City and County of Honolulu
Department of Transportation Services

Rapid Transit Division (RTD)

KAMEHAMEHA STATIONS DESIGN
CONTRACT SV-340

ALOHA STADIUM STATION

PRELIMINARY ENGINEERING DRAWINGS

December 18, 2009

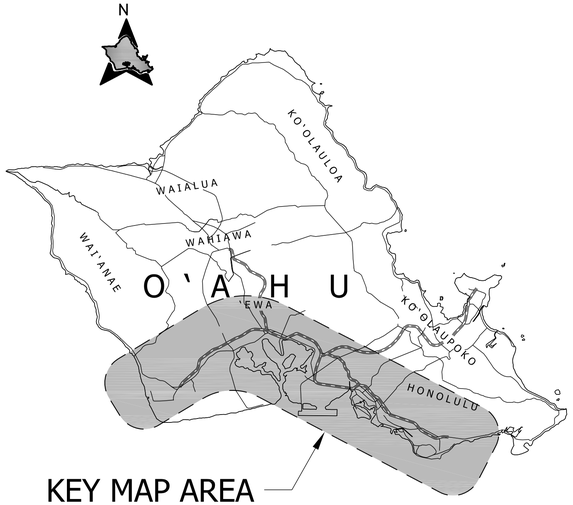
Prepared for:
HHCTCP

Prepared by:
R.M. Towill Corporation
&
Parsons Brinckerhoff
General Engineering Consultant (GEC)

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

ALOHA STADIUM STATION

PRELIMINARY ENGINEERING DRAWINGS



City and County of Honolulu
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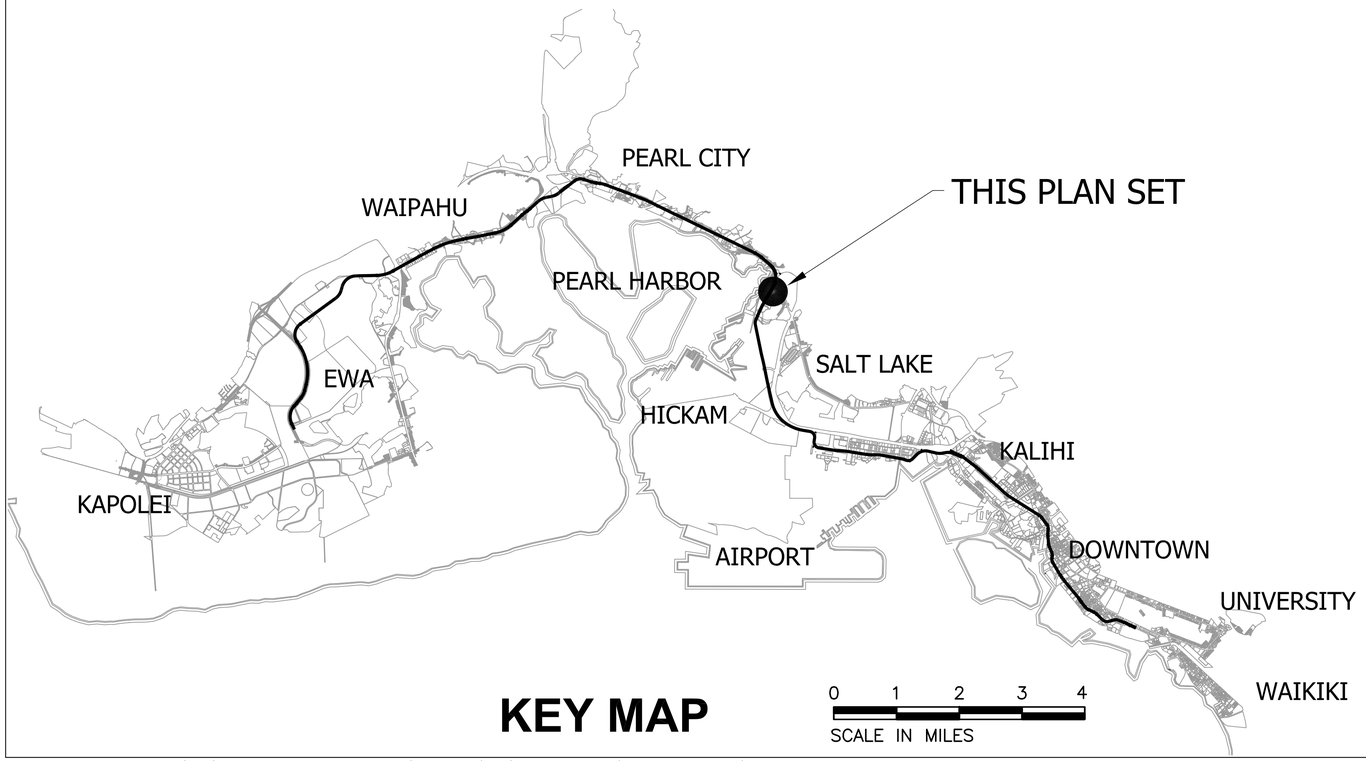

KEY MAP

ALOHA STADIUM STATION - INDEX OF DRAWINGS
PRELIMINARY ENGINEERING DRAWINGS

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2	GN003	INDEX OF DRAWINGS
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5	GN006	STANDARD DRAWING SUMMARY CITY AND COUNTY OF HONOLULU (RTD)
6	GN007	DIRECTIVE DRAWING SUMMARY CITY AND COUNTY OF HONOLULU (RTD) SHEET 1 OF 2
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14	RW001	EXISTING RIGHT-OF-WAY & PROPOSED ACQUISITION TABULATIONS
15	RP001	CIVIL SITE PLAN
16	GD001	GRADING PLAN
17	TR001	SIGNING & STRIPING PLAN
		UTILITIES
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19	UP001	UTILITIES PLAN WATER, SEWER & DRAINAGE
20	UP002	UTILITIES PLAN ELECTRICAL
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21	GE001	GEOTECHNICAL INVESTIGATIONS PLAN
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26	ST001	STRUCTURAL FOUNDATION PLAN
27	ST002	STRUCTURAL LOW ROOF FRAMING PLAN

Page No.	Drawing No.	Drawing Title
		STRUCTURAL
28	ST003	STRUCTURAL PLATFORM LEVEL FRAMING PLAN
29	ST004	STRUCTURAL PLATFORM LEVEL ROOF FRAMING PLAN
30	ST005	STRUCTURAL CROSS SECTION
31	ST006	STRUCTURAL STAIR SECTION
32	ST007	STRUCTURAL ESCALATOR SECTION
33	ST008	STRUCTURAL PLATFORM PRECAST GIRDER ELEVATION AND SECTION
34	ST009	STRUCTURAL PLATFORM CANOPY DETAILS
		ARCHITECTURAL
35	AG001	GENERAL ARCHITECTURAL NOTES, SYMBOLS, AND ABBREVIATIONS SHEET 1 OF 3
36	AG002	GENERAL ARCHITECTURAL NOTES, SYMBOLS, AND ABBREVIATIONS SHEET 2 OF 3
37	AG003	GENERAL ARCHITECTURAL NOTES, SYMBOLS, AND ABBREVIATIONS SHEET 3 OF 3
38	AR001	ARCHITECTURAL SITE PLAN
39	AR002	GROUND LEVEL FLOOR PLAN
40	AR003	PLATFORM LEVEL FLOOR PLAN
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44	AR007	3D VIEWS
		LANDSCAPING
45	LG001	GENERAL LANDSCAPE NOTES, SYMBOLS, AND ABBREVIATIONS
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48	LA003	PAVING PLAN PARK-AND-RIDE
49	LA004	PAVING PLAN STATION AREA
50	LA005	PLANTING PLAN PARK-AND-RIDE
51	LA006	PLANTING PLAN STATION AREA
52	LA007	IRRIGATION PLAN PARK-AND-RIDE
53	LA008	IRRIGATION PLAN STATION AREA

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 12-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: R. M. TOWILL CORPORATION
Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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ALOHA STADIUM STATION

INDEX OF DRAWINGS

Contract No.: SV-340
CADD File: SJ1-A03-GN003
Drawing No: GN003 Rev.
Scale: N/A
Page No. 2 of 53

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APPENDIX A - INDEX OF DRAWINGS
ALOHA STADIUM STATION - INFORMATIVE DRAWINGS

AIRPORT GUIDEWAY & UTILITIES PE PLANS	
Drawing No.	**Drawing Title**
CIVIL	
RW002	EXISTING RIGHT-OF-WAY & PROPOSED ACQUISITION TABULATIONS EB 970+00 TO EB 980+00
RW030	EXISTING RIGHT-OF-WAY & PROPOSED ACQUISITION TABULATIONS ALOHA STADIUM PARK AND RIDE FACILITY
TA001	TRACK ALIGNMENT PLAN & PROFILE EB 960+00 TO EB 970+00
TA002	TRACK ALIGNMENT PLAN & PROFILE EB 970+00 TO EB 980+00
TA101	TRACK ALIGNMENT DATA SHEET 1 OF 6
RP002	ROADWAY CONSTRUCTION PLAN EB 970+00 TO EB 980+00
RP101	SYSTEMS SITE PLAN SITE #24 SHEET 1 OF 2
RP102	SYSTEMS SITE PLAN SITE #24 SHEET 2 OF 2
RP201	ROADWAY HORIZONTAL CONTROL DATA SHEET 1 OF 3
RP203	ROADWAY HORIZONTAL CONTROL DATA SHEET 3 OF 3
RX003	TYPICAL SECTIONS KAMEHAMEHA HIGHWAY KH 286+20± TO KH 263+90±
GD002	GUIDEWAY DRAINAGE LAYOUT PLAN & PROFILE EB 970+00 TO EB 980+00
GD030	GUIDEWAY DRAINAGE DOWNSPOUT SCHEDULE
TRAFFIC	
TR002	SIGNING AND STRIPING PLAN EB 970+00 TO EB 980+00
TR102	MAINTENANCE OF TRAFFIC PLAN EB 970+00 TO EB 980+00
TR502	TRAFFIC SIGNAL PLAN KAMEHAMEHA HWY AT SALT LAKE BLVD OUTBOUND
TR503	TRAFFIC SIGNAL PLAN KAMEHAMEHA HWY AT SALT LAKE BLVD INBOUND
TR604	FIBER OPTIC & TRAFFIC SIGNAL INTERCONNECT PLAN EB 975+00 TO EB 980+00
TR701	TRAFFIC MANAGEMENT PLAN INTELLIGENT TRANSPORTATION SYSTEMS SHEET 1 OF 4
UTILITIES	
UP002	COMPOSITE PLAN EXISTING UTILITIES EB 970+00 TO EB 980+00
UP103	UTILITY RELOCATION PLAN WATER, SEWER, DRAINAGE, PETROLEUM, & GAS EB 970+00 TO EB 975+00
UP103A	UTILITY RELOCATION PLAN WATER, SEWER, DRAINAGE, PETROLEUM, & GAS SALT LAKE BOULEVARD
UP104	UTILITY RELOCATION PLAN WATER, SEWER, DRAINAGE, PETROLEUM, & GAS EB 975+00 TO EB 980+00

AIRPORT GUIDEWAY & UTILITIES PE PLANS	
Drawing No.	**Drawing Title**
UTILITIES	
UP202	UTILITY RELOCATION PLAN ELECTRICAL & COMMUNICATIONS EB 965+00 TO EB 970+00
UP203	UTILITY RELOCATION PLAN ELECTRICAL & COMMUNICATIONS EB 970+00 TO EB 975+00
UP204	UTILITY RELOCATION PLAN ELECTRICAL & COMMUNICATIONS EB 975+00 TO EB 980+00
STRUCTURAL	
GP001	STRUCTURAL PLAN & PROFILE EB 960+00 TO EB 970+00
GP002	STRUCTURAL PLAN & PROFILE EB 970+00 TO EB 980+00
FP001	ALOHA STADIUM STATION GUIDEWAY / STATION INTERFACE PLATFORM LEVEL PLAN
LANDSCAPING	
LA002	LANDSCAPE DEMOLITION PLAN EB 970+00 TO EB 980+00
LA103	LANDSCAPE PAVING AND PLANTING PLAN EB 970+00 TO EB 975+00
LA104	LANDSCAPE PAVING AND PLANTING PLAN EB 975+00 TO EB 980+00
TRACTION POWER	
TN001	CONTACT RAIL INSTALLATION CONTRACT RAIL SCHEMATIC LAYOUT SHEET 1 OF 2
TN003	CONTACT RAIL INSTALLATION TYPICAL CONTACT RAIL LAYOUT AT CROSSOVERS
TN004	CONTACT RAIL LAYOUT AT ALOHA STADIUM STATION SHEET 1 OF 2
TN005	CONTRACT RAIL LAYOUT AT ALOHA STADIUM STATION SHEET 2 OF 2

CORE SYSTEMS RFP PLANS		
Drawing No.	**Rev. No.**	**Drawing Title**
COMMUNICATIONS		
CM401	A	ALOHA STADIUM STATION COMMUNICATIONS PLAN GROUND LEVEL
CM402	A	ALOHA STADIUM STATION COMMUNICATIONS PLAN PLATFORM LEVEL

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 12-18-09

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CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
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ALOHA STADIUM STATION

APPENDIX A - INFORMATIVE INDEX OF DRAWINGS

Contract No.: SV-340
CADD File: SJ1-A03-GN004
Drawing No: GN004 Rev.
Scale: N/A
Page No. 3 of 53

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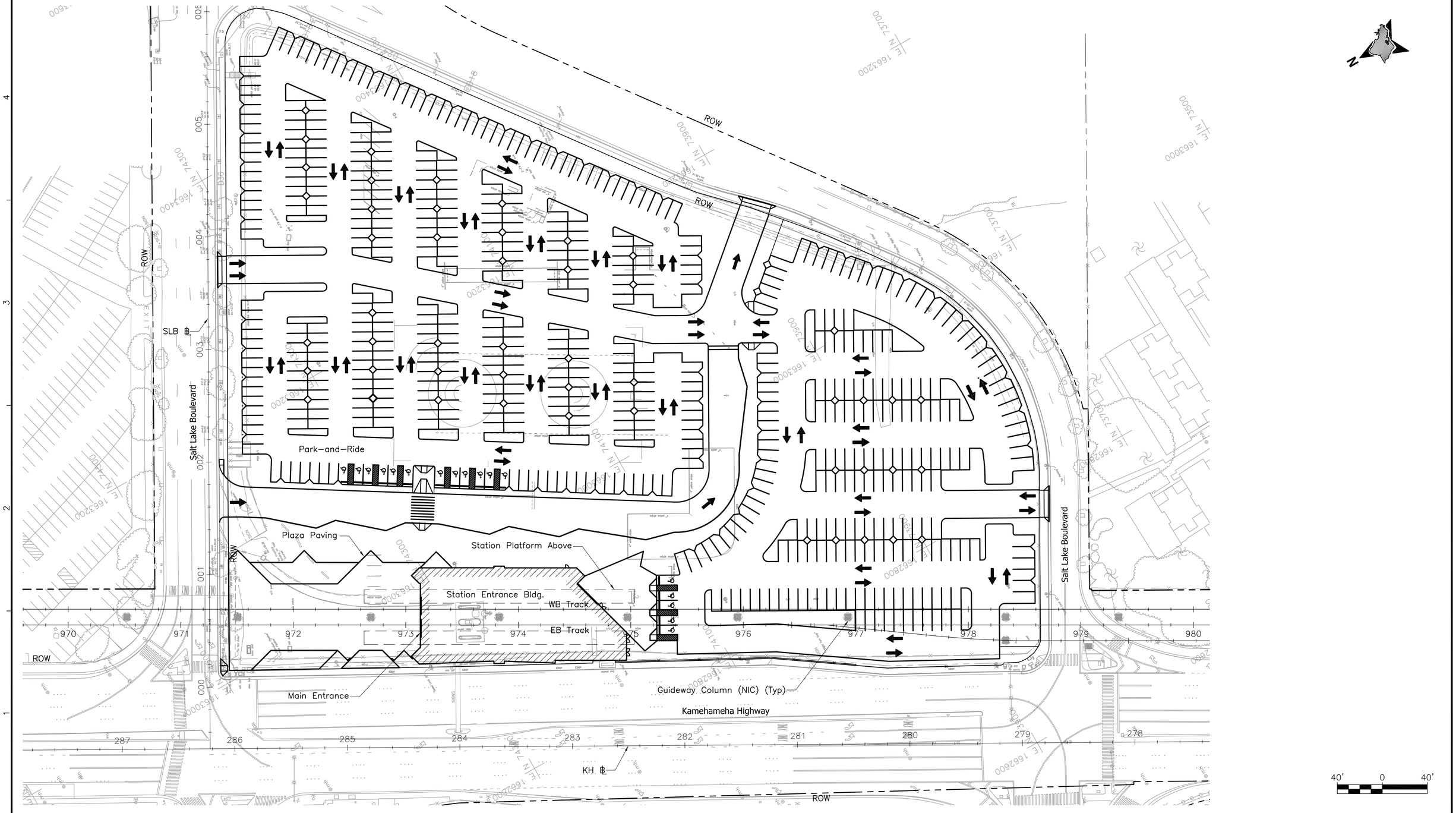

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 12-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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ALOHA STADIUM STATION

STATION AREA PLAN

Contract No.: SV-340
CADD File: SJ1-A03-GN005
Drawing No: GN005
Rev.
Scale: 1"=40'
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RTD STANDARD DRAWINGS

