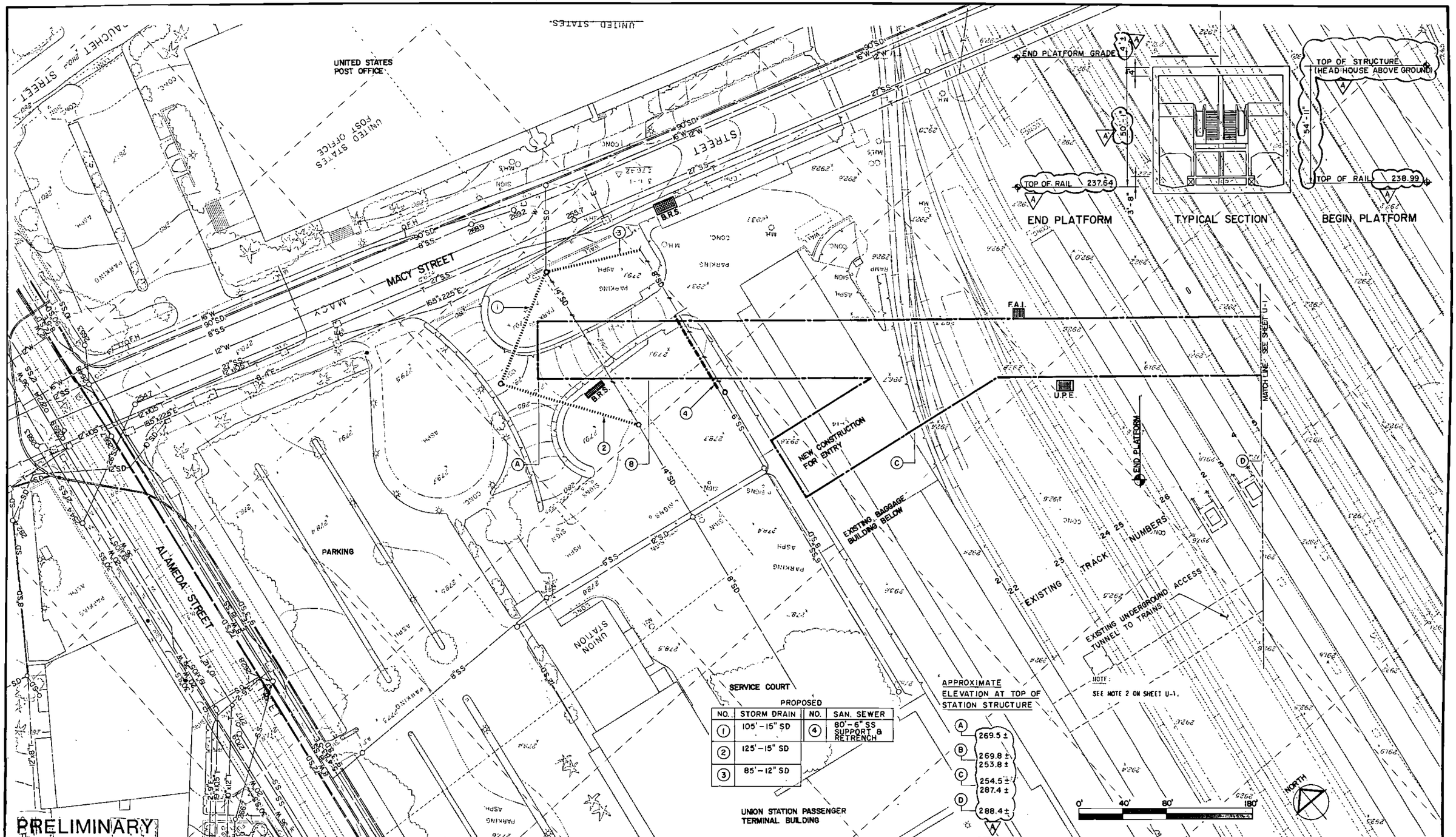
SUBMITTED BY: _____ PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

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

UNION STATION
UTILITY PLAN REARRANGEMENT
EAST ENTRANCE

CONTRACT NO. A135
DRAWING NO. U-1
SCALE 1" - 40' - 0"
SHEET NO. 15 OF 31



PROPOSED

NO.	STORM DRAIN	NO.	SAN. SEWER
1	105'-15" SD	4	80'-6" SS SUPPORT & RETRENCH
2	125'-15" SD		
3	85'-12" SD		

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
1	7/22/83	JLD		REVISED EL. OF TOP OF STRUCTURE & CONC. RAIL & DIMENSIONS OF SECTION

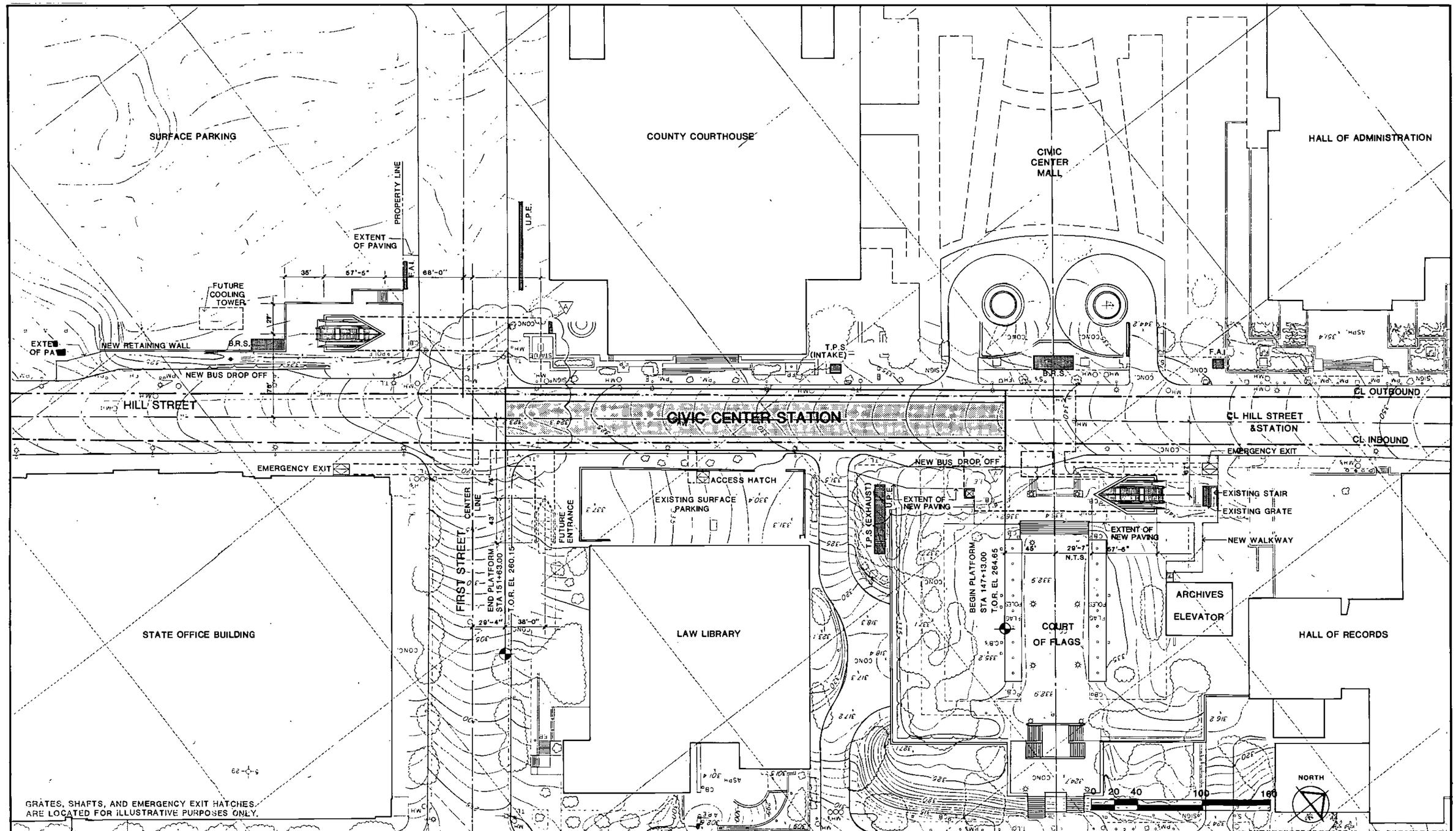
DESIGNED BY TAMS Date 5/13/83
DRAWN BY RGL / S.AN Date 5/4/83
CHECKED BY JLD Date 5/13/83

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.

UNION STATION
UTILITY PLAN REARRANGEMENT
WEST ENTRANCE

CONTRACT NO. A135
DRAWING NO. U-2
SCALE 1" - 40' - 0"
SHEET NO. 16 OF 31



REV.	DATE	BY	APP.	DESCRIPTION
A	1/1/83	MD	J.Y.	REVISIONS AS PER SCRTD COMMENTS.
	4/29/83		N.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTIONS.

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

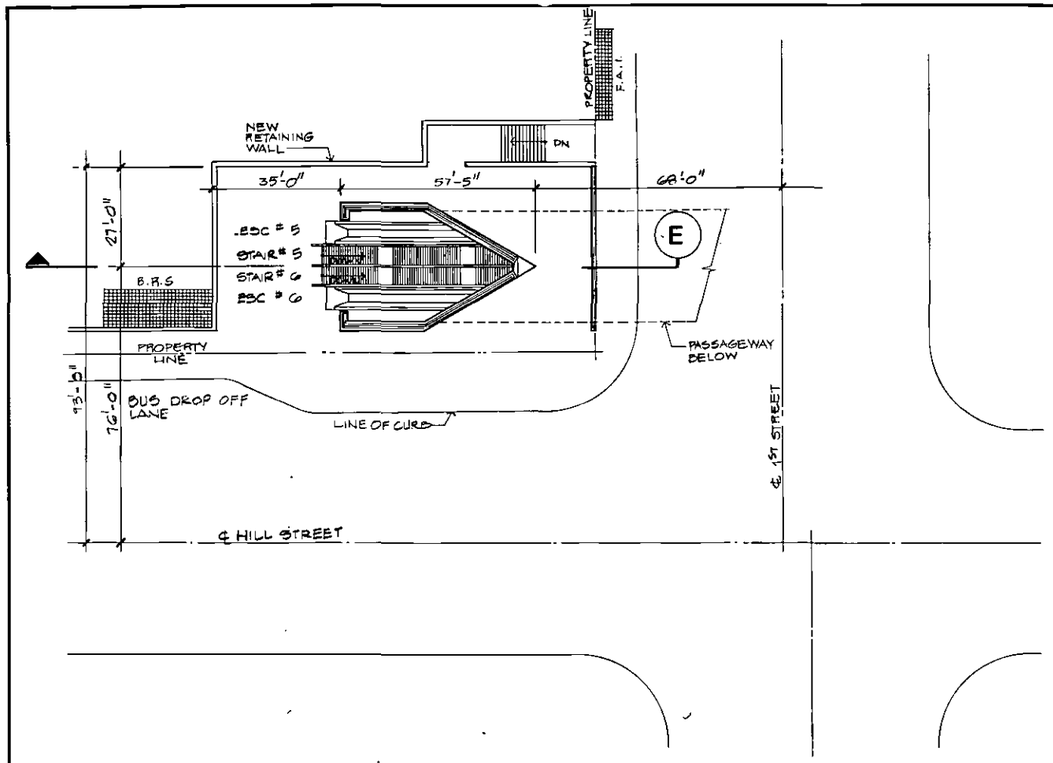
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

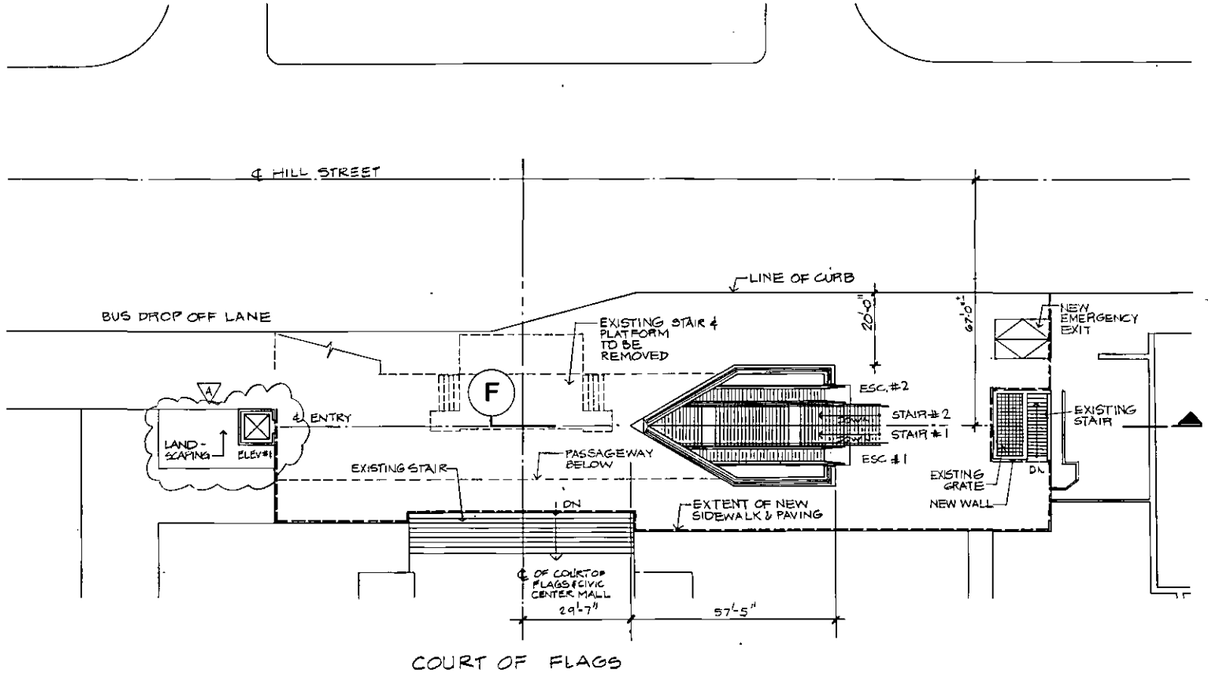
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

CIVIC CENTER STATION
SITE PLAN
PRELIMINARY

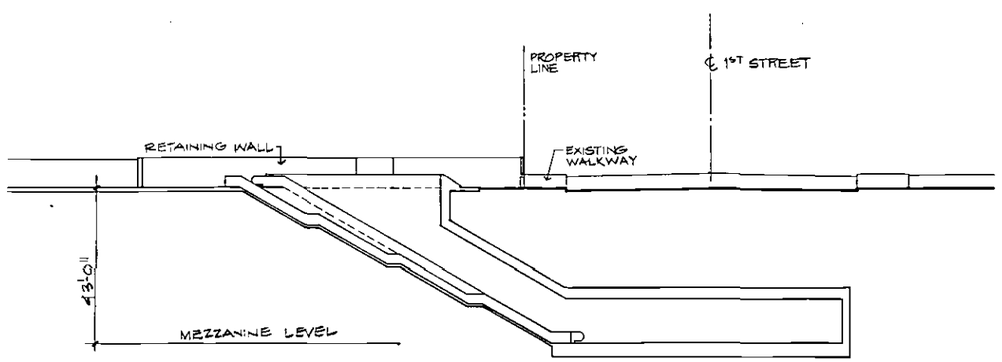
CONTRACT NO. A140
DRAWING NO. A-9
SCALE 1"= 40'-0"
SHEET NO. 33 OF 60



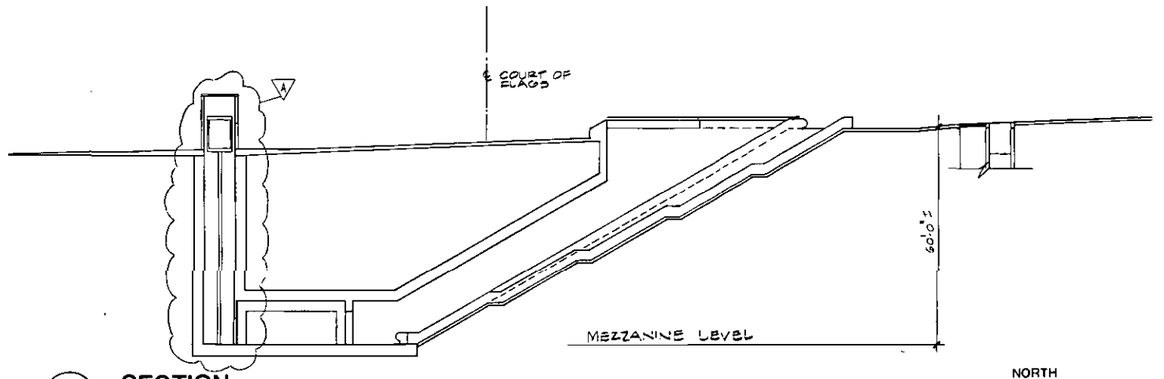
SOUTH ENTRANCE PLAN



NORTH ENTRANCE PLAN



E A-10 **SECTION**



F A-10 **SECTION**

0' 20' 40' 80'

NORTH

REV.	DATE	BY	APP.	DESCRIPTION
V	7/1/83	MD	J.Y.	REVISIONS AS PER SCRTD COMMENTS.
	4/20/83		D.V.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY HWA Date 4/22/83
DRAWN BY D. ZAFERES, HOMER Date 4/22/83
CHECKED BY J. TEN PIGATI Date 4/22/83

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

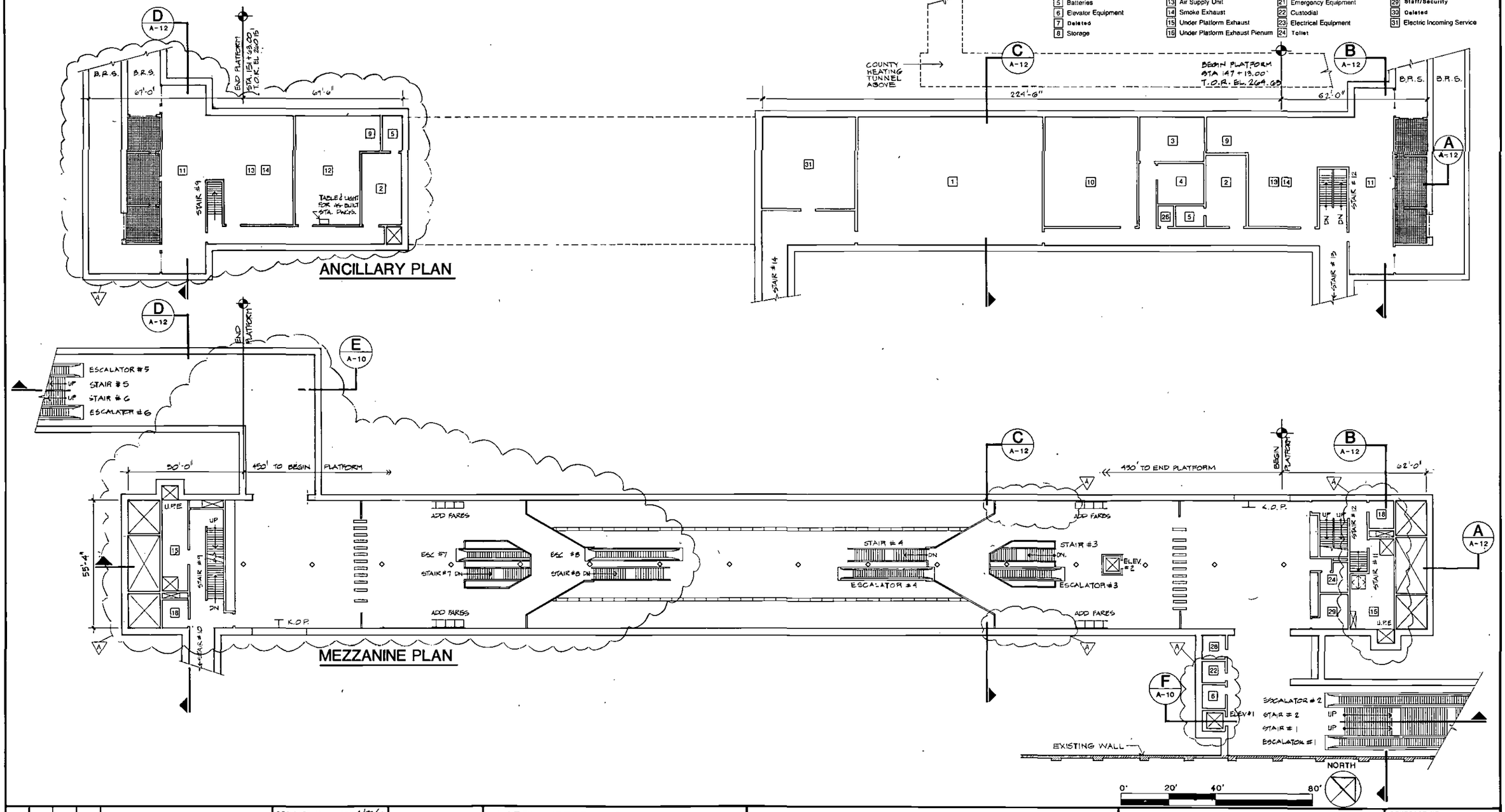
APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date — MANAGER / CHIEF ENGINEER — Reg. No.

CIVIC CENTER STATION
ENTRANCE LEVEL PLANS
PRELIMINARY

CONTRACT NO. A140
DRAWING NO. A-10
SCALE 1"=20'-0"
SHEET NO. 36 OF 60

SERVICE AND EQUIPMENT ROOMS

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



REV.	DATE	BY	APP.	DESCRIPTION
7	7/1/93	HL	J.T.	REVISIONS AS PER SCRTD COMMENTS.
	4/22/93		HP	REVISION TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY HWA Date 4/22/93
DRAWN BY RGJ Date 4/22/93
CHECKED BY J.YEN Date 4/22/93 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.

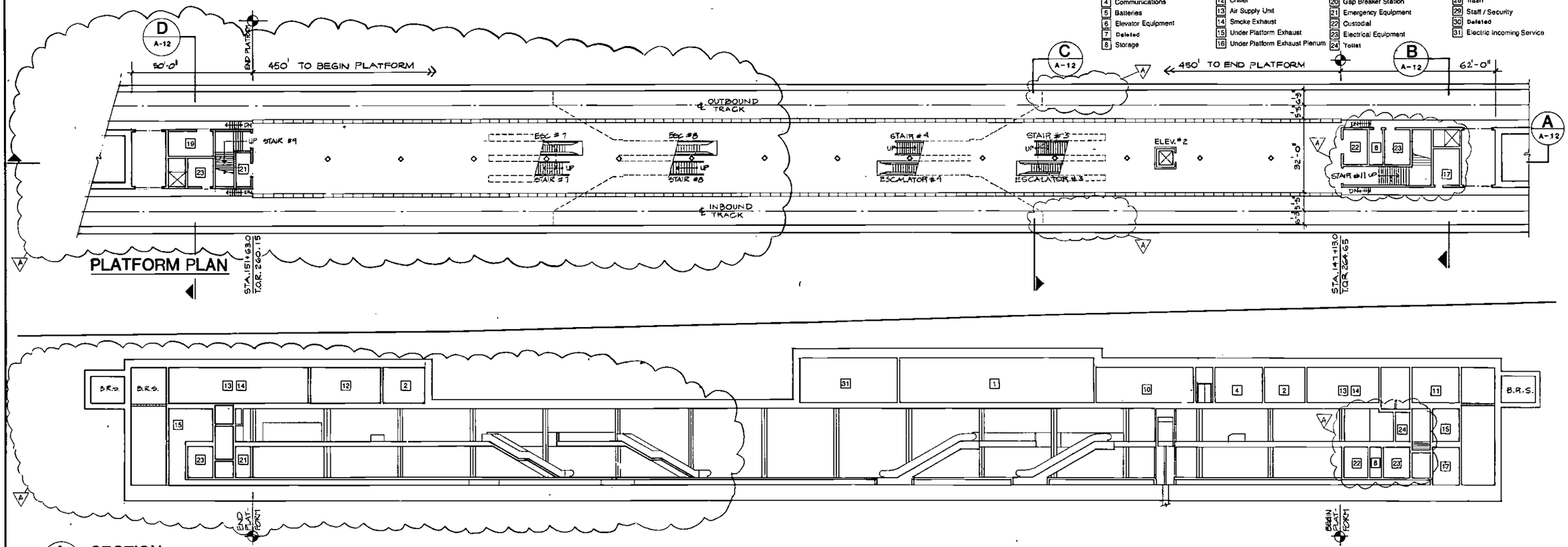
CIVIC CENTER STATION

PLANS
PRELIMINARY

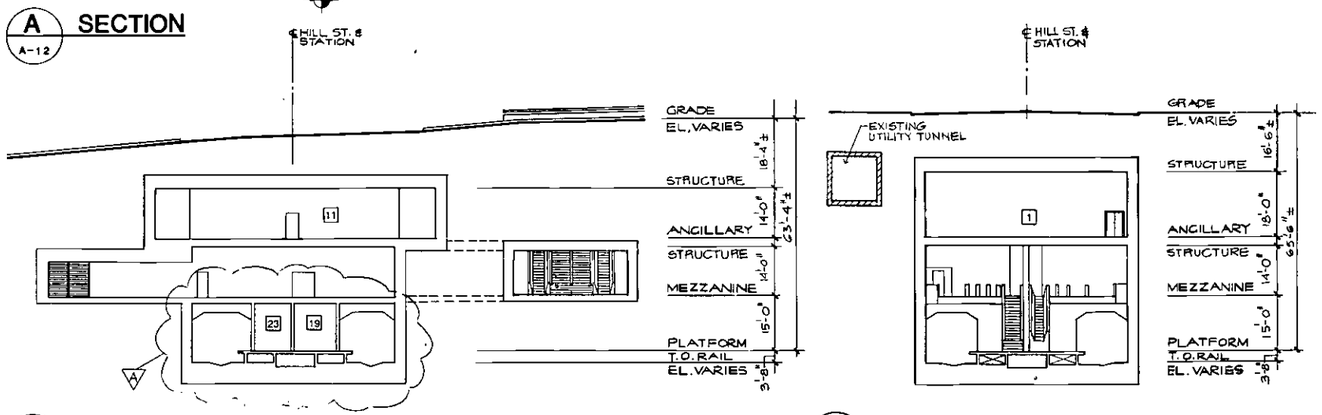
CONTRACT NO. A140
DRAWING NO. A-11
SCALE 1"=20'-0"
SHEET NO. 37 OF 60

SERVICE AND EQUIPMENT ROOMS

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

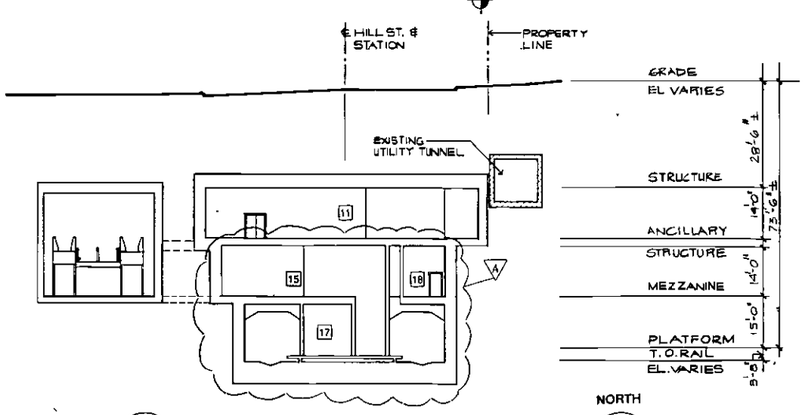


PLATFORM PLAN



A SECTION
A-12

C SECTION
A-12



B SECTION
A-12

D SECTION
A-12

NORTH

0' 20' 40' 80'

REV.	DATE	BY	APP.	DESCRIPTION
V	7/1/83	KL	JY	REVISIONS AS PER SCRTD COMMENTS.
	9/22/83		YY	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY HWA Date 4/22/83
DRAWN BY C.Y. Date 4/22/83
CHECKED BY J. YEN Date 4/22/83

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
PLAN & SECTIONS
PRELIMINARY

CONTRACT NO. A140
DRAWING NO. A-12
SCALE 1"-20'-0"
SHEET NO. 38 OF 60

COUNTY COURTHOUSE

CIVIC CENTER MALL

HALL OF ADMINISTRATION

HILL STREET

FIRST STREET

NEW RETAINING WALL

B.R.S.

F.A.I.

U.P.E.

T.P.S. (INTAKE)

CONC. PAV'T

AC PAV'T

ASPHALT

EMERGENCY HATCH

ACCESS HATCH

REMOVE & REPLACE EXISTING SIDEWALK

PARKING

T.P.S. (EXHAUST)

LIMITS OF NEW PAVING

EXISTING STAIR

EXISTING GRATE

STATE OFFICE BUILDING

LAW LIBRARY

HALL OF RECORDS

368.00'

160.42'

215.00'

335.00'

10.00'

0' 40' 80' 160'

NORTH

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
C	7/20/83	JLD		REVISED EXIT TO HATCH
B	6/28/83	JLD	DK	ADDED SHAFT DESCRIPTION.
				REVISED GRATING, SIDEWALK FOOTPRINT, DIMENSIONS AND EXTENT OF REPAVING.
A	5/17/83	JLD	DK	REVISED GRATING

DESIGNED BY TAMS Date 3/2/83

DRAWN BY S.AN / RGL Date 5/3/83

CHECKED BY JLD Date 5/3/83

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.

CIVIC CENTER STATION
CIVIL SITE PLAN

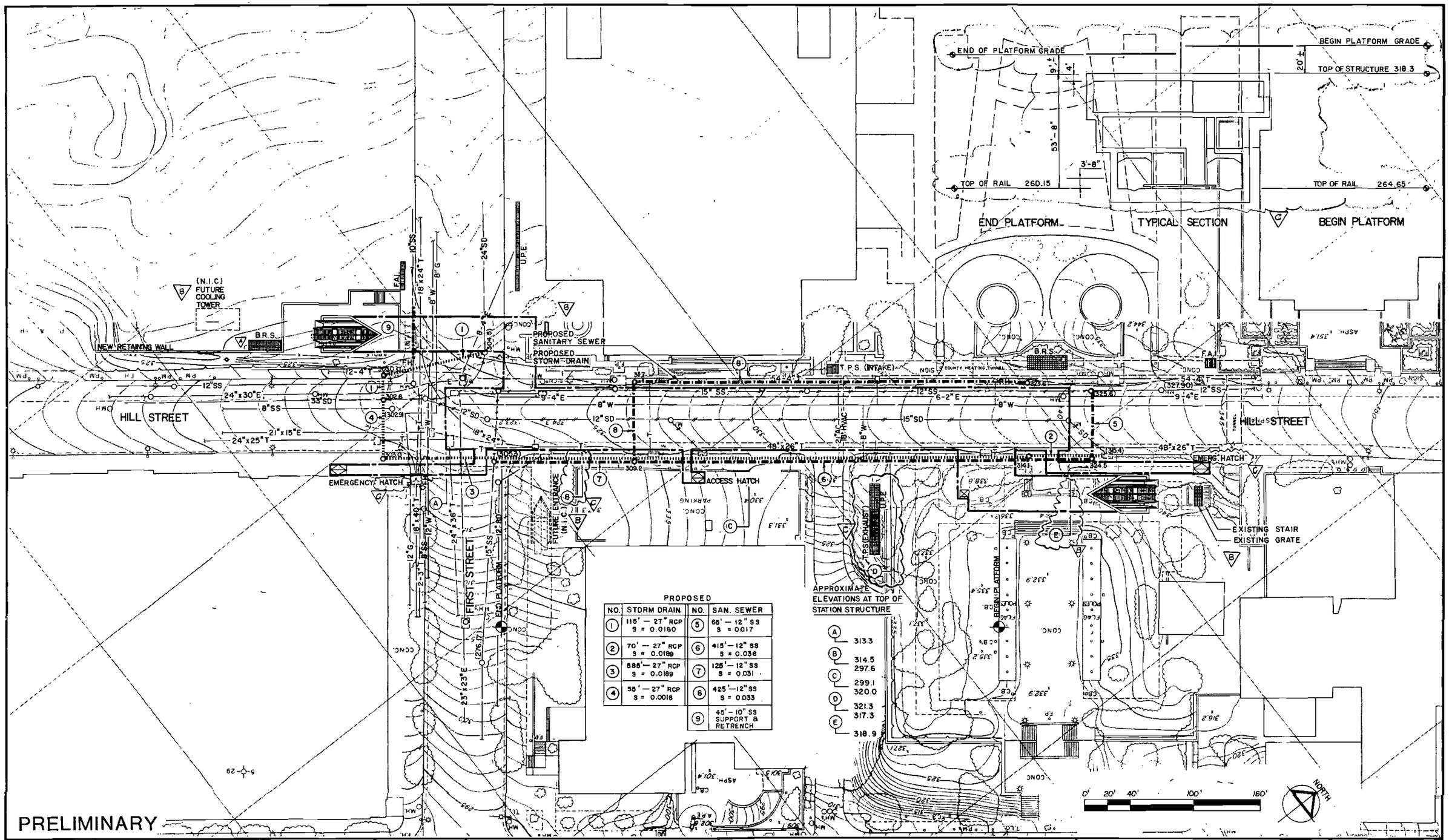
CONTRACT NO. A 140

DRAWING NO. C-3.

SCALE 1"= 40'-0"

SHEET NO. 34 OF 60

BRUNING



PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
C	7/20/83	JLD		REVISED EL.'S AT TOP OF STRUCTURE, TYPICAL SECTION AND CHANGED EXIT TO HATCH.
B	6/22/83	JLD		REVISED GRATING, SHAFT DESCRIPTION AND STATION FOOT PRINT ADDED (N.I.C.)
A	5/17/83	JLD		REVISED GRATE

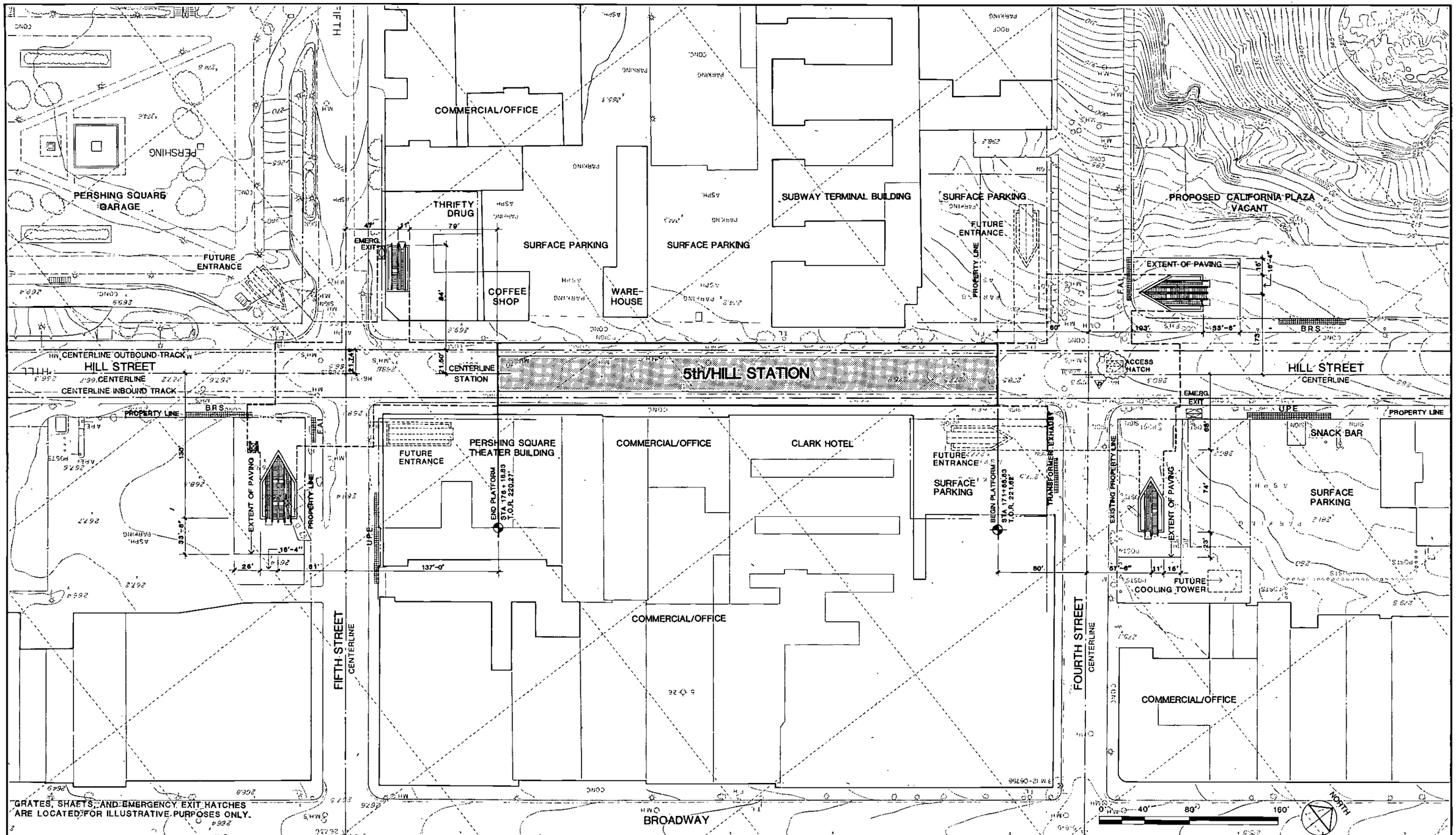
DESIGNED BY TAMS Date 5/2/83
DRAWN BY RGL / S.AN Date 5/3/83
CHECKED BY JLD Date 5/5/83

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
UTILITY PLAN REARRANGEMENT

CONTRACT NO. A140
DRAWING NO. U-3
SCALE 1"= 40'-0"
SHEET NO. 35 OF 60



REV.	DATE	BY	APP.	DESCRIPTION
8	7/1/83	KL.	JY.	REVISIONS AS PER SCRTD COMMENTS
7	5/17/83		JY.	REVISED ELEVATOR LOCATION
	4/20/83		RP	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY H.W.A. Date 4/15/83
DRAWN BY K. LIM Date 4/15/83
CHECKED BY J. YEN PIGATI Date 4/20/83

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

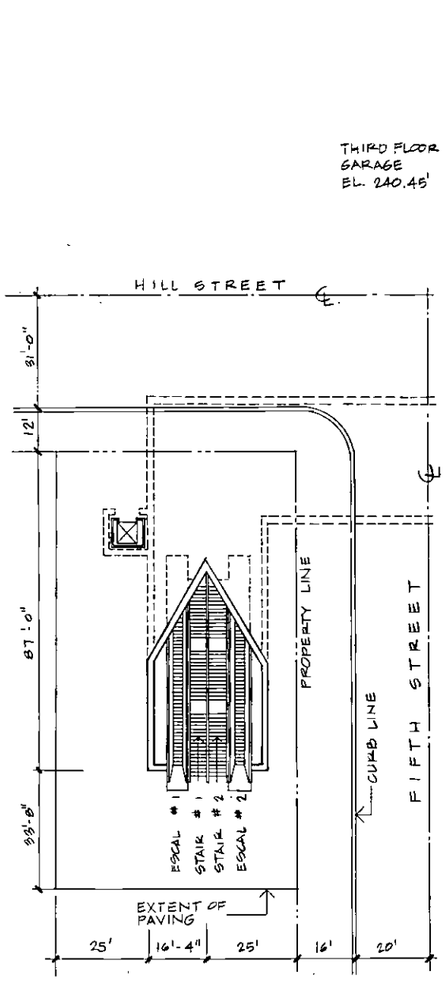
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

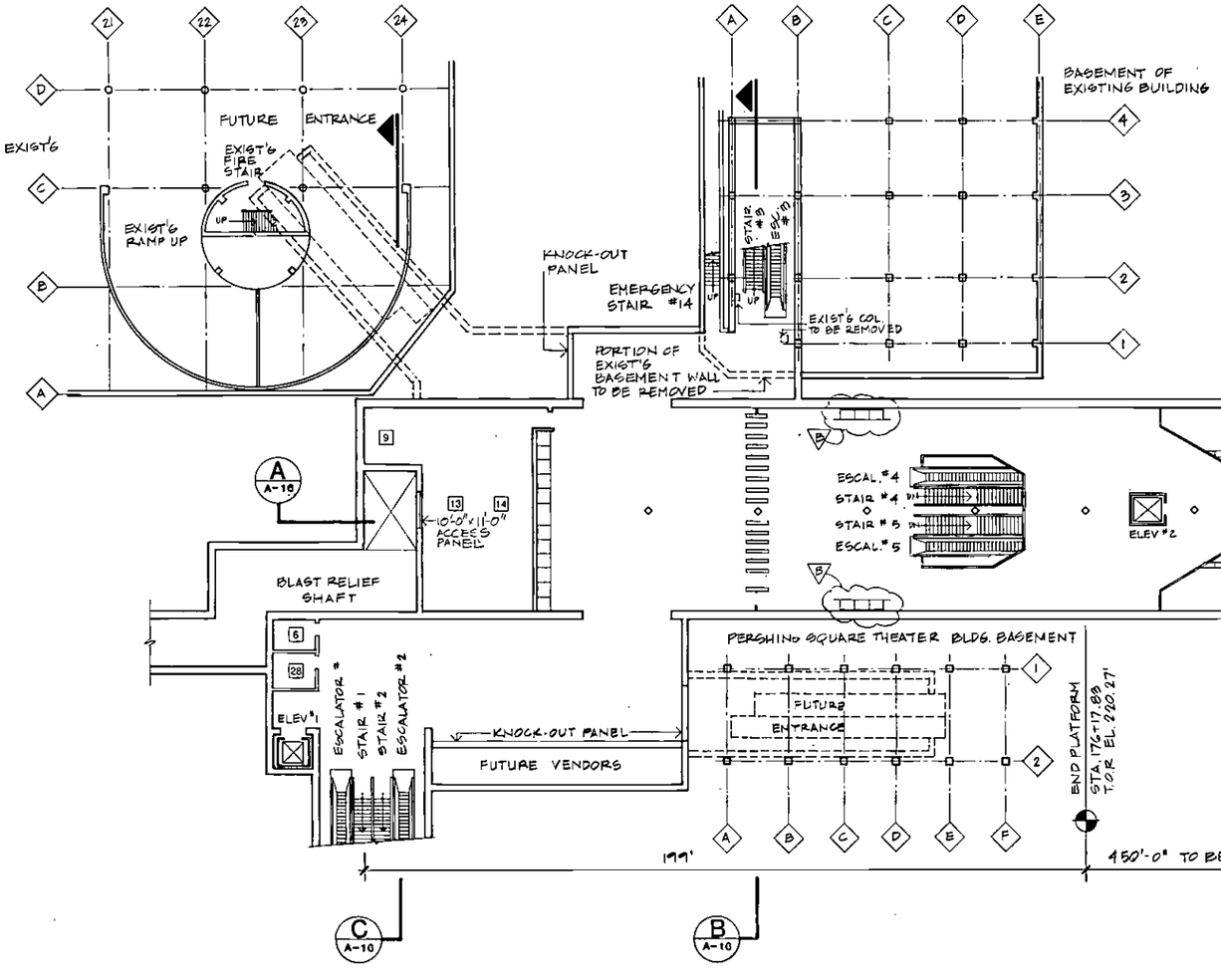
5th/HILL STATION
SITE PLAN

PRELIMINARY

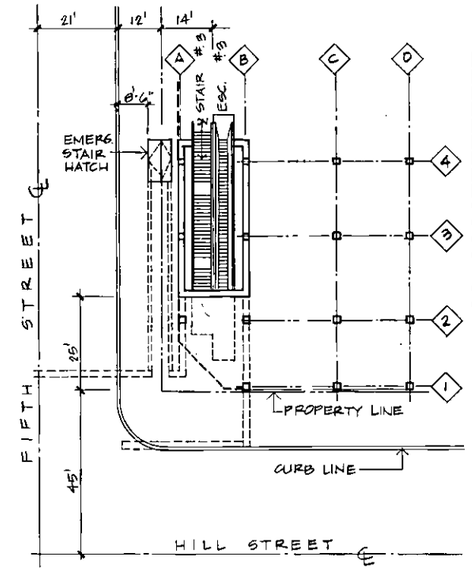
CONTRACT NO. A140
DRAWING NO. A-13
SCALE 1"=40'-0"
SHEET NO. 44 OF 60



ENTRANCE PLAN



PARTIAL MEZZANINE PLAN



ENTRANCE PLAN

SERVICE AND EQUIPMENT ROOMS

1	Traction Power Substation
2	Auxiliary Power
3	Train Control
4	Communications
5	Batteries
6	Elevator Equipment
7	Deleted
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	Toilet
25	Deleted
26	Telephone Equipment
27	Deleted
28	Trash
29	Staff/Security
30	Deleted
31	Electric Incoming Service

0' 20' 40' 80'

NORTH

REV.	DATE	BY	APP.	DESCRIPTION
K	7/15/83	MD	J.Y.	REVISIONS AS PER SCRTD COMMENTS.
J	7/1/83		J.Y.	REVISED ELEVATOR LOCATION
H	4/20/83		RP	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

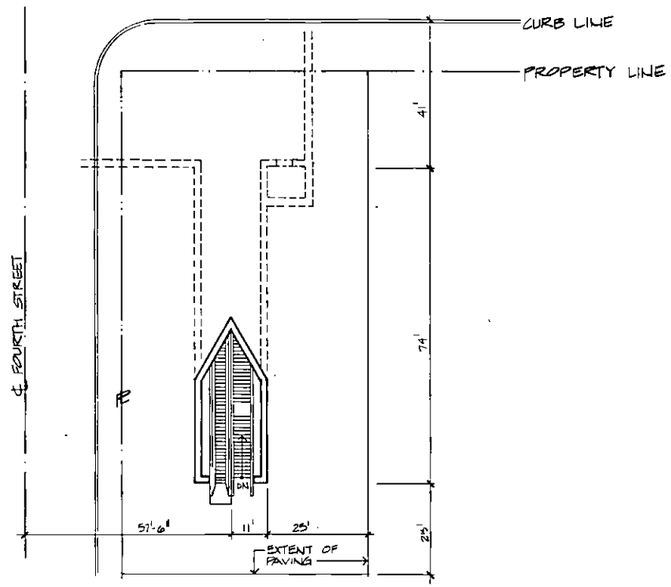
DESIGNED BY H.W.A Date 4/15/83
DRAWN BY K. LIM Date 4/10/83
CHECKED BY J.YEN Date 5/20/83 PIGATTI

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

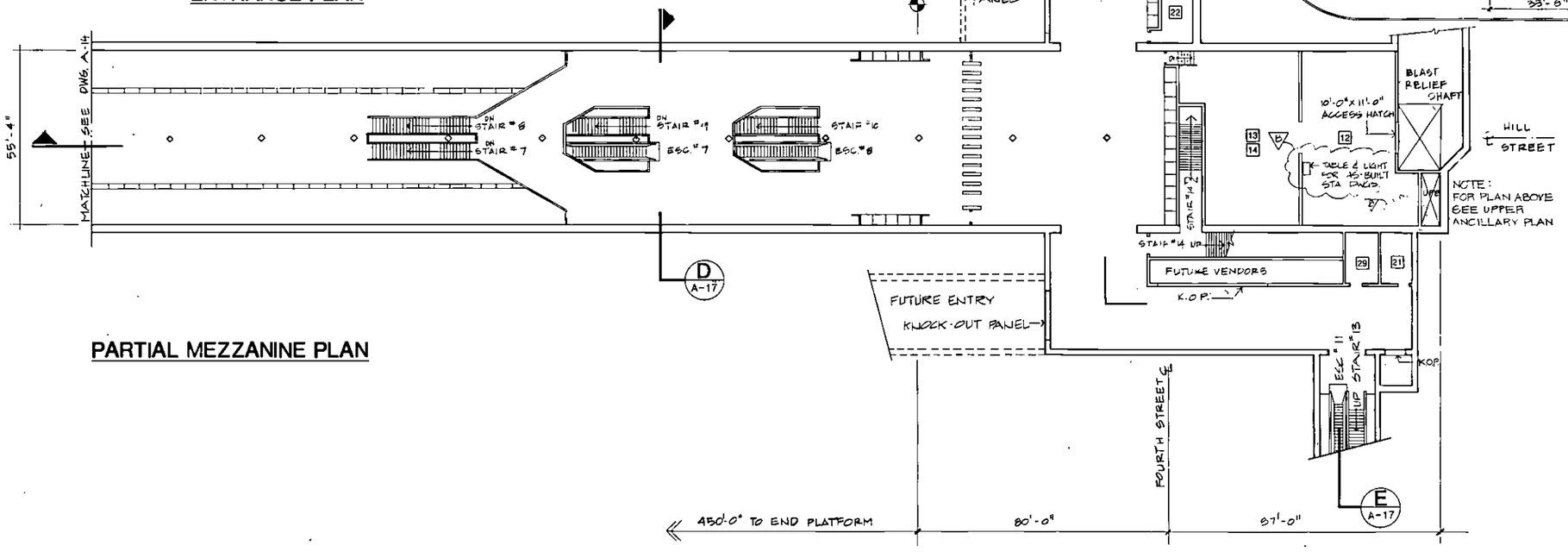
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED
Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

5th/HILL STATION
PLANS
PRELIMINARY

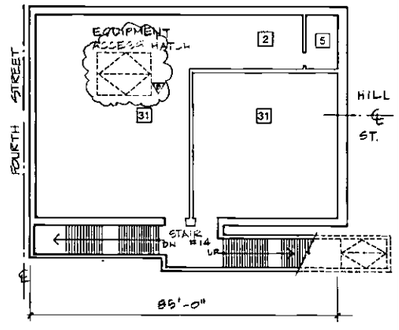
CONTRACT NO. A140
DRAWING NO. A-14
SCALE 1"= 20'-0"
SHEET NO. 47 OF 60



ENTRANCE PLAN



PARTIAL MEZZANINE PLAN



UPPER ANCILLARY PLAN

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Deleted
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. Toilet
25. Deleted
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
B	7/1/83		JK	REVISIONS AS PER SCRTD COMMENTS
A	9/17/83	KL	JK	REVISED ELEVATOR LOCATION
	12/2/83		ZP	REVISIONS TO ANCILLARY ROOMS PER COST REDUCTION

DESIGNED BY HWA Date 4/20/82
DRAWN BY J. WOOLSEY Date 4/20/82
CHECKED BY J.YEN Date 6/10/82
PIGAT I

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

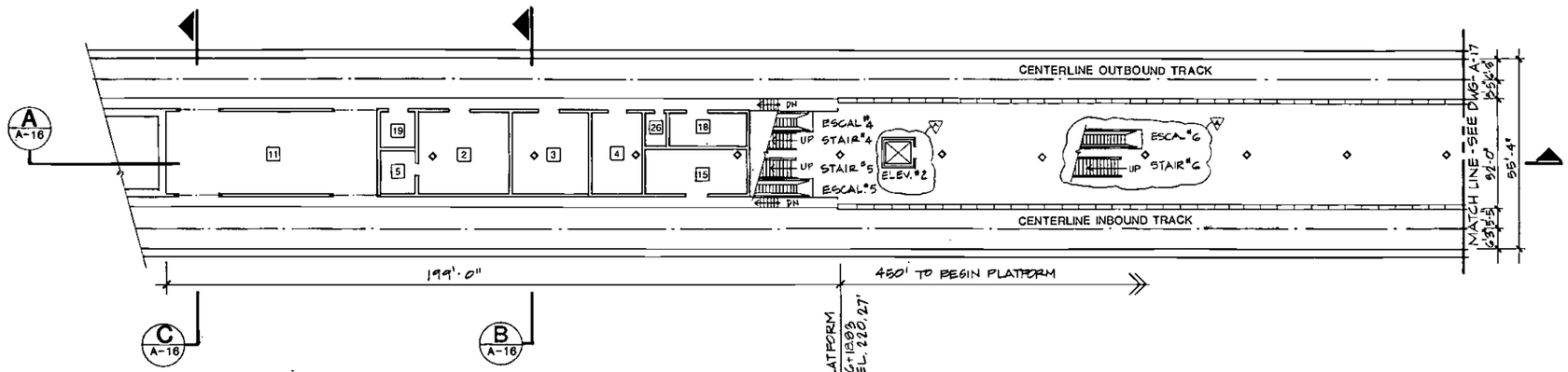
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

5th/HILL STATION
PLANS

PRELIMINARY

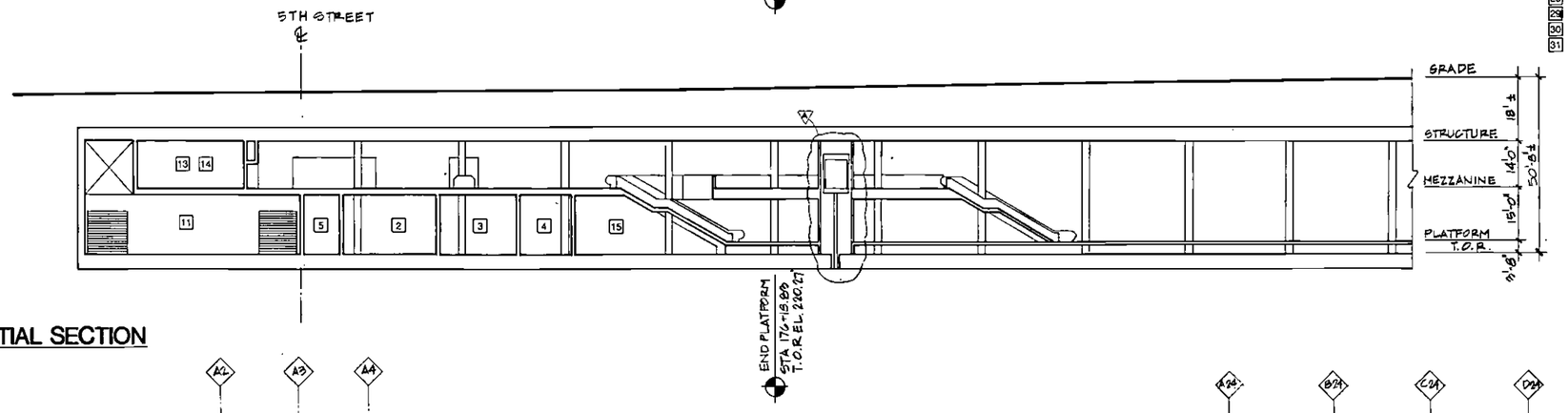
CONTRACT NO. A140
DRAWING NO. A-15
SCALE 1"=20'-0"
SHEET NO. 48 OF 60



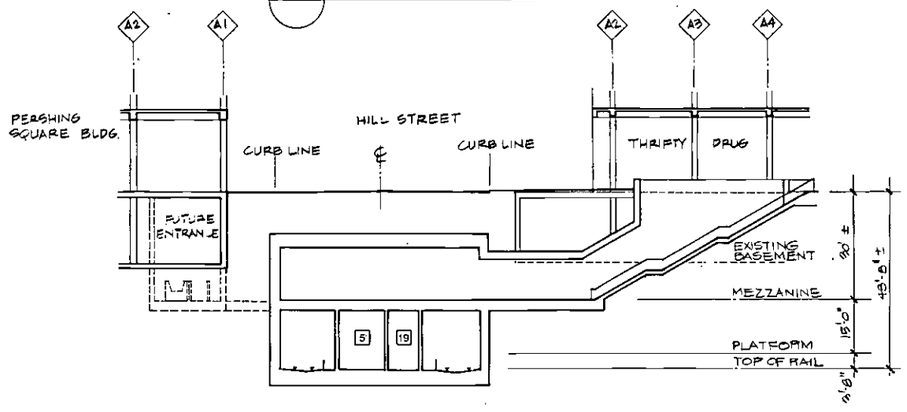
PARTIAL PLATFORM PLAN

SERVICE AND EQUIPMENT ROOMS

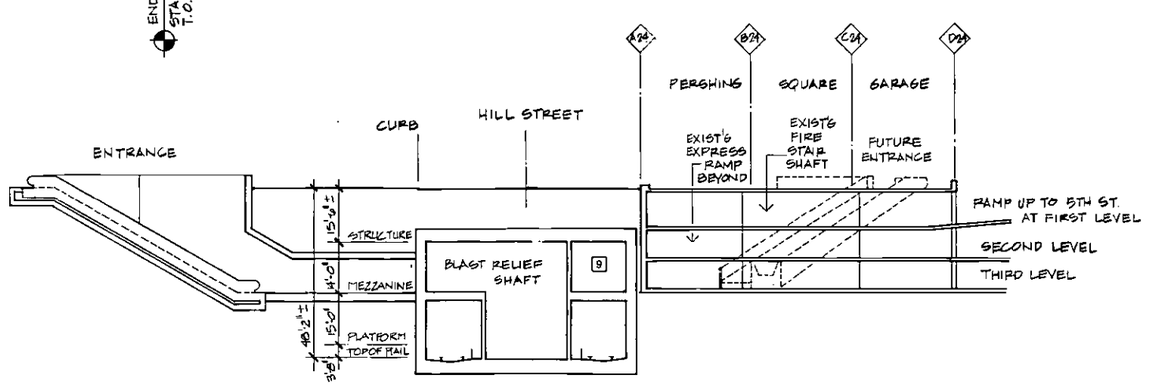
1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Deleted
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector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



A PARTIAL SECTION



B SECTION



C SECTION

0' 20' 40' 80'

NORTH

REV.	DATE	BY	APP.	DESCRIPTION
A	7/1/83		J.Y.	REVISED ELEVATOR LOCATION.
	4/20/83		RP	REVISIONS TO ANCILLARY ROOM FOR COST REDUCTION

DESIGNED BY H.W.A Date 4/15/83
DRAWN BY K. LIM Date 4/15/83
CHECKED BY J. YEN PIGATI Date 4/20/83

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

SUBMITTED BY: _____ PROJECT MANAGER

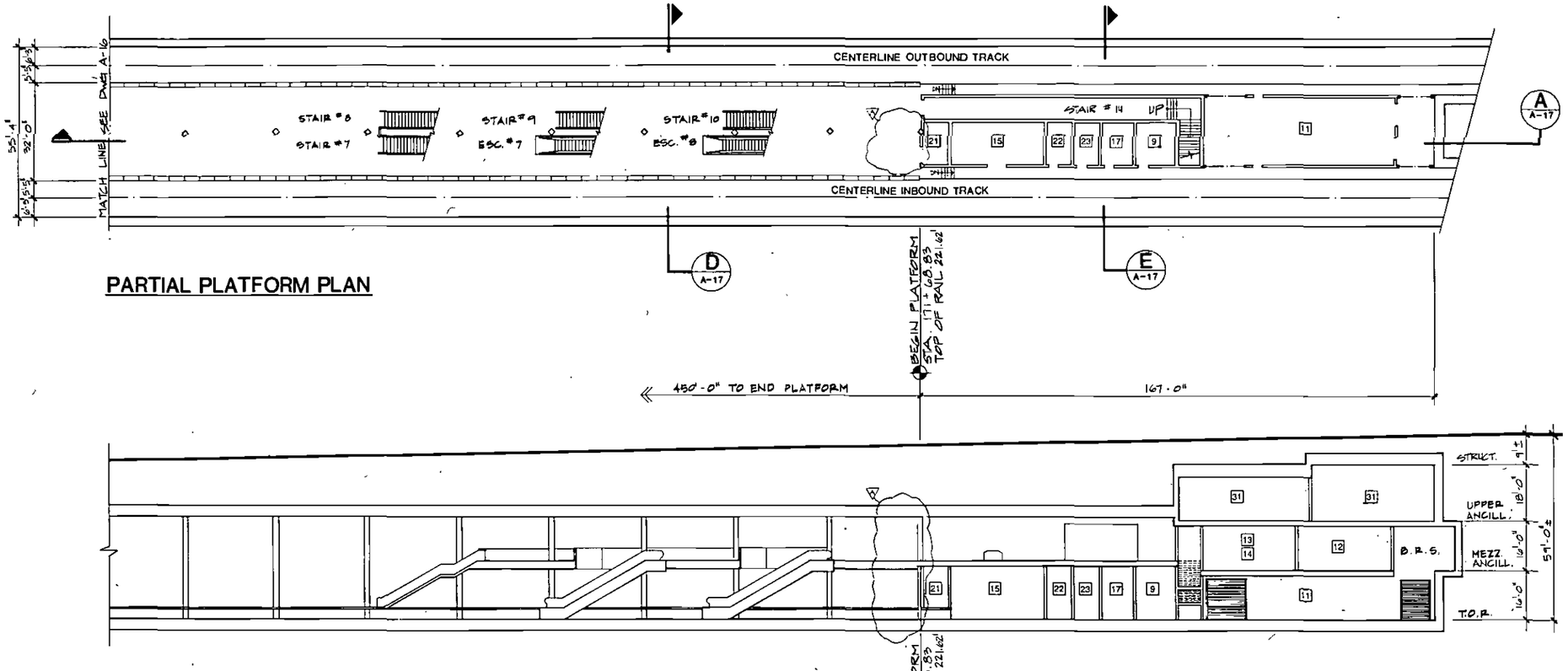
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

5th/HILL STATION
PLANS AND SECTIONS

PRELIMINARY

CONTRACT NO. A140
DRAWING NO. A-16
SCALE 1"= 20'-0"
SHEET NO. 49 OF 60

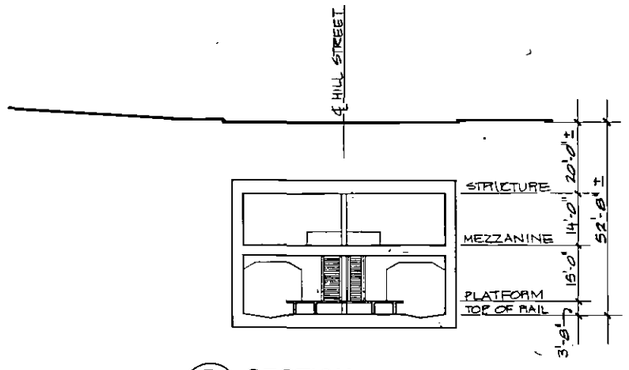


PARTIAL PLATFORM PLAN

SERVICE AND EQUIPMENT ROOMS

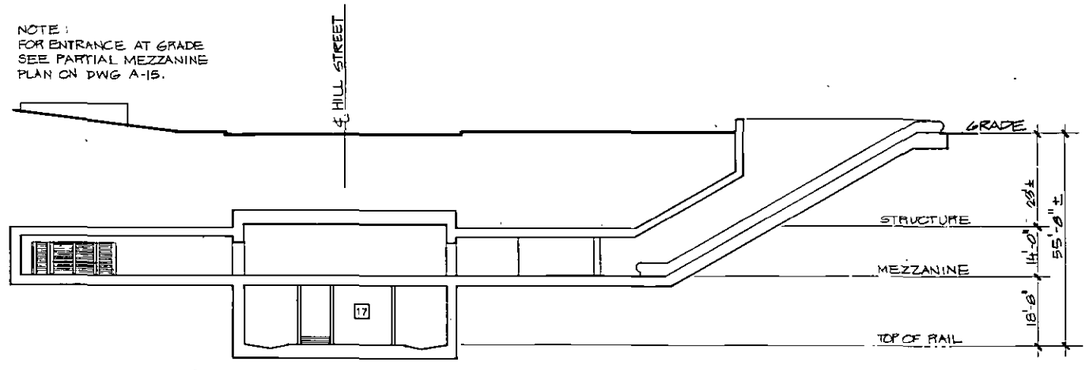
1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Deleted
8. Storage
9. Mechanical
10. Fan
11. Emergency Fan
12. Chiller
13. Air Supply Unit
14. Smoke Exhaust
15. Under Platform Exhaust
16. Under Platform Exhaust Plenum
17. Ejector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

A PARTIAL SECTION



D SECTION

NOTE:
FOR ENTRANCE AT GRADE SEE PARTIAL MEZZANINE PLAN ON DWG A-15.



E SECTION

0' 20' 40' 80'

NORTH

REV.	DATE	BY	APP.	DESCRIPTION
A	7/1/83		JY	REVISED ELEVATOR LOCATION
	4/20/83		RP	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY HLIA Date 4/20/83
DRAWN BY K.LIM J. WOOLSEY Date 4/20/83
CHECKED BY J.YEN MGMT Date 4/21/83

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 & SECTIONS
PRELIMINARY

CONTRACT NO. A140
DRAWING NO. A-17
SCALE 1"=20'-0"
SHEET NO. 50 OF 60

BRUNING #4132

PERSHING SQUARE GARAGE

THRIFTY DRUG EXISTING BUILDING

EMERG. HATCH

EXTENT OF MODIFICATION TO STRUCTURE OF EXIST. BUILDING TO ACCOMODATE PROP. CONSTRUCTION IS TO BE DETERMINED.

SUBWAY TERMINAL BUILDING

POSSIBLE CONTRACTOR'S STAGING AREA

EXISTING PARKING LOT

REMOVE AND REPLACE EXISTING SIDEWALK

UNDEVELOPED AREA

ACCESS HATCH

HILL STREET

PHOTOMAT

EXISTING PARKING LOT

POSSIBLE CONTRACTOR'S STAGING AREA

LIMITS OF NEW PAVING

PERSHING SQUARE THEATER BUILDING

REMOVE & REPLACE EXISTING SIDEWALK

CLARK HOTEL

EXISTING PARKING LOT

POSSIBLE CONTRACTOR'S STAGING AREA

TRANSFORMER EXHAUST

EXISTING PARKING LOT

LIMITS OF NEW PAVING

LINDLEY

FIFTH STREET

FOURTH STREET

BROADWAY

0' 40' 80' 160'

NORTH

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
▽	7/21/83	JLD	–	CHANGED EMERG. EXIT TO HATCH, STA. LENGTH
▽	7/1/83	JLD	TC	EXTENDED PAVEMENT, REVISED DIMENSIONS AND ADDED GRATES + EXIT ACCESS HATCH
▽	5/17/83	JLD	TC	REVISED ELEVATOR AND GRATING LOCATIONS

DESIGNED BY TAMS Date 5/3/83

DRAWN BY RGL /S.AN Date 5/4/83

CHECKED BY JLD Date 5/4/83

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.

5th / HILL STATION
CIVIL SITE PLAN

CONTRACT NO. A140

DRAWING NO. C-4

SCALE 1" = 40'-0"

SHEET NO. 45 OF 60

MATCH LINE A SEE INSERT "A"

CONNECT PROP. 30" SS TO EXIST. MH AT C.L. FLOWER STREET (EXIST. INV. EL. 277.6)

INSERT "A"

OLIVE STREET

MATCH LINE A

BEGIN PLATFORM GRADE

END PLATFORM GRADE

TOP OF STRUCTURE 258.3

TOP OF RAIL 220.27

TOP OF RAIL 221.62

END PLATFORM TYPICAL SECTION BEGIN PLATFORM

FUTURE ENTRANCE (N.I.C.)

EMERG. EXIT

PROPOSED STORM DRAIN

PROPOSED SANITARY SEWER

HILL STREET

FUTURE ENTRANCE (N.I.C.)

ACCESS HATCH

FUTURE ENTRANCE (N.I.C.)

TRANSFORMER EXHAUST

FIFTH STREET

FOURTH STREET

PROPOSED

NO.	STORM DRAIN	NO.	SAN. SEWER
1	80' – 30" RCP S = 0.0459	9	565' – 8" SS S = 0.004
2	150' – 30" RCP S = 0.0141	10	360' – 8" SS S = 0.007
3	645' – 24" RCP S = 0.0141	11	550' – 8" SS S = 0.004
4	135' – 24" RCP S = 0.018	12	30' – 20" SS S = 0.10
5	45' – 12" RCP S = 0.008	13*	1700' – 30" SS S = 0.0089
6	150' – 24" RCP S = 0.011	14*	600' – 27" SS S = 0.024
7	180' – 36" RCP S = 0.02	15	325' – 10" SS S = 0.003
8	30' – 36" RCP S = 0.03	16	50' – 10" SS S = 0.008
		17	185' – 8" SS S = 0.0103

*LENGTH OF PROP. CONDUIT STARTS AT PROP. MH ON S EDGE OF HILL STREET

APPROXIMATE ELEVATION AT TOP OF STATION STRUCTURE

A — 256.2

B — 258.5, 271.9

C — 272.0, 276.0

D — 276.1

CONNECT PROP. 27" SS TO EXIST. MH PROP. INV. EL. 248.0 (EXIST. INV. EL. AT THE OUTLET FROM MH IS 247.4)

0' 20' 40' 100' 160'

NORTH

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
V	7/21/83	JLD		ADDED PLATFORM, TOP OF RAIL / PIPE EL. REVISED LENGTH OF STATION & PIPES, & PIPE NO.
V	6/30/83	JLD	TR	ADDED N.I.C., GRATES - EXIT - ACCESS HATCH.
V	5/17/83	JLD	TR	REVISED EXTENT OF PROP. 8" SS PIPE ALONG FIFTH & OLIVE STREETS
V				REVISED ELEVATOR AND GRATING LOCATIONS

DESIGNED BY TAMS Date 5/4/83

DRAWN BY S.AN / RGL Date 5/6/83

CHECKED BY JLD Date 5/6/83

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

SUBMITTED BY: PROJECT MANAGER

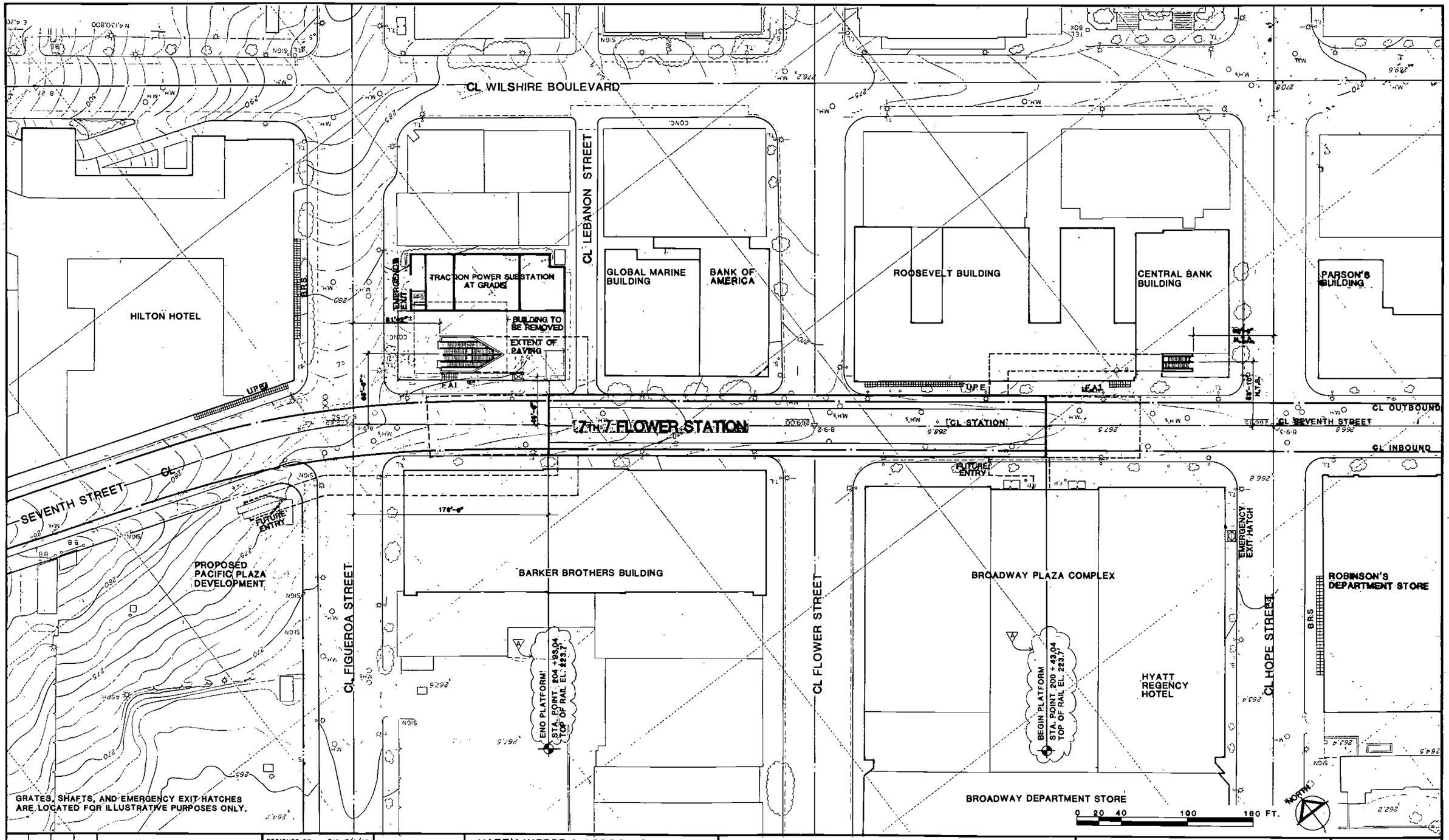
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

APPROVAL RECOMMENDED Reg. No.

APPROVED Date MANAGER / CHIEF ENGINEER Reg. No.

5th / HILL STATION
UTILITY PLAN REARRANGEMENT

CONTRACT NO. A140
DRAWING NO. U-4
SCALE 1" = 40'-0"
SHEET NO. 46 OF 60



REV.	DATE	BY	APP.	DESCRIPTION
5	7/6/83	MD	J.Y.	REVISED STATION POINTS
4	4/20/83		J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY HWA/JLW Date 3/9/83
DRAWN BY WOOLSEY Date 3/9/83
CHECKED BY J.YEN Date 3/15/83 PIGMTI

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

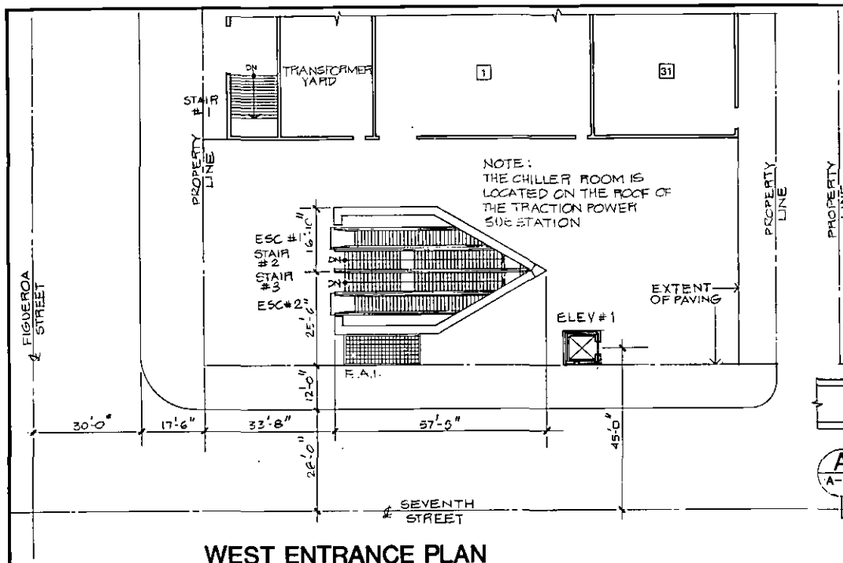
APPROVAL RECOMMENDED
Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

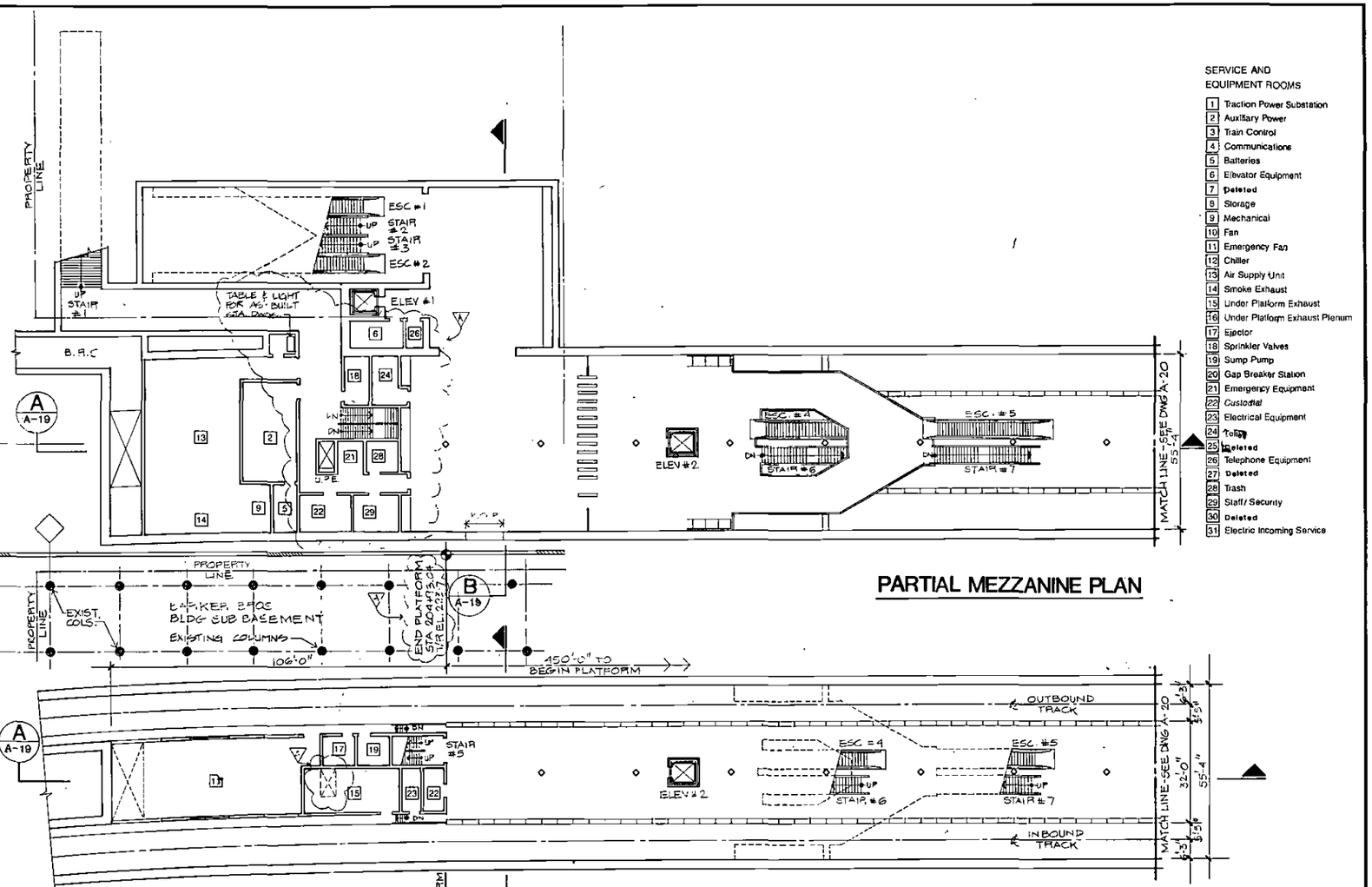
7TH / FLOWER STATION
SITE PLAN

PRELIMINARY

CONTRACT NO. A165
DRAWING NO. A-18
SCALE 1"= 40'-0"
SHEET NO. 8 OF 18



WEST ENTRANCE PLAN

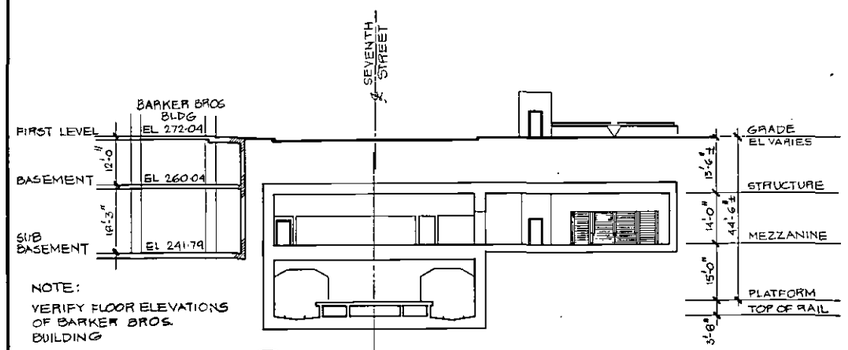


PARTIAL MEZZANINE PLAN

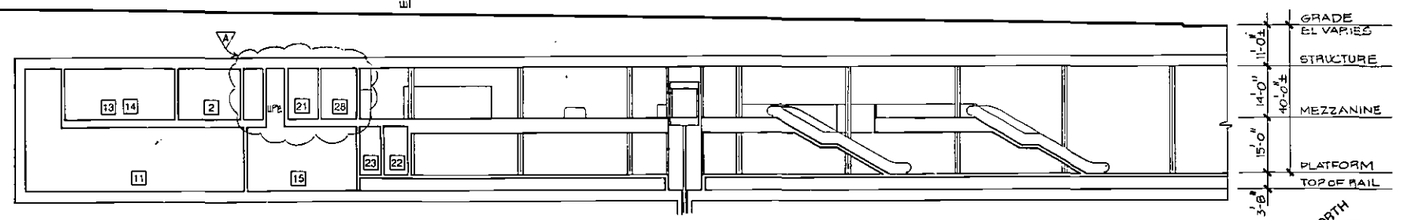
PARTIAL PLATFORM PLAN

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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. Toilet
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. Staff / Security
30. **Deleted**
31. Electric Incoming Service



SECTION



PARTIAL SECTION

NORTH

REV.	DATE	BY	APP.	DESCRIPTION
V	7/1/83		J.Y.	REVISIONS AS PER SCRTD COMMENTS.
	4/20/83		PP	REVISIONS TO ANCILLARY RATIOS FOR COST REDUCTION.

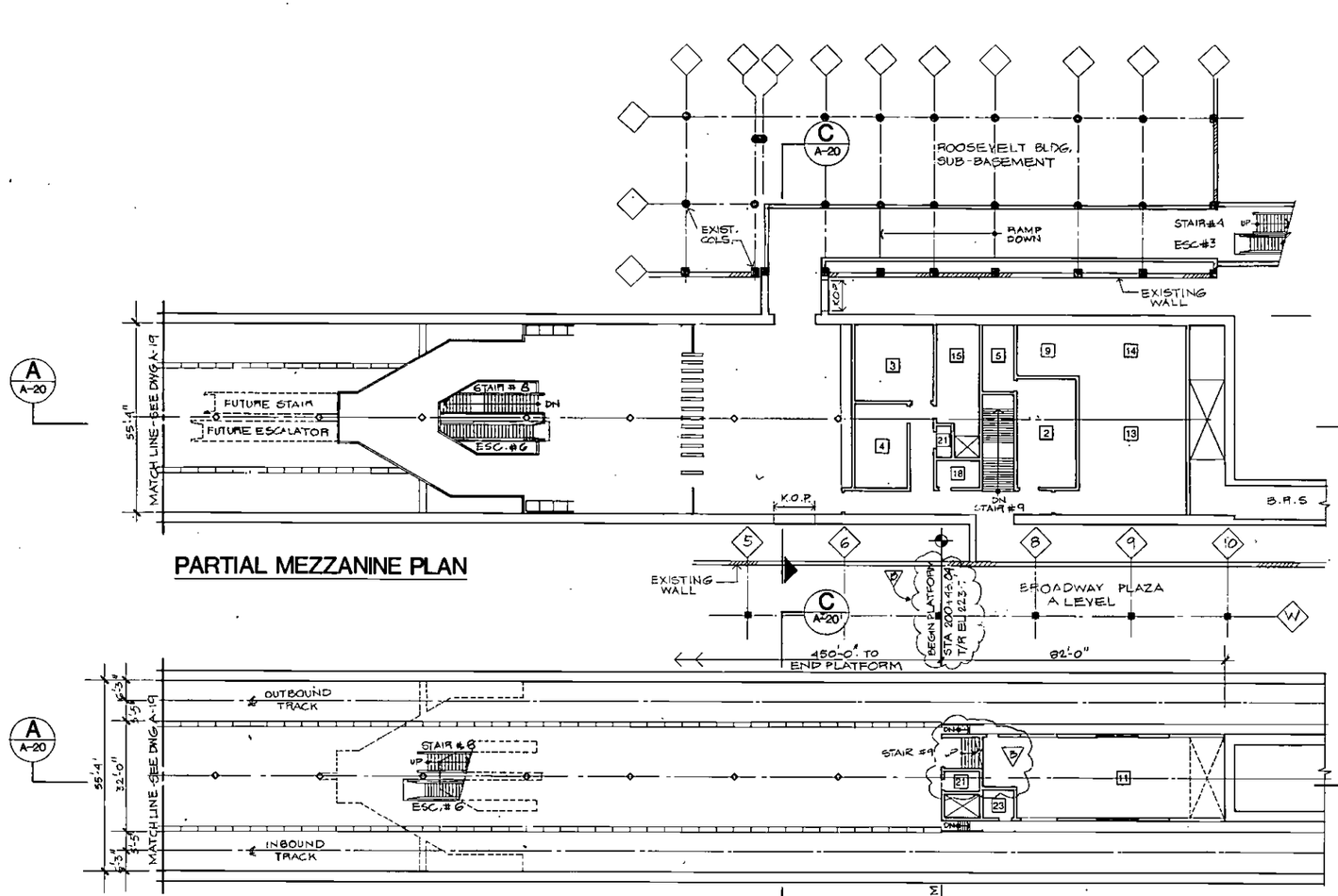
DESIGNED BY HWA Date 4/15/83
DRAWN BY S. DEBNATH Date 4/15/83
CHECKED BY J. YEN Date 4/20/83 PIC#71

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.

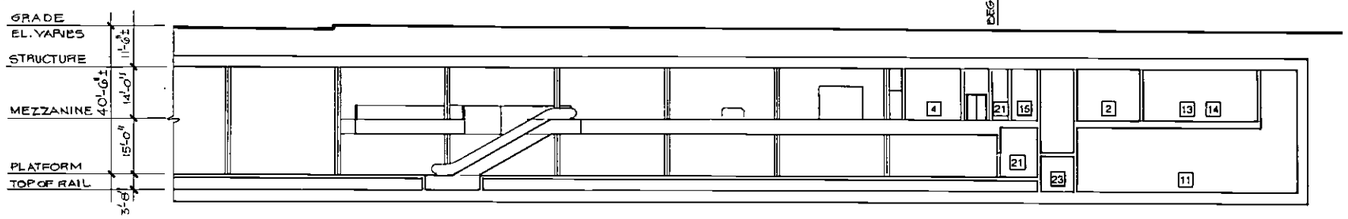
7th / FLOWER STATION
PLANS & SECTIONS
PRELIMINARY

CONTRACT NO. A 165
DRAWING NO. A-19
SCALE 1"=20'-0"
SHEET NO. 11 OF 13

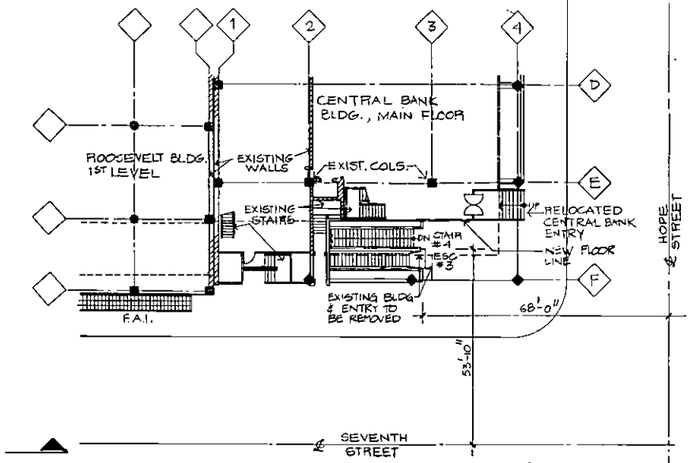


PARTIAL MEZZANINE PLAN

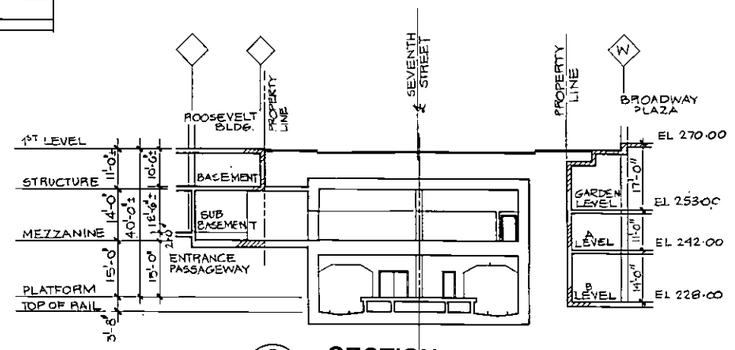
PARTIAL PLATFORM PLAN



A/A-20 PARTIAL SECTION



EAST ENTRANCE PLAN



C/A-20 SECTION

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. Deleted
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. Elecrical Equipment
24. Toilet
25. Deleted
26. Telephone Equipment
27. Deleted
28. Trash
29. Staff/ Security
30. Deleted
31. Electric Incoming Service

NOTES:

SECTION DESIGNER TO VERIFY LOCATION, DIMENSIONS & ELEVATIONS OF ALL EXISTING BUILDINGS.

SECTION DESIGNER TO CHECK IMPACT OF METRO RAIL ENTRANCE ON STRUCTURE OF CENTRAL BANK BUILDING.

0' 20' 40' 80' NORTH

REV.	DATE	BY	APP.	DESCRIPTION
B	7/1/83		J.Y.	REVISIONS AS PER SCRTD COMMENTS.
A	5/9/83		J.Y.	REVISIONS TO ACCOMODATE TWO ADDITIONAL DEVICES IN THE FUTURE
	4/29/83		RP	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY H.W.A. Date 4/15/83
DRAWN BY S.DEBNATH Date 4/15/83
CHECKED BY J.YEN PGATI Date 4/20/83

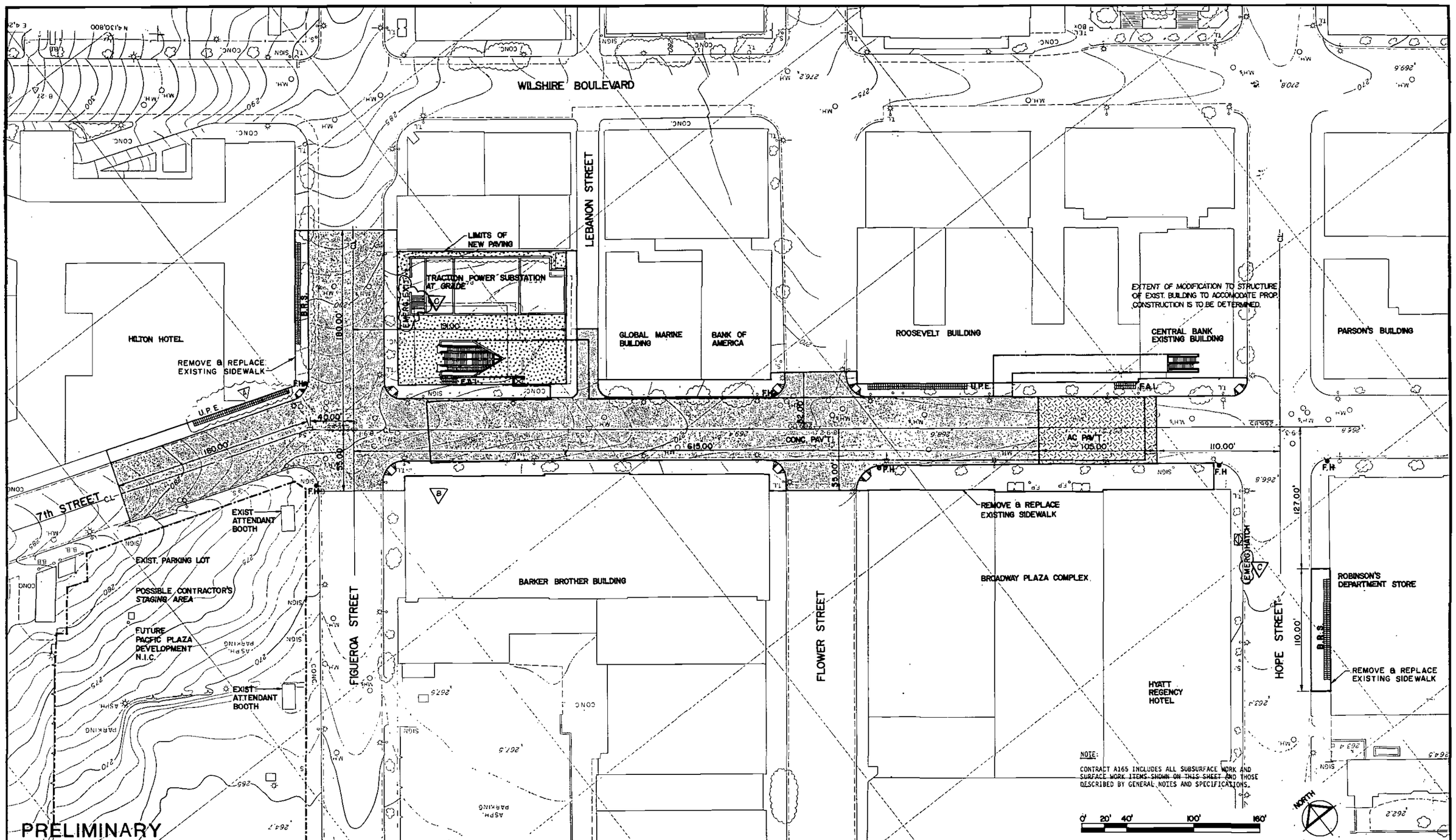
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY: PROJECT MANAGER

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

CONTRACT NO. A 165
DRAWING NO. A-20
SCALE 1"=20'-0"
SHEET NO. 12 OF 18



REV.	DATE	BY	APP.	DESCRIPTION
V	7/21/83	JLD		ADDED EMERG. EXIT & CHANGED "ACCESS HATCH" TO "EMERG. HATCH"
IV	6/28/83	JLD		REVISED EXTENT OF RESAVING AND REMOVED U.P.E. GRATING S. OF 7TH ST.
III	5/19/83	JLD		ADDED GRATING

DESIGNED BY TAMS Date 5/3/83
DRAWN BY RGL / S.AN Date 5/4/83
CHECKED BY JLD Date 5/9/83

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.

7th / FLOWER STATION
CIVIL SITE PLAN

CONTRACT NO. A165
DRAWING NO. C-5
SCALE 1" = 40' - 0"
SHEET NO. 9 OF 18

WILSHIRE BOULEVARD

LEBANON ST

7TH STREET

FIGUEROA STREET

FLOWER STREET

HOPE STREET

TRACTION POWER SUBSTATION AT GRADE

END PLATFORM

BEGIN PLATFORM

TYPICAL SECTION

END PLATFORM GRADE

BEGIN PLATFORM GRADE

TOP OF STRUCTURE 260.37

TOP OF RAIL 223.70

PROPOSED SANITARY SEWER

PROPOSED STORM DRAIN

FUTURE ENTRY N.I.C.

EMERG. EXIT & T.O.R.

EMERG. HATCH

PROPOSED

NO.	STORM DRAIN	NO.	SAN. SEWER	NO.	SAN. SEWER
1	475'-33"RCP	2	80'-15" SS S=0.005	8	290'-24"SS S=0.008
		3	505'-15"SS S=0.005	9	135'-8" SS S=0.010
		4	410'-12"SS S=0.003	10	85'-15"SS S=0.004
		5	190'-8"SS S=0.039	11	160'-21"SS S=0.075
		6	195'-8"SS S=0.004	12	185'-8"SS S=0.004
		7	175'-8"SS S=0.003	13	45'-8"SS S=0.004

NOTE: APPROXIMATE ELEVATION AT TOP OF STATION STRUCTURE IS CONSTANT AND EQUAL 260.37'

0' 20' 40' 100' 160'

NORTH

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
B	7/21/83	JLD		ADDED EMERG. EXIT & T.O.R. & REVISED LENGTH & LOCATION OF S.S. & EMERG HATCH.
A	5/17/83	RGL	TDC	REVISED FUTURE ENTRANCE

DESIGNED BY TAMS Date 5/5/83

DRAWN BY S.AN / RGL Date 5/6/83

CHECKED BY JLD Date 5/8/83

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

SUBMITTED BY:
PROJECT MANAGER

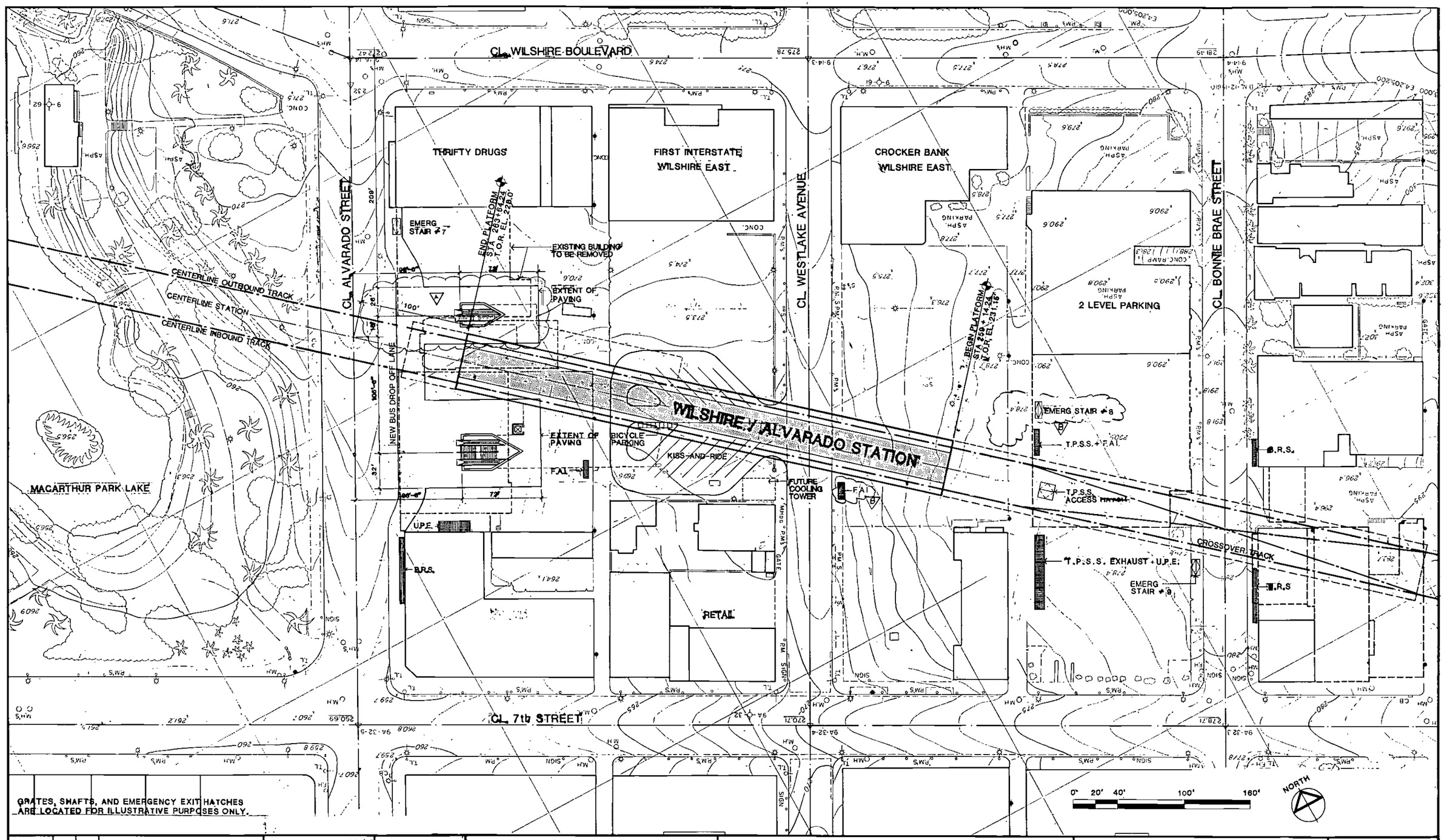
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

APPROVAL RECOMMENDED
Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

7th / FLOWER STATION
UTILITY PLAN REARRANGEMENT

CONTRACT NO. A 165
DRAWING NO. U-5
SCALE 1"= 40'-0"
SHEET NO. 10 OF 18



REV.	DATE	BY	APP.	DESCRIPTION
B	7/20/83		J.Y.	REVISED LOCATION OF EMERGENCY STAIR #8 & F.A.I. SHAFT.
A	5/27/83		J.Y.	ENTRY ADDED TO NORTH SIDE OF STATION.
	5/6/83		J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY HWA Date 3/11/83
DRAWN BY B.K. M.H. Date 3/11/83
CHECKED BY J. YEN Date 2/11/83

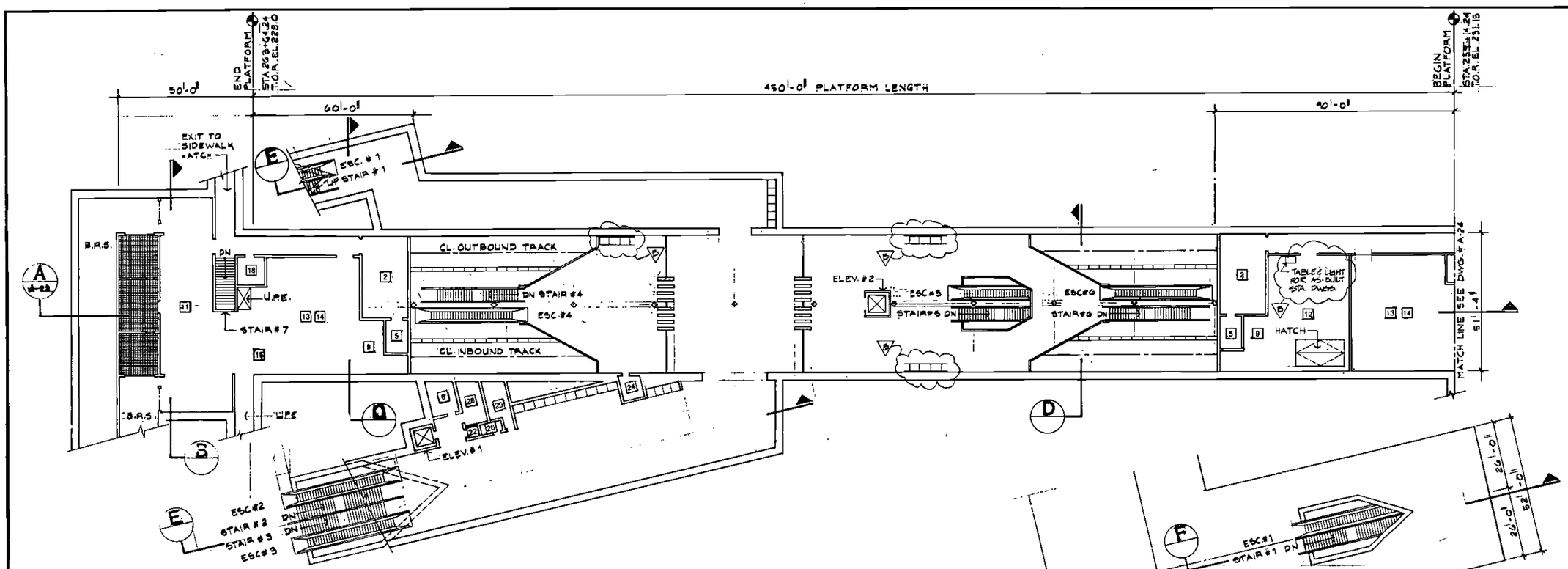
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY: PROJECT MANAGER

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

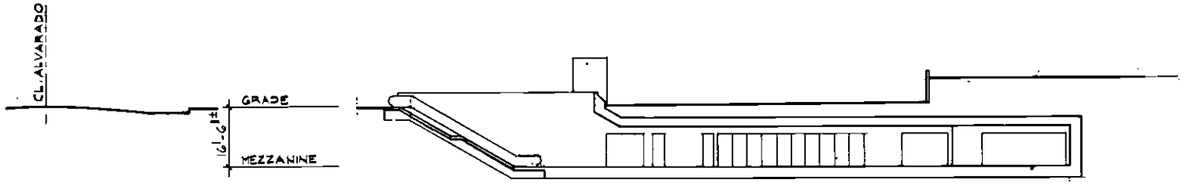
CONTRACT NO. A170
DRAWING NO. A-21
SCALE 1"-40'-0"
SHEET NO. 36 OF 45



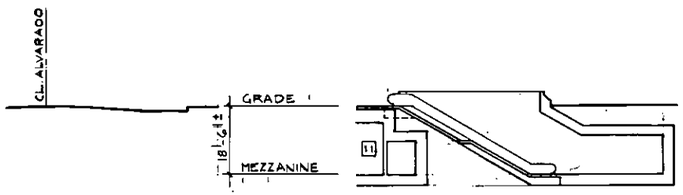
SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7.
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. Toilet
25.
26. Telephone Equipment
27. Deleted
28. Trash
29. Staff Security
30. Deleted
31. Electric Incoming Service

PARTIAL MEZZANINE LEVEL PLAN



E ENTRANCE SECTION



ENTRANCE SECTION

ENTRANCE PLAN

COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

REV.	DATE	BY	APP.	DESCRIPTION
5	7/1/83		J.Y.	REVISIONS AS PER SCRTD COMMENTS.
4	5.31.83	B.K.	J.Y.	ENTRY ADDED AT NORTH SIDE OF STATION
	5.31.83	B.K.	J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

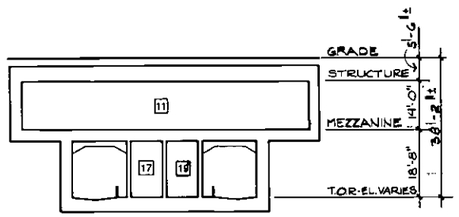
DESIGNED BY H.W.A. Date 5-27-83
DRAWN BY B.K. Date 5-27-83
CHECKED BY J.YEN Date 5-31-83

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

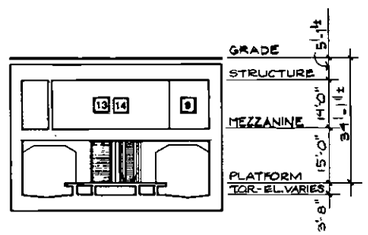
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED
Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE / ALVARADO STATION
PLANS AND SECTIONS
PRELIMINARY

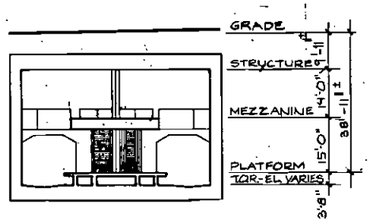
CONTRACT NO. A170
DRAWING NO. A-22
SCALE 1"=20'-0"
SHEET NO. 39 OF 48



B TRANSVERSE SECTION



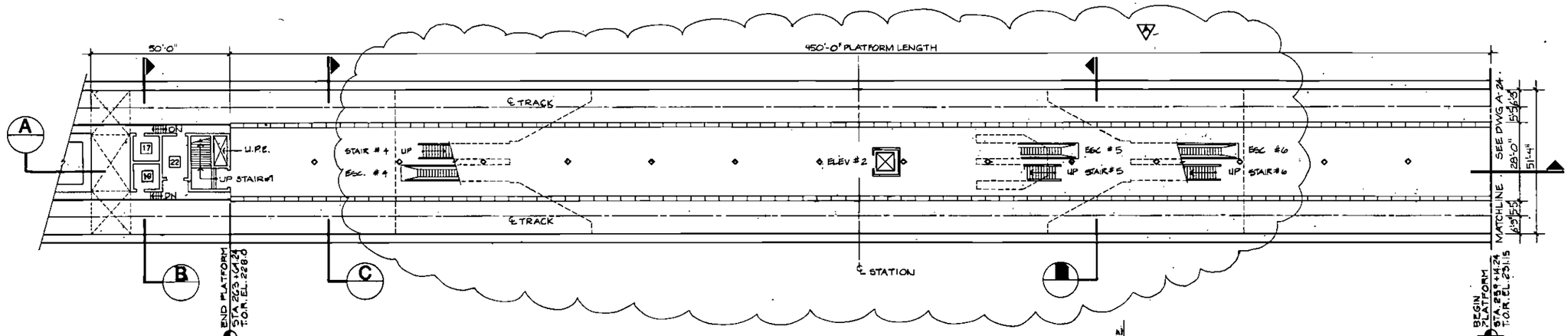
C TRANSVERSE SECTION



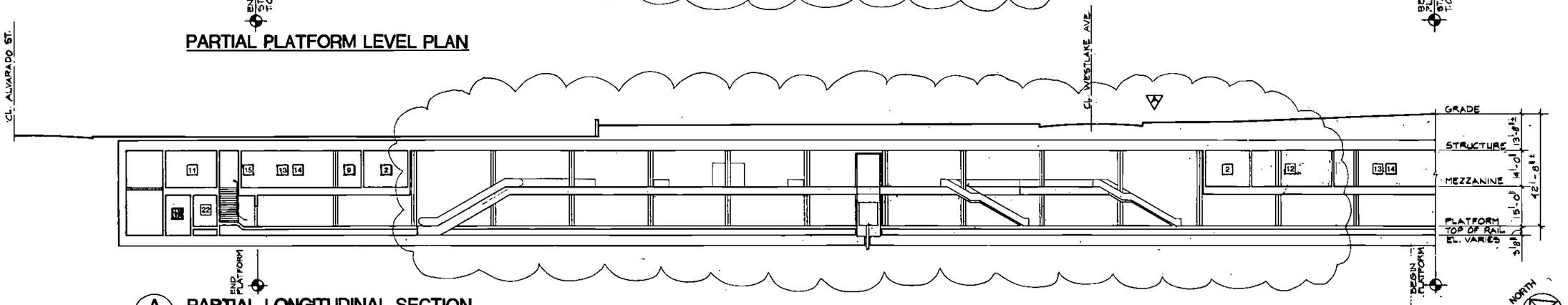
D TRANSVERSE SECTION

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	**Deleted**	23	Electrical Equipment
8	Storage	24	**Toilet**
9	Mechanical	25	**Deleted**
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		



PARTIAL PLATFORM LEVEL PLAN



A PARTIAL LONGITUDINAL SECTION

REV.	DATE	BY	APP.	DESCRIPTION
2	5/27/83	J.Y.		ENTRY ADDED AT NORTH SIDE OF STATION
1	5/6/83	J.Y.		REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY HWA Date 5/6/83
DRAWN BY B.K. Date 5/6/83
CHECKED BY J.YEN Date 5/13/83 PIGATI

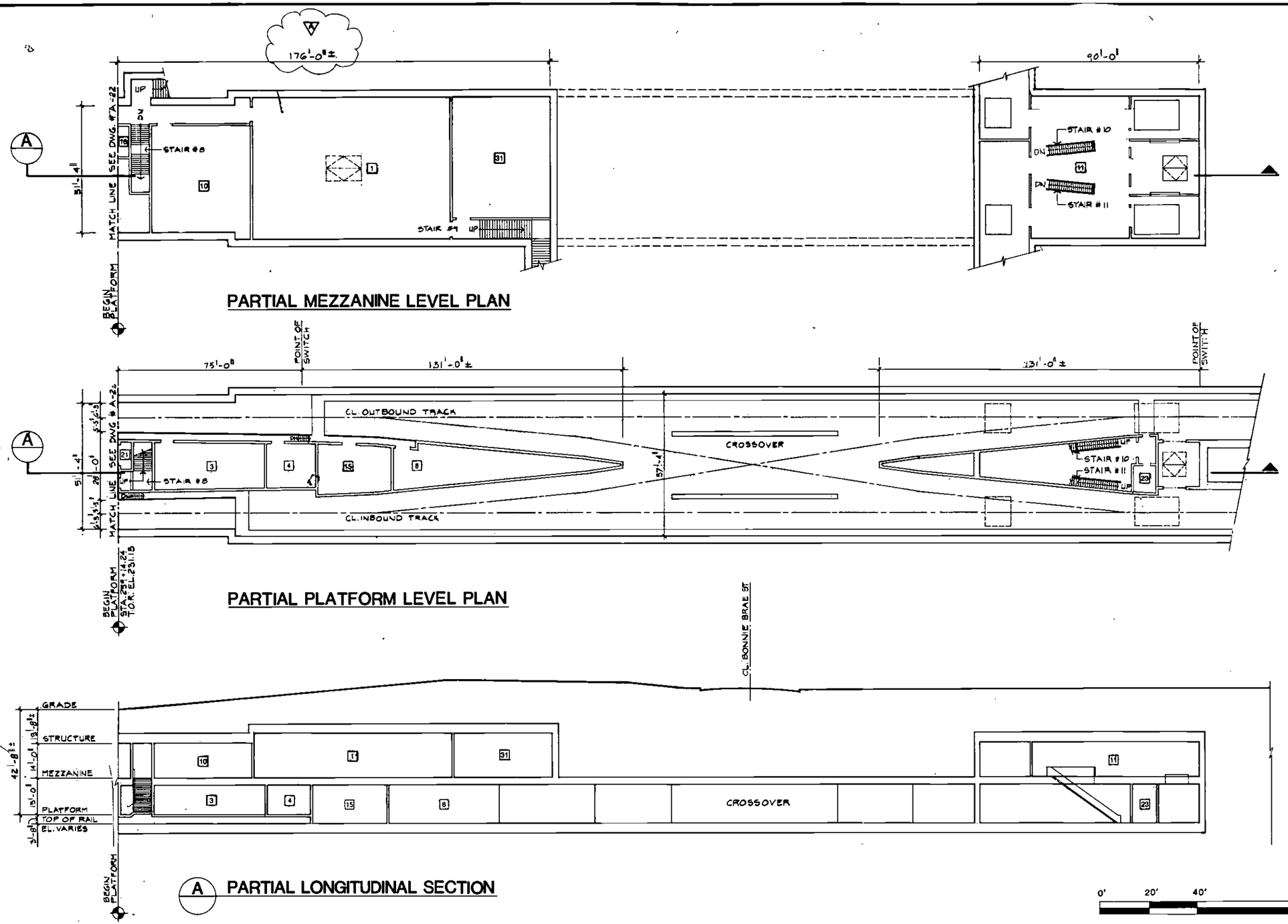
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

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

WILSHIRE/ALVARADO STATION
PLANS AND SECTIONS

PRELIMINARY

CONTRACT NO. A170
DRAWING NO. [redacted]
SCALE 1"=20'-0"
SHEET NO. 40 of 48



SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7.
8. Storage
9. Mechanical
10. Pbn
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. Gas Breaker Station
21. Emergency Equipment
22. Custodial
23. Electrical Equipment
24. [illegible]
25. [illegible]
26. Telephone Equipment
27. [illegible]
28. Trash
29. Staff / Security
30.
31. Electric Incoming Service

REV.	DATE	BY	APP.	DESCRIPTION
▽	5/27/85		J.Y.	ENTRY ADDED AT NORTH SIDE OF STATION
	5/6/85		J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

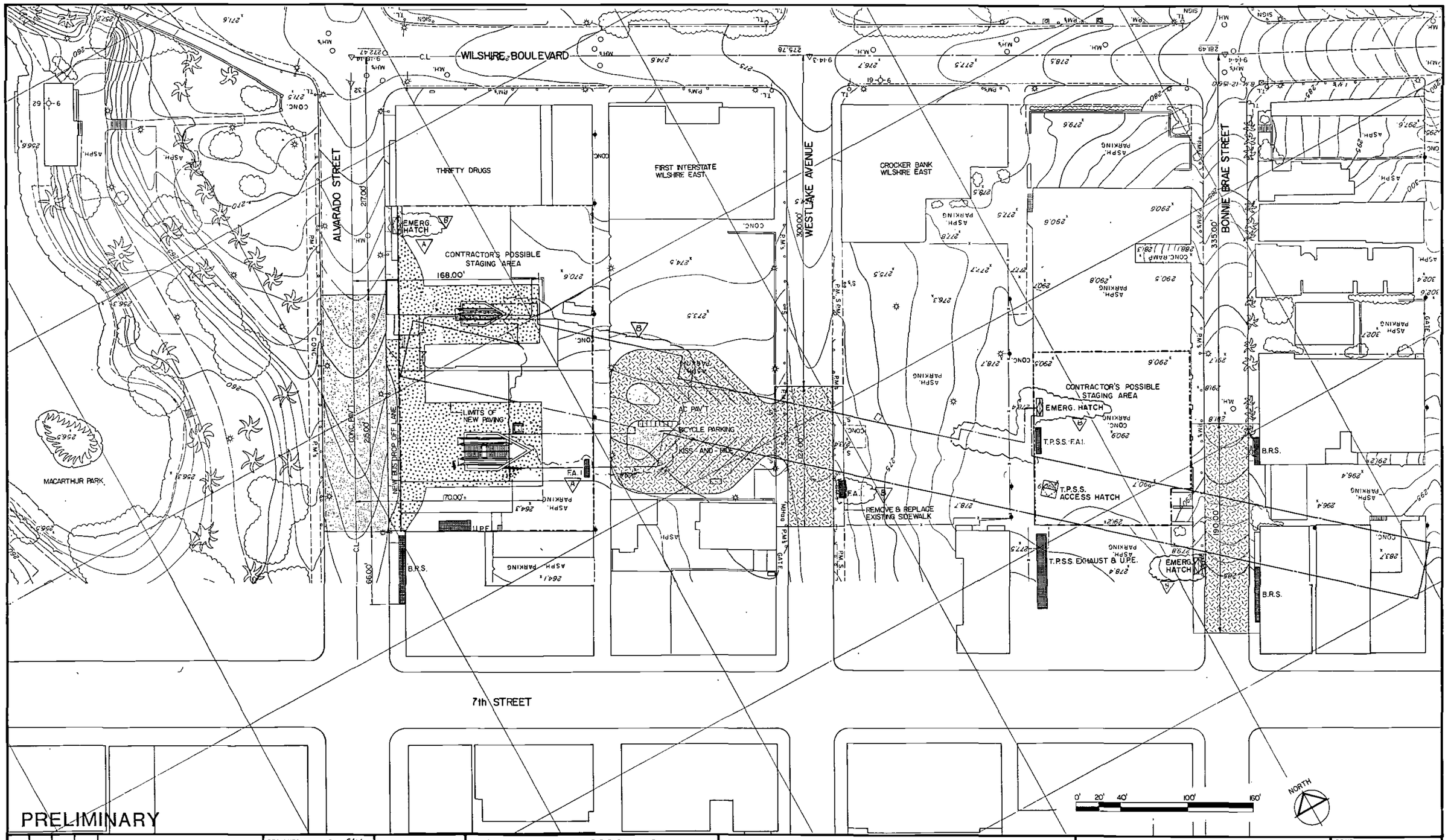
DESIGNED BY H.W.A. Date
DRAWN BY B.K. Date 5/6/85
CHECKED BY J.TEN PIGATTI Date 5/10/85

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 AND SECTIONS
PRELIMINARY

CONTRACT NO. A170
DRAWING NO. A-25
SCALE 1"=20'-0"
SHEET NO. 41 of 48



PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
B	7/20/83	JLD		RELOCATED EMERG. HATCH & F.A.I. SHAFT, REV. FOOTPRINT AND EXIT TO MATCH.
V	9/31/83	JLD		ADDED NORTH ENTRY & RELOCATED EMERGENCY EXIT & F.A.I.

DESIGNED BY TAMS Date 5/2/83
DRAWN BY S.AN / RGL Date 5/3/83
CHECKED BY JLD Date 5/13/83

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
CIVIL SITE PLAN

CONTRACT NO. A170
DRAWING NO. C-6
SCALE 1"= 40'-0"
SHEET NO. 57

PROPOSED

NO	SAN. SEWER
1	195'-15" SS S=0.0103
2	410'-15" SS S=0.008
3	420'-10" SS S=0.0138
4	80'-8" SS SUPPORT AND RETRENCH

APPROXIMATE ELEVATION AT TOP OF STATION STRUCTURE

A	264.32
B	268.2 / 272.2
C	273.1 / 252.1
D	253.3 / 270.3
E	270.9

END PLATFORM TYPICAL SECTION BEGIN PLATFORM

END PLATFORM GRADE — BEGIN PLATFORM GRADE

TOP OF STRUT 267.82

TOP OF RAIL 228.00 — TOP OF RAIL 231.15

36'-8" — 3'-8"

WESTLAKE AVENUE

BONNIE BRAE STREET

BURLINGTON

ALVARADO STREET

7TH STREET

EMERG. EXIT

END PLATFORM

BEGIN PLATFORM

LIMITS OF NEW PAVING

NEW BUS DROP OFF LANE

EMERG. HATCH

T.P.S.S.F.A.I.

T.P.S.S. ACCESS HATCH

T.P.S.S. EXHAUST & U.P.E.

F.A.I.

U.P.E.

B.R.S.

0' 20' 40' 100' 160'

NORTH

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
V	7/19/83	JLD		RELOCATED EMERG. HATCH, SEWER LINE, & F.A.I. SHAFT REV. STRUCT. ELEVS. FOOTPRINT, TYP. SECT. & SPLIT TO MATCH W.
V	6/30/83	JLD	TC	REVISED RELOCATION OF 15" S.S. PIPE ADDED NORTH ENTRY & RELOCATED GRATINGS
V	5/17/83	JLD	TC	REVISED GRATING

DESIGNED BY TAMS Date 5/2/83

DRAWN BY RGL / S.AN Date 5/3/83

CHECKED BY JLD Date 5/13/83

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.

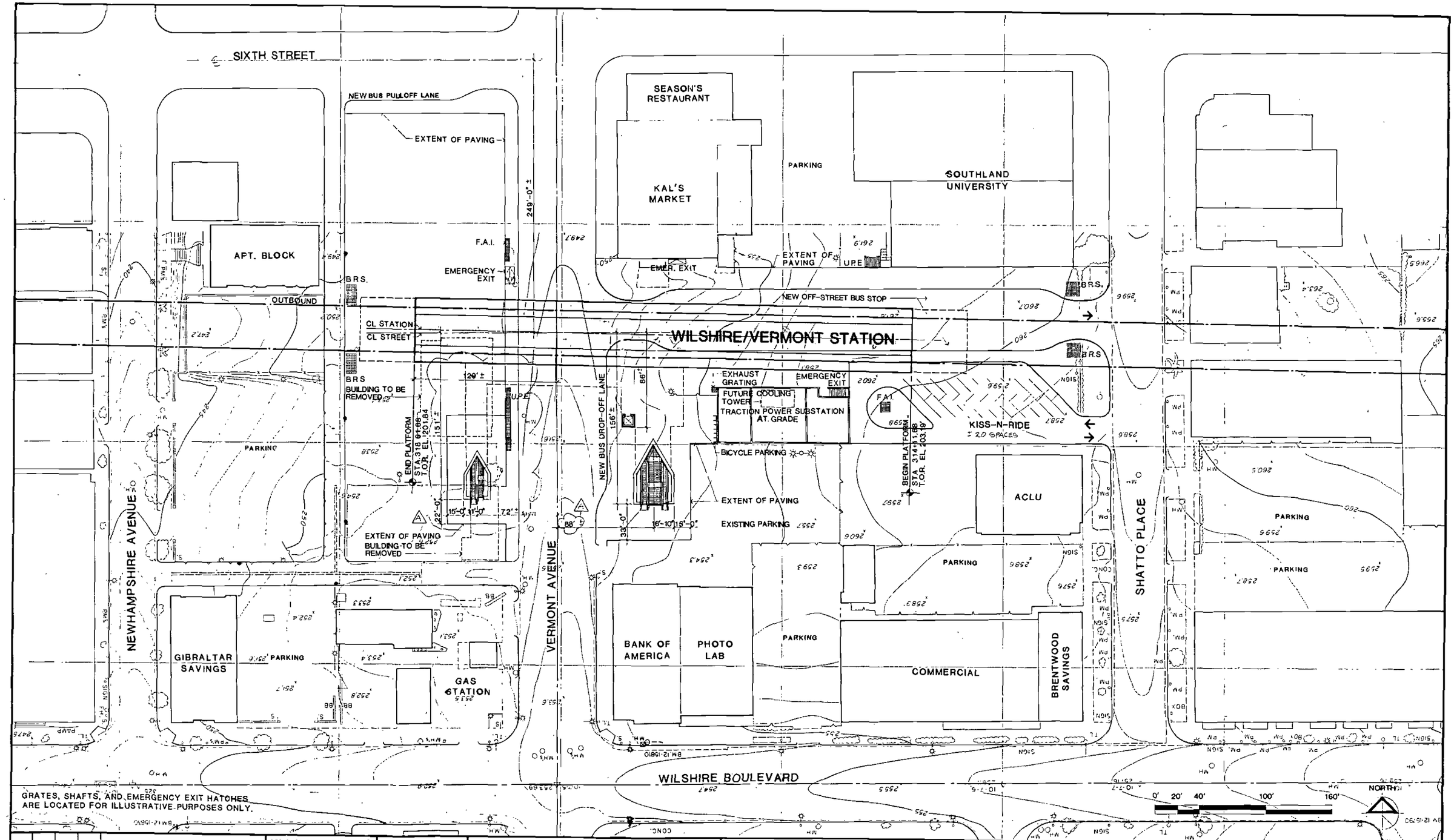
WILSHIRE / ALVARADO STATION
UTILITY PLAN REARRANGEMENT

CONTRACT NO A 170

DRAWING NO. U-6

SCALE 1"=40'-0"

SHEET NO 38 OF 48



GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY.

REV.	DATE	BY	APP.	DESCRIPTION
A	5/26/83			ENTRY ADDED ON WEST SIDE OF VERMONT AVE
	5/26/83			REVISIONS TO AUXILIARY ROOMS FOR COST REDUCTION.
	[illegible]			PLATFORM MOVE IS TO THE EAST ENTRY MOVED TO EAST OF VERMONT AVE

DESIGNED BY HWA Date 3/3/83
DRAWN BY S. DEBNATH, A. SNIDER, M. HOMER Date 3/21/83, 5/26/83
CHECKED BY [illegible] Date 3/10/83

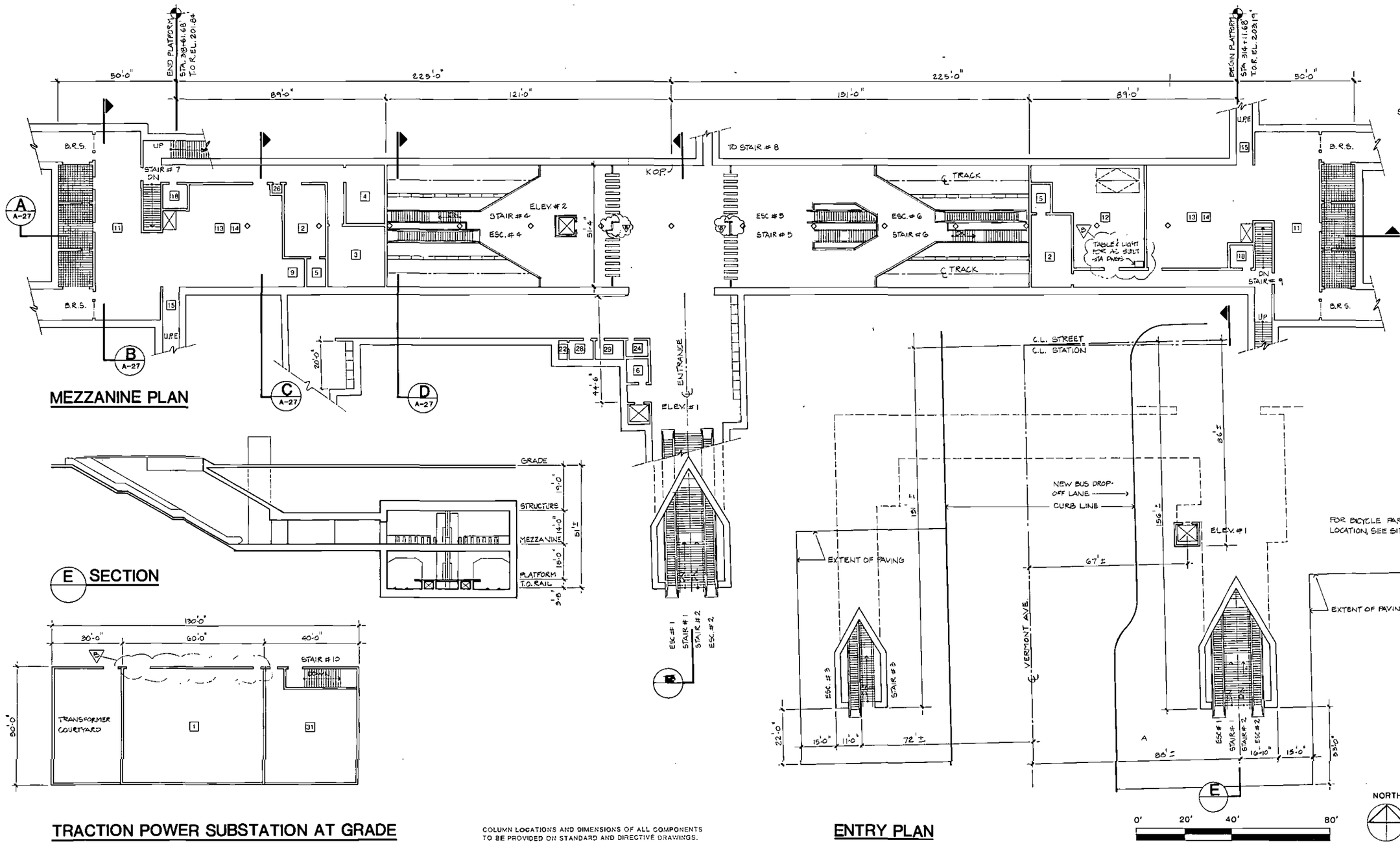
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY: [signature]
PROJECT MANAGER

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

CONTRACT NO. A195
DRAWING NO. A-25
SCALE 1" = 40'-0"
SHEET NO. 8 OF 17



MEZZANINE PLAN

E SECTION

TRACTION POWER SUBSTATION AT GRADE

ENTRY PLAN

COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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. **Toilet**
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. **Staff/Security**
30. **Deleted.**
31. Electric Incoming Service

REV.	DATE	BY	APP.	DESCRIPTION
6	7/1/83	1	J.Y.	REVISIONS AS PER SCRTD COMMENTS.
5	5/26/83		J.Y.	ENTRY ADDED ON WEST SIDE OF VERMONT
	5/26/83		J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY HWA Date 5-26-83
DRAWN BY M. HOMER Date 5-26-83
CHECKED BY J.YEN. PIGATI Date 5-26-83

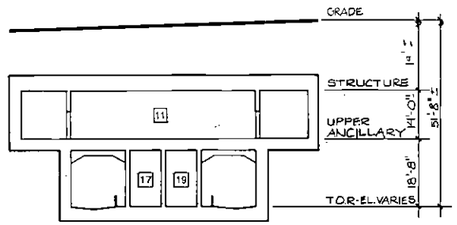
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

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

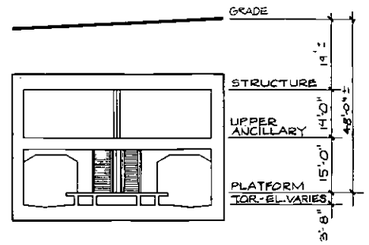
WILSHIRE/VERMONT STATION
PLANS & SECTIONS
PRELIMINARY

CONTRACT NO. A195
DRAWING NO. A-26
SCALE 1"-20'0"
SHEET NO. 11 OF 17

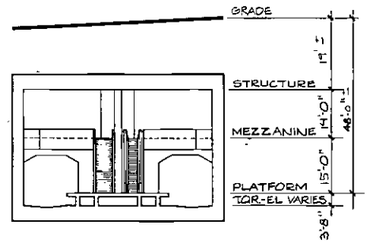
BRUNING 44-139



B TRANSVERSE SECTION



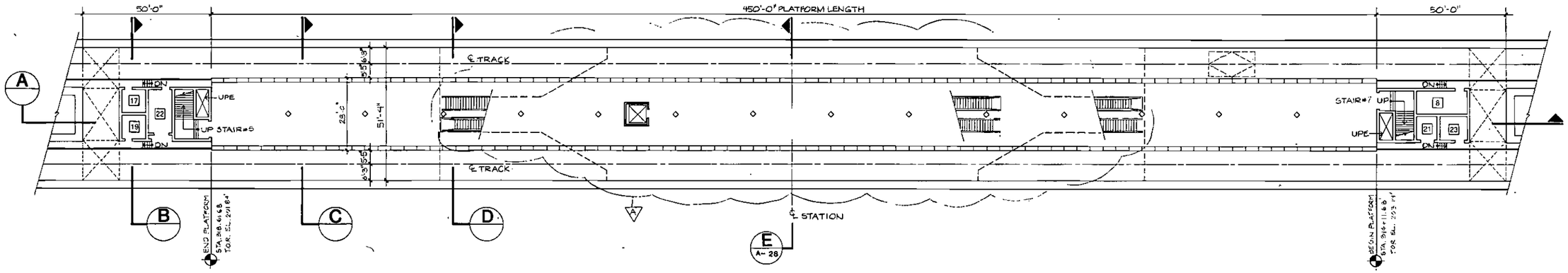
C TRANSVERSE SECTION



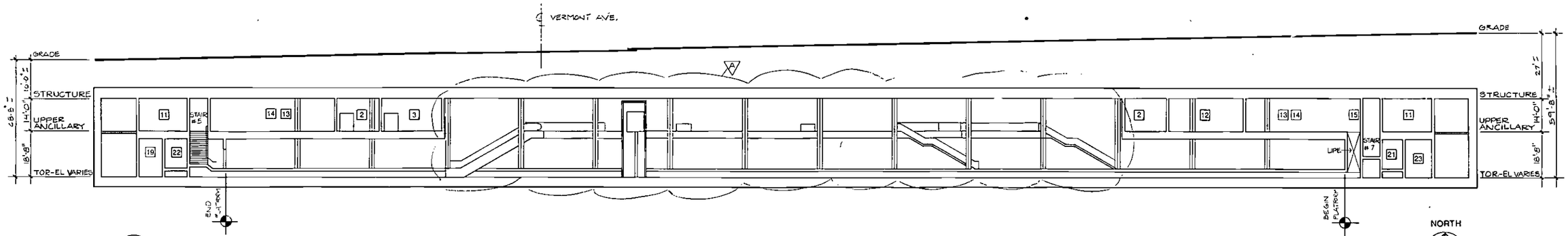
D TRANSVERSE SECTION

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	**Deleted**	23	Electrical Equipment
8	Storage	24	**Toilet**
9	Mechanical	25	**Deleted**
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		



PLATFORM PLAN



A LONGITUDINAL SECTION

REV.	DATE	BY	APP.	DESCRIPTION
5	5/26/83		J.Y.	ENTRY ADDED ON WEST SIDE OF VERMONT.
	5/26/83		J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY: N/A Date: 5/13/83
DRAWN BY: M. HOMER Date: 5/26/83
CHECKED BY: J. YEN PIGATI Date: 5/13/83

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
PLATFORM PLANS & SECTIONS
PRELIMINARY

CONTRACT NO. A195
DRAWING NO. A-27
SCALE 1"=20'-0"
SHEET NO. 12 OF 17

SIXTH STREET

NEW BUS PULL OFF LANE

KAL'S MARKET

SOUTHLAND UNIVERSITY

EXISTING PARKING LOT

LIMITS OF NEW PAVING

NEW OFF-STREET BUS STOP

CONC. PAV'T

EMERG. EXIT

TRACTION POWER SUBSTAION AT GRADE

KISS-N-RIDE PARKING AREA

PROPOSED BICYCLE PARKING

EXISTING PARKING LOT

LIMITS OF NEW PAVING

ACLU

EXISTING PARKING LOT

BANK OF AMERICA

NEW HAMPSHIRE AVENUE

VERMONT AVENUE

SHATTO PLACE

WILSHIRE BOULEVARD

HERTZ RENT-A-CAR

NEW BUS DROP OFF LANE

PRELIMINARY

0' 20' 40' 100' 180'

NORTH

REV.	DATE	BY	APP.	DESCRIPTION
B	7/20/83	JLD		REVISED EXIT TO HATCH
A	6/29/83	JLD		ADDED NEW ENTRANCE & REVISED EXTENT OF PAVING ALONG VERMONT AVE & KISS-N-RIDE AREA. REVISED STATION LENGTH & REVISED GRATINGS

DESIGNED BY TAMS Date 5/2/83

DRAWN BY S.AN / RGL Date 5/3/83

CHECKED BY JLD Date 5/13/83

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
CIVIL SITE PLAN

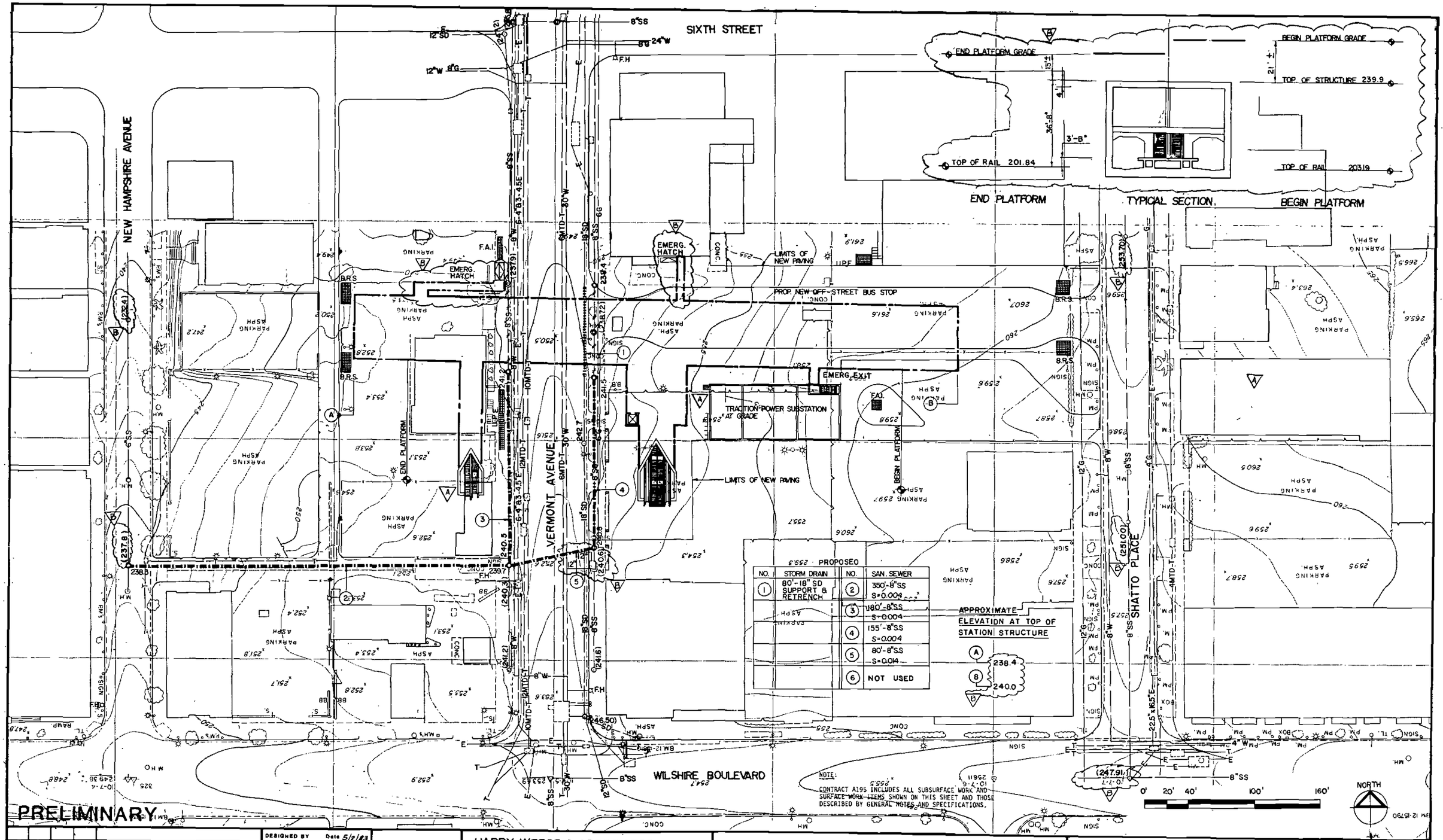
CONTRACT NO A195

DRAWING NO C-7

SCALE 1"= 40'-0"

SHEET NO. 9 OF 17

BRUNING



PRELIMINARY

REV.	DATE	BY	APP:	DESCRIPTION
B	7/20/83	JLD		REVISED INV ELEVS, TOP OF STRUCT. ELEV, TYP SECTION & CHANGED EAIT TO HATCH.
A	6/21/83	JLD		REDUCED STATION LENGTH, ADDED NEW ENTRY & REVISED GRATINGS

DESIGNED BY TAMS Date 5/2/83
DRAWN BY RGL / S.AN Date 5/3/83
CHECKED BY JLD Date 5/13/83

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
UTILITY PLAN REARRANGEMENT

CONTRACT NO. A195
DRAWING NO. U-7
SCALE 1"= 40'-0"
SHEET NO. 10 OF 17

KEMPER INSURANCE

ARDMORE AVENUE

WILSHIRE - HYATT HOTEL

CONFERENCE BUILDING

NORMANDIE AVENUE

CL NORMANDIE AVENUE

WILSHIRE CHRISTIAN CHURCH

ATLANTIC RICHFIELD COMPANY

MARIPOSA AVENUE

EQUITABLE BUILDING

B.R.S.

U.P.E.

EMERG STAIR # 6

F.A.I.

F.A.I.

B.R.S.

NORMANDIE AVENUE STATION

CL OUTBOUND TRACK

CL WILSHIRE BOULEVARD STATION

CL INBOUND TRACK

WILSHIRE BOULEVARD

PROPERTY LINE

EMERG STAIR # 5

U.P.E.

B.R.S.

F.A.I.

PARAMOUNT PLAZA

TITLE INSURANCE

GLENDALE FEDERAL SAVINGS

B.R.S.

CL NORMANDIE AVENUE

EXTENT OF PAVING

30'-0"

64'-0" N.T.S.

100'-0" N.T.S.

SITE OF PROPOSED OFFICE DEVELOPMENT

CENTRAL PLAZA TISHMAN COMPLEX

END PLATFORM STA. POINT 350+19.90 T.O.R. EL. 168.10'

ARDMORE AVENUE

NEW BUS DROP-OFF LANE

BEGIN PLATFORM STA. POINT 345+96.90 T.O.R. EL. 166.75'

MARIPOSA AVENUE

NORTH

0 20' 40' 100' 160'

GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY.

REV.	DATE	BY	APP.	DESCRIPTION
	4/22/83		RP	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTIONS

DESIGNED BY HWA Date ____

DRAWN BY K. LIM, A. SNIDER Date 2/4/83

CHECKED BY R. PIGATI / J. YEN Date 2/4/83

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

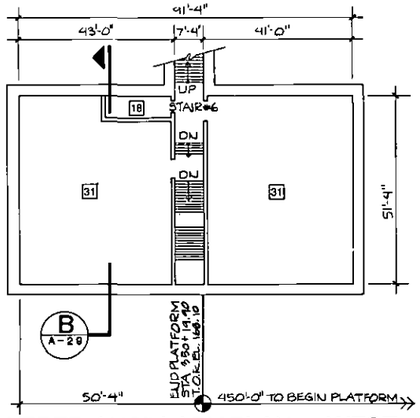
APPROVAL RECOMMENDED _____ Reg. No. ____

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

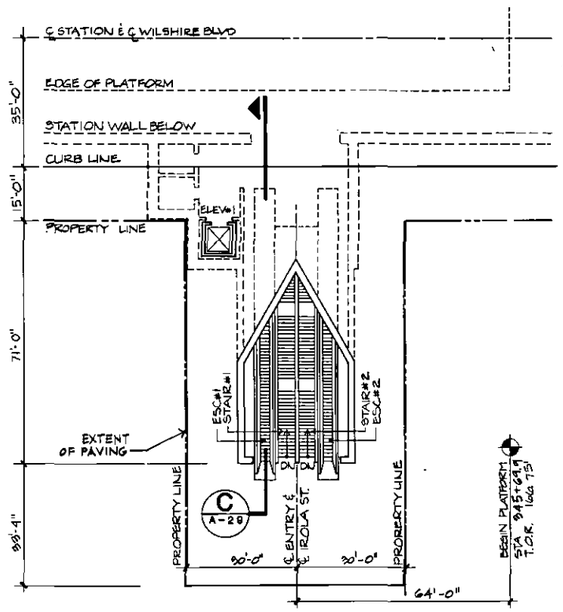
WILSHIRE/NORMANDIE STATION
SITE PLAN

PRELIMINARY

CONTRACT NO. A220
DRAWING NO. A-28
SCALE 1"= 40'-0"
SHEET NO. 44 OF 63

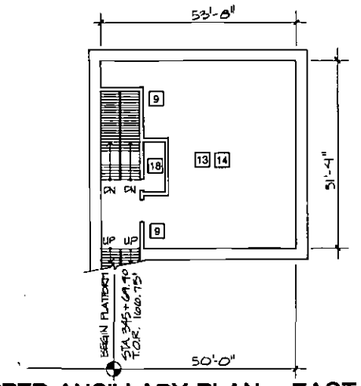


UPPER ANCILLARY PLAN - WEST

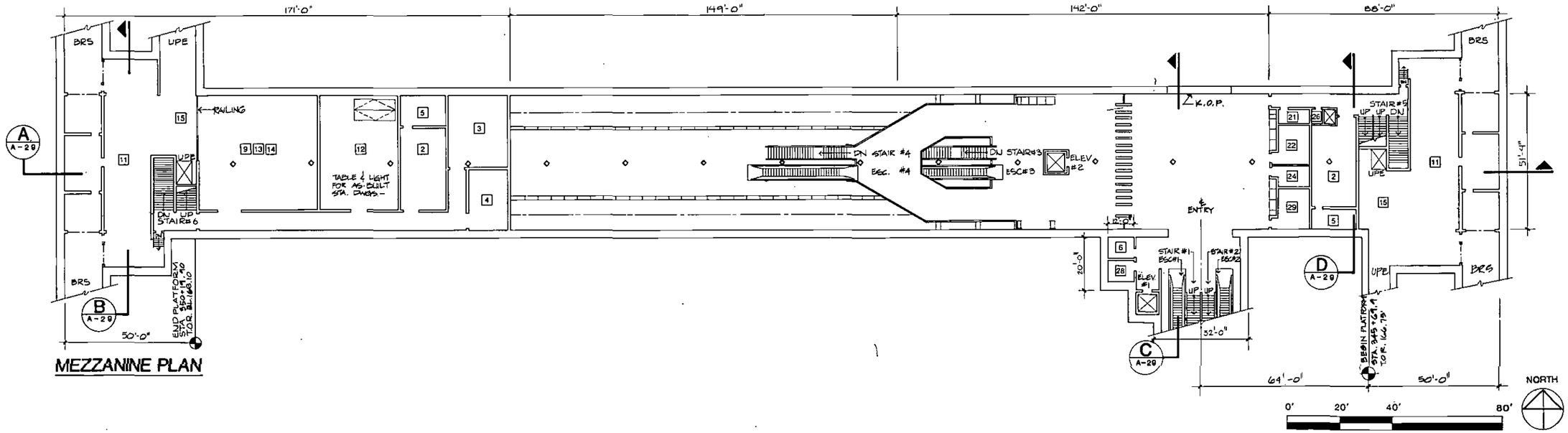


STATION ENTRY PLAN

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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. **Toilet**
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. **Staff/Security**
30. **Deleted**
31. Electric Incoming Service



UPPER ANCILLARY PLAN - EAST



MEZZANINE PLAN

REV.	DATE	BY	APP.	DESCRIPTION
	4/22/83		RP	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTIONS

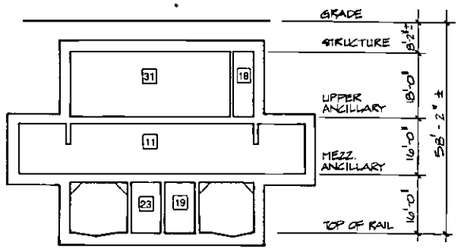
DESIGNED BY HWA Date 4-21-83
DRAWN BY K. LIM, A. SNIDER Date 4-21-83
CHECKED BY J. YEN PGATI Date 4/22/83

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

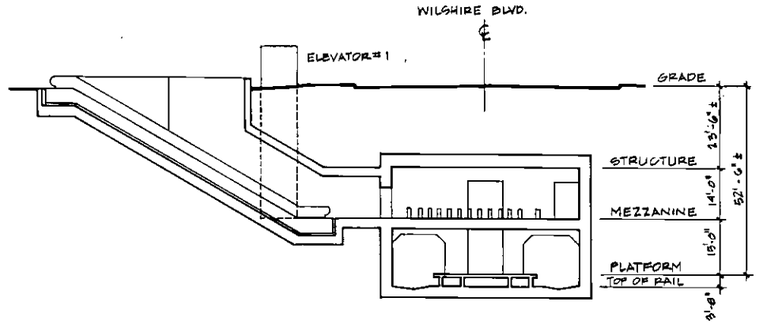
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED
Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE/NORMANDIE STATION
PLANS
PRELIMINARY

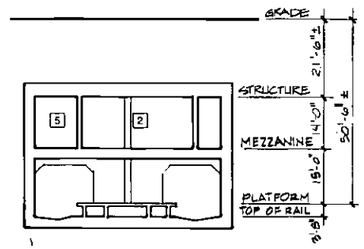
CONTRACT NO. A220
DRAWING NO. A-29
SCALE 1"=20'-0"
SHEET NO. 47 OF 63



B SECTION



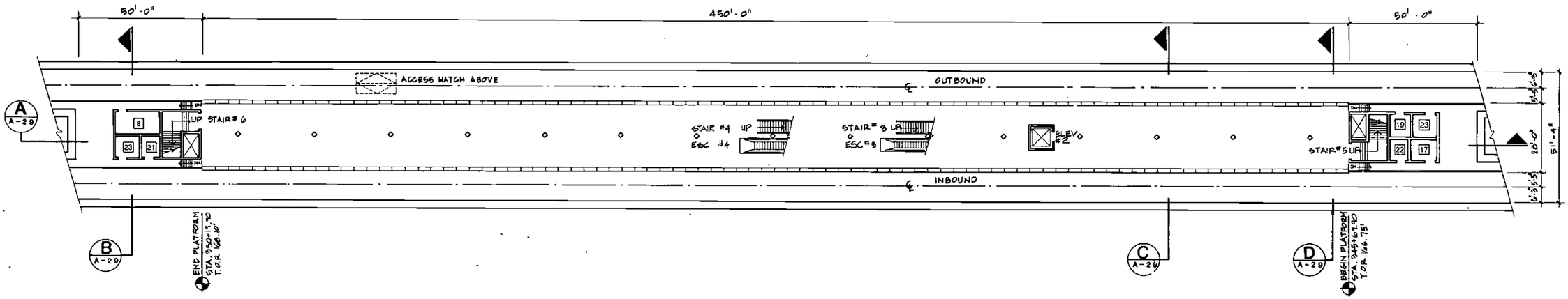
C SECTION



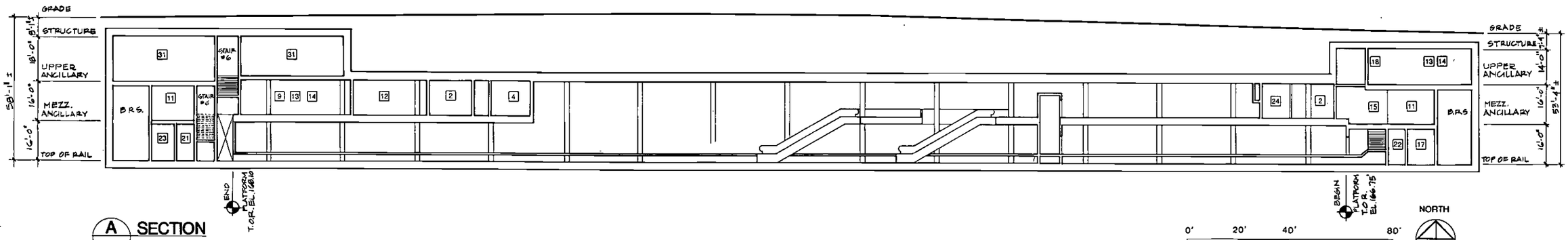
D SECTION

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	**Deleted**	23	Electrical Equipment
8	Storage	24	Toilet
9	Mechanical	25	**Deleted**
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		



PLATFORM PLAN



A SECTION

0' 20' 40' 80'

NORTH

REV.	DATE	BY	APP.	DESCRIPTION
	4/22/83		RP	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTIONS

DESIGNED BY H.W.A. Date 4/20/83
DRAWN BY K. LIM, A. SNIDER Date 4/20/83
CHECKED BY J. YEN Date 4/22/83 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.

WILSHIRE/NORMANDIE STATION
PLANS AND SECTIONS

PRELIMINARY

CONTRACT NO. A220
DRAWING NO. A-30
SCALE 1"=20'-0"
SHEET NO. 48 OF 63

BRUNING 44-132

KEMPER INSURANCE
ARDMORE AVENUE
WILSHIRE-HYATT HOTEL
REMOVE & REPLACE EXSISTING SIDEWALK
CONFERENCE BUILDING
NORMANDIE AVENUE
WILSHIRE CHRISTIAN CHURCH
ATLANTIC RICHFIELD COMPANY
MARIPOSA AVENUE
EQUITABLE BUILDING
EMERG. HATCH
F.A.I.
B.R.S.
U.P.E.
WILSHIRE BOULEVARD
PARAMOUNT PLAZA
TITLE INSURANCE
GLENDALE FEDERAL SAVINGS
LIMITS OF NEW PAVING
SITE OF PROPOSED OFFICE DEVELOPMENT
IROLO STREET
CENTRAL PLAZA TISHMAN COMPLEX
NEW BUS DROP OFF LANE
NORTH
0' 20' 40' 100' 160'

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

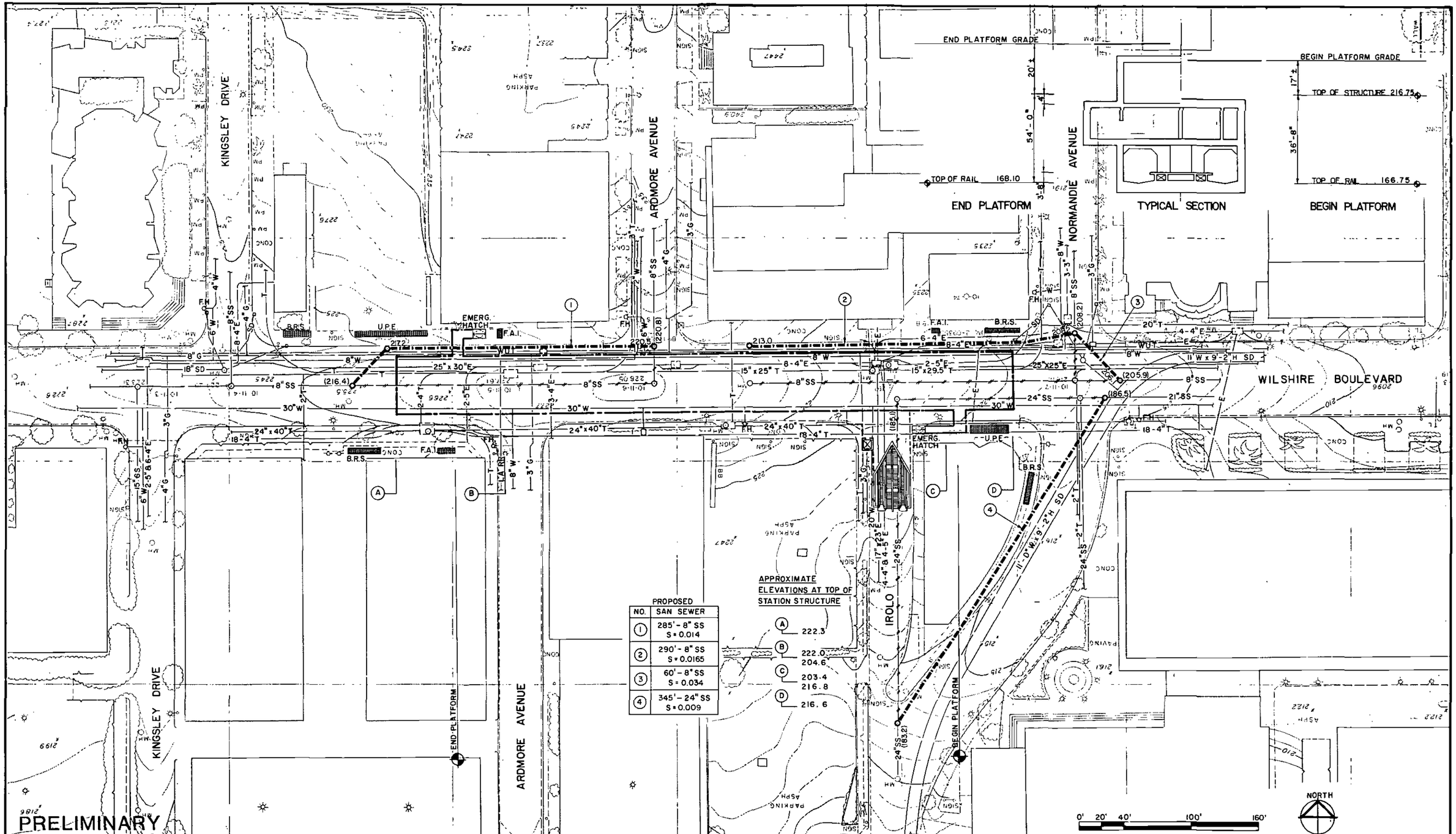
DESIGNED BY TAMS Date 5/17/83
DRAWN BY RGL Date 5/19/83
CHECKED BY JLD Date 5/25/83

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
CIVIL SITE PLAN

CONTRACT NO. A-220
DRAWING NO. C-8
SCALE 1"= 40'-0"
SHEET NO.



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 5/17/83
DRAWN BY HWW Date 5/19/83
CHECKED BY JLD Date 5/25/83

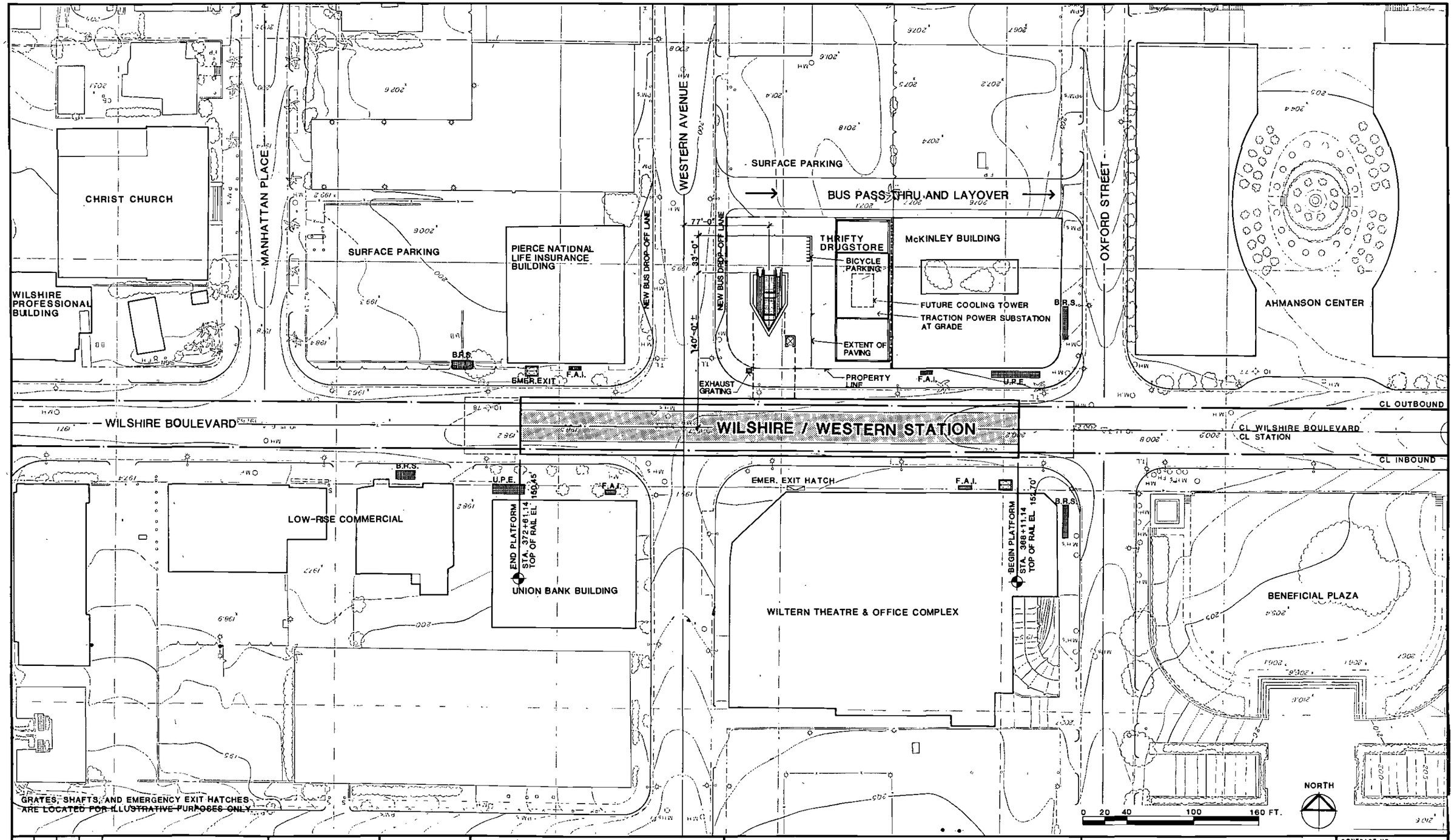
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

WILSHIRE/NORMANDIE STATION
UTILITY PLAN REARRANGEMENT

CONTRACT NO. A-220.
DRAWING NO. U-8
SCALE 1"=40'-0"
SHEET NO 46 OF 63



REV.	DATE	BY	APP.	DESCRIPTION
	5/12/83	J.Y.		REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.
	4/8/83	VERMA	LK	BUS PASS THRU, COOLING TOWER.