RTD STANDARD DRAWINGS			
Drawing No.	**Rev. No.**	**Applicable**	**Drawing Title**
		CIVIL	
CS001	0		CIVIL STANDARD SURVEY CONTROL DATA SHEET 1 OF 2
CS002	0		CIVIL STANDARD SURVEY CONTROL DATA SHEET 2 OF 2
		TRACKWORK	
WS101	0		TRACKWORK STANDARD STANDARD RAIL SECTIONS AND DATA
WS102	0		TRACKWORK STANDARD PROPOSED WHEEL PROFILE AND WHEEL/TRACK INTERFACE DISTANCES GUARD RAIL & RESTRAINING RAIL
WS302	0		TRACKWORK STANDARD NO. 6 TURNOUT BALLASTED/ CONCRETE TIES WITH 13 FT CURVED SWITCHES (UNIFORM RISERS)
WS303	0		TRACKWORK STANDARD 13 FT CURVED SPLIT SWITCH BALLASTED TRACK/CONCRETE TIES 115 RE RAIL
WS305	0		TRACKWORK STANDARD NO. 6 CONTOURED STEEL FROG FLANGE BEARING BALLASTED TRACK - 115 RE RAIL
WS306	0		TRACKWORK STANDARD 33C1 GUARD RAIL FOR NO. 6 AND NO. 8 FROGS BALLASTED TRACK (115 RE RAIL)
WS307	0		TRACKWORK STANDARD SPECIAL TRACKWORK FASTENING PLATE AND ASSEMBLY CONCRETE SWITCHTIES
WS308	0		TRACKWORK STANDARD NO. 8 TURNOUT BALLASTED/ CONCRETE TIES WITH 13 FT CURVED SWITCHES (UNIFORM RISERS)
WS310	0		TRACKWORK STANDARD NO. 8 CONTOURED STEEL FROG FLANGE BEARING BALLASTED TRACK - 115 RE RAIL
WS313	0		TRACKWORK STANDARD NO. 6 CROSSOVER - BALLASTED TRACK 14'-0" TRACK CENTERS
WS321	0		TRACKWORK STANDARD PRESTRESSED TURNOUT CONCRETE SWITCH TIES 115 RE RAIL
WS340	0		TRACKWORK STANDARD NO. 10 TURNOUT - BALLASTED CONCRETE TIES WITH 19'-6" CURVED SWITCH UNIFORM RISERS
WS810	0		TRACKWORK STANDARD NO. 10 TURNOUT - DIRECT FIXATION WITH 19'-6" CURVED SWITCH PLINTH & RAIL LAYOUT
WS811	0		TRACKWORK STANDARD NO. 10 TURNOUT - DIRECT FIXATION NOTES & BILL OF MATERIALS
WS812	0		TRACKWORK STANDARD 19'-6" CURVED SPLIT SWITCH DIRECT FIXATION TRACK 115RE RAIL
WS813	0		TRACKWORK STANDARD NO. 10 CONTOURED STEEL FROG FLANGE BEARING DIRECT FIXATION TRACK - 115RE RAIL
WS814	0		TRACKWORK STANDARD DIRECT FIXATION TURNOUT GUARD RAIL MOUNTING DETAILS
WS820	0		TRACKWORK STANDARD NO. 10 CROSSOVER - DIRECT FIXATION 14'-0" TRACK CENTERS
WS831	0		TRACKWORK STANDARD NO. 10 DOUBLE CROSSOVER DIRECT FIXATION 14'-0" TRACK CENTERS

RTD STANDARD DRAWINGS			
Drawing No.	**Rev. No.**	**Applicable**	**Drawing Title**
		TRACKWORK	
WS832	0		TRACKWORK STANDARD NO. 10 DOUBLE CROSSOVER DIRECT FIXATION DIAMOND DETAILS 14'-0" TRACK CENTERS, SHEET 1 OF 2
WS833	0		TRACKWORK STANDARD NO. 10 DOUBLE CROSSOVER-DIRECT FIXATION TURNOUT FROG & DIAMOND FROG DETAILS 14'-0" TRACK CENTERS, SHEET 2 OF 2
		ARCHITECTURAL	
AS301	0		ARCHITECTURAL STANDARD ELEVATOR CAR PLANS AND ELEVATIONS SHEET 1 OF 2
AS302	0		ARCHITECTURAL STANDARD ELEVATOR CAR PLANS AND ELEVATIONS SHEET 2 OF 2
AS303	0		ARCHITECTURAL STANDARD ELEVATOR CAR DETAILS
		CORROSION CONTROL	
HS001	0		CORROSION CONTROL STANDARD TYPICAL SIMPLE-SPAN VIADUCT STEEL BONDING DETAILS
HS002	0		CORROSION CONTROL STANDARD TYPICAL CONTINUOUS-SPAN VIADUCT STEEL BONDING DETAILS
HS003	0		CORROSION CONTROL STANDARD TYPICAL STEEL BONDING DETAILS
HS004	0		CORROSION CONTROL STANDARD UTILITY BONDING DETAILS SHEET 1 OF 2
HS005	0		CORROSION CONTROL STANDARD UTILITY BONDING DETAILS SHEET 2 OF 2
HS006	0		CORROSION CONTROL STANDARD PIPE ISOLATION DETAILS SHEET 1 OF 2
HS007	0		CORROSION CONTROL STANDARD PIPE ISOLATION DETAILS SHEET 2 OF 2
HS008	0		CORROSION CONTROL STANDARD CATHODIC PROTECTION DETAILS SHEET 1 OF 2
HS009	0		CORROSION CONTROL STANDARD CATHODIC PROTECTION DETAILS SHEET 2 OF 2
HS010	0		CORROSION CONTROL STANDARD ELEVATOR CATHODIC PROTECTION DETAILS
HS011	0		CORROSION CONTROL STANDARD TESTING FACILITIES

Rev	By	Date	Description
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PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: N/A
Drawn: J Derosier
Checked: J Davis
Approved: A Borst
Date: 12-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

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ALOHA STADIUM STATION

STANDARD DRAWING SUMMARY
CITY AND COUNTY OF HONOLULU (RTD)

Contract No.: SV-340
CADD File: SJ1-A06-GN006
Drawing No.: GN006 Rev.
Scale: N/A
Page No. 5 of 53

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RTD DIRECTIVE DRAWINGS

RTD DIRECTIVE DRAWINGS			
Drawing No.	**Rev. No.**	**Applicable**	**Drawing Title**
SYSTEMS SITES			
RP101	0		SYSTEMS SITE DIRECTIVE TYPICAL TRACTION POWER SUBSTATION SITE PLAN AND ELEVATIONS
RP102	0		SYSTEMS SITE DIRECTIVE TYPICAL GAP BREAKER STATION SITE PLAN AND ELEVATION
TRACKWORK			
WD120	0		TRACKWORK DIRECTIVE PRE-CURVED RAIL DETAILS RESTRAINING RAIL DETAILS TYPICAL LAYOUT
WD201	0		TRACKWORK DIRECTIVE BALLASTED MAINLINE SINGLE TRACK TANGENT AND CURVED TRACK
WD202	0		TRACKWORK DIRECTIVE BALLASTED MAINLINE DOUBLE TRACK TANGENT AND CURVED TRACK
WD205	0		TRACKWORK DIRECTIVE AT-GRADE CONCRETE PANEL ROAD CROSSING - TANGENT BALLASTED TRACK
WD206	0		TRACKWORK DIRECTIVE AT-GRADE TRAPEZOIDAL CONCRETE PANEL ROAD CROSSING - CURVED BALLASTED TRACK
WD211	0		TRACKWORK DIRECTIVE TRANSITION SLAB - DIRECT FIXATION TRACK TO BALLASTED TRACK 115 RE RAIL
WD251	0		TRACKWORK DIRECTIVE SERRATED PRESTRESSED CONCRETE CROSSTIE 115 RE RAIL
WD253	0		TRACKWORK DIRECTIVE SERRATED CONCRETE CROSSTIE FOR RESTRAINING RAIL & CONTACT RAIL 115 RE RAIL
WD254	0		TRACKWORK DIRECTIVE BRACKET FOR 33C1 RESTRAINING RAIL CONCRETE TIE TRACK
WD256	0		TRACKWORK DIRECTIVE CONCRETE ROAD CROSSING TIE (10 FT) - 115 RE RAIL
WD275	0		TRACKWORK DIRECTIVE DERAIL AND CAR STOP MAINTENANCE & STORAGE FACILITY
WD301	0		SUMMARY YARD SPECIAL TRACKWORK BALLASTED TURNOUTS
WD401	0		TRACKWORK DIRECTIVE EMBEDDED APRON AND SHOP TRACK DETAILS
WD405	0		TRACKWORK DIRECTIVE PEDESTAL TRACK DETAILS PIT TRACKS MAINTENANCE & STORAGE FACILITY
WD601	0		TRACKWORK DIRECTIVE TYPICAL DIRECT FIXATION TRACK INSTALLATION
WD602	0		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK DETAILS AERIAL/AT-GRADE SLAB STRUCTURES TANGENT TRACK
WD603	0		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK SECTION AERIAL/AT-GRADE STRUCTURE CURVED TRACK
WD604	0		TRACKWORK DIRECTIVE GEOMETRIC CONFIGURATION DIRECT FIXATION TRACK WITH SURVEY MARKER INTERFACE TRACTION POWER CONTACT RAIL
WD605	0		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK DETAILS TRAIN WASH FACILITY
WD606	0		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK DETAILS YARD SERVICE AND CLEANING PLATFORM

RTD DIRECTIVE DRAWINGS			
Drawing No.	**Rev. No.**	**Applicable**	**Drawing Title**
TRACKWORK			
WD608	0		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK CONCRETE PLINTH REINFORCING DETAILS FOR 2'-3" FASTENER LAYOUTS ON CURVED TRACKS
WD609	0		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK CONCRETE PLINTH REINFORCING DETAILS FOR 2'-6" FASTENER LAYOUTS
WD615	0		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK PLINTH REINFORCING DETAILS WITH 1 OR 2 INCHES OF SUPERELEVATION
WD616	0		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK PLINTH REINFORCING DETAILS WITH 3 OR 4 INCHES OF SUPERELEVATION
WD620	0		TRACKWORK DIRECTIVE SPECIAL TRACKWORK DIRECT FIXATION CONCRETE PLINTH REINFORCING DETAILS
WD625	0		TRACKWORK DIRECTIVE SPECIAL TRACKWORK SWITCH MACHINE MOUNTING DIRECT FIXATION TRACK
WD641	0		TRACKWORK DIRECTIVE BRACKET FOR 33C1 RESTRAINING RAIL DIRECT FIXATION TRACK
WD643	0		TRACKWORK DIRECTIVE 33C1 RESTRAINING RAIL DETAILS
WD650	0		TRACKWORK DIRECTIVE BALLASTED & DIRECT FIXATION TRACK AT STATION PLATFORMS (LIGHT METRO VEHICLE)
WD675	0		TRACKWORK DIRECTIVE PEDESTRIAN CROSSWALK DIRECT FIXATION TRACK
WD898	0		TRACKWORK DIRECTIVE FRICTION TYPE (10EB) BUFFER STOP DIRECT FIXATION TRACK INSTALLATION END OF TRACK
WD899	0		TRACKWORK DIRECTIVE DF FRICTION BUFFER STOP INSTALLATION END OF TRACK DETAILS
STRUCTURAL			
WP001	0		STRUCTURAL DESIGN DIRECTVE GENERAL STRUCTURAL NOTES
WP002	0		STRUCTURAL DESIGN DIRECTVE CHAIN LINK FENCE
WP003	0		STRUCTURAL DESIGN DIRECTVE RETAINING WALL TYPE 1 H=4' THROUGH 30'
WP004	0		STRUCTURAL DESIGN DIRECTVE RETAINING WALL TYPE 2 H=4' THROUGH 12'
WP005	0		STRUCTURAL DESIGN DIRECTVE RETAINING WALL DETAILS
WP006	0		STRUCTURAL DESIGN DIRECTVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 1 OF 5
WP007	0		STRUCTURAL DESIGN DIRECTVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 2 OF 5
WP008	0		STRUCTURAL DESIGN DIRECTVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 3 OF 5
WP009	0		STRUCTURAL DESIGN DIRECTVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 4 OF 5
WP010	0		STRUCTURAL DESIGN DIRECTVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 5 OF 5
WP011	0		STRUCTURAL DESIGN DIRECTVE WATERPROOFING DETAILS SHEET 1 OF 3
WP012	0		STRUCTURAL DESIGN DIRECTVE WATERPROOFING DETAILS SHEET 2 OF 3

RTD DIRECTIVE DRAWINGS			
Drawing No.	**Rev. No.**	**Applicable**	**Drawing Title**
STRUCTURAL			
WP013	0		STRUCTURAL DESIGN DIRECTVE WATERPROOFING DETAILS SHEET 3 OF 3
ARCHITECTURAL			
AG001	0		ARCHITECTURAL DIRECTIVE GENERAL ARCHITECTURAL NOTES, SYMBOLS, AND ABBREVIATIONS SHEET 1 OF 3
AG002	0		ARCHITECTURAL DIRECTIVE GENERAL ARCHITECTURAL NOTES, SYMBOLS, AND ABBREVIATIONS SHEET 2 OF 2
AG003	0		ARCHITECTURAL DIRECTIVE GENERAL ARCHITECTURAL NOTES, SYMBOLS, AND ABBREVIATIONS SHEET 3 OF 3
AD001	0		ARCHITECTURAL DIRECTIVE STAIR/ESCALATOR DESIGN LAYOUT AT STATION ENTRANCE
AD002	0		ARCHITECTURAL DIRECTIVE STAIR/ESCALATOR DESIGN REQUIREMENTS
AD003	0		ARCHITECTURAL DIRECTIVE TRACTION ELEVATOR DESIGN REQUIREMENT AND CONFIGURATION
AD004	0		ARCHITECTURAL DIRECTIVE HYDRAULIC ELEVATOR DESIGN REQUIREMENT AND CONFIGURATION
AD005	0		ARCHITECTURAL DIRECTIVE HOLELESS HYDRAULIC ELEVATOR DESIGN REQUIREMENT AND CONFIGURATION
AD006	0		ARCHITECTURAL DIRECTIVE ELEVATOR HOISTWAY SECTIONS
AD007	0		ARCHITECTURAL DIRECTIVE END OF PLATFORM DESIGN LAYOUT SIDE PLATFORM
AD008	0		ARCHITECTURAL DIRECTIVE END OF PLATFORM DESIGN LAYOUT CENTER PLATFORM
AD009	0		ARCHITECTURAL DIRECTIVE STAIR/ESCALATOR DETAILS
AD010	0		ARCHITECTURAL DIRECTIVE FORMLINER DETAILS PIER COLUMN 1
AD011	0		ARCHITECTURAL DIRECTIVE FORMLINER DETAILS STATION COLUMN 2
AD012	0		ARCHITECTURAL DIRECTIVE FORMLINER DETAILS COLUMN SECTIONS
AD013	0		ARCHITECTURAL DIRECTIVE SINGLE LANDING STAIR & ESCALATOR REQUIREMENTS - CONCOURSE LEVEL
AD014	0		ARCHITECTURAL DIRECTIVE MULTIPLE LANDING STAIR & ESCALATOR REQUIREMENTS - CONCOURSE LEVEL
AD015	0		ARCHITECTURAL DIRECTIVE ELEVATOR HOISTWAY PLANS, SECTION, AND DETAILS
AD016	0		ARCHITECTURAL DIRECTIVE ELEVATOR HOISTWAY SECTION AND DETAILS
AD017	0		ARCHITECTURAL DIRECTIVE ELEVATOR HOISTWAY ELEVATIONS, DATA TABULATION, AND DETAILS
AD018	0		ARCHITECTURAL DIRECTIVE ELEVATOR SCHEDULE SHEET 1 OF 2
AD019	0		ARCHITECTURAL DIRECTIVE ELEVATOR SCHEDULE SHEET 2 OF 2
AD020	0		ARCHITECTURAL DIRECTIVE TYPICAL TOILET LAYOUT AND ELEVATIONS

Rev	By	Date	Description
.			

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: N/A
Drawn: J Derosier
Checked: J Davis
Approved: A Borst
Date: 12-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

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ALOHA STADIUM STATION

DIRECTIVE DRAWING SUMMARY
CITY AND COUNTY OF HONOLULU (RTD)

SHEET 1 OF 2

Contract No.: SV-340
CADD File: SJ1-A06-GN007
Drawing No: GN007 Rev.
Scale: N/A
Page No. 6 of 53

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RTD DIRECTIVE DRAWINGS

RTD DIRECTIVE DRAWINGS

Drawing No.	Rev. No.	Applicable	Drawing Title
ARCHITECTURAL			
AD021	0		ARCHITECTURAL DIRECTIVE DETECTABLE WARNING & PRE-WARNING STRIP DETAILS
AD022	0		ARCHITECTURAL DIRECTIVE ROLLING GRILLE DETAILS
AD023	0		ARCHITECTURAL DIRECTIVE ESCALATOR SCHEDULE SHEET 1 OF 2
AD024	0		ARCHITECTURAL DIRECTIVE ESCALATOR SCHEDULE SHEET 2 OF 2
AD101	0		ARCHITECTURAL DIRECTIVE CONCOURSE LEVEL PLAN SIDE PLATFORM PROTOTYPE
AD102	0		ARCHITECTURAL DIRECTIVE PLATFORM LEVEL PLAN SIDE PLATFORM PROTOTYPE
AD103	0		ARCHITECTURAL DIRECTIVE ROOF PLAN SIDE PLATFORM PROTOTYPE
AD104	0		ARCHITECTURAL DIRECTIVE REFLECTED CEILING PLAN - CONCOURSE SIDE PLATFORM PROTOTYPE
AD105	0		ARCHITECTURAL DIRECTIVE REFLECTED CEILING PLAN - PLATFORM SIDE PLATFORM PROTOTYPE
AD106	0		ARCHITECTURAL DIRECTIVE FLOOR FINISH PLAN - CONCOURSE SIDE PLATFORM PROTOTYPE
AD107	0		ARCHITECTURAL DIRECTIVE FLOOR FINISH PLAN - PLATFORM SIDE PLATFORM PROTOTYPE
AD108	0		ARCHITECTURAL DIRECTIVE LONGITUDINAL & CROSS SECTIONS SIDE PLATFORM PROTOTYPE
AD109	0		ARCHITECTURAL DIRECTIVE EXTERIOR ELEVATIONS SIDE PLATFORM PROTOTYPE SHEET 1 OF 2
AD110	0		ARCHITECTURAL DIRECTIVE EXTERIOR ELEVATIONS SIDE PLATFORM PROTOTYPE SHEET 2 OF 2
AD111	0		ARCHITECTURAL DIRECTIVE PLATFORM ELEVATIONS SIDE PLATFORM PROTOTYPE
AD112	0		ARCHITECTURAL DIRECTIVE END BAY SIDE PLATFORM PROTOTYPE SHEET 1 OF 2
AD113	0		ARCHITECTURAL DIRECTIVE END BAY SIDE PLATFORM PROTOTYPE SHEET 2 OF 2
AD114	0		ARCHITECTURAL DIRECTIVE TYPICAL BAY SIDE PLATFORM PROTOTYPE SHEET 1 OF 2
AD115	0		ARCHITECTURAL DIRECTIVE TYPICAL BAY SIDE PLATFORM PROTOTYPE SHEET 2 OF 2
AD116	0		ARCHITECTURAL DIRECTIVE 'V' COLUMN ELEVATION SIDE PLATFORM PROTOTYPE
AD117	0		ARCHITECTURAL DIRECTIVE CANOPY DETAILS SIDE PLATFORM PROTOTYPE
AD118	0		ARCHITECTURAL DIRECTIVE STAIR/ELEV BRIDGE CANOPY DETAILS SIDE PLATFORM PROTOTYPE
AD119	0		ARCHITECTURAL DIRECTIVE STAIR BRIDGE CANOPY COLUMN DETAILS SIDE PLATFORM PROTOTYPE
AD120	0		ARCHITECTURAL DIRECTIVE GUARDRAIL DETAILS SIDE PLATFORM PROTOTYPE SHEET 1 OF 3