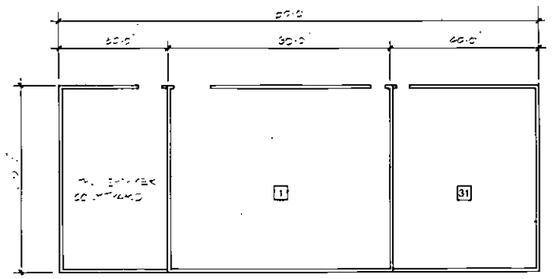
DESIGNED BY HWA Date 3-14-83
DRAWN BY JMW Date 3-14-83
CHECKED BY J. YEN Date 3-14-83 PGMTI

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

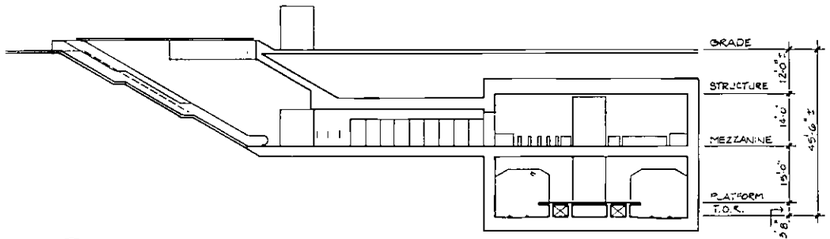
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date — MANAGER / CHIEF ENGINEER — Reg. No.

WILSHIRE / WESTERN STATION
SITE PLAN
PRELIMINARY

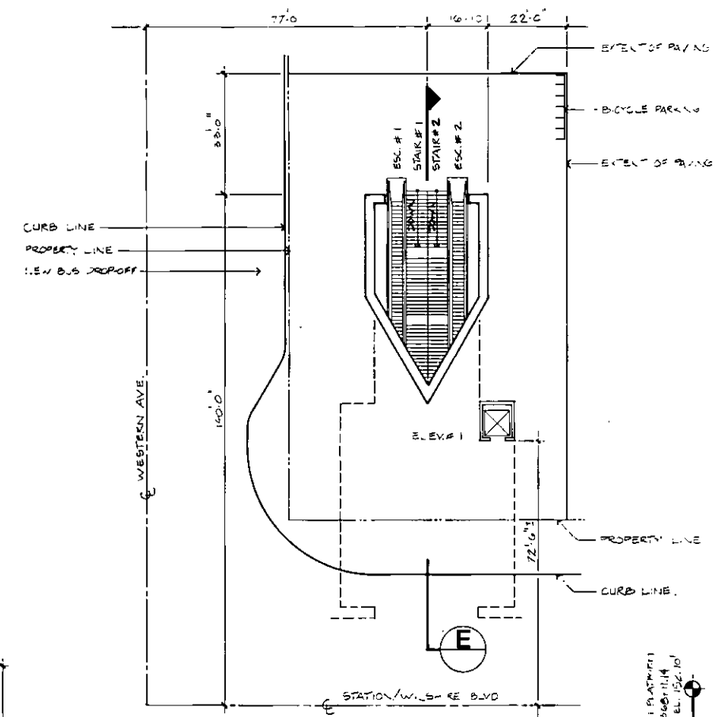
CONTRACT NO. A220
DRAWING NO. A-31
SCALE 1"= 40'-0"
SHEET NO. 54 OF 63



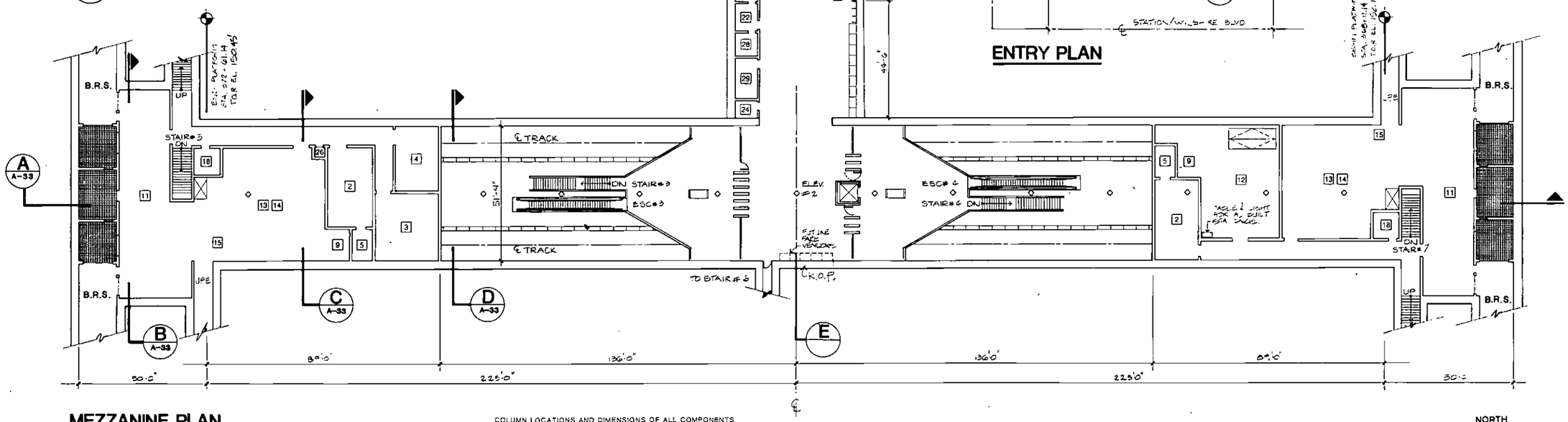
TRACTION POWER SUBSTATION PLAN



E SECTION



ENTRY PLAN



MEZZANINE PLAN

COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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. **Toilet**
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. **Staff/Security**
30. **Deleted**
31. Electric Incoming Service

0' 20' 40' 80'

NORTH

REV.	DATE	BY	APP.	DESCRIPTION
	5/12/83			RE/8 ONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY: -NA Date 5-27-83
DRAWN BY: T. HOMER Date 5-27-83
CHECKED BY: J. YEN Date 5-27-83 PIGATI

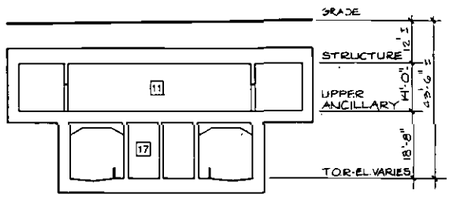
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

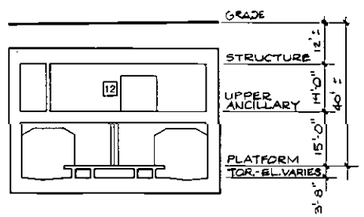
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE/WESTERN STATION
PLANS & SECTIONS
PRELIMINARY

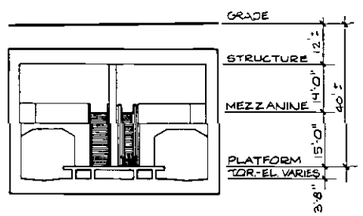
CONTRACT NO. A220
DRAWING NO. A-32
SCALE 1"=20'-0"
SHEET NO. 57 OF 63



B TRANSVERSE SECTION



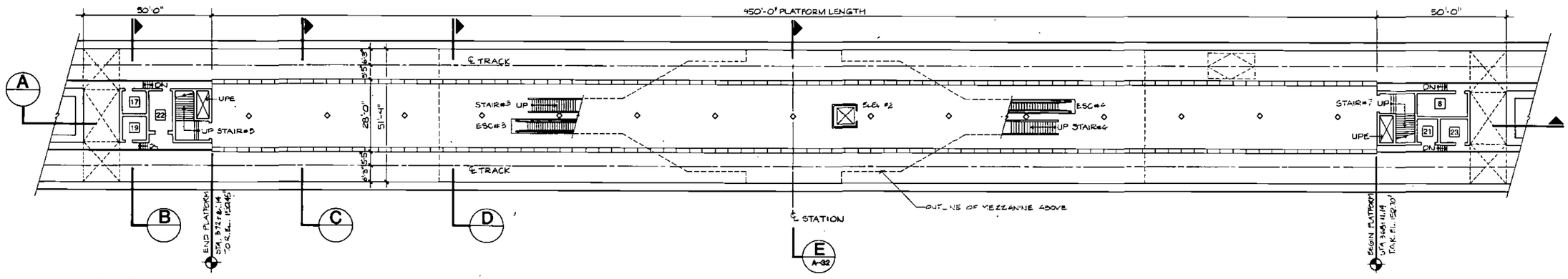
C TRANSVERSE SECTION



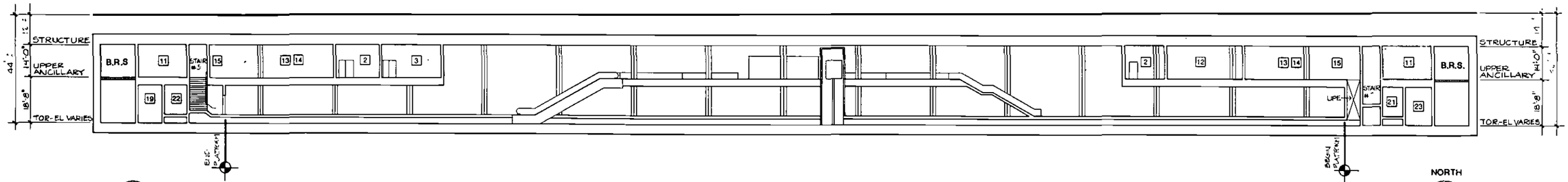
D TRANSVERSE SECTION

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 **Deleted**	23 Electrical Equipment
8 Storage	24 Toilet
9 Mechanical	25 **Deleted**
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	



PLATFORM PLAN



A LONGITUDINAL SECTION

REV.	DATE	BY	APP.	DESCRIPTION
	5-12-83	MH		REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY HWA. Date 5-27-83
DRAWN BY Y. HOMER Date 5-12-83
CHECKED BY J.Y.G.W. Date 5-27-83

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

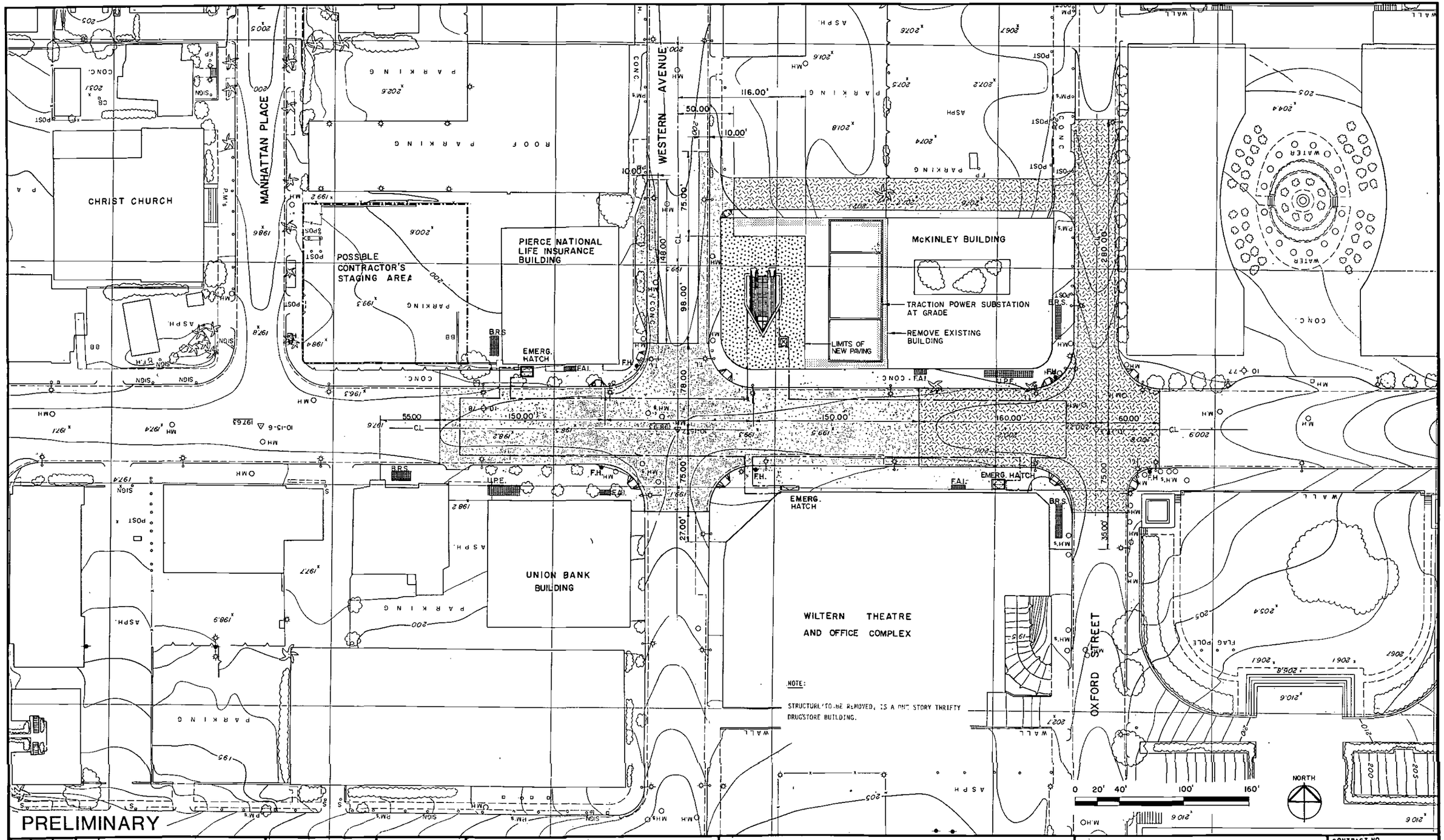
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

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

WILSHIRE/WESTERN STATION
PLANS & SECTIONS

PRELIMINARY

CONTRACT NO. A220
DRAWING NO. A-33
SCALE 1"-20'-0"
SHEET NO. 58 OF 63



PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

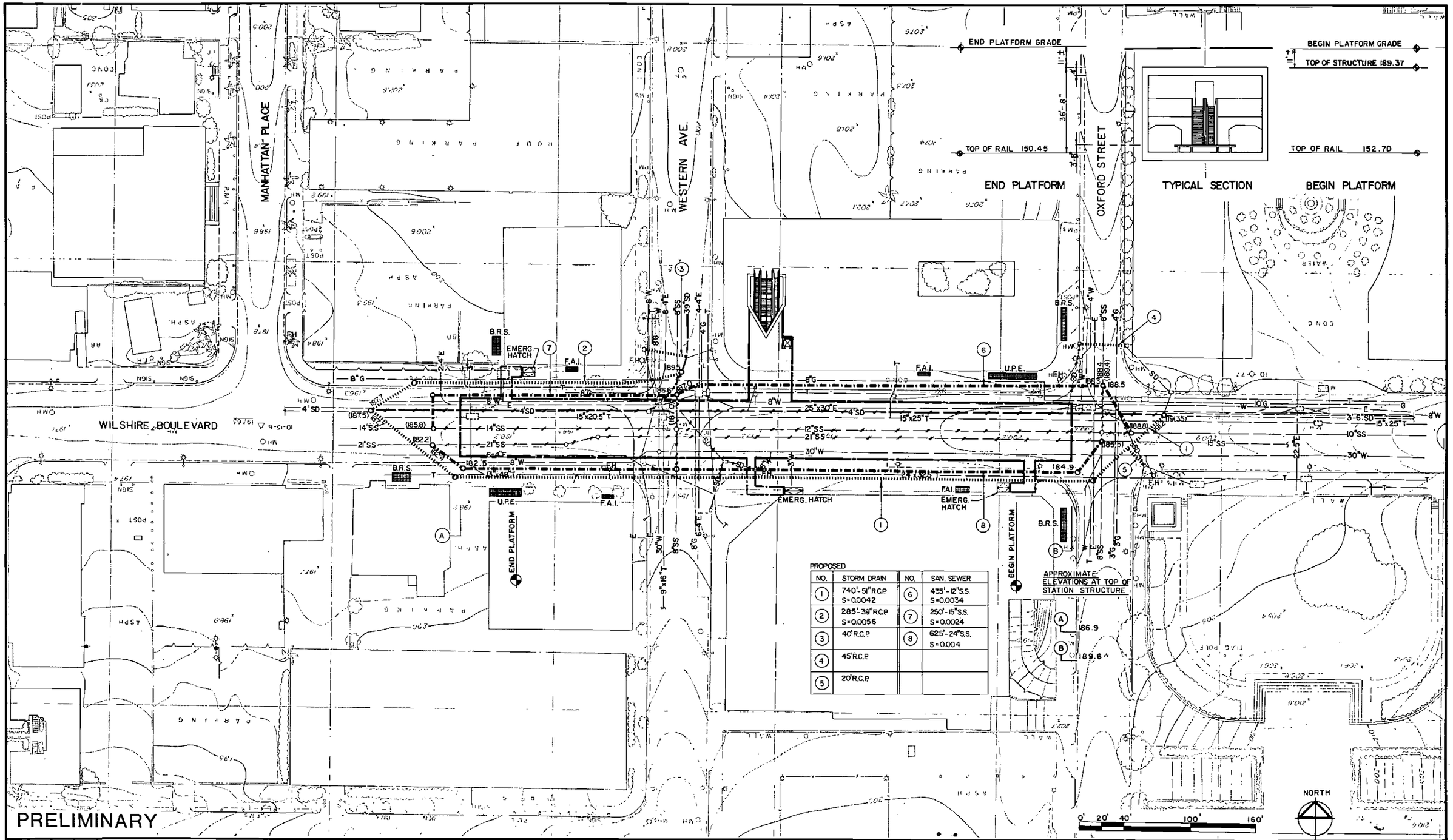
DESIGNED BY Date 5/16/83 — TAMS
DRAWN BY Date 5/18/83 — S.AN
CHECKED BY Date 5/19/83 — JLD

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
CIVIL SITE PLAN

CONTRACT NO. A220
DRAWING NO. C-9
SCALE 1"= 40'-0"
SHEET NO. 55 OF 63



NO.	STORM DRAIN	NO.	SAN. SEWER
1	740'-51"R.C.P. S=0.0042	6	435'-12"S.S. S=0.0034
2	285'-39"R.C.P. S=0.0056	7	250'-15"S.S. S=0.0024
3	40'R.C.P.	8	625'-24"S.S. S=0.004
4	45'R.C.P.		
5	20'R.C.P.		

PRELIMINARY

REV.	DATE	BY	RPP.	DESCRIPTION

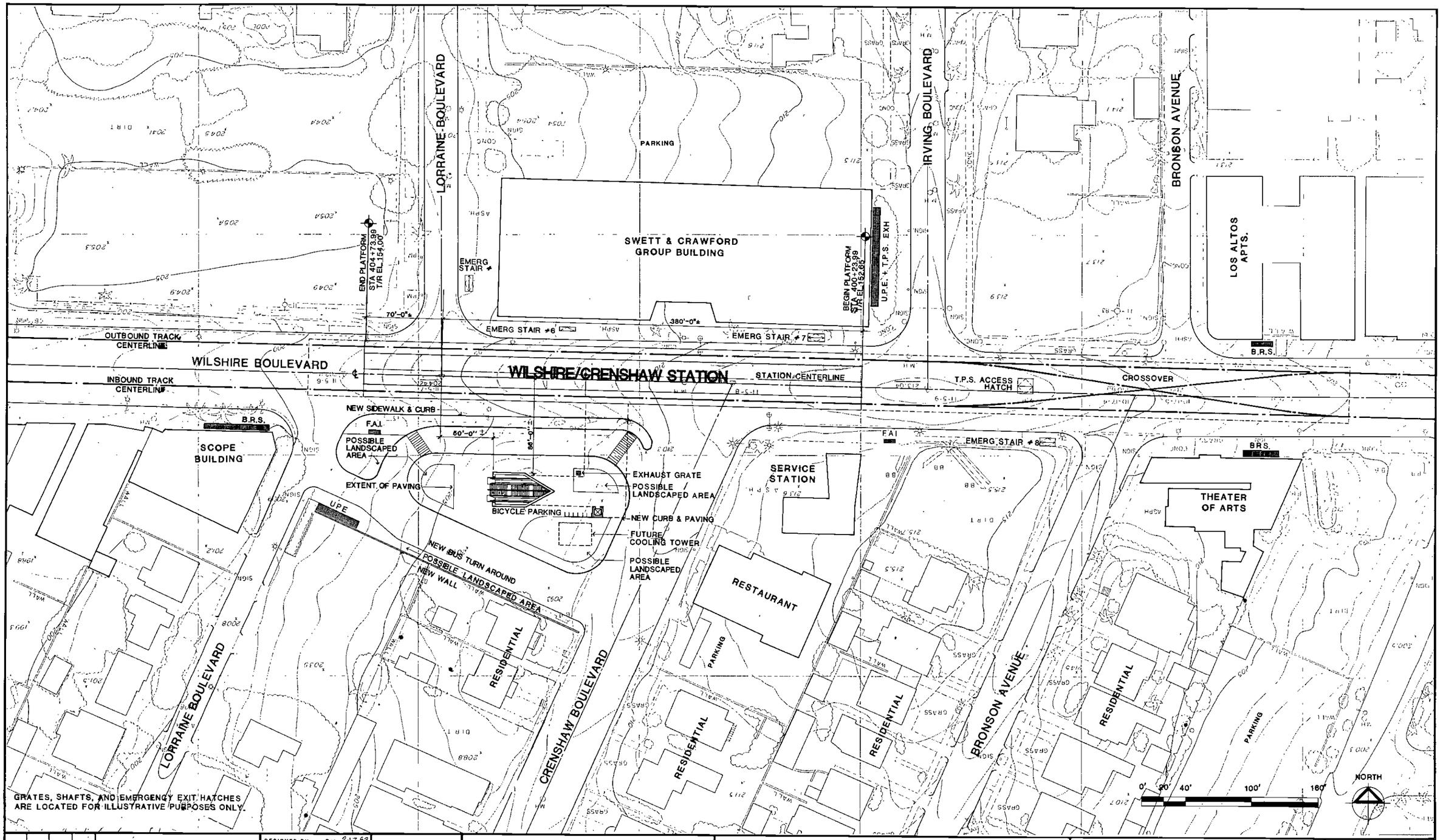
DESIGNED BY TAMS Date 5/16/83
DRAWN BY S.AN Date 5/19/83
CHECKED BY JLD Date 5/25/83

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
UTILITY PLAN REARRANGEMENT

CONTRACT NO. A220
DRAWING NO. U-9
SCALE 1"=40'-0"
SHEET NO. 56 OF 63



GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY.

REV.	DATE	BY	APP.	DESCRIPTION
	5/24/83		J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

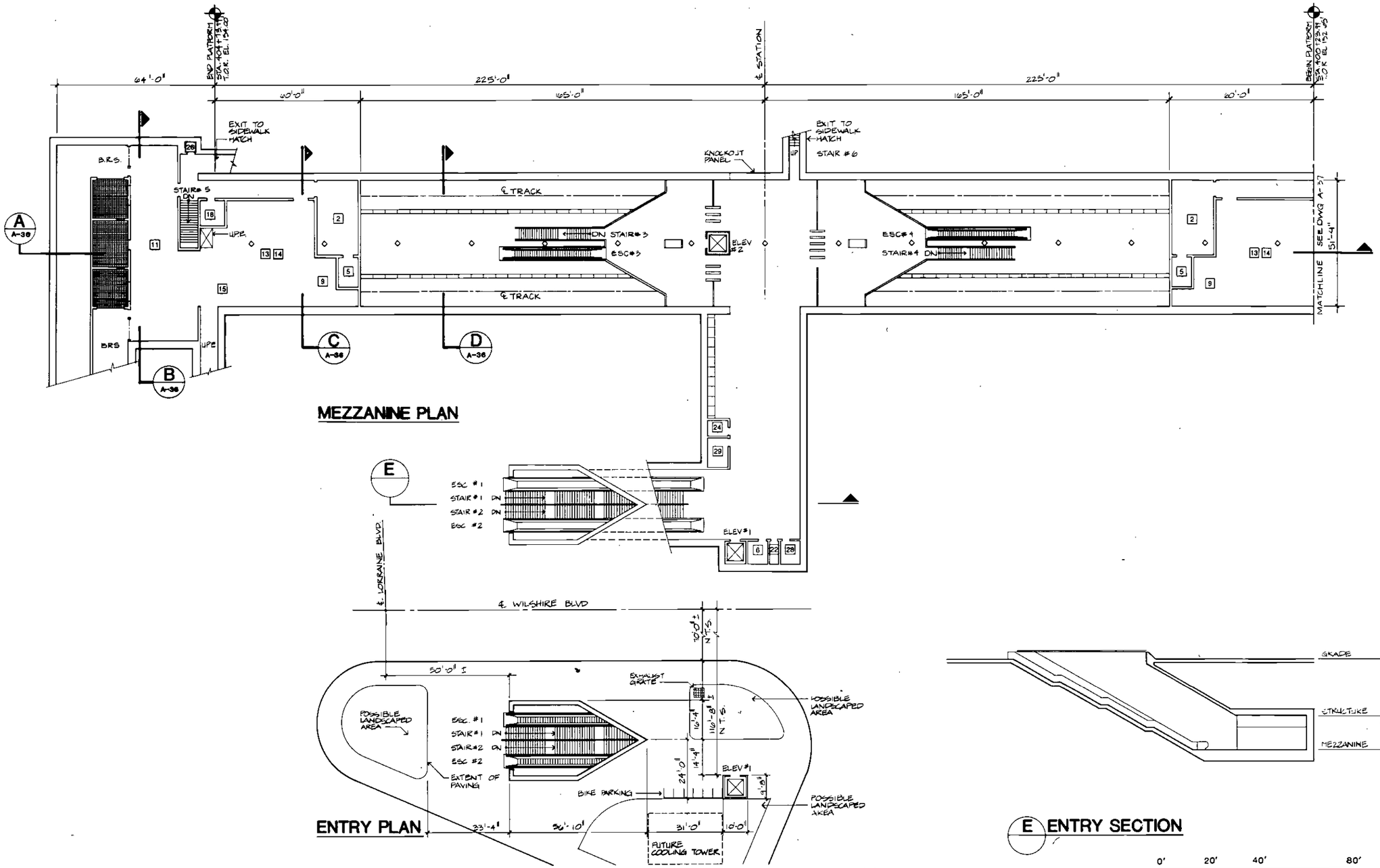
DESIGNED BY H WA Date 2-17-83
DRAWN BY S. DEBNATH Date 2/17/83
CHECKED BY J. YEN PIGATI Date 6-13-83

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/CRENSHAW STATION
SITE PLAN
PRELIMINARY
CW-A-1

CONTRACT NO.
DRAWING NO. A-34
SCALE: 1" = 40'-0"
SHEET NO



SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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. **Toilet**
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. **Staff/Security**
30. **Deleted**
31. Electric Incoming Service

COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

REV.	DATE	BY	APP.	DESCRIPTION
	5-24-83	J.Y.		REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTIONS

DESIGNED BY H.W.A Date ____
DRAWN BY M.W.D Date 5-24-83
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

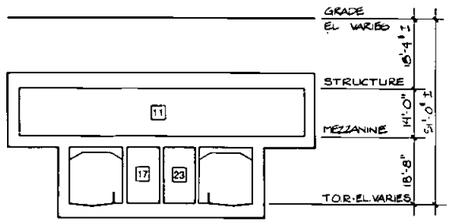
APPROVAL RECOMMENDED Reg. No. ____
APPROVED Date ____
MANAGER / CHIEF ENGINEER Reg. No. ____

WILSHIRE/CRENSHAW STATION
PLANS & SECTIONS

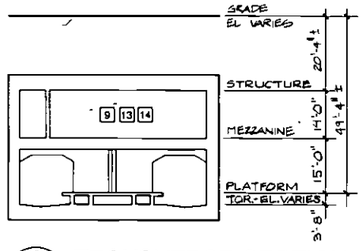
PRELIMINARY

CONTRACT NO.
DRAWING NO. A-35
SCALE 1"=20'-0"
SHEET NO.

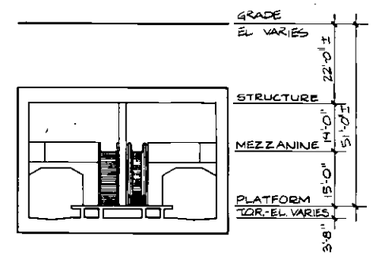
BRUNING 44 123



B TRANSVERSE SECTION



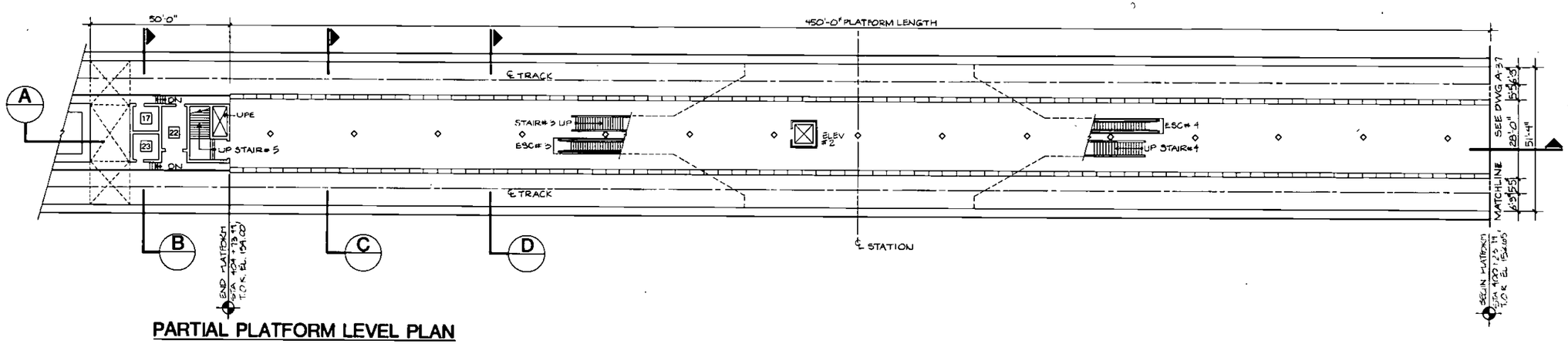
C TRANSVERSE SECTION



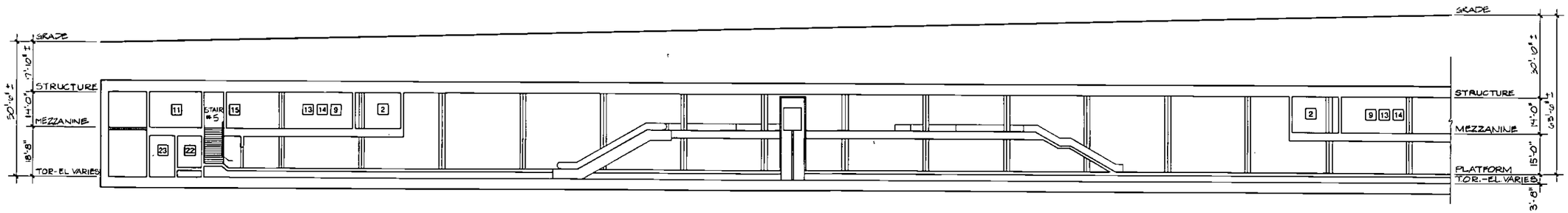
D TRANSVERSE SECTION

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	**Deleted**	23	Electrical Equipment
8	Storage	24	**Toilet**
9	Mechanical	25	**Deleted**
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		



PARTIAL PLATFORM LEVEL PLAN



A PARTIAL LONGITUDINAL SECTION

0' 20' 40' 80'

NORTH

REV.	DATE	BY	APP.	DESCRIPTION
	5-24-83			REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY Date 5-24-83 HWA
DRAWN BY Date 5-24-83 MWD
CHECKED BY Date 6-13-83 JYEN PIGATI

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

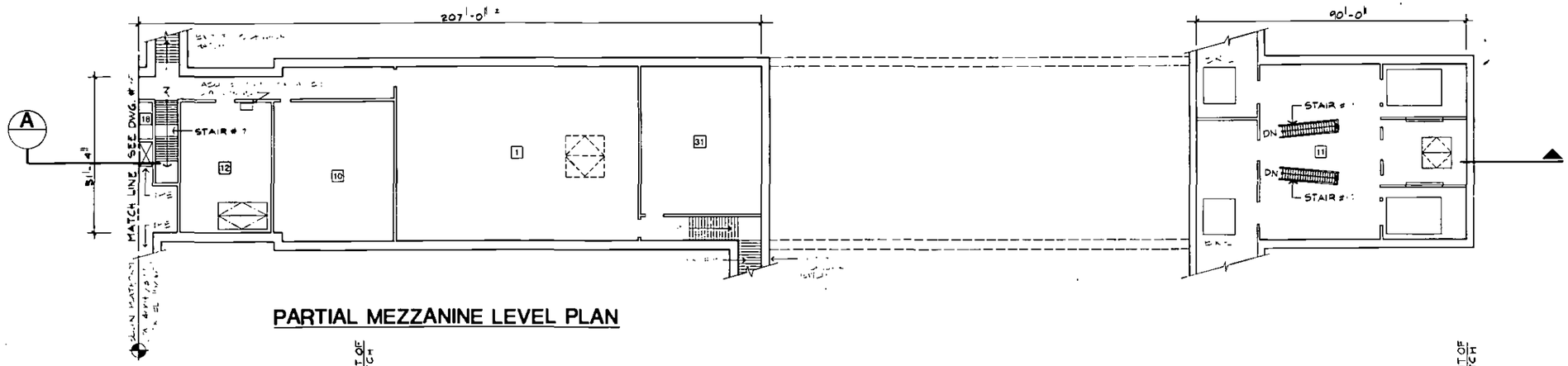
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

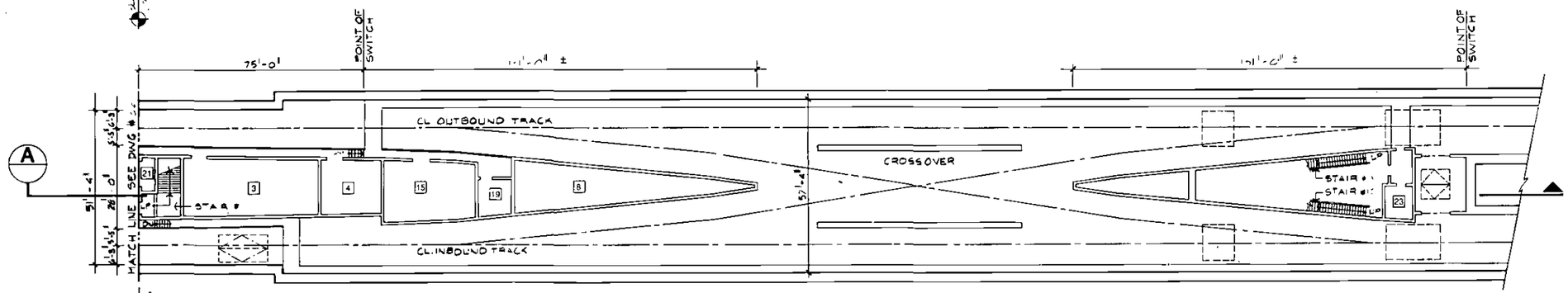
WILSHIRE/CRENSHAW STATION
PLANS & SECTIONS

PRELIMINARY

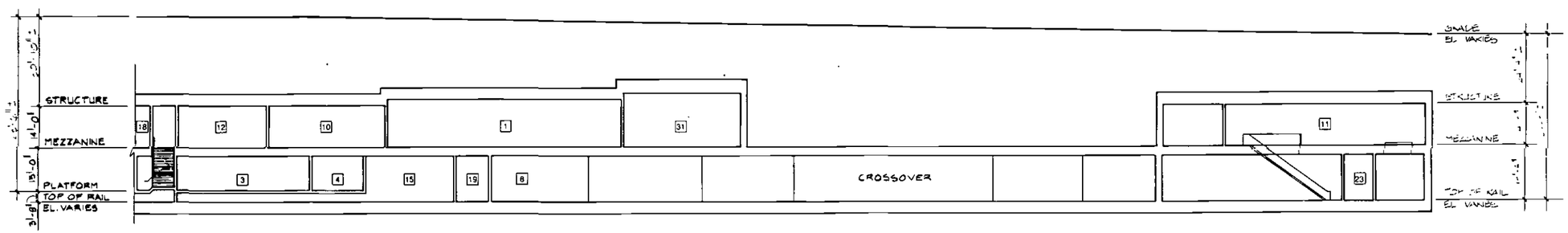
CONTRACT NO.
DRAWING NO. A-36
SCALE 1"=20'-0"
SHEET NO.



PARTIAL MEZZANINE LEVEL PLAN



PARTIAL PLATFORM LEVEL PLAN



A PARTIAL LONGITUDINAL SECTION

NORTH

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. **Deleted**
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. **Toilet**
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. Staff / Security
30. **Deleted**
31. Electric Incoming Service

REV.	DATE	BY	APP.	DESCRIPTION

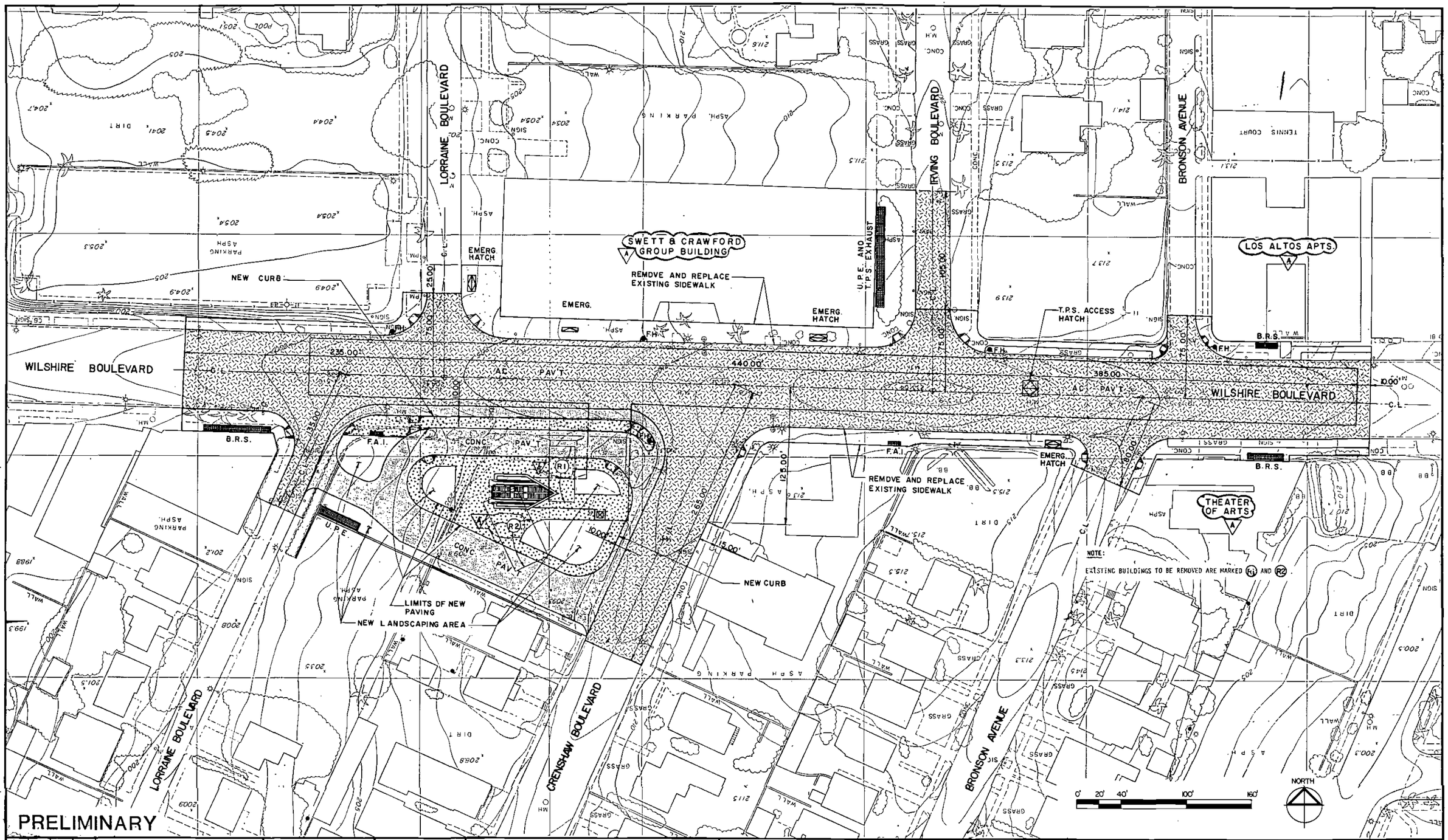
DESIGNED BY Date
DRAWN BY Date
CHECKED BY Date

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.

WILSHIRE/CRENSHAW STATION
PLANS & SECTION
PRELIMINARY

CONTRACT NO.
DRAWING NO. A-37
SCALE 1"=20'-0"
SHEET NO.



REV.	DATE	BY	APP.	DESCRIPTION
A	7/5/83	JLD	TK	ADDED NAME OF EXIST. BLDGS. AND REVISED NOTE ON BLDG. REMOVAL.

DESIGNED BY TAMS Date 6/9/83
DRAWN BY HWW Date 6/10/83
CHECKED BY JLD Date 6/10/83

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

SUBMITTED BY:
PROJECT MANAGER

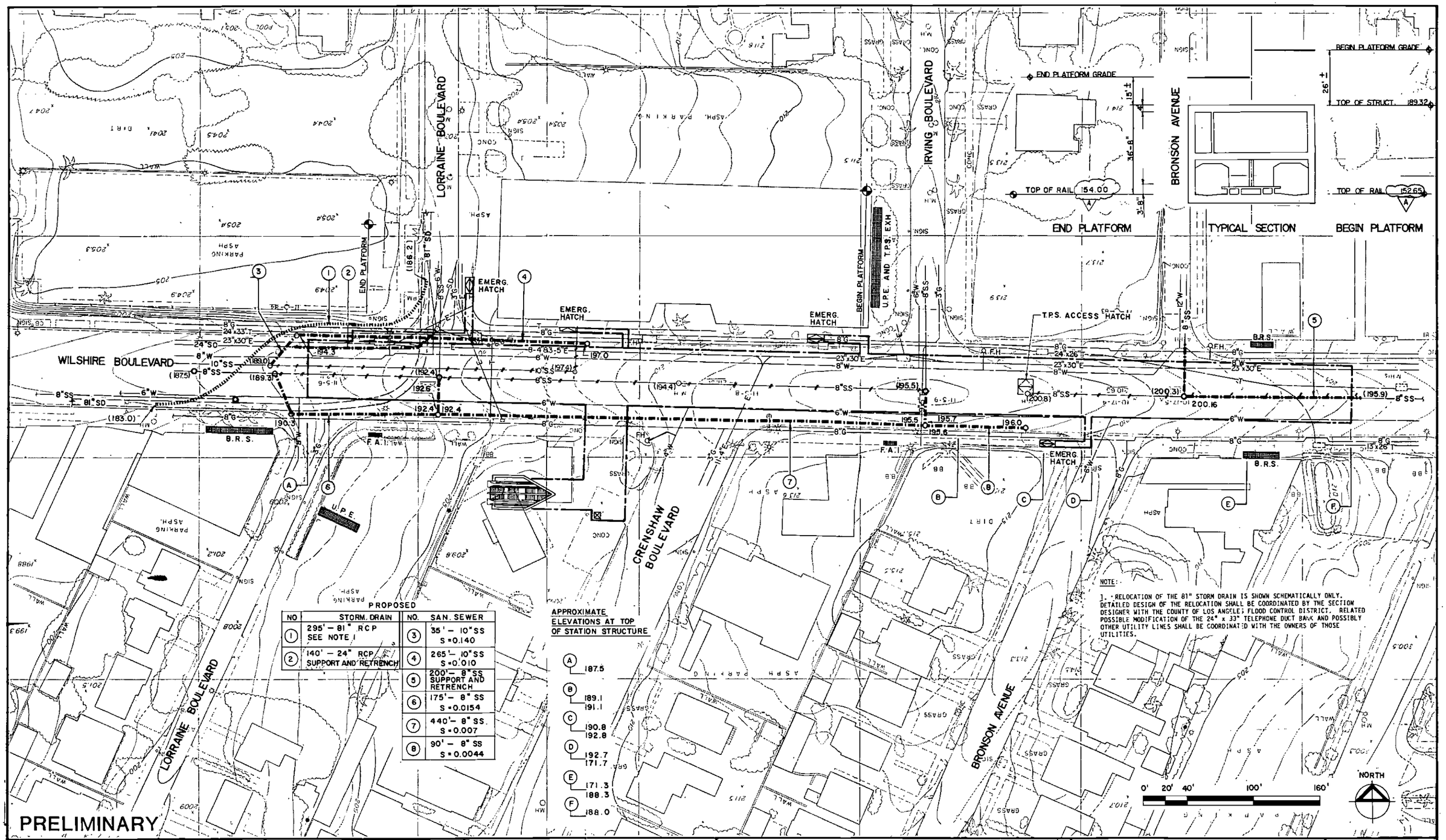
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED
Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE/CRENSHAW STATION
CIVIL SITE PLAN

CONTRACT NO.
DRAWING NO. C-10
SCALE 1"= 40'-0"
SHEET NO.



PROPOSED

NO	STORM DRAIN	NO.	SAN. SEWER
1	295' – 81" RCP SEE NOTE 1	3	35' – 10"SS S=0.140
2	140' – 24" RCP SUPPORT AND RETRENCH	4	265' – 10"SS S=0.010
		5	200' – 8"SS SUPPORT AND RETRENCH
		6	175' – 8"SS S=0.0154
		7	440' – 8"SS S=0.007
		8	90' – 8"SS S=0.0044

APPROXIMATE ELEVATIONS AT TOP OF STATION STRUCTURE

A	187.5
B	189.1 191.1
C	190.8 192.8
D	192.7 171.7
E	171.3 188.3
F	188.0

NOTE:

1. RELOCATION OF THE 81" STORM DRAIN IS SHOWN SCHEMATICALLY ONLY. DETAILED DESIGN OF THE RELOCATION SHALL BE COORDINATED BY THE SECTION DESIGNER WITH THE COUNTY OF LOS ANGELES FLOOD CONTROL DISTRICT. RELATED POSSIBLE MODIFICATION OF THE 24" x 33" TELEPHONE DUCT BANK AND POSSIBLY OTHER UTILITY LINES SHALL BE COORDINATED WITH THE OWNERS OF THOSE UTILITIES.

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
1	7/5/83	JLD	JLD	REVISED STA PLATFORM EL.

DESIGNED BY TAMS Date 6/8/83
DRAWN BY HWW Date 6/10/83
CHECKED BY JLD Date 6/10/83

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

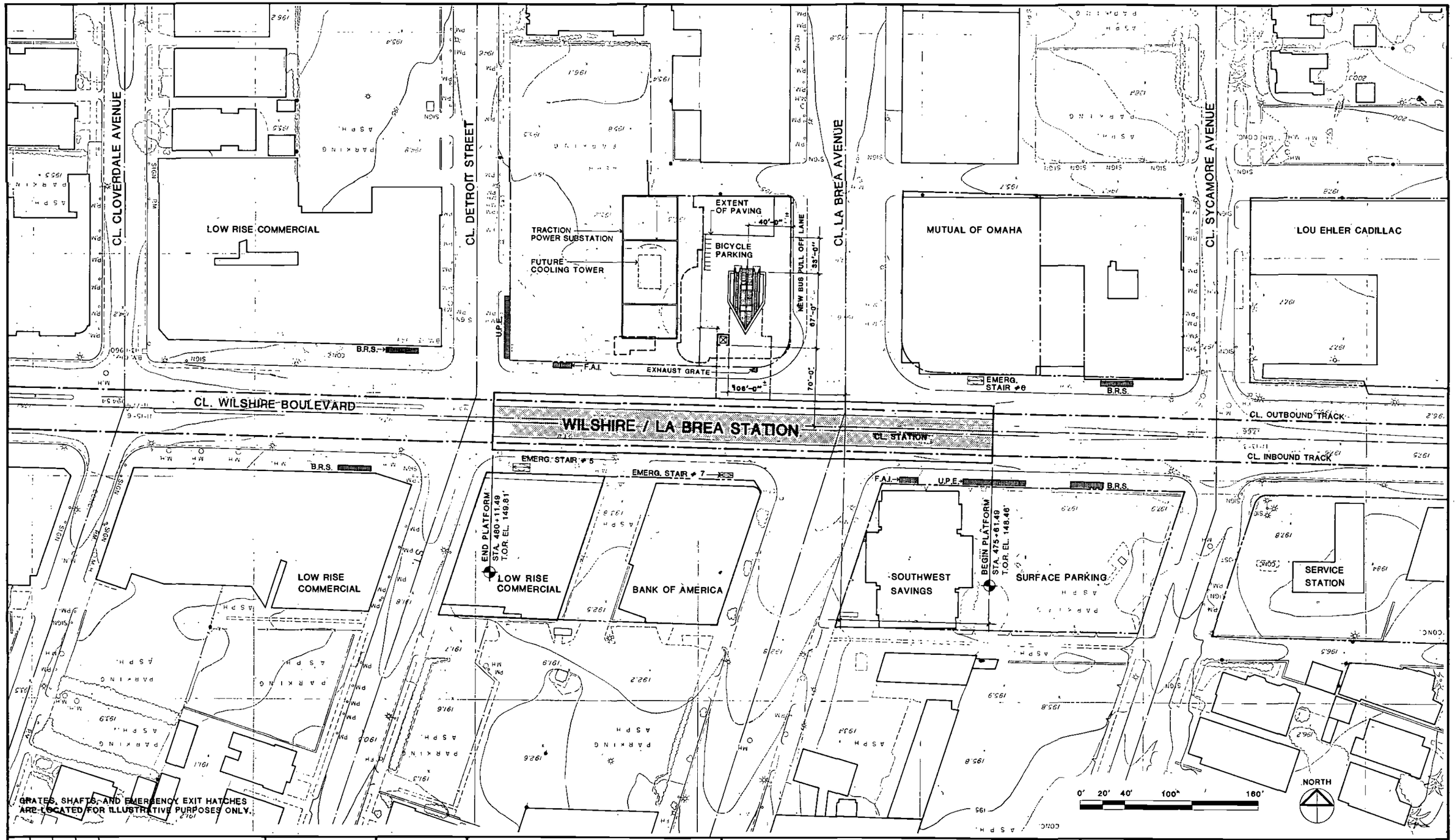
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED
Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

WILSHIRE/CRENSHAW STATION
UTILITY PLAN REARRANGEMENT

CONTRACT NO.
DRAWING NO. U-10
SCALE 1"=40'-0"
SHEET NO.



REV.	DATE	BY	APP.	DESCRIPTION
1	6-1-83	BK.	J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

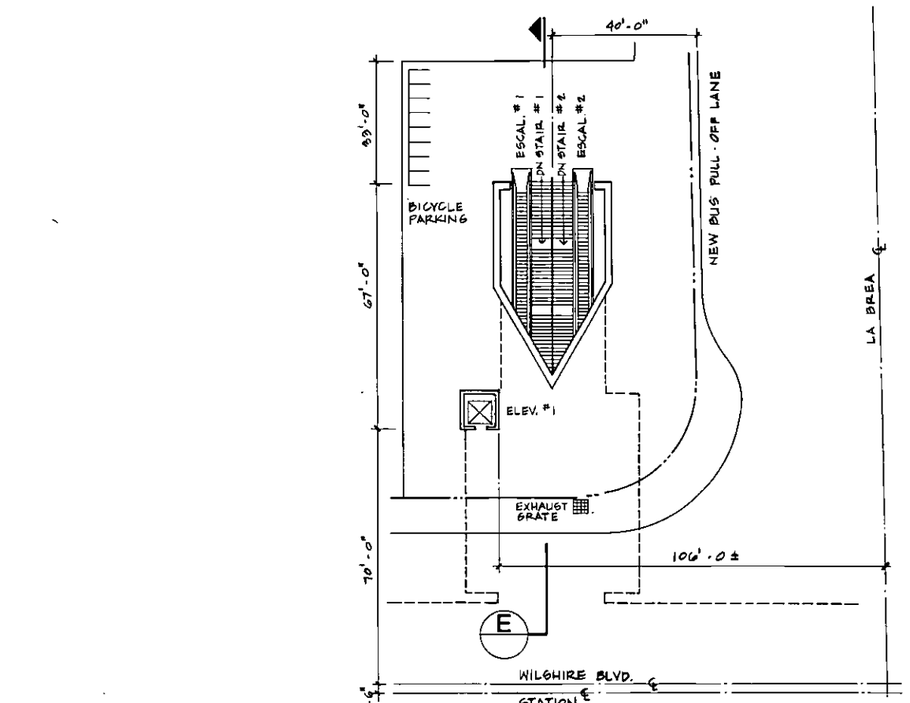
DESIGNED BY HWA Date 2/1/83
DRAWN BY B.K./M.D. Date 6/20/83
CHECKED BY R. PIGATI/J. YEN Date 2/6/83

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

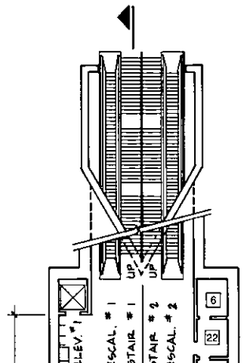
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date — MANAGER / CHIEF ENGINEER — Reg. No.

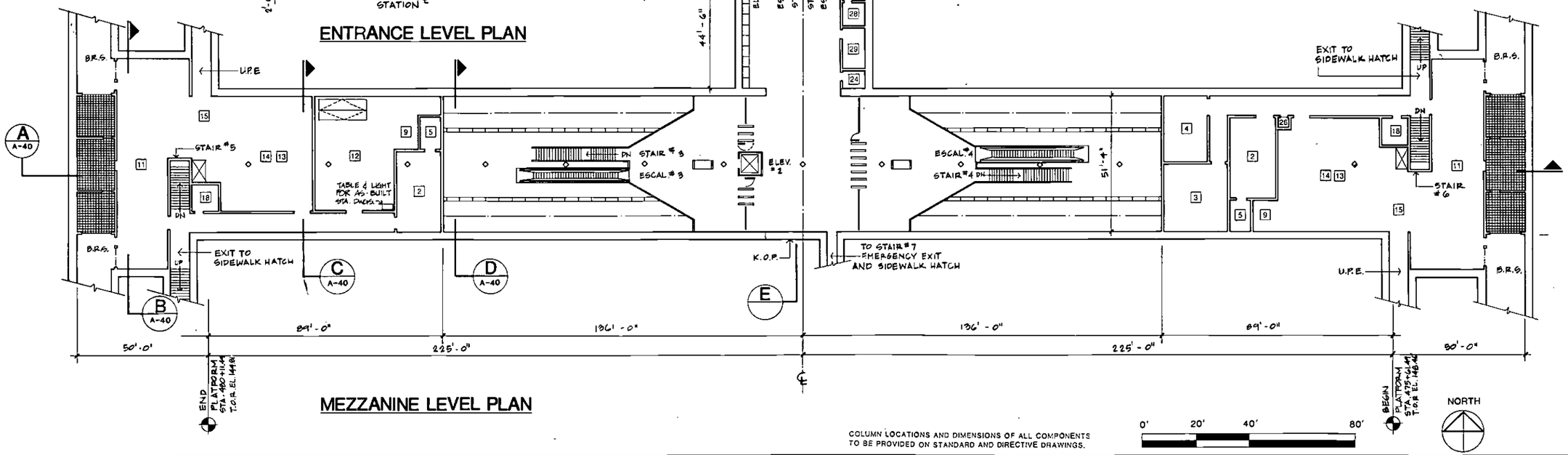
WILSHIRE / LA BREA STATION
SITE PLAN
PRELIMINARY

CONTRACT NO. A245
DRAWING NO. A-38
SCALE 1"= 40'-0"
SHEET NO. 9 OF 21

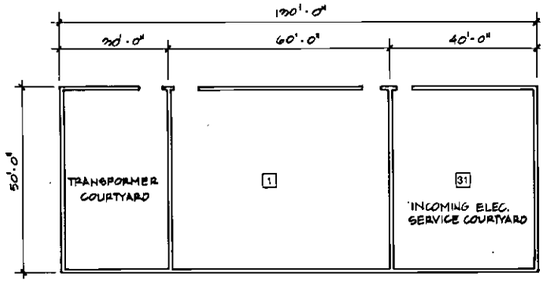


ENTRANCE LEVEL PLAN





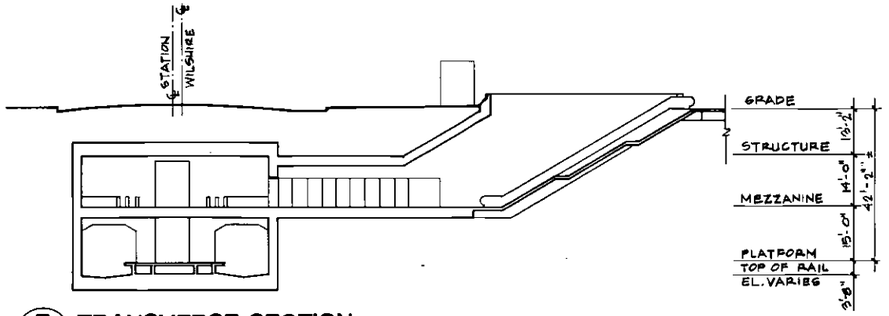
MEZZANINE LEVEL PLAN



TRACTION POWER SUBSTATION 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	**Deleted**	23	Electrical Equipment
8	Storage	24	**Toilet**
9	Mechanical	25	**Deleted**
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		



E TRANSVERSE SECTION

COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

0' 20' 40' 80'

NORTH

REV.	DATE	BY	APP.	DESCRIPTION
	7/1/83	J.Y.		REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY H.W.A. Date 6/20/83
DRAWN BY K. LIM Date 6/20/83
CHECKED BY J.YEN Date 6.30.83

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

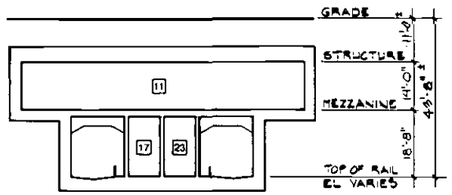
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date — MANAGER / CHIEF ENGINEER — Reg. No.

WILSHIRE/LA BREA STATION
PLANS AND SECTIONS

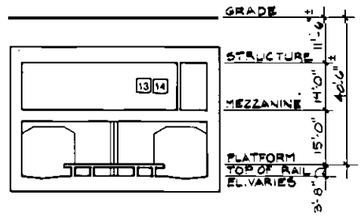
PRELIMINARY

CONTRACT NO. A285
DRAWING NO. A-39
SCALE 1"=20'-0"
SHEET NO. 12 OF 21

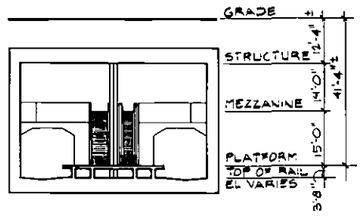
BRUNING



B TRANSVERSE SECTION



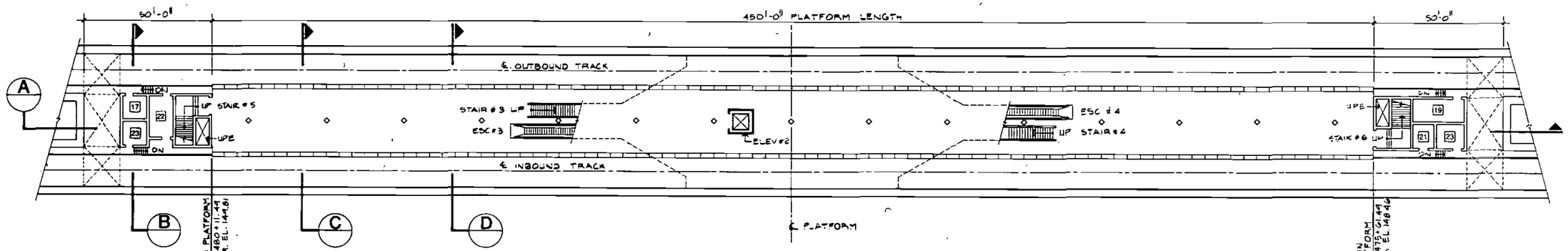
C TRANSVERSE SECTION



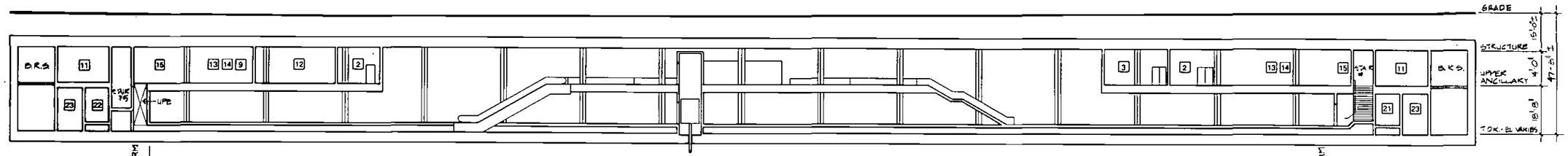
D TRANSVERSE SECTION

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 **Deleted**	23 Electrical Equipment
8 Storage	24 **Toilet**
9 Mechanical	25 **Deleted**
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	



MEZZANINE LEVEL PLAN



A LONGITUDINAL SECTION

NORTH

0' 20' 40' 80'

REV.	DATE	BY	APP.	DESCRIPTION
	6-3-83	B.K.	J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY H.W.A. Date 6-3-83
DRAWN BY B.K./M.D. Date 6-3-83
CHECKED BY J.YEN PIGATI Date 6-15-83

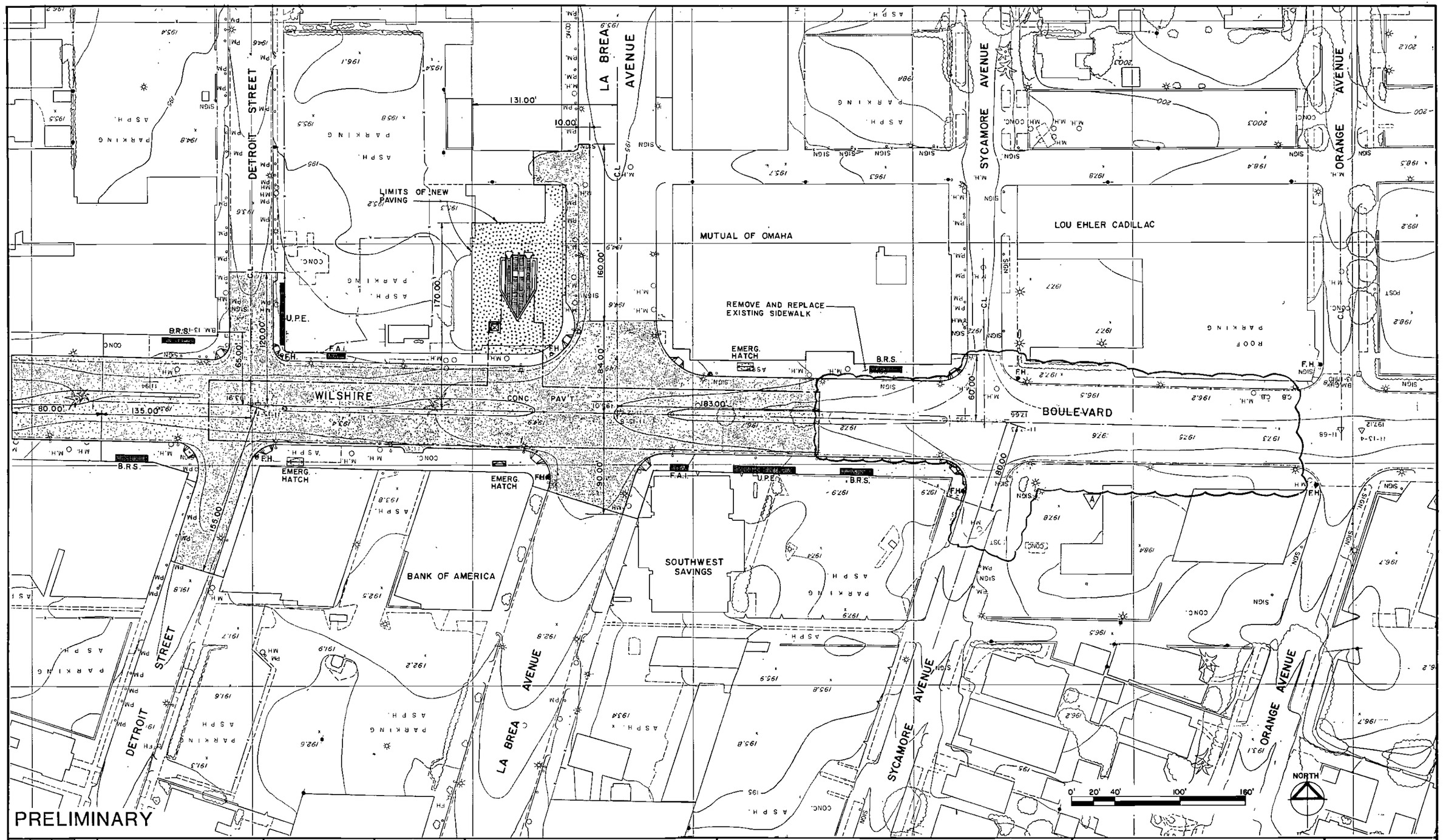
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

WILSHIRE / LA BREA STATION
PLANS AND SECTIONS
PRELIMINARY

CONTRACT NO. A245
DRAWING NO. A-40
SCALE 1"=20'-0"
SHEET NO. 13 OF 21



PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
V	6/31/83	JLD		REVISED EXTENT OF PROP. CONC. PAVING & REPLACEMENT OF EXIST. SIDEWALK

DESIGNED BY TAMS Date 6/3/83
DRAWN BY HWW Date 6/7/83
CHECKED BY JLD Date 6/8/83

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 / LA BREA STATION
CIVIL SITE PLAN

CONTRACT NO. A 245
DRAWING NO. C-11
SCALE 1"=40'-0"
SHEET NO. 10 of 21

CONNECT PROP. 42" SD TO EXIST. 36" SD.
INVERT ELEVATIONS AT JUNCTION:
AT 42" SD EL. 190.7 (PROP)
AT 36" SD EL. 191.2 (EXIST)

TOP OF W PIPE
EXIST. EL. 182.4
(DWP)

TOP OF W PIPE
EXIST. EL. 182.1
(DWP)

END PLATFORM

BEGIN PLATFORM

DETROIT STREET

LA BREA AVENUE

SYCAMORE AVENUE

ORANGE AVENUE

WILSHIRE BOULEVARD

EMERG. HATCH

B.R.S.

U.P.E.

F.A.I.

F.H.

PROPOSED

NO.	STORM DRAIN	NO.	SAN. SEWER	NO.	WATER LINE
(1)	455'-27"RCP S = 0.006	(4)	250'-12" SS S = 0.004	(8)	210'-57"RCP SEE NOTES 1&3
(2)	908'-42"RCP S = 0.003	(5)	120'-8" SS S = 0.004		
(3)	178'-42"RCP S = 0.075	(6)	340'-30"SS S = 0.002		
		(7)	320'-24"SS S = 0.0078		

* STRETCH OF 80'± TO BE SUPPORTED IN PLACE DURING THE STATION CONSTRUCTION.

** LENGTH OF PROPOSED 42" CONDUIT STARTS AT PROPOSED CHANGE OF GRADE POINT (PROP EL. 188.0) ON SOUTH EDGE OF WILSHIRE BOULEVARD.

END PLATFORM GRADE

TOP OF RAIL 149.81

BEGIN PLATFORM GRADE

TOP OF STRUCTURE 185.13

TOP OF RAIL 148.46

END PLATFORM

TYPICAL SECTION

BEGIN PLATFORM

APPROXIMATE ELEVATIONS AT TOP OF STATION STRUCTURE

A 186.6

B 185.0

NOTE:

1. RELOCATION OF THE 57" WATER LINE IS SHOWN SCHEMATICALLY ONLY. DETAILED DESIGN SHALL BE COORDINATED BY THE SECTION DESIGNER WITH THE CITY OF LOS ANGELES WATER AND POWER DEPARTMENT.
2. CONTRACT A245 INCLUDES ALL SUBSURFACE WORK AND SURFACE WORK ITEMS SHOWN ON THIS SHEET AND THOSE DESCRIBED BY GENERAL NOTES AND SPECIFICATIONS.
3. EXISTING ELEVATIONS AT THE TOP OF 57" WATER MAIN WERE INTERPOLATED FROM THE INFORMATION BASED ON THE DWP ON-SITE SURVEY.

0' 20' 40' 100' 160'

NORTH

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
A	7/5/83	JLD		DELETED CROSS-OVER, REVISED RELOCATION OF 5S PIPE & EL OF STATION PLATFORM

DESIGNED BY TAMS Date 6/6/83
DRAWN BY HWW Date 6/9/83
CHECKED BY JLD Date 6/9/83

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
UTILITY PLAN REARRANGEMENT

CONTRACT NO. A245
DRAWING NO. U-11
SCALE 1"= 40'-0"
SHEET NO. 11 OF 21

LOS ANGELES COUNTY MUSEUM OF ART

PROPOSED ADDITION

PAGE MUSEUM

CURSON

LA BREA TAR PITS

MUSEUM SQUARE DEVELOPMENT

NEW RETAINING WALL

NEW RETAINING WALL

EXTENT OF PAVING

EMERG STAIR #7

END PLATFORM

STA 515+96.38
T.O.R.EL. 127.17'

EMERG STAIR #8

BEGIN PLATFORM

STA 511+16.38
T.O.R. EL. 128.52'

WILSHIRE BOULEVARD

WORKING POINT

WILSHIRE/FAIRFAX STATION

C L OUTBOUND TRACK

C L WILSHIRE BLVD

C L STATION

C L INBOUND TRACK

MUTUAL BENEFIT INSURANCE PLAZA

EXISTING SIDEWALK

EXTENT OF PAVING

NEW BUS TURN OFF LANE

EXTENT OF PAVING

NEW SIDEWALK

EXISTING BUILDING TO BE REMOVED

KELLER BLDG.

HANCOCK BLDG.

FUTURE ENTRANCE

CRAFT & FOLK ART MUSEUM

OFFICES

ORIENTAL RUGS

JEWELER

7 BUS PICK-UP & WAITING STALLS

BUS TERMINAL

BICYCLE PARKING

NEW SIDEWALK

TRACTION POWER SUBSTATION AT GRADE
THE CHILLER ROOM IS LOCATED ON THE ROOF
FUTURE COOLING TOWER ABOVE

METRO RAIL SURFACE PARKING
175 SPACES

FUTURE PARKING STRUCTURE
1000 SPACES

SECTION DESIGNER TO DEVELOP SITE SPECIFIC PARKING LAYOUT AND LANDSCAPING PLANS.

EXTENT OF PAVING

SPAULDING AVENUE

STANLEY AVENUE

CURSON AVENUE

RESIDENTIAL

RESIDENTIAL

FUTURE MUSEUM SQUARE DEVELOPMENT

REDUCE PLATFORM WIDTH FROM 32' TO 28'

0 20 40 100 160 FT

NORTH

GRATES, SHAFTS, AND EMERGENCY EXIT HATCHES ARE LOCATED FOR ILLUSTRATIVE PURPOSES ONLY.

REV.	DATE	BY.	APP.	DESCRIPTION
	6.2.83		J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY H.W.A. Date 6.6.83

DRAWN BY M. HOMER Date 6.8.83

CHECKED BY J.YEN Date 6.30.83

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

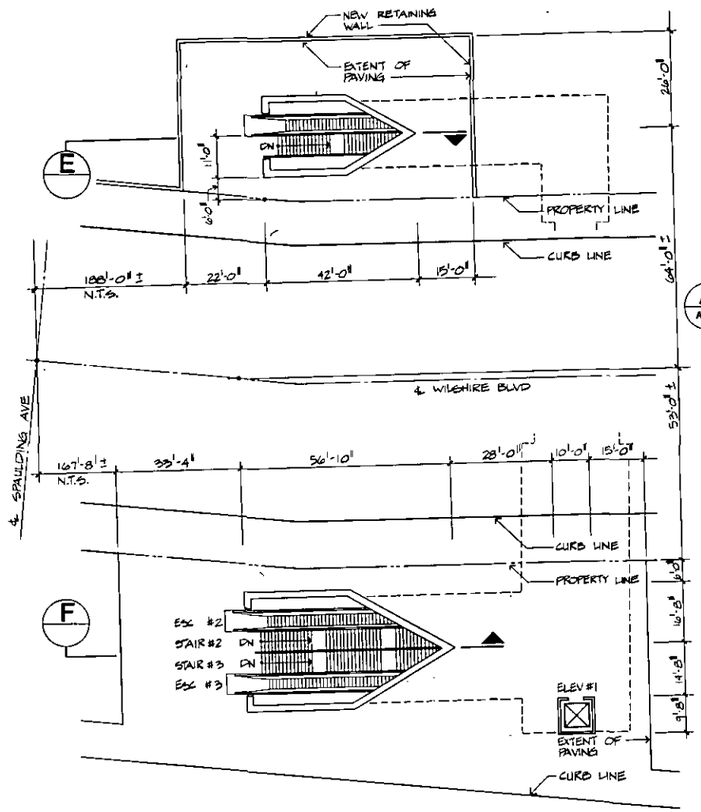
APPROVAL RECOMMENDED
Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

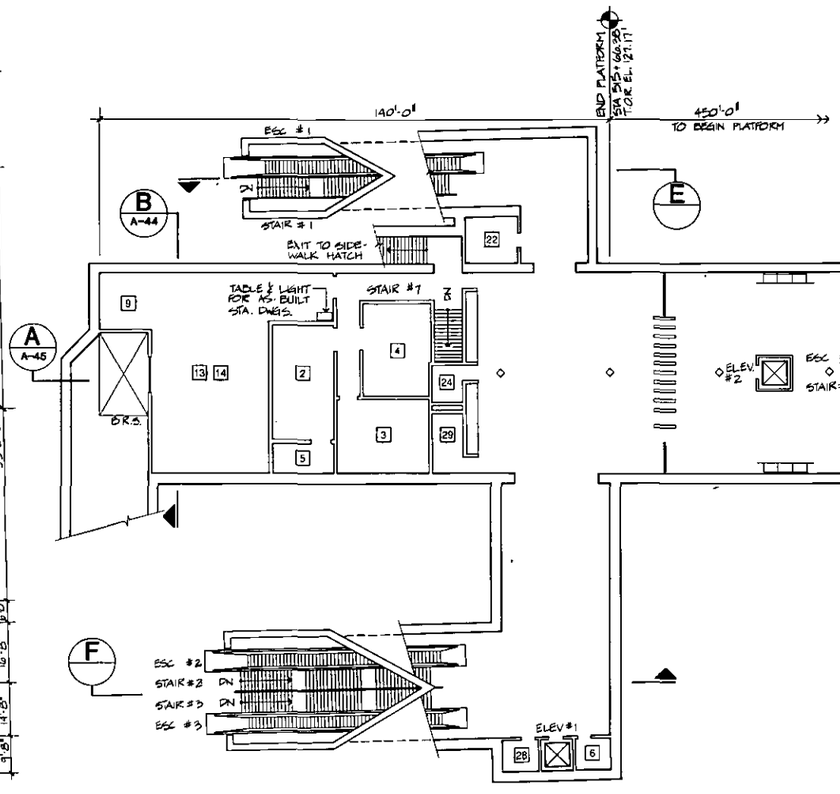
WILSHIRE / FAIRFAX STATION
SITE PLAN

PRELIMINARY

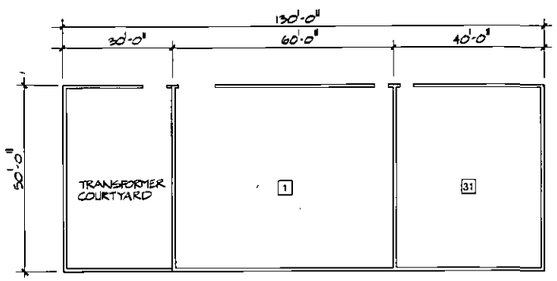
CONTRACT NO A-250
DRAWING NO. A-42
SCALE 1"=40'-0"
SHEET NO. 27 of 34



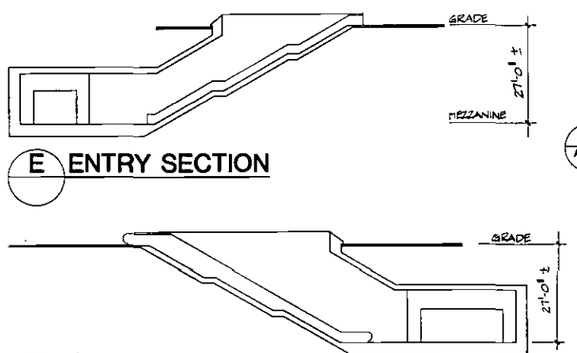
ENTRY PLAN

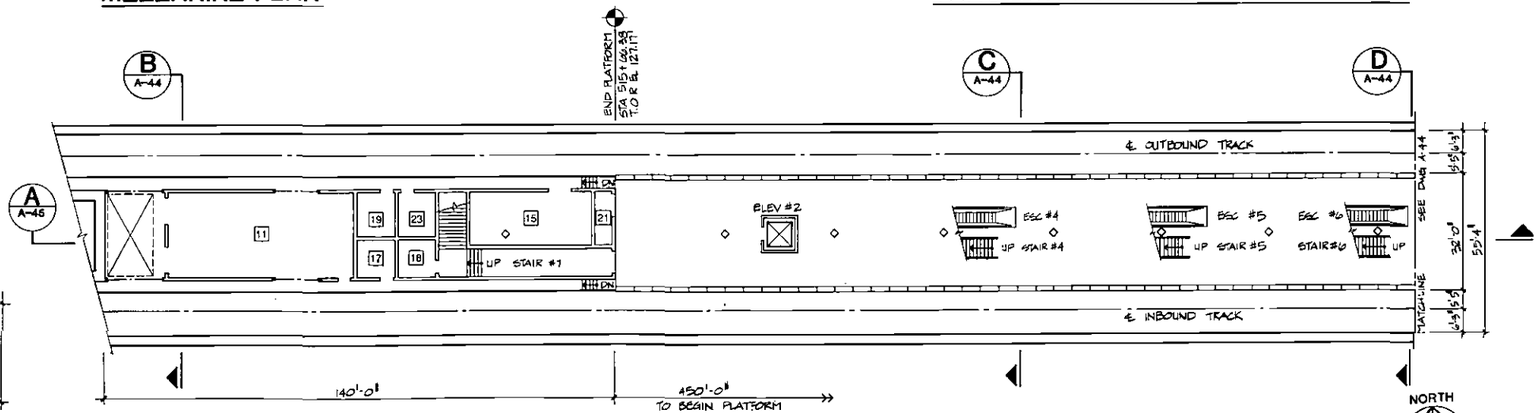


MEZZANINE PLAN



TRACTION POWER SUBSTATION PLAN





PLATFORM PLAN

COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

NOTE :
REDUCE PLATFORM WIDTH FROM 32' TO 28'

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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. **Toilet**
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. **Staff/Security**
30. **Deleted**
31. Electric Incoming Service

REV.	DATE	BY	APP.	DESCRIPTION
	6-2-83		J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY H.W.A. Date
DRAWN BY M.W.D. Date 6-6-83
CHECKED BY J.YEN Date 6-30-83

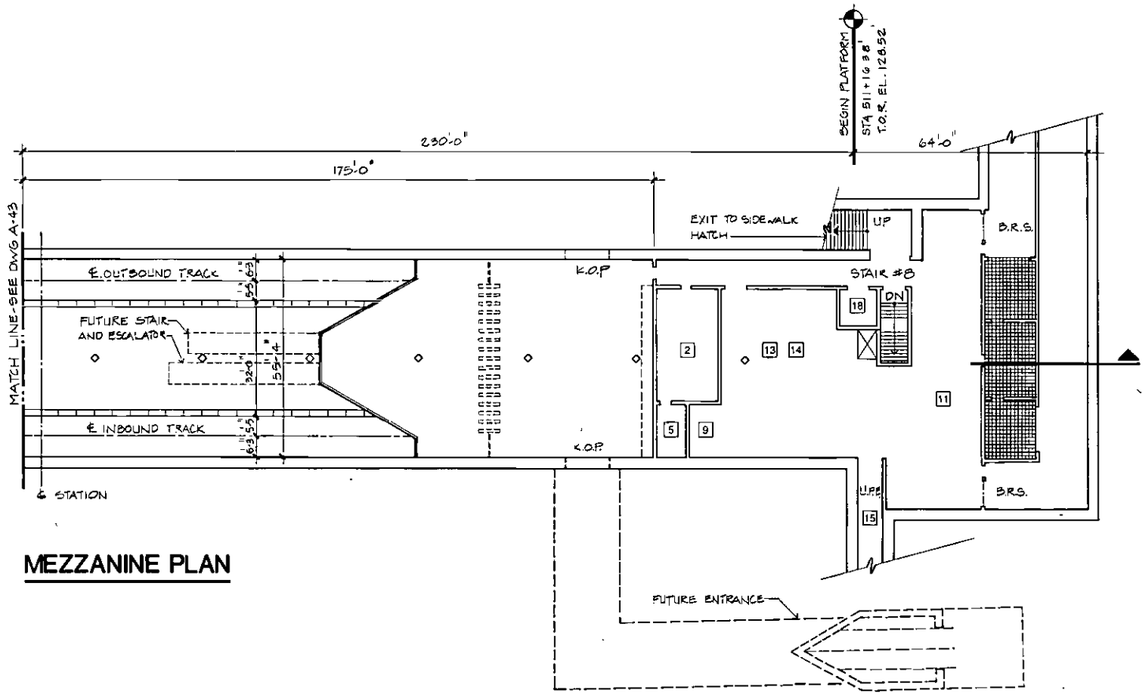
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY: PROJECT MANAGER

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

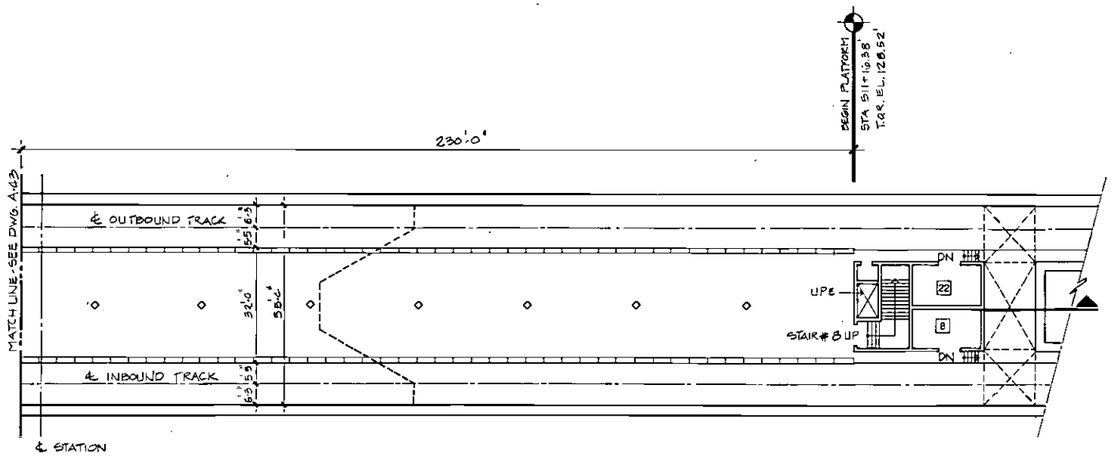
WILSHIRE/FAIRFAX STATION
PLANS
PRELIMINARY

CONTRACT NO. A-250
DRAWING NO. A-43
SCALE 1" = 20'-0"
SHEET NO. 30 OF 34

BRUNING #4132

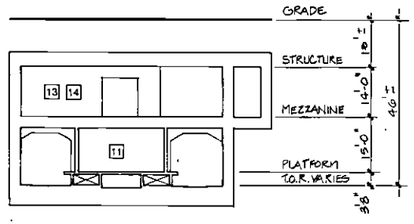


MEZZANINE PLAN

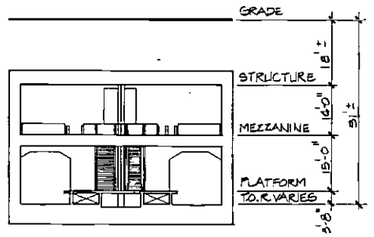


PLATFORM PLAN

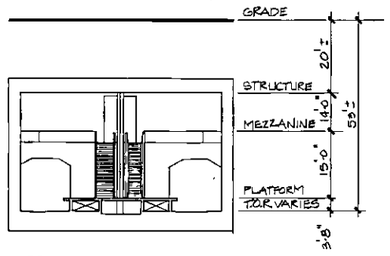
COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.



B SECTION



C SECTION



D SECTION

NOTE :
REDUCE PLATFORM WIDTH FROM 32 TO 28'

0' 20' 40' 80'

NORTH

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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. **Toilet**
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. **Staff/Security**
30. **Deleted**
31. Electric Incoming Service

REV.	DATE	BY	APP.	DESCRIPTION
	6-8-83		J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTIONS

DESIGNED BY HWA Date 6-8-83
DRAWN BY M. HOMER Date 6-8-83
CHECKED BY J.YEN Date 6-30-83

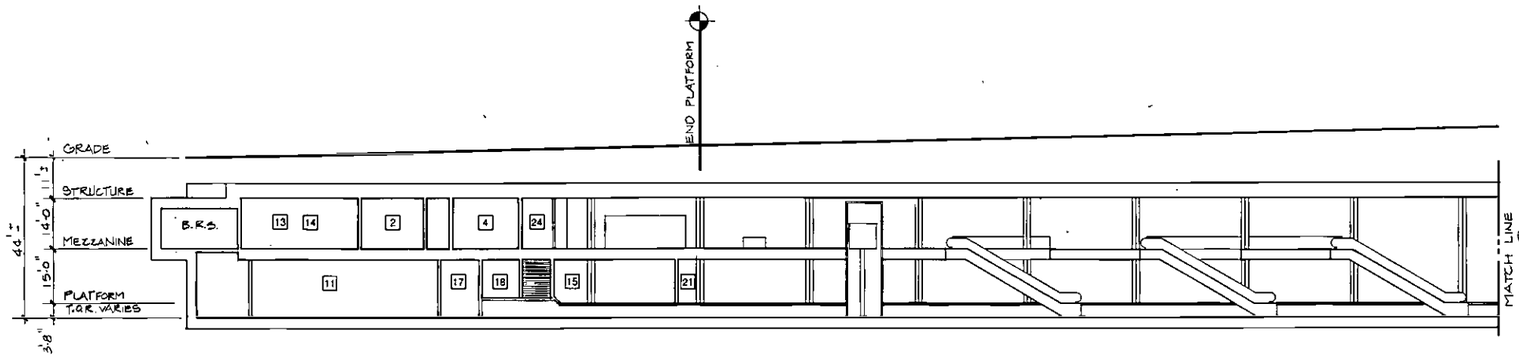
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

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

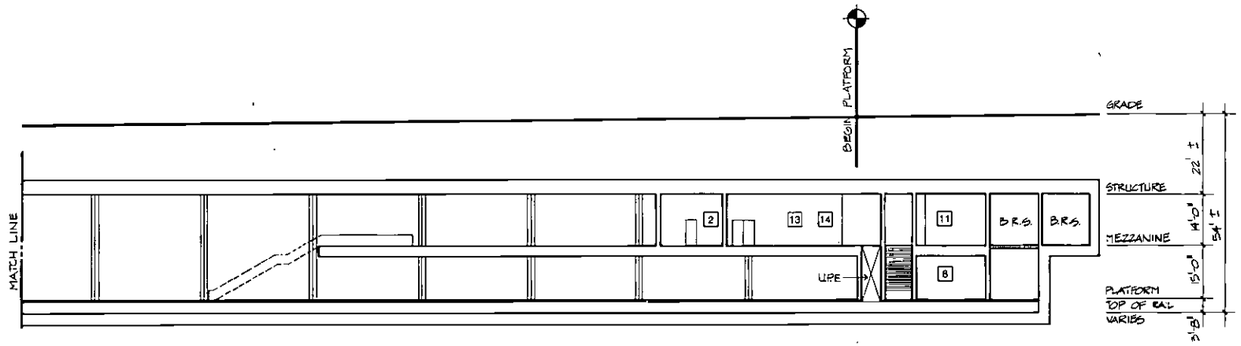
WILSHIRE/FAIRFAX STATION
PLANS & SECTIONS
PRELIMINARY

CONTRACT NO. A-250
DRAWING NO. A-44
SCALE 1"=20'-0"
SHEET NO. 31 of 34

BRUNING 44-132



A PARTIAL LONGITUDINAL SECTION



A PARTIAL LONGITUDINAL SECTION

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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. **Toilet**
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. **Staff/Security**
30. **Deleted**
31. Electric Incoming Service

0' 20' 40' 80'

REV.	DATE	BY	APP.	DESCRIPTION
	6-8-83		J.Y.	REVIS ON TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY HWA Date 6-8-83
DRAWN BY M.HOMER Date 6-8-83
CHECKED BY J.YEN Date 6-30-83

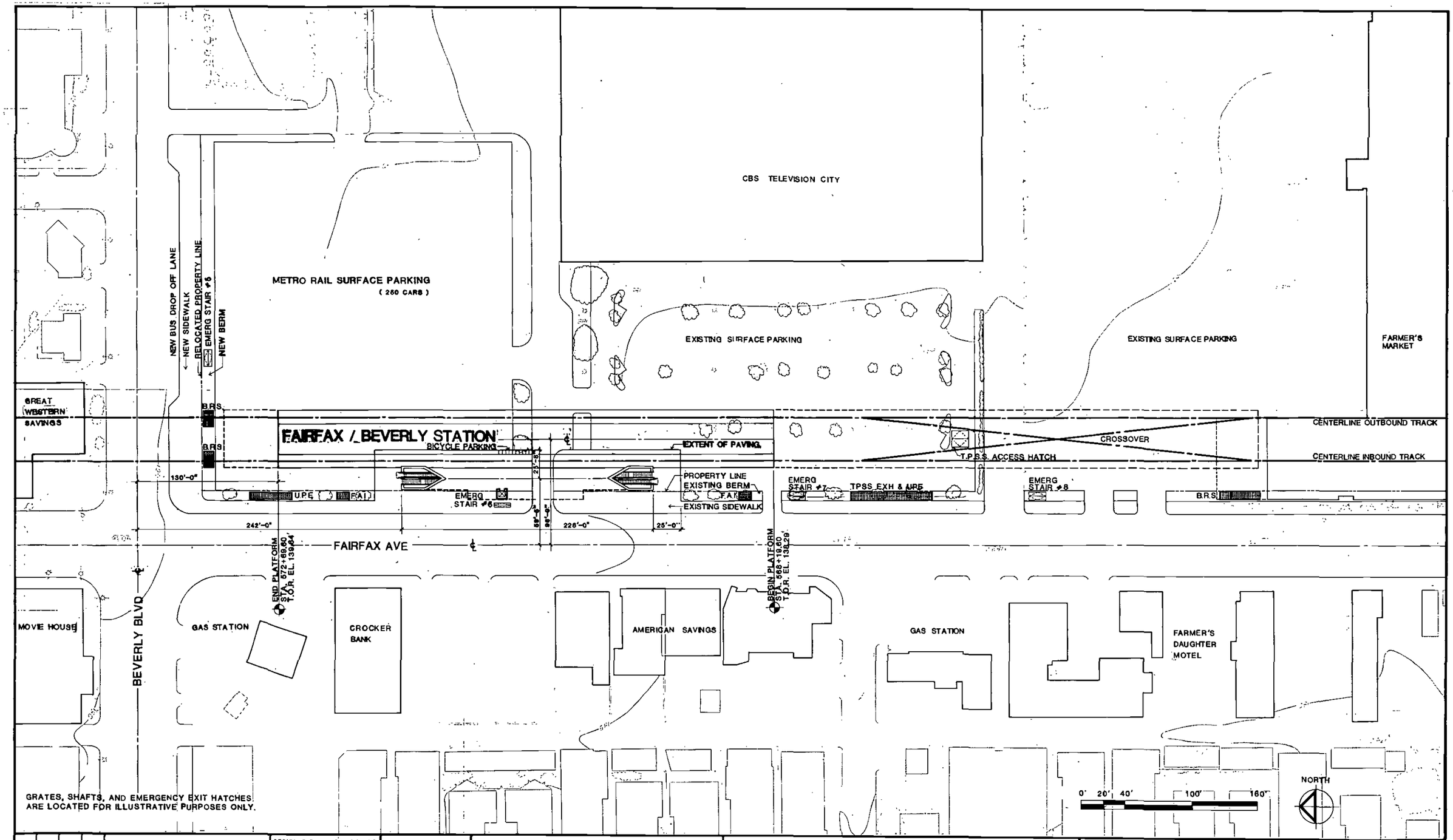
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

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

WILSHIRE/FAIRFAX STATION
SECTIONS
PRELIMINARY

CONTRACT NO. A-250
DRAWING NO. A-45
SCALE 1"=20'-0"
SHEET NO. 32 OF 34

BRUNING 44-122



REV.	DATE	BY	APP.	DESCRIPTION
	5/11/83	J.YEN		REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION
	4/6/83	ERMA	AC	METRO RAIL SURFACE PARKING

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

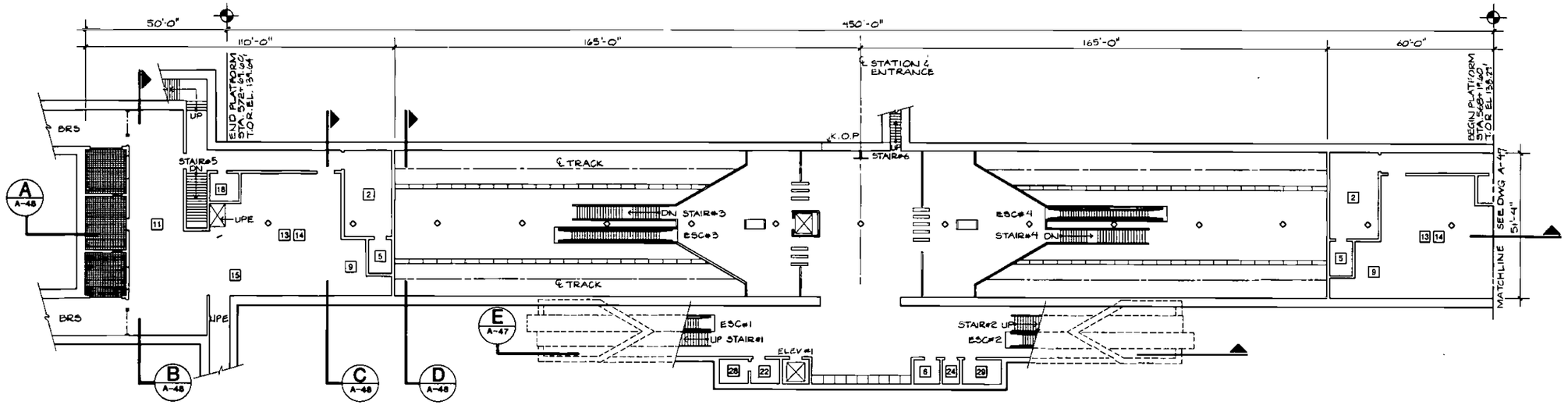
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY: PROJECT MANAGER

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

FAIRFAX / BEVERLY STATION
SITE PLAN

PRELIMINARY

CONTRACT NO. A 275
DRAWING NO. A-46
SCALE 1"=40'-0"
SHEET NO. 7 OF 19

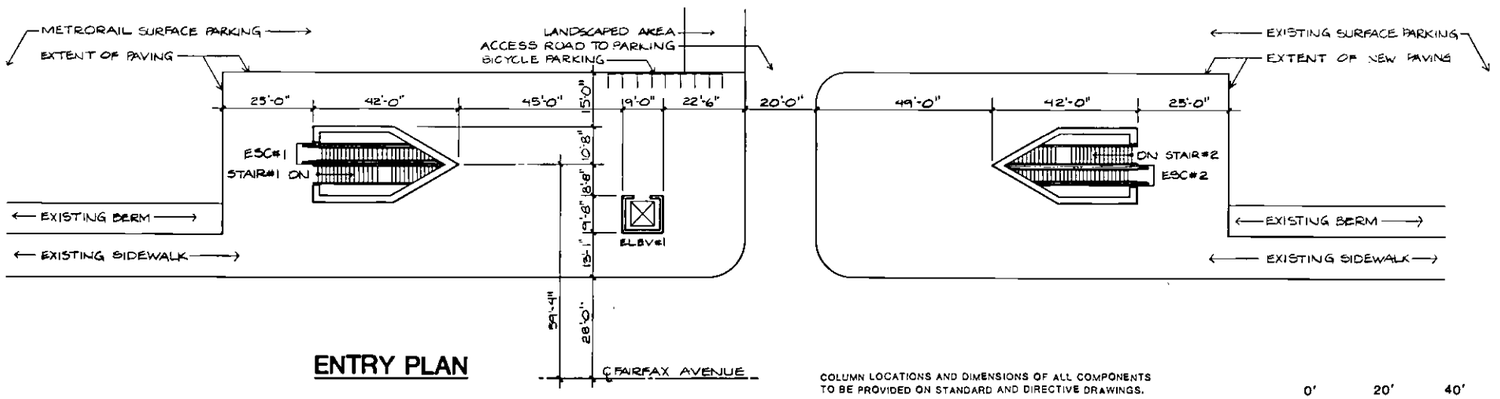


PARTIAL MEZZANINE LEVEL PLAN

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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. Toilet
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. Staff/Security
30. **Deleted**
31. Electric Incoming Service

E SECTION THROUGH ENTRY



ENTRY PLAN

COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

0' 20' 40' 80'

NORTH

REV.	DATE	BY	APP.	DESCRIPTION
	5/11/83		LV	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTIONS

DESIGNED BY HWA Date 5/11/83
DRAWN BY A SNIDER Date 5/11/83
CHECKED BY J.TEN / PIEATI Date 6.6.83

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

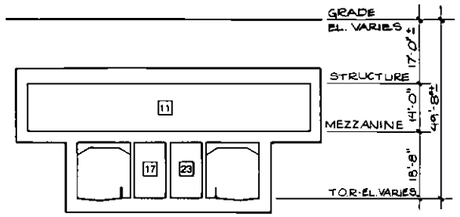
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

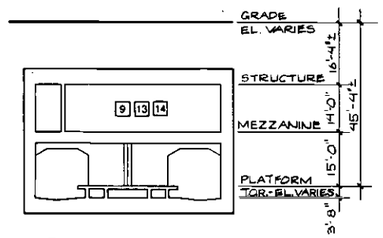
FAIRFAX / BEVERLY STATION
PLANS AND SECTION
PRELIMINARY

CONTRACT NO. A275
DRAWING NO. A-47
SCALE 1"=20'-0"
SHEET NO. 10 OF 19

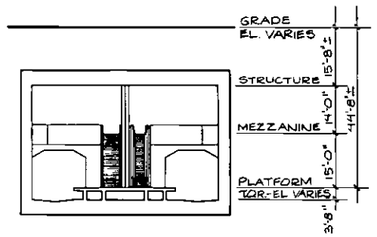
BRUNING 44-132



B TRANSVERSE SECTION



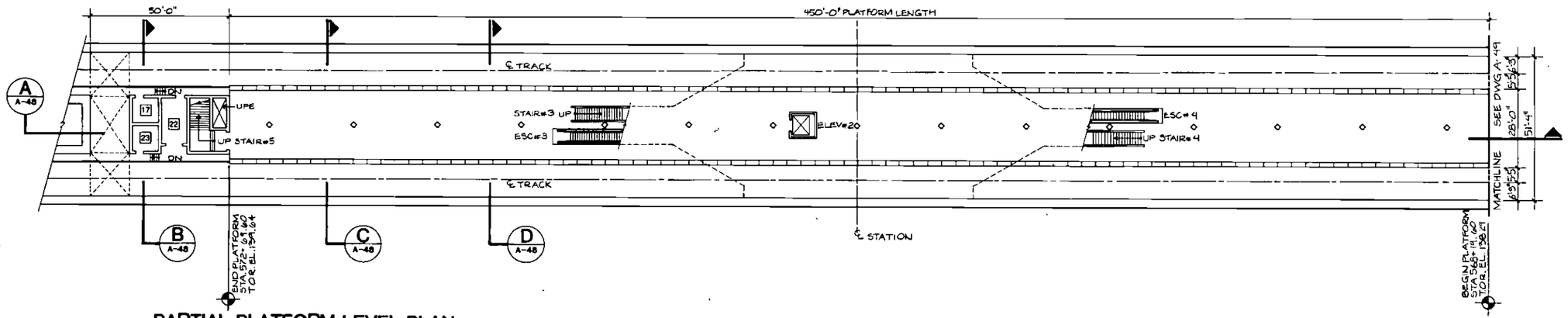
C TRANSVERSE SECTION



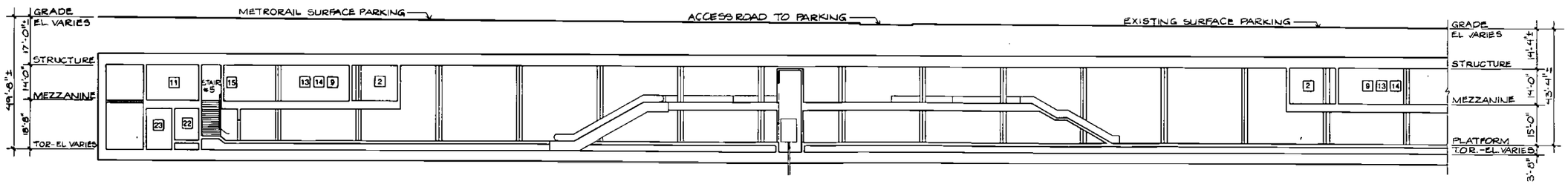
D TRANSVERSE SECTION

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	**Deleted**	23	Electrical Equipment
8	Storage	24	**Toilet**
9	Mechanical	25	**Deleted**
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		



PARTIAL PLATFORM LEVEL PLAN



A PARTIAL LONGITUDINAL SECTION

NORTH

0' 20' 40' 80'

REV.	DATE	BY	APP.	DESCRIPTION
	5/11/83		LY 5/11	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTIONS

DESIGNED BY HWA Date 5/11/83
DRAWN BY A. SNIDER Date 5/11/83
CHECKED BY J.YEN Date 6-6-83

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

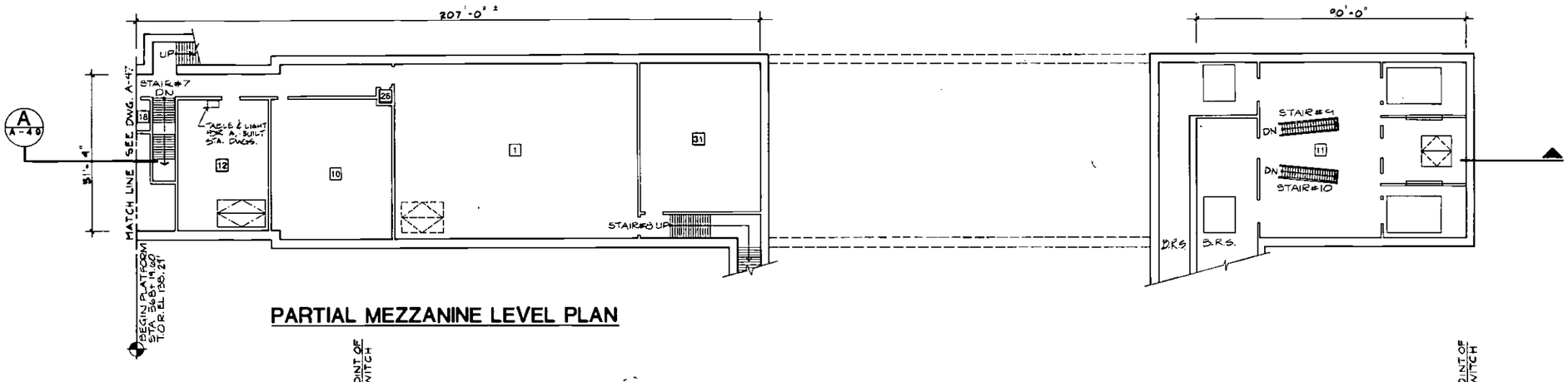
APPROVAL RECOMMENDED Reg. No.

APPROVED MANAGER / CHIEF ENGINEER Date Reg. No.

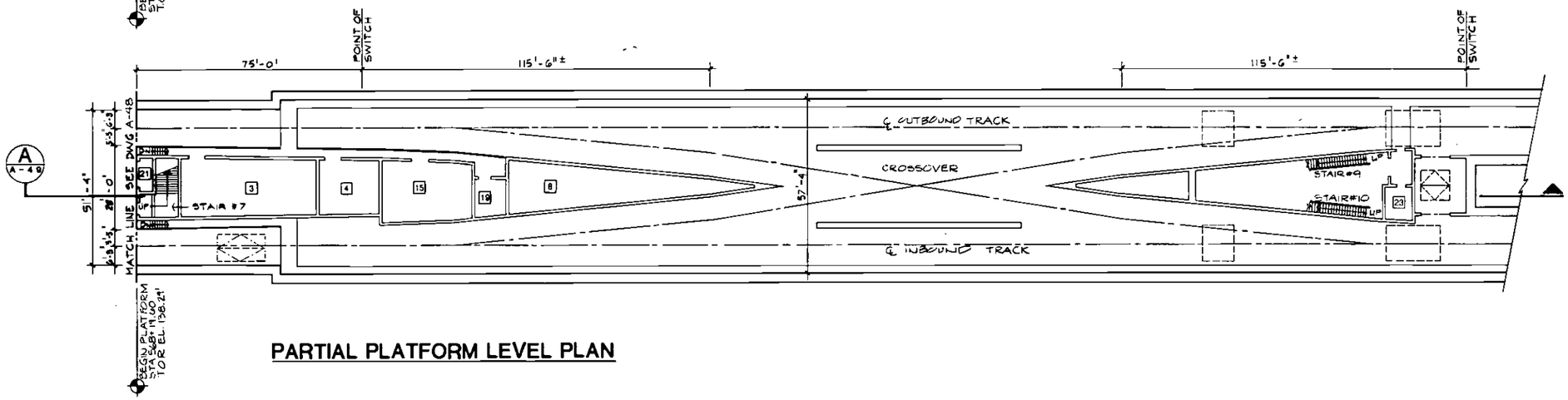
FAIRFAX / BEVERLY STATION
PLANS AND SECTIONS

PRELIMINARY

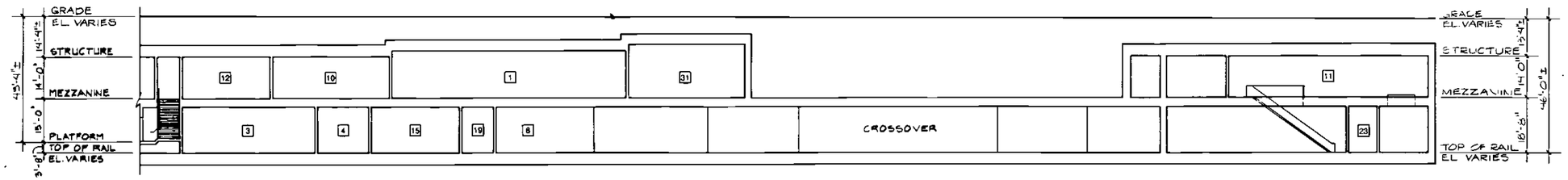
CONTRACT NO. A275
DRAWING NO. A-48
SCALE 1"=20'-0"
SHEET NO. 11 OF 19



PARTIAL MEZZANINE LEVEL PLAN



PARTIAL PLATFORM LEVEL PLAN



A PARTIAL LONGITUDINAL SECTION

NORTH

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. **Deleted**
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. **Toilet**
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. Staff / Security
30. **Deleted**
31. Electric Incoming Service

REV.	DATE	BY	APP.	DESCRIPTION
	5/11/83			REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY HWA Date 5/11/83
DRAWN BY A. SNIDER Date 5/11/83
CHECKED BY Date 5/11/83

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

SUBMITTED BY: PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT

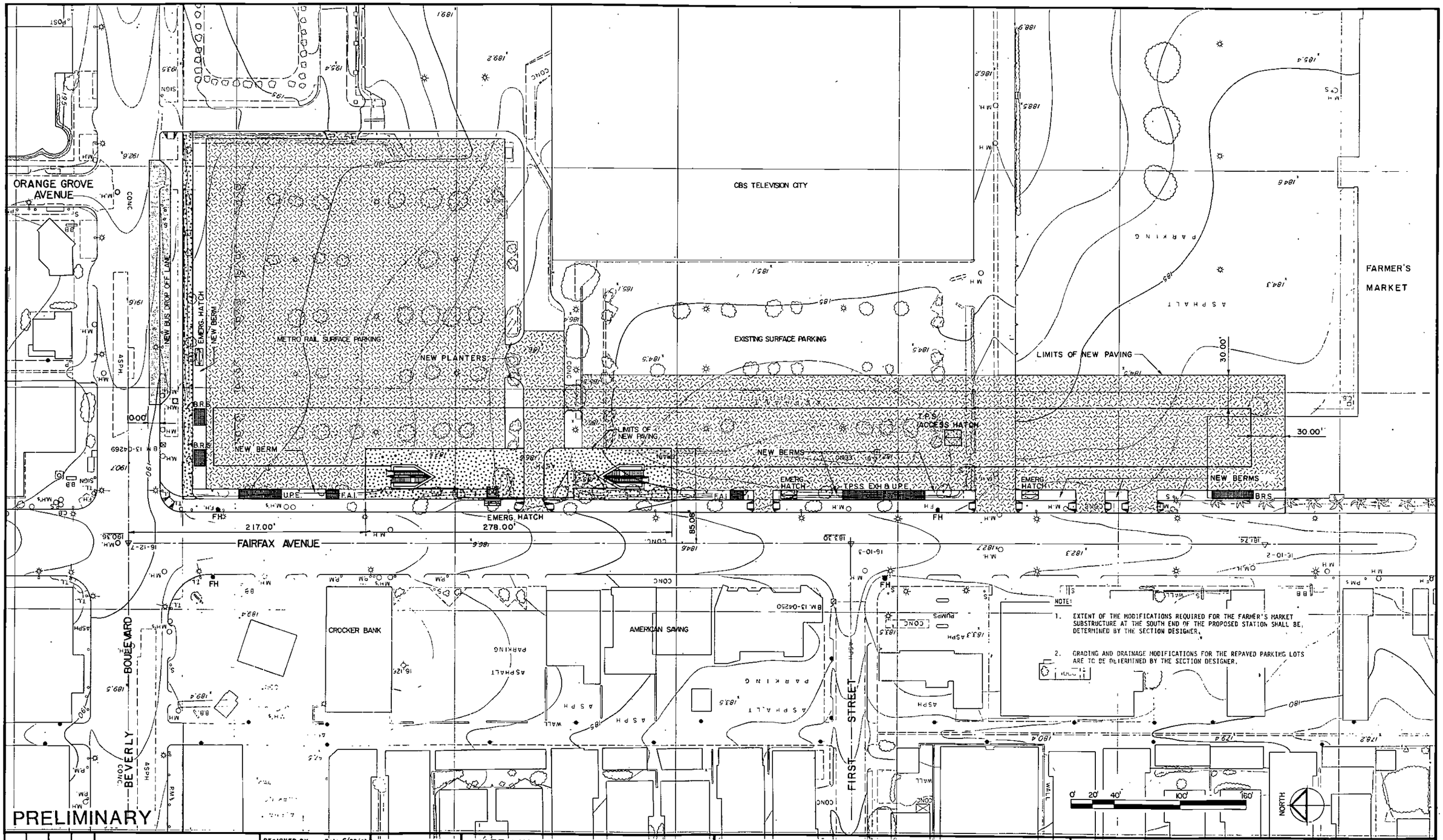
APPROVAL RECOMMENDED Reg. No.

APPROVED Date MANAGER / CHIEF ENGINEER Reg. No.

FAIRFAX / BEVERLY STATION
PLANS AND SECTION

PRELIMINARY

CONTRACT NO. A275
DRAWING NO. A-49
SCALE 1"=20'-0"
SHEET NO. 12 OF 19



PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 5/23/83
DRAWN BY HWW Date 5/27/83
CHECKED BY JLD Date 6/27/83

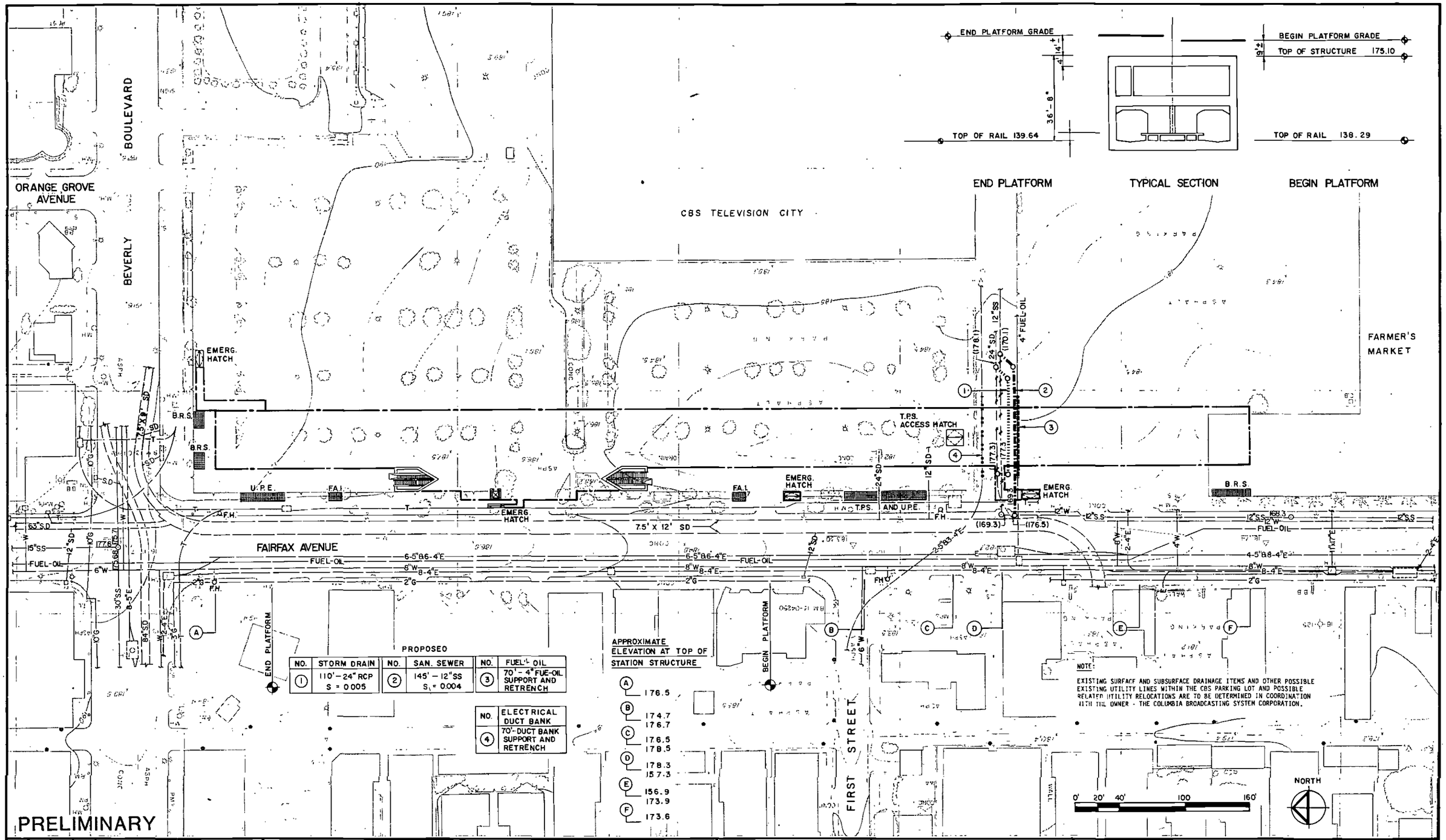
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

FAIRFAX / BEVERLY STATION
CIVIL SITE PLAN

CONTRACT NO. A275
DRAWING NO. C-13
SCALE 1"=40'-0"
SHEET NO. 8 OF 19



REV.	DATE	BY	APP.	DESCRIPTION

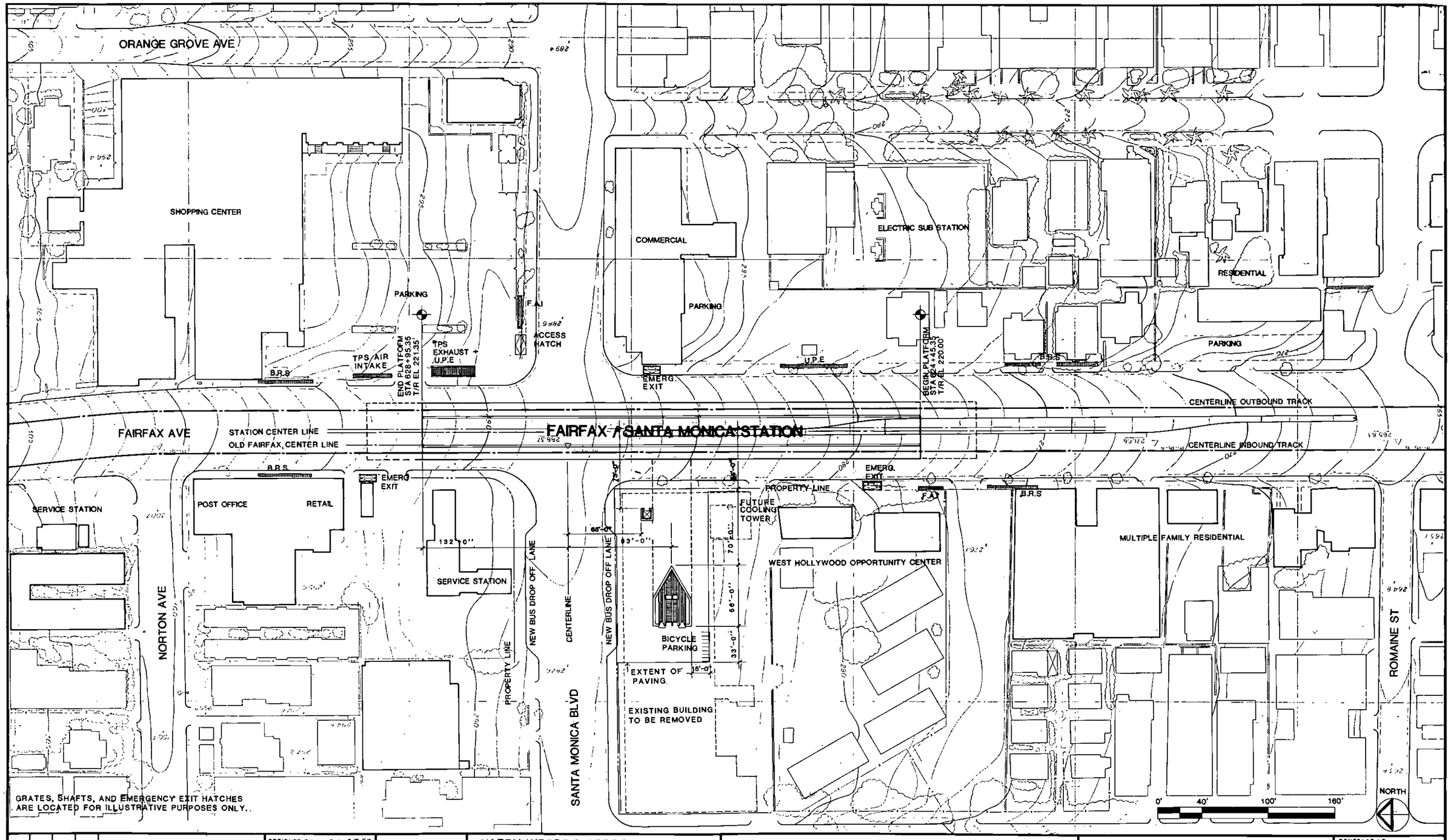
DESIGNED BY TAMS Date 5/24/83
DRAWN BY HWW Date 5/27/83
CHECKED BY JLD Date 5/27/83

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.

FAIRFAX / BEVERLY STATION
UTILITY PLAN REARRANGEMENT

CONTRACT NO. A275
DRAWING NO. U-13
SCALE 1"=40'-0"
SHEET NO. 9 OF 19



REV.	DATE	BY	APP.	DESCRIPTION
1	5/3/83	MP	J.Y.	REVISION TO ANCILLARY ROOMS FOR COST REDUCTION

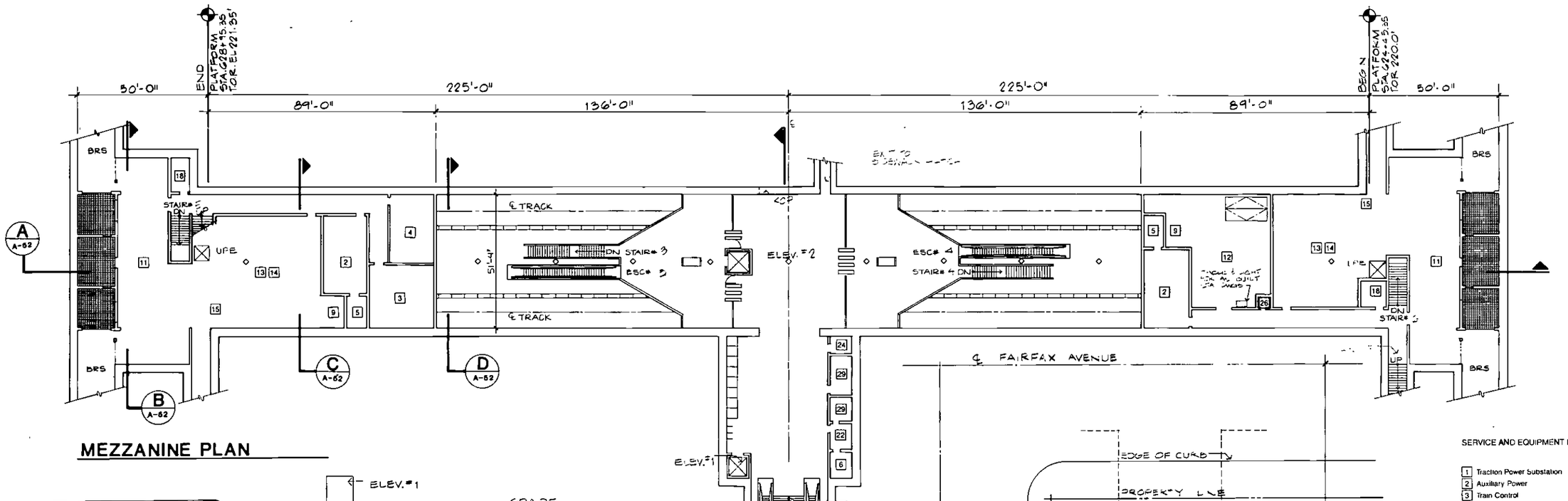
DESIGNED BY HWA Date 2.7.83
DRAWN BY A. SNIDER Date 2.7.83
CHECKED BY J.YEN Date 2/10/83 PIGATI

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

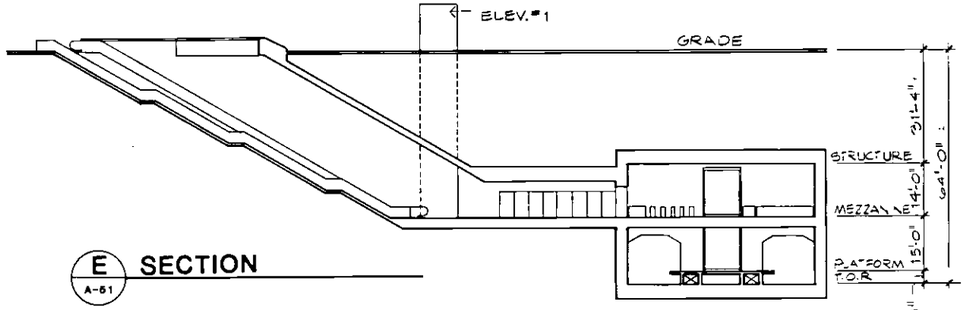
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED
Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

FAIRFAX / SANTA MONICA STATION
SITE PLAN
PRELIMINARY

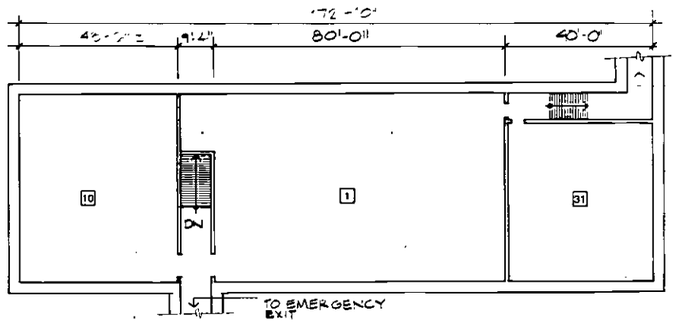
CONTRACT NO. A310
DRAWING NO. A-50
SCALE 1"= 40'-0"
SHEET NO. 48 OF 67



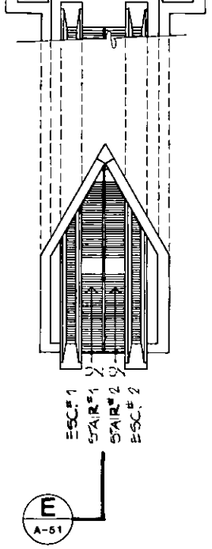
MEZZANINE PLAN

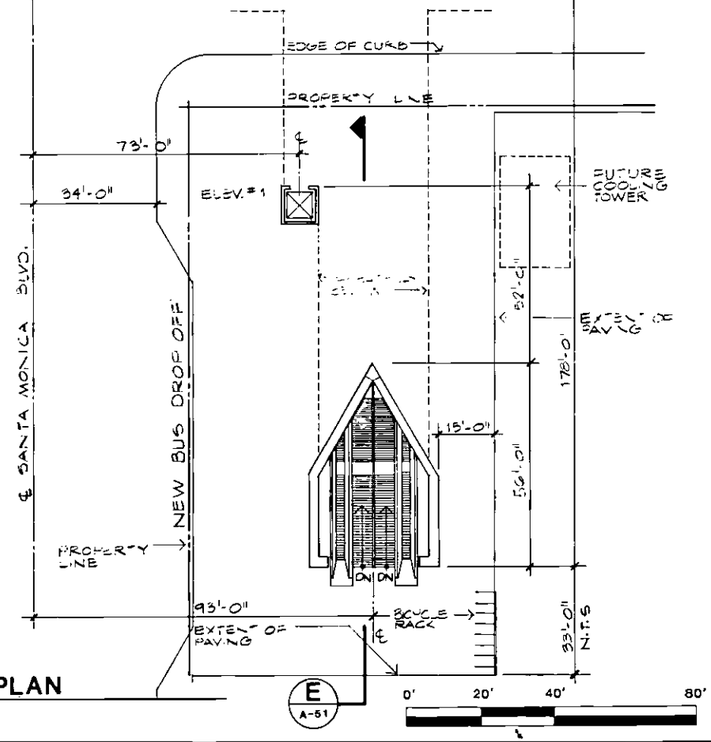


E A-51 **SECTION**



UPPER ANCILLARY PLAN





ENTRY PLAN

NORTH

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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.
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. Staff
30. **Deleted**
31. Electric Incoming Service

COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

REV.	DATE	BY	APP.	DESCRIPTION
1	5-3-83	MP		REVISION TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY H.N.A. Date 3-3-83
DRAWN BY M.POINDEXTER Date 5-3-83
CHECKED BY J.YEN / DIGATI Date 6-6-83

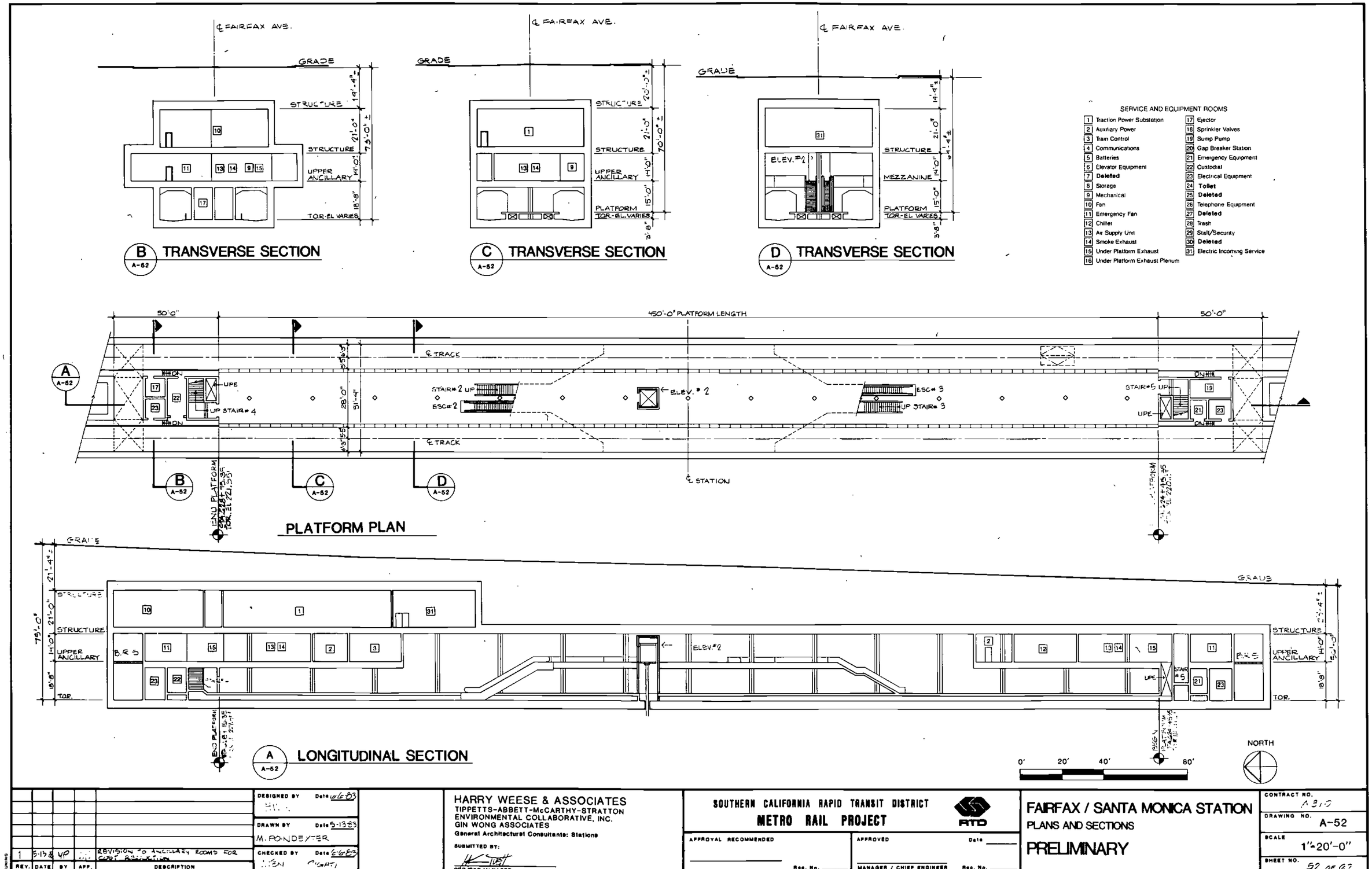
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY: PROJECT MANAGER

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

FAIRFAX / SANTA MONICA STATION
PLANS AND SECTIONS
PRELIMINARY

CONTRACT NO. A310
DRAWING NO. A-51
SCALE 1"=20'-0"
SHEET NO. 31 OF 67

BRUNING 44-132



REV.	DATE	BY	APP.	DESCRIPTION
1	5-13-83	VP		REVISION TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY Date 6-6-83
DRAWN BY Date 5-13-83 M. POINDEXTER
CHECKED BY Date 6-6-83

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.

FAIRFAX / SANTA MONICA STATION
PLANS AND SECTIONS
PRELIMINARY

CONTRACT NO. A 310
DRAWING NO. A-52
SCALE 1"=20'-0"
SHEET NO. 52 OF 67

ORANGE GROVE AVE

SHOPPING CENTER

COMMERCIAL

ELECTRIC SUB STATION

RESIDENTIAL

PARKING

TPS AIR INTAKE

TPS EXHAUST + U.P.E.

ACCESS HATCH

U.P.E.

FAIRFAX AVE

CONC. PAV'T

AC PAV'T

SERVICE STATION

POST OFFICE

RETAIL

EMERG. HATCH

SERVICE STATION

LIMITS OF NEW PAVING

NORTON AVE

SANTA MONICA BLVD

WEST HOLLYWOOD OPPORTUNITY CENTER

MULTIPLE FAMILY RESIDENTIAL

ROMAINE STREET

NORTH

0' 40' 80' 160'

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 5/23/83 TAMS

DRAWN BY Date 5/25/83 H W W

CHECKED BY Date 5/25/83 JLD

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

CIVIL SITE PLAN

CONTRACT NO. A310

DRAWING NO. C-14

SCALE 1"=40'-0"

SHEET NO. 49 OF 67

END PLATFORM GRADE

TOP OF RAIL 221.35

END PLATFORM

TYPICAL SECTION

BEGIN PLATFORM GRADE

TOP OF STRUCTURE 256.67

TOP OF RAIL 220.00

BEGIN PLATFORM

SANTA MONICA BLVD.

ROMAINE STREET

FAIRFAX AVENUE

NORTON AVENUE

ACCESS HATCH

S.D. TRANSITION

F.A.I.

TPS AIR INTAKE

TPS EXHAUST + U.P.E.

FUTURE 7'-3" X 12" SD

FUTURE 8'-0" X 12' SD

B.R.S.

U.P.E.

EMERG. HATCH

PROPOSED STORM DRAIN

PROPOSED SANITARY SEWER

END PLATFORM

BEGIN PLATFORM

(NIC)

PROPOSED

NO	STORM DRAIN	NO.	SAN. SEWER
①	7'-3" X12' RC. BOX S = 0.04125	⑨	190' – 8" SS S = 0.0258
②	7'-3"X12' RC. BOX S = 0.03510	⑩	60' – 10" SS S = 0.0067
③	8'-0"X12' RC. BOX S = 0.02600	⑪	175'– 8" SS S = 0.0297
④	8'-0"X12' RC. BOX S = 0.01000	⑫	200'– 10" SS S = 0.0295
⑤	8'-0"X12' RC. BOX S = 0.02835	⑬	225'– 10" SS S = 0.0231
⑥	250'– 54" RCP S = 0.0352	⑭	65' – 10" SS S = 0.005
⑦	50' – 54" RCP S = 0.029	⑮	220'– 8" SS
⑧	425'– 54" RCP S = 0.0245		

APPROXIMATE ELEVATIONS AT TOP OF STATION STRUCTURE

Ⓐ 279.2

Ⓑ 278.6 257.6

Ⓒ 256.5

* FUTURE 7'-3"/8'-0" x 12' STORM DRAIN LOCATION AND APPROXIMATE INVERT ELEVATIONS SHOWN HERE ARE BASED ON INFORMATION FROM DESIGN DRAWINGS

** RELOCATION OF THE 8"/10" SANITARY SEWER SHALL BE COORDINATED BY THE SECTION DESIGNER WITH THE LOS ANGELES COUNTY SANITATION DISTRICT.

PRELIMINARY

0' 20' 40' 100' 160'

NORTH

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 5/16/83 TAMS

DRAWN BY Date 5/23/83 H W W

CHECKED BY Date 5/25/83 JLD

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.

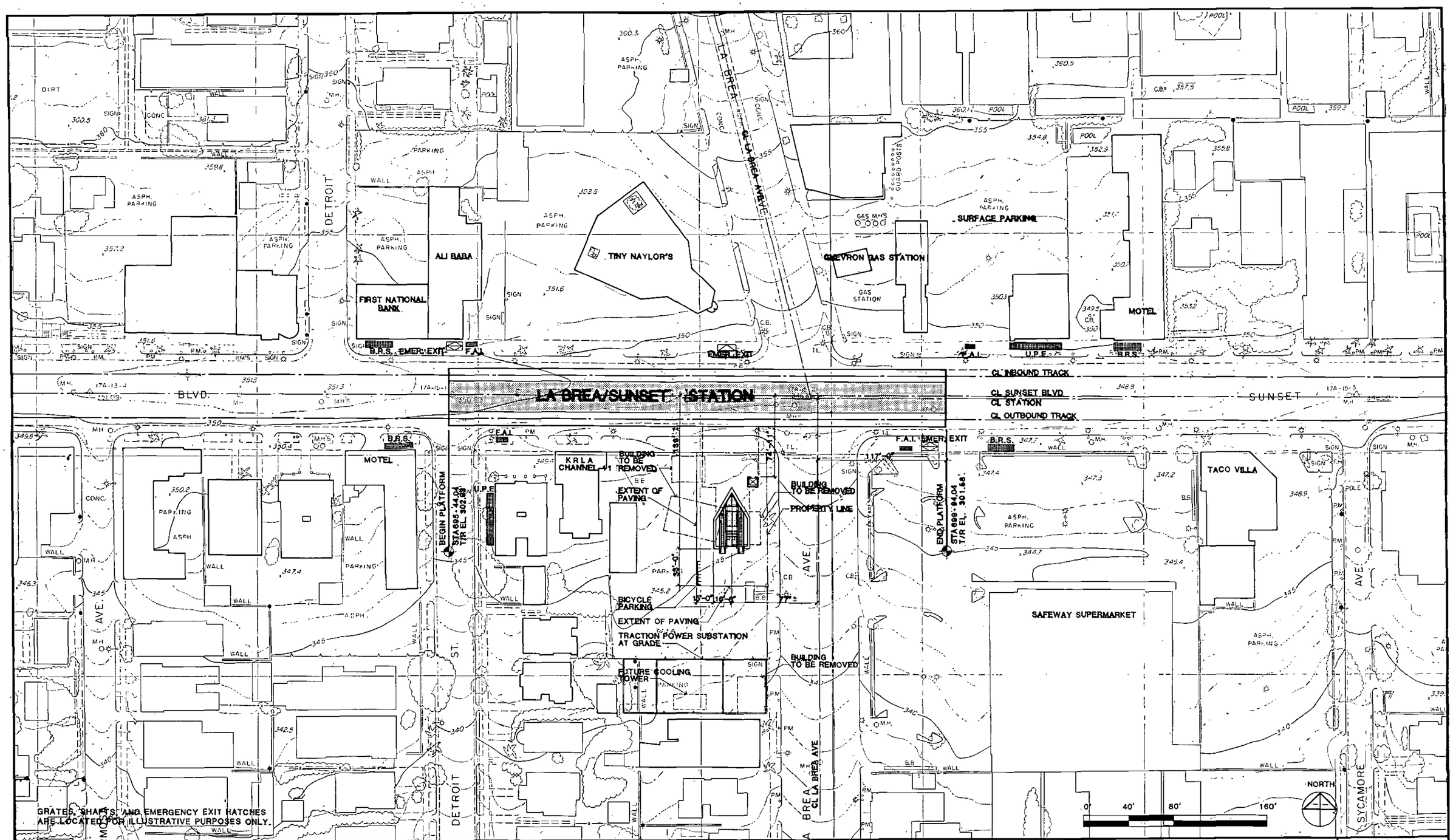
FAIRFAX/SANTA MONICA STATION
UTILITY PLAN REARRANGEMENT

CONTRACT NO. A310

DRAWING NO. U-14

SCALE 1"= 40'-0"

SHEET NO. 30 OF 7



REV.	DATE	BY	APP.	DESCRIPTION
	5/24/83	J.Y.		REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY HWA Date 6-3-83
DRAWN BY M. HOMER Date 6-3-83
CHECKED BY JTEN PIGATI Date 6-6-83

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

SUBMITTED BY: _____ PROJECT MANAGER

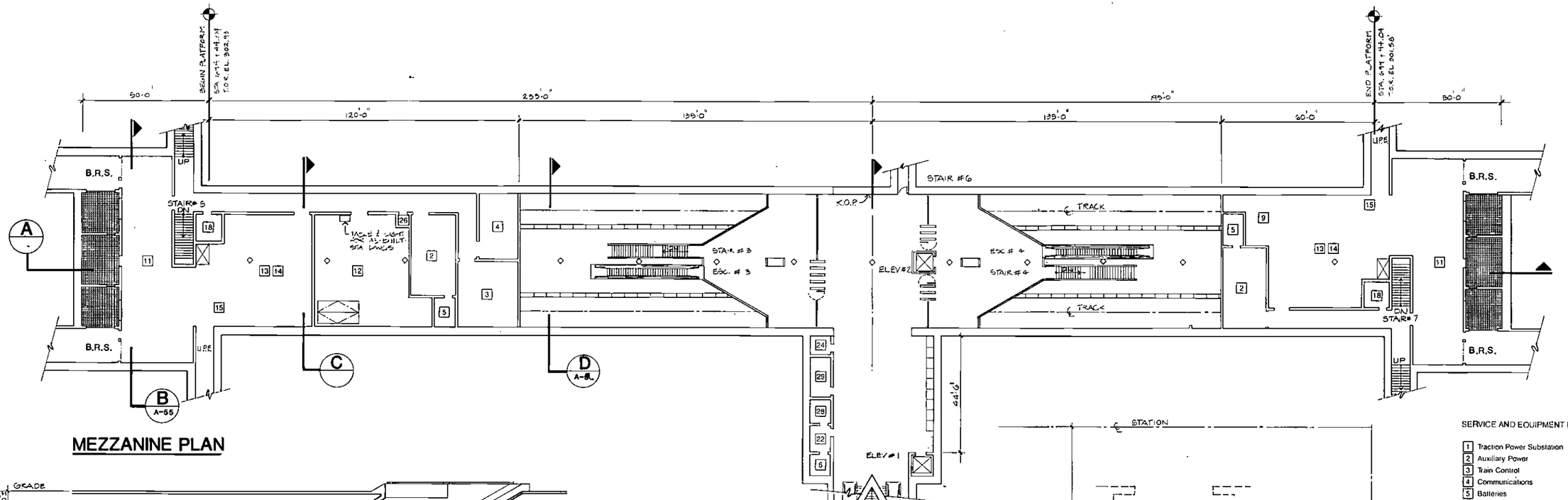
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

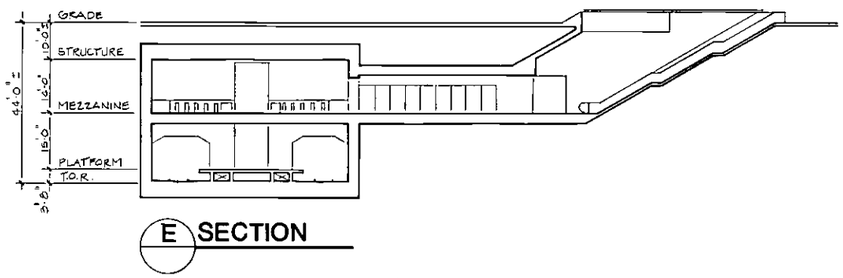
LA BREA/SUNSET STATION
SITE PLAN

PRELIMINARY

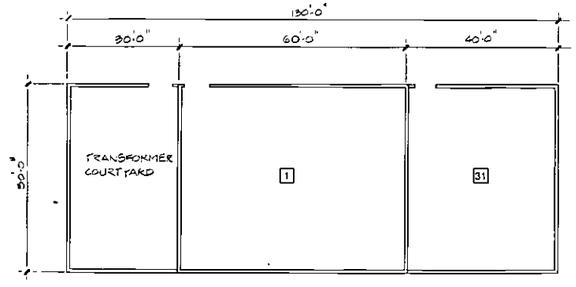
CONTRACT NO. A 310
DRAWING NO. A-53
SCALE 1"=40'-0"
SHEET NO. 58 OF 67



MEZZANINE PLAN



E SECTION



TRACTION POWER SUBSTATION PLAN

COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

ENTRY PLAN

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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. **Toilet**
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. Staff **/Security**
30. **Deleted**
31. Electric Incoming Service

REV.	DATE	BY	APP.	DESCRIPTION
	9/29/83		J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

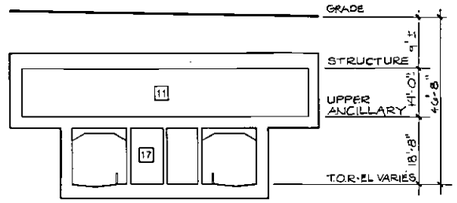
DESIGNED BY HWA Date 6-6-83
DRAWN BY M. HOMER Date 6-6-83
CHECKED BY J.YEN Date 6-6-83 PIGATI

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

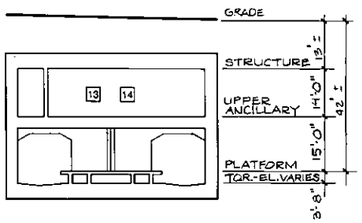
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date — MANAGER / CHIEF ENGINEER — Reg. No.

LA BREA/SUNSET STATION
PLANS & SECTIONS
PRELIMINARY

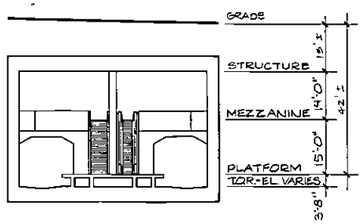
CONTRACT NO. A310
DRAWING NO. A-54
SCALE 1"=20'-0"
SHEET NO. 61 OF 67



B TRANSVERSE SECTION



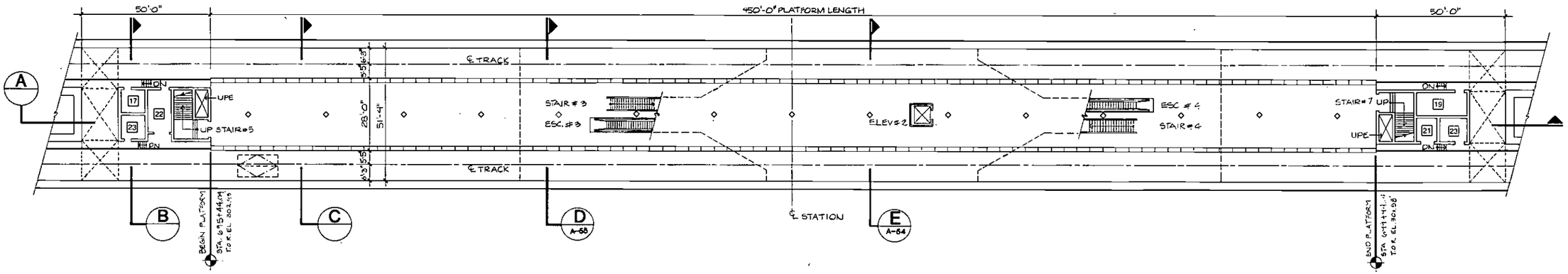
C TRANSVERSE SECTION



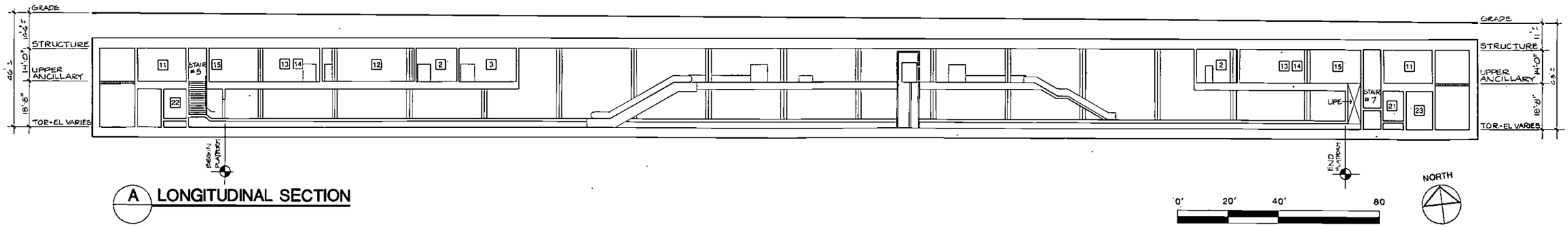
D TRANSVERSE SECTION

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	**Deleted**	23	Electrical Equipment
8	Storage	24	**Toilet**
9	Mechanical	25	**Deleted**
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		



PLATFORM PLAN



A LONGITUDINAL SECTION

REV.	DATE	BY	APP.	DESCRIPTION
	9/29/83		J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY HWA. Date 6/6/83
DRAWN BY M. HOMER Date 6/6/83
CHECKED BY J.YU PIGATI Date 6/6/83

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

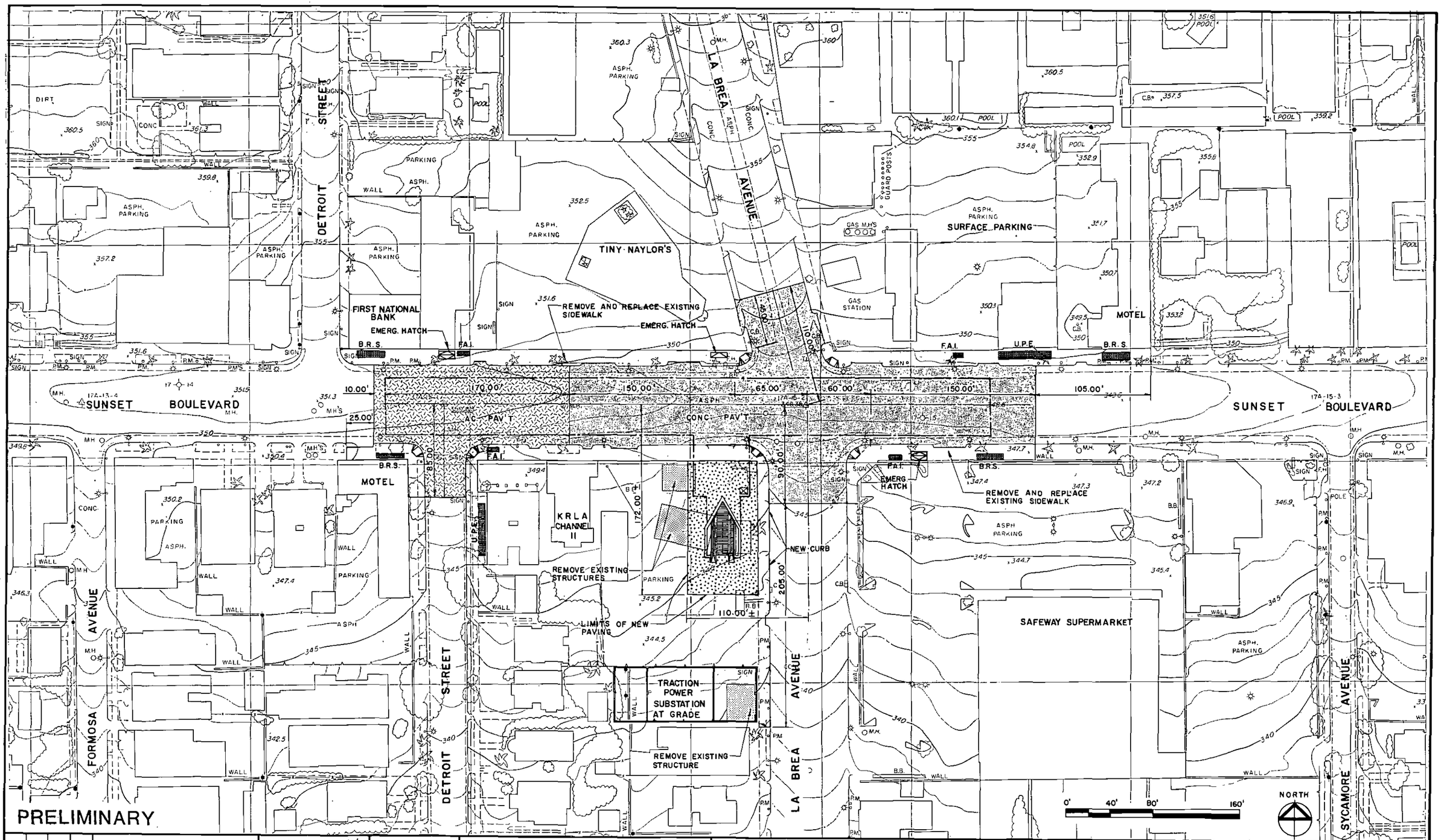
APPROVAL RECOMMENDED
Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

LA BREA/SUNSET STATION
PLANS & SECTIONS

PRELIMINARY
FOR STUDY PURPOSES ONLY

CONTRACT NO. A310
DRAWING NO. A-55
SCALE 1"=20'-0"
SHEET NO. 62 OF 67



PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date 6/2/83 TAMS

DRAWN BY Date 6/2/83 HWW

CHECKED BY Date 6/2/83 JLD

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

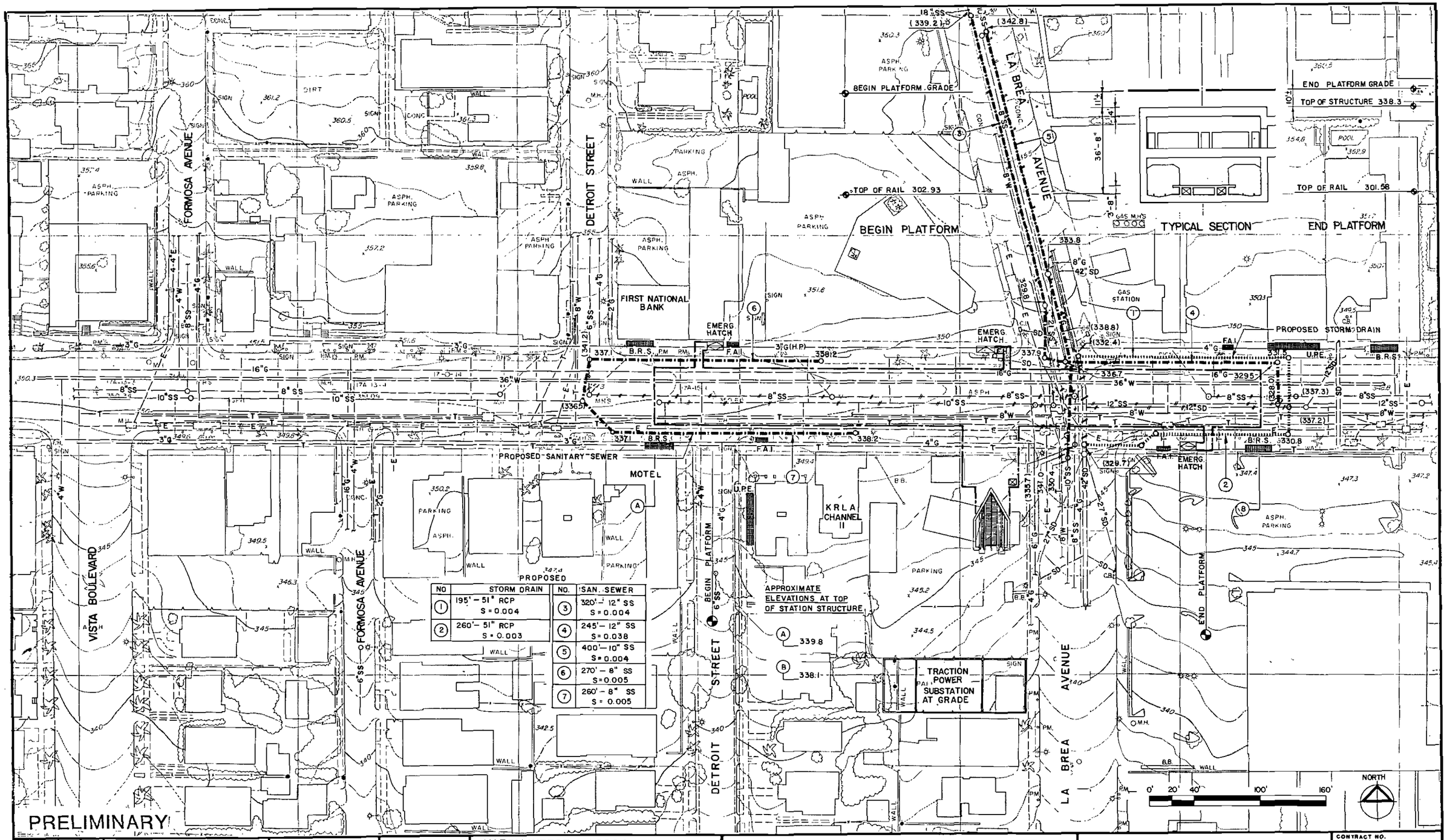
CIVIL SITE PLAN

CONTRACT NO. A310

DRAWING NO. C-15

SCALE 1" = 40' - 0"

SHEET NO. 59 of 67



NO	STORM DRAIN
1	195' – 51" RCP S = 0.004
2	260' – 51" RCP S = 0.003

NO.	SAN. SEWER
3	320' – 12" SS S = 0.004
4	245' – 12" SS S = 0.038
5	400' – 10" SS S = 0.004
6	270' – 8" SS S = 0.005
7	260' – 8" SS S = 0.005

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

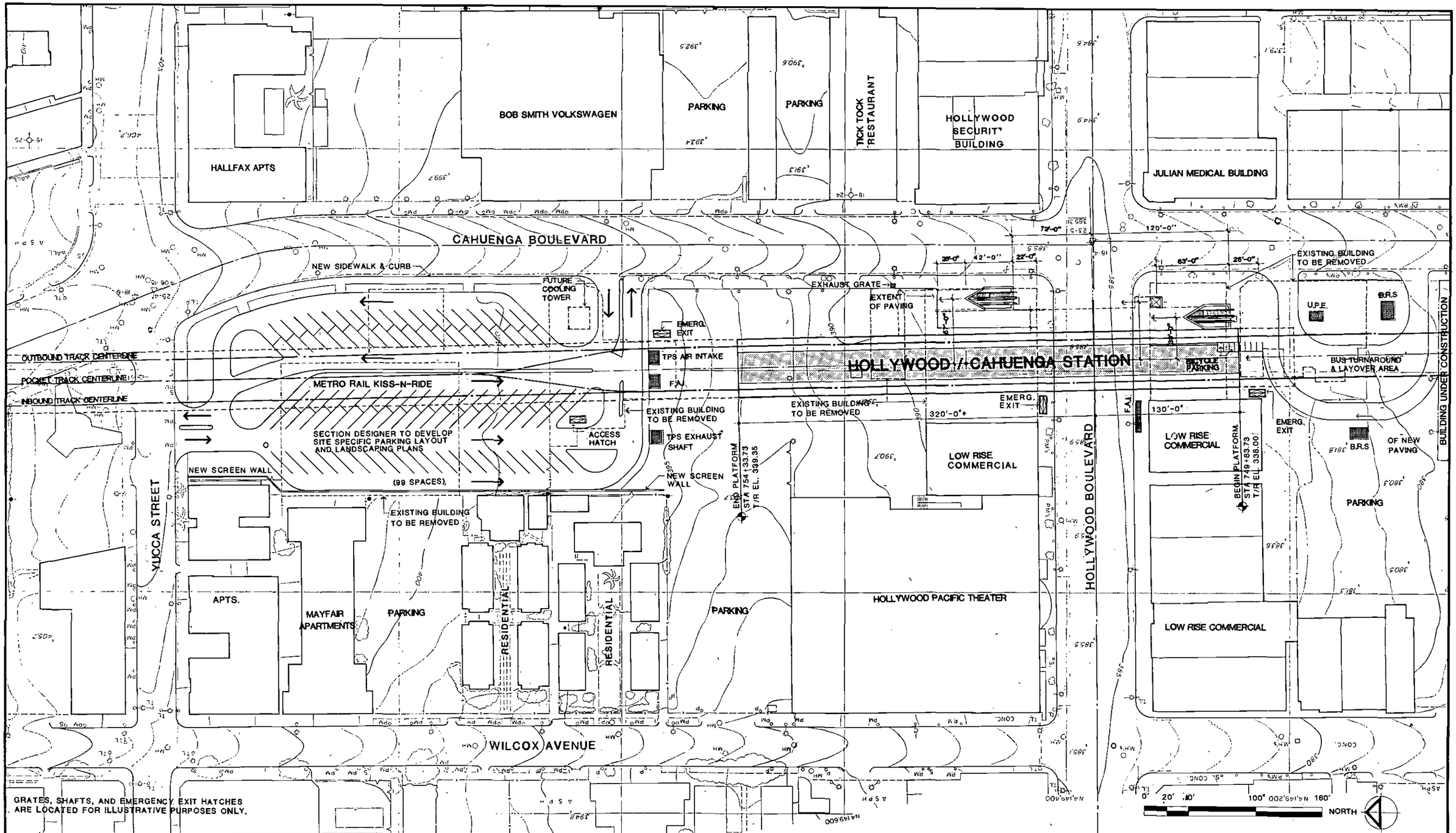
DESIGNED BY TAMS Date 6/3/83
DRAWN BY HWW Date 6/6/83
CHECKED BY JLD Date 6/6/83

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.