RTD DIRECTIVE DRAWINGS

Drawing No.	Rev. No.	Applicable	Drawing Title
ARCHITECTURAL			
AD121	0		ARCHITECTURAL DIRECTIVE GUARDRAIL DETAILS SIDE PLATFORM PROTOTYPE SHEET 2 OF 3
AD122	0		ARCHITECTURAL DIRECTIVE GUARDRAIL DETAILS SIDE PLATFORM PROTOTYPE SHEET 3 OF 3
AD123	0		ARCHITECTURAL DIRECTIVE 3D VIEWS SIDE PLATFORM PROTOTYPE SHEET 1 OF 5
AD124	0		ARCHITECTURAL DIRECTIVE 3D VIEWS SIDE PLATFORM PROTOTYPE SHEET 2 OF 5
AD125	0		ARCHITECTURAL DIRECTIVE 3D VIEWS SIDE PLATFORM PROTOTYPE SHEET 3 OF 5
AD126	0		ARCHITECTURAL DIRECTIVE 3D VIEWS SIDE PLATFORM PROTOTYPE SHEET 4 OF 5
AD127	0		ARCHITECTURAL DIRECTIVE 3D VIEWS SIDE PLATFORM PROTOTYPE SHEET 5 OF 5
AD201	0		ARCHITECTURAL DIRECTIVE CONCOURSE LEVEL PLAN CENTER PLATFORM PROTOTYPE
AD202	0		ARCHITECTURAL DIRECTIVE PLATFORM LEVEL PLAN CENTER PLATFORM PROTOTYPE
AD203	0		ARCHITECTURAL DIRECTIVE ROOF PLAN CENTER PLATFORM PROTOTYPE
AD204	0		ARCHITECTURAL DIRECTIVE REFLECTED CEILING PLAN - CONCOURSE CENTER PLATFORM PROTOTYPE
AD205	0		ARCHITECTURAL DIRECTIVE REFLECTED CEILING PLAN - PLATFORM CENTER PLATFORM PROTOTYPE
AD206	0		ARCHITECTURAL DIRECTIVE FLOOR FINISH PLAN - CONCOURSE CENTER PLATFORM PROTOTYPE
AD207	0		ARCHITECTURAL DIRECTIVE FLOOR FINISH PLAN - PLATFORM CENTER PLATFORM PROTOTYPE
AD208	0		ARCHITECTURAL DIRECTIVE LONGITUDINAL & CROSS SECTIONS CENTER PLATFORM PROTOTYPE
AD209	0		ARCHITECTURAL DIRECTIVE ELEVATIONS CENTER PLATFORM PROTOTYPE
AD210	0		ARCHITECTURAL DIRECTIVE TYPICAL END BAY DETAILS CENTER PLATFORM PROTOTYPE
AD211	0		ARCHITECTURAL DIRECTIVE TYPICAL BAY DETAILS CENTER PLATFORM PROTOTYPE
AD212	0		ARCHITECTURAL DIRECTIVE 'V' COLUMN DETAILS CENTER PLATFORM PROTOTYPE SHEET 1 OF 3
AD213	0		ARCHITECTURAL DIRECTIVE 'V' COLUMN DETAILS CENTER PLATFORM PROTOTYPE SHEET 2 OF 3
AD214	0		ARCHITECTURAL DIRECTIVE 'V' COLUMN DETAILS CENTER PLATFORM PROTOTYPE SHEET 3 OF 3
AD215	0		ARCHITECTURAL DIRECTIVE COLUMN MISC DETAILS CENTER PLATFORM PROTOTYPE
AD216	0		ARCHITECTURAL DIRECTIVE STAIR & BRIDGE CANOPY DETAILS CENTER PLATFORM PROTOTYPE

RTD DIRECTIVE DRAWINGS

Drawing No.	Rev. No.	Applicable	Drawing Title
ARCHITECTURAL			
AD217	0		ARCHITECTURAL DIRECTIVE RAILING DETAILS CENTER PLATFORM PROTOTYPE SHEET 1 OF 2
AD218	0		ARCHITECTURAL DIRECTIVE RAILING DETAILS CENTER PLATFORM PROTOTYPE SHEET 1 OF 2
AD219	0		ARCHITECTURAL DIRECTIVE 3D VIEWS CENTER PLATFORM PROTOTYPE
MECHANICAL			
MD101	0		MECHANICAL DIRECTIVE HVAC SYSTEMS
MD201	0		MECHANICAL DIRECTIVE PLUMBING AND DRAINAGE SYSTEMS
MD301	0		MECHANICAL DIRECTIVE FIRE PROTECTION SYSTEMS
MD401	0		MECHANICAL DIRECTIVE SEISMIC AND WIND INDICATOR SYSTEMS
MD501	0		MECHANICAL DIRECTIVE TYPICAL TPSS AND GBS AIR CONDITIONING AND CONTROL SYSTEM
ELECTRICAL			
ED001	0		GENERAL ELECTRICAL NOTES
ED002	0		ELECTRICAL DIRECTIVE PASSENGER STATION ONE-LINE DIAGRAM
ED003	0		GUIDEWAY ELECTRICAL DIRECTIVE ELECTRICAL GUIDEWAY LIGHTING PLANS
ED004	0		GUIDEWAY ELECTRICAL DIRECTIVE ELECTRICAL GUIDEWAY LIGHTING DOUBLE TRACK
ED005	0		GUIDEWAY ELECTRICAL DIRECTIVE ELECTRICAL GUIDEWAY LIGHTING SINGLE TRACK
ED006	0		ELECTRICAL DIRECTIVE PASSENGER STATION SIDE PLATFORM LIGHTING
ED007	0		ELECTRICAL DIRECTIVE PASSENGER STATION CENTER PLATFORM LIGHTING
ED008	0		ELECTRICAL DIRECTIVE PASSENGER STATION ELECTRICAL, UPS, TCC ROOMS
TRACTION POWER			
TD001	0		TRACTION POWER DIRECTIVE TYPICAL SUBSTATION RACEWAY LAYOUT
TD002	0		TRACTION POWER DIRECTIVE TYPICAL DC RACEWAYS ON AERIAL GUIDEWAY SECTIONS AND DETAILS
TD003	0		TRACTION POWER DIRECTIVE TYPICAL MANHOLE/PULLBOX DETAILS
TD004	0		TRACTION POWER DIRECTIVE TYPICAL UNDERGROUND DUCTBANK SECTIONS & DETAILS
TD005	0		TRACTION POWER DIRECTIVE SUBSTATION CABLE TRENCH DETAILS
TD006	0		TRACTION POWER DIRECTIVE SUBSTATION CABLE TRENCH DETAILS ALTERNATIVE
TD050	0		TRACTION POWER DIRECTIVE TYPICAL SUBSTATION GROUND GRID ARRANGEMENT

RTD DIRECTIVE DRAWINGS

Drawing No.	Rev. No.	Applicable	Drawing Title
TRACTION POWER			
TD051	0		TRACTION POWER DIRECTIVE TYPICAL GAP BREAKER STATION GROUND GRID ARRANGEMENT
TD052	0		TRACTION POWER DIRECTIVE TYPICAL SUBSTATION GROUND GRID DETAILS
TD100	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION SPLICE JOINT ASSEMBLY
TD101	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION END-APPROACH ASSEMBLY
TD102	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION EXPANSION JOINT ASSEMBLY
TD103	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION ANCHOR ASSEMBLY DIRECT FIXATION TRACK
TD104	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION MOUNTING & PEDESTAL DETAILS
TD105	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION INSULATOR BRACKET AND ANCHOR BALLASTED TRACKS
TD106	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION COVERBOARD ASSEMBLY
TD107	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION COVERBOARD MOUNTING DETAILS
TD108	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION COVERBOARD ASSEMBLY AT EXPANSION JOINT
TRAIN CONTROL			
ND001	0		TRAIN CONTROL DIRECTIVE MAINLINE SWITCH MACHINE LAYOUT DIRECT FIXATION
ND002	0		TRAIN CONTROL DIRECTIVE MAINLINE SWITCH MACHINE LAYOUT BALLASTED TRACK
ND003	0		TRAIN CONTROL DIRECTIVE YARD SWITCH MACHINE LAYOUT BALLASTED TRACK
SYSTEMS INTEGRATION			
ID001	0		SYSTEMS INTEGRATION DIRECTIVE CONTRACT WORK DELINEATION AERIAL GUIDEWAY

Rev	By	Date	Description
.			

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: N/A
Drawn: J Derosier
Checked: J Davis
Approved: A Borst
Date: 12-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:

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ALOHA STADIUM STATION

DIRECTIVE DRAWING SUMMARY
CITY AND COUNTY OF HONOLULU (RTD)

SHEET 2 OF 2

Contract No.: SV-340
CADD File: SJ1-A06-GN008
Drawing No.: GN008 Rev.:
Scale: N/A
Page No. 7 of 53

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STANDARD DETAILS SUMMARY–CITY AND COUNTY OF HONOLULU

SHEET NO.	APPLICABLE	TITLE	DATE
R–1		Pre–cast Concrete Curb	09/1984
R–2		Pre–cast Concrete Driveway Curb	09/1984
R–3		Pre–cast Concrete Drop Curb Block	09/1984
R–4		Integral Curb and Gutter, Integral Driveway Curb and Gutter	R01/1995
R–4A		Integral Curb and Gutter, Integral Driveway Curb and Gutter for R/W of 70' or More	R01/1995
R–5		Rolled Curb	09/1984
R–6		Rolled Curb Transition to Curbs and Catch Basins	09/1984
R–7		Driveway Apron with Rolled Curb	09/1984
R–8		Thru Gutter	09/1984
R–9		Concrete Pavement	09/1984
R–10		Concrete Pavement Joint Details	09/1984
R–11		Concrete Pavement Joint Details	09/1984
R–12		Street Survey Monument	09/1984
R–13		Street Survey Monument Castings	09/1984
R–14		Centerline Monument	09/1984
R–15		Temporary Wooden Barricade	09/1984
R–16		Sidewalk Reinforcement Details at Utility Boxes or Openings	09/1984
R–17		Tree Well with Concrete Cover	09/1984
R–18		3' or 4' Chain Link Fence	09/1984
R–19		6' Chain Link Fence	09/1984
R–20		Typical Single Gate	09/1984
R–21A		Typical Double Gate	R03/1991
R–22		Metal Guardrail Details	09/1984
R–23		Metal Guradrail Details	09/1984
R–24		Metal Guardrail Details	09/1984
R–25		Curb Ramp	R09/1992
R–25A		Curb Ramp	R04/2000
R–26		Private Driveway Ramp	09/1984
R–27		Full Width Sidewalk at Curb Return	09/1984
R–28		Sidewalk Details	09/1984
R–29		Driveway Apron	09/1984
R–29A		Driveway Apron	R04/2000
R–30		Driveway Layout	09/1984
R–31		Grade Adjustment Walls	09/1984
R–32		Street Cross–sections with Sidewalk	09/1984
R–33		Street Cross–sections without Sidewalk	09/1984
R–34		Road Pavement and Shoulders	09/1984
R–35		Typical Roadway Utility Location with Sidewalk	09/1984
R–36		Typical Roadway Utility Location without Sidewalk	09/1984
R–37		Residential Driveway without Curb and Gutter	09/1984
R–38		Driveway Layout	09/1984
R–39		Non–dedicable Streets	09/1984
R–40		Dry Well Cover	09/1984
R–41		Street Cross–sections with Curb and Gutter	09/1984
R–42		Street Cross–sections without Curb and Gutter	09/1984
R–43		Road Pavements and Shoulders	09/1984
R–44		Cul–de–sac	09/1984

SHEET NO.	APPLICABLE	TITLE	DATE
R–45		Tapered Road Intersection	09/1984
R–46		Typical Roadway Utility Location	09/1984
R–47		Space Allocation for Underground Utilities	09/1984
R–48		Residential Driveway without Curb and Gutter	09/1984
R–49		Driveway Layouts for Concrete Curb Streets	09/1984
R–50		Driveway Layouts for Non–Curb Streets	09/1984
R–51		Concrete Driveway with Existing Sidewalk	09/1984
R–52		Roadway Typical Sections	09/1984
R–53		Roadway Typical Sections	09/1984
R–54		Roadway Typical Sections	09/1984
R–55		Roadway Swales	09/1984
R–56		Sidewalk Details	09/1984
R–57		Cul–de–sac	09/1984
R–58		Space Allocation for Underground Utilities	09/1984
R–59		Space Allocation for Underground Utilities	09/1984
D–1		Type "A" Catch Basin	09/1984
D–2		Type "A" Catch Basin Reinforcement Details	09/1984
D–3		Type "E" Catch Basin	09/1984
D–4		Type "E" Catch Basin Reinforcement Details	09/1984
D–5		Type "B" Catch Basin	09/1984
D–6		Type "B" Catch Basin Reinforcement Details	09/1984
D–7		Type "F" Catch Basin	09/1984
D–8		Type "F" Catch Basin Reinforcement Details	09/1984
D–9		Type "C" Catch Basin	09/1984
D–10		Type "C" Catch Basin Reinforcement Details	09/1984
D–11		Type "D" Catch Basin	09/1984
D–12		Type "D" Catch Basin Reinforcement Details	09/1984
D–13		Catch Basin Details	09/1984
D–14		Details for Catch Basin with 5" Curb	09/1984
D–15		Deflector Inlet for Catch Basin	09/1984
D–16		Monolithic Construction of Catch Basin Top Slab and Sidewalk	09/1984
D–17		Shallow Drain Manhole for Sidewalk Area	09/1984
D–18		Shallow Drain Manhole for Pavement Area	09/1984
D–19		Pre–cast Top Slab for Shallow Drain Manhole	09/1984
D–20		Concrete Wall Drain Manhole	09/1984
D–21		Brick Wall Drain Manhole	09/1984
D–22		Pre–cast Concrete Drain Manhole	09/1984
D–23		Pre–cast Concrete Drain Manhole Details	09/1984
D–24		Pre–cast Concrete Drain Manhole Details	09/1984
D–25		Pre–cast Concrete Drain Manhole Details	09/1984
D–26		Channelizing Details for Drain Manhole	09/1984
D–27		Rungs for Catch Basins and Manholes	09/1984
D–28		Type "DA" Frame for Catch Basin and Manhole	09/1984
D–29		Type "DB" Frame for Catch Basin and Manhole	09/1984
D–30		Catch Basin and Manhole Cover	09/1984
D–31		Payment Trench Width and Repaving for Drain Pipes	09/1984
D–32		Sidewalk Culvert	09/1984
D–33		Driveway Drainage – Box Culvert	09/1984
D–34		Driveway Drainage – Pipe Culvert	09/1984

SHEET NO.	APPLICABLE	TITLE	DATE
D–35		Driveway Drainage – Swale	09/1984
D–36		Type G1 and Type G2 Drainage Inlets	09/1984
D–37		Type G3 Drainage Inlet	09/1984
D–38		Type G4 Drainage Inlet	09/1984
D–39		Standard Frame and Grate	09/1984
D–40		Local Depression without Curb and Gutter	09/1984
D–41		Junction Structure B	09/1984
D–42		Junction Structure C	09/1984
D–43		Junction Structure D	09/1984
D–44		Monolithic Catch Basin Connection for Pipes 12" to 72"	09/1984
D–45		Concrete Collar Details	09/1984
D–46		Single Box Culverts	09/1984
D–47		Double Box Culverts	09/1984
D–48		Triple Box Culverts	09/1984
D–49		Rectangular Transition	09/1984
D–50		Circular Transition	09/1984
D–51		Parapet Details for Box Culverts	09/1984
D–52		Support for Drain and Sewer Pipes Across Trenches	09/1984

Rev	By	Date	Description
.			

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 12–18–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: R. M. TOWILL CORPORATION
Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819–3470

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ALOHA STADIUM STATION

STANDARD DETAILS SUMMARY
CITY AND COUNTY OF HONOLULU

SHEET 1 OF 2

Contract No.: SV–340
CADD File: SJ1–A06–GN009
Drawing No: GN009 Rev.
Scale: N/A
Page No. 8 of 53

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STANDARD DETAILS SUMMARY—CITY AND COUNTY OF HONOLULU

SHEET NO.	APPLICABLE	TITLE	DATE
S–1		Rock Cradle for Sewer Pipe	09/1984
S–2		Concrete Cradle for Vitrified Clay Pipe	09/1984
S–3		Method of Laying Pipe	09/1984
S–4		Pre–cast Concrete Pipe Block	09/1984
S–5		Concrete Jacket, Reinforced Concrete Cradle	09/1984
S–6		Laterals	09/1984
S–7		Advance Riser Connection	09/1984
S–8		Method of Backfill	09/1984
S–9		Chimney	09/1984
S–10		Index to Sewer Manhole Details	09/1984
S–11		Manhole Notes	09/1984
S–12		Manhole Notes	09/1984
S–13		Pre–cast Concrete Plain Manhole	09/1984
S–14		Pre–cast Concrete Plain Manhole – Section and Alternate Base	09/1984
S–15		Pre–cast Concrete Shallow Drop Manhole	09/1984
S–16		Pre–cast Concrete Shallow Drop Manhole – Butt Joint Details	09/1984
S–17		Pre–cast Concrete Drop Manhole	09/1984
S–18		Pre–cast Concrete Drop Manhole – Sections	09/1984
S–19		Pre–cast Concrete Plain Manhole for 27" to 48" R.C. Pipe	09/1984
S–20		Pre–cast Concrete Plain Manhole for 27" to 48" R.C. Pipe – Section	09/1984
S–21		Pre–cast Concrete Manhole Wall	09/1984
S–22		Pre–cast Concrete Eccentric Manhole Cone	09/1984
S–23		Pre–cast Concrete Manhole Wall to Brick Wall Adapter Ring	09/1984
S–24		Pre–cast Concrete Manhole Wall Joints	09/1984
S–25		Pre–cast Concrete Manhole – Detail at Top Rung	09/1984
S–26		Brick Manhole	09/1984
S–27		Plain Manhole	09/1984
S–28		Shallow Drop Manhole	09/1984
S–29		Drop Manhole	09/1984
S–30		Drop Manhole – Sections	09/1984
S–31		Manhole Cover – Type SA	09/1984
S–32		Manhole Frame – Type SA	09/1984
S–33		Manhole Cover – Type SB, Top View	09/1984
S–34		Manhole Cover – Type SB, Bottom View	09/1984
S–35		Manhole Frame – Type SB	09/1984
S–36		Modified Type SB Pressure Manhole Frame and Cover	09/1984
S–37		Pressure Manhole Cover – Type SC	09/1984
S–38		Pressure Manhole Cover – Type SC	09/1984
S–39		Pressure Manhole Frame and Cover – Type SC	09/1984
S–40		Manhole Frame – Type SD	09/1984
S–41		Drop Manhole Chimney Casting	09/1984
S–42		Manhole Rung Details – Type SA	09/1984
S–43		Manhole Rung Details – Type SC	09/1984
S–44		Manhole Rung Details – Type SD	09/1984
S–45		Manhole Rung Details – Type SE	09/1984
S–46		Manhole Rung Details – Type SF	09/1984
S–47		PVC Pipe – Bedding Requirements	09/1984
S–48		PVC Pipe – Resilient Manhole Connection	09/1984
P–1		Backflow Preventer	09/1984
P–2		Fence and Gate Details	09/1984
P–3		Oil Seals and Related Piping	09/1984
P–4		Oil Seals and Related Piping	09/1984
P–5		Oil Seals and Related Piping	09/1984
P–6		Removable Post and Chain Details	09/1984
P–7		Removable Railing Details	09/1984
P–8		Typical Wall Sleeve	09/1984
P–9		Sprinkler Valve Control	09/1984
P–10		Motor Shaft and Coupling	09/1984
P–11		Typical Pump Motor Drive Shaft Guard	09/1984
P–12		Typical Pump Coupling Guard	09/1984
P–13		Typical Hoizontal Shaft Guard No. 1	09/1984
P–14		Typical Hoizontal Shaft Guard No. 2	09/1984
P–15		Safety Guard General Notes	09/1984
P–16		1 1/2" Stand Pipe Detail	09/1984
T–1		Street Name and Stop Sign Details	09/1984
T–2		Height and Lateral Location of Sign	09/1984
T–3		Typical Locations for Stop Signs	09/1984
T–4		Typical Detail for Crosswalk and Stop Lines	09/1984
T–5		Typical Sign Installations in Cul–de–sacs	09/1984
T–6		Road Marker	09/1984
T–7		Raised Pavement Markers	09/1984
T–8		Typical Installation of Raised Pavement Markers	09/1984
T–9		Typical Intersection Detail for Striping	09/1984
T–10		Striping Details	09/1984
T–11		Street Name and Stop Sign Details	09/1984
T–12		Parking Design Standard, One–Way Traffic	09/1984
T–13		Parking Design Standard, Two–Way Traffic	09/1984
T–14		Standard Street Name Sign	09/1984

SHEET NO.	APPLICABLE	TITLE	DATE

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 12–18–09

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CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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ALOHA STADIUM STATION

STANDARD DETAILS SUMMARY
CITY AND COUNTY OF HONOLULU

SHEET 2 OF 2

Contract No.: SV–340
CADD File: SJ1–A06–GN010
Drawing No: GN010 Rev.
Scale: N/A
Page No. 9 of 53

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STANDARD PLANS SUMMARY—STATE OF HAWAII DEPARTMENT OF TRANSPORTATION (HDOT)

STANDARD PLAN NO.	APPLICABLE	TITLE	DATE
B–01		Notes and Miscellaneous Details	R05/31/07
B–03		Backfill Details at Earth Retaining Structures	R05/31/07
B–12		Prestressed Concrete Piles and Compression Splice Can Details	R05/31/07
B–12A		Prestressed Concrete Piles, Pile and Compression Splice Can Details and Pile Notes	R05/31/07
B–12B		Pile Interaction Diagram	R05/31/07
B–13		Prestressed Concrete Pile Build–Up Details	R05/31/07
D–01		Cattle Gate	R05/31/07
D–02		Chain Link Fence with Toprail	R05/31/07
D–03		Chain Link Fence without Toprail	R05/31/07
D–04		Wire Fence with Metal Posts	R05/31/07
D–05		Typical Details of Curbs and/or Gutters	R05/31/07
D–06		Typical Detail of Reinforced Concrete Drop Driveway	R05/31/07
D–07		Centerline and Reference Survey Monument	R05/31/07
D–08		Street Survey Monument	R05/31/07
D–15		Concrete Sidewalk	R05/31/07
D–16		P.C.C. Bus Pad	R05/31/07
D–17		P.C.C. Bus Pad	R05/31/07
D–18		P.C.C. Pavement Layout	R05/31/07
D–19		P.C.C. Pavement w/ Permeable Base Joint Details	R05/31/07
D–20		P.C.C. Pavement w/ Permeable Base Joint Details	R05/31/07
D–21		P.C.C. Longitudinal Joint Details	R05/31/07
D–22		P.C.C. Connection to Curbs and Gutters	R05/31/07
D–23		Joints	R05/31/07
H–01A		Type A Catch Basin	R05/31/07
H–01B		Type B Catch Basin	R05/31/07
H–01C		Type C Catch Basin	R05/31/07
H–01D		Type D Catch Basin	R05/31/07
H–01E		Catch Basin Sections	R05/31/07
H–02A		Type A1 Catch Basin	R05/31/07
H–02B		Type B1 Catch Basin	R05/31/07
H–02C		Type C1 Catch Basin	R05/31/07
H–02D		Type D1 Catch Basin	R05/31/07
H–02E		Catch Basin Sections	R05/31/07
H–03		Type A, B, and C Storm Drain Manhole	R05/31/07
H–04		Type D Storm Drain Manhole	R05/31/07
H–05		Typical Reinforcing Details for Drainage Structures	R05/31/07
H–06		Typical Reinforcing Details for Drainage Structures	R05/31/07
H–07		Catch Basin and Manhole Castings	R05/31/07
H–08		Type 1A–9 and 1A–9P Grated Drop Inlet	R05/31/07
H–09		Type 2A–9 and 2A–9P Grated Drop Inlet	R05/31/07
H–10		Type A–9 or A–9P Steel Frames	R05/31/07
H–11		Type A–9 and A–9P Steel Grates	R05/31/07
H–12		Type 61614P and 1211214P Grated Drop Inlet	R05/31/07
H–13		Type 61616P and 1211216P Grated Drop Inlet	R05/31/07
H–14		Type 61214P Grated Drop Inlet	R05/31/07
H–15		Type 1211214, 1211214P and 1211216, 1211216P Steel Frame and Grates	R05/31/07

STANDARD PLAN NO.	APPLICABLE	TITLE	DATE
H–16		Type 61614, 61614P, 61616, 61616P Steel Frame and Grates	R05/31/07
H–17		Type 61214 Steel Frames and Grates	R05/31/07
H–18		Type 61214P Steel Grates	R05/31/07
H–19		Type 61614B Steel Frame and Grates	R05/31/07
H–20		Cement Rubble Masonry Structures	R05/31/07
H–21		Concrete and Cement Rubble Masonry Structures	R05/31/07
H–22		Inlet/Outlet Structure	R05/31/07
H–23		Inlet/Outlet Structure	R05/31/07
H–24		Flared End Section for Culverts	R05/31/07
H–25		Flared End Section for Culverts	R05/31/07
H–26		Concrete Spillway Inlet	R05/31/07
H–27		Cap Coupling Details Standard Joint	R05/31/07
H–28		Reinforced Concrete Collar & Jacket	R05/31/07
H–29		Underdrain Cleanout Steel Frame and Cover	R05/31/07
H–30		Underdrain Connection to Drainage Structure	R05/31/07
L–01		Tree Planting	R08/16/06
L–02		Tree Planting	R08/16/06
L–03		Tree Transplanting	R08/16/06
L–04		Palm Planting	R08/16/06
L–05		Shrub Planting	R08/16/06
L–06		Landscape Details	R08/16/06
L–07		Landscape Details	R08/16/06
L–08		Landscape Details	R08/16/06
L–09		Landscape Details	R08/16/06
L–10		Landscape Details	R08/16/06
L–11		Planting Notes	R08/16/06
L–12		Irrigation Details	R08/16/06
L–13		Irrigation Details	R08/16/06
L–14		Irrigation Details	R08/16/06
L–15		Irrigation Details	R08/16/06
L–16		Irrigation Details	R08/16/06
L–17		Irrigation Details	R08/16/06
L–18		Irrigation Details	R08/16/06
L–19		Irrigation Details	R08/16/06
L–20		Irrigation Details	R08/16/06
L–21		Irrigation Details	R08/16/06
L–22		Irrigation Details	R08/16/06
L–23		Irrigation Details	R08/16/06
L–24		Irrigation Notes	R08/16/06
TE–01		Sign Height and Location	07/11/08
TE–01A		Sign Installation	07/11/08
TE–02A		Galvanized Flanged Channel Sign Post Mounting	R05/31/07
TE–02B		Galvanized Flanged Channel Sign Post Mounting	R05/31/07
TE–02C		Galvanized Flanged Channel Sign Post Mounting	R05/31/07
TE–03A		Galvanized Square Tube Sign Post Mounting	R05/31/07
TE–03B		Galvanized Square Tube Sign Post Mounting	R05/31/07
TE–04		Regulatory Signs	07/11/08
TE–05		Warning Signs	07/11/08
TE–06		Miscellaneous Signs	07/11/08

STANDARD PLAN NO.	APPLICABLE	TITLE	DATE
TE–07		Construction Signs	07/11/08
TE–08		Miscellaneous Intersection Signs	07/11/08
TE–09		Bike Route Sign & Supplementary Plates	07/11/08
TE–10		Interstate Route Marker	07/11/08
TE–11		State Route Marker and Auxiliary Markers	07/11/08
TE–12		State Route Marker and Border Detail for Guide Signs	07/11/08
TE–12A		Route Sign Assemblies	07/11/08
TE–13		Street Name Sign on Mast Arm	07/11/08
TE–14		Miscellaneous Reflector Markers	07/11/08
TE–15		Object Markers	07/11/08
TE–16		Mile Posts	07/11/08
TE–17A		Cantilever Overhead Sign Elevation & Details	R05/31/07
TE–17B		Cantilever Sign Frame Detail and Sections	R05/31/07
TE–17C		Cantilever Sign Frame Detail	R05/31/07
TE–17D		Cantilever Sign Frame Sections	R05/31/07
TE–17E		Cantilever Sign Frame Details	R05/31/07
TE–18A		Two Post Overhead Sign Frame Elevations	R05/31/07
TE–18B		Two Post Sign Framing Plan Section	R05/31/07
TE–18C		Two Post Sign Framing Sections and Details	R05/31/07
TE–18D		Two Post Sign Frame Details	R05/31/07
TE–18E		Two Post Sign Frame Details	R05/31/07
TE–19A		Overhead Sign Framing Schedule	R05/31/07
TE–19B		Sign Post Drilled Shaft Foundation	R05/31/07
TE–19C		Spread Footing	R05/31/07
TE–19D		Sign Frame Foundation Schedule	R05/31/07
TE–19D.1		Sign Frame Foundation Schedule	R05/31/07
TE–19D.2		Sign Frame Foundation Schedule	R05/31/07
TE–19D.3		Sign Frame Foundation Schedule	R05/31/07
TE–19D.4		Sign Frame Foundation Schedule	R05/31/07
TE–19D.5		Sign Frame Foundation Schedule	R05/31/07
TE–19E		Anchorage Details	R05/31/07
TE–19F		Anchorage Details	R05/31/07
TE–19G		Miscellaneous Sign Frame Details	R05/31/07
TE–19H		Luminaire Walkway Support	R05/31/07
TE–19J		Fixed Message Luminaire Support	R05/31/07
TE–19K		Miscellaneous Sign Details	R05/31/07
TE–19L		Miscellaneous Sign Details	R05/31/07
TE–19M		Miscellaneous Sign Frame Details	R05/31/07
TE–20		Supports for Ground Mounted Guide Sign	R05/31/07
TE–20A		Supports for Ground Mounted Guide Sign	R05/31/07
TE–20B		Supports for Ground Mounted Guide Sign	R05/31/07
TE–20C		Supports for Ground Mounted Guide Sign	R05/31/07
TE–21A		Sign Breakaway Mounts	R05/31/07
TE–21B		Sign Breakaway Mounts	R05/31/07
TE–22		Laminated Aluminum Sign Panels (Overhead)	07/11/08
TE–23		Laminated Aluminum Sign Panels (Ground Mounted)	R05/31/07
TE–24		Solid Aluminum Extruded Sign Panel and Accessory Details	R05/31/07
TE–25		Guide Signs Luminaire Mountings	R05/31/07
TE–26		Raised Pavement Markers and Striping	07/11/08

Rev	By	Date	Description
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PRELIMINARY ENGINEERING SUBJECT TO REVISION

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Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 12–18–09

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CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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ALOHA STADIUM STATION

STANDARD PLANS SUMMARY
STATE OF HAWAII (HDOT)

SHEET 1 OF 2

Contract No.: SV–340
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Drawing No: GN011 Rev.
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STANDARD PLANS SUMMARY—STATE OF HAWAII DEPARTMENT OF TRANSPORTATION (HDOT)

STANDARD PLAN NO.	APPLICABLE	TITLE	DATE
TE–27		Raised Pavement Markers and Striping	07/11/08
TE–28		Entrance and Exit Pavement Markings	07/11/08
TE–28A		Miscllaneous Pavement Markings	07/11/08
TE–29		Pavement Arrows and Symbols	07/11/08
TE–30		Pavement Alphabets, Numbers & Symbols	07/11/08
TE–31		Pavement Alphabets, Numbers & Symbols	07/11/08
TE–32		Type I & II Traffic Signal System Miscellaneous Details	R05/31/07
TE–33		Type II Traffic Signal System	08/16/06
TE–33A.1		Type II Traffic Signal Standard	R05/31/07
TE–33A.2		Type II Traffic Signal Standard	R05/31/07
TE–34		Loop Detector Details	07/11/08
TE–35		Loop Detectors & Duct Details	07/11/08
TE–36		Traffic Signal Details	07/11/08
TE–37		Pullbox & Cover Details	07/11/08
TE–37A		Type "A" Traffic Pullbox	R05/31/07
TE–37B		Type "A" Traffic Pullbox Reinforcing	R05/31/07
TE–37C		Type "B" Traffic Pullbox	R05/31/07
TE–37D		Type "B" Traffic Pullbox Reinforcing	R05/31/07
TE–37E		Type "B" Traffic Pullbox Foundation	R05/31/07
TE–37F		Type "C" Traffic Pullbox	R05/31/07
TE–37G		Type "C" Traffic Pullbox Reinforcing	R05/31/07
TE–37H		Type "C" Traffic Pullbox Foundation	R05/31/07
TE–37J		Traffic Pullbox Cover & Details	R05/31/07
TE–38		Type III Traffic Signal Standard	R05/31/07
TE–38A.1		Type III Traffic Signal Standard	R05/31/07
TE–38A.2		Type III Traffic Signal Standard	R05/31/07
TE–39		Metal Guardrail Connection to Concrete Barrier	07/11/08
TE–40		Concrete Barrier Transition	R05/31/07
TE–40A		Concrete Barrier Transition Sections	R05/31/07
TE–41		Guardrail Type 4 (Rigid Barrier)	R05/31/07
TE–42		Portable Concrete Barrier	R05/31/07
TE–43		Portable Concrete Barrier	R05/31/07
TE–44		Guardrail Type 4 Miscellaneous Details	07/11/08
TE–45		Barricades	07/11/08
TE–46		Delineation & Pavement Markings at Narrow Bridges	07/11/08
TE–47		Highway Light Standard	R05/31/07

STANDARD PLAN NO.	APPLICABLE	TITLE	DATE

STANDARD PLAN NO.	APPLICABLE	TITLE	DATE

Rev	By	Date	Description
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ALOHA STADIUM STATION

STANDARD PLANS SUMMARY
STATE OF HAWAII (HDOT)

SHEET 2 OF 2

Contract No.: SV–340
CADD File: SJ1–A06–GN012
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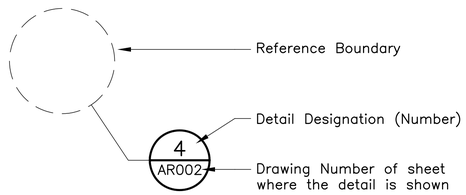
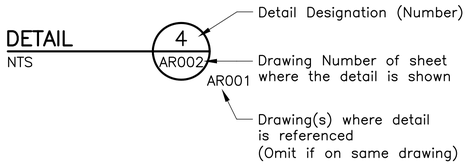
GENERAL NOTES

1. "EB Track" denotes the centerline of the Eastbound Track. "WB Track" denotes centerline of the Westbound Track.
2. Origin of Coordinates: Hawaii State Plane Coordinate Grid System, Zone III with the North American Datum of 83 High Accuracy Reference Network (NAD83 HARN).
3. Elevations shown on these plans are reference to Mean Sea Level (MSL).
4. The proposed WB Track alignment stationing equals to the proposed EB Track alignment stationing in all parallel tangent sections. Station equations are given at the endpoint of each westbound curve.
5. Underground facilities, poles, structures, and utilities have been plotted from available surveys and records. Their locations must be considered approximate only. There may be others, the existence of which is at present unknown. Verification of all the locations, shown or not shown, will be the responsibility of the contractor.
6. The existing conditions shown hereon are based on aerial survey data collected in March and April of 2009, supplemental ground surveys were performed between April and September of 2009, and record information from various design projects either constructed, under construction or proposed. The selected final designer is responsible for verifying existing conditions prior to supplying advanced design documents to the RTD.
7. Contact the Hawaii Department of Transportation (HDOT) and/or the City and County of Honolulu for additional plan sheet details not included in the Standard Details Summary and Standard Plans Summary plan sheets.
8. For Survey Control data, see RTD Standard Drawings.
9. Contractor shall replace all curbs, gutters, sidewalks and any other appurtenances damaged during construction.