LA BREA / SUNSET STATION
UTILITY PLAN REARRANGEMENT

CONTRACT NO. A310
DRAWING NO. U-15
SCALE 1"=40'-0"
SHEET NO. 60 of 67



REV.	DATE	BY	APP.	DESCRIPTION
	5-5-83	MP	J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION
	4/4/84	VERMA	AK	KISS-N-RIDE LAYOUT
	1/18/85	VERMA	AK	BICYCLE PARKING ADDED

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

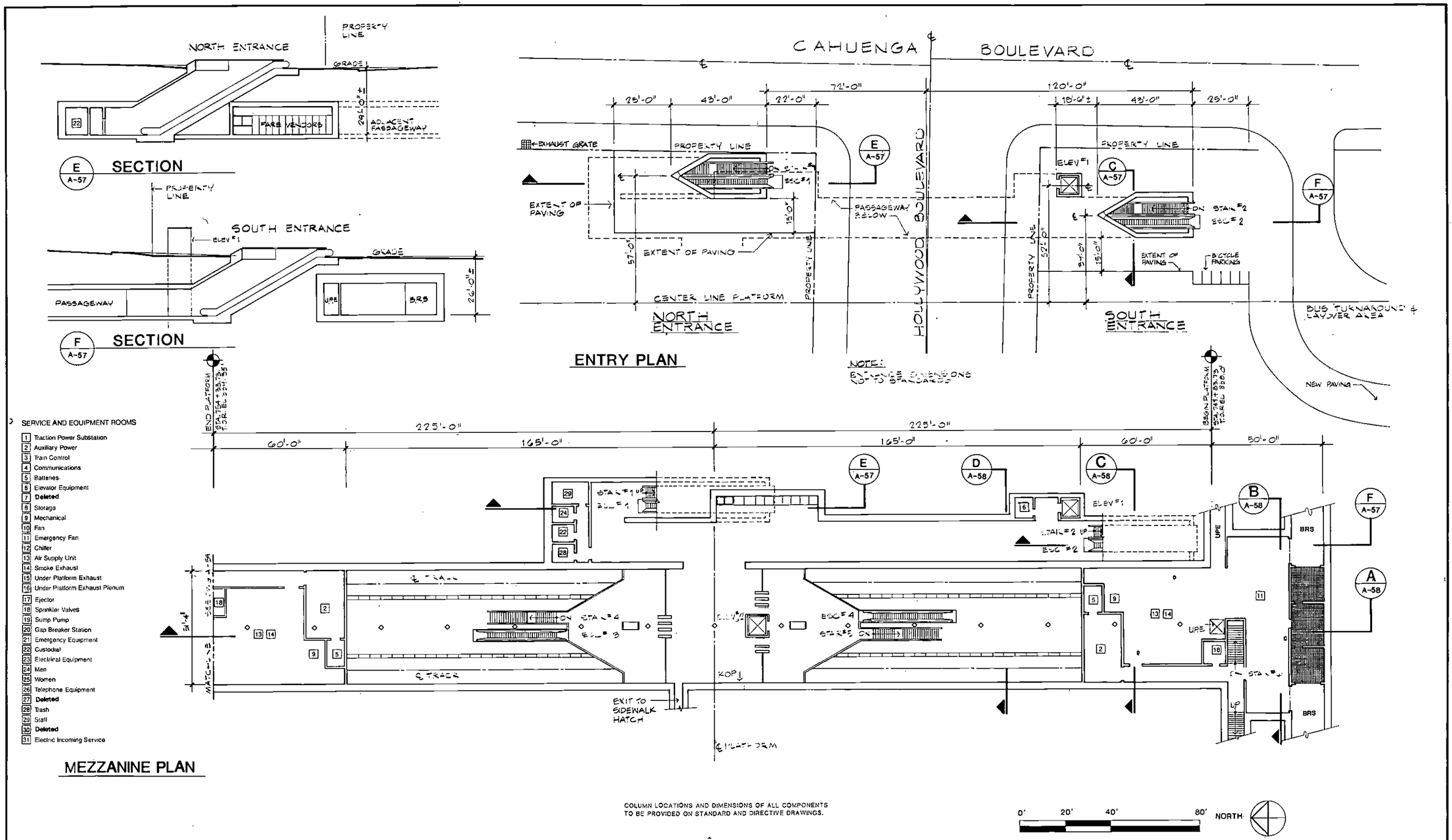
APPROVAL RECOMMENDED
Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

HOLLYWOOD/CAHUENGA STATION
SITE PLAN

PRELIMINARY

CONTRACT NO. A350
DRAWING NO. A-56
SCALE 1"= 40'-0"
SHEET NO. 10 OF 24



REV.	DATE	BY	APP.	DESCRIPTION
3	5-6-83	MP	J.Y.	REVISIONS TO ANCILLARY ROOMS FOR EDIT REDUCTION

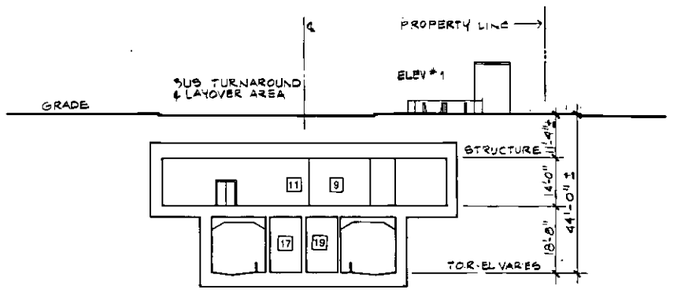
DESIGNED BY HWA Date 6/3/83
DRAWN BY M. POINDEXTER Date 6/3/83
CHECKED BY J.YEN PIGATI Date 6-13-83

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

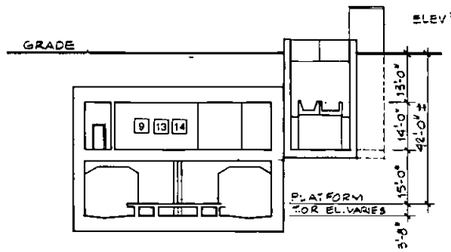
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

HOLLYWOOD/CAHUENGA STATION
PLANS & SECTIONS
PRELIMINARY

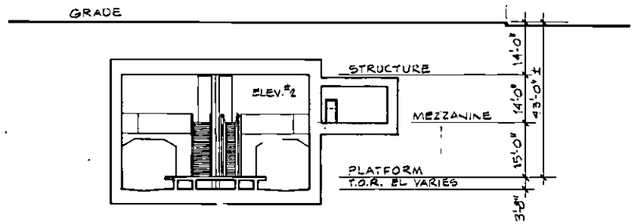
CONTRACT NO. A350
DRAWING NO. A - 57
SCALE 1"=20'-0"
SHEET NO. 15 OF 24



B A-58 **TRANSVERSE SECTION**



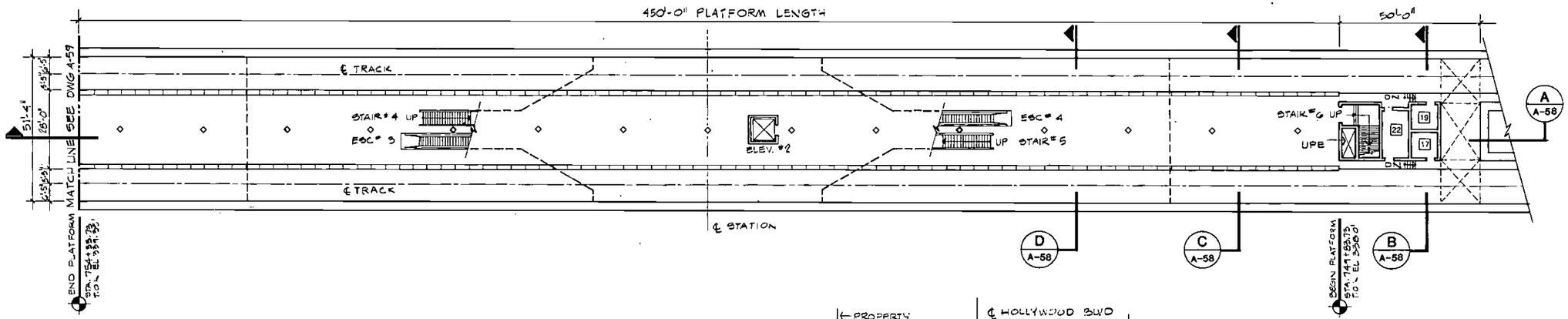
C A-58 **TRANSVERSE SECTION**



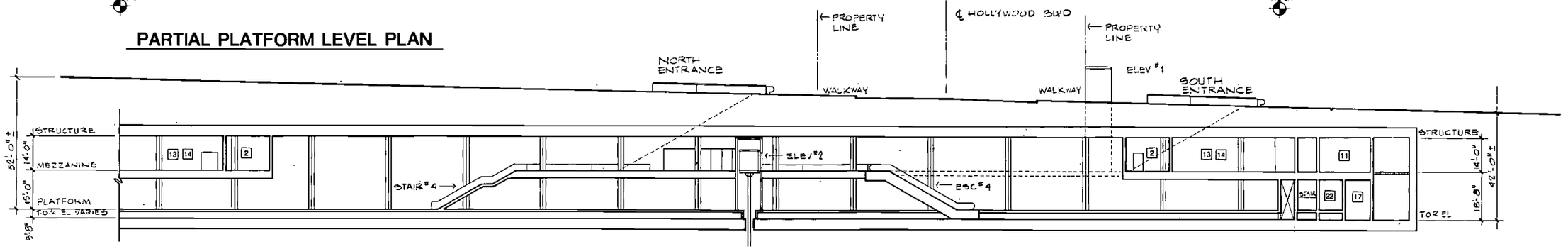
D A-58 **TRANSVERSE SECTION**

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	**Deleted**	23	Electrical Equipment
8	Storage	24	Men
9	Mechanical	25	Women
10	Fan	26	Telephone Equipment
11	Emergency Fa	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 PLATFORM LEVEL PLAN



A A-58 **PARTIAL LONGITUDINAL SECTION**

0' 20' 40' 80' NORTH

REV.	DATE	BY	APP.	DESCRIPTION
3	5-6-83	MD	J.Y.	REVISION TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY HWA Date 6/3/83
DRAWN BY M.POINDEXTER Date 6/3/83
CHECKED BY J.YEN PIGATI Date 6/3/83

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

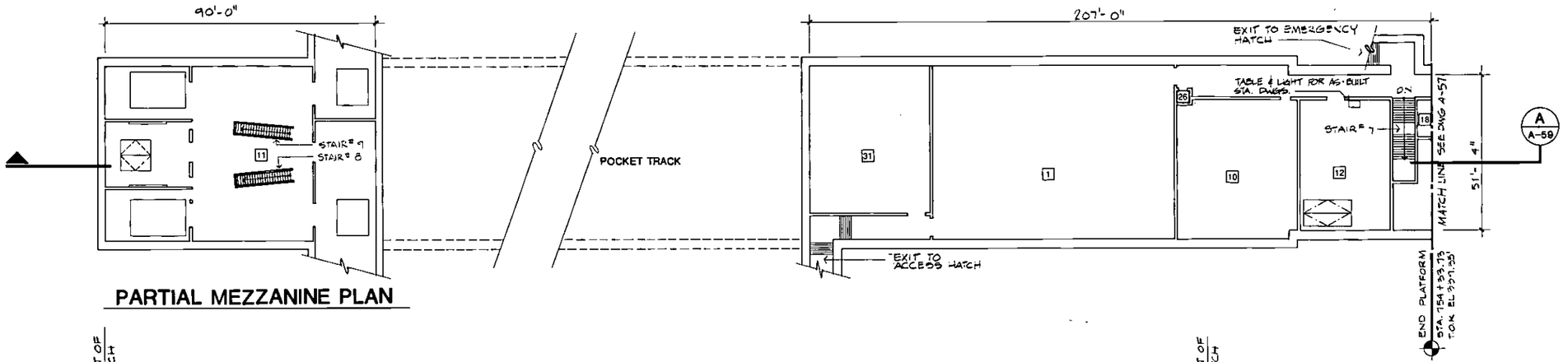
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

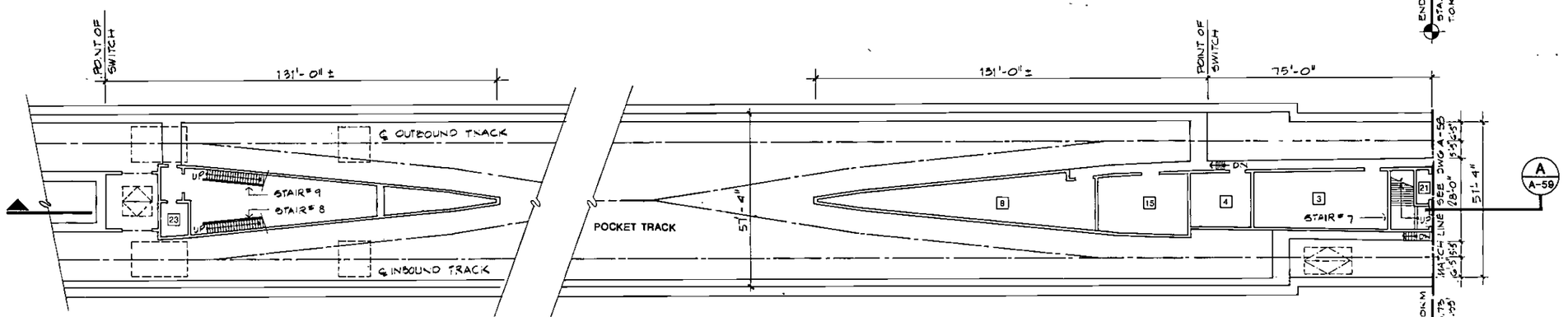
HOLLYWOOD/CAHUENGA STATION
PLANS & SECTIONS
PRELIMINARY

CONTRACT NO. A 350
DRAWING NO. A - 58
SCALE 1"=20'-0"
SHEET NO. 16 OF 24

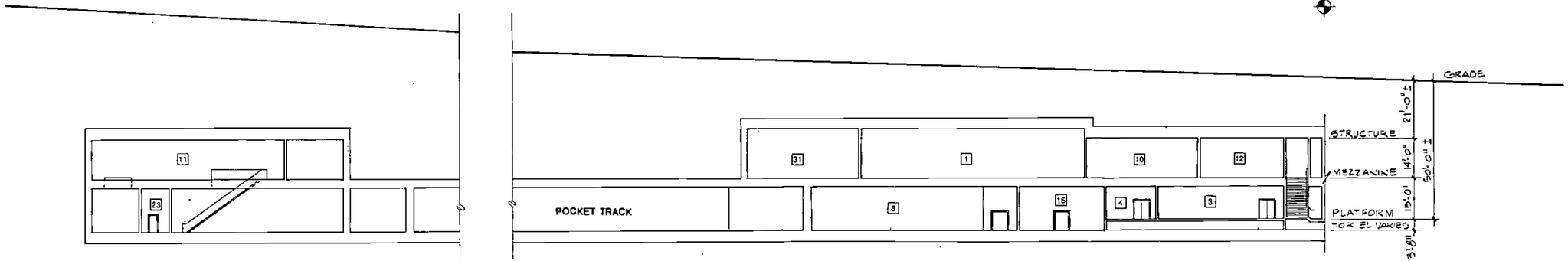
BRUNING 44-133



PARTIAL MEZZANINE PLAN



PARTIAL PLATFORM LEVEL PLAN



A / A-59 PARTIAL LONGITUDINAL SECTION

0' 20' 40' 80' NORTH

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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

REV.	DATE	BY	APP.	DESCRIPTION
3	5-6-83	MP	J.Y.	REVISIONS TO ANCILLARY ROOMS FOR C.V.T. REDUCTION

DESIGNED BY HWA Date 6/3/83
DRAWN BY M. POINDEXTER Date 6/3/83
CHECKED BY J. YEN PIGATI Date 6-13-83

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 & SECTIONS
PRELIMINARY

CONTRACT NO. A350
DRAWING NO. A - 59
SCALE 1"=20'-0"
SHEET NO. 17 OF 24

BRUNING 44-332

BOB SMITH VOLKSWAGEN

HOLLYWOOD SECURITY BUILDING

JULIAN MEDICAL BUILDING

CAHUENGA BOULEVARD

LIMITS OF NEW PAVING

EMERG. HATCH

T.P.S. AIR INTAKE

F.A.I.

REMOVE EXISTING STRUCTURES

T.P.S. EXHAUST SHAFT

ACCESS HATCH

LIMITS OF NEW PAVING

NEW WALL

NEW LANDSCAPING AREAS (TYP.)

REMOVE AND REPLACE EXISTING SIDEWALK

EXHAUST GRATE

U.P.E.

B.R.S.

CONC. PAV'T

SURFACE PARKING

SURFACE PARKING

SURFACE PARKING

HOLLYWOOD PACIFIC THEATER

MAYFAIR APARTMENTS

YUCCA STREET

WILCOX AVENUE

HOLLYWOOD BOULEVARD

SEE SHEET C-17

MATCH LINE

NOTE:

1. EXISTING BUILDINGS TO BE REMOVED ARE MARKED (R1) THROUGH (R5)
2. CONTRACT A350 INCLUDES ALL SUBSURFACE WORK AND SURFACE WORK ITEMS SHOWN ON SHEETS C16, C17, U16, U17 AND THOSE DESCRIBED BY GENERAL NOTES AND SPECIFICATIONS.

0 20' 40' 100' 160

NORTH

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION
V	6/30/83	JLD	DE	REVISED BLDG. REMOVAL NOTE

DESIGNED BY TAMS Date 6/7/83

DRAWN BY RGL Date 6/13/83

CHECKED BY JLD Date 6/13/83

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

CIVIL SITE PLAN

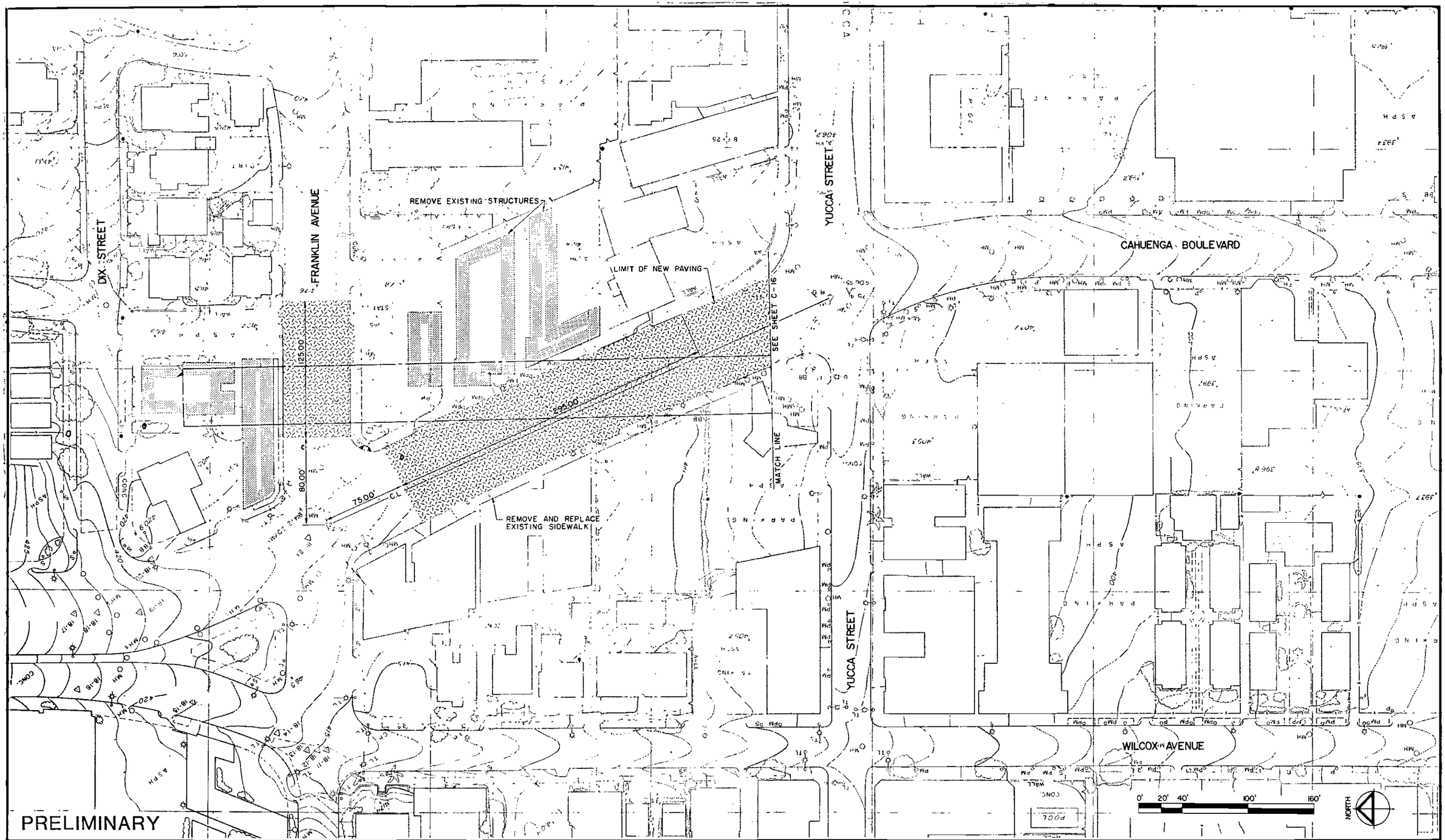
SOUTH END

CONTRACT NO. A350

DRAWING NO. C-165

SCALE 1" = 40' - 0"

SHEET NO. 11 OF 24



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 6/10/83
DRAWN BY RGL Date 6/10/83
CHECKED BY JLD Date 6/10/83

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.

HOLLYWOOD/CAHUENGA STATION
CIVIL SITE PLAN
NORTH END

CONTRACT NO. A350
DRAWING NO. 0-17
SCALE 1"=40'-0"
SHEET NO. 12 OF 24

END PLATFORM GRADE

BEGIN PLATFORM GRADE

TOP OF STRUCTURE 374.7

TOP OF RAIL 339.35

TOP OF RAIL 338.00

END PLATFORM

TYPICAL SECTION

BEGIN PLATFORM

CAHUENGA BOULEVARD

SEE SHEET U-17

MATCH LINE

EXHAUST GRATE

EMERG. HATCH

T.P.S. AIR INTAKE

F.A.I.

ACCESS HATCH

T.P.S. EXHAUST SHAFT

U.P.E.

B.R.S.

YUCCA STREET

HOLLYWOOD BOULEVARD

WILCOX AVENUE

PROPOSED

NO.	STORM DRAIN	NO.	SAN. SEWER
(1)	80'- 24" SD SUPPORT & RETRENCH	(2)	85'± - 12" SS SUPPORT & RETRENCH
		(3)	85'± - 8" SS SUPPORT & RETRENCH
		(4)	295' - 8" SS S = 0.004

APPROXIMATE ELEVATIONS AT TOP OF STATION STRUCTURE

C 360.8

D 359.6 380.6

E 380.3 376.3

F 374.5

0 20' 40' 100' 160'

NORTH

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 6/10/83

DRAWN BY RGL Date 6/10/83

CHECKED BY JLD Date 6/10/83

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.

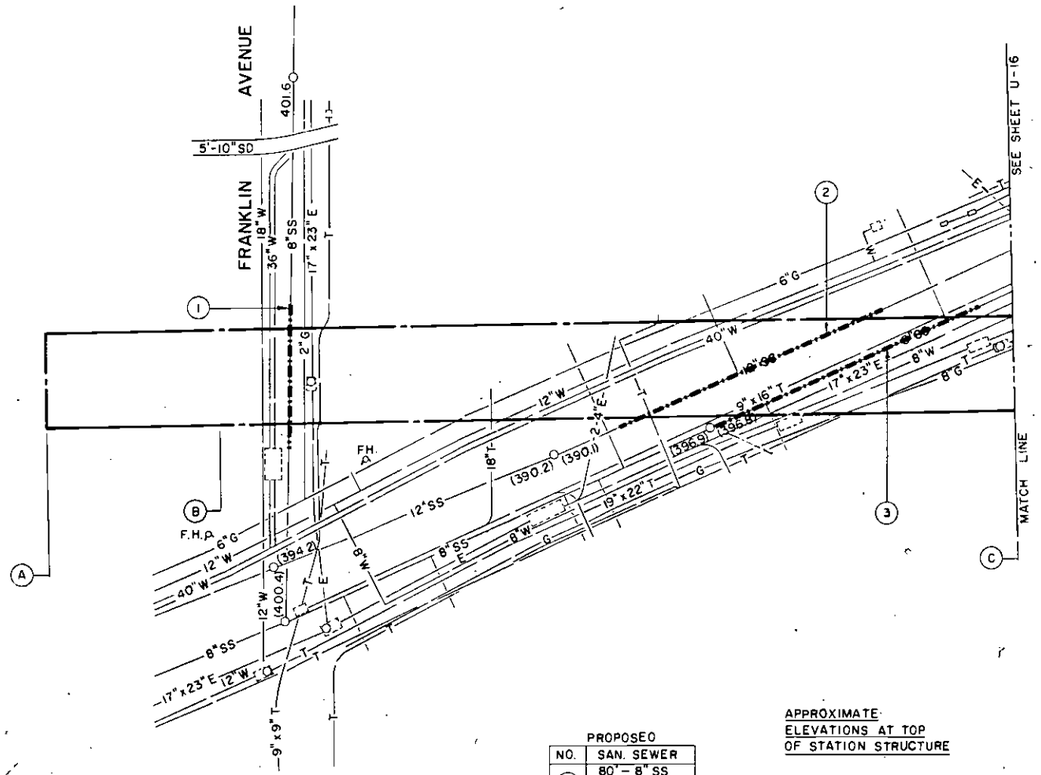
HOLLYWOOD/CAHUENGA STATION
UTILITY PLAN REARRANGEMENT
SOUTH END

CONTRACT NO. A350

DRAWING NO. U-16

SCALE 1"= 40'-0"

SHEET NO. 13 OF 24



PROPOSED

NO.	SAN. SEWER
1	80'-8" SS SUPPORT & RETRENCH
2	160'-8" SS SUPPORT & RETRENCH
3	160'-8" SS SUPPORT & RETRENCH

APPROXIMATE ELEVATIONS AT TOP OF STATION STRUCTURE

A — 379.4

B — 379.1, 362.1

C — 360.8

CAHUENGA BOULEVARD

YUCCA STREET

WILCOX AVENUE

0 20' 40' 100' 160'

NORTH

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 6/10/85

DRAWN BY RGL Date 6/10/85

CHECKED BY JLD Date 6/10/85

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

UTILITY PLAN REARRANGEMENT

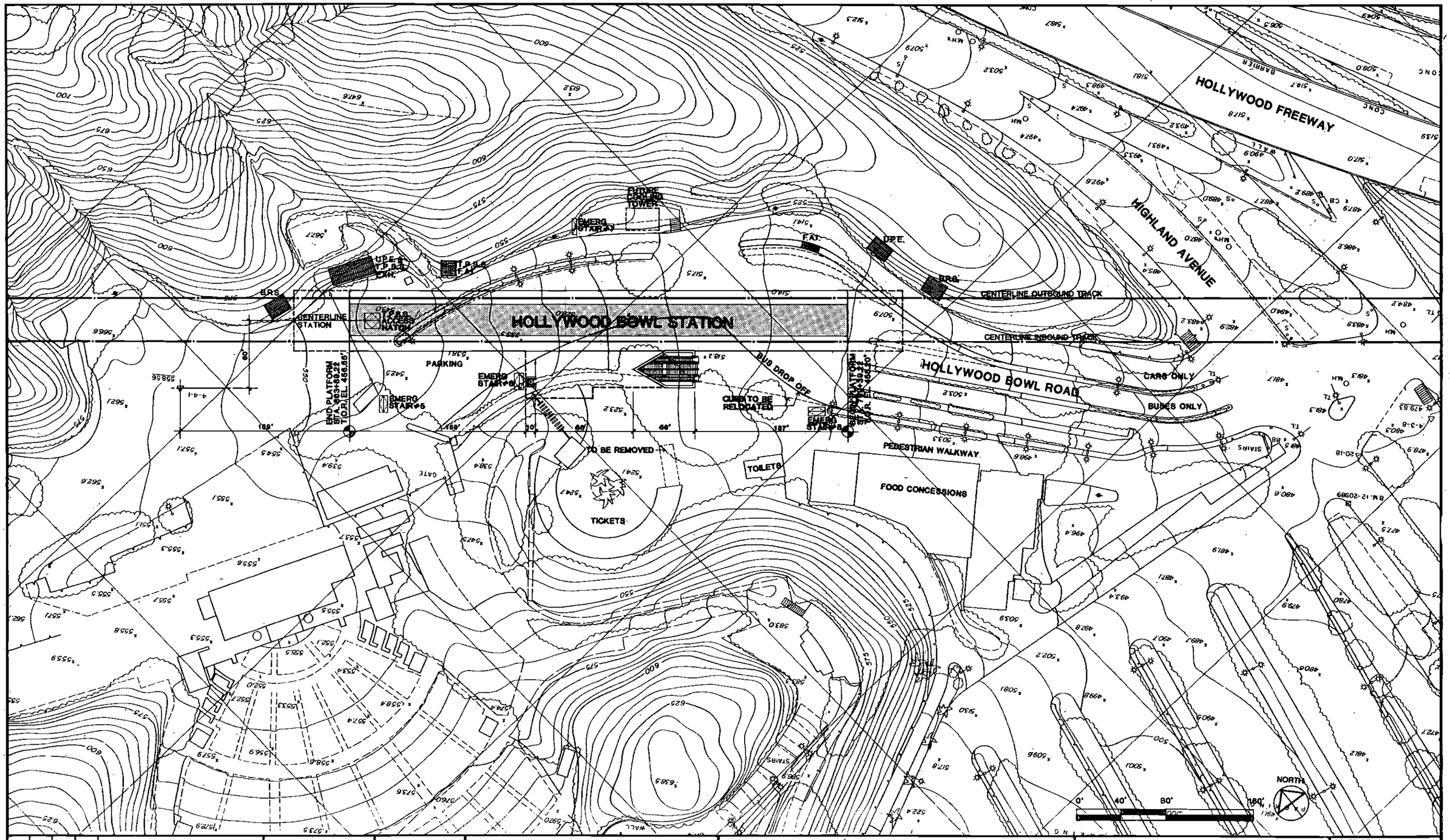
NORTH END

CONTRACT NO. A 350

DRAWING NO. U-17

SCALE 1" = 40'-0"

SHEET NO. 14 OF 24



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date ____

DRAWN BY 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. ____

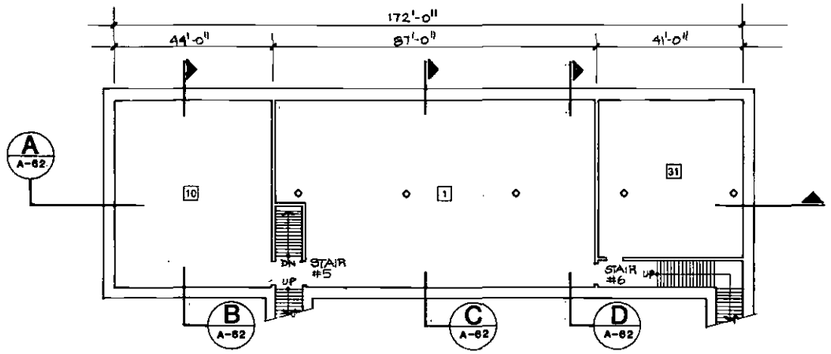
HOLLYWOOD BOWL STATION

CONTRACT NO.

DRAWING NO. A-60

SCALE 1" = 40'-0"

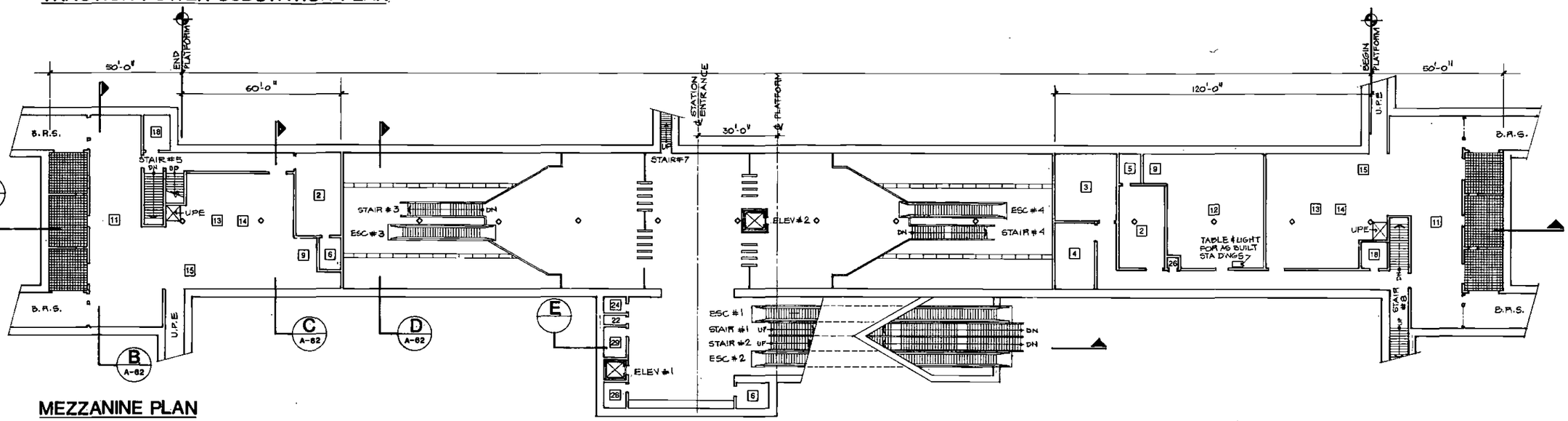
SHEET NO.



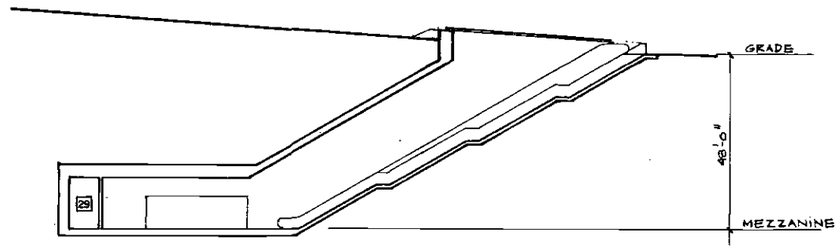
TRACTION POWER SUBSTATION PLAN

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	**Deleted**	23	Electrical Equipment
8	Storage	24	**Toilet**
9	Mechanical	25	**Deleted**
10	Fan	26	Telephone Equipment
11	Emergency Fan	27	**Deleted**
12	Chiller	28	Trash
13	Air Supply Unit	29	Stall/Security
14	Smoke Exhaust	30	**Deleted**
15	Under Platform Exhaust	31	Electric Incoming Service
16	Under Platform Exhaust Plenum		



MEZZANINE PLAN



E SECTION THROUGH ENTRY

0' 20' 40' 80'

NORTH

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date
DRAWN BY Date
CHECKED BY Date

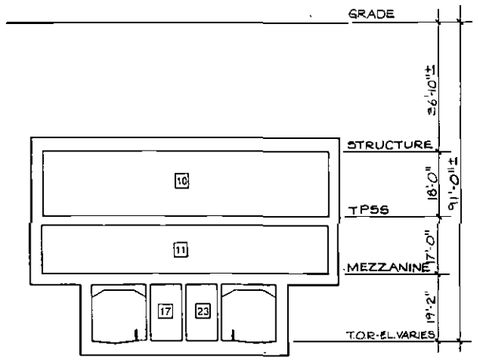
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

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

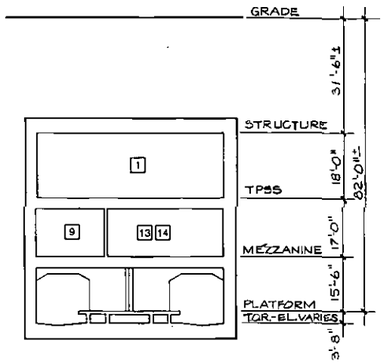
HOLLYWOOD BOWL STATION
PLANS & SECTION
PRELIMINARY

CONTRACT NO.
DRAWING NO. A-61
SCALE 1"=20'-0"
SHEET NO.

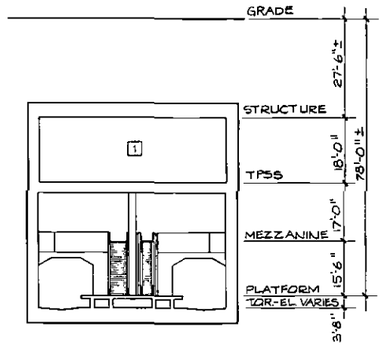
BRUNING



B TRANSVERSE SECTION



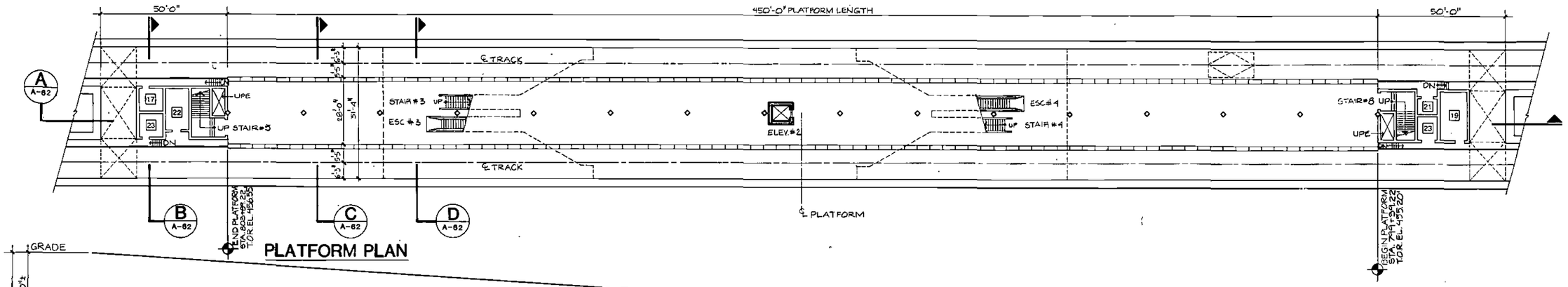
C TRANSVERSE SECTION



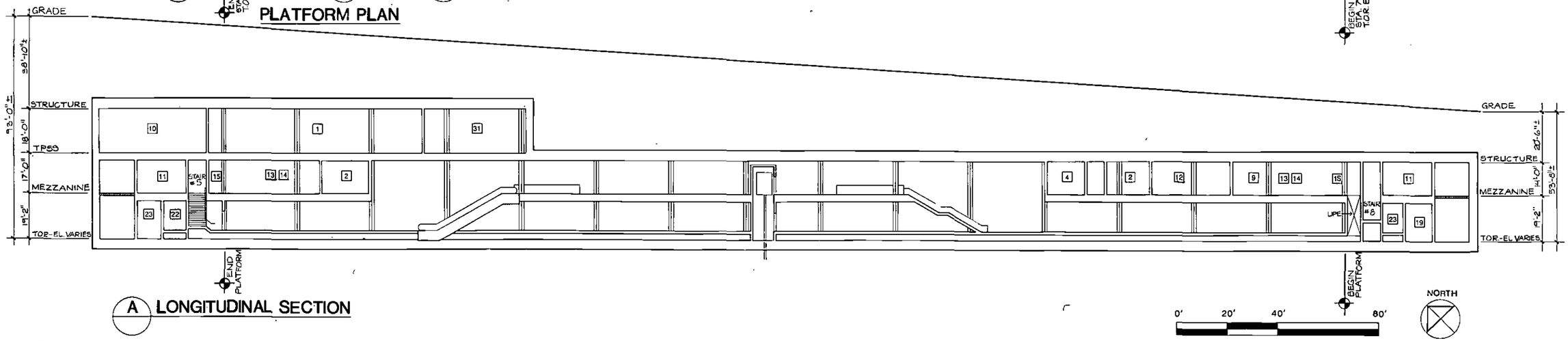
D TRANSVERSE SECTION

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	**Deleted**	23	Electrical Equipment
8	Storage	24	**Toilet**
9	Mechanical	25	**Deleted**
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		



PLATFORM PLAN



A LONGITUDINAL SECTION

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY Date
DRAWN BY Date
CHECKED BY Date

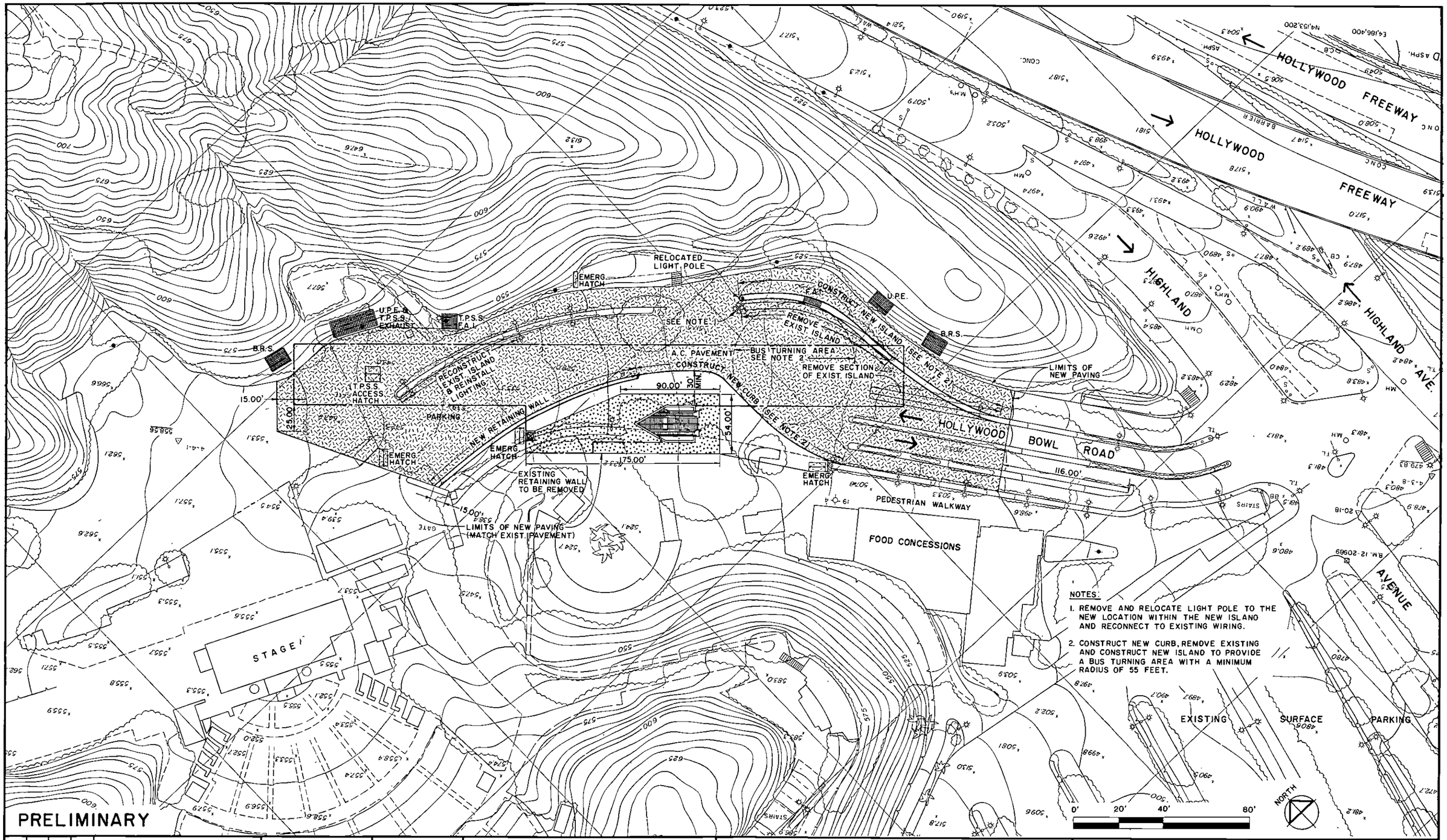
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

HOLLYWOOD BOWL STATION
PLANS AND SECTIONS

CONTRACT NO.
DRAWING NO. A-62
SCALE 1"=20'-0"
SHEET NO.



PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 8/26/83
DRAWN BY R.G.L. Date 8/29/83
CHECKED BY J.L.D. Date 8/30/83

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

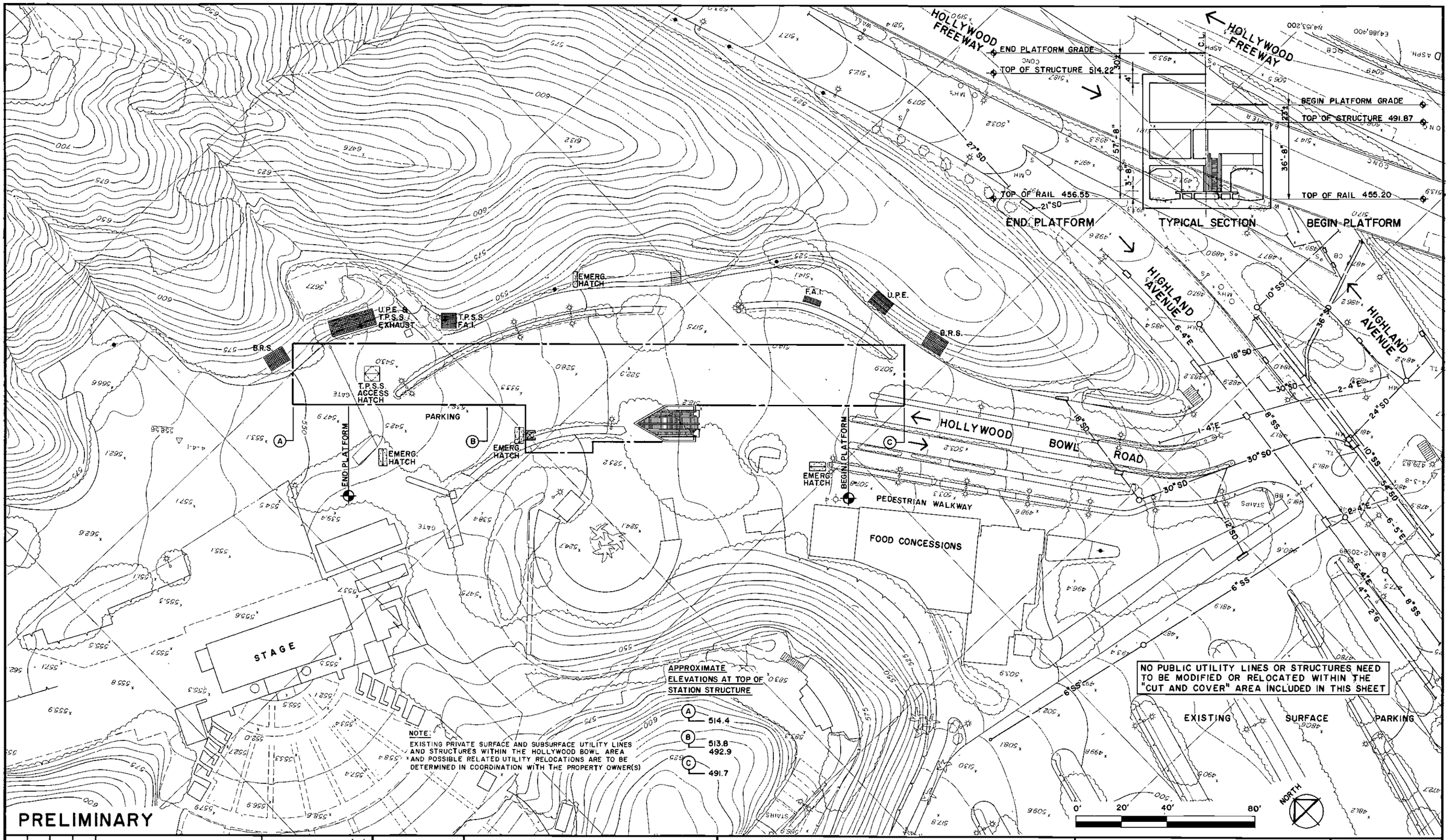
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

HOLLYWOOD BOWL STATION
CIVIL SITE PLAN

CONTRACT NO.
DRAWING NO. C-18
SCALE 1"-20'-0"
SHEET NO.

BRUNING A4-122



PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 8/26/83
DRAWN BY R.G.L. Date 8/26/83
CHECKED BY J.L.D. Date 8/29/83

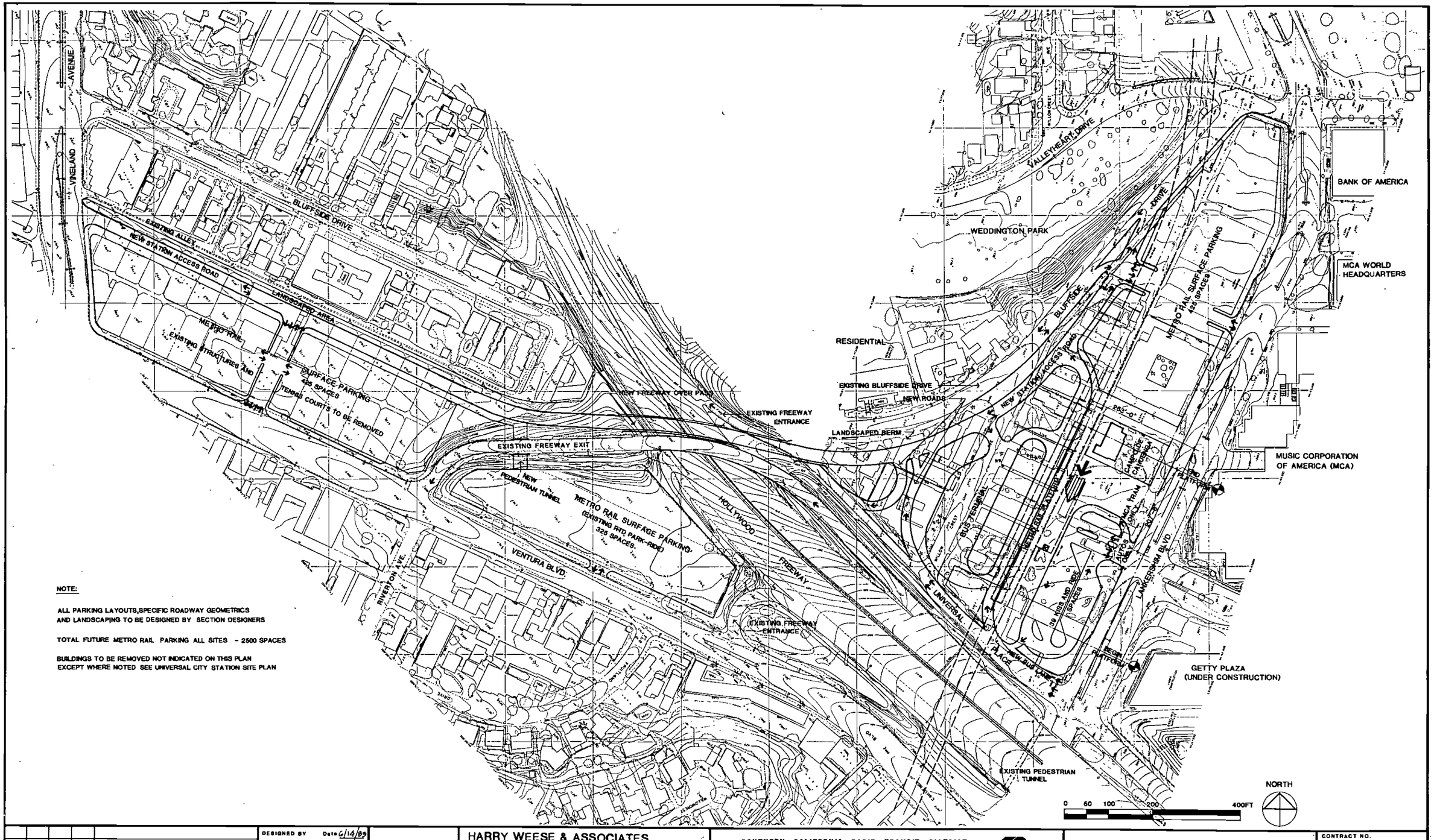
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC,
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

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

HOLLYWOOD BOWL STATION
UTILITY PLAN REARRANGEMENT

CONTRACT NO.
DRAWING NO. U-18
SCALE 1"=20'-0"
SHEET NO.

BRUNING 44-132



NOTE:

ALL PARKING LAYOUTS, SPECIFIC ROADWAY GEOMETRICS AND LANDSCAPING TO BE DESIGNED BY SECTION DESIGNERS

TOTAL FUTURE METRO RAIL PARKING ALL SITES - 2500 SPACES

BUILDINGS TO BE REMOVED NOT INDICATED ON THIS PLAN EXCEPT WHERE NOTED SEE UNIVERSAL CITY STATION SITE PLAN

REV.	DATE	BY	APP.	DESCRIPTION
	6-14-83		J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY H.W.A. Date 6/14/83
DRAWN BY K. LIM Date 6/14/83
CHECKED BY J. YEN Date 6/30/83

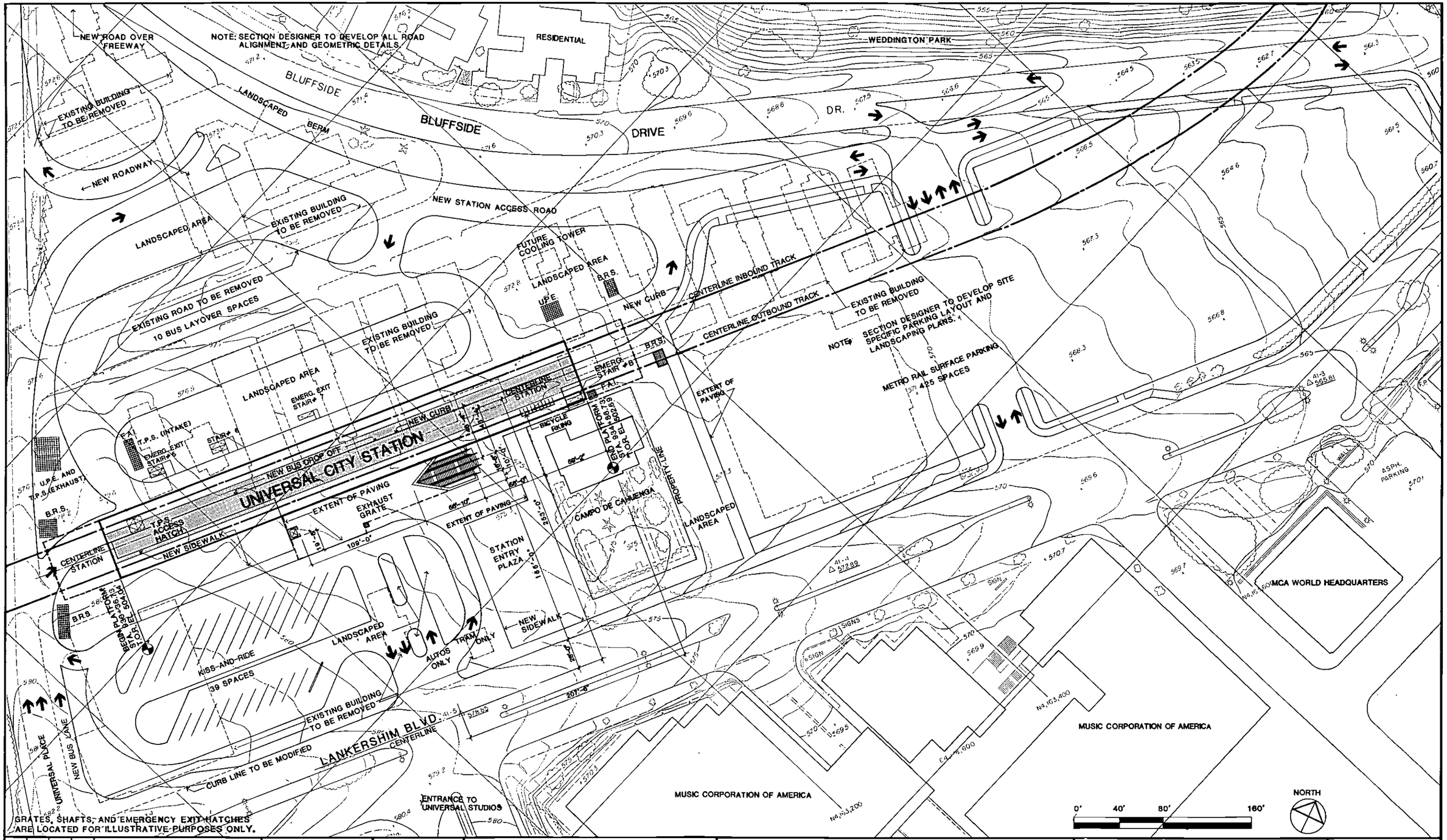
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

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

UNIVERSAL CITY STATION
VICINITY PLAN

PRELIMINARY

CONTRACT NO. A425
DRAWING NO. A-63
SCALE 1"= 100'
SHEET NO. 8 OF 20



REV.	DATE	BY	APP.	DESCRIPTION
	6-14-83		J.T.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY HWA Date 5-27-83
DRAWN BY A. SNIDER/K. LIM Date 6-2-83
CHECKED BY J.TEN Date 6-30-83

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

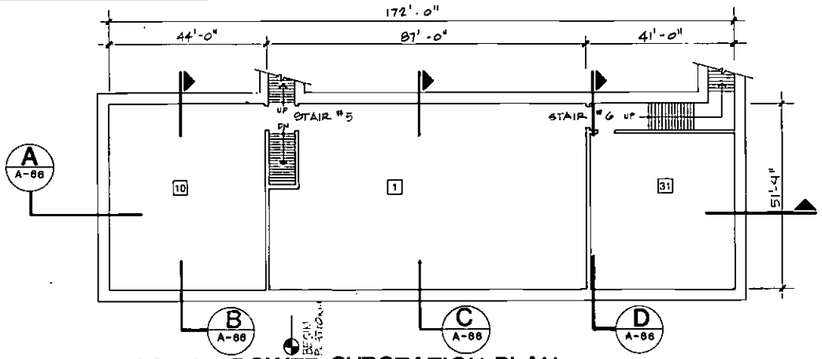
APPROVAL RECOMMENDED
Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

UNIVERSAL CITY STATION
SITE PLAN

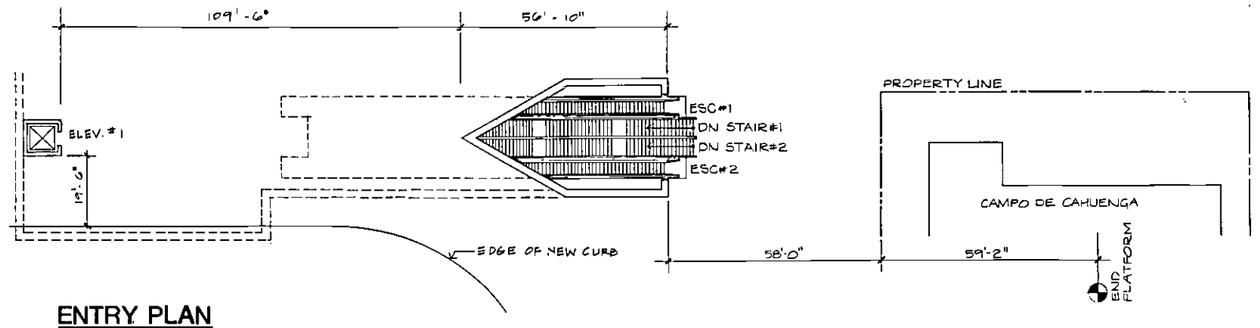
PRELIMINARY

CONTRACT NO. A425
DRAWING NO. A-64
SCALE 1"-40'-0"
SHEET NO. 9 OF 20

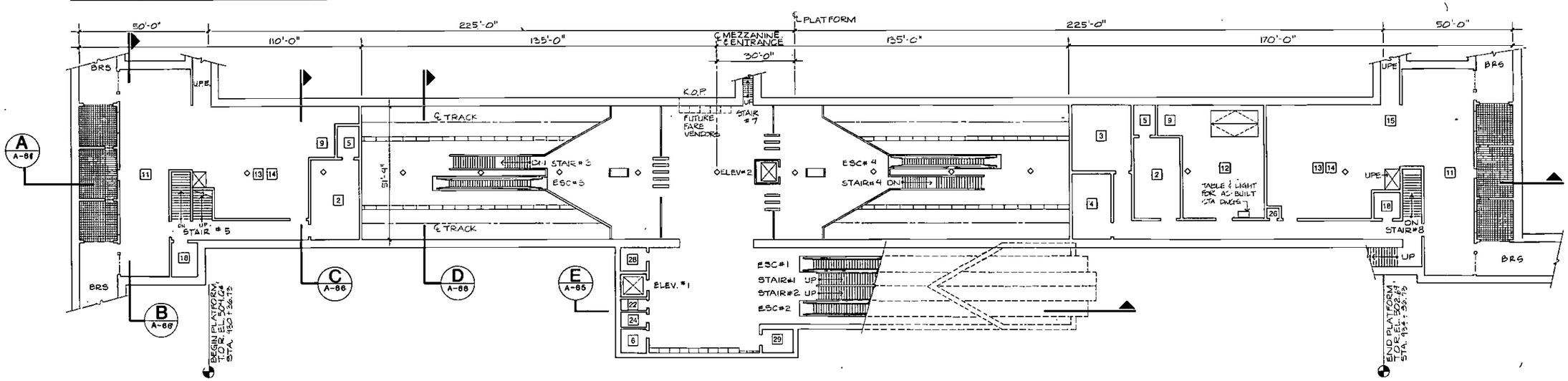
BRUNING 44-133



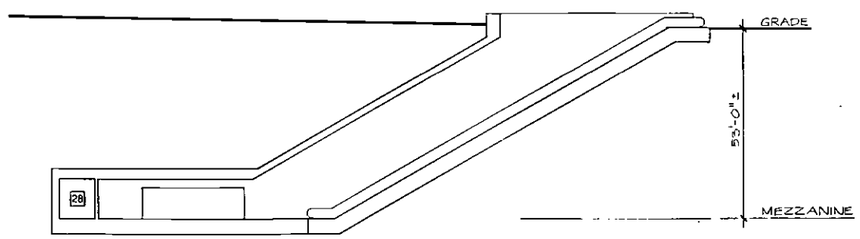
TRACTION POWER SUBSTATION PLAN



ENTRY PLAN



MEZZANINE PLAN



E SECTION THROUGH ENTRY

SERVICE AND EQUIPMENT ROOMS

1	Traction Power Substation	17	Ejector
2	Auxillary 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	**Deleted**	23	Electrical Equipment
8	Storage	24	**Toilet**
9	Mechanical	25	**Deleted**
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		

COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

0' 20' 40' 80'

NORTH

REV.	DATE	BY	APP.	DESCRIPTION
	6/15/83		J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY HWA Date 6/15/83
DRAWN BY A. SNIDER/K. LIM Date 6/15/83
CHECKED BY J. YEN Date 6-30-83

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

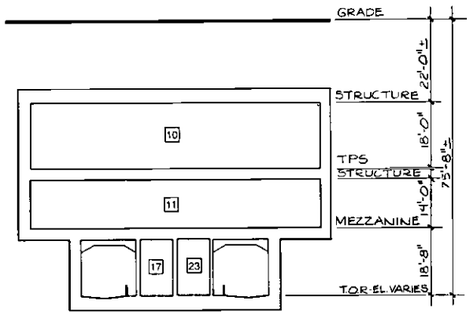
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD
APPROVAL RECOMMENDED — Reg. No.
APPROVED — Date — MANAGER / CHIEF ENGINEER — Reg. No.

UNIVERSAL CITY STATION
PLANS AND SECTION

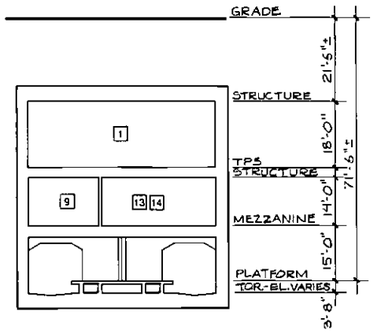
PRELIMINARY

CONTRACT NO. A425
DRAWING NO. A-65
SCALE 1"=20'-0"
SHEET NO. 14 OF 20

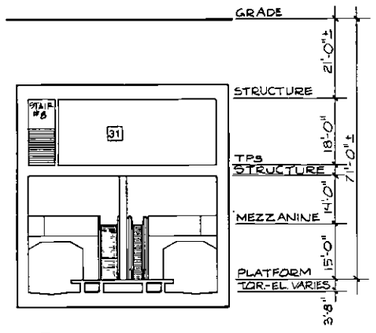
BRUNING 44-132



B TRANSVERSE SECTION



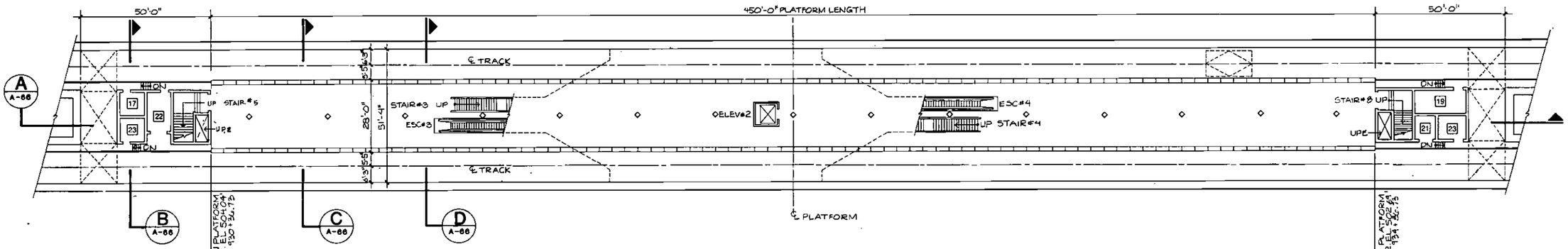
C TRANSVERSE SECTION



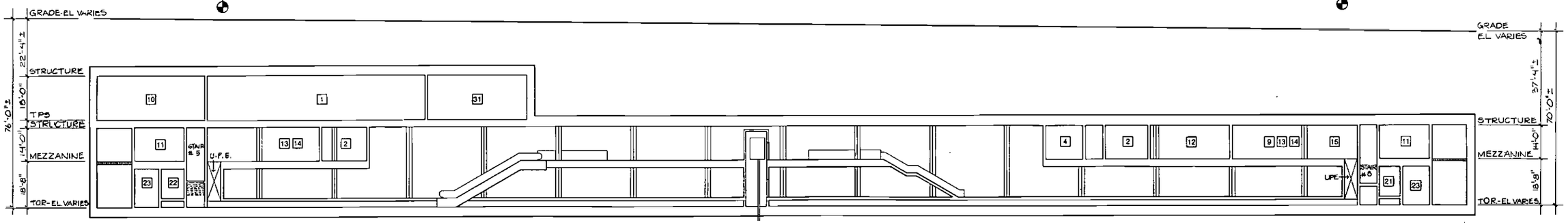
D TRANSVERSE SECTION

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	**Deleted**	23	Electrical Equipment
8	Storage	24	**Toilet**
9	Mechanical	25	**Deleted**
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		



PLATFORM PLAN



A LONGITUDINAL SECTION

NORTH

0' 20' 40' 80'

REV.	DATE	BY	APP.	DESCRIPTION
	6-15-83	J.Y.		REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY HWA Date 5-25-83
DRAWN BY A. SNIDER Date 5-25-83
CHECKED BY J.YEN Date 6-30-83

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

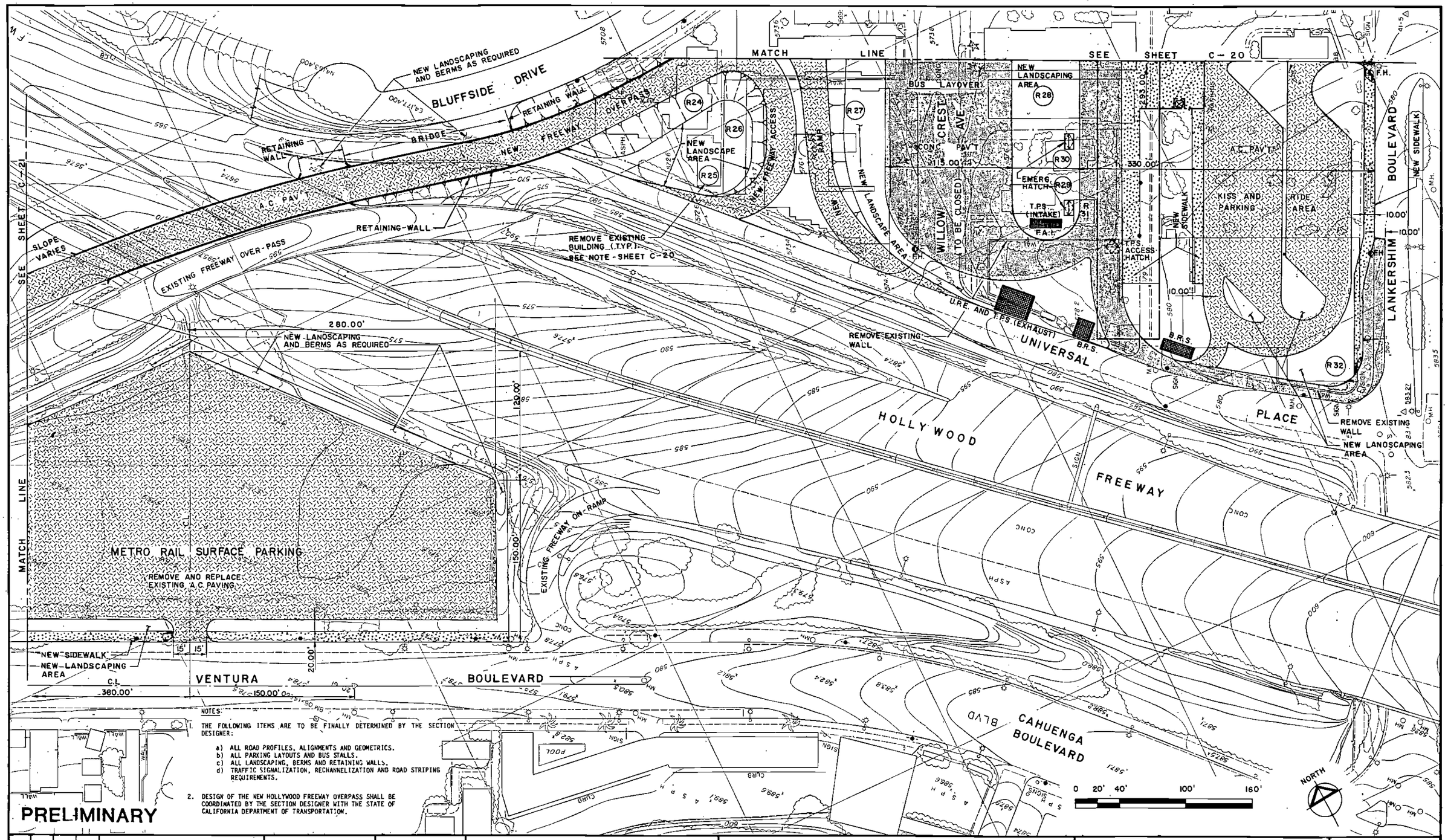
APPROVAL RECOMMENDED _____ Reg. No. _____

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

UNIVERSAL CITY STATION
PLAN AND SECTIONS

PRELIMINARY

CONTRACT NO. A425
DRAWING NO. A-66
SCALE 1"=20'-0"
SHEET NO. 15 OF 80



NOTES:

1. THE FOLLOWING ITEMS ARE TO BE FINALLY DETERMINED BY THE SECTION DESIGNER:
   a) ALL ROAD PROFILES, ALIGNMENTS AND GEOMETRICS.
   b) ALL PARKING LAYOUTS AND BUS STALLS.
   c) ALL LANDSCAPING, BERMS AND RETAINING WALLS.
   d) TRAFFIC SIGNALIZATION, RECHANNELIZATION AND ROAD STRIPING REQUIREMENTS.
2. DESIGN OF THE NEW HOLLYWOOD FREEWAY OVERPASS SHALL BE COORDINATED BY THE SECTION DESIGNER WITH THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION.

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 6/15/83
DRAWN BY HWW Date 6/17/83
CHECKED BY JLD Date 6/18/83

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

SUBMITTED BY:
PROJECT MANAGER

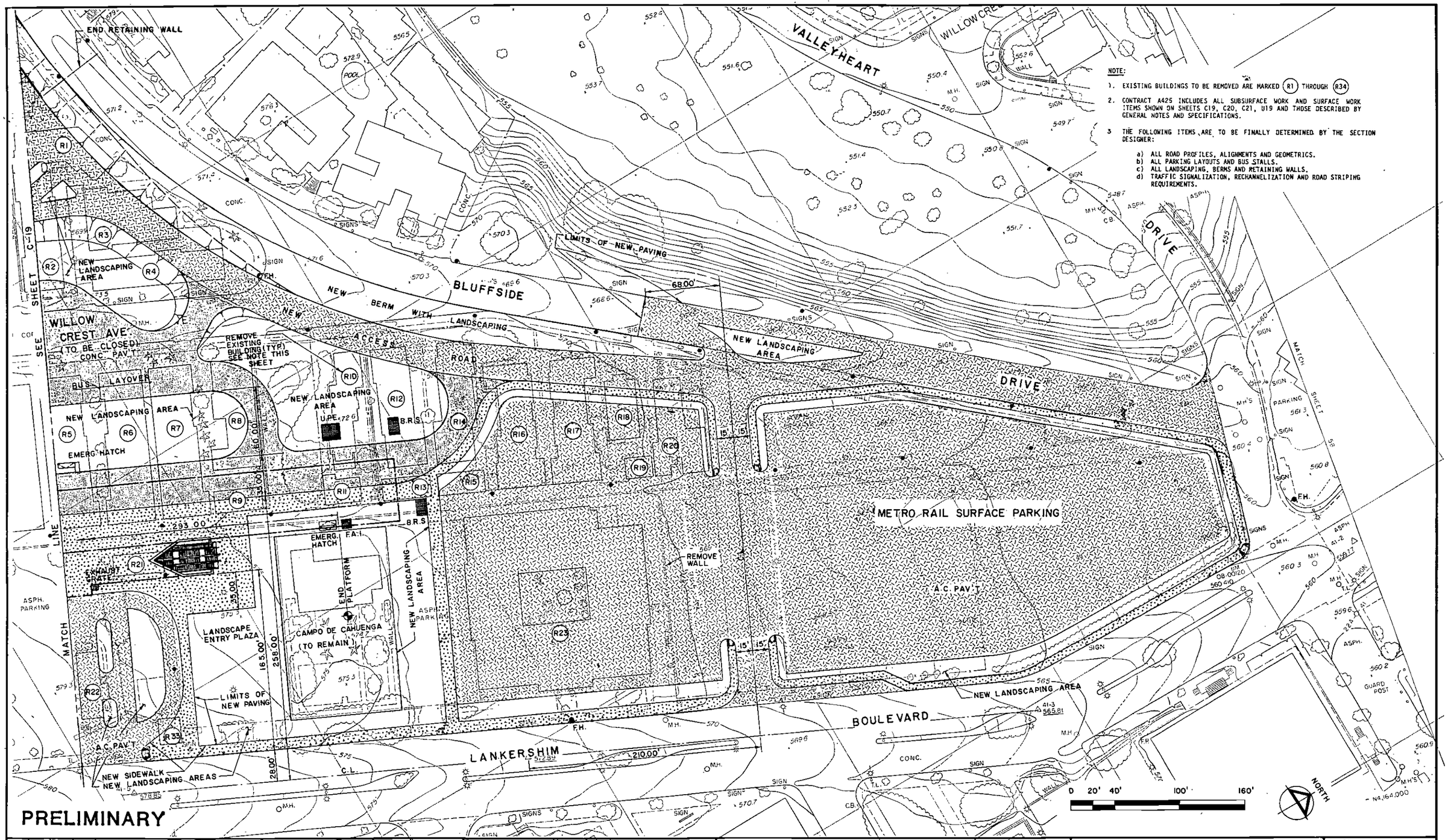
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

APPROVAL RECOMMENDED
Reg. No.

APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

UNIVERSAL CITY STATION
CIVIL SITE PLAN
SOUTH END

CONTRACT NO. A425
DRAWING NO. C-19
SCALE 1" = 40' - 0"
SHEET NO. 10 OF 20



NOTE:

1. EXISTING BUILDINGS TO BE REMOVED ARE MARKED (R1) THROUGH (R34)
2. CONTRACT A425 INCLUDES ALL SUBSURFACE WORK AND SURFACE WORK ITEMS SHOWN ON SHEETS C19, C20, C21, U19 AND THOSE DESCRIBED BY GENERAL NOTES AND SPECIFICATIONS.
3. THE FOLLOWING ITEMS ARE TO BE FINALLY DETERMINED BY THE SECTION DESIGNER:
   a) ALL ROAD PROFILES, ALIGNMENTS AND GEOMETRICS.
   b) ALL PARKING LAYOUTS AND BUS STALLS.
   c) ALL LANDSCAPING, BERMS AND RETAINING WALLS.
   d) TRAFFIC SIGNALIZATION, RECHANNELIZATION AND ROAD STRIPING REQUIREMENTS.