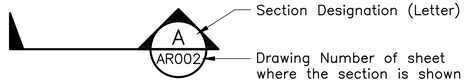
SYMBOLS

DETAILS

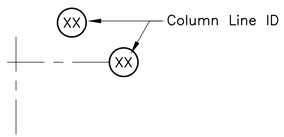




SECTIONS



COLUMN LINE GRID INDICATOR



GENERAL SYMBOLS

&	And
@	At
#	Number
ø	Diameter
%	Percent
=	Equal to
>	Greater Than
<	Less Than
≥	Greater Than or Equal To
≤	Less Than or Equal To

CIVIL SYMBOLS

—— CUT —— Limit of Cut Slope (Top of Slope)

—— FILL —— Limit of Fill Slope (Toe of Slope)

SPECIAL TERMS

Makai	Ocean
Mauka	Mountain

231° 41' 16" South Azimuth

ABBREVIATIONS

AHD	Ahead
℄	Baseline
BK	Back
℄	Centerline
Comm	Communications
CS	Curve to Spiral
Dia	Diameter
Dwg	Drawing
E	East
Ea	Actual Superelevation
Eu	Unbalanced Elevation
EB	Eastbound
EG	Existing Ground
El	Elevation
Elev	Elevation
Exist	Existing
H	Horizontal
HWY	Highway
KH	Kamehameha Highway
L	Length
Lc	Length of Curve
LH	Left Hand
Ls	Length of Spiral
LVC	Length of Vertical Curve
Max	Maximum
Min	Minimum
MHN	Manhole, Negative
MHP	Manhole, Positive
N	North
N/A	Not Applicable
NB	Northbound
NIC	Not in Contract
N.I.C.	Not in Contract
No.	Number
PC	Point of Curve
PI	Point of Intersection
PITO	Point of Intersection of Turnout
PS	Point on Switch
PT	Point of Tangent
PVC	Point of Vertical Curvature
PVI	Point of Vertical Intersection
PVT	Point of Vertical Tangency
R	Radius
RH	Right Hand
ROW	Right-of-Way
SB	Southbound
SC	Spiral to Curve
ST	Spiral to Tangent
Sta	Station
TS	Tangent to Spiral
USACE Engineeers	United States Army Corps of
V	Vertical
WB	Westbound

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

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ALOHA STADIUM STATION

GENERAL CIVIL NOTES, SYMBOLS, AND ABBREVIATIONS

Contract No.: SV-340
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Scale: N/A
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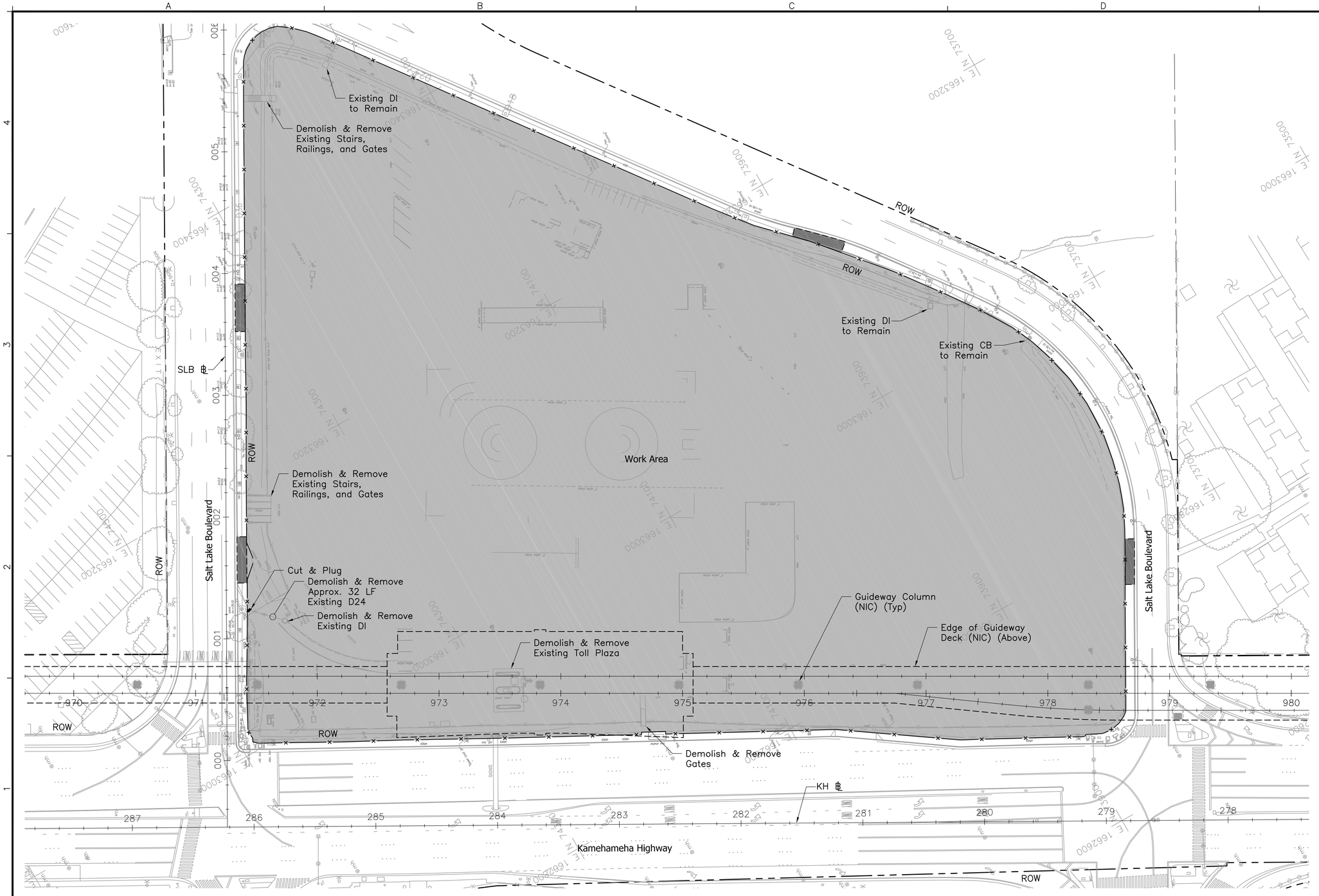

LEGEND:

- Work Areas (notes 1 through 5 below).
- Existing curb and sidewalk areas to be removed and replaced while maintaining pedestrian and bus access at all times.
- Construction Fence

NOTES:

1. Existing light poles to be disposed of per the direction of the City.
2. Demolish and remove all existing curb, concrete, bituminous concrete, walls, ac pavement, striping, etc. within the limits as shown.
3. Erect construction fence around the perimeter of the work areas as shown.
4. Cut and cap all existing utility service (per operating authority procedures/ approval) to existing structures at the Right–of–way line.
5. Demolish and remove all existing structures within the parcel to be acquired unless otherwise shown on plan.

40' 0 40'

Rev	By	Date	Description

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ALOHA STADIUM STATION

DEMOLITION PLAN

Contract No.: SV–340
CADD File: SJ1–B03–TD001
Drawing No.: TD001
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Tax Map Key Number	Parcel Acquisitions	House Number	Street Name	Land Use
9–9–003:061	Partial	99–500	Salt Lake Blvd	Public
9–9–003:070	Partial	–	–	Public
9–9–003:071	Partial	–	–	Public

NOTES:

1. ROW acquistion may be in the form of an aerial easement; an easement allowing joint use; subdivision of property with transfer of title; transfer of title for the entire parcel; or some other form to be documented by Land Court registration.
2. Construction easements will be defined during the final design phase and are not reflected on plans.
3. ROW acquisitions will occur prior to of under the Airport Guideway & Utilities Contract. All anticipated parcel needs for the station are shown with the approximate limits delineated as the Station "Need Line."
4. For General Civil Notes, Symbols, and Abbreviations see Dwg No. CG001.

LEGEND:

- Right–of–Way (ROW) / Parcel Need
- Access Permitted
- No Vehicle Access Permitted
- No Access Permitted
- Limited Access as noted on Plan
- ROW Line
- Property Line
- Easement Line

Rev	By	Date	Description

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ALOHA STADIUM STATION

EXISTING RIGHT-OF-WAY & PROPOSED ACQUISITION TABULATIONS

Contract No.: SV–340
CADD File: SJ1–B04–RW001
Drawing No: RW001 Rev.
Scale: 1"=40'
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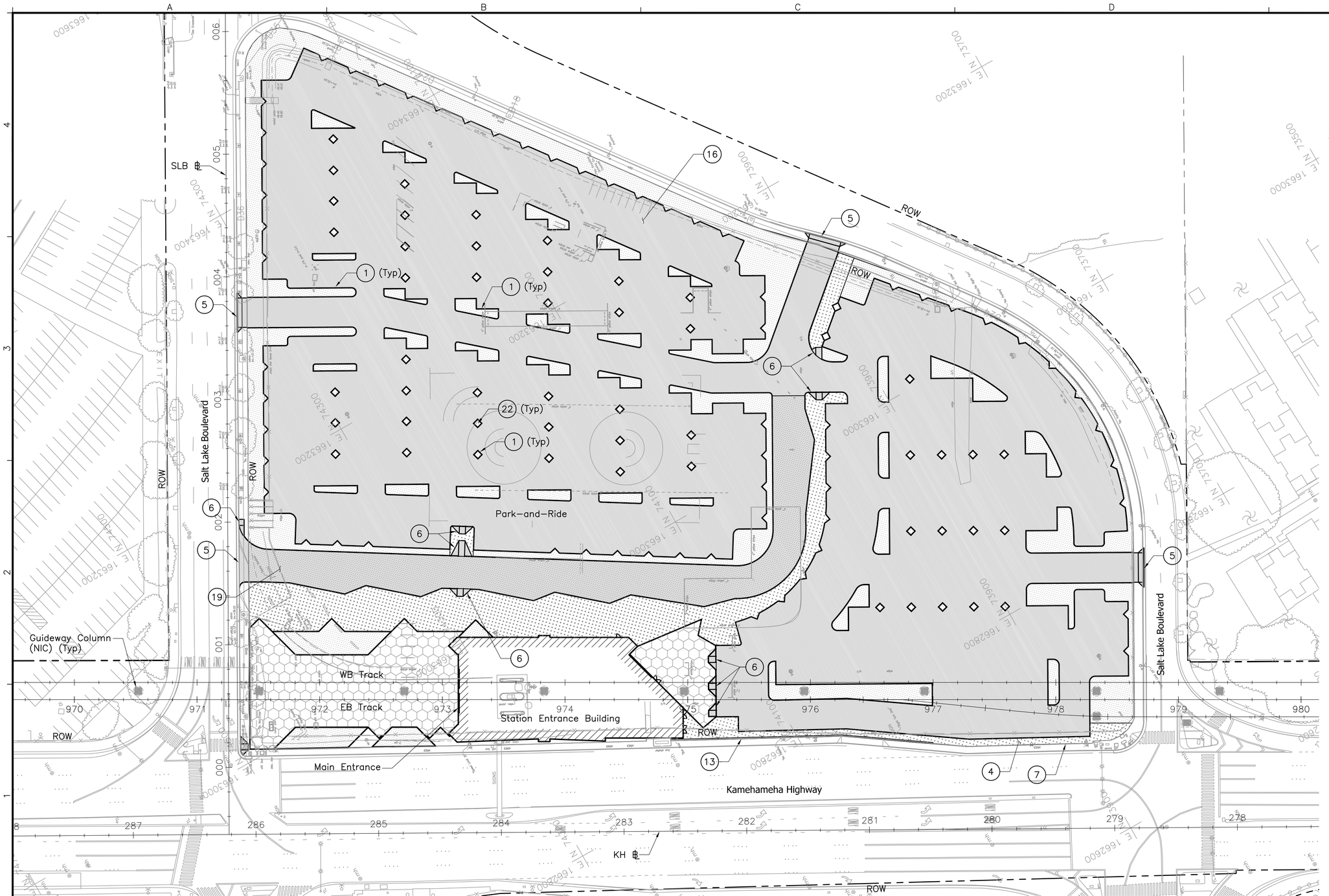

ROADWAY CONSTRUCTION LEGEND:

- Proposed full depth pavement area.
- Proposed concrete pavement.
- Proposed pavement mill & overlay area.
- Proposed sidewalk, curb & gutter, curb, and median island paving area.
- Proposed landscaped median island area.
- Full Depth Construction – Proposed Decorative Concrete. Seating Walls & Planted Area (See Landscape Plans).
- Guideway Column (NIC).

ROADWAY CONSTRUCTION NOTES:

1. Construct Concrete Curb
4. Construct Concrete Sidewalk
5. Construct Concrete Drop Driveway
6. Construct Concrete Curb Ramp
7. Install Chain Link Fence
13. Construct Concrete Retaining Wall.
16. Construct Plantmix Bituminous Pavement.
19. Construct Reinforced Concrete Driveway
22. Construct Landscaped Median Island.

40' 0 40'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 12-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: R. M. TOWILL CORPORATION
Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

For reduced prints, original page size in inches: 0 1 2 3 4

ALOHA STADIUM STATION

CIVIL SITE PLAN

Contract No.: SV-340
CADD File: SJ1-B09-RP001
Drawing No.: RP001 Rev.:
Scale: 1"=40'
Page No.: 15 of 53

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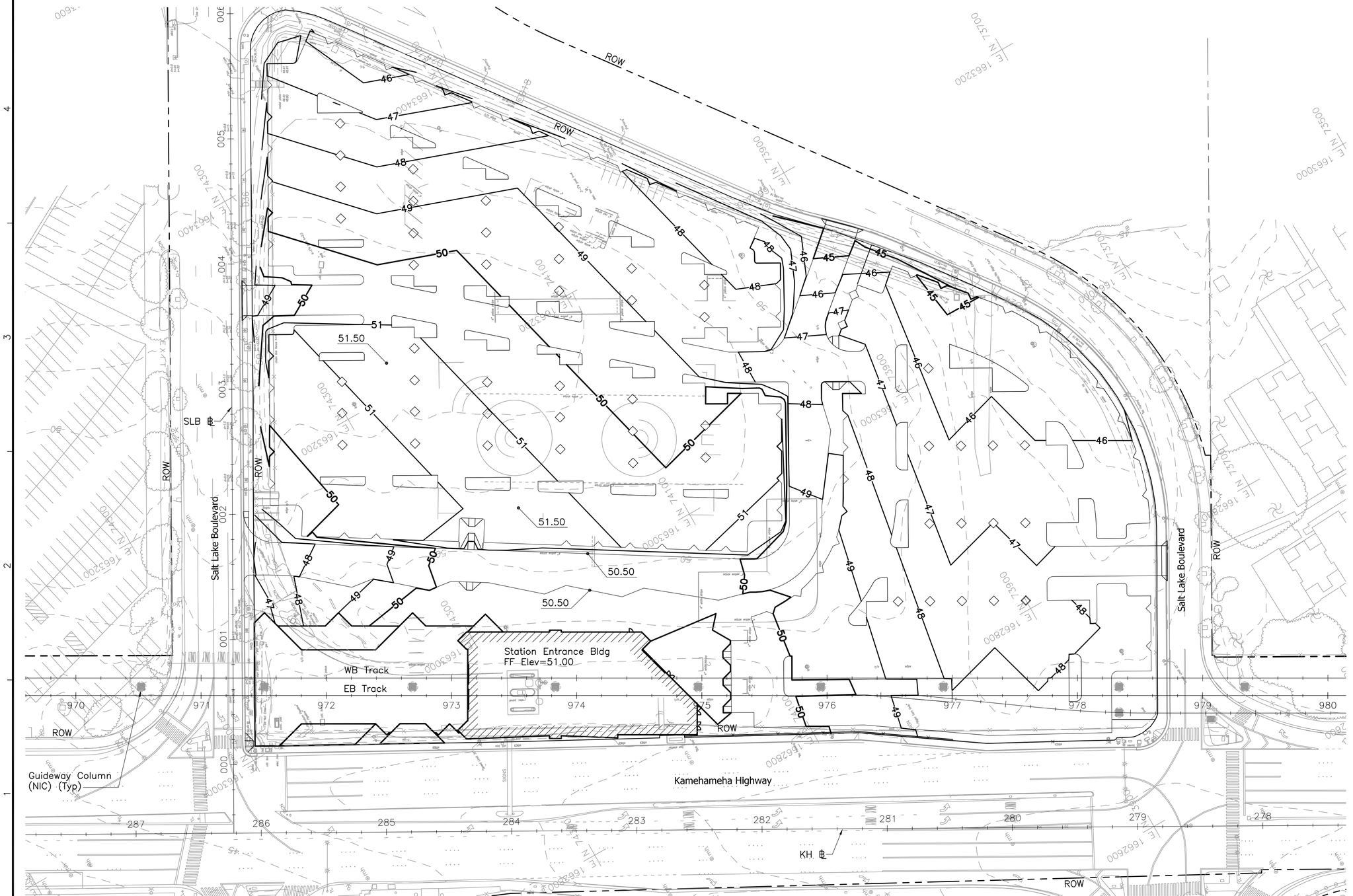

NOTES:

1. For General Civil Notes, Legend, and Abbreviations, See Dwg CG001.

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Rev	By	Date	Description

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 12-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
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Subconsultant: R. M. TOWILL CORPORATION
Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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ALOHA STADIUM STATION

GRADING PLAN

Contract No.: SV-340
CADD File: SJ1-B17-GD001
Drawing No: GD001 Rev.
Scale: 1"=40'
Page No. 16 of 53

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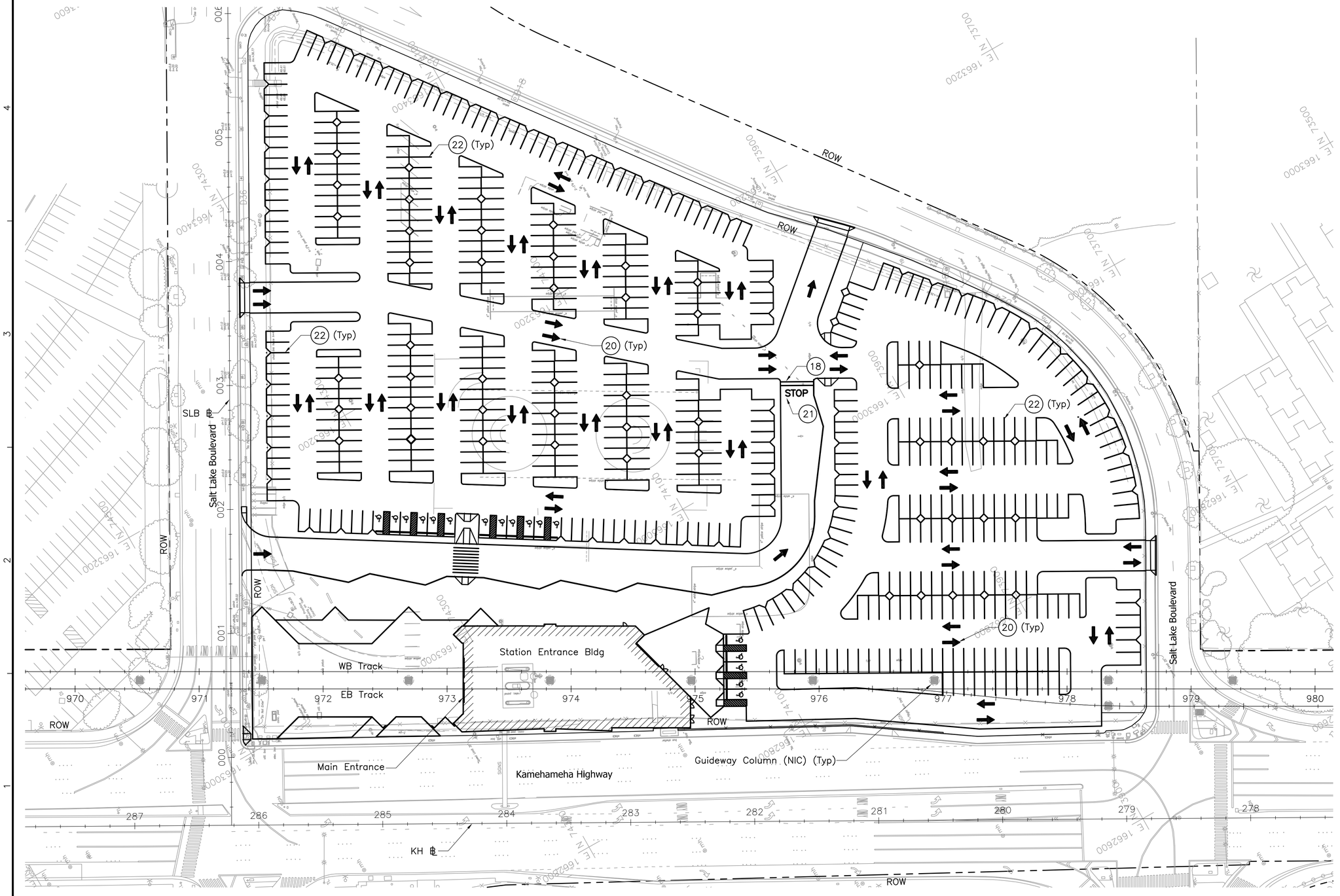

N

NOTES:

1. The selected designer is responsible for signage layout and details, which are not included on these plans.

CONSTRUCTION NOTES:

(18) Transverse Markings – Single Solid 12" White Stripe

(20) Transverse Markings – Turn Arrows

(21) Transverse Markings – Text

(22) Transverse Markings – Single Solid 4" White Stripe

40' 0 40'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 12-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
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Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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ALOHA STADIUM STATION

SIGNING AND STRIPING PLAN

Contract No.: SV-340
CADD File: SJ1-B09-TR001
Drawing No: TR001 Rev.
Scale: 1"=40'
Page No. 17 of 53

2009-12-29 10:07 AM K:\civil\21132 Honolulu Transit Corridor\Segment J\dwg\Station Packages\1 – Aloha Stadium\SJ1-C02-TR001.dwg

UTILITIES SYMBOLS

- Exist AT&T Line
- Exist Cable Television
- Exist Cable Television, Overhead
- Exist Communication Fiber Optic
- Exist Drain Line (Size in Inches)
- Exist Electrical Line, Overhead
- Exist Electrical Line
- Exist Fire Alarm
- Exist Fuel or Oil Line (Size in Inches)
- Exist Force Main (Size in Inches)
- Exist Gas Line (Size in Inches)
- Exist Non–Potable Water Line (Size in Inches)
- Exist Sandwich Isle Communications Line
- Exist Sewer Line (Size in Inches)
- Exist Signal Corps Line
- Exist Street Light Conduit
- Exist Telephone Line, Overhead
- Exist Telephone Line
- Exist Traffic Signal Conduit
- Exist Water Line (Size in Inches)

- Exist Air Relief Valve
- Exist AT&T Box
- Exist AT&T Manhole
- Exist Backflow Preventor
- Exist Utility Box
- Exist Catch Basin
- Exist Catch Basin
- Exist Cable TV Box
- Exist Clean Out
- Exist Drain Inlet
- Exist Drain Manhole
- Exist Dry Standpipe
- Exist Electrical Box
- Exist Electrical Manhole
- Exist Electrical Transformer
- Exist Fire Alarm Box
- Exist Fire Hydrant
- Exist Gas Manhole
- Exist Gas Valve
- Exist Guy Wire
- Exist Irrigation Control Valve Box
- Exist Irrigation Control Valve
- Exist Light Pole
- Exist Manhole
- Exist Street Monument
- Exist Pole (EP, U.P.)
- Exist Pedestrian Street Light

- Exist Traffic Sensor
- Exist Street Light
- Exist Street Light Box
- Exist Sewer Manhole
- Exist Telephone Box
- Exist Telephone Manhole
- Exist Traffic/Pedestrian Street Light
- Exist Traffic Signal Box
- Exist Traffic Street Light
- Exist Water Meter
- Exist Water Manhole
- Exist Water Valve

- Prop Drain Line (Size in Inches)
- Prop Fuel or Oil Line (Size in Inches)
- Prop Gas Line (Size in Inches)
- Prop Non–Potable Water Line (Size in Inches)
- Prop Sewer Line (Size in Inches)
- Prop Water Line (Size in Inches)

- Prop Air Relief Valve
- Prop Backflow Preventor
- Prop Catch Basin
- Prop Catch Basin
- Prop Clean Out
- Prop Drain Inlet
- Prop Drain Manhole
- Prop Swale
- Prop Fire Hydrant
- Prop Gas Manhole
- Prop Gas Valve
- Prop Sewer Manhole
- Prop Water Meter
- Prop Water Manhole
- Prop Water Valve
- Cut and Plug
- Abandon in Place
- Demolish/Remove

UTILITIES ABBREVIATIONS

&	And
Abnd	Abandoned
AC	Asphalt Concrete
AF	Air Force
Approx	Approximate
ARV	Air Relief Valve
Ave	Avenue
℄	Baseline
BFP	Backflow Preventor
BGGV	Bevel–geared gate valve
Blvd	Boulevard
BWS	Board of Water Supply
℄	Centerline
C&C	City and County
CB	Catch Basin
CBMH	Catch Basin Manhole
CO	Cleanout
Comm	Communication
Conc	Concrete
CTV	Cable TV
D	Drain
DI	Drainage Inlet
DMH	Drainage Manhole
DS	Down Spout
Dwg	Drawing
E	Electric, Electrical
EB	Electrical Box
EH	Electrical Handhole
Elec	Electric, Electrical
EP	Electric Pole
EMH	Electrical Manhole
EV	Electrical Vault
Exist	Existing
F	Fuel
FA	Fire Alarm
FAB	Fire Alarm Box
FH	Fire Hydrant, Farrington Highway
FM	Force Main
FMH	Fuel Manhole
FOC	Fiber Optic Cable
FSA	Fire Safety Alarm
Fwy	Freeway
G	Gas
GM	Gas Meter
GMH	Gas Manhole
GV	Gas Valve, Gate Valve
GW	Guy Wire
HECO	Hawaiian Electric Company
HH	Handhole
HITS	Hawaii Information Transfer System
HP	High Pressure
HT	Hawaiian Telcom
HVP	High Voltage Power
HW	Headwall
Hwy	Highway
ICB	Irrigation Control Box
ICV	Irrigation Control Valve
Irr	Irrigation
kV	Kilovolt
Lat	Lateral
Ln	Lane
LP	Light Pole
Lt	Light
MH	Manhole
MHP	Manhole (Positive)
MHN	Manhole (Negative)
Misc	Miscellaneous
MTCO	Mutual Telephone Company
MW	Monitoring Well
NPW	Non–Potable Water
N/A	Not Applicable
NS	North–South Road
OCTv	Overhead Cable Television
OH	Overhead
OHE	Overhead Electrical
OT	Overhead Telephone
PB	Pullbox
Pkwy	Parkway
Pl	Place
PM	Petroleum Marker
PP	Power Pole
PPB	Pedestrian Push Button
Prop	Proposed
PVC	Polyvinyl Chloride
Pwr	Power
RCP	Reinforced Concrete Pipe
Rd	Road
ROW	Right–of–Way
S	Sewer
SC	Signal Corps Line
SDMH	Storm Drain Manhole
SIC	Sandwich Isle Communications
Sig	Signal
SL	Street Light
SLB	Street Light Box
SLC	Street Light Conduit
SMH	Sewer Manhole
St	Street
St Mon	Street Monument
T	Top
TBD	To Be Determined
TCB	Traffic Control Box
Tel	Telephone
Temp	Temporary
TGC	The Gas Company
TL	Traffic Light
TMH	Telephone Manhole
TP	Telephone Pole
TPOL	Traffic Signal Pole
TRB	Traffic Box
TS	Top Stem
TSB	Traffic Signal Box
TSC	Traffic Signal Conduit
TSL	Traffic Signal
TV	Television
UB	Utility Box
UD	Underdrain
UMH	Utility Manhole
UP	Utility Pole
USN	United States Navy
USAF	United States Air Force
Util	Utility
W	Water
WM	Water Meter
WMH	Water Manhole
Wtr	Water
WV	Water Valve
WVB	Water Valve Box
WVMH	Water Valve Manhole

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 12–18–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: R. M. TOWILL CORPORATION
Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819–3470

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ALOHA STADIUM STATION

GENERAL UTILITIES SYMBOLS AND ABBREVIATIONS

Contract No.: SV–340
CADD File: SJ1–D01–UG001
Drawing No: UG001 Rev.
Scale: N/A
Page No. 18 of 53

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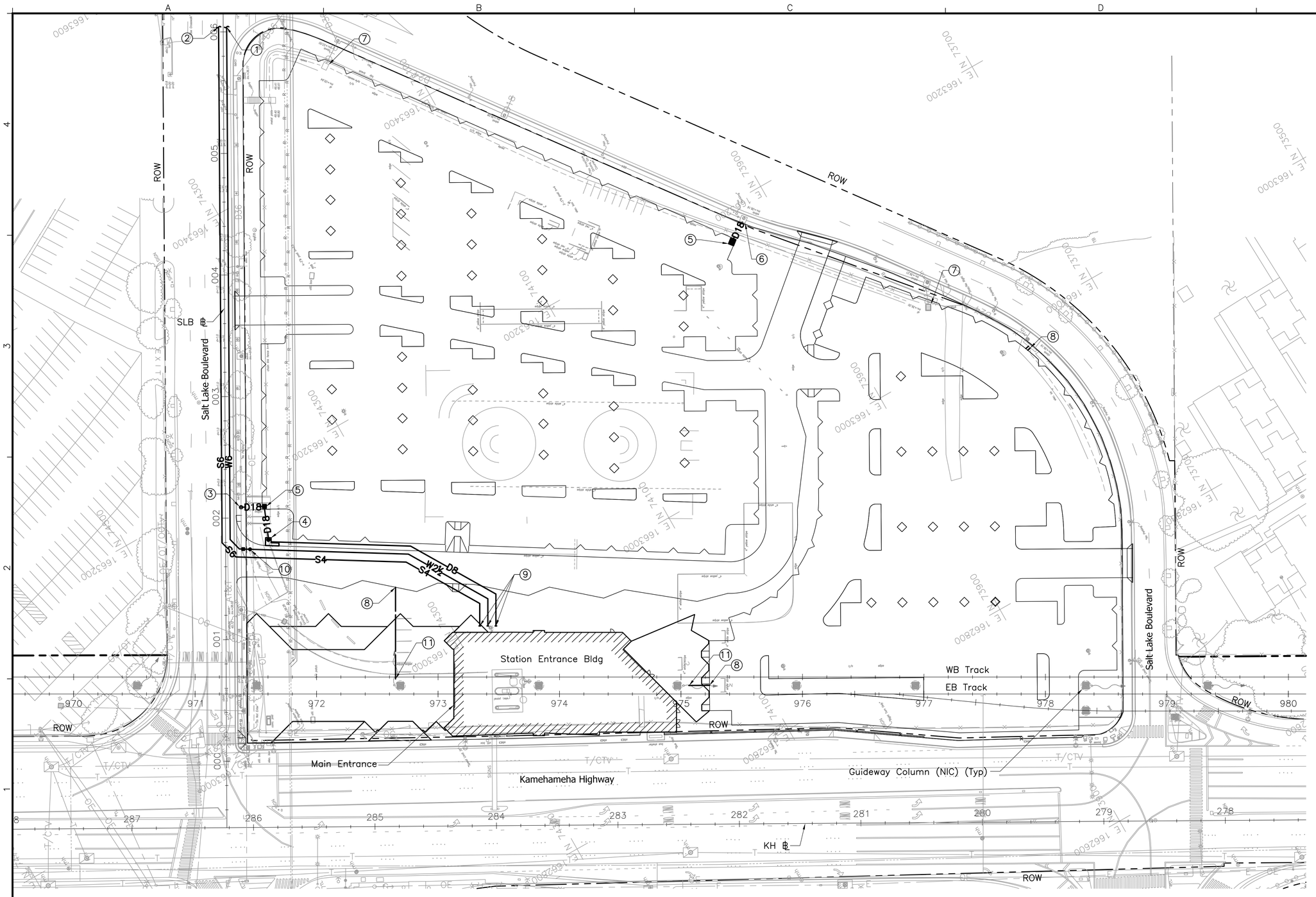

NOTES:

1. For General Utilities Symbols and Abbreviations, see Dwg No. UG001.
2. The configuration shown relative to NIC work is under development and is subject to change.
3. Permanent BMP's are required for connections to exist drainage system. Type and location shall be provided by Final Designer.

UTILITY NOTES:

① New water lateral
Connect to exist water main along Salt Lake Boulevard

② New sewer lateral
Connect to exist sewer along Salt Lake Boulevard

③ New DMH
Connect to exist D36

④ New CB

⑤ New DI

⑥ Connect to exist CB

⑦ Adjust exist DI to proposed grade

⑧ Curb opening

⑨ Point for mechanical connection

⑩ New WM and WV

⑪ New D8
Connect to guideway DS (DS is NIC)

40' 0 40'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 12-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant:
PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:
Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
R. M. TOWILL CORPORATION
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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ALOHA STADIUM STATION

UTILITIES PLAN
WATER, SEWER, & DRAINAGE

Contract No.: SV-340
CADD File: SJ1-D03-UP001
Drawing No: UP001 Rev.
Scale: 1"=40'
Page No. 19 of 53

2009-12-29 10:09 AM K:\civil\21132 Honolulu Transit Corridor\Segment J\dwg\Station Packages\1 – Aloha Stadium\SJ1-D03-UP001.dwg

NOTES:

1. For General Utilities Symbols and Abbreviations, see Dwg No. UG001.
2. The configuration shown relative to NIC work is under development and is subject to change.
3. Coordinate with Guideway Contract for the electrical stub–out location at ROW.

LEGEND:

- (14) 6' x 11' HECO Manhole
- O Manhole
- Underground Ductline
- Ductline, Stub–Out 5'–0" from edge of sidewalk or as indicated on plan. Provide concrete stub–out marker.
- 2 P 4 Duct Section Indicator

Duct Designation

2 P 4

- Conduit Size
- System "P" Primary Electric (12KV) "S" Secondary Electric
- Number of Ducts

Station Platform (Above)
Station Entrance Bldg
WB Track
EB Track
Main Entrance
Electrical Room
Stub–Out to Electrical Room
2 S 4
14'x19' HECO Transformer Easement
Concrete Pad for HECO 3ø Transformer
HECO 3ø Transformer (By HECO)
2 P 4
14
Stub–Out
Continuation by Guideway Contract
Guideway Column (NIC) (Typ)
Salt Lake Boulevard
Kamehameha Highway
KH ℄
SLB ℄
ROW
40' 0 40'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: T Higa
Drawn: I Pascua
Checked: L Nishimura
Approved: L Nishimura
Date: 12–18–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: ECS, INC. 615 PIIKOI ST., SUITE 207 HONOLULU, HI 96814

For reduced prints, original page size in inches: 0 1 2 3 4

ALOHA STADIUM STATION

UTILITIES PLAN ELECTRICAL

Contract No.: SV–340
CADD File: SJ1–D03–UP002
Drawing No: UP002 Rev.
Scale: 1"=40'
Page No. 20 of 53

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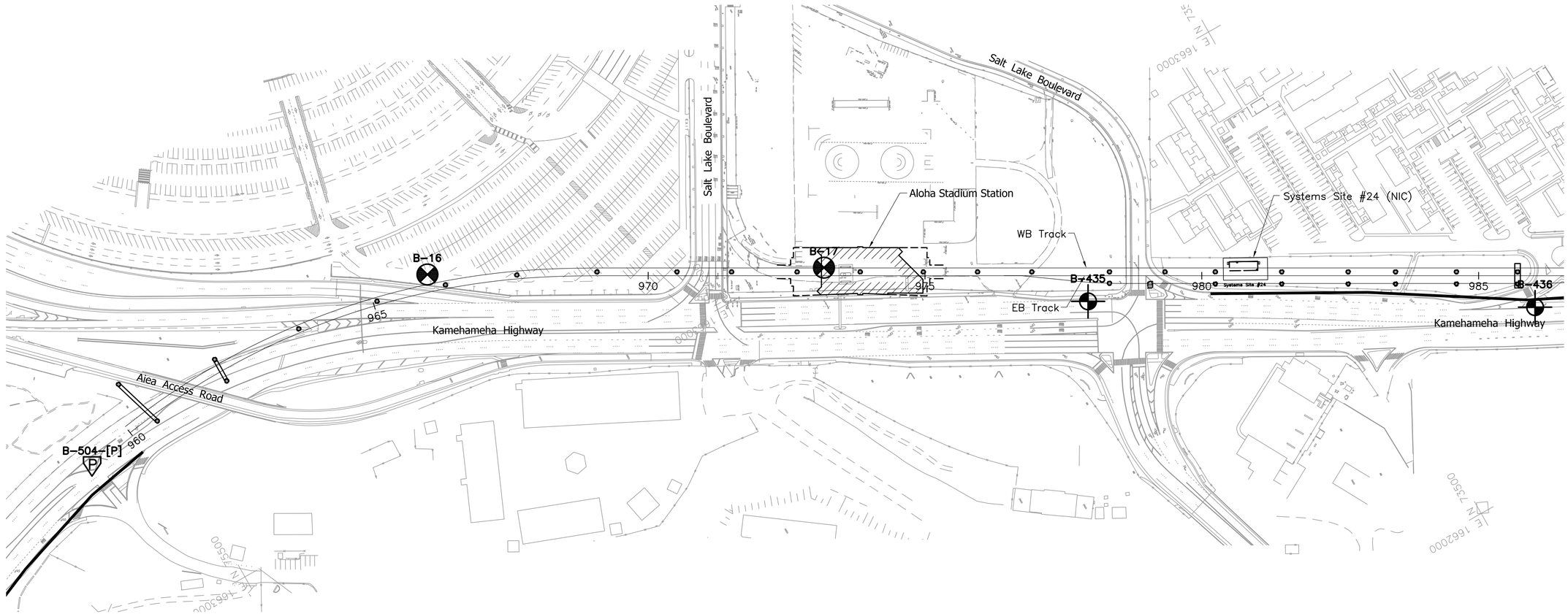

GEOTECHNICAL NOTES:

1. Geotechnical Investigations Documents
   a. February 2010; Geotechnical Data Report, Honolulu High–Capacity Transit Corridor Project – Airport Segment, Aiea to Middle Street. Honolulu, Oahu, Hawaii; W.O. 6000–30; Prepared for PB Americas; Geolabs, Inc.
   b. March 1991; Honolulu Rapid Transit Development Project, System Design, Supply, Construction, and Operation & Maintenance, Geotechnical Engineering Exploration–Waiawa to Waikiki and Manoa, Ewa and Honolulu, Oahu, Hawaii; W.O. 2366–00; Prepared for Department of Transportation Services, City and County of Honolulu; Geolabs–Hawaii. [None in general area of the Station]
2. Location of the City–provided geotechnical investigations, document 1.a above, documented in the GDR.
3. Locations of 1991 investigations, document 1.b above, approximated from available plans. Locations are not surveyed.
4. Information from 1991 investigations, documents 1.b above, is available to the Designer for information only as an aid to understanding general site conditions.
5. See Honolulu High–Capacity Transit Corridor Project, Design Criteria Compendium, Chapter 9 – Structural [and Geotechnical] for minimum geotechnical investigation and performance requirements.
6. In accordance with Design Criteria Subsection 9.6 – Geotechnical, Designer's "project geotechnical engineer" is responsible for development of the necessary information to complete the civil and structural design required for development of the proposed Station in accordance with Contract requirements.