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 6/15/83
DRAWN BY HWW Date 6/17/83
CHECKED BY JLD Date 6/18/83

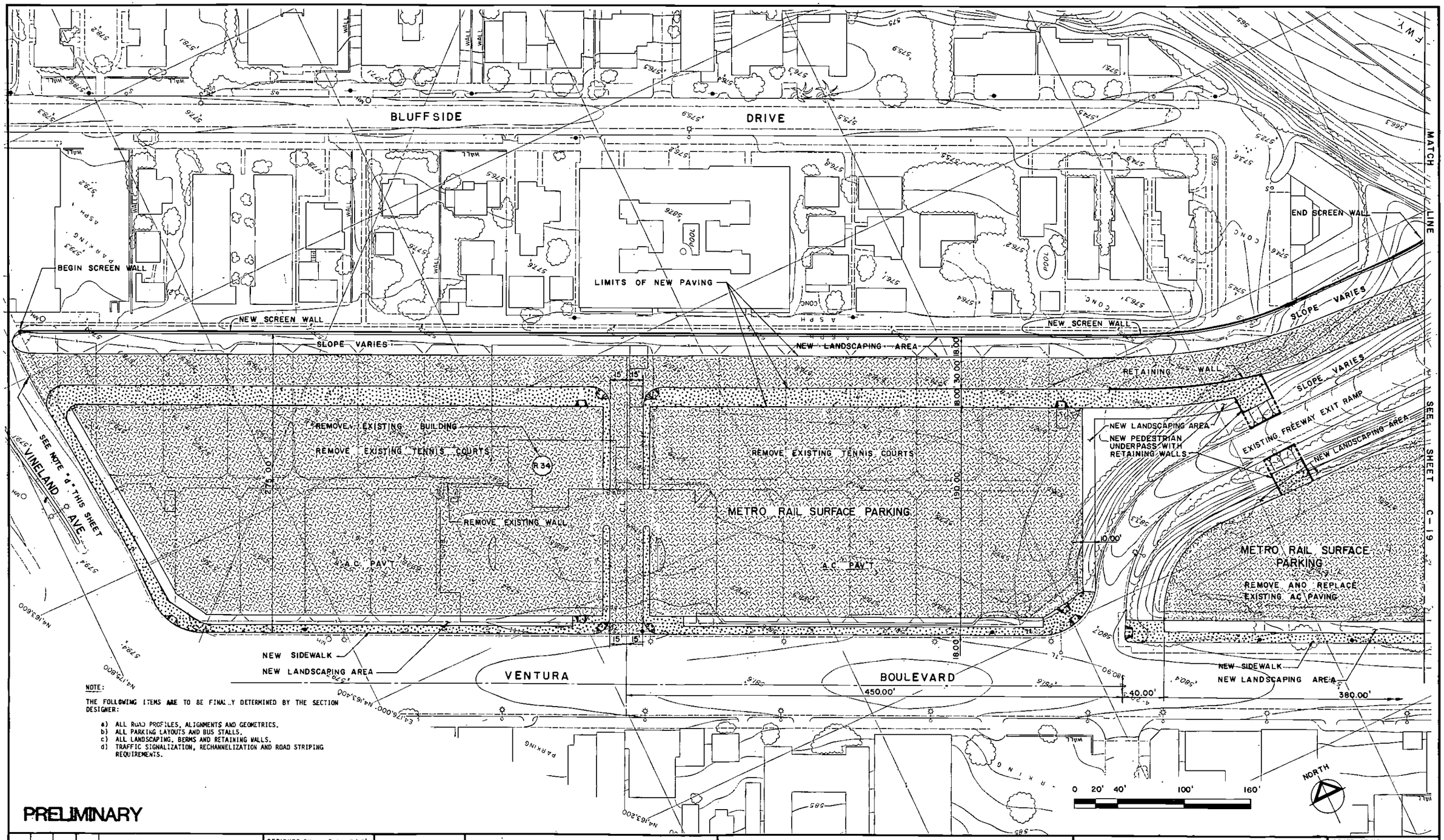
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

UNIVERSAL CITY STATION
CIVIL SITE PLAN
NORTH END

CONTRACT NO. A425
DRAWING NO. C-20
SCALE 1" = 40'-0"
SHEET NO. 11 OF 20



NOTE:

THE FOLLOWING ITEMS ARE TO BE FINALLY DETERMINED BY THE SECTION DESIGNER:

a) ALL ROAD PROFILES, ALIGNMENTS AND GEOMETRICS.
b) ALL PARKING LAYOUTS AND BUS STALLS.
c) ALL LANDSCAPING, BERMS AND RETAINING WALLS.
d) TRAFFIC SIGNALIZATION, RECHANNELIZATION AND ROAD STRIPING REQUIREMENTS.

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

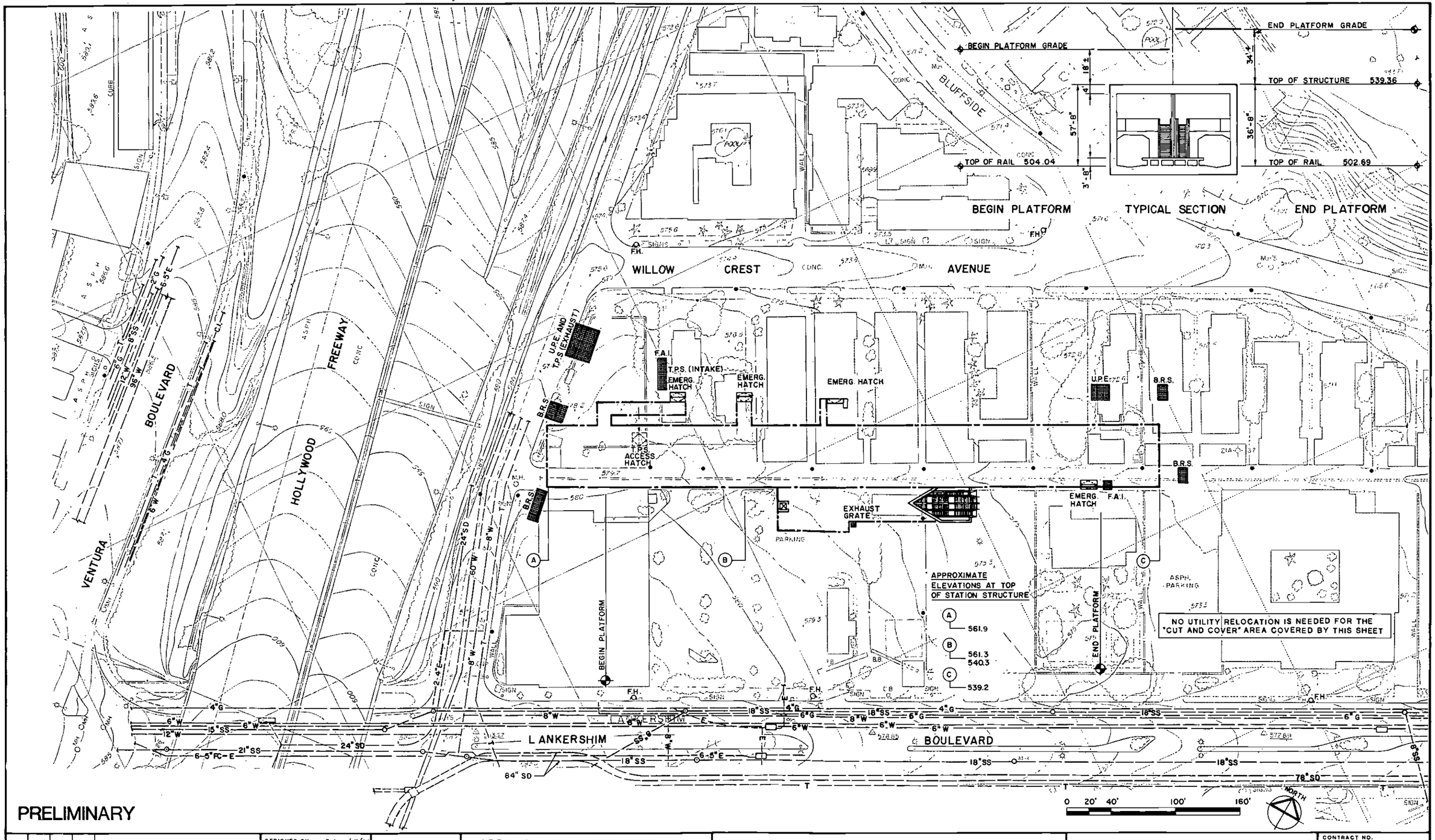
DESIGNED BY TAMS Date 6/15/83
DRAWN BY HWW Date 6/17/83
CHECKED BY JLD Date 6/18/83

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
CIVIL SITE PLAN
SURFACE PARKING - WEST

CONTRACT NO. A425
DRAWING NO. C-21
SCALE 1" = 40'-0"
SHEET NO. 12 OF 20



PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 6/17/83
DRAWN BY HWW/RGL Date 6/17/83
CHECKED BY JLD Date 6/17/83

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.

UNIVERSAL CITY STATION
UTILITY PLAN REARRANGEMENT

CONTRACT NO. A425
DRAWING NO. U-19
SCALE 1" = 40'-0"
SHEET NO. 13 OF 20

ALLEN KANE FORD

AUTO SERVICE BAYS

ELMER AVENUE

EXISTING RESIDENTIAL

KLUMP AVENUE

EXISTING RESIDENTIAL

BONNER AVENUE

CUMPSTON STREET

NEW SIDEWALK LINE

LANKERSHIM BOULEVARD

CROSS ROADS CHEVROLET

LOW RISE COMMERCIAL

OUTBOUND LRT TRACK

INBOUND LRT TRACK

NEW SIDEWALK LINE

EXISTING BUILDINGS TO BE REMOVED

METRO RAIL SURFACE PARKING
(650 SPACES)

FUTURE PARKING STRUCTURE
(2500 SPACES)

SECTION DESIGNER TO DEVELOP SITE-SPECIFIC PARKING LAYOUT AND LANDSCAPING PLANS

FAIR AVENUE (EXISTING)

FAIR AVENUE (RELOCATED)

AUTO WORKSHOP

WINCHELL'S DONUTS

BACKSTAGE CAR & TRUCK RENTAL

CHANDLER BOULEVARD (EXISTING)

END PLATFORM STA 1052+54.51 TOP OF RAIL EL. 561.35

CHANDLER NORTH (PROPOSED)

NORTH HOLLYWOOD STATION

FUTURE COOLING TOWER

33'-0"

45'-6"

42'-0"

27'-6"

BICYCLE PARKING

EXTENT OF PAVING

60'-0"

75'-0"

6 BUSES LOADING & UNLOADING

BUS TERMINAL & LAYOVER AREA

6 BUSES LAYOVER AREA

NEW SIDEWALK LINE

CHANDLER NORTH (PROPOSED)

MATCHLINE SEE DWG. A-88

NORTH

0' 40' 80' 160'

REV.	DATE	BY	APP.	DESCRIPTION
	7/6/83	J.Y.		REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY HWA Date 6-6-83

DRAWN BY S DEBNATH Date 6/6/83

CHECKED BY J.YEN Date 6-30-83

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
SITE PLAN - NORTH

PRELIMINARY

CONTRACT NO. A445

DRAWING NO. A-67

SCALE 1" = 40'-0"

SHEET NO. 11 OF 26

MATCHLINE SEE DWG. A-67

CHANDLER NORTH (PROPOSED)

SOUTHERN PACIFIC SERVICE TRACK TO BE REMOVED

SOUTHERN PACIFIC TRACK TO REMAIN

SECTION DESIGNER TO DEVELOP SITE-SPECIFIC PARKING LAYOUT AND LANDSCAPING PLANS

METRO RAIL SURFACE PARKING AND KISS-&-RIDE (TOTAL CAPACITY: 230 SPACES)

EXISTING BUILDINGS TO BE REMOVED

FAIR AVENUE (EXISTING)

FAIR AVENUE (RELOCATED)

NEW SIDEWALK LINE

CHANDLER SOUTH (EXISTING)

HENDRICK'S BUILDER SUPPLY CO.

RAMP

WALL

EXTENT OF PAVING

PARKING

F.A.I.

LINES OF EXISTING STRUCTURE

NORTH HOLLYWOOD STATION

BEGIN PLATFORM STA 1048+04.51 TOP OF RAIL EL. 580.00

EMERG. STAIR

TPS

TPS

LOW RISE COMMERCIAL

LOW RISE COMMERCIAL

BAKMAN AVENUE

PARKING

ASPH.

SIGN

PMS

RMS

WALL

SIDEWALK CROSSOVER

CLUTCH TRACK

LANKERSHIM BOULEVARD

B.R.S.

WEDDINGTON STREET

NORTH

0' 40' 80' 160'

REV.	DATE	BY	APP.	DESCRIPTION
	7/6/83	J.Y.		REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION.

DESIGNED BY H WA Date 6-14-83

DRAWN BY S DEBNATH Date 6/14/83

CHECKED BY J.TEN Date 6-30-83

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
SITE PLAN - SOUTH

PRELIMINARY

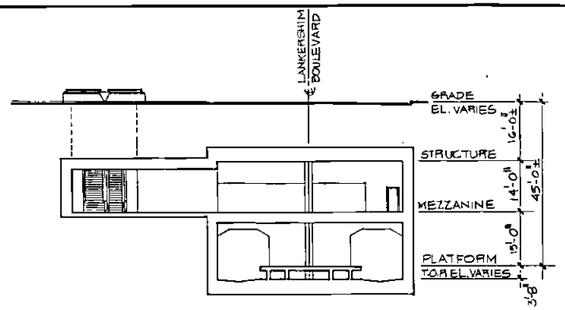
CONTRACT NO. A445

DRAWING NO. A-68

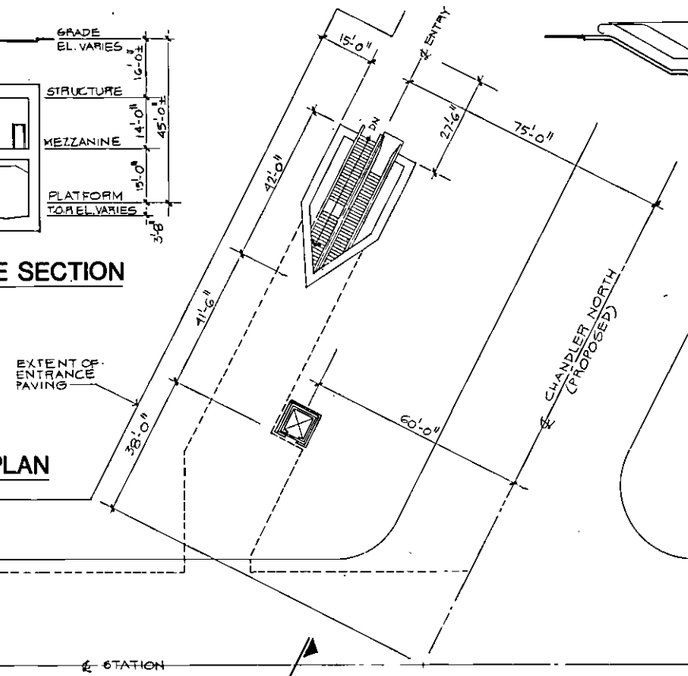
SCALE 1" = 40'-0"

SHEET NO. 12 OF 26

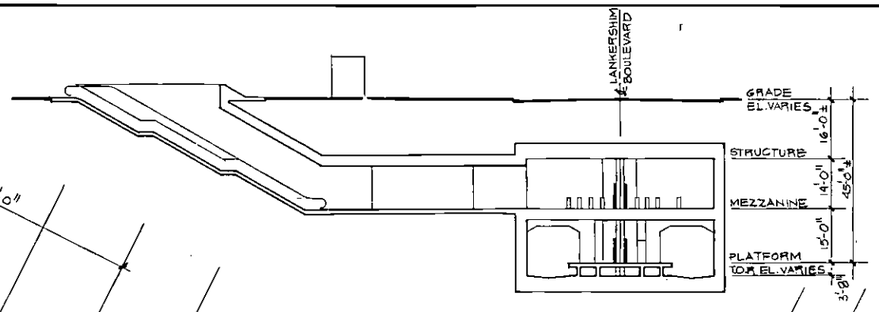
BRUNING 44-132



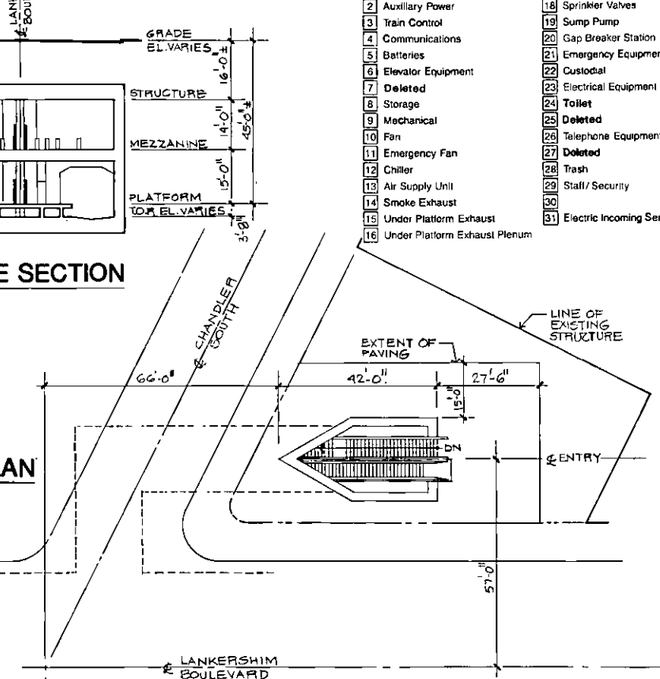
F TRANSVERSE SECTION



NORTH ENTRANCE PLAN



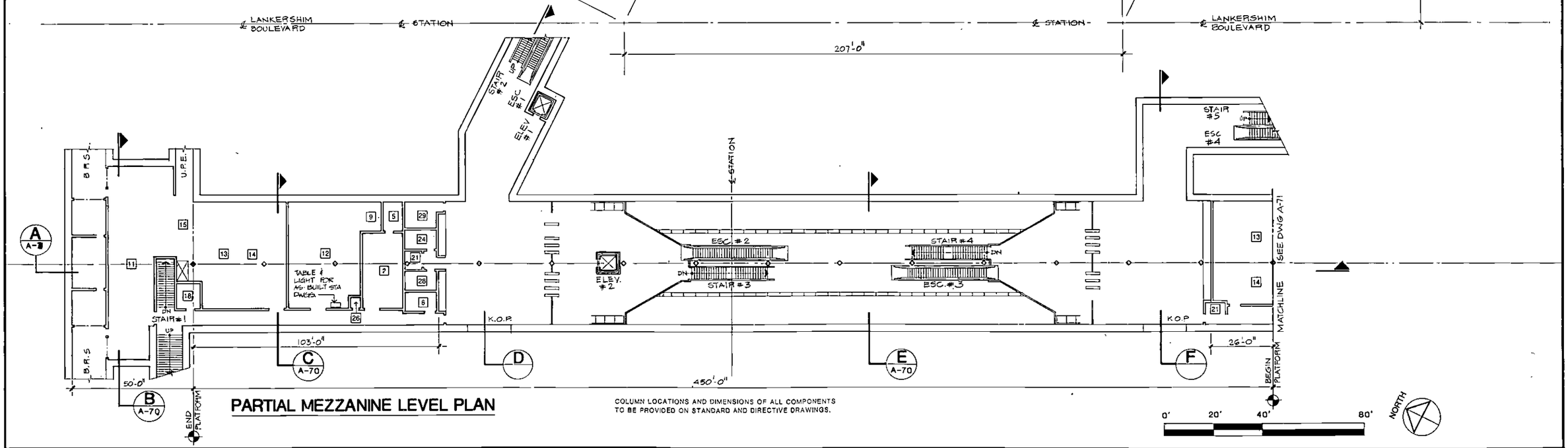
D TRANSVERSE SECTION



SOUTH ENTRANCE 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	**Deleted**	23	Electrical Equipment
8	Storage	24	**Toilet**
9	Mechanical	25	**Deleted**
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	
15	Under Platform Exhaust	31	Electric Incoming Service
16	Under Platform Exhaust Plenum		



PARTIAL MEZZANINE LEVEL PLAN

COLUMN LOCATIONS AND DIMENSIONS OF ALL COMPONENTS TO BE PROVIDED ON STANDARD AND DIRECTIVE DRAWINGS.

REV.	DATE	BY	APP.	DESCRIPTION
	7/15/63		J.Y.	REVISIONS TO AUXILIARY ROOMS FOR COST REDUCTION.

DESIGNED BY HWA Date 6-15-63
DRAWN BY S DEBNATH Date 6/15/63
CHECKED BY J. YEN Date 6-30-63

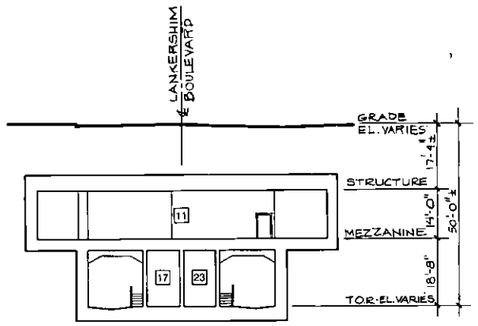
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY:
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

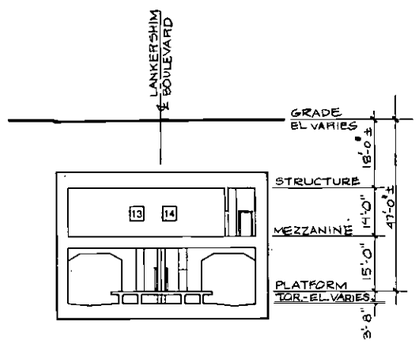
APPROVAL RECOMMENDED
Reg. No.
APPROVED Date
MANAGER / CHIEF ENGINEER Reg. No.

NORTH HOLLYWOOD STATION
PLANS & SECTIONS
PRELIMINARY

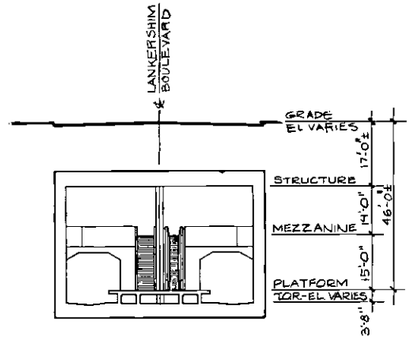
CONTRACT NO. A445
DRAWING NO. A-69
SCALE 1"=20'-0"
SHEET NO. 17 OF 26



B TRANSVERSE SECTION



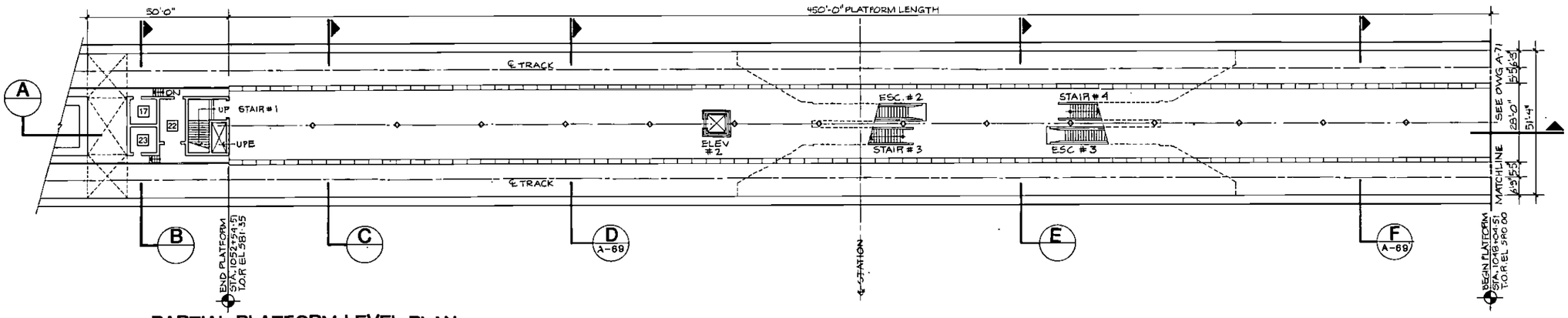
C TRANSVERSE SECTION



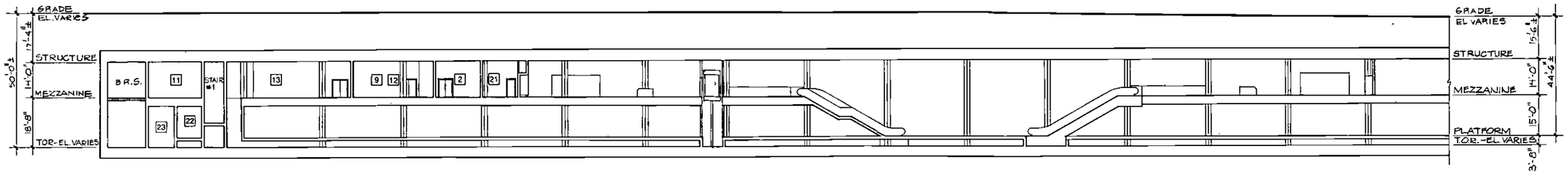
E TRANSVERSE SECTION

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	**Deleted**	23	Electrical Equipment
8	Storage	24	**Toilet**
9	Mechanical	25	**Deleted**
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		



PARTIAL PLATFORM LEVEL PLAN



A PARTIAL LONGITUDINAL SECTION

0' 20' 40' 60'

NORTH

REV.	DATE	BY	APP.	DESCRIPTION
	1/4/83		J.Y.	REVISIONS TO ANCILLARY ROOMS FOR COST REDUCTION

DESIGNED BY HWA Date 6-6-83
DRAWN BY S DEBNATH Date 6/6/83
CHECKED BY J.YEN Date 6-30-83

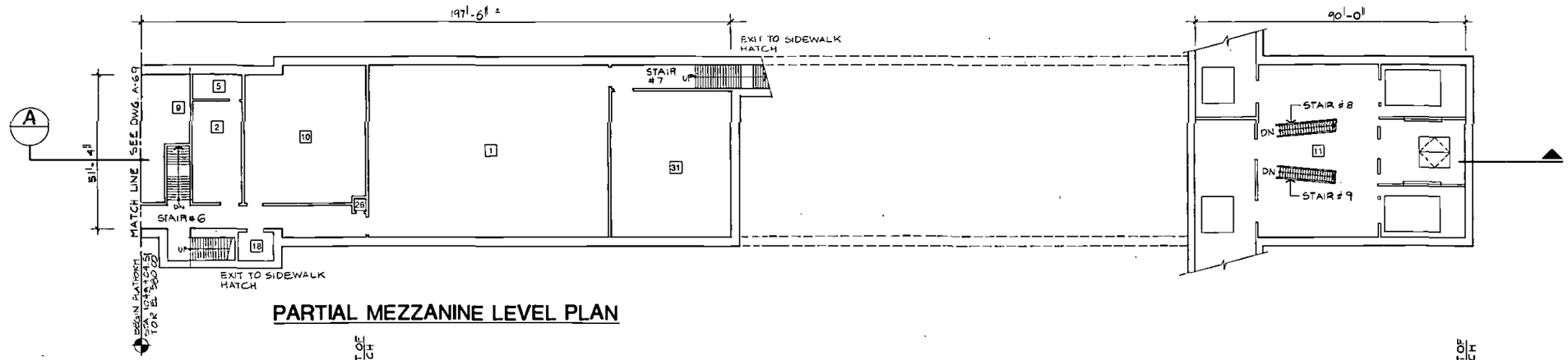
HARRY WEESE & ASSOCIATES
TIPPETTS-ABBETT-McCARTHY-STRATTON
ENVIRONMENTAL COLLABORATIVE, INC.
GIN WONG ASSOCIATES
General Architectural Consultants: Stations
SUBMITTED BY: [signature]
PROJECT MANAGER

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

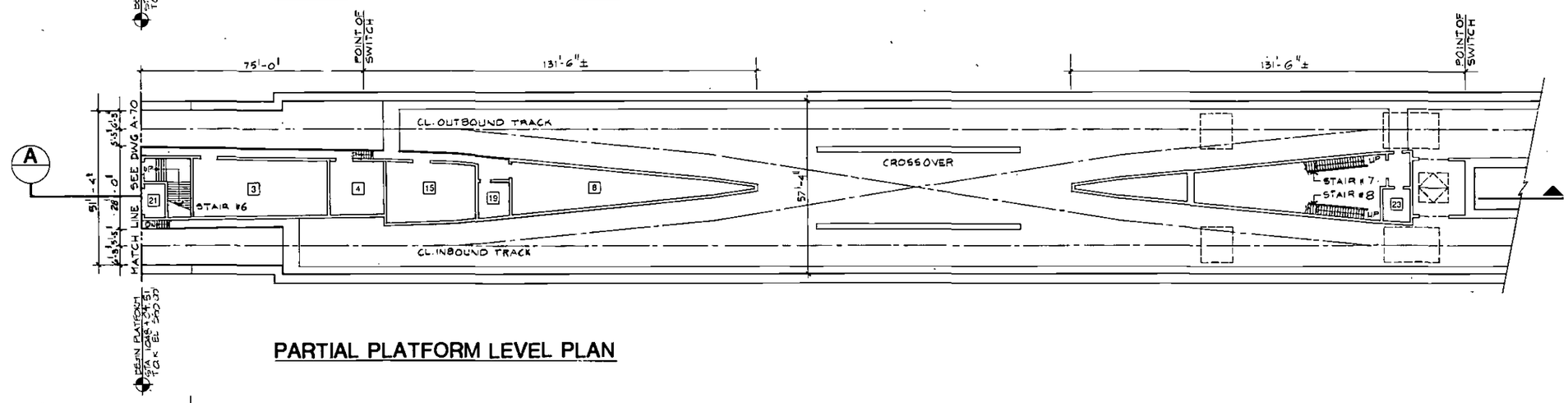
APPROVAL RECOMMENDED _____ Reg. No. _____
APPROVED _____ Date _____
MANAGER / CHIEF ENGINEER Reg. No. _____

NORTH HOLLYWOOD STATION
PLANS & SECTIONS
PRELIMINARY

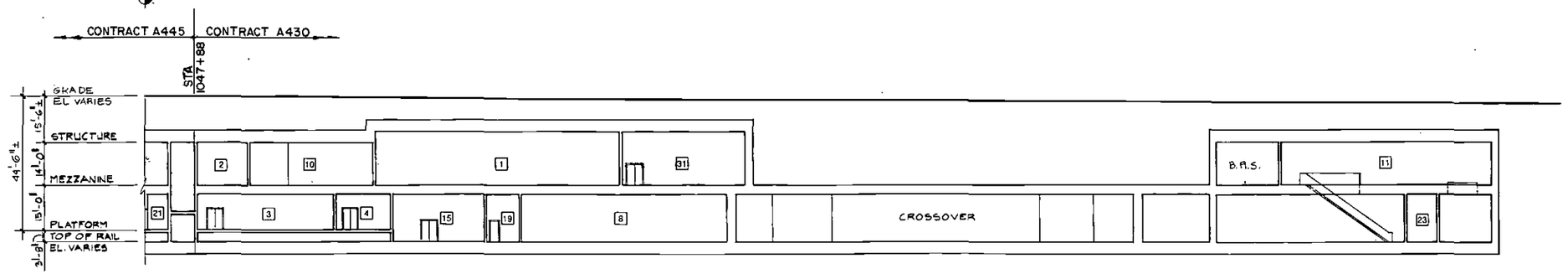
CONTRACT NO. A445
DRAWING NO. A-70
SCALE 1"=20'-0"
SHEET NO. 18 OF 26



PARTIAL MEZZANINE LEVEL PLAN



PARTIAL PLATFORM LEVEL PLAN



A PARTIAL LONGITUDINAL SECTION

0' 20' 40' 80'

NORTH

SERVICE AND EQUIPMENT ROOMS

1. Traction Power Substation
2. Auxiliary Power
3. Train Control
4. Communications
5. Batteries
6. Elevator Equipment
7. **Deleted**
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. **Toilet**
25. **Deleted**
26. Telephone Equipment
27. **Deleted**
28. Trash
29. Staff / Security
30. **Deleted**
31. Electric Incoming Service

REV.	DATE	BY	APP.	DESCRIPTION
	11-1-83		J.T.	REVISIONS TO ANCILLARY STAIRS FOR COST REDUCTION

DESIGNED BY HWA Date 6-14-83
DRAWN BY S DEBNATH Date 6/9/83
CHECKED BY J.YEN Date 6-30-83

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

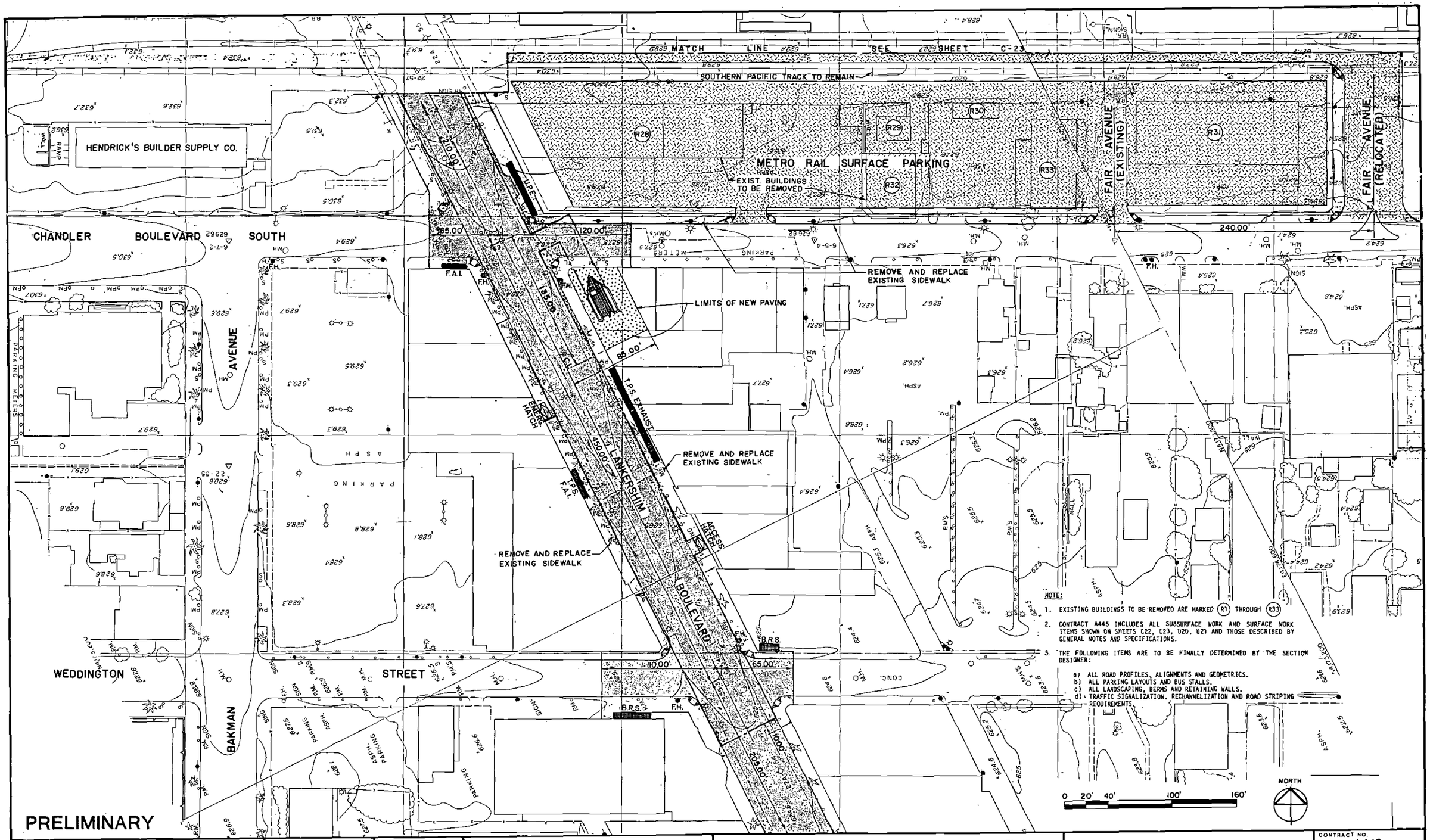
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

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

NORTH HOLLYWOOD STATION
PLANS & SECTIONS

PRELIMINARY

CONTRACT NO. A430 & A445
DRAWING NO. A-71
SCALE 1"=20'-0"
SHEET NO. 19 OF 26



NOTE:

1. EXISTING BUILDINGS TO BE REMOVED ARE MARKED (R1) THROUGH (R33)
2. CONTRACT A445 INCLUDES ALL SUBSURFACE WORK AND SURFACE WORK ITEMS SHOWN ON SHEETS C22, C23, U20, U21 AND THOSE DESCRIBED BY GENERAL NOTES AND SPECIFICATIONS.
3. THE FOLLOWING ITEMS ARE TO BE FINALLY DETERMINED BY THE SECTION DESIGNER:
   a) ALL ROAD PROFILES, ALIGNMENTS AND GEOMETRICS.
   b) ALL PARKING LAYOUTS AND BUS STALLS.
   c) ALL LANDSCAPING, BERMS AND RETAINING WALLS.
   d) TRAFFIC SIGNALIZATION, RECHANNELIZATION AND ROAD STRIPING REQUIREMENTS.

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 6/17/83
DRAWN BY RGL Date 6/17/83
CHECKED BY JLD Date 6/17/83

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.

NORTH HOLLYWOOD STATION
CIVIL SITE PLAN
SOUTH END

CONTRACT NO. A445
DRAWING NO. C-22
SCALE 1"=40'-0"
SHEET NO. 13 of 26

BRUNING 44 132

MATCH LINE SEE SHEET U-21

CHANDLER BOULEVARD SOUTH

FAIR AVENUE

AVENUE

LANKERSHIM BOULEVARD

BAKMAN AVENUE

WEDDINGTON STREET

BEGIN PLATFORM

EMERG. HATCH

T.P.S. EXHAUST

ACCESS HATCH

F.A.I.

B.R.S.

APPROXIMATE ELEVATION AT TOP OF STATION STRUCTURE

C	617.4
D	616.4 / 620.4
E	620.1 / 598.1
F	597.6 / 615.6
G	615.3

0 20' 40' 100' 160'

NORTH

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 6/17/83

DRAWN BY RGL Date 6/17/83

CHECKED BY JLD Date 6/17/83

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.

NORTH HOLLYWOOD STATION
UTILITY PLAN REARRANGEMENT
SOUTH END

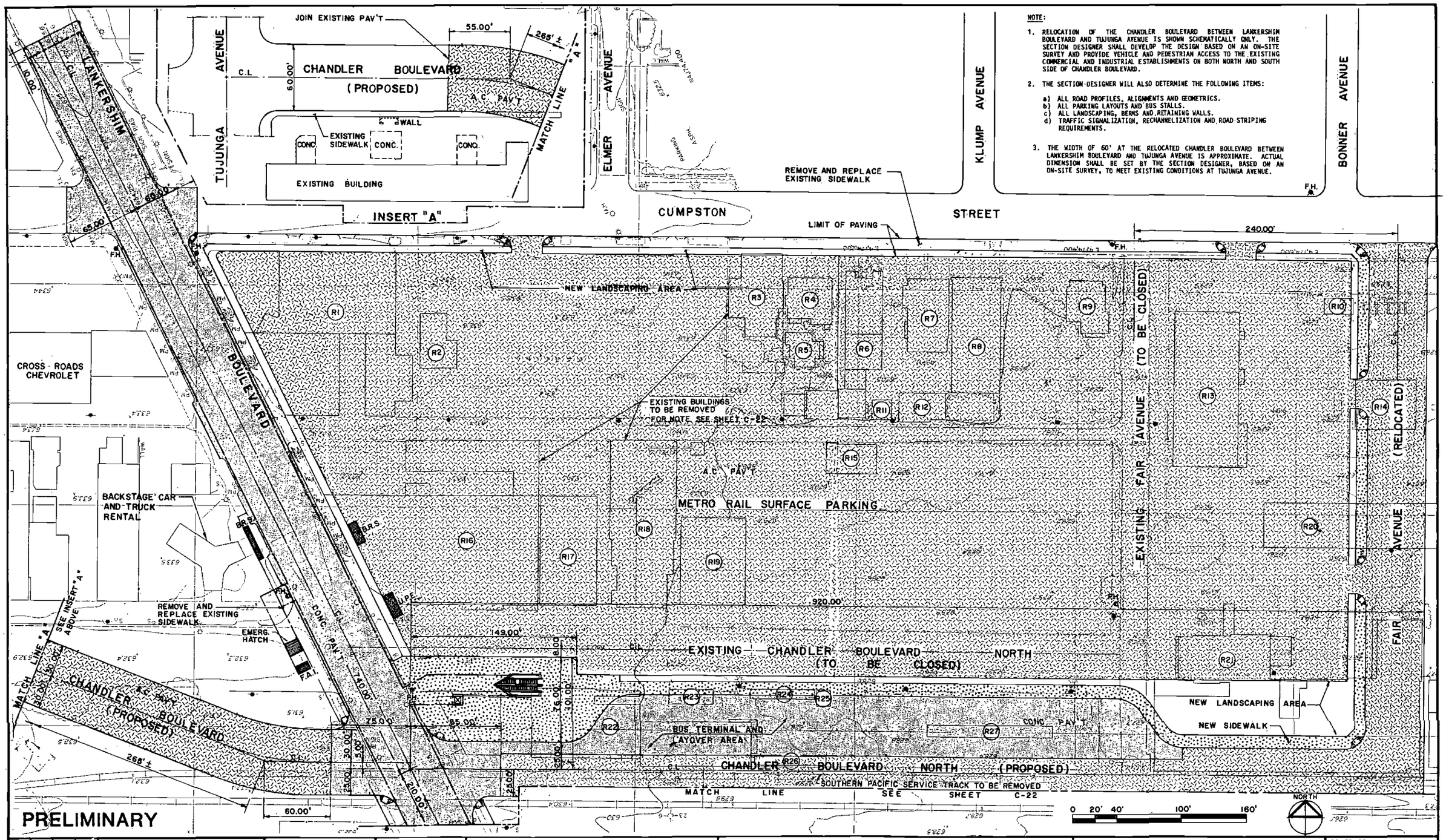
CONTRACT NO. A445

DRAWING NO. U-20

SCALE 1"=40'-0"

SHEET NO. 15 OF 26

BRUNING 64-132



NOTE:

1. RELOCATION OF THE CHANDLER BOULEVARD BETWEEN LANKERSHIM BOULEVARD AND TUJUNGA AVENUE IS SHOWN SCHEMATICALLY ONLY. THE SECTION DESIGNER SHALL DEVELOP THE DESIGN BASED ON AN ON-SITE SURVEY AND PROVIDE VEHICLE AND PEDESTRIAN ACCESS TO THE EXISTING COMMERCIAL AND INDUSTRIAL ESTABLISHMENTS ON BOTH NORTH AND SOUTH SIDE OF CHANDLER BOULEVARD.
2. THE SECTION-DESIGNER WILL ALSO DETERMINE THE FOLLOWING ITEMS:
   a) ALL ROAD PROFILES, ALIGNMENTS AND GEOMETRICS.
   b) ALL PARKING LAYOUTS AND BUS STALLS.
   c) ALL LANDSCAPING, BERMS AND RETAINING WALLS.
   d) TRAFFIC SIGNALIZATION, RECHANNELIZATION AND ROAD STRIPING REQUIREMENTS.
3. THE WIDTH OF 60' AT THE RELOCATED CHANDLER BOULEVARD BETWEEN LANKERSHIM BOULEVARD AND TUJUNGA AVENUE IS APPROXIMATE. ACTUAL DIMENSION SHALL BE SET BY THE SECTION DESIGNER, BASED ON AN ON-SITE SURVEY, TO MEET EXISTING CONDITIONS AT TUJUNGA AVENUE.

PRELIMINARY

REV.	DATE	BY	APP.	DESCRIPTION

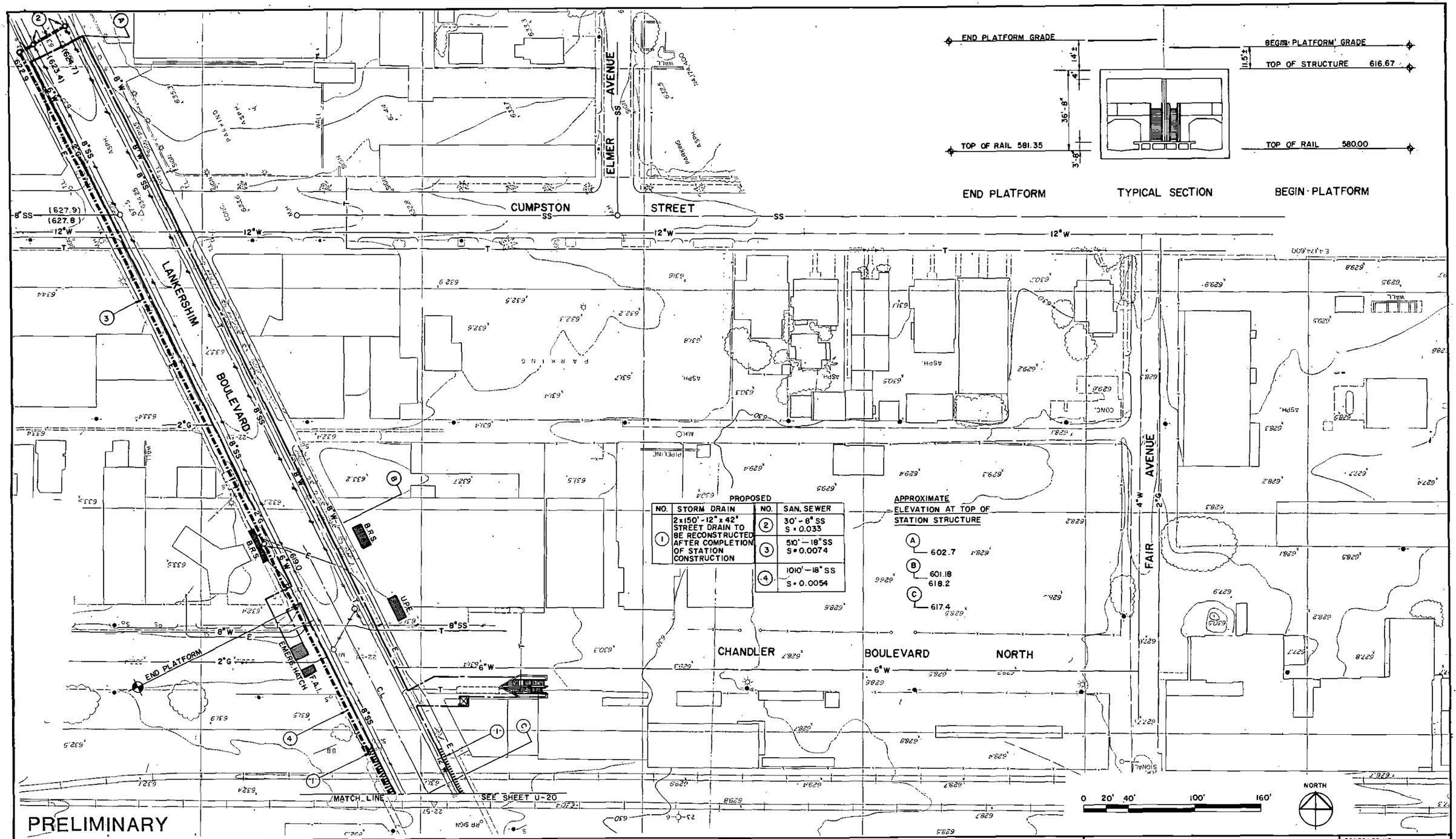
DESIGNED BY TAMS Date 6/17/83
DRAWN BY RGL Date 6/17/83
CHECKED BY JLD Date 6/17/83

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.

NORTH HOLLYWOOD STATION
CIVIL SITE PLAN
NORTH END

CONTRACT NO. A445
DRAWING NO. C-23
SCALE 1"= 40'-0"
SHEET NO. 14 OF 22



REV.	DATE	BY	APP.	DESCRIPTION

DESIGNED BY TAMS Date 6/17/83
DRAWN BY RGL Date 6/17/83
CHECKED BY JLD Date 6/17/83

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.

NORTH HOLLYWOOD STATION
UTILITY PLAN REARRANGEMENT
NORTH END

CONTRACT NO. A 445
DRAWING NO. U-21
SCALE 1"=40'-0"
SHEET NO. 16 of 26

APPENDIX B
ARCHITECTURAL STANDARD AND DIRECTIVE DRAWINGS

General Notes

1. ALL DIMENSIONS FOR LOCATING THE PRIMARY FUNCTIONAL ELEMENTS ARE ESTABLISHED IN STANDARD AND DIRECTIVE DRAWINGS.

2. THE LOCATION AND APPROXIMATE SIZING OF ALL STRUCTURAL ELEMENTS ARE ESTABLISHED IN THE STRUCTURAL STANDARD AND DIRECTIVE DRAWINGS.

3. THE EXACT QUANTITIES AND FINAL LOCATIONS OF ALL FARE COLLECTION EQUIPMENT INCLUDING TICKETING VENDING MACHINES, BILL CHANGERS, FARE GATES AND ADD FARES WILL BE PROVIDED TO THE A/E. (SEE NOTE 7.)

4. THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE "SYSTEM DESIGN CRITERIA & STANDARDS, VOL. 3, STATIONS."

5. *THE A/E MAY BE REQUIRED TO CROSS REFERENCE STANDARD DRAWINGS WITH OTHER* CONTRACT DOCUMENTS OR TO MODIFY STANDARD DRAWINGS TO FIT SITE SPECIFIC CONDITIONS.

6. EXCEPT AS NOTED THE COLUMN SHAPE AND SIZE SHOWN IN PLAN IS AT THE DISCRETION OF THE A/E.

7. FARE COLLECTION AND CRASH GATE DEVICES ARE N.I.C. AND ARE SHOWN ON PLANS FOR LOCATION ONLY. (SEE NOTE 3)

Sealant, Caulking & Joint Filler Legend

1-SRS	ONE-PART SILICONE RUBBER SEALANT
2-PUMS	TWO-PART POLYURETHANE MODIFIED SEALANT
2-PUS	TWO-PART POLYURETHANE SEALANT
RBC	RUBBERIZED BITUMINOUS COMPOUND
BRS	BUTYL RUBBER SEALANT
ALS	ACRYLIC-LATEX SEALANT
SSS	SILICONE SANITARY SEALANT
BJFRN	BITUMINOUS JOINT FILLER
VFJV	PVC FOAM JOINT FILLER
EPEJF	EXPANDED POLYETHYLENE JOINT FILLER
CSNG	CONCEALED, EXPANDED NEOPRENE GASKET

Abbreviations

A/E	ARCHITECT / ENGINEER (STATION DESIGNER)
ARCH.	ARCHITECT (ARCHITECTURAL)
APPROX.	APPROXIMATE
@	AT
ALUM.	ALUMINUM
A.F.F.	ABOVE FINISH FLOOR
AUX.	AUXILLIARY
BM.	BEAM
BET.	BETWEEN
B.R.S.	BLAST RELIEF SHAFT
B.S.	BOTH SIDES
BOT.	BOTTOM
BLDG.	BUILDING
CLG.	CEILING
C.L. or ℄	CENTER LINE
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CCTV	CLOSED CIRCUIT TELEVISION
COL.	COLUMN
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
C.T.	CERAMIC TILE
CONT.	CONTINUOUS
C.O.	CONVENIENCE OUTLET
DET.	DETAIL
DIA. or Ø	DIAMETER
DIM.	DIMENSION
D.F.	DRINKING FOUNTAIN
DN.	DOWN
DWG.	DRAWING
E.	EAST
ELECT.	ELECTRICAL
EL.	ELEVATION
ELEV.	ELEVATOR
EMERG.	EMERGENCY
EQ.	EQUAL
EQUIP.	EQUIPMENT
ESC.	ESCALATOR
EFC	EXPOSED FINISH CONCRETE
EC	EXPOSED CONSTRUCTION
EXIST.	EXISTING
EXT.	EXTERIOR
EXP.	EXPANSION
F.O.C.	FACE OF CONCRETE
F.D.	FLOOR DRAIN
F.H.C.	FIRE HOSE CABINET
FT.	FEET
FIN.	FINISH
F.A.	FIRE ALARM
F.E.(C)	FIRE EXTINGUISHER (CABINET)
F.C.	FLEXIBLE CONNECTION
FL.	FLOOR
F.A.I.	FRESH AIR INTAKE
GEN.	GENERAL
GRTG.	GRATING
GL	GLASS
GR.	GRANITE
GALV.	GALVANIZED
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HT.	HEIGHT
HORZ.	HORIZONTAL
HM.	HOLLOW METAL
HDW	HARDWARE
IN.	INCH
I.D.	INSIDE DIAMETER
INT.	INTERIOR
INSUL.	INSULATION
JT.	JOINT
K.O.P.	KNOCK OUT PANEL
LVL.	LEVEL
LTG.	LIGHTING
LKR	LOCKER
LP	LOW POINT
MACH.	MACHINE
MAX.	MAXIMUM
MECH.	MECHANICAL
MEZZ.	MEZZANINE
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MCC	MOTOR CONTROL CENTER
MTL	METAL
MFR.	MANUFACTURER
MRTC	METRO-RAIL TRANSIT CONSULTANT
N.	NORTH
N.I.C.	NOT IN CONTRACT
N.T.S	NOT TO SCALE
NO. or #	NUMBER
N/A	NOT APPLICABLE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
PL.	PLATE
PTD.	PAINTED
PLAT.	PLATFORM
PLUMB.	PLUMBING
PT.	POINT
P.S.F.	POUNDS PER SQUARE FOOT
P.S.I.	POUNDS PER SQUARE INCH
QT.	QUARRY TILE
RAD.	RADIUS
RET.	RETURN
R.	RISER
RM.	ROOM
RB	RUBBER BASE.
SEC.	SECTION
SIM	SIMILAR
S.	SOUTH
S.F.	SQUARE FOOT
STD.	STANDARD
STA.	STATION
S.P.	SUMP PUMP
S.S.	STAINLESS STEEL
STL.	STEEL
STRUCT.	STRUCTURAL
TEL.	TELEPHONE
T.O.C.	TOP OF CONCRETE
T.O.R.	TOP OF RAIL
T.P.S.	TRACTION POWER SUBSTATION
T.C.C. or T.C.& C.	TRAIN CONTROL & COMMUNICATION
THK	THICK (NESS)
TYP.	TYPICAL
U.P.E.	UNDER PLATFORM EXHAUST
U.N.O.	UNLESS NOTED OTHERWISE
UTIL.	UTILITY
VENT.	VENTILATION
VERT.	VERTICAL
VAT	VINYL ASBESTOS TILE
VB	VINYL BASE
WT.	WEIGHT
W.	WEST
W/	WITH
W.PT.	WORKING POINT
W/O	WITHOUT
W.P.	WATERPROOF

Symbols

- EXTENT OF WORK BY OTHERS
- CONCRETE
- C.M.U.
- EARTH
- COMPACTED FILL
- GRANITE
- INSULATION
- OR
- STEEL
- ALUM. OR S.S.
- CHANGE IN PLANE
- CENTER LINE
- MATCH LINE
- WORK POINT OR DATUM (TOP OF) POINT
- (5) DOOR NUMBER
- [10] ROOM NUMBER
- ANGLE
- CHANNEL
- Φ DIAMETER
- □ SQUARE
- ℄ CENTER LINE
- SECTION: A / A-007 ON OTHER SHEET; A ON SAME SHEET
- DETAIL: 1 / A-007 ON OTHER SHEET; 1 ON SAME SHEET
- ELEVATION: E / A-007 ON OTHER SHEET; E ON SAME SHEET
- REVISION

Drawing Index

ARCHITECTURAL DIRECTIVES

DWG NO.	TITLE
AD-001	ABBREVIATIONS, GENERAL NOTES, SYMBOLS & INDEX OF DRAWINGS
AD-002	STATION KEY PLANS - FOR INFORMATION ONLY
AD-003	ENTRY STAIR/ESCALATOR RELATIONSHIP - PLANS
AD-004	ENTRY STAIR/ESCALATOR RELATIONSHIP - SECTIONS
AD-005	CENTER MEZZANINE - 4 DEVICES - PLAN & SECTIONS
AD-006	END MEZZANINE - 4 DEVICES - PLAN & SECTIONS
AD-007	MEZZANINE TO PLATFORM - ELEVATOR HOISTWAY ENCLOSURE
AD-008	*MEZZANINE STAIR & HANDRAIL DETAILS*
AD-009	PLATFORM BENCH/MISC. DETAILS
AD-010	UNDER PLATFORM COMPOSITE PLAN & SECTION - 28'-0" PLATFORM
AD-011	TRAINROOM SECTIONS
AD-012	ENTRY PASSAGEWAY PLANS
AD-013	ENTRY PASSAGEWAY PLANS
AD-014	ENLARGED PROTOTYPICAL PASSAGEWAY & ANCILLARY ROOM PLANS
AD-015	ENLARGED PROTOTYPICAL ANCILLARY ROOM PLANS
AD-016	LIGHTING LAYOUT (NOT ISSUED)

ARCHITECTURAL STANDARDS

DWG NO.	TITLE
AS-001	ABBREVIATIONS, GENERAL NOTES & SYMBOLS & INDEX OF DRAWINGS
AS-002	STREET ENTRANCES & PASSAGEWAY DETAILS
AS-003	ROLLING GRILLE DETAILS
AS-004	STREET TO MEZZANINE - ESCALATOR & STAIRS
AS-005	MEZZANINE TO PLATFORM - ESCALATOR & STAIRS
AS-006	PLATFORM DETAILS
AS-007	ASH & TRASH RECEPTACLE DETAILS/MISC. DETAILS
AS-008	MAP CASE/ADVERTISING SIGN DETAILS - PASSAGEWAY OR SIDEWALL
AS-009	TELEPHONE/MAP CASE & ADD FARE/BILL CHANGER DETAILS
AS-010	STAINLESS STEEL CABINETS FOR F.H.C., HOSE BIBBS & ELEC. OUTLETS
AS-011	PYLON FOUNDATION, CCTV MOUNTING & MISC. DETAILS
AS-012	PALETTE SCHEDULE & STANDARD FINISHES
AS-013	AIR SUPPLY DUCT DETAILS
AS-014	SMOKE EXHAUST BAFFLE DETAILS
AS-015	DOOR SCHEDULE & DETAILS, ACOUSTIC PANEL DETAILS

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY HWA
DRAWN BY BK
CHECKED BY P.C. /G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

ARCHITECTURAL DIRECTIVE

ABBREVIATIONS, GENERAL NOTES, SYMBOLS, & INDEX OF DRAWINGS

CONTRACT NO.
DRAWING NO. AD-001
REV.
SCALE N/A
SHEET NO.

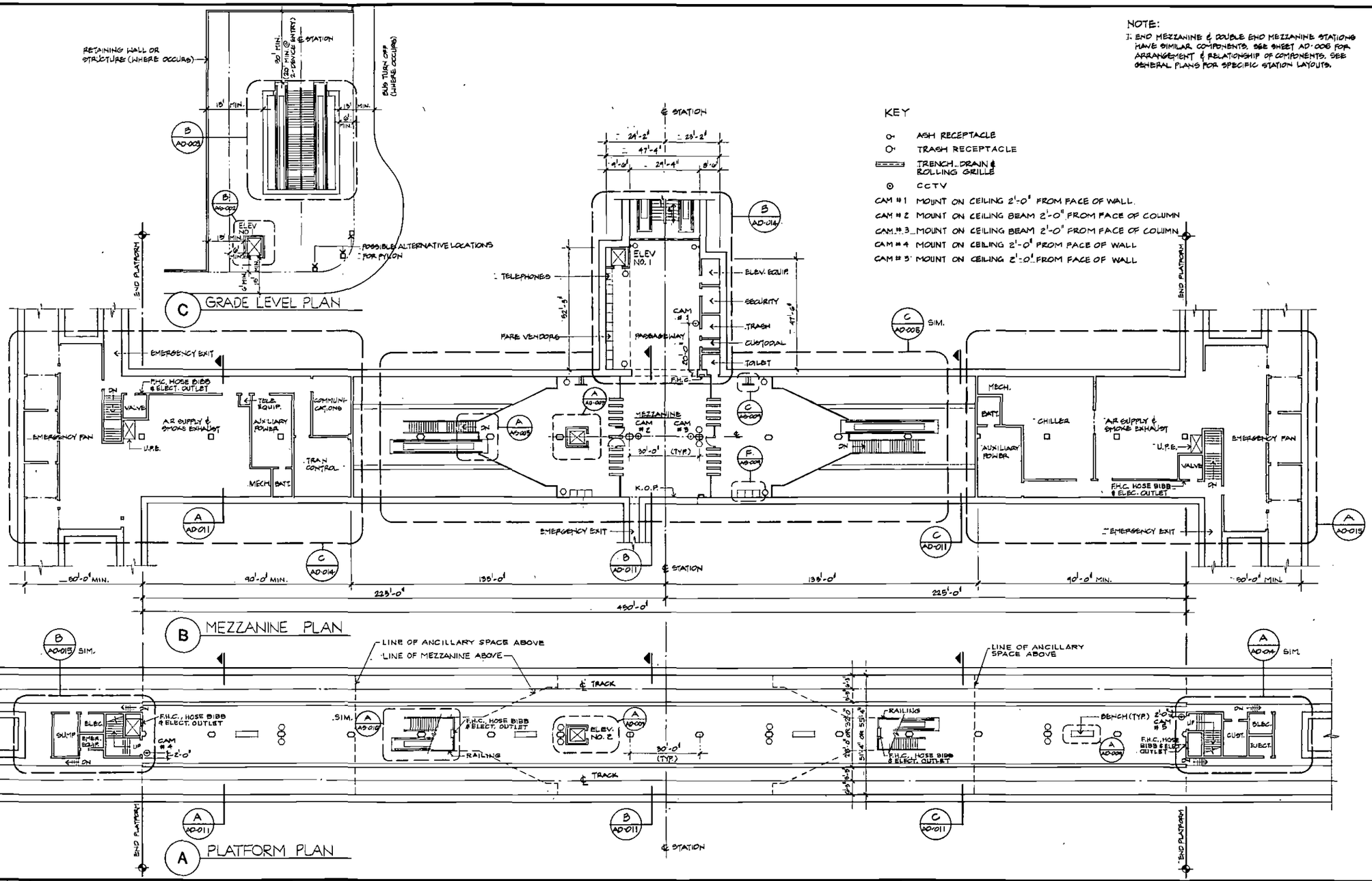
NOTE:

1. END MEZZANINE & DOUBLE END MEZZANINE STATIONS HAVE SIMILAR COMPONENTS. SEE SHEET AD-006 FOR ARRANGEMENT & RELATIONSHIP OF COMPONENTS. SEE GENERAL PLANS FOR SPECIFIC STATION LAYOUTS.

KEY

- ASH RECEPTACLE
- TRASH RECEPTACLE
- TRENCH DRAIN & ROLLING GRILLE
- CCTV

CAM #1 MOUNT ON CEILING 2'-0" FROM FACE OF WALL.
CAM #2 MOUNT ON CEILING BEAM 2'-0" FROM FACE OF COLUMN
CAM #3 MOUNT ON CEILING BEAM 2'-0" FROM FACE OF COLUMN
CAM #4 MOUNT ON CEILING 2'-0" FROM FACE OF WALL
CAM #5 MOUNT ON CEILING 2'-0" FROM FACE OF WALL



REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.N.A.
DRAWN BY R.S.J.
CHECKED BY P.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

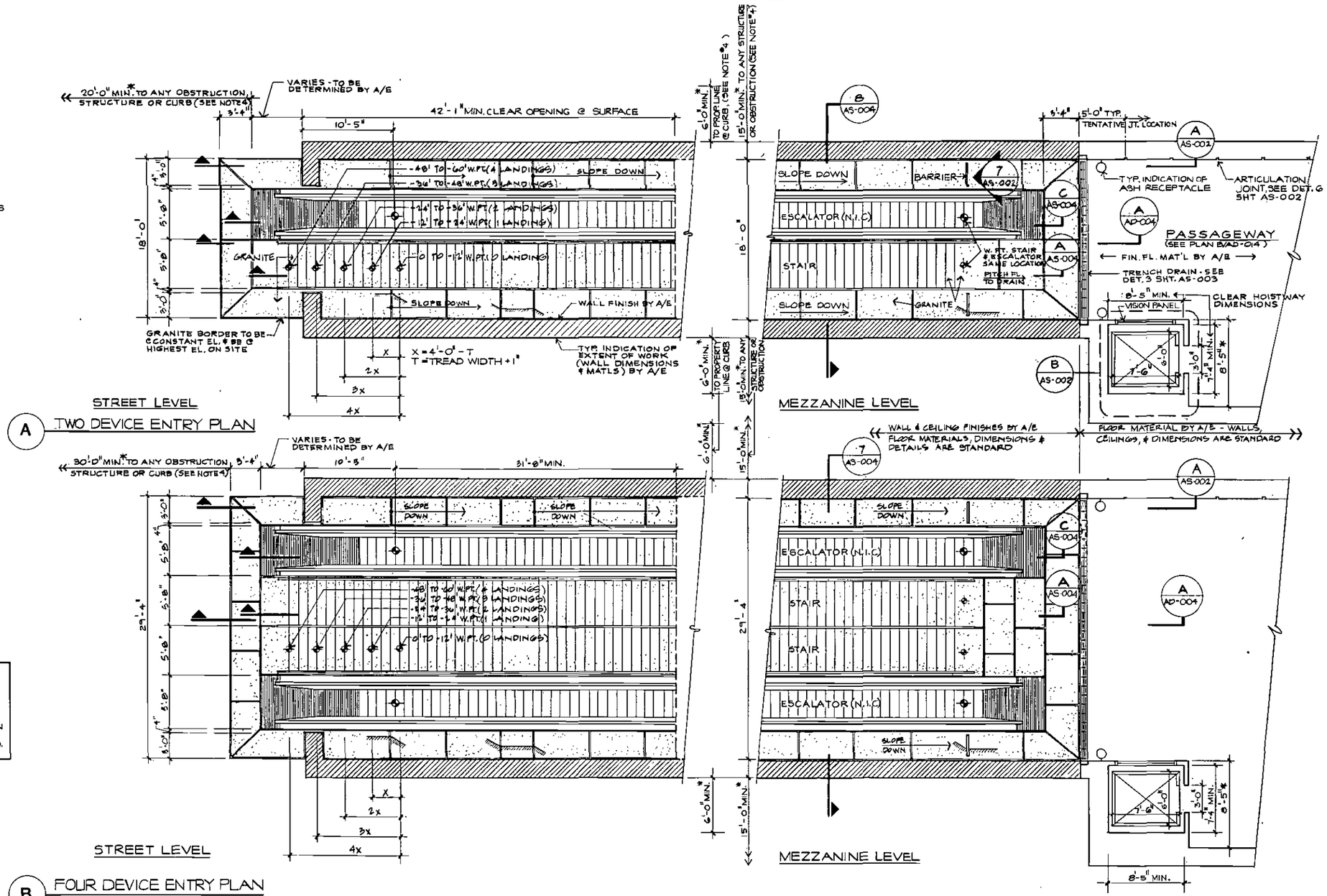
ARCHITECTURAL DIRECTIVE

KEY STATION PLANS -
FOR INFORMATION ONLY

CONTRACT NO.
DRAWING NO. AD-002 REV.
SCALE 1" = 20'-0"
SHEET NO.

NOTES:

1. SEE PLAN 'A' FOR DESCRIPTION OF MATERIALS, NOTES AND DIMENSIONS.
2. A/E TO PROVIDE DIMENSIONS OF STAIR RUNS, TREADS AND RISERS.
3. A/E TO LOCATE ENTRANCE ON SITE AT HIGHEST ELEVATION POSSIBLE WITH SUFFICIENT DRAINAGE AWAY FROM GRANITE APRON.
4. * THE MINIMUM DIMENSIONS SHOWN ARE TO BE USED UNLESS SITE SPECIFIC CONDITIONS SUPERCEDE.



NOTE: THE CONFIGURATION OF THE ENCLOSURE AT THE ENTRY AREA IS SHOWN TO SET MINIMUM CRITERIA FOR CLEARANCES REQUIRED. THE A/E HAS THE OPTION TO USE THIS CONFIGURATION AS A POSSIBLE SOLUTION OR DEVELOP ALTERNATE SCHEME(S).

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A.
DRAWN BY M.G.P.
CHECKED BY P.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

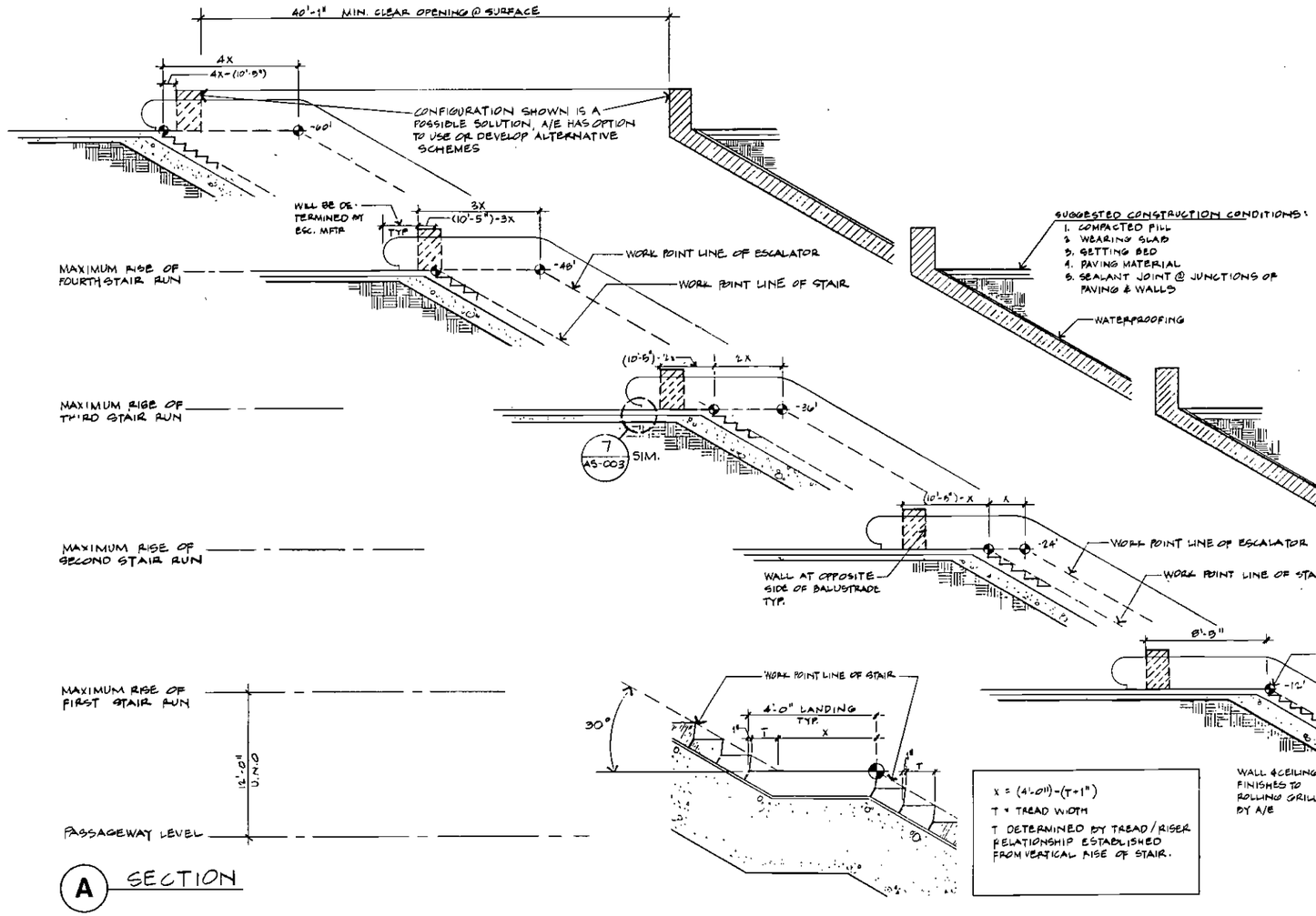
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

ARCHITECTURAL DIRECTIVE

ENTRY STAIR / ESCALATOR RELATIONSHIP - PLANS

CONTRACT NO.
DRAWING NO. AD-003
REV.
SCALE 3/16"= 1'-0"
SHEET NO.



A SECTION

$X = (4'-0") - (T = 1")$

T = TREAD WIDTH

T DETERMINED BY TREAD/RISER RELATIONSHIP ESTABLISHED FROM VERTICAL RISE OF STAIR.

PURPOSE

THE PURPOSE OF THIS SHEET IS TO DEFINE FIXED RELATIONSHIPS BETWEEN ESCALATORS, STAIRS & THE ENTRANCE PORTAL OPENING @ GRADE. THE A/E SHOULD MAINTAIN RELATIONSHIPS BETWEEN WORK POINT LINES DEPENDING ON THE VERTICAL DEPTH OF THE ENTRY PASSAGEWAY (MEZZANINE LEVEL) FROM GRADE.

NOTE:

1. WORK POINT LINE OF ESCALATOR DEFINED AS LINE OF NOSING EDGE AT 30° SLOPE.
2. WORK POINT LINE OF STAIR DEFINED AS LINE OF NOSING EDGE AT 90° SLOPE.
3. A/E TO PROVIDE DIMENSIONS OF ALL STAIR RUNS TREADS & RISERS
4. SEE SHT. AD-003 FOR NOTES, DETAILS & DESCRIPTION OF MATERIALS & DIVISION OF RESPONSIBILITIES

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A.
DRAWN BY M.P.
CHECKED BY R.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

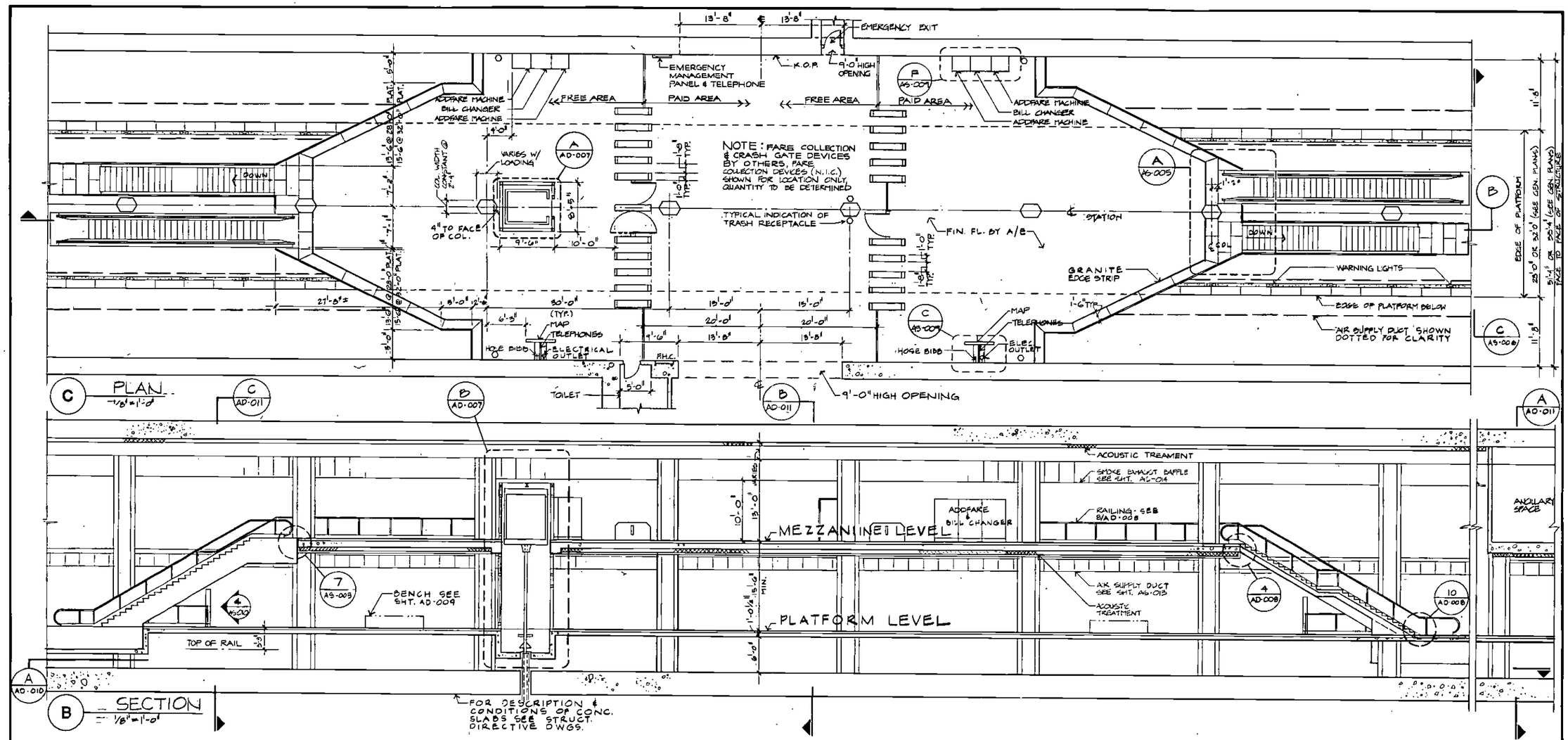
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

ARCHITECTURAL DIRECTIVE

ENTRY STAIR / ESCALATOR RELATIONSHIP - SECTIONS

CONTRACT NO.
DRAWING NO. AD-004
REV.
SCALE 3/16"=1'-0"
SHEET NO.



REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A
DRAWN BY R.G.J./M.D.
CHECKED BY P.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

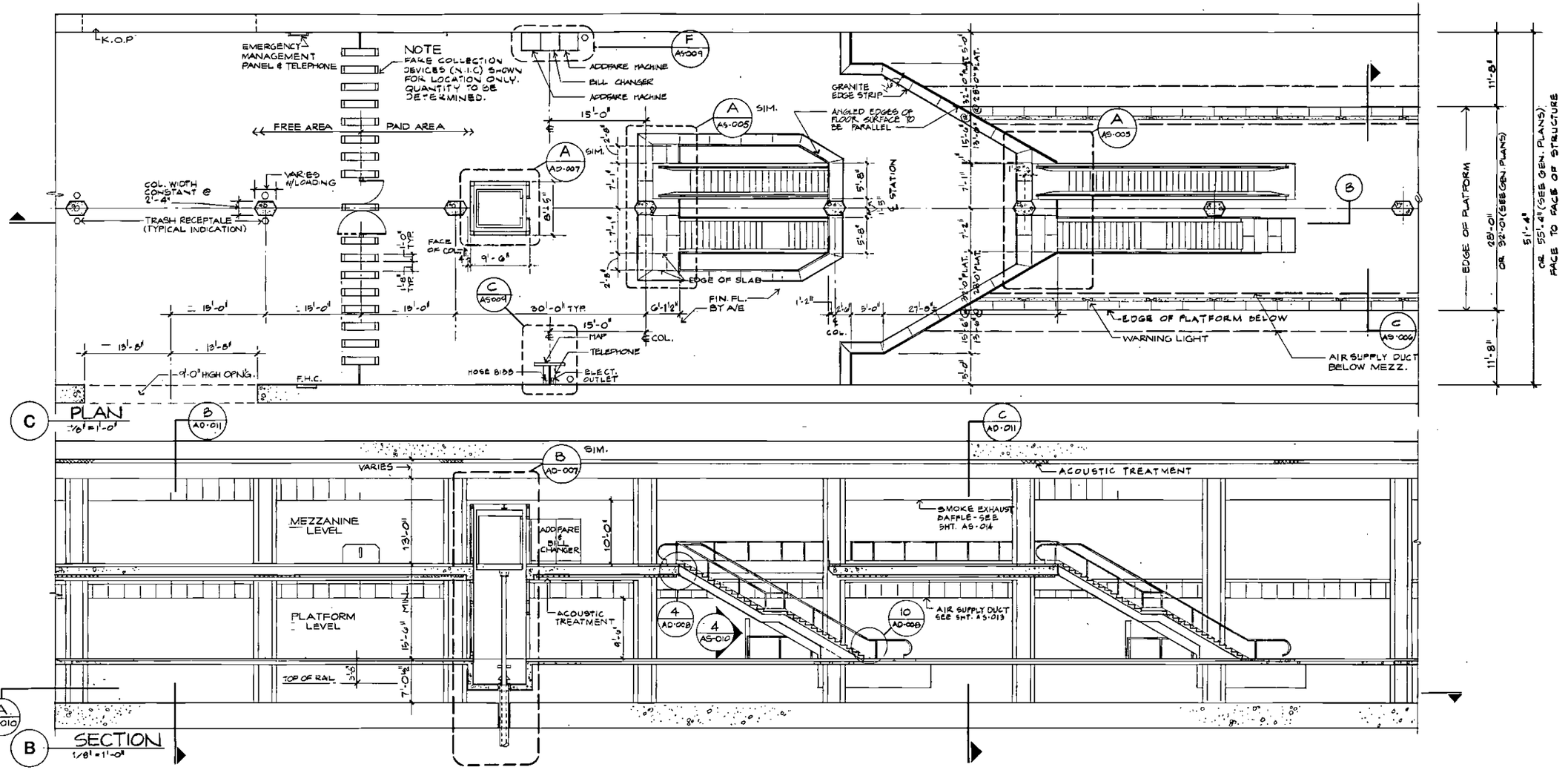
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

ARCHITECTURAL DIRECTIVE

CENTER MEZZANINE
4 DEVICES - PLAN & SECTION

CONTRACT NO.
DRAWING NO. AD-005
REV.
SCALE AS NOTED
SHEET NO.



GEN. NOTES:
1, 2 DEVICE & 6 DEVICE CONDITIONS SIMILAR - SEE GENERAL PLAN FOR CONFIGURATION.