LEGEND:

B–435 – Completed Geotechnical Boring, Ref 1.a

B–16 – Geotechnical Boring, Ref 1.b

B–435 – Planned Geotechnical Boring

100' 0 100'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: Z Batchko
Drawn: J Derosier
Checked: J Davis
Approved: Z Batchko
Date: 12–18–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

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ALOHA STADIUM STATION

GEOTECHNICAL INVESTIGATIONS PLAN

Contract No.: SV–340
CADD File: SJ1–F02–GE001
Drawing No.: GE001 Rev.
Scale: 1"=100'
Page No. 21 of 53

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GENERAL

1. The Structural design shall be based on the requirements of Chapter 9 – Structural of the HHCTCP Design Criteria.
2. The Contractor shall verify all dimensions and conditions prior to the start of the job and notify all discrepancies to the City. Where actual dimensions/conditions relative to existing structures conflict with the drawings, they shall be reported to the City so that proper clarification may be made.
3. All work shall conform to the best practice prevailing in the various trades comprising the work.
4. Features of construction shown are typical, and they shall apply generally throughout for similar conditions. Modify typical details as directed to meet special conditions.
5. Specific notes and details shall take precedence over general notes and typical details.
6. The Contractor shall refer to the specifications and technical provisions for information not covered by these general notes or the structural drawings.
7. The Contractor shall refer to the architectural, electrical, mechanical and utility drawings for conditions, depressions, openings, items to be embedded or attached to structural elements, etc., not shown on the structural drawings.
8. The Contractor shall provide temporary erection bracing and shoring for all structural members as required for stability of the structure during all phases of construction. The Contractor shall be responsible for all shoring.
9. The Contractor shall take all steps necessary to insure the correct location and orientation of the structure.
10. The Contractor shall protect and shield from damage all existing structures and elements adjacent to and surrounding the construction work. Existing elements damaged by the Contractor's operation shall be repaired to its original condition or replaced at no added cost.
11. All Structural work shall be prepared by a Structural Engineer licenced in the State of Hawaii or under his/her supervision, and construction review shall be made under his/her observation.

FOUNDATION

1. Reference Geotechnical Notes on Dwg No. GE001 for available geotechnical information and locations.
2. The Designer shall engage the services of a Project Geotechnical engineer in accordance with Chapter 9 of the HHCTCP Design Criteria, to perform subsurface exploration, investigation, testing, and analyses for the design and construction of the foundations of the indicated buildings and structures, and site improvements.
3. All foundation excavations shall be observed and approved by a Project Geotechnical engineer prior to placement of reinforcement and concrete. All structural fill material (both onsite and imported) shall be reviewed and approved by the Project Geotechnical engineer.
4. The Contractor shall provide for dewatering of excavations from surface water, ground water or seepage.
5. The Contractor shall be responsible for design and installation of all cribbing, sheeting, and shoring necessary to preserve excavations and earth banks.
6. Footings shall bear on undisturbed in–situ firm soil or on properly compacted fill. Bottom of footings shall be compacted to provide a firm, level and smooth bearing surface prior to placement of reinforcing steel and concrete. If soft and/or loose materials are encountered at the bottom of footing excavations, they shall be over–excavated to expose the underlying firm materials. The over excavation shall be backfilled with "lean concrete" or with structural fill compacted to a minimum of 95% relative compaction; or the footing bottom may be extended down to the underlying competent material.
7. All building slabs–on–grade shall be underlain by a 6–inch layer of aggregate subbase compacted to a minimum of 95% relative compaction.
8. All building slabs–on–grade receiving moisture sensitive flooring material shall be protected by a 15 mil vapor barrier, placed directly upon the compacted aggregate subbase.
9. The Contractor shall brace or protect all walls below grade from lateral earth pressures until attaching floor supporting members are completely in–place and have attained their full design strength.

STRUCTURAL CONCRETE

1. The design and construction of structural concrete shall conform to the "Building Code Requirements for Structural Concrete", ACI 318–05, including the following:
   A. Concrete mixing..... ASTM C94
   B. Concrete placement..... ACI 304
2. Materials shall conform to the following standard specifications, current edition:
   A. Portland cement..... ASTM C150, Type I or II
   B. Normal weight aggregates..... ASTM C33
   C. Air entraining admixture..... ASTM C260
   D. Water–reducing and retarding admixtures..... ASTM C494
3. Verify locations and dimensions of slots, anchors, ducts, etc., relating to mechanical, electrical and architectural work before pouring concrete.
4. All inserts, anchor bolts, plates, etc. embedded in concrete shall be hot–dipped galvanized unless noted otherwise.
5. All concrete shall be thoroughly consolidated during placement using a mechanical vibrator. All concrete shall be cured for a period of not less than 7 days.
6. Unless otherwise indicated on architectural drawings, provide exposed corners of beams, walls columns, etc. with 3/4" chamfers.
7. Notify the City three (3) working days prior to any concrete pour. No concrete shall be poured prior to observation by the City or its authorized representative.
8. Unless otherwise specified, concrete shall have a minimum 28–day compressive strength as follows:

A.	Sidewalks	3,000 PSI
B.	Floor Slab on Grade	3,000 PSI
C.	Footings & Grade Beams	3,000 PSI
D.	Piers	4,500 PSI
E.	Walls (incl precast or Tilt–up concrete)	4,000 PSI
F.	Columns	4,000 PSI
G.	Suspended Slabs and Beams	4,000 PSI
H.	Concrete Fill on Metal Deck	3,000 PSI
I.	All Others	3,000 PSI
J.	Site Retaining Walls	See wall schedule

9. For walks and slabs on grade, the concrete shall be designed such that the water–cement ratio does not exceed 0.50 by weight. For concrete fill on metal deck and suspended slabs, the water–cement ratio shall not exceed 0.45 by weight.

DESIGN CRITERIA

1. Design loads:
   A. Dead loads = actual weight calculated using the material unit weights specified in Section 9.2 of the HHCTCP Design Criteria.
   B. Live loads = loads as specified in Sections 9.3 and 9.4 of the HHCTCP Design Criteria.
   C. Vehicle, crane, equipment loads = as noted on the drawings
2. Wind design data:
   A. Design effective wind speed..... 105 MPH
   B. Exposure..... C
   C. Occupancy Category III
   D. Importance factor..... 1.15
3. Seismic design data:
   A. Occupancy Category III
   B. Importance factor = 1.25
   C. Mapped spectral response accelerations:
      * Ss = 0.60
      * S1 = 0.17
   D, Site Class to be determined in accordance with Foundation Note 2.

CONCRETE TOPPING ON METAL DECK

1. Concrete topping shall not contain calcium chloride or admixtures containing calcium chloride.
2. Electrical conduits are not allowed to be embedded in concrete topping on metal deck without prior approval of the Design Engineer.
3. Connection bolts in composite floor beams shall be finger tightened only, until 72 hours after the concrete topping has been poured. At 72 hours, the bolts shall be tightened per AISC requirements.
4. The ceramic ferrule, if used to install the headed shear studs, must be removed for inspection. Under no circumstances is the ferrule to be left on any headed stud embedded in concrete topping.
5. Concrete topping shall be placed over beams first before pouring at midspan of the decking.
6. Concrete must be placed with care to avoid impacts by dropping or dumping. Buggies will not be allowed to transport and deposit concrete unless the runway is planked and the floor deck is adequately shored.
7. Pour joints across the deck shall be placed in the middle third of the bay span. Pour joints parallel to the deck shall be placed 3'–0" plus or minus from the girder line.

PRECAST CONCRETE (TILT–UP) WALL PANELS

1. The design, fabrication, transportation and erection of precast concrete (Tilt–up) wall panels shall be in accordance with Chapter 16 of the "Building Code Requirements for Structural Concrete (ACI 318–05)", and with "Tilt–Up Concrete Construction Guide", ACI 551.1R–05.
2. The Contractor shall submit shop drawings of panels showing dimensions, reinforcing, pick–up points, strong back locations, bracings, additional reinforcing for temporary lifting and bracing, and calculations showing erection stresses, stamped and signed by a structural engineer licensed in the State of Hawaii.
3. The Contractor shall verify all dimensions, openings in walls, and details prior to forming and pouring.
4. The Contractor shall be responsible for properly embedding all necessary plates, anchor bolts, inserts for dowels and anchor bolts, etc. Shown on the contract drawings. Anchor bolts shall not be substituted with expansion anchors unless approved by the City.
5. Panels shall not be lifted until concrete has cured for at least 7 days and has gained the compressive strength specified at lifting by the Engineer of Record or 3,000 PSI, whichever is greater. The Contractor shall make additional cylinders for each pour and field cure to be tested the day before lifting in order to make sure that the required compressive strength is reached. No panel shall be lifted before it has cured for 7 days.
6. Weld structural steel embed plates in accordance with ANSI/AWS D1.1. Welding of reinforcing bars shall be in conformance with ANSI/AWS D1.4. Rebars to be welded shall conform to ASTM A 706, grade 60.
7. In case the Contractor decides to cast panels stacked one above the other due to field conditions, he shall inform the City before proceeding with the work. Provide inserts in stacked panels for all rebar dowels and anchor bolts.
8. Panels more than one story high shall be braced at each floor level. In case the intermediate braces have to be removed due to field conditions, the Contractor shall submit plans for rebracing panels to the City for review and approval prior to removal of braces.

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: R Yamashiro
Drawn: J Perreira
Checked: G Suzuki
Approved: G Suzuki
Date: 01–15–10

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: CONSULTING STRUCTURAL HAWAII, INC.
931 HAUSTEN STREET, SUITE 200
HONOLULU, HAWAII 96826

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ALOHA STADIUM STATION

GENERAL STRUCTURAL NOTES, SYMBOLS, AND ABBREVIATIONS

SHEET 1 OF 4

Contract No.: SV–340
CADD File: SJ1–G01–SG001
Drawing No: SG001 Rev.
Scale: N/A
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REINFORCING STEEL

1. All reinforcing steel shall be deformed bars conforming to ASTM A 615 Grade 60, except ties and stirrups smaller than #4 which may be grade 40. All reinforcing steel to be welded shall conform to ASTM A 706 Grade 60.
2. Plain steel welded plain wire fabric shall conform to ASTM A 185, fabricated from as–drawn steel wire into flat sheets and galvanized.
3. Minimum concrete protection (cover) for reinforcement shall be provided in conformance with Chapter 7 of ACI 318–05.
4. Development and splices of reinforcement shall be in conformance with Chapter 12 of ACI 318–05.
5. Welding of reinforcing steel bars shall conform to "Structural Welding Code–Reinforcing Steel", AWS D1.4.
6. Bolster and support bars for slab and topping reinforcement (including slabs on grade) shall be a minimum of #4 at 36" o.c.
7. Before placing of concrete, reinforcement placement shall be inspected to insure conformance with the drawings. All discrepancies shall be corrected prior to concrete pour or grouting.

STRUCTURAL STEEL AND MISCELLANEOUS IRON

1. The design, fabrication and erection of structural steel shall be in accordance with the "Specifications for Structural Steel Buildings", AISC 360–05. Seismic design of steel structures shall be in accordance with the "Seismic Provisions for Structural Steel Buildings", including Supplement No.1 dated 2006, AISC 341–05.
2. W–shapes shall conform to ASTM A 992 (Fy = 50 ksi). All steel plates, bars, and other shapes shall comply with ASTM A 36 unless noted otherwise. Structural pipe shall conform to ASTM A 53, Grade B. Round HSS shall conform to ASTM A 500, Grade B, (Fy = 42 ksi). Rectangular and square HSS shall conform to ASTM A 500, Grade B (Fy = 46 ksi). All exposed steel members and assemblies shall be hot–dip galvanized after fabrication in accordance with ASTM A 123.
3. Common bolts shall comply with ASTM A 307, hot–dip galvanized per ASTM A 153.
4. High strength bolts shall comply with ASTM A 325N or A 325SC (where noted), Galvanized. Nuts shall conform to ASTM A 563, galvanized. Washers shall conform to ASTM F 436, Galvanized.
5. Anchor rod material shall conform to ASTM F 1554, Grade 36 (Grade 55 or 105 where noted), hot–dip galvanized, per ASTM A 153.
6. Shear stud connectors shall be as specified in AWS D1.1–04, Chapter 7, Type B made from ASTM A 108 material (Fu = 60 ksi).
7. All welds shall be arc welded, matching the electrode to the base steel, according to AWS standards and performed by certified welders. All welds shall be ground smooth and painted with 2 coats of cold galvanizing compound.
8. Unless otherwise indicated, all steel joints not detailed shall be fully welded using minimum fillet welds per AISC.
9. Shop drawings shall be submitted to the City for all structural steel, fabricated brackets hardware and miscellaneous metals prior to fabrication.
10. All anchor plates embedded in concrete shall be hot–dip galvanized after fabrication.

STEEL JOISTS

1. The design, manufacture and installation of open web steel joists and joist girders shall be in accordance with the following Steel Joist Institute (SJI) specifications:
   a. Standard specifications for joist girders, JG–1.1–05
   b. Standard specifications for open web steel joists, K–series, K–1.1–05
   c. Standard specifications for longspan steel joists, LH series and deep longspan steel joists, DLH series, LH/DLH 1.1–05
2. Joist manufacturer shall provide all bridging and blocking, both permanent and erection. Shop drawings and design calculations stamped by a licensed Hawaii Structural Engineer shall be submitted to the City for approval two weeks prior to fabrication.
3. All roof joists, joist girders and bridging shall be designed for the net wind uplift pressures in accordance with the requirements of the 2006 International Building Code (IBC).
4. Roof joist design loads:
   Dead load.....Actual weight of roof system
   Additional (equipment) loads.....See roof framing plans (it shall be the responsibility of the Designer to verify the weight of all mechanical equipment.)
   Live load.....20 psf––unless noted otherwise
5. Floor joists design loads:
   Dead load.....Actual weight of floor system
   Live load.....As noted on the drawings
   Additional (equipment) loads.....See floor framing plans (It shall be the responsibility of the Designer to verify the weight of all mechanical equipment.)
6. Live load deflection limits:
   Floor.....Not to exceed L/360 – unless noted otherwise
   Roof.....Not to exceed L/360 – unless noted otherwise

COLD–FORMED STEEL FRAMING

1. The design, fabrication, installation and construction of cold–formed light gauge structural and non–structural steel framing shall be in accordance with the "North American Specification For Design of Cold–Formed Steel Structural Members", including 2004 Supplement, NAS–01 and the following American Iron and Steel Institute (AISI) standards:
   a. Standard for Cold–Formed Steel Framing – General Provisions, General–04
   b. Standard for Cold–Formed Steel Framing – Header Design, Header–04
   c. Standard for Cold–Formed Steel Framing – Truss Design, Truss–04
   d. Standard for Cold–Formed Steel Framing – Wall Stud Design, WSD–04
2. All light gauge structural steel members, plates and angles shall be hot dip galvanized. (Minimum G90 coating) per ASTM A 924.
3. All light gauge structural steel framing members shall be cold formed to shapes from structural quality sheet steel complying with the requirements of ASTM A 1003, Grade 50 for 14 and 16 gauge members; Grade 33 for 18 thru 26 gauge members.
4. Shop drawings shall be submitted to the City for all fabricated connections and hardware prior to fabrication.
5. Structural calculations and shop drawings stamped by a Structural Engineer licensed in the State of Hawaii shall be submitted for review to the City for all pre–engineered framing, including trusses prior to fabrication.
6. Fasteners shall be self–piercing and self–drilling, power–driven screws intended for cold formed steel application and shall be zinc plated or galvanized. Screws shall not protrude through the metal decking where exposed to view. If decking is exposed on the bottom surface, welding of metal decking shall be utilized.
7. All welding shall be done in accordance with "Structural Welding Code", AWS D1.1 and "Structural Welding Code Sheet Steel", AWS D1.3 for sheet steel and performed by certified welders.
8. The Contractor shall be responsible for temporary bracing of all cold–formed metal framing including trusses.