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

DESIGNED BY H.W.A.
DRAWN BY R.J.
CHECKED BY P.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

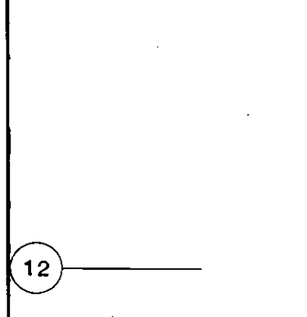
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

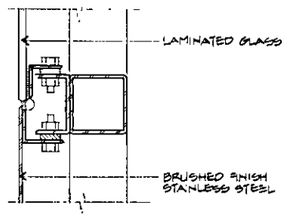
ARCHITECTURAL DIRECTIVE

END MEZZANINE
4 DEVICES - PLAN & SECTIONS

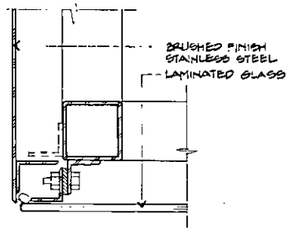
CONTRACT NO.
DRAWING NO. AD-006
REV.
SCALE 1/8" = 1'-0"
SHEET NO.



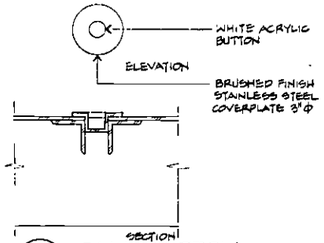
9 HORIZ. MULLION @ MTL. PANELS



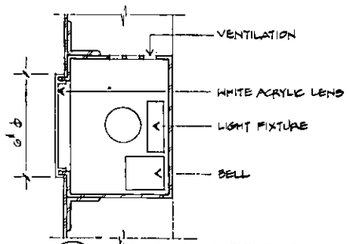
8 HORIZ. MULLION @ PANEL/GLASS



7 MTL./GLAZED CORNER

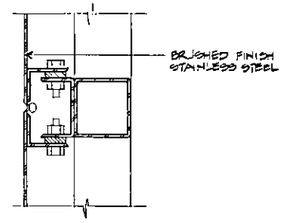


11 CALL BUTTON

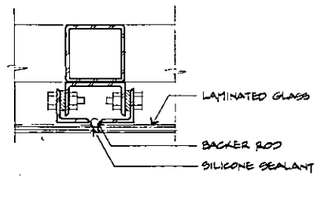


10 HALL LANTERN

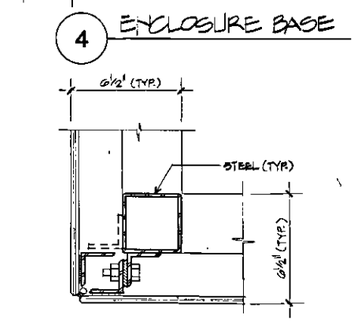
12



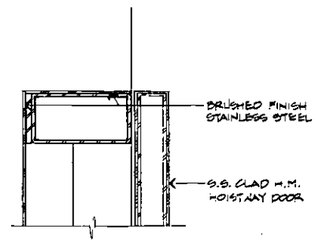
6 HOISTWAY HEAD



5 ENCLOSURE CAP



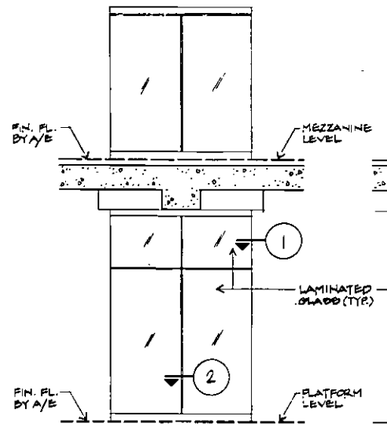
4 ENCLOSURE BASE



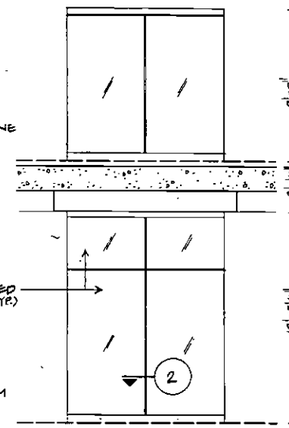
3 HOISTWAY JAMB

1 GLAZED CORNER

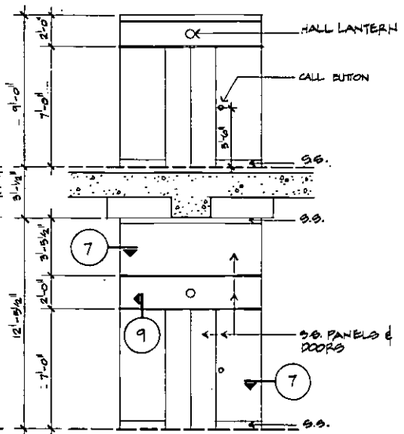
SCALE: 3"=1'-0" TYP. @ ALL DETAILS U.N.O.



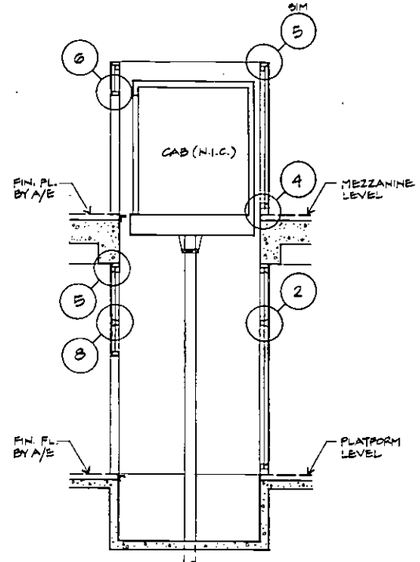
E REAR ELEVATION
1/4"=1'-0"



D SIDE ELEVATION
1/4"=1'-0"



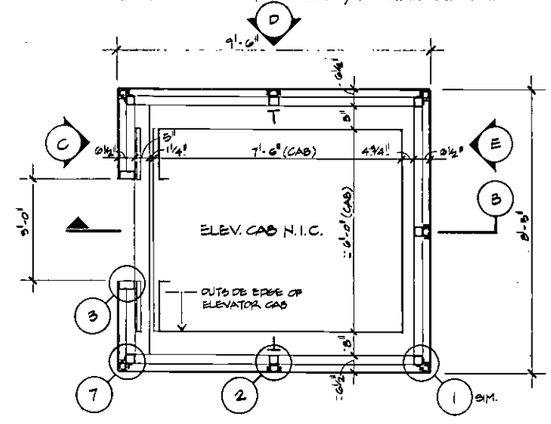
C FRONT ELEVATION
1/4"=1'-0"



B SECTION
1/4"=1'-0"

GENERAL NOTES:

1. PROCUREMENT DRAWINGS FOR COMPLETE ELEVATOR ASSEMBLY & ALL TRIM PANELS WILL BE DEVELOPED BY M.R.T.C. THIS WORK IS NOT IN THE CONTRACT. ALL FRAMING AND STRUCTURAL DETAILS FOR ELEVATOR SUPPORT ARE THE RESPONSIBILITY OF THE A/E.
2. THE DETAILS SHOWN ARE INTENDED TO DESCRIBE THE CONFIGURATION OF THE DESIRED FINISH CONDITIONS & AS SUCH DO NOT REFLECT THE ACTUAL CONSTRUCTION METHODS TO ACHIEVE THE REQUIRED FINISHED PRODUCT.
3. ALL EXPOSED METAL TO BE STAINLESS STEEL NO. 4 FINISH BRUSHED W/ VERTICAL GRAIN.
4. LAMINATED GLASS TO BE CLEAR W/ TRANSPARENT LAMINATING FILM.



A PLAN - HOISTWAY
1/2"=1'-0"

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A.
DRAWN BY R.G.J.
CHECKED BY P.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

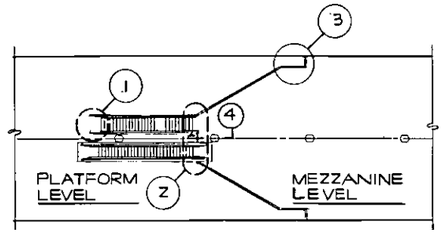
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

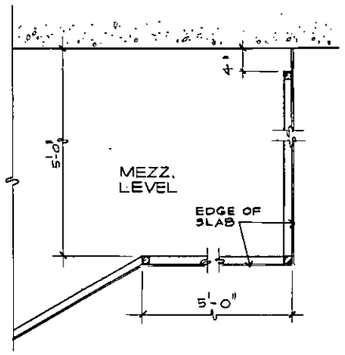
ARCHITECTURAL DIRECTIVE

MEZZANINE TO PLATFORM - ELEVATOR HOISTWAY ENCLOSURE

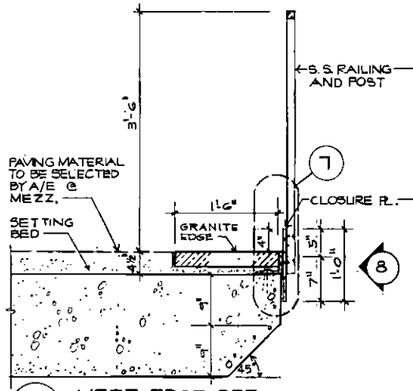
CONTRACT NO.
DRAWING NO. AD-007
REV.
SCALE AS NOTED
SHEET NO.



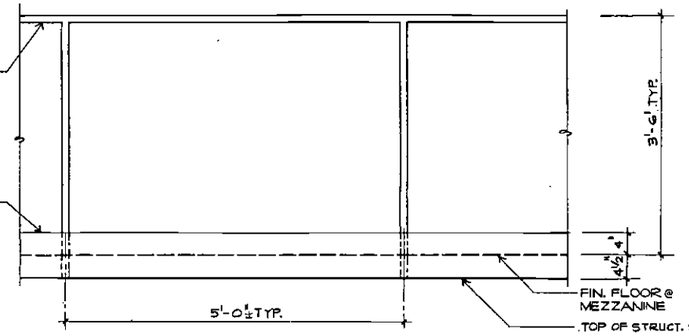
KEY PLAN



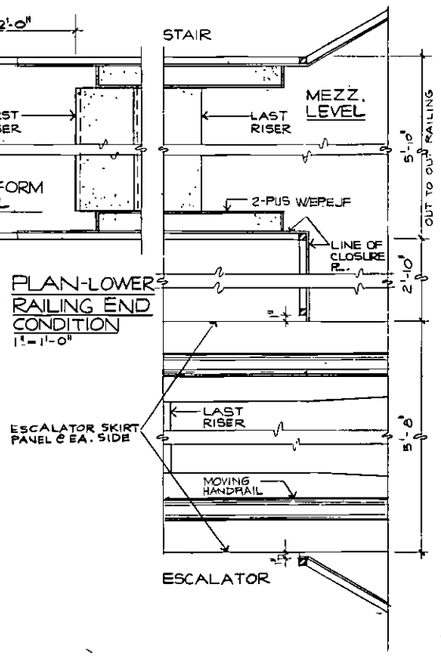
3 PLAN - RAILING @ SIDEWALL
1" = 1'-0"



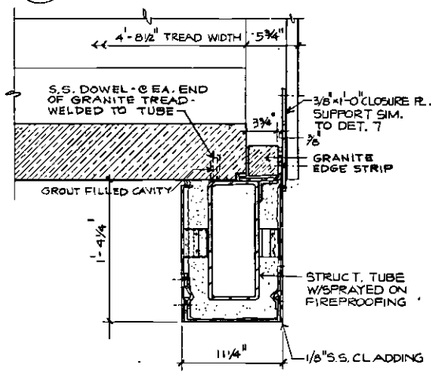
5 MEZZ EDGE DET.
1" = 1'-0"



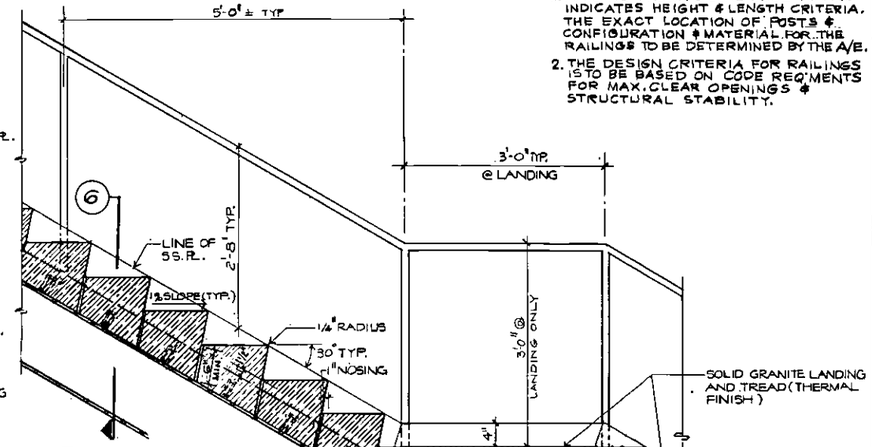
8 TYPICAL ELEV. AT MEZZ. LEVEL
1" = 1'-0"



1 PLAN-LOWER RAILING END CONDITION
1" = 1'-0"



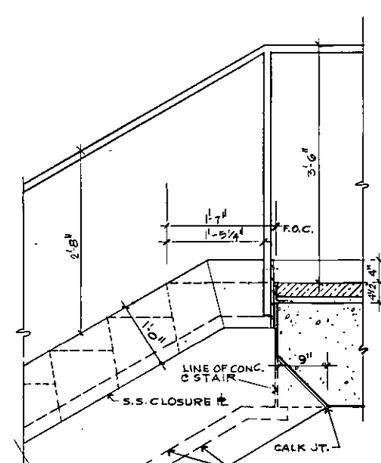
6 SECTION @ STAIR STRINGER
1½" = 1'-0" (MEZZ. TO PLATFORM)



9 SECT-TYP. STAIR CONDITION
1" = 1'-0"

GEN. NOTES:

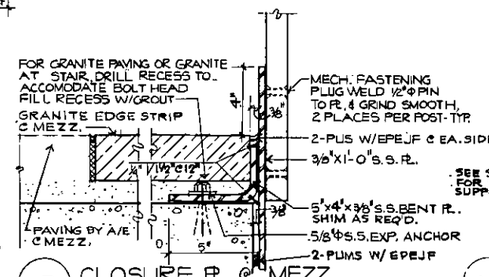
1. RAILING SHOWN @ SLAB EDGE & STAIR INDICATES HEIGHT & LENGTH CRITERIA. THE EXACT LOCATION OF POSTS & CONFIGURATION & MATERIAL FOR THE RAILINGS TO BE DETERMINED BY THE A/E.
2. THE DESIGN CRITERIA FOR RAILINGS IS TO BE BASED ON CODE REQ'MENTS FOR MAX. CLEAR OPENINGS & STRUCTURAL STABILITY.



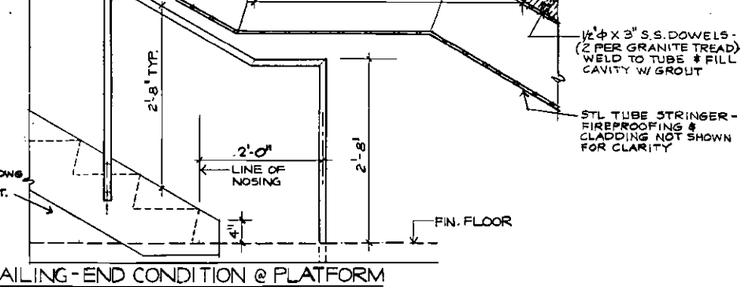
NOTE: SEE STRUCT. DWGS FOR DET. OF STRINGER TO SLAB CONNECTION

2 PLAN - UPPER RAILING END CONDITION
1" = 1'-0"

4 RAILING - END CONDITION @ MEZZANINE
1" = 1'-0"



7 CLOSURE PL @ MEZZ OR STAIR
3" = 1'-0"



10 RAILING - END CONDITION @ PLATFORM
1" = 1'-0"

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A.
DRAWN BY R.S.J.
CHECKED BY PC/B.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

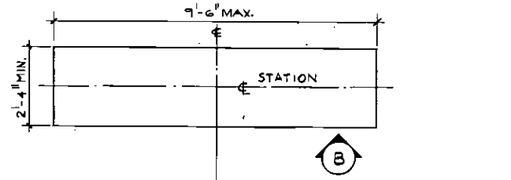
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

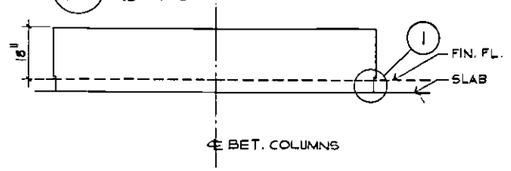
ARCHITECTURAL DIRECTIVE

MEZZANINE STAIR & HANDRAIL DETAILS

CONTRACT NO.
DRAWING NO. AD-008
REV.
SCALE AS NOTED
SHEET NO.

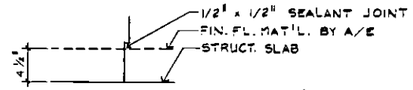


A PLAN - BENCH
1/2" = 1'-0"



B ELEVATION - BENCH
1/2" = 1'-0"

NOTES:
1. EXACT PLAN & ELEVATION CONFIGURATION TO BE DETERMINED BY A/E. FINISH MATERIALS TO BE SELECTED BY A/E WHICH ARE HARD, DENSE, DURABLE & RESISTANT TO DAMAGE
2. FOR TENTATIVE LOCATION OF BENCHES SEE SHT. AD-002
3. BENCH BACKREST IS OPTIONAL & WILL NOT EXCEED 3'-0" ABOVE FINISH FLOOR



1 DET. BASE PERIMETER JOINT
1 1/2" = 1'-0"

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY HWA
DRAWN BY BK
CHECKED BY R.C./G.A.P.
IN CHARGE R.C.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

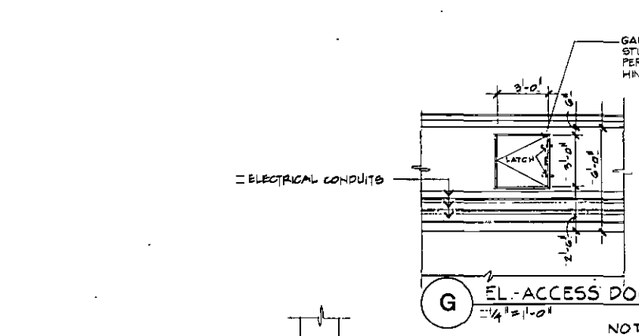
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

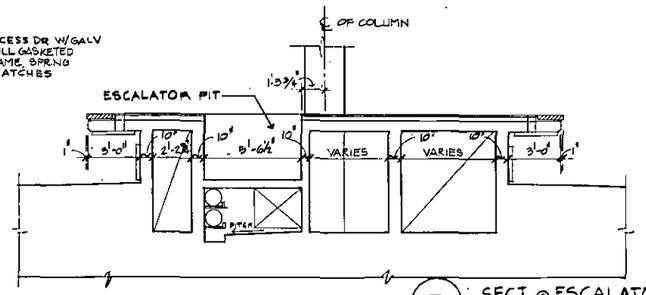
ARCHITECTURAL DIRECTIVE

PLATFORM BENCH / MISC. DETAILS

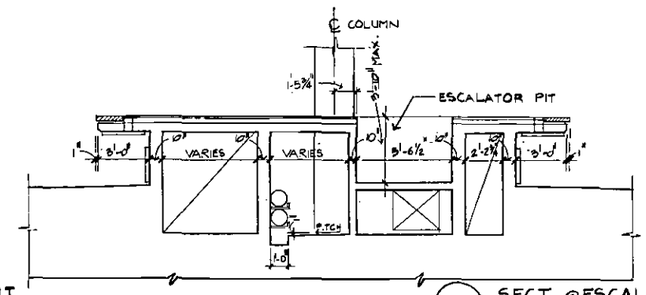
CONTRACT NO.
DRAWING NO. AD-009
REV.
SCALE AS NOTED
SHEET NO.



G EL.-ACCESS DOOR
1/4" = 1'-0"

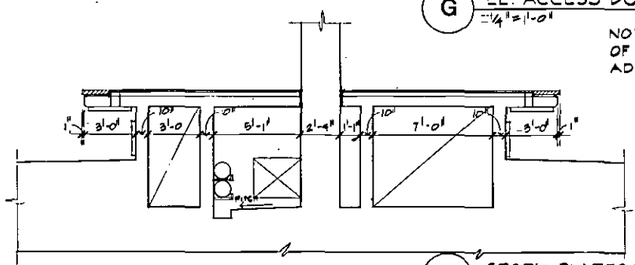


E SECT. @ ESCALATOR PIT
1/4" = 1'-0"

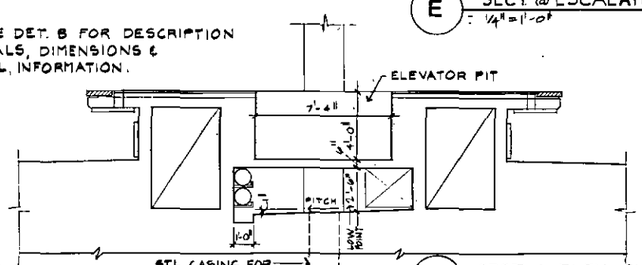


C SECT. @ ESCALATOR PIT
1/4" = 1'-0"

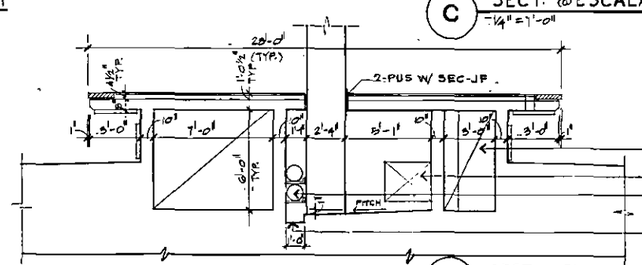
NOTE: SEE DET. B FOR DESCRIPTION OF MATERIALS, DIMENSIONS & ADDITIONAL INFORMATION.



F SECT. @ PLATFORM END
1/4" = 1'-0"

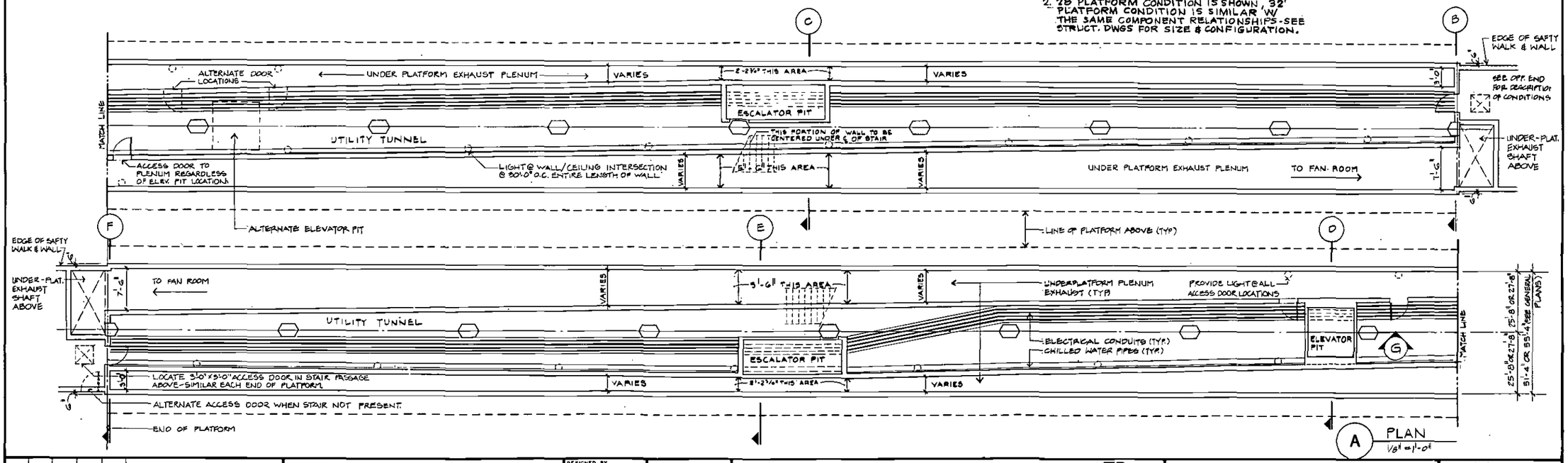


D SECT. @ ELEV. PIT
1/4" = 1'-0"



B SECT. @ PLATFORM END
1/4" = 1'-0"

NOTE:
1. VERIFY WALL THICKNESS OF STRUCTURAL ELEMENTS WITH STRUCTURAL STANDARD & DIRECTIVE DWGS.
2. 28' PLATFORM CONDITION IS SHOWN, 32' PLATFORM CONDITION IS SIMILAR W/ THE SAME COMPONENT RELATIONSHIPS-SEE STRUCT. DWGS FOR SIZE & CONFIGURATION.



A PLAN
1/8" = 1'-0"

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A.
DRAWN BY R.B.J./B.K.
CHECKED BY P.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

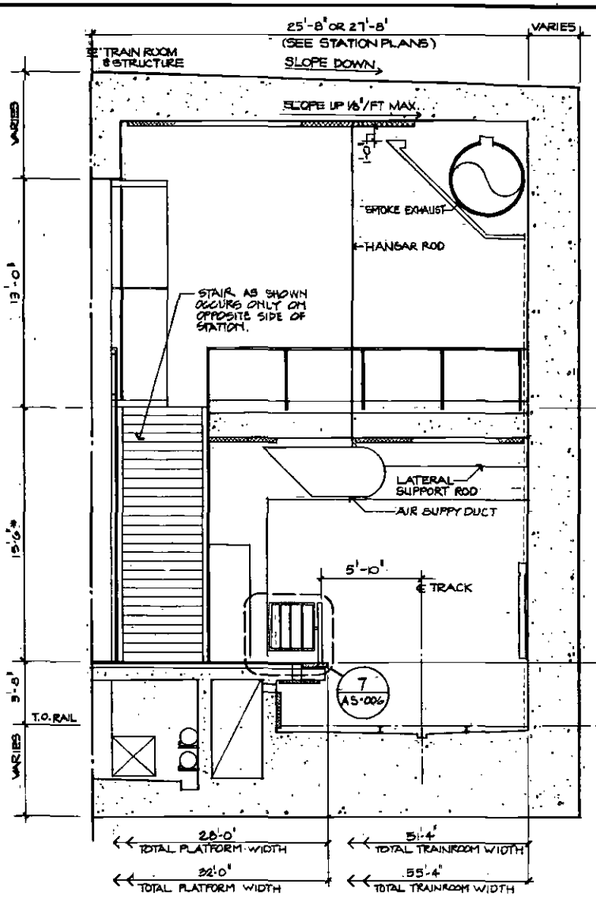
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS
APPROVED

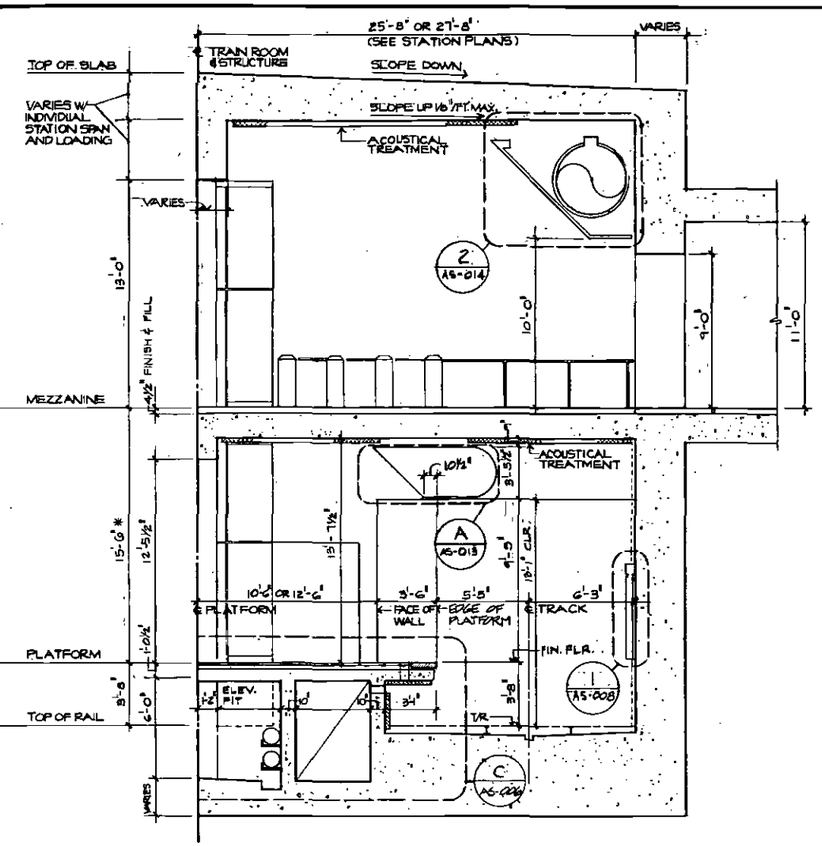
ARCHITECTURAL DIRECTIVE

UNDER PLATFORM COMPOSITE PLAN & SECTIONS FOR 28'-0" PLATFORM

CONTRACT NO.
DRAWING NO. AD-010
REV.
SCALE AS NOTED
SHEET NO.

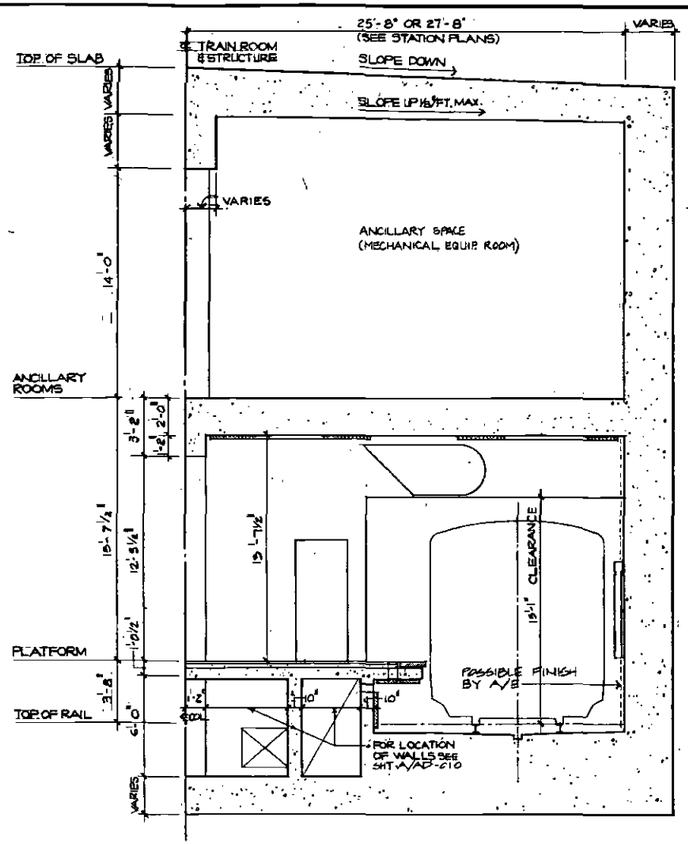


C SECTION @ CENTER STATION
1/4" = 1'-0"



B SECTION @ MEZZANINE
1/4" = 1'-0"

* THIS DIMENSION FOR 18" STRUCTURAL SLAB MAY INCREASE TO A MAXIMUM OF 24" UNDERSIDE OF MEZZANINE SLAB AT ALL STATIONS IS FIXED AT 13'-7½".



A SECTION @ ANCILLARY ROOMS
1/4" = 1'-0"

NOTES

1. THESE SECTIONS ESTABLISH FIXED DIMENSIONS OF TRAINROOM ELEMENTS.

2. WHERE "VARIES" IS INDICATED THIS DIMENSION IS DEPENDENT ON SITE SPECIFIC LOADING & SOILS CONDITION AND IS TO BE DETERMINED BY A/E

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED; AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A.
DRAWN BY C.T.
CHECKED BY P.C./G.M.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

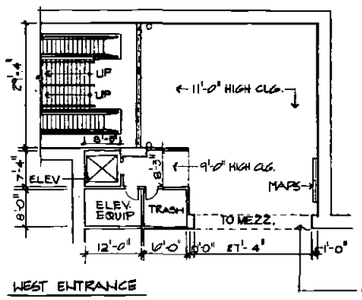
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

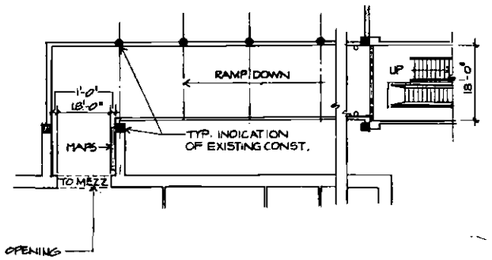
ARCHITECTURAL DIRECTIVE

TRAINROOM SECTIONS

CONTRACT NO.
DRAWING NO. AD-011 REV.
SCALE 1/4" = 1'-0"
SHEET NO.

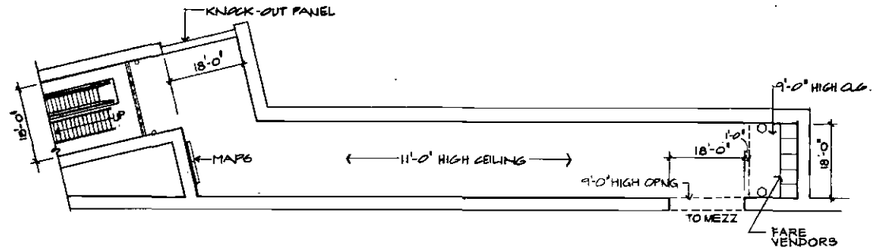


WEST ENTRANCE

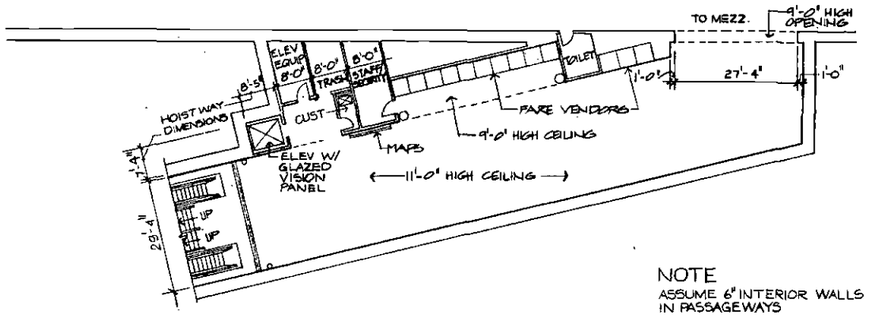


EAST ENTRANCE

D 7TH / FLOWER



NORTH ENTRANCE



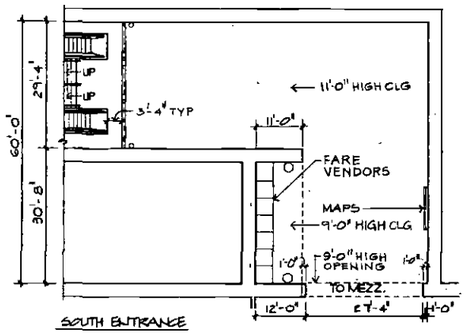
SOUTH ENTRANCE

E WILSHIRE / ALVARADO

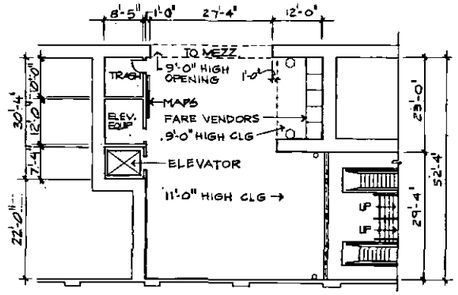
NOTE
ASSUME 6" INTERIOR WALLS IN PASSAGEWAYS

KEY

- o ASH RECEPTACLE
- o TRASH RECEPTACLE
- TRENCH DRAIN & HOLLING GRILLE

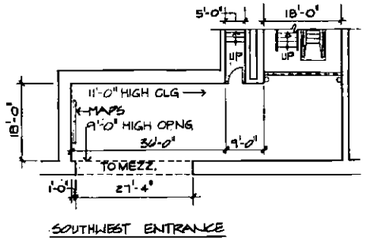


SOUTH ENTRANCE

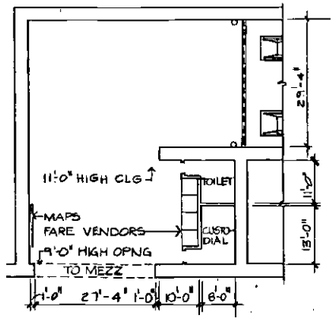


NORTH ENTRANCE

A CIVIC CENTER

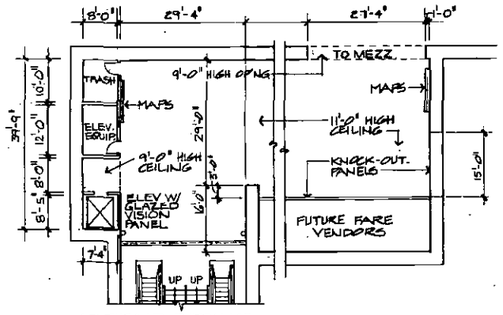


SOUTHWEST ENTRANCE

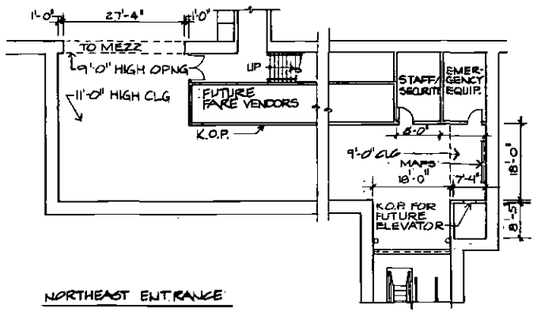


NORTHWEST ENTRANCE

B 5TH/HILL



SOUTHEAST ENTRANCE



NORTHEAST ENTRANCE

C 5TH/HILL

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A
DRAWN BY C.Y./A.S.
CHECKED BY P.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

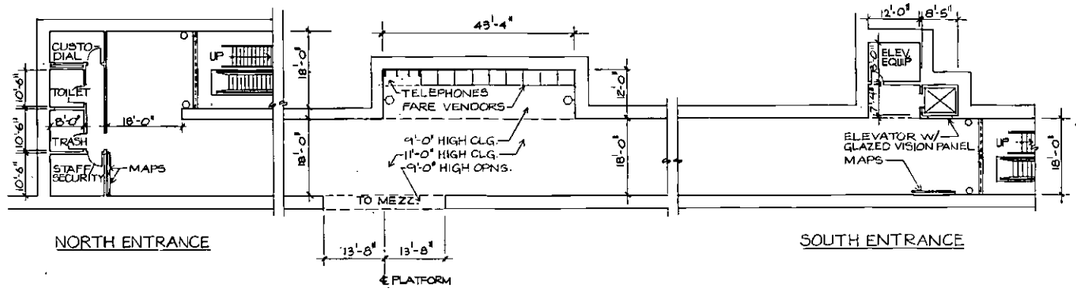
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

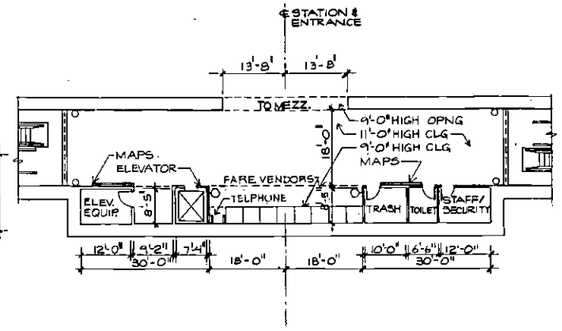
ARCHITECTURAL DIRECTIVE

ENTRY PASSAGEWAY PLANS

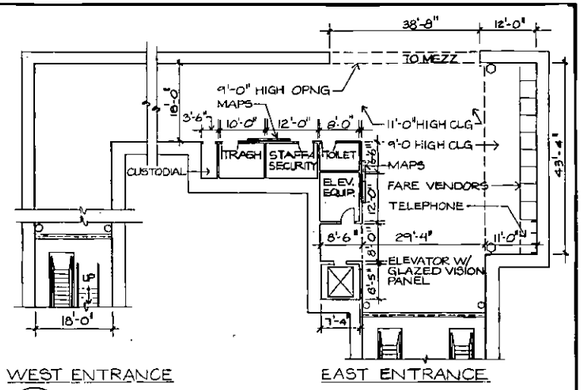
CONTRACT NO.
DRAWING NO. AD-012
REV.
SCALE 1/16" = 1'-0"
SHEET NO.



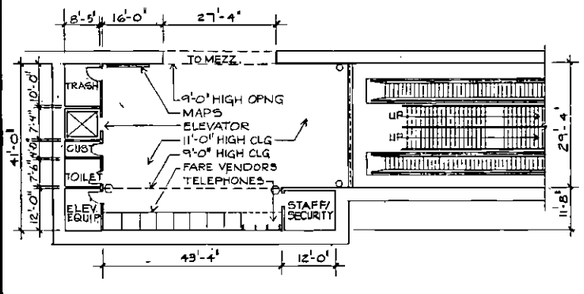
G HOLLYWOOD/CAHUENGA



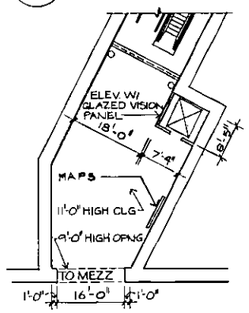
D FAIRFAX / BEVERLY

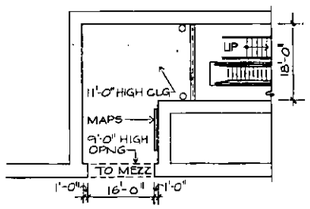


A WILSHIRE / VERMONT

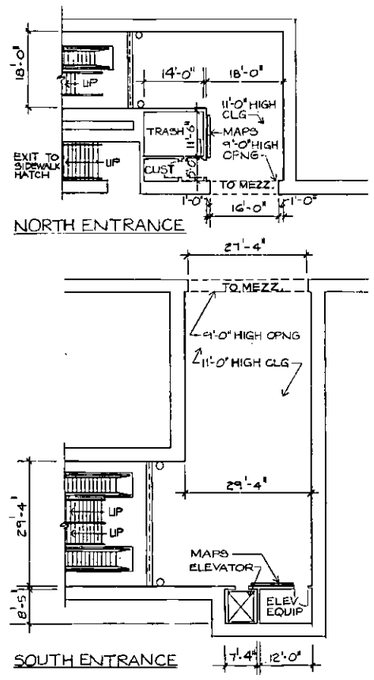


H UNIVERSAL CITY

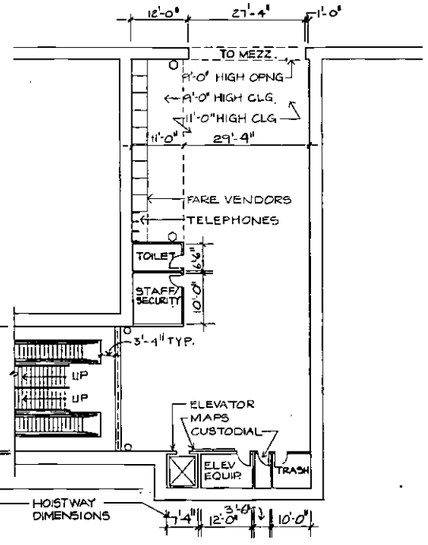




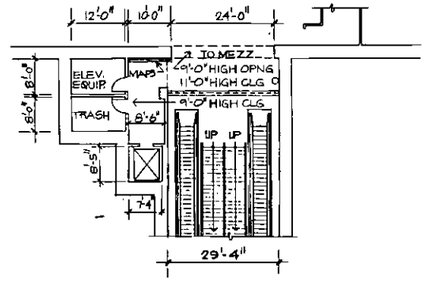
J NORTH HOLLYWOOD



F WILSHIRE / FAIRFAX



E WILSHIRE / CRENSHAW



B WILSHIRE/NORMANDIE

KEY

- o ASH RECEPTACLE
- o TRASH RECEPTACLE
- TRENCH DRAIN & ROLLING GRILLE

NOTE
ASSUME 6" INTERIOR WALLS IN PASSAGEWAY

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

DESIGNED BY H.W.A.
DRAWN BY A.S.
CHECKED BY P.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/16/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

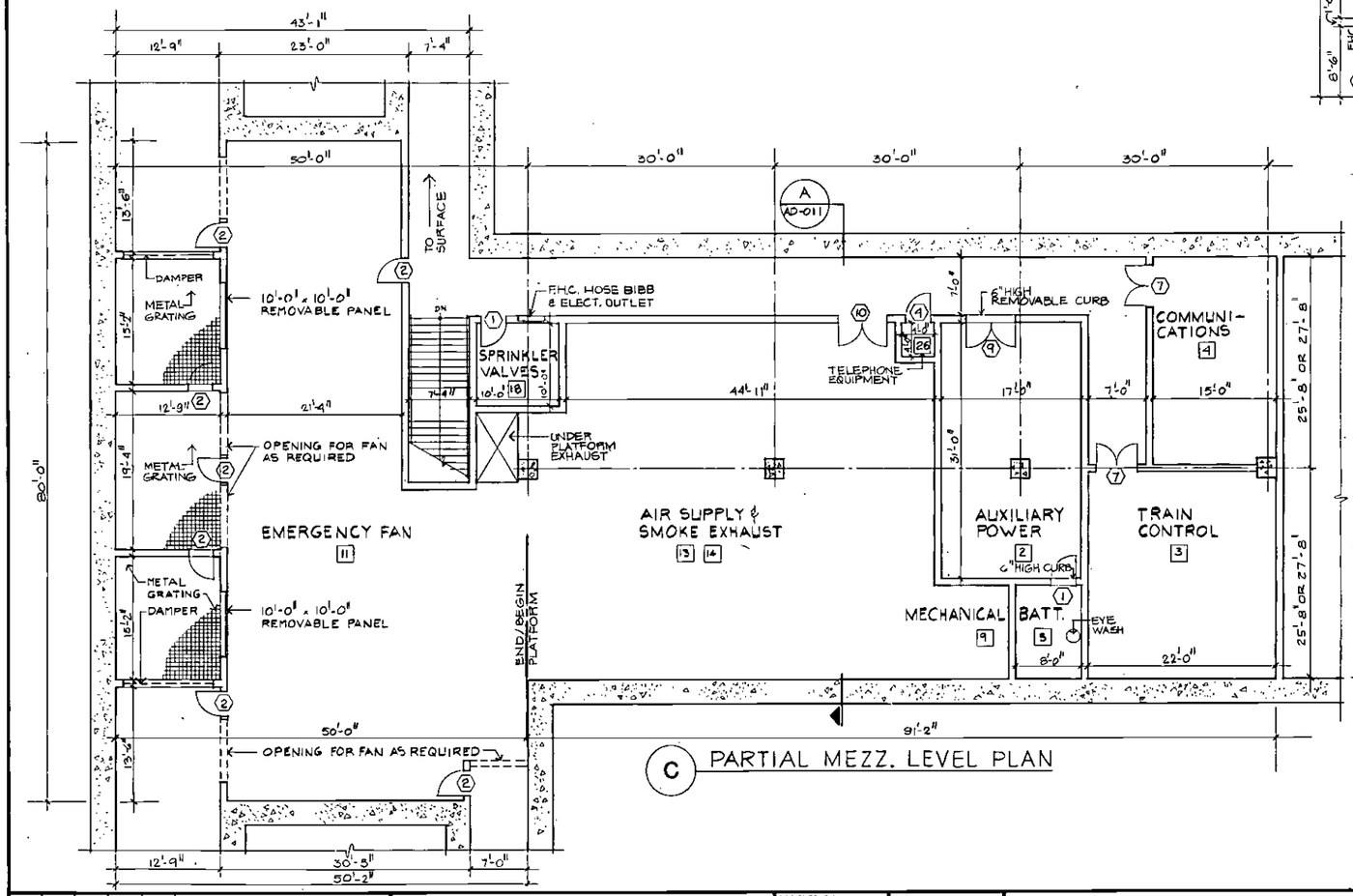
ARCHITECTURAL DIRECTIVE

ENTRY PASSAGEWAY PLANS

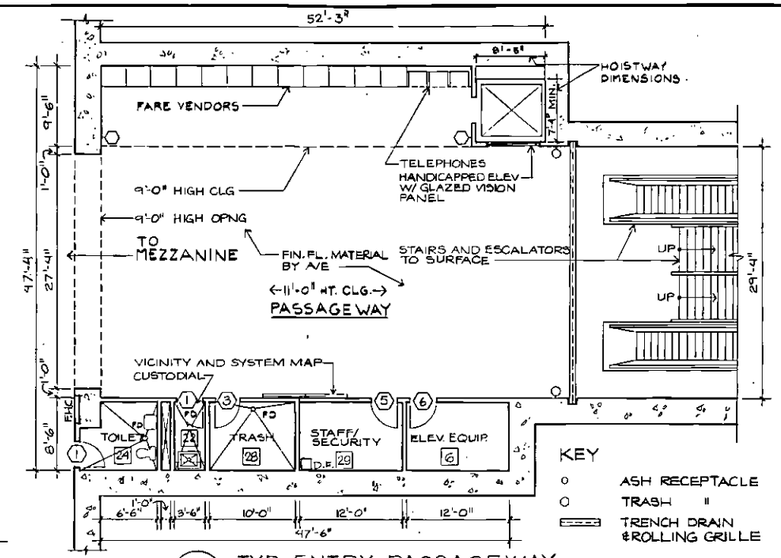
CONTRACT NO.
DRAWING NO. AD-013
REV.
SCALE 1/16" = 1'-0"
SHEET NO.

GENERAL NOTES:

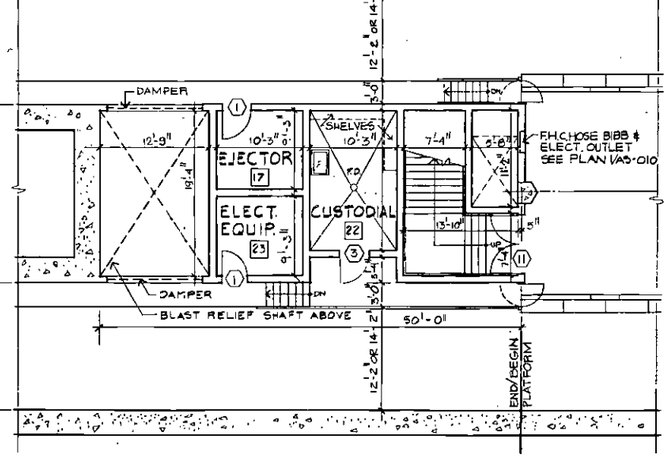
1. SEE MECH. DWGS. FOR EXACT LOCATION AND SIZES OF EQUIPMENT
2. ASSUME 10" INTERIOR WALLS AT ANCILLARY SPACES
3. ASSUME 6" INTERIOR WALLS AT ENTRY PASSAGEWAY
4. COLUMN SIZE SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. A/E SHALL DETERMINE COLUMN SHAPE & SIZE.



C PARTIAL MEZZ. LEVEL PLAN



B TYP. ENTRY PASSAGEWAY



A PARTIAL PLATFORM LEVEL PLAN

THIS CONDITION OCCURS AT HIGH END OF SLOPED STATIONS. SEE GENERAL PLANS FOR SLOPE & LAYOUT.

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A.
DRAWN BY S.D./A.G.
CHECKED BY P.C./G.A.P
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

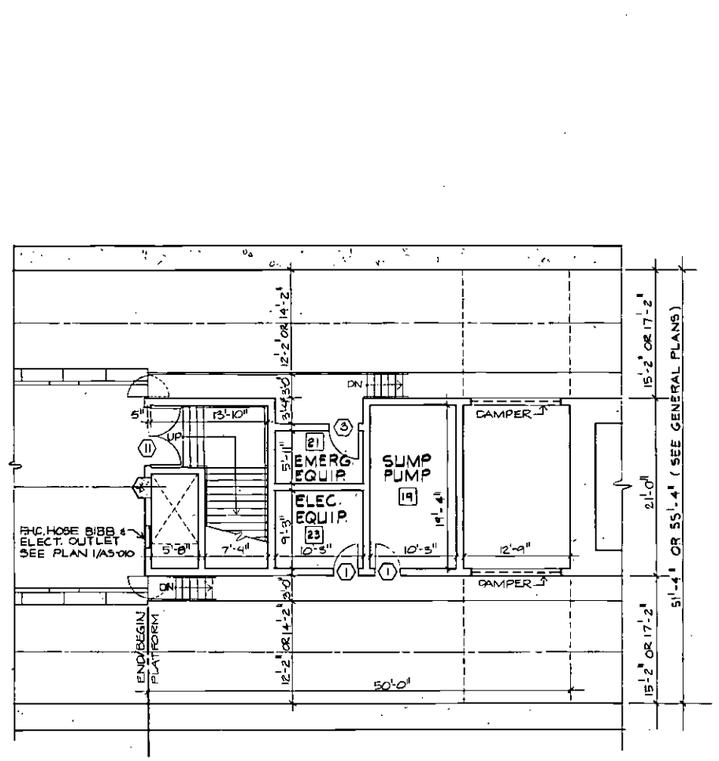
ARCHITECTURAL DIRECTIVE

ENLARGED PROTOTYPICAL PASSAGEWAY & ANCILLARY PLANS

CONTRACT NO.
DRAWING NO. AD-014
REV.
SCALE 1/8" = 1'-0"
SHEET NO.

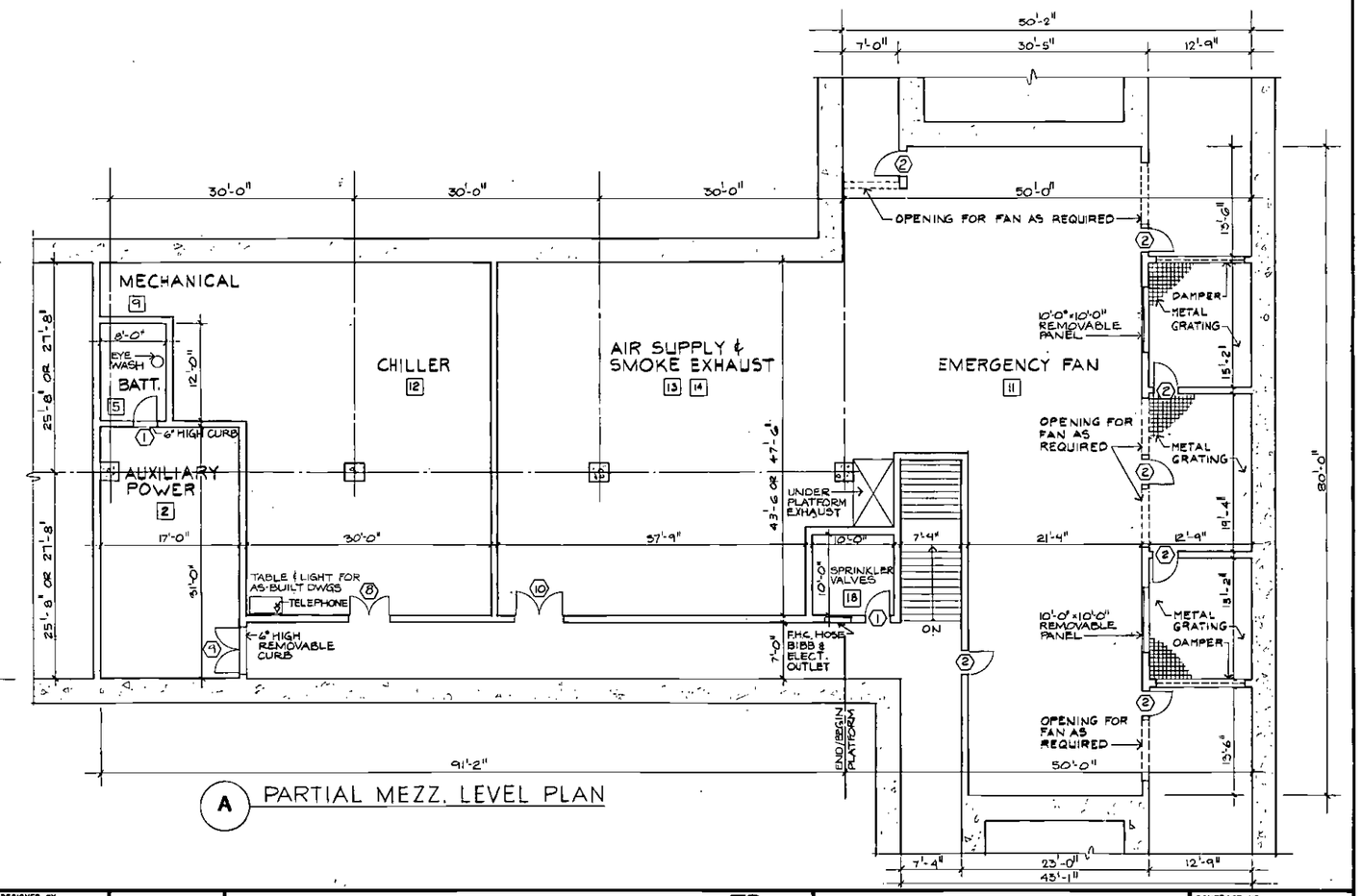
GENERAL NOTES:

1. SEE MECH. DWGS. FOR EXACT LOCATION AND SIZES OF EQUIPMENT
2. ASSUME 10" INTERIOR WALLS AT ANCILLARY SPACES
3. COLUMN SIZE SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. A/E SHALL DETERMINE COLUMN SHAPE & SIZE.



B PARTIAL PLATFORM LEVEL PLAN

THIS CONDITION OCCURS AT LOW END OF SLOPED STATIONS. SEE GENERAL PLANS FOR SLOPE & LAYOUT.



A PARTIAL MEZZ. LEVEL PLAN

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

DESIGNED BY	H.W.A.
DRAWN BY	A.S.
CHECKED BY	P.C./G.A.P
IN CHARGE	R.G.P.
DATE	08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

ARCHITECTURAL DIRECTIVE

ENLARGED PROTOTYPICAL ANCILLARY ROOM PLANS

CONTRACT NO.	
DRAWING NO.	AD-015
REV.	
SCALE	1/8"=1'-0"
SHEET NO.	

ARCHITECTURAL STANDARDS

DWG NO.	TITLE
AS-001	ABBREVIATIONS, GENERAL NOTES & SYMBOLS & INDEX OF DRAWINGS
AS-002	STREET ENTRANCES & PASSAGEWAY DETAILS
AS-003	ROLLING GRILLE DETAILS
AS-004	STREET TO MEZZANINE - ESCALATOR & STAIRS
AS-005	MEZZANINE TO PLATFORM - ESCALATOR & STAIRS
AS-006	PLATFORM DETAILS
AS-007	ASH & TRASH RECEPTACLE DETAILS/MISC. DETAILS
AS-008	MAP CASE/ADVERTISING SIGN DETAILS - PASSAGEWAY OR SIDEWALL
AS-009	TELEPHONE/MAP CASE & ADD FARE/BILL CHANGER DETAILS
AS-010	STAINLESS STEEL CABINETS FOR F.H.C., HOSE BIBBS & ELEC. OUTLETS
AS-011	PYLON FOUNDATION, CCTV MOUNTING & MISC. DETAILS
AS-012	PALETTE SCHEDULE & STANDARD FINISHES
AS-013	AIR SUPPLY DUCT DETAILS
AS-014	SMOKE EXHAUST BAFFLE DETAILS
AS-015	DOOR SCHEDULE & DETAILS, ACOUSTIC PANEL DETAILS

Abbreviations

A/E	ARCHITECT / ENGINEER (STATION DESIGNER)
ARCH.	ARCHITECT (ARCHITECTURAL)
APPROX.	APPROXIMATE
@	AT
ALUM.	ALUMINUM
A.F.F.	ABOVE FINISH FLOOR
AUX.	AUXILLIARY
BM.	BEAM
BET.	BETWEEN
B.R.S.	BLAST RELIEF SHAFT
B.S.	BOTH SIDES
BOT.	BOTTOM
BLDG.	BUILDING
CLG.	CEILING
C.L. or ℄	CENTER LINE
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CCTV	CLOSED CIRCUIT TELEVISION
COL.	COLUMN
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
C.T.	CERAMIC TILE
CONT.	CONTINUOUS
C.O.	CONVENIENCE OUTLET
DET.	DETAIL
DIA. or Ø	DIAMETER
DIM.	DIMENSION
D.F.	DRINKING FOUNTAIN
DN.	DOWN
DWG.	DRAWING
E.	EAST
ELECT.	ELECTRICAL
EL.	ELEVATION
ELEV.	ELEVATOR
EMERG.	EMERGENCY
EQ.	EQUAL
EQUIP.	EQUIPMENT
ESC.	ESCALATOR
EFC	EXPOSED FINISH CONCRETE
EC	EXPOSED CONSTRUCTION
EXIST.	EXISTING
EXT.	EXTERIOR
EXP.	EXPANSION
F.O.C.	FACE OF CONCRETE
F.D.	FLOOR DRAIN
F.H.C.	FIRE HOSE CABINET
FT.	FEET
FIN.	FINISH
F.A.	FIRE ALARM
F.E.(C)	FIRE EXTINGUISHER (CABINET)
F.C.	FLEXIBLE CONNECTION
FL.	FLOOR
F.A.I.	FRESH AIR INTAKE
GEN.	GENERAL
GRTG.	GRATING
GL.	GLASS
GR.	GRANITE
GALV.	GALVANIZED
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HT.	HEIGHT
HORZ.	HORIZONTAL
HM.	HOLLOW METAL
HDW	HARDWARE
IN.	INCH
I.D.	INSIDE DIAMETER
INT.	INTERIOR
INSUL.	INSULATION
JT.	JOINT
K.O.P.	KNOCK OUT PANEL
LVL.	LEVEL
LTG.	LIGHTING
LKR	LOCKER
LP	LOW POINT
MACH.	MACHINE
MAX.	MAXIMUM
MECH.	MECHANICAL
MEZZ.	MEZZANINE
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MCC	MOTOR CONTROL CENTER
MTL.	METAL
MFR.	MANUFACTURER
MRTC	METRO-RAIL TRANSIT CONSULTANT
N.	NORTH
N.I.C.	NOT IN CONTRACT
N.T.S	NOT TO SCALE
NO. or #	NUMBER
N/A	NOT APPLICABLE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
PL.	PLATE
PTD.	PAINTED
PLAT.	PLATFORM
PLUMB.	PLUMBING
PT.	POINT
P.S.F.	POUNDS PER SQUARE FOOT
P.S.I.	POUNDS PER SQUARE INCH
QT.	QUARRY TILE
RAD.	RADIUS
RET.	RETURN
R.	RISER
RM.	ROOM
RB	RUBBER BASE
SEC.	SECTION
SIM	SIMILAR
S.	SOUTH
S.F.	SQUARE FOOT
STD.	STANDARD
STA.	STATION
S.P.	SUMP PUMP
S.S.	STAINLESS STEEL
STL.	STEEL
STRUCT.	STRUCTURAL
TEL.	TELEPHONE
T.O.C.	TOP OF CONCRETE
T.O.R.	TOP OF RAIL
T.P.S.	TRACTION POWER SUBSTATION
T.C.C. or T.C.& C.	TRAIN CONTROL & COMMUNICATION
THK	THICK (NESS)
TYP.	TYPICAL
U.P.E.	UNDER PLATFORM EXHAUST
U.N.O.	UNLESS NOTED OTHERWISE
UTIL.	UTILITY
VENT.	VENTILATION
VERT.	VERTICAL
VAT	VINYL ASBESTOS TILE
VB	VINYL BASE
WT.	WEIGHT
W.	WEST
W/	WITH
W.PT.	WORKING POINT
W/O	WITHOUT
W.P.	WATERPROOF

Symbols

EXTENT OF WORK BY OTHERS

CONCRETE

C.M.U.

EARTH

COMPACTED FILL

GRANITE

INSULATION

OR

STEEL

ALUM. OR S.S.

CHANGE IN PLANE

CENTER LINE

MATCH LINE

WORK POINT OR DATUM (TOP OF) POINT

DOOR NUMBER

ROOM NUMBER - 10

ANGLE

CHANNEL

DIAMETER

SQUARE

CENTER LINE

SECTION — A / A-007 ON OTHER SHEET; A ON SAME SHEET

DETAIL — I / A-007 ON OTHER SHEET; I ON SAME SHEET

ELEVATION — E / A-007 ON OTHER SHEET; E ON SAME SHEET

REVISION

General Notes

1. ALL DIMENSIONS FOR LOCATING THE PRIMARY FUNCTIONAL ELEMENTS ARE ESTABLISHED IN STANDARD AND DIRECTIVE DRAWINGS.
2. THE LOCATION AND APPROXIMATE SIZING OFF ALL STRUCTURAL ELEMENTS ARE ESTABLISHED IN THE STRUCTURAL STANDARD AND DIRECTIVE DRAWINGS.
3. THE EXACT QUANTITIES AND FINAL LOCATIONS OF ALL FARE COLLECTION EQUIPMENT INCLUDING TICKETING VENDING MACHINES, BILL CHANGERS, FARE GATES AND ADD FARES WILL BE PROVIDED TO THE A/E..(SEE NOTE 7.)
4. THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE "SYSTEM DESIGN CRITERIA & STANDARDS, VOL. 3, STATIONS."
5. THE A/E MAY BE REQUIRED TO CROSS REFERENCE STANDARD DRAWINGS WITH OTHER CONTRACT DOCUMENTS OR TO MODIFY STANDARD DRAWINGS TO FIT SITE SPECIFIC CONDITIONS.
6. EXCEPT AS NOTED THE COLUMN SHAPE AND SIZE SHOWN IN PLAN IS AT THE DISCRETION OF THE A/E.
7. FARE COLLECTION AND CRASH GATE DEVICES ARE N.I.C. AND ARE SHOWN ON PLANS FOR LOCATION ONLY. (SEE NOTE 3)

Sealant, Caulking & Joint Filler Legend

1-SRS	ONE-PART SILICONE RUBBER SEALANT
2-PUMS	TWO-PART POLYURETHANE MODIFIED SEALANT
2-PUS	TWO-PART POLYURETHANE SEALANT
RBC	RUBBERIZED BITUMINOUS COMPOUND
BRS	BUTYL RUBBER SEALANT
ALS	ACRYLIC-LATEX SEALANT
SSS	SILICONE SANITARY SEALANT
BJFRN	BITUMINOUS JOINT FILLER
VFJV	PVC FOAM JOINT FILLER
EPEJF	EXPANDED POLYETHYLENE JOINT FILLER
CSNG	CONCEALED, EXPANDED NEOPRENE GASKET

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY HWA
DRAWN BY BK
CHECKED BY P.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

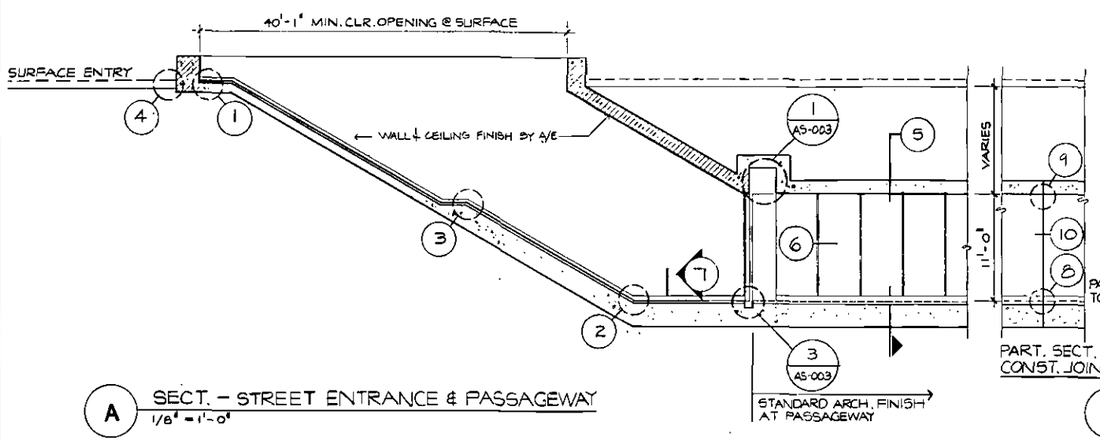
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

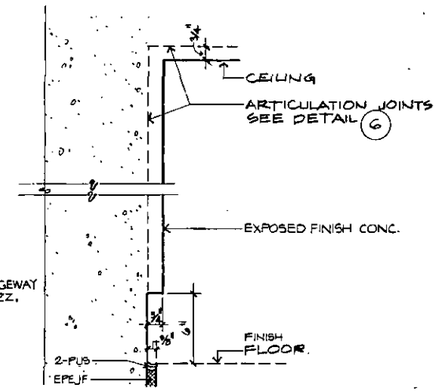
ARCHITECTURAL STANDARD

ABBREVIATIONS, GENERAL NOTES, & SYMBOLS

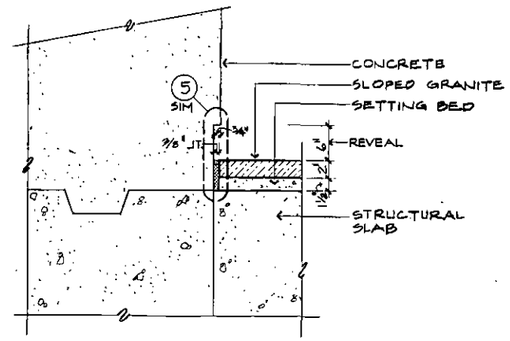
CONTRACT NO.
DRAWING NO. AS-001
REV.
SCALE N/A
SHEET NO.



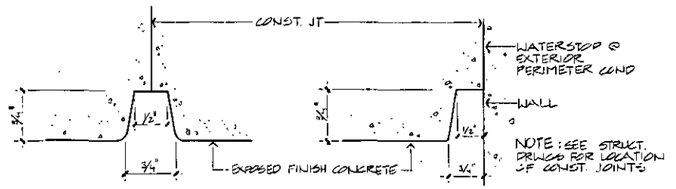
A SECT. – STREET ENTRANCE & PASSAGEWAY
1/8" = 1'-0"



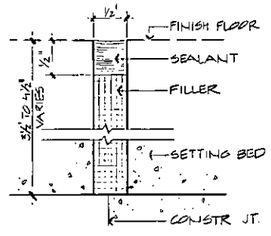
5 SECT. PASSAGEWAY WALL
3" = 1'-0"



1 SECT. - PAVER @ ENTRANCE
1 1/2" = 1'-0"

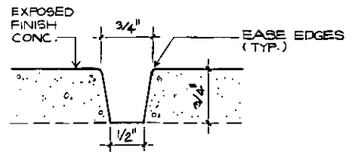


10 TYPICAL CONST. JOINT @ WALL OR CEILING
FULL SIZE

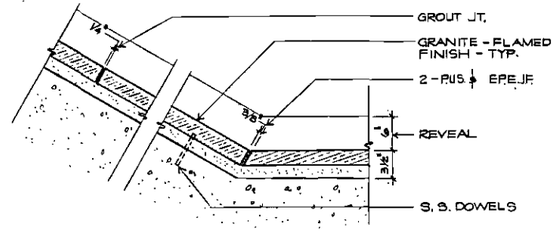


9 TYPICAL CONST. JOINT @ WALL OR CLG INTERSECTION
FULL SIZE

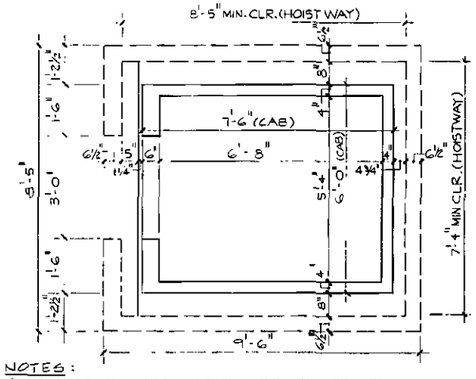
8 TYPICAL CONSTR JT. @ FLOOR
FULL SIZE



6 STANDARD ARTICULATION JT. DETAIL
FULL SIZE

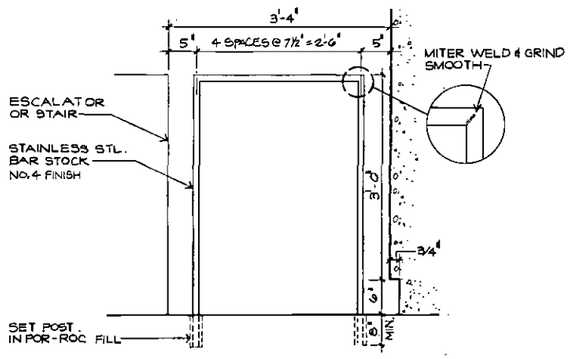


2 SECT. - SLOPED PAVER
1 1/2" = 1'-0"

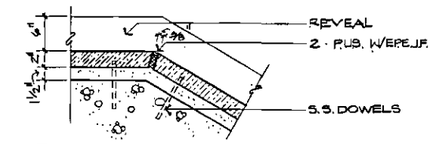


NOTES:
1) ELEVATOR CAB DIMENSIONS ARE STANDARD.
2) HOISTWAY ENCLOSURE DIMENSIONS SHOWN ARE MIN CLEARANCES A/E HAS OPTION TO SELECT ENCLOSURE MATERIALS AND CONFIGURATION BUT SHALL NOT INFRINGE ON CLEARANCES INDICATED.

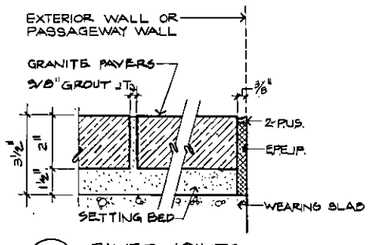
B PLAN - ELEVATOR HOISTWAY ENCLOSURE CLEARANCE REQUIRMENTS
1/2" = 1'-0"



7 ELEVATION - BARRIER
1"=1'-0"



3 PAVER PLANE CHANGE
1 1/2" = 1'-0"



4 PAVER JOINTS - COMPOSITE DETAIL
3" = 1'-0"

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

REV.	DATE	BY	SUB.	APP	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

DESIGNED BY M.W.A.
DRAWN BY C.Y./J.W.
CHECKED BY P.C./G.A.P.
IN CHARGE A.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

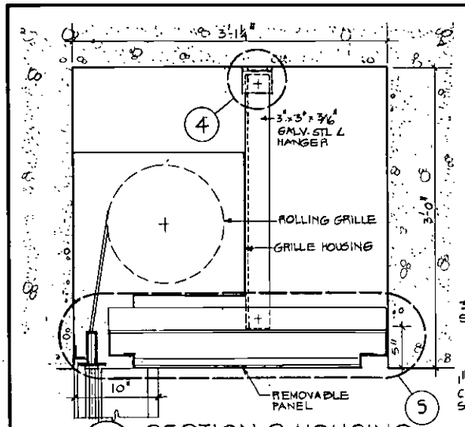
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

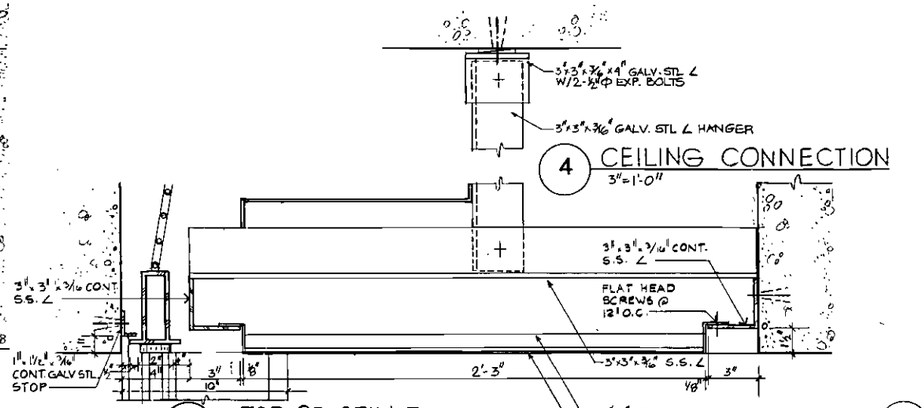
ARCHITECTURAL STANDARD

STREET ENTRANCE & PASSAGEWAY DETAILS

CONTRACT NO.
DRAWING NO. AS-002
REV.
SCALE AS NOTED
SHEET NO.

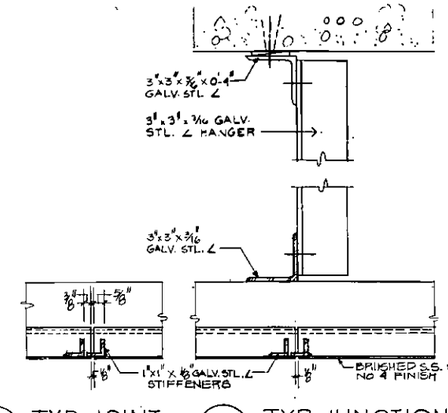


1 SECTION @ HOUSING
1½"=1'-0"

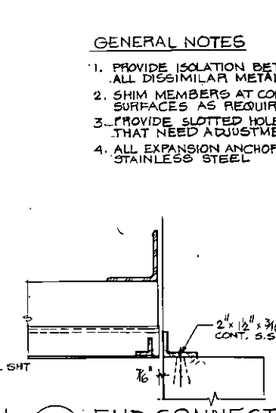


4 CEILING CONNECTION
3"=1'-0"

5 TOP OF GRILLE
3"=1'-0"



8 TYP. JOINT
3"=1'-0"

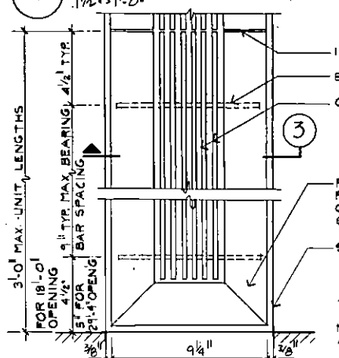


9 TYP. JUNCTION
3"=1'-0"

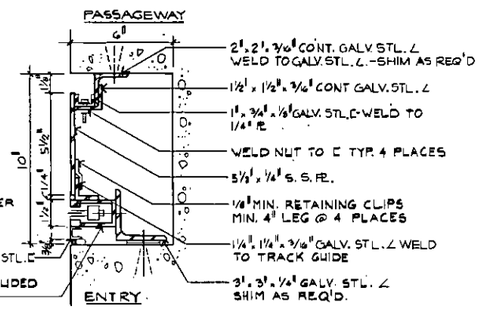
10 END CONNECTION
3"=1'-0"

GENERAL NOTES

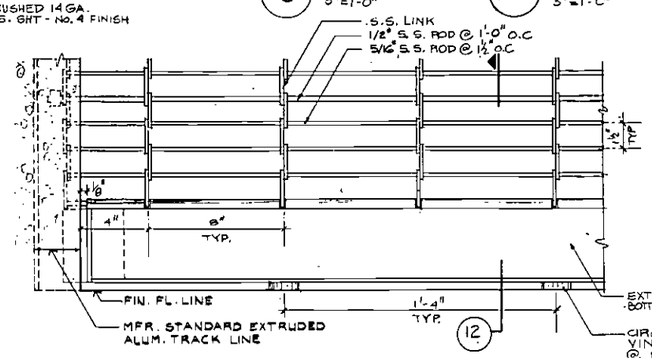
1. PROVIDE ISOLATION BETWEEN ALL DISSIMILAR METALS
2. SHIM MEMBERS AT CONCRETE SURFACES AS REQUIRED
3. PROVIDE SLOTTED HOLES AT MEMBERS THAT NEED ADJUSTMENT
4. ALL EXPANSION ANCHORS TO BE STAINLESS STEEL



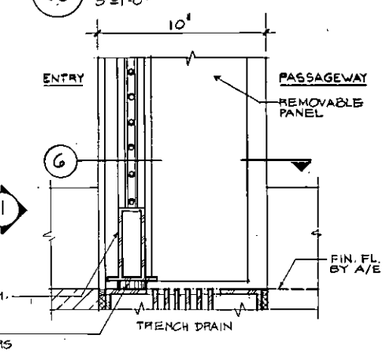
2 PLAN - TRENCH DRAIN GRATING
3"=1'-0"



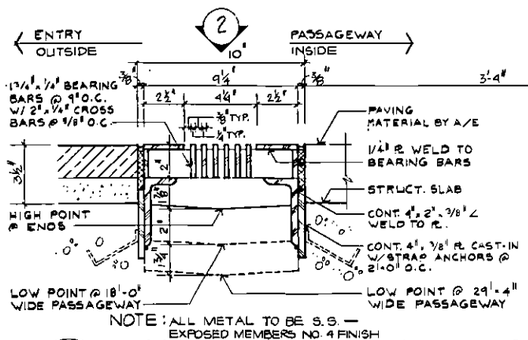
6 JAMB POCKET
3"=1'-0"



11 GRILLE PATTERN
3"=1'-0"

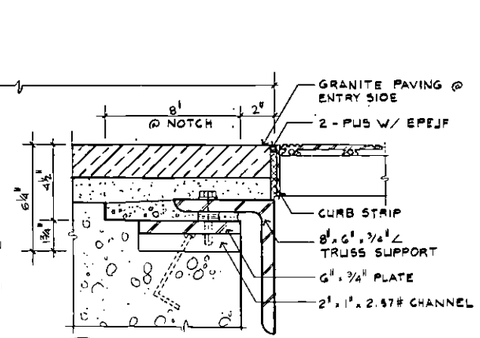


12 BOTTOM OF GRILLE
3"=1'-0"

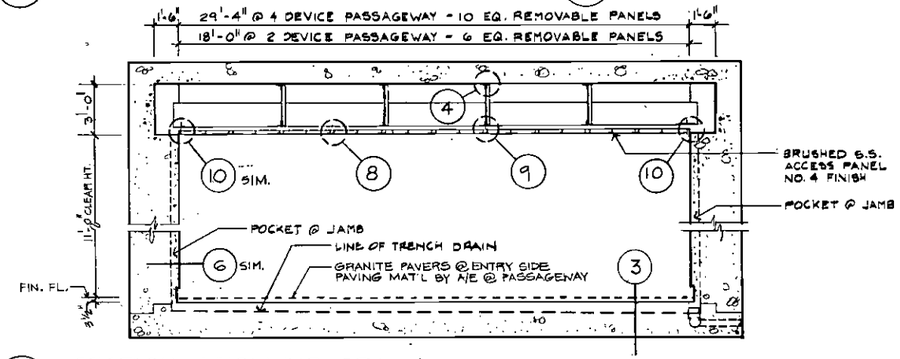


NOTE: ALL METAL TO BE S.S. — EXPOSED MEMBERS NO. 4 FINISH

3 SECTION - TRENCH DRAIN GRATING
3"=1'-0"



7 ESCALATOR TRUSS END
3"=1'-0"



A SECTION @ ROLLING GRILLE
1/4"=1'-0"

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

DESIGNED BY H.W.A
DRAWN BY S.D./B.K
CHECKED BY P.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

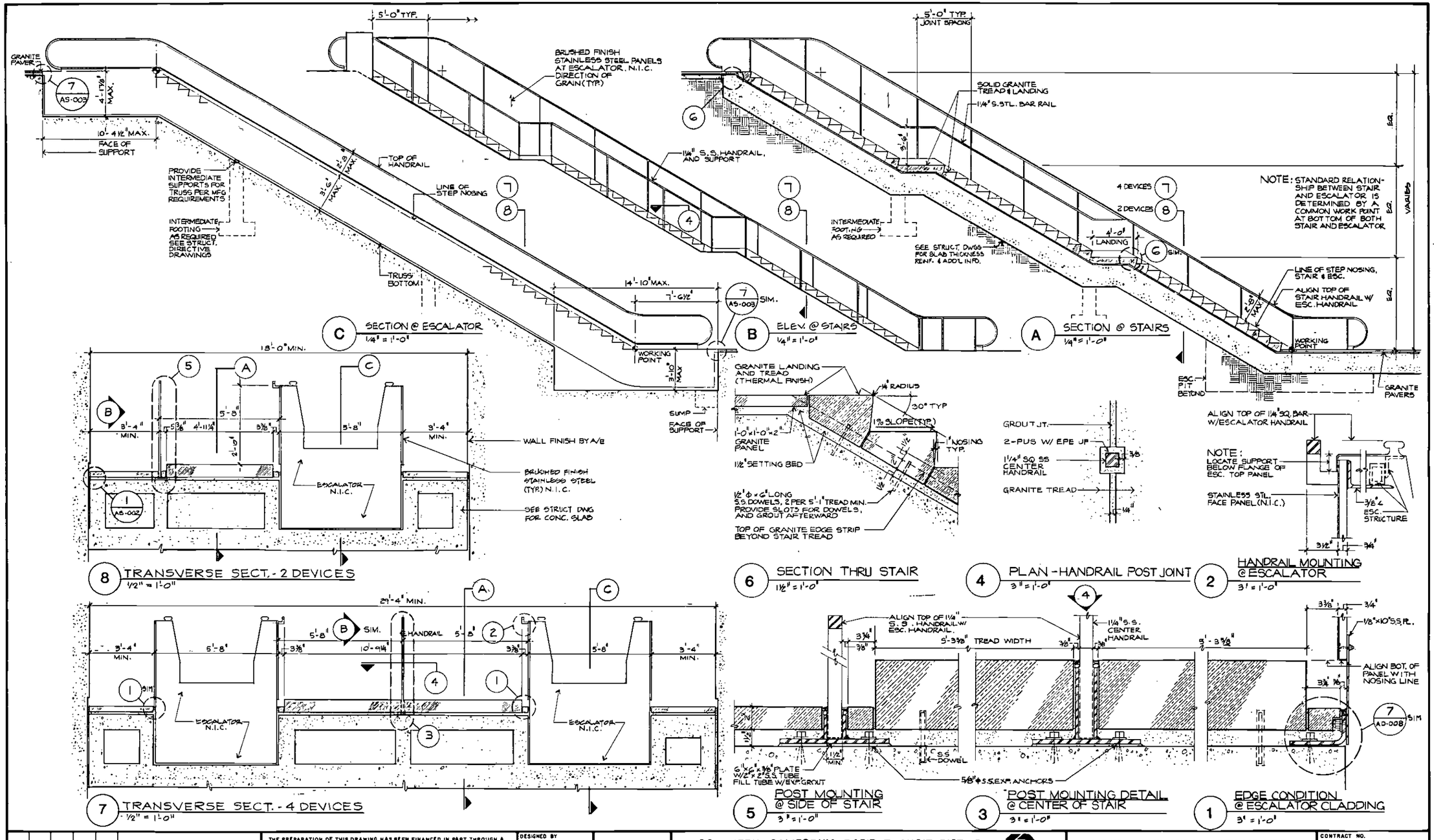
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

ARCHITECTURAL STANDARD

ROLLING GRILLE DETAILS

CONTRACT NO.
DRAWING NO. AS-003
REV.
SCALE AS NOTED
SHEET NO.



REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A.
DRAWN BY C.Y.
CHECKED BY R.C./B.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

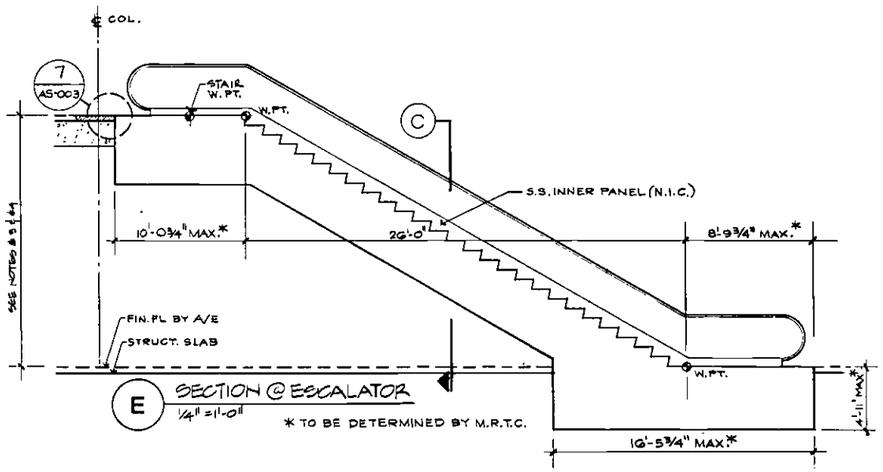
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

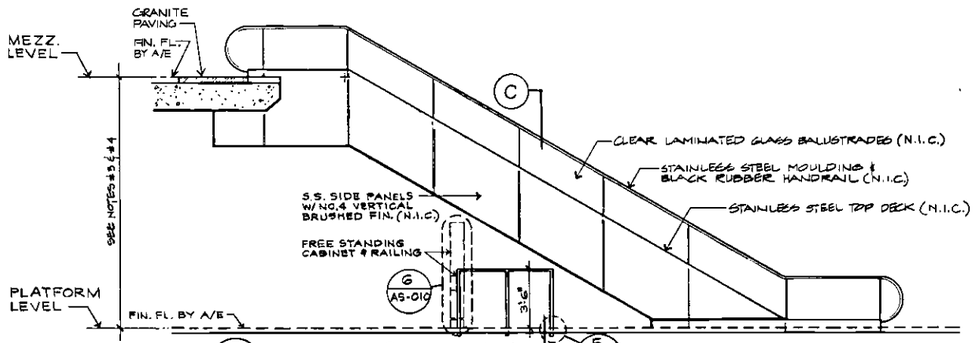
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS
APPROVED

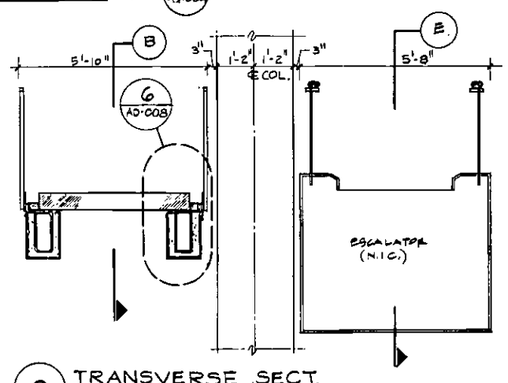
ARCHITECTURAL STANDARD

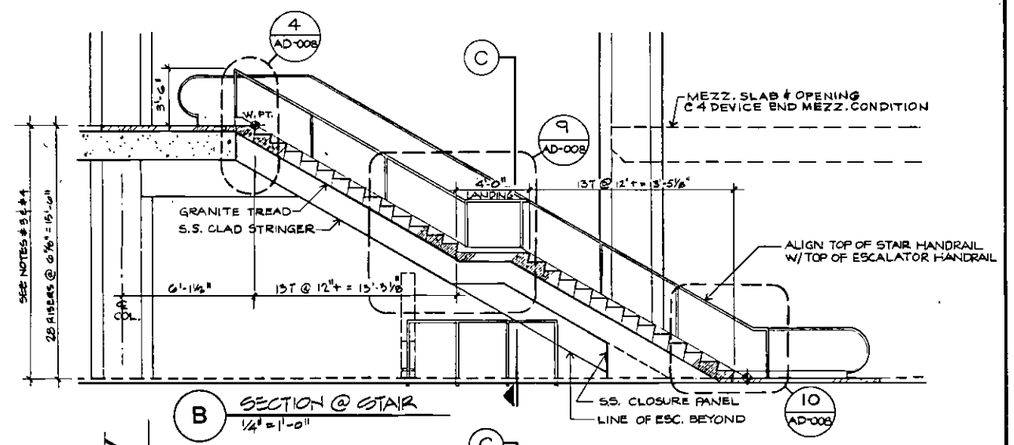
STREET TO MEZZANINE
ESCALATOR & STAIRS

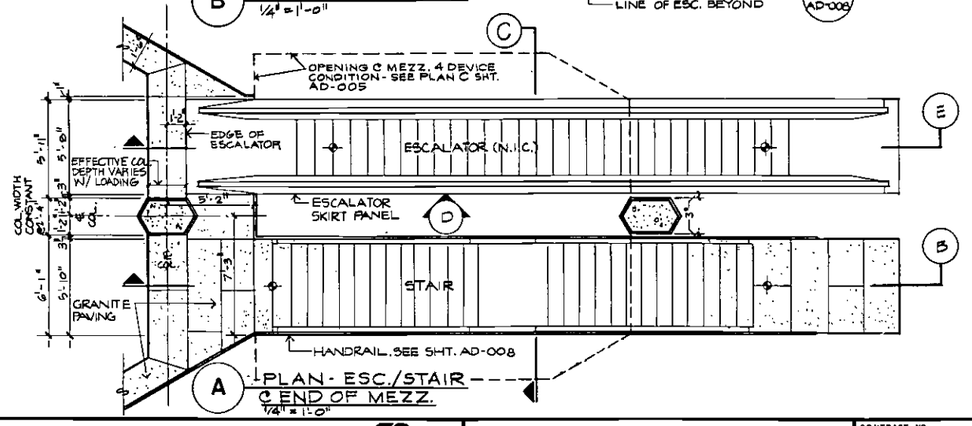
CONTRACT NO.
DRAWING NO. AS-004
REV.
SCALE AS NOTED
SHEET NO.











NOTES:

1. RAILINGS OF STAIR ARE SHOWN TO DEFINE REQUIRED HANDRAIL & SUPPORT RELATIONSHIPS A/E TO PROVIDE CODE REQUIRED VERTICAL & HORIZONTAL ELEMENTS WITHIN RAILING.
2. * PROCUREMENT DRAWINGS FOR COMPLETE ESCALATOR ASSEMBLY & ALL TRIM PANELS WILL BE DEVELOPED BY M.R.T.C. THIS WORK IS NOT IN CONTRACT ALL FRAMING AND STRUCTURAL DETAILS FOR ESCALATOR SUPPORT ARE THE RESPONSIBILITY OF THE A/E.
3. RELATIONSHIP OF MEZZANINE TO PLATFORM IS A CONSTANT DIMENSION., HOWEVER, DUE TO STATION SLOPE, CALCULATIONS OF VERTICAL DIMENSIONS ARE REQUIRED TO VERIFY THE CONDITION FOR ANY GIVEN AREA
4. VERTICAL DIMENSION OF MEZZANINE TO PLATFORM VARIES FROM 15'-6" MIN. TO 16'-0" MAX.

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A.
DRAWN BY R.G./C.Y./A.B.
CHECKED BY P.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

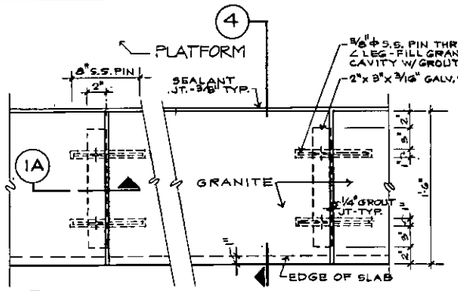
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

ARCHITECTURAL STANDARD

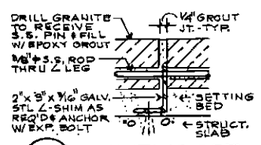
MEZZANINE TO PLATFORM - ESCALATOR & STAIRS

CONTRACT NO.
DRAWING NO. AS-005 REV.
SCALE AS NOTED
SHEET NO.

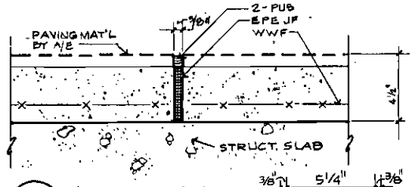


1 PLAN-GRANITE EDGE PAVER MOUNTING
1½" = 1'-0"

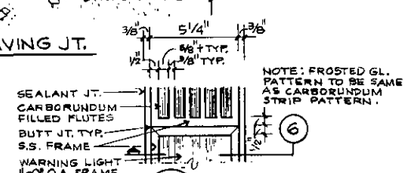
NOTE:
ALL GRANITE, SHOWN IS "SIERRA WHITE" W/ FLAMED FINISH & IS STANDARD FOR ALL STATIONS.



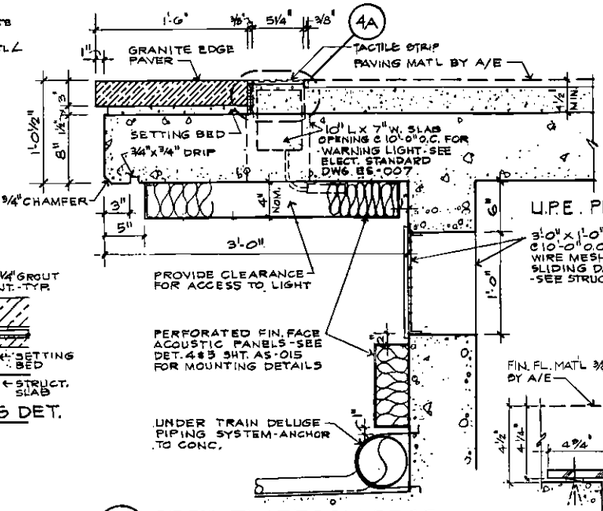
1A MOUNTING DET.
3"=1'-0"



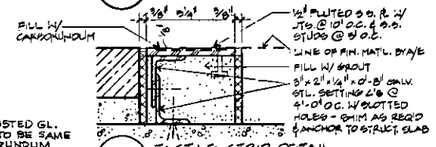
2 TYP. PAVING JT.
3" = 1'-0"



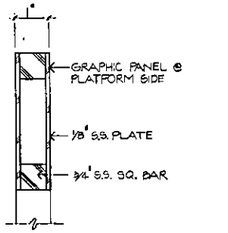
2A TACTILE STRIP DET.
3"=1'-0"



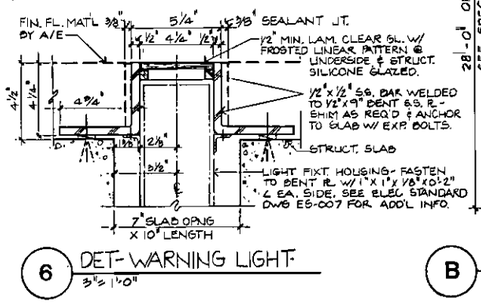
4 SECT. PLATFORM EDGE
1½" = 1'-0"



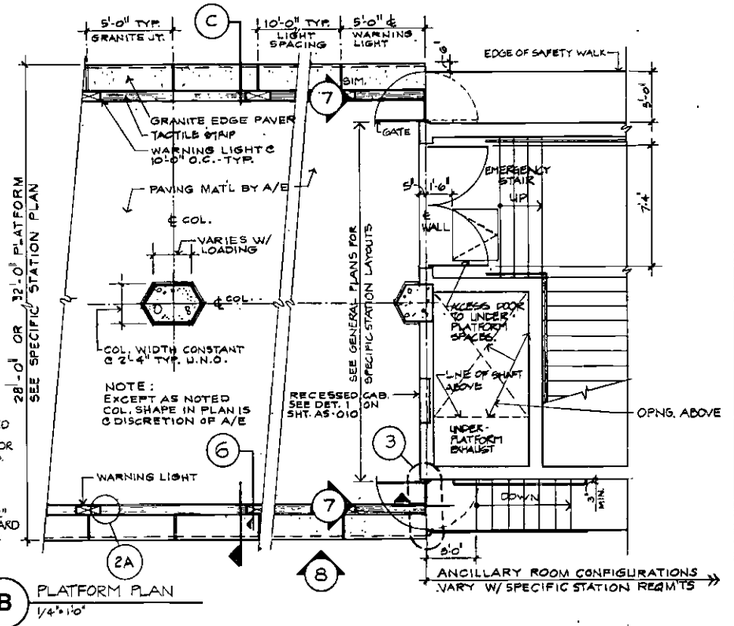
4A TACTILE STRIP DETAIL
3"=1'-0"



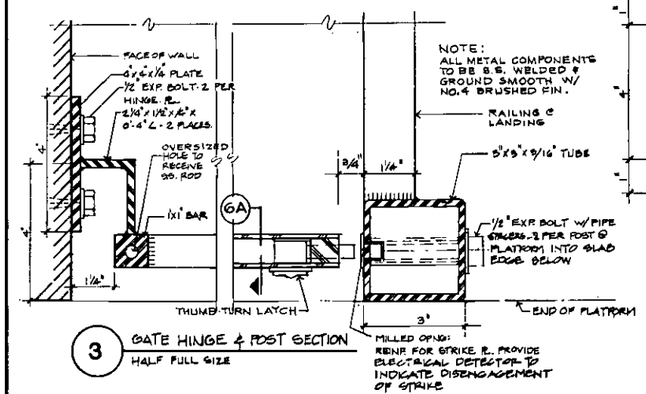
6A GATE CROSSBAR
HALF FULL SIZE



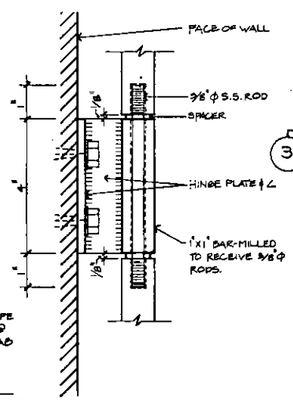
6 DET - WARNING LIGHT
3"=1'-0"



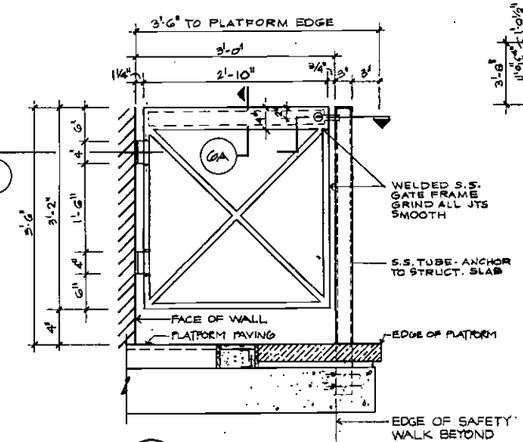
B PLATFORM PLAN
¼"=1'-0"



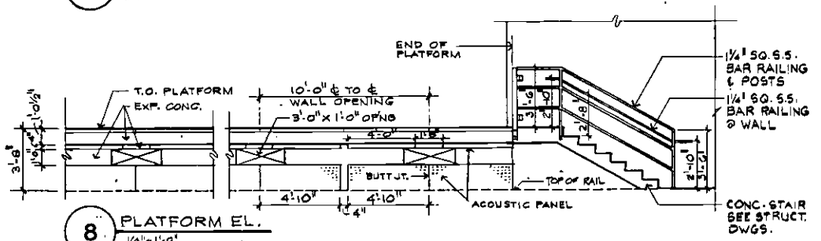
3 GATE HINGE & POST SECTION
HALF FULL SIZE



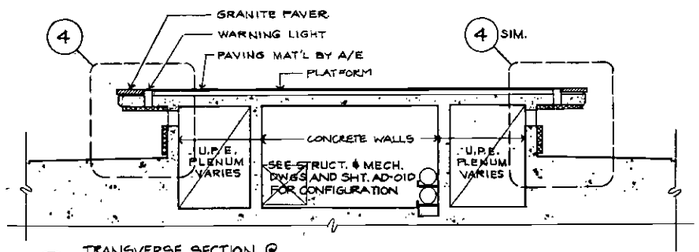
5 GATE HINGE DETAIL
HALF FULL SIZE



7 END OF PLATFORM GATE
1"=1'-0"



8 PLATFORM EL.
⅛"=1'-0"



C TRANSVERSE SECTION @ MIDPOINT OF PLATFORM
¼"=1'-0"

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

DESIGNED BY	H.W.A.
DRAWN BY	M.H./M.P.
CHECKED BY	P.C./G.A.P.
IN CHARGE	R.G.P.
DATE	09/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

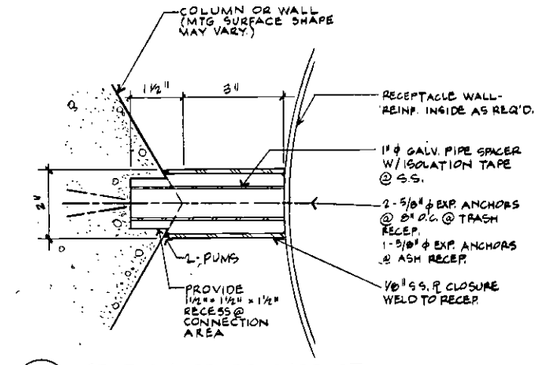
ARCHITECTURAL STANDARD

PLATFORM DETAILS

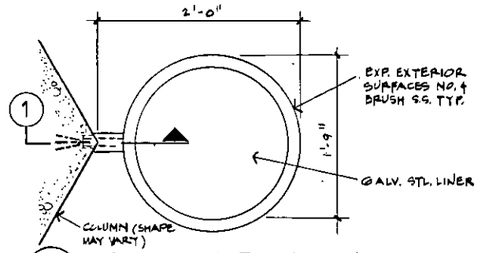
CONTRACT NO.	
DRAWING NO.	AS-006
REV.	
SCALE	AS NOTED
SHEET NO.	

NOTES:

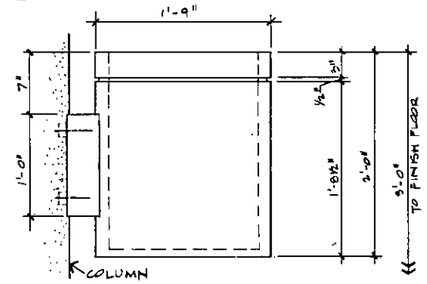
1. LOCATIONS OF ASH & TRASH RECEPTACLES TO BE CONSISTENT W/ CRITERIA. SEE DRAWINGS FOR RECEPTACLE LOCATIONS IN PASSAGEWAY.
2. SQUARE SHAPED RECEPTACLES ARE BEING DEVELOPED.



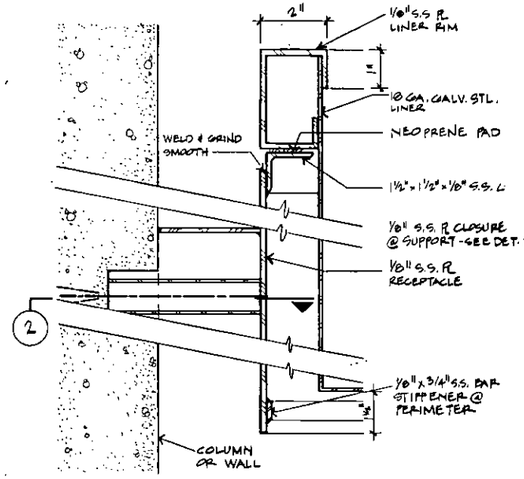
2 SECTION - RECEP. SUPPORT
HALF FULL SIZE



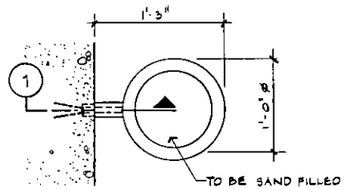
A TRASH RECEPTACLE PLAN
1½" = 1'-0"



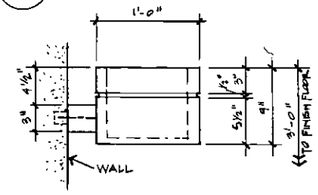
B TRASH RECEPTACLE ELEVATION
1½" = 1'-0"



1 SECTION - RECEPTACLE FRAMING
HALF FULL SIZE



C ASH RECEPTACLE PLAN
1½" = 1'-0"



D ASH RECEPTACLE ELEVATION
1½" = 1'-0"

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A.
DRAWN BY M.G.P.
CHECKED BY P.C./G.A.P
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

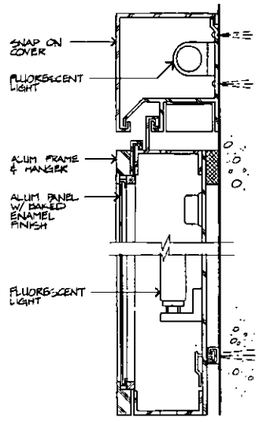
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

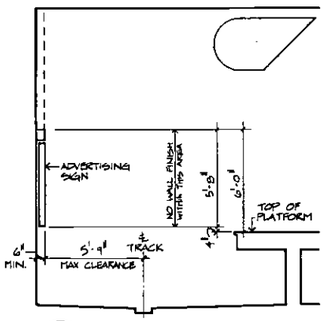
ARCHITECTURAL STANDARD

ASH & TRASH RECEPTACLE DETAILS

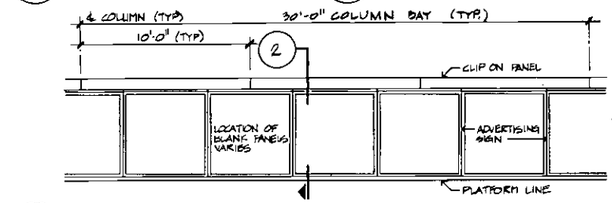
CONTRACT NO.
DRAWING NO. AS-007 REV.
SCALE AS NOTED
SHEET NO.



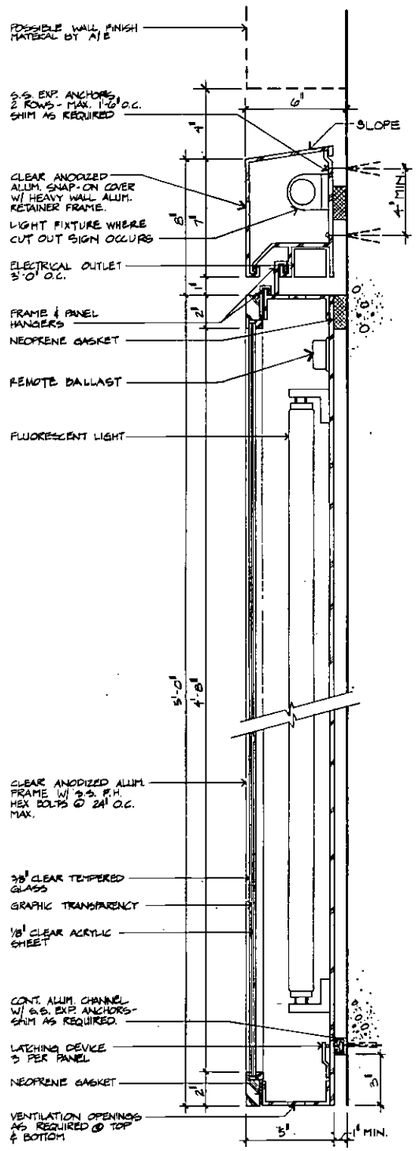
2 DETAIL OF BLANK PANEL
3" = 1'-0"



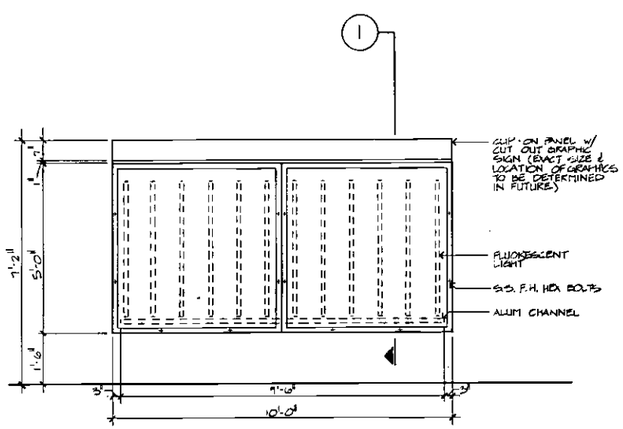
C PARTIAL SECTION @ PLATFORM
1/4" = 1'-0"



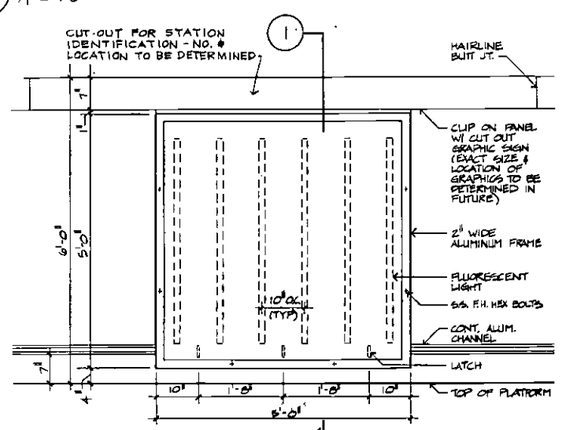
B ELEVATION OF PLATFORM SIDEWALK
1/4" = 1'-0"



1 SECTION OF ADVERTISING PANEL
3" = 1'-0"



D ELEVATION OF MAP CASE @ PASSAGEWAY
1/2" = 1'-0"



A ELEVATION OF ADVERTISING PANEL
3/4" = 1'-0"

NOTE:

PROCUREMENT DRAWINGS FOR COMPLETE MAP CASE & ADVERTISING SIGN ASSEMBLY WILL BE DEVELOPED BY M.R.T.C. THIS WORK IS NOT IN THE CONTRACT. ALL FRAMING & STRUCTURAL DETAILS FOR MAP CASE & ADVERTISING SIGN ASSEMBLY SUPPORT ARE THE RESPONSIBILITY OF THE A/E

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY	H.W.A.
DRAWN BY	M.D.
CHECKED BY	P.C./G.A.P.
IN CHARGE	R.G.P.
DATE	08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

SUBMITTED _____

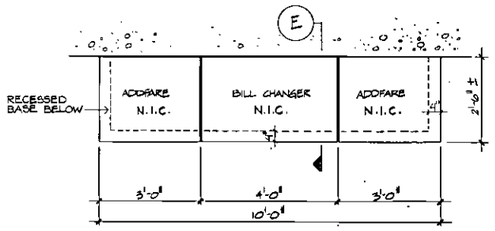
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

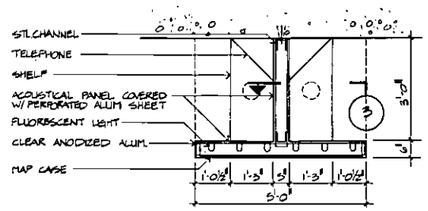
ARCHITECTURAL STANDARD

MAP CASE / ADVERTISING SIGN
DETAILS - PASSAGEWAY OR SIDEWALK

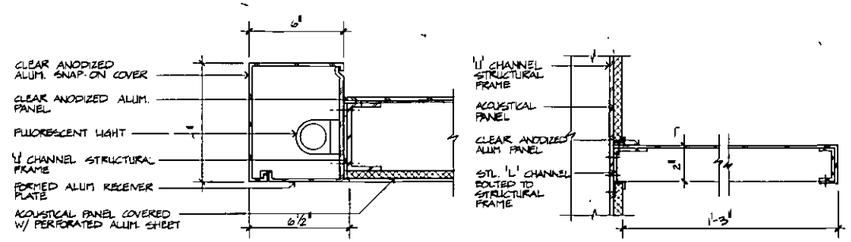
CONTRACT NO.	
DRAWING NO.	AS-008
REV.	
SCALE	AS NOTED
SHEET NO.	



E PLAN OF ADDFARE MACHINES
1/2" = 1'-0"

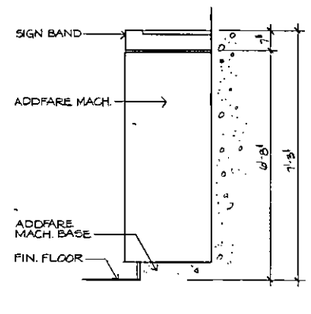


C PLAN OF PHONE BOOTH
1/2" = 1'-0"

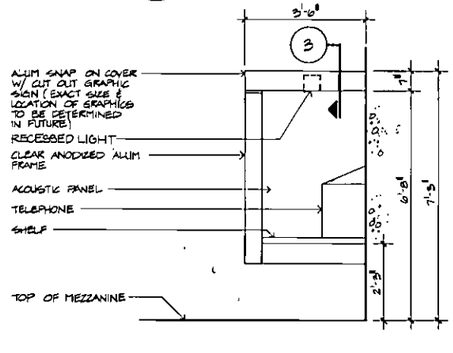


3 SNAP ON PANEL
3" = 1'-0"

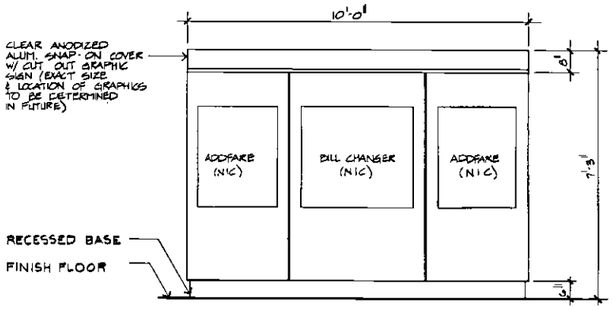
2 DETAIL OF SHELF
3" = 1'-0"



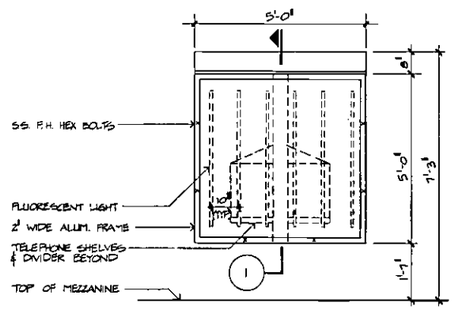
E SECTION @ ADDFARE
1½" = 1'-0"



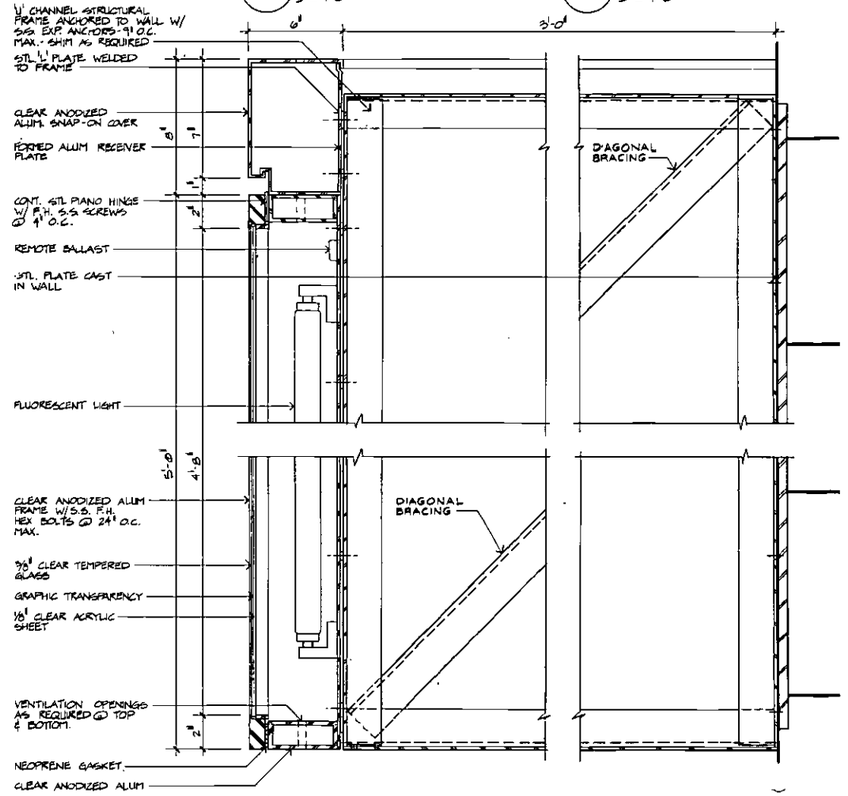
B ELEVATION OF PHONE BOOTH
1/2" = 1'-0"



D ELEVATION OF ADDFARE MACHINES
1/2" = 1'-0"



A ELEVATION OF MAP CASE
1/2" = 1'-0"



1 SECTION OF MAP CASE @ PHONE BOOTH
3" = 1'-0"

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

DESIGNED BY	HWA
DRAWN BY	M.D.
CHECKED BY	P.C./G.A.P.
IN CHARGE	R.G.P.
DATE	08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

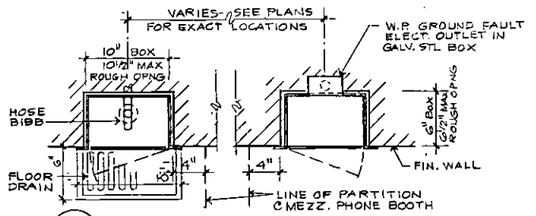
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

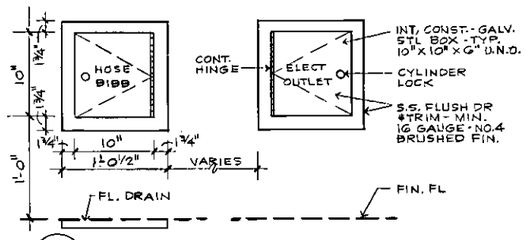
ARCHITECTURAL STANDARD

TELEPHONE / MAP CASE &
ADD FARE / BILL CHANGER DETAILS

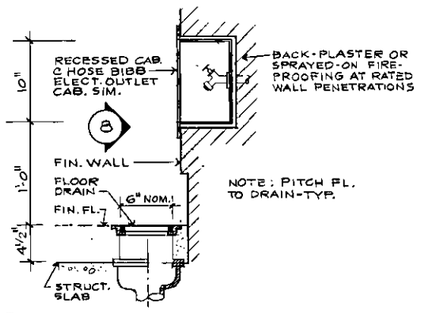
CONTRACT NO.	
DRAWING NO.	AS-009
REV.	
SCALE	AS NOTED
SHEET NO.	



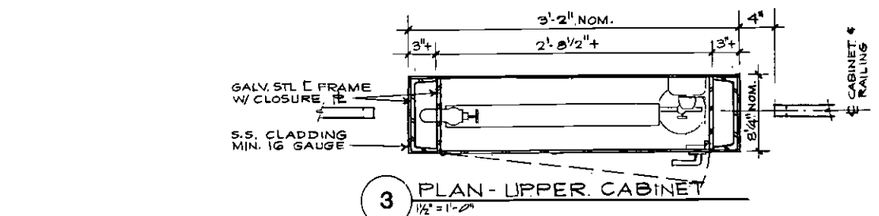
7 PLAN - RECESSED CABINETS FOR HOSE BIBB & ELECT. OUTLET
1 1/2" = 1'-0"



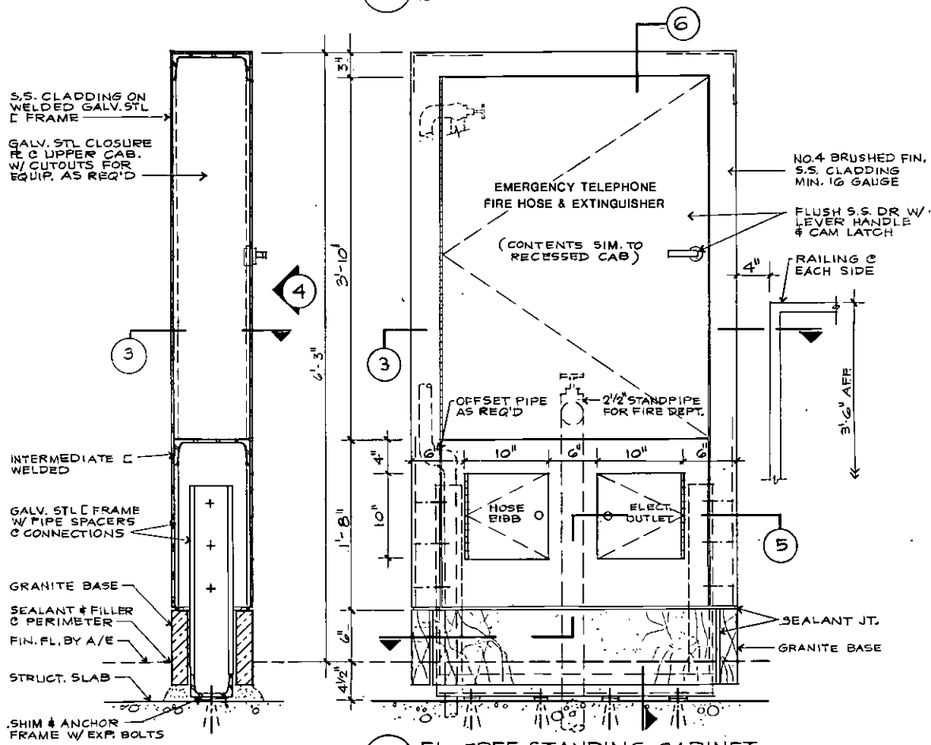
8 EL - HOSE BIBB & ELECT. CAB.
1 1/2" = 1'-0"



9 SECT. RECESSED WALL CABINET
1 1/2" = 1'-0"

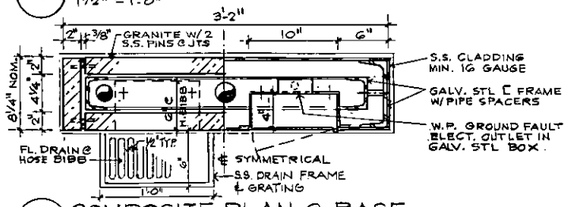


3 PLAN - UPPER CABINET
1 1/2" = 1'-0"



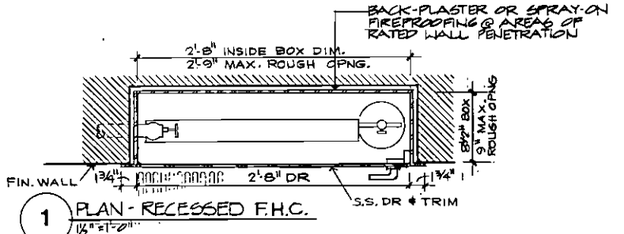
6 SECT. FREE STANDING CABINET
1 1/2" = 1'-0"

4 EL - FREE STANDING CABINET
1 1/2" = 1'-0"

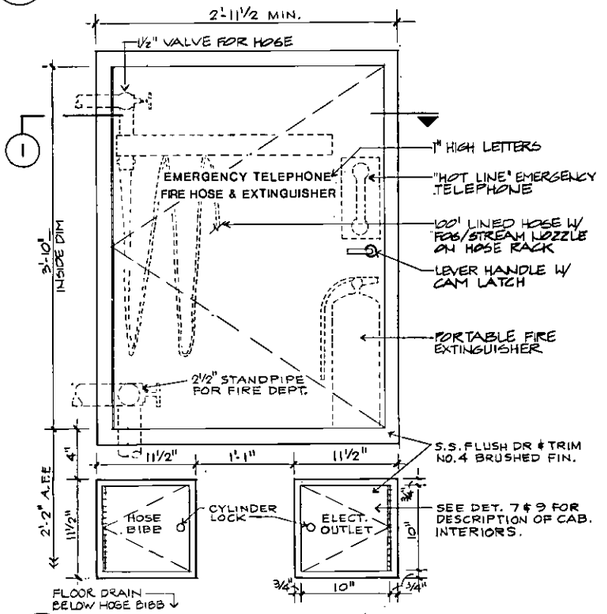


5 COMPOSITE PLAN @ BASE
1 1/2" = 1'-0"

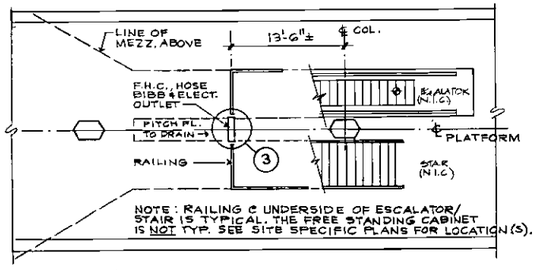
NOTE:
PROCUREMENT DWGS FOR COMPLETE S.S. CABINETS FOR F.H.C., HOSE BIBB & ELECT. OUTLET ASSEMBLIES WILL BE DEVELOPED BY M.R.T.C. - THIS WORK IS N.I.C. - ALL FRAMING & STRUCTURAL DETAILS FOR THE SUPPORT & FINISHED ASSEMBLY OF THESE CABINETS IS THE RESPONSIBILITY OF THE A/E.



1 PLAN - RECESSED F.H.C.
1 1/2" = 1'-0"



2 EL - RECESSED F.H.C./HOSE BIBB & ELECT. OUTLET
1 1/2" = 1'-0"



A LOCATION PLAN - FREE STANDING CABINET @ PLATFORM LEVEL
1/8" = 1'-0"

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

DESIGNED BY	HWA
DRAWN BY	M.D./J.M.W.
CHECKED BY	P.C./G.A.P.
IN CHARGE	R.G.P.
DATE	8/13/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

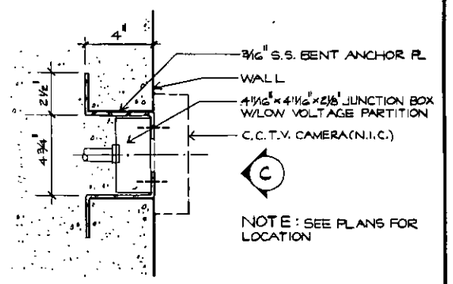
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

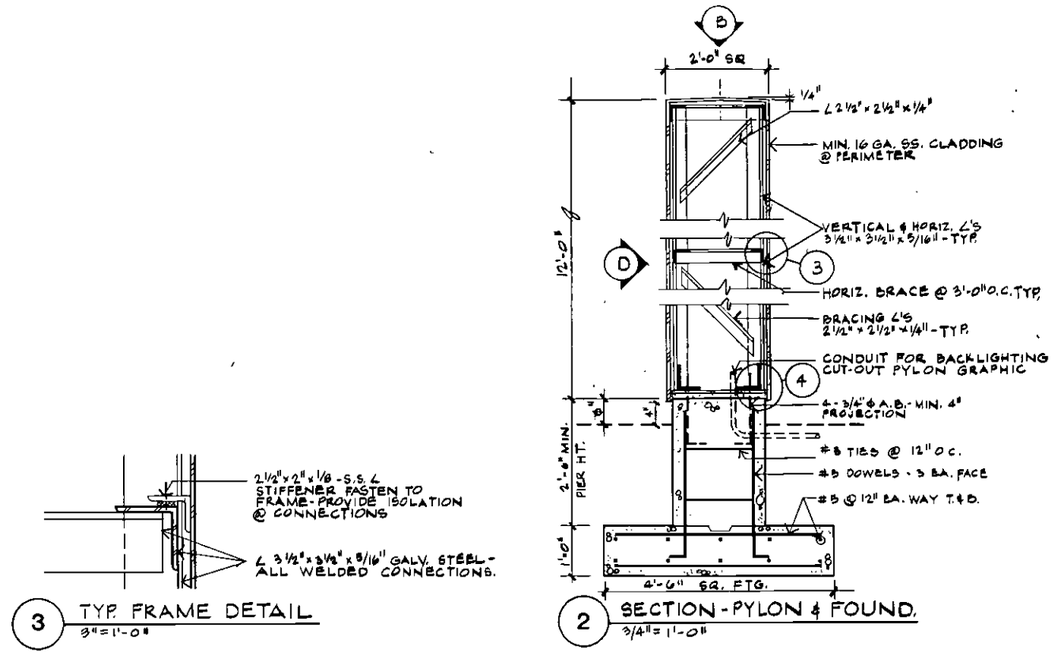
ARCHITECTURAL STANDARD

STAINLESS STEEL CABINETS FOR F.H.C., HOSE BIBBS & ELECT. OUTLETS

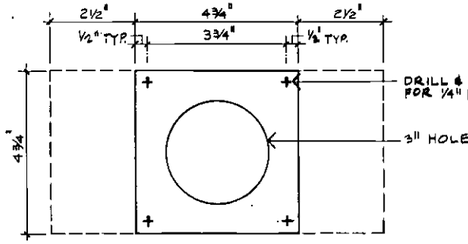
CONTRACT NO.	
DRAWING NO.	AS-010
REV.	
SCALE	AS NOTED
SHEET NO.	



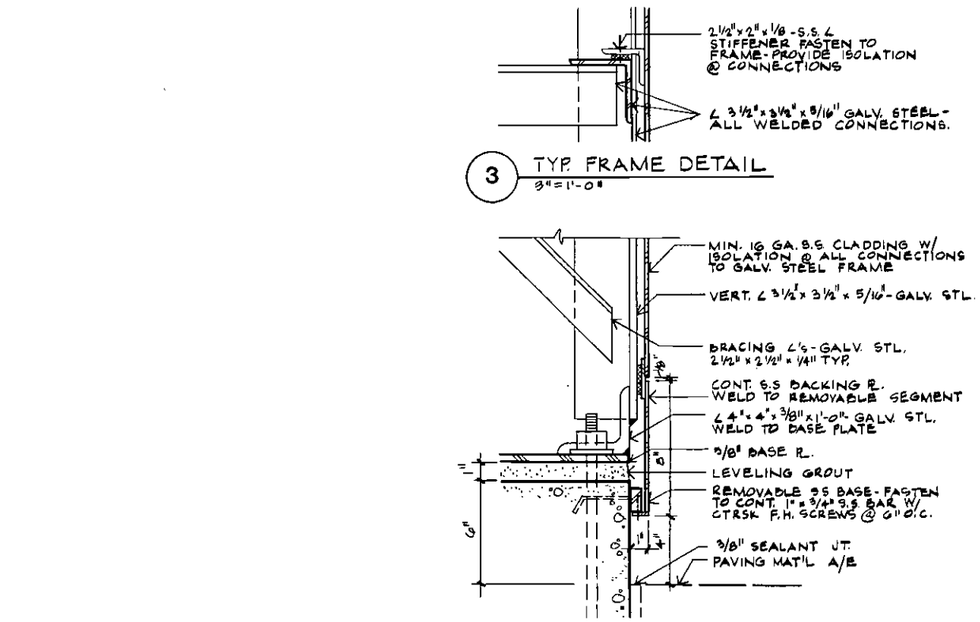
1 C.C.T.V. JUNCTION BOX MOUNTING DETAIL (VERTICAL MOUNTING SHOWN, HORIZONTAL MOUNTING SIM.)
3" = 1'-0"



2 SECTION - PYLON & FOUND.
3/4" = 1'-0"

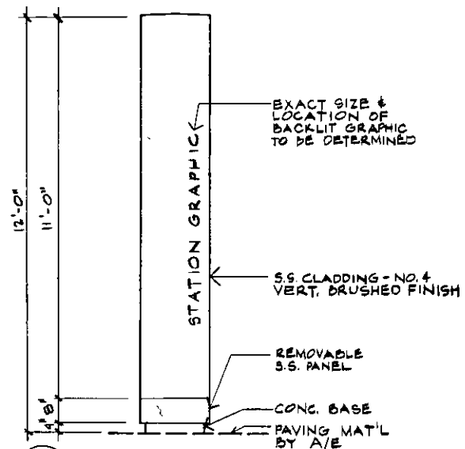


C ELEV. - C.C.T.V. MOUNTING PL.
ONE-HALF FULL SCALE

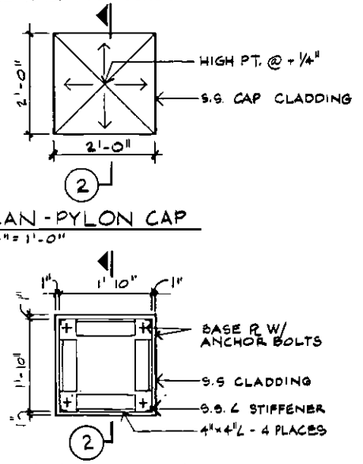


3 TYP. FRAME DETAIL
3" = 1'-0"

4 DETAIL - PYLON BASE
3" = 1'-0"



D ELEVATION - PYLON
1/2" = 1'-0"



B PLAN - PYLON CAP
3/4" = 1'-0"

A PLAN - PYLON BASE
3/4" = 1'-0"

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A.
DRAWN BY C.Y., M.G.P.
CHECKED BY P.C./GAP
IN CHARGE R.G.P.
DATE 08/13/80

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

ARCHITECTURAL STANDARD

PYLON & FOUNDATION, CCTV MOUNTING, & MISC. DETAILS

CONTRACT NO.
DRAWING NO. AS-011
REV.
SCALE AS NOTED
SHEET NO.

PALETTE SCHEDULE

	NO.	ROOM NAME	FLOOR: CONCRETE	FLOOR: CONCRETE HARDENER	FLOOR: CEMENT TERRAZZO	FLOOR: QUARRY TILE	FLOOR: PAVER BRICK	FLOOR: UNGLAZED CER. TILE	FLOOR: ACID-RESISTANT APPLIED COATING	FLOOR: V.A.T.	FLOOR: GRANITE	WALL: EXPOSED C.I.P. CONCRETE	WALL: PRECAST CONCRETE	WALL: STRUCTURAL GLAZED FACE C.M.U.	WALL: UNGLAZED CERAMIC MOSAIC TILE	WALL: CERAMIC FACING VENEERS	WALL: GLAZED & UNGLAZED BRICK	WALL: SOLID GLASS BLOCK	WALL: PAINTED CONCRETE	WALL: C.M.U.	BASE: CERAMIC TILE COVE	BASE: QUARRY TILE COVE	BASE: 6"x3/4" KEEDSEED	BASE: RUBBER OR VINYL	BASE: ACID-RESISTANT APPLIED COATING	CEILING: EXPOSED CONCRETE	CEILING: CONC. PAINTED	CEILING: PREFABRICATED ACOUSTIC METAL PANEL	CEILING: CEMENT PLASTER	CEILING:	CEILING HEIGHT	REMARKS
PUBLIC	1.	SITE	●		●	●	●	●			●																				
	2.	STATION ENTRANCE									▲	●	●	●	●	●	●	●	●				▲			●	●		●		VARIES	
	3.	SPECIAL ENTRANCES (FUTURE)									▲	●	●	●	●	●	●	●	●				▲			●	●	●	●		FUTURE	
	4.	PASSAGEWAY			●	●	●	●			●	●	●	●	●	●	●	●	●		●	●	●			●	●	●	●		11'-0"	
	5.	FARE VENDING			●	●	●	●			●	●	●	●	●	●	●	●	●		●	●	●						▲		9'-0"	
	6.	MEZZANINE - FREE ZONE			●	●	●	●			●	●	●	●	●	●	●	●	●		●	●	●			●	●	●	●		13'-0" MIN.	
	7.	MEZZANINE - PAID ZONE			●	●	●	●			●/▲	●	●	●	●	●	●	●	●		●	●	●			●	●	●	●		13'-0" MIN.	
	8.	PLATFORM			●	●	●	●			●/▲	●	●	●	●	●	●	●	●							●	●	●	●		13'-7½"	
	9.																														
	10.																														
NON-PUBLIC	11.	ELEVATOR MACHINE ROOM	▲									▲								▲						▲					8'-0" MIN.	
	12.	STAFF/SECURITY ROOM								▲									▲	▲				▲					▲		8'-0" MIN.	
	13.	CUSTODIAL ROOM A (MEZZ. LEVEL)		▲								▲								▲						▲					8'-0" MIN.	
	14.	CUSTODIAL ROOM B (PLAT. LEVEL)		▲								▲								▲						▲					8'-0" MIN.	
	15.	STORAGE ROOM	▲									▲								▲						▲					8'-0" MIN.	
	16.	TRASH ROOM		▲								▲								▲						▲					8'-0" MIN.	FLOOR DRAIN
	17.	TOILET				▲									▲							▲							▲		8'-0" MIN.	FLOOR DRAIN
	18.	TELEPHONE EQUIP. ROOM	▲									▲														▲					8'-0" MIN.	
	19.	EMERGENCY EXITS		▲								▲								▲						▲					8'-0" MIN.	
	20.	SERVICE CORRIDORS		▲								▲								▲						▲					14'-0" MIN.	
	21.	TRACTION POWER SUBSTATION	▲									▲								▲						▲					16'-0" MIN.	
	22.	AUXILIARY POWER ROOM	▲									▲								▲						▲					14'-0" MIN.	
	23.	AUXILIARY POWER SUBSTATION	▲									▲								▲						▲					14'-0" MIN.	
	24.	TRAIN CONTROL								▲									▲	▲				▲			▲				12'-0" MIN.	
	25.	COMMUNICATIONS								▲									▲	▲				▲			▲				12'-0" MIN.	
	26.	BATTERY	▲						▲			▲								▲					▲	▲					12'-0" MIN.	6" CURB AT THRESHOLD
	27.	MECHANICAL	▲									▲								▲						▲					12'-0" MIN.	
	28.	FAN	▲									▲								▲						▲					14'-0" MIN.	
	29.	EMERGENCY FAN	▲									▲								▲						▲					14'-0" MIN.	
	30.	CHILLER PLANT	▲									▲								▲						▲					14'-0" MIN.	
	31.	COOLING TOWER (FUTURE)	▲									▲								▲						▲					N/A	
	32.	AIR SUPPLY	▲									▲								▲						▲					14'-0" MIN	
	33.	SMOKE EXHAUST	▲									▲								▲						▲					14'-0" MIN.	
	34.	UNDER PLATFORM EXHAUST FAN	▲									▲								▲						▲					14'-0" MIN.	
	35.	UNDER PLATFORM EXHAUST PLENUM	▲									▲														▲					6'-0"	
	36.	EJECTOR	▲									▲								▲						▲					8'-0" MIN.	
	37.	SUMP PUMP	▲									▲								▲						▲					8'-0" MIN.	SLOPE FLOOR TO SUMP
	38.	SPRINKLER VALVES	▲									▲								▲						▲					10'-0" MIN.	
	39.	GAP BREAKER STATION	▲									▲								▲						▲					12'-0" MIN.	
	40.	EMERGENCY EQUIPMENT	▲									▲								▲						▲					8'-0" MIN.	
	41.	ELECTRIC INCOMING SERVICE	▲									▲								▲						▲					18'-0" MIN.	
	42.	ELECTRICAL ROOM	▲									▲								▲						▲					8'-0" MIN.	
	43.																														
	44.																														
	45.																														

KEY:
- ● PALETTE MATERIAL
- ▲ STANDARD MATERIAL

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A.
DRAWN BY M.H.
CHECKED BY P.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

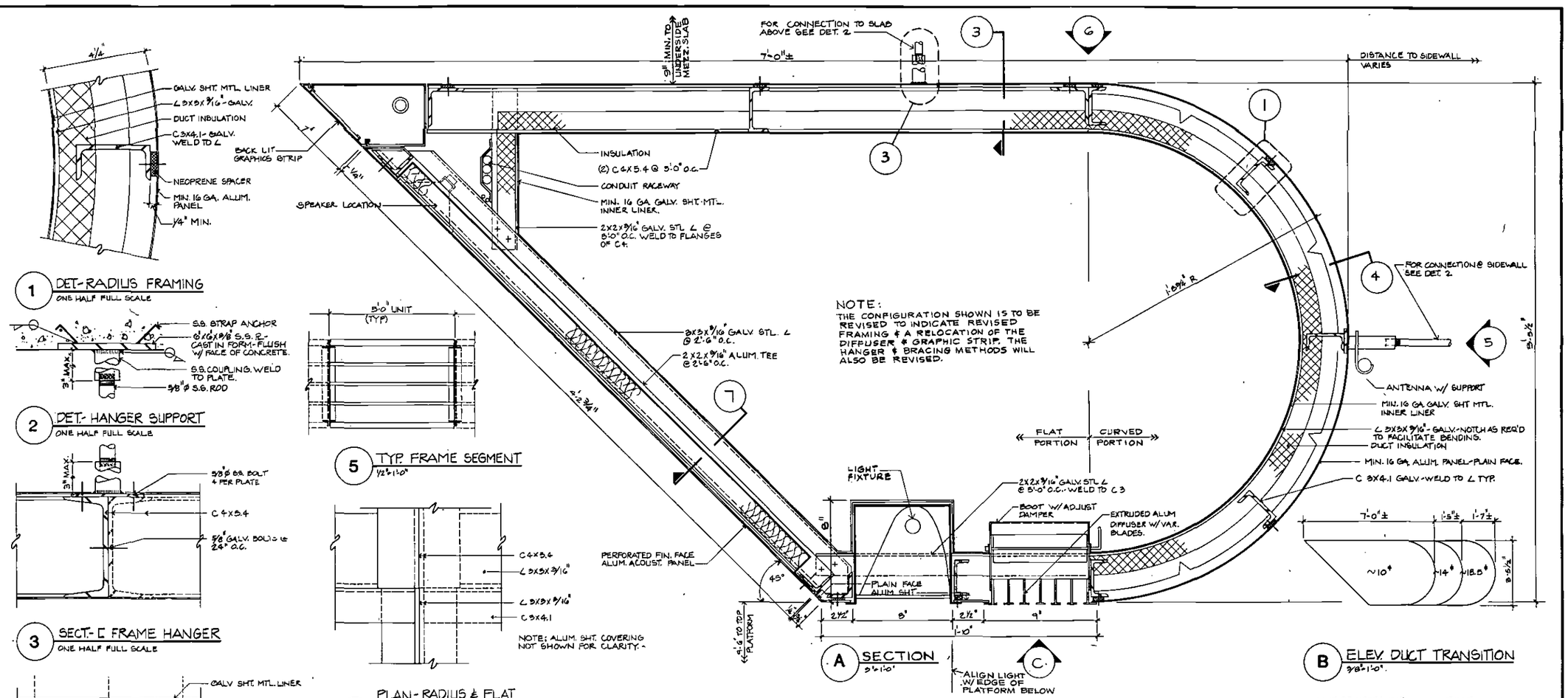
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

ARCHITECTURAL STANDARD

PALETTE SCHEDULE & STANDARD FINISHES

CONTRACT NO.
DRAWING NO. AS-012
REV.
SCALE N/A
SHEET NO.



REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A.
DRAWN BY M.H.
CHECKED BY P.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

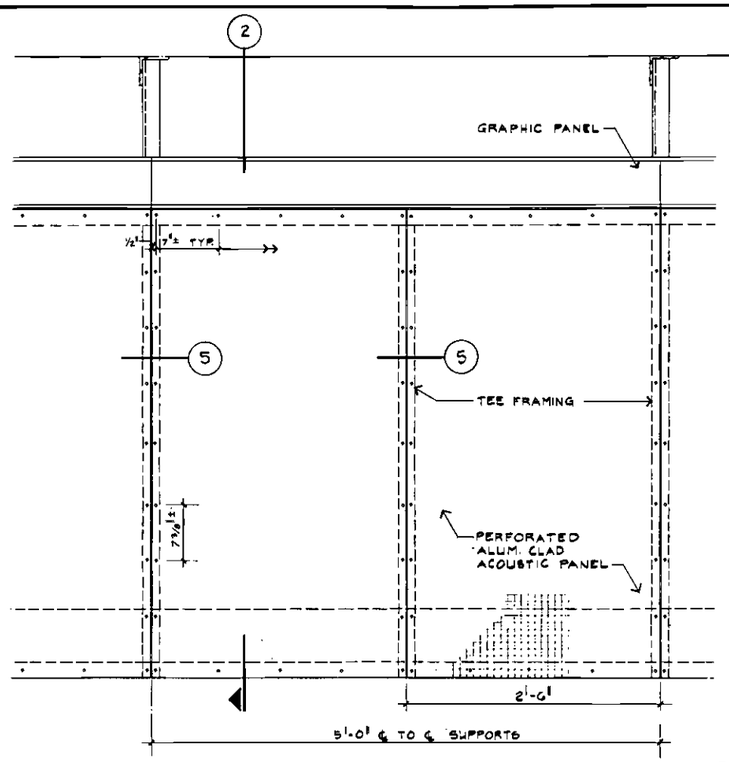
DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

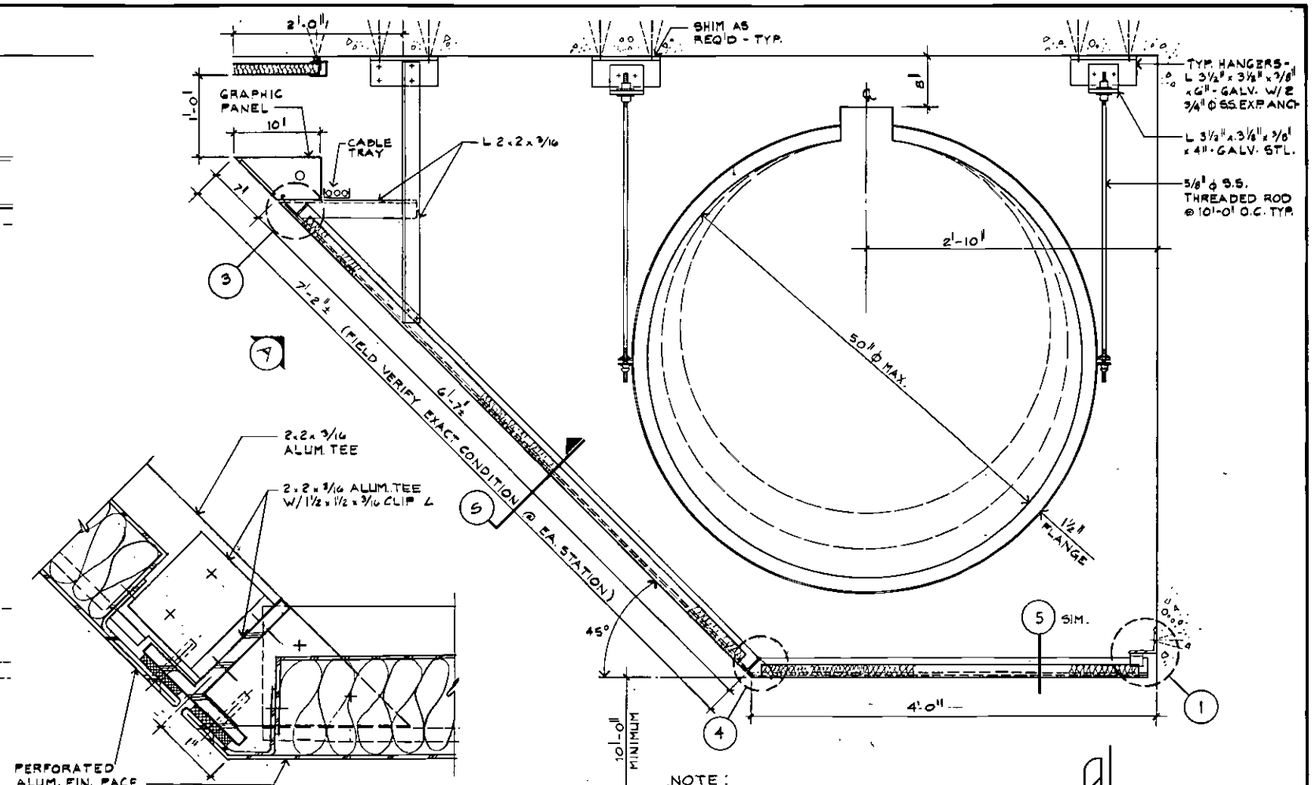
ARCHITECTURAL STANDARD

AIR SUPPLY DUCT DETAILS

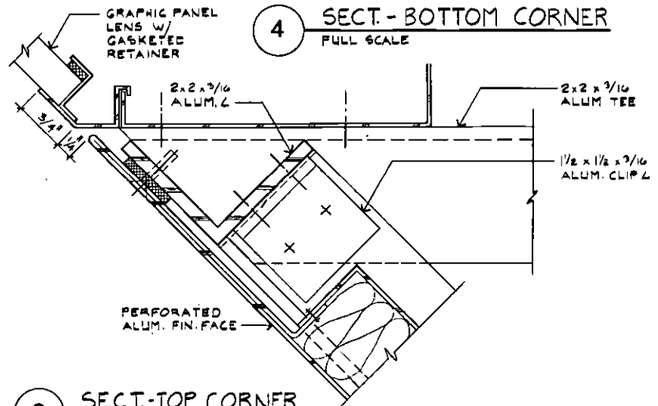
CONTRACT NO.
DRAWING NO. AS-013
REV. -
SCALE AS NOTED
SHEET NO.



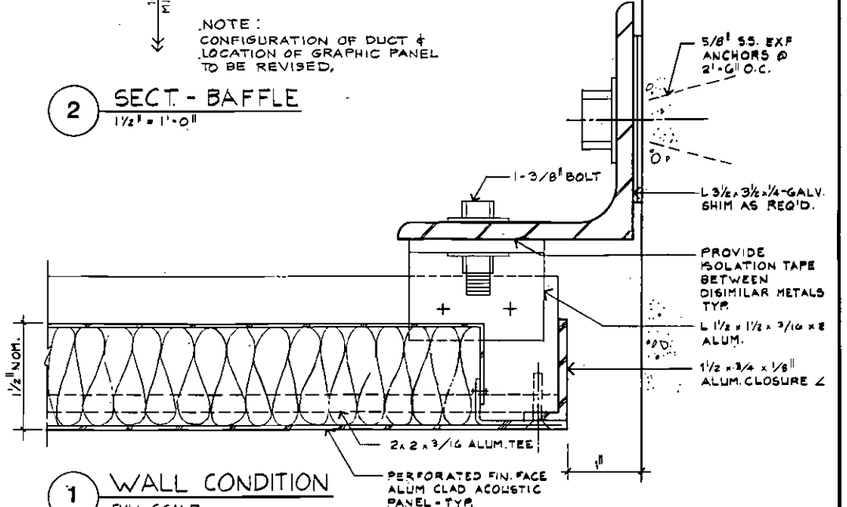
A PARTIAL ELEVATION OF BAFFLE
1½" = 1-0"

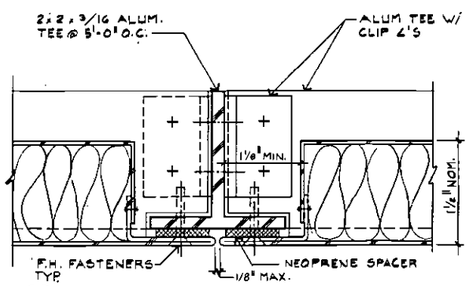


4 SECT. - BOTTOM CORNER
FULL SCALE



2 SECT. - BAFFLE
1½" = 1'-0"





5 SECT. - TEE FRAMING
FULL SCALE

3 SECT. - TOP CORNER
FULL SCALE

1 WALL CONDITION
FULL SCALE

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

DESIGNED BY	H.W.A.
DRAWN BY	B.K.
CHECKED BY	P.C./G.A.P.
IN CHARGE	R.G.P.
DATE	08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED _____

ARCHITECTURAL STANDARD

SMOKE EXHAUST BAFFLE DETAIL

CONTRACT NO.	
DRAWING NO.	AS-014
REV.	
SCALE	AS NOTED
SHEET NO.	

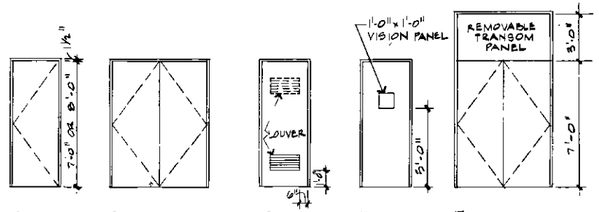
THE SCHEDULE SHOWN BELOW IS PROVIDED AS A FORMAT FOR USE BY THE A/E IN DEVELOPING THE FULL DOOR SCHEDULE ON A SITE SPECIFIC BASIS.

DOOR SCHEDULE

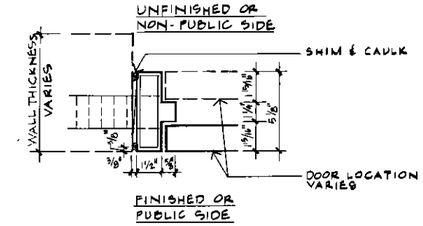
Dr. ① Type	Dr. El.	1 3/4" Thk. H.M. Size	U.L. Hr. ② Rating	Hdware ③ Set	Remarks
1	C	3'-0" x 7'-0"			
2	A	3'-0" x 7'-0"			
3	C	3'-6" x 7'-0"			
4	C_1	3'-0" x 7'-0"			
5	D	3'-0" x 7'-0"			W/ INTRUSION ALARM
6	C	3'-0" x 7'-0"			W/INTRUSION ALARM & SOUND CONTROL
7	A	2-2'-6" x 8'-0"			W/INTRUSION ALARM & AIR TIGHT GASKET
8	E	2-3'-0" x 7'-0"			
9	E	2-3'-0" x 7'-0"			W/INTRUSION ALARM
10	E	2-3'-0" x 7'-0"			W/AIR TIGHT GASKET
11	B	2-3'-6" x 7'-0"			W/EXIT DEVICE & ALARM

① IDENTIFICATION IS FOR A SPECIFIC TYPE OF DOOR(S) OF SAME SIZE, RATING, HARDWARE, ETC.
② REFER TO DESIGN CRITERIA FOR U.L. HOUR RATING.
③ REFER TO DESIGN CRITERIA FOR HARDWARE. HARDWARE SET NUMBERS WILL BE DEVELOPED & PROVIDED IN THE SPECIFICATIONS.

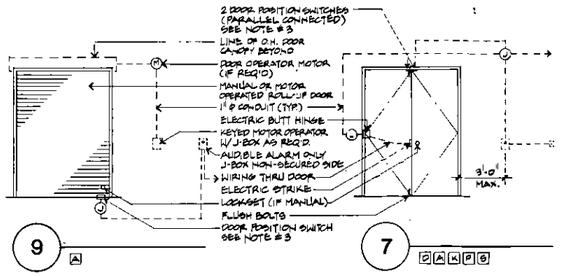
DOOR ELEVATIONS



GENERAL NOTES:
1. ALL DOORS FLUSH FACE H.M.
2. ALL FRAMES H.M. ONE PIECE, SEE DETAIL 6
3. FILL JAMBS SOLID W/ GROUT.
4. MITER, WELD & GRIND SMOOTH FRAME CORNERS
5. PROVIDE ADJUSTABLE ANCHORS AT NON LABEL OR LABEL FRAMES AT MASONRY SURFACES.
6. AT CONC SURFACES THRU-BOLT EXP. ANCHOR AT DOOR STOP, FILL BOLT HOLE RECESS & GRIND SMOOTH.



6 TYPICAL H.M. FRAME PROFILE
DOUBLE RABBET
NO SCALE

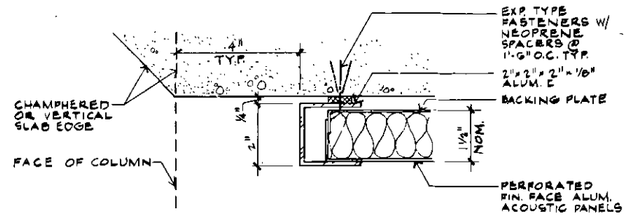


9 [A]
7 [D][A][K][P][B]
10 [D][A]
8 [A][K][P][D]

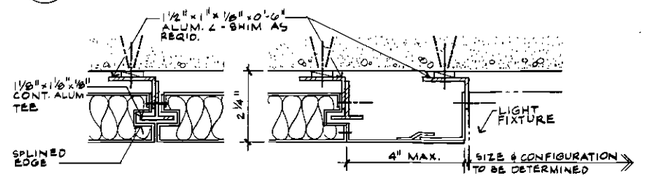
NOTES:
1. JUNCTION BOXES TO BE RECESS MOUNTED U.N.O.
2. JUNCTION BOXES TO BE SOLID WITH 3/8" TRIM
3. ALL DOOR POS'N SWITCHES SHALL BE MORTISED OR SURFACE MOUNTED ON SECURED SIDE OF DOOR.

[D] DOOR POSITION SWITCH [A] DOOR POSITION SWITCH W/ AUDIBLE ALARM
[K] KEY SWITCH
[P] PUSH BUTTON
[B] ELECTRIC STRIKE

INTRUSION ALARM MOUNTING DETAILS

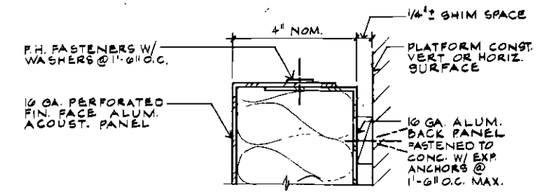


1 TYPICAL EDGE CONDITION @ CLG
ONE HALF FULL SIZE - TYP.

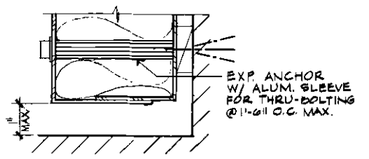


2 TYPICAL JOINT
3 CLOSURE @ LIGHT FIXTURE OR OTHER CLG MTD. DEVICE

ACOUSTICAL PANEL MOUNTING @ CLG.



4 TOP OR OUTSIDE EDGE MOUNTING
ONE HALF FULL SIZE - TYP.



5 BOTTOM OR INSIDE EDGE MOUNTING

PLATFORM AREA ACOUSTICAL PANELS

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, URBAN MASS TRANSPORTATION ADMINISTRATION, UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY H.W.A.
DRAWN BY M.P., R.S.J.
CHECKED BY R.C./G.A.P.
IN CHARGE R.G.P.
DATE 08/15/83

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT
RTD

DMJM/PBQD/KE/HWA
A JOINT VENTURE
GENERAL CONSULTANTS

APPROVED

ARCHITECTURAL STANDARD
DOOR SCHEDULE & DETAILS
ACOUSTIC PANEL DETAILS

CONTRACT NO.
DRAWING NO. AS-015 REV.
SCALE AS NOTED
SHEET NO.