PEDESTRIAN BRIDGES

1. Pedestrian bridges shall be designed in accordance with Section 9.4 of the HHCTCP Design Criteria.

METAL DECKING

1. Steel sheets for roof and composite floor metal deck and accessories shall conform to ASTM A 653, with minimum yield strength of 38 ksi. Decks shall be galvanized in accordance with ASTM A 653, G90.
2. Metal floor deck units shall be fastened to supporting structural steel members with ½–inch effective diameter puddle welds. If studs are welded through the deck to the structural steel, stud welds may replace the puddle welds. Use of powder actuated mechanical fasteners (PAMF) may be considered provided the manufacturer's information of the mechanical fastener includes an ICC–ES Legacy Report.
3. Roof deck units shall be fastened to supporting structural steel members with ½–inch effective diameter puddle welds or with ICC–ES approved powder actuated mechanical fasteners.
4. Rectangular or circular openings in metal deck shall be reinforced.
5. Shop drawings showing the deck unit layout and fastener locations, manufacturer's brochures and ICC–ES Legacy Report shall be submitted to the City for approval.
6. Welding of metal deck to structural steel members shall conform to AWS D1.1 and AWS D1.3. Welders shall be certified prior to commencing work.
7. Construction loads (including those due to storage of construction materials) shall not exceed the design live load of the roof or floor system.

CONCRETE MASONRY UNIT

1. The design, construction and quality of masonry structures shall be in accordance with the "Building Code Requirements for Masonry Structures", ACI 530 – 05.
2. Hollow concrete masonry units: ASTM C 90, Grade N, 1,900 psi compressive strength, medium weight. Units shall be 2–core type, 8" nominal height, 16" nominal length and width indicated on the plans.
3. Mortar and grout materials:
   a. Portland Cement: ASTM C 150, Type I or II
   b. Masonry Cement: ASTM C 91
   c. Mortar Cement: ASTM C 1329
   d. Aggregate for Mortar: ASTM C 144
   e. Aggregate for Grout: ASTM C 404, with grading per ASTM D 448, No. 10
   f. Hydrated Lime: ASTM C 207, Type S
   g. Plasticizer Additive: Powder or liquid type with current ICC acceptance as a substitute for lime in mortar.
   h. Water: Potable and complying with ASTM C 94.
4. Mortar shall be ASTM C 270 Type 'M' or 'S' with a minimum 28–day compressive strength of 1,800 psi for Type S and 2,500 psi for Type M. Use mortar within 2 hours after initial mixing.
5. Grout (fine) shall be proportioned to attain a 28–day compressive strength of 2,500 psi and a slump between 8 and 11 inches. Grout shall be placed within 90 minutes after mixing.
6. Reinforcing bar positioners: Commercial, non–metallic positioners that prevent displacement of reinforcing bars during construction. Install at intervals not exceeding 8 feet.
7. Fill all cells solid with grout. No grouting shall commence prior to inspection by the Engineer or Special Inspector.
8. Unless noted otherwise, all walls shall be constructed in running bond.
9. Post–installed anchors in grouted masonry: corrosion–resistant anchors with capacity to support design shear and tension loads with a factor of safety of at least 4.0 as documented in a current ICC legacy report.

TIMBER

1. The design of timber framing shall be in accordance with the International Building Code (IBC).
2. The design of glued–laminated (glulam) beams for the canopy system shall be in accordance with NDS National Design Specification for Wood Construction from the American Forest and Paper Assocation.
   a. The allowable bending stress, F_b, shall be taken as 3000 psi modified with the appropriate adjustment factors.

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CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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ALOHA STADIUM STATION

GENERAL STRUCTURAL NOTES, SYMBOLS, AND ABBREVIATIONS

SHEET 2 OF 4

Contract No.: SV–340
CADD File: SJ1–G01–SG002
Drawing No.: SG002 Rev.:
Scale: N/A
Page No. 23 of 53

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STRUCTURAL ABBREVIATIONS

&	And
@	At
AASHTO	American Association of State Highway & Transportation Officials
AB	Anchor Bolt
Abut	Abutment
AC	Asphalt Concrete
ACI	American Concrete Institute
ACU	Air Conditioning Unit
Aggr	Aggregate
AHU	Air Handling Unit
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
Anch	Anchor
ANSI	American National Standards Institute
Approx	Approximate
Arch.	Architect, Architectural
AREMA	American Railway Engineering & Maintenance–of–Way Association
ASCE	American Society of Civil Engineers
ASTM	American Society for Testing & Materials
AWS	American Welding Society
℄	Baseline
Bal	Balance
BF	Both Faces
Bldg	Building
Blkg	Blocking
Bm	Beam
Bot	Bottom
℄	Centerline
c	Camber
C–C	Center to Center
CCH	City and County of Honolulu
CFS	Cold–Formed Steel
CIP	Cast–in–Place
CJ	Construction Joint, Control Joint
Clr	Clear, Clearance
CMU	Concrete Masonry Unit
Col	Column
Conc	Concrete
Conn	Connect, Connection, Connector
Cont	Continuous, Continue
Cu	Cubic
CY	Cubic Yard
Dbl	Double
Dept	Department
Det	Detail
Dia	Diameter
Diag	Diagonal, Diagram
Diaph	Diaphragm
Dim	Dimension
Dir	Direction
Dist	Distance
DL	Dead Load
Dn	Down
DOT	Department of Transportation
DS	Downspout
DT	Double Tee
Dwg	Drawing
Dwl	Dowel
E	East
ea	Each
EB	Eastbound
EE	Each End
EF	Each Face, Exhaust Fan
EJ	Expansion Joint
El, Elev	Elevation
Elec	Electric, Electrical
Elev	Elevator
Engr	Engineer, Engineering
EQ	Earthquake
Eq	Equal
Eqn	Equation
Est	Estimate
EW	Each Way
Exc	Excavation
Exist	Existing
Exp	Expansion
Ext	Exterior, External
Extn	Extension
FD	Floor Drain
Fdn	Foundation
FF	Finish Floor
FFE	Finish Floor Elevation
FHWA	Federal Highway Administration
Fig.	Figure
Fin	Finish
Fl	Floor
Fr	Frame
ft	Foot, Feet
Ftg	Footing
Fu	Ultimate Stress
Fy	Yield Stress
Ga	Gauge
Galv	Galvanized
GB	Grade Beam
Gen	General
Gnd	Ground
Govt	Government
Grd	Grade
H	High, Height, Horizontal
HDOT	Hawaii Department of Transportation
HHCTCP	Honolulu High–Capacity Transit Coridor Project
Horiz	Horizontal
Hr	Hour
HS	High Strength
HSS	Hawaii Standard Specifications for Road and Bridge Construction (Issued 2005)
HSS	Hollow Structural Shape
Ht	Height
Hwy	Highway
IBC	International Building Code
ICC–ES	International Code Council–Evaluation Service
ID	Inside Diameter
IF	Inside Face
in.	Inch
Incl	Included, Including, Inclusive
Int	Interior
Inv	Invert
JG	Joint Girders
Jt	Joint
Jt(s)	Joints
K	Kip(s)
KF	Kip Foot
KLF	Kips Per Linear Foot
KSF	Kips Per Square Foot
KSI	Kips Per Square Inch
L	Left, Length, Angle (Steel Shape)
LB	Pound (unit of measure)
LF	Linear Foot
Lin	LinearLinear
LL	Live Load
LLH	Long Leg Horizontal
LLV	Long Leg Vertical
Long.	Longitudinal
Max	Maximum
Mech	Mechanical
Met	Metal
Mezz	Mezzanine
Mfr	Manufacturer
MH	Manhole
Mil	One Thousandth of an inch
Min	Minimum
Misc	Miscellaneous
mm	Millimeter
Mom	Moment
MOW	Maintenance–of–Way
Mtg	Meeting
Mtl	Material
N	North
N/A	Not Applicable
NAS	North American Specification
NB	Northbound
NE	Northeast
Neg	Negative
NF	Near Face
NIC	Not in Contract
No.(Nos.)	Number (Numbers)
Nom	Nominal
NTS	Not to Scale
NW	Northwest
OC	On Center
OD	Outside Diameter
OF	Outside Face
Opng	Opening
Opp	Opposite
Opp Hd	Opposite Hand
oz	Ounce
PAMFP	Power Actuated Mechanical Fasteners
PCF	Pounds Per Cubic Feet
P/T	Post Tensioned
P.E.	Professional Engineer
Ped	Pedestrian
Perp	Perpendicular
Ph	Phase
Plywd	Plywood
Pos	Positive
Proj	Project
Prop	Property
PSF	Pounds Per Square Feet
PSI	Pounds Per Square Inch
PVC	Polyvinyl Chloride
Pvmt	Pavement
QA/QC	Quality Assurance/Quality Control
Qty	Quantity
R	Radius
RC	Reinforced Concrete
RD	Roof Drain
Rdwy	Roadway
Rect	Rectangle
Ref	Reference
Reinf	Reinforce, Reinforcing
Repl	Replace, Replaced
Reqd	Required
Ret	Return, Retain, Retaining
Rev	Revision, Revised
RFP	Request for Proposal
Rm	Room
RO	Rough Opening
ROW	RIgh–of–Way
Rt	Right
RTD	Rapid Transit Division
RW	Retaining Wall
S	South
S1	Mapped MCE Spectral Response Acceleration at a Period of 1–sec.
Sch	Schedule
SDS	Design Spectral Response Acceleration at Short Periods
SD1	Design Spectral Response Acceleration at a Period of 1–sec.
SE	Southeast
Sect	Section
SF	Square Foot, Square Feet
Sgl	Single
Sht	Sheet
Sim	Similar
SJI	Steel Joist Institute
SMS	Sheet Metal Screw
Spec	Specification
Sq	Square
SRP	Skylight Roof Post
SS	Stainless Steel
Sta	Station, Stationing
Std	Standard
Stiff	Stiffener
Stl	Steel
Struct	Structure
SW	Southwest
Sym	Symmetrical
T	Top
T&B	Top and Bottom
T&G	Tongue and Groove
Temp	Temporary, Temperature
Thk	Thick, Thickness
Thru	Through
TOC	Top of Concrete
Topo	Topography
TOR	Top of Rail
TOS	Top of Slab
TO Stl	Top of Steel
Tot.	Total
TOW	Top of Wall
Typ	Typical
UNO	Unless Noted Otherwise
V	Vertical
Var	Variable, Varies
Veh	Vehicle
Vert	Vertical
Vol	Volume
W	Wide Flange
w/	With
w/o	Without
WB	Westbound
WF	Wall Footing
WL	Wind Load
WP	Work Point
WSD	Wall Stud Design
Wt	Weight
WWF	Welded Wire Fabric

SPECIAL TERMS

Makai	Ocean
Mauka	Mountain

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

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ALOHA STADIUM STATION

GENERAL STRUCTURAL NOTES, SYMBOLS, AND ABBREVIATIONS

SHEET 3 OF 4

Contract No.: SV–340
CADD File: SJ1–G01–SG003
Drawing No: SG003 Rev.
Scale: N/A
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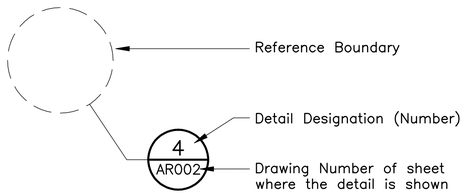
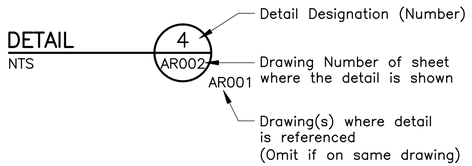
STRUCTURAL SYMBOLS

DETAILS





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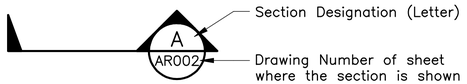
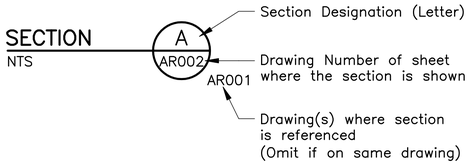
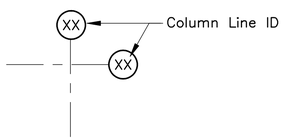




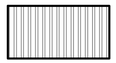
COLUMN LINE GRID INDICATOR



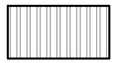
GENERAL SYMBOLS

&	And
@	At
#	Number
ø	Diameter
%	Percent
=	Equal to
>	Greater Than
<	Less Than
≥	Greater Than or Equal To
≤	Less Than or Equal To
±	Plus or Minus

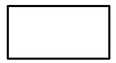
HATCH



Metal Deck w/Conc Topping (Plan View)



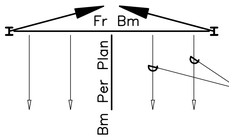
Metal Deck w/No Topping (Plan View)



Slab on Grade (Plan View)

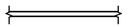
LEGEND

Struct. Steel "X" Braced Frame (Above)



Structural Concrete Wall

Non–Struct. Partition (See Arch. Drawings)

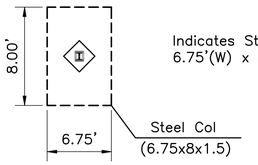


Non–Struct. Shaft Wall

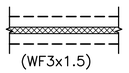
Tilt–Up Wall

CMU Wall

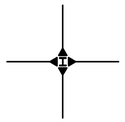
Wall Below



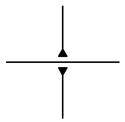
Indicates Steel Moment Frame Column & 6.75'(W) x 8.00'(L) x 1.5' Thk Footing



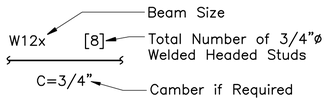
Indicates Continuous Footing 3'(W) x 1.5'(T)



Indicates Beam–to–Column Moment Connection



Indicates Beam–to–Beam Moment Connection



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PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: R Yamashiro
Drawn: J Perreira
Checked: G Suzuki
Approved: G Suzuki
Date: 01–15–10

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: CONSULTING STRUCTURAL HAWAII, INC.
931 HAUSTEN STREET, SUITE 200 HONOLULU, HAWAII 96826

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ALOHA STADIUM STATION

GENERAL STRUCTURAL NOTES, SYMBOLS, AND ABBREVIATIONS

SHEET 4 OF 4

Contract No.: SV–340
CADD File: SJ1–G01–SG004
Drawing No.: SG004 Rev.:
Scale: N/A
Page No.: 25 of 53

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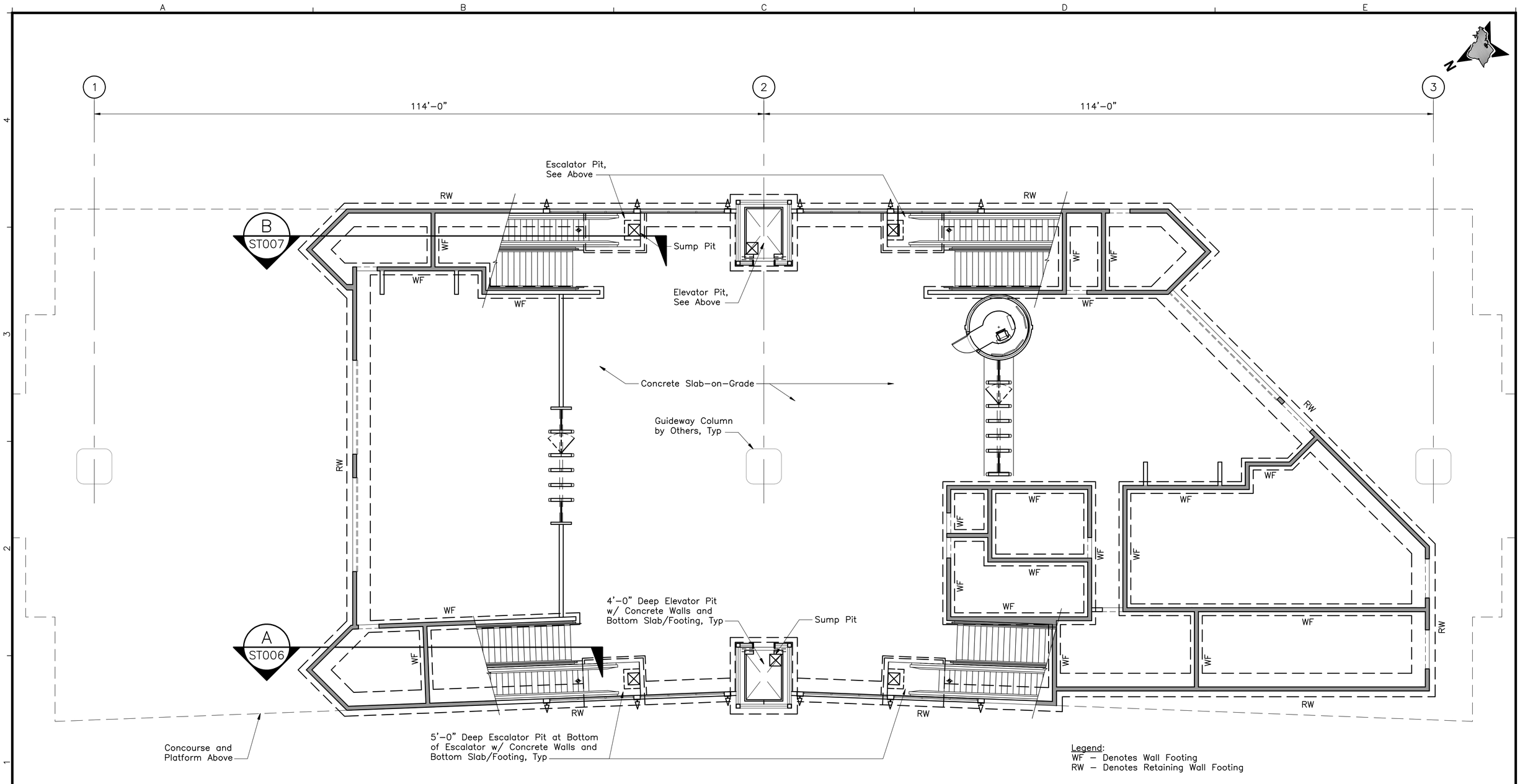

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ALOHA STADIUM STATION

STRUCTURAL FOUNDATION PLAN

Contract No.: SV–340
CADD File: SJ1–G13–ST001
Drawing No: ST001 Rev.
Scale: 1/8" – 1'–0"
Page No. 26 of 53

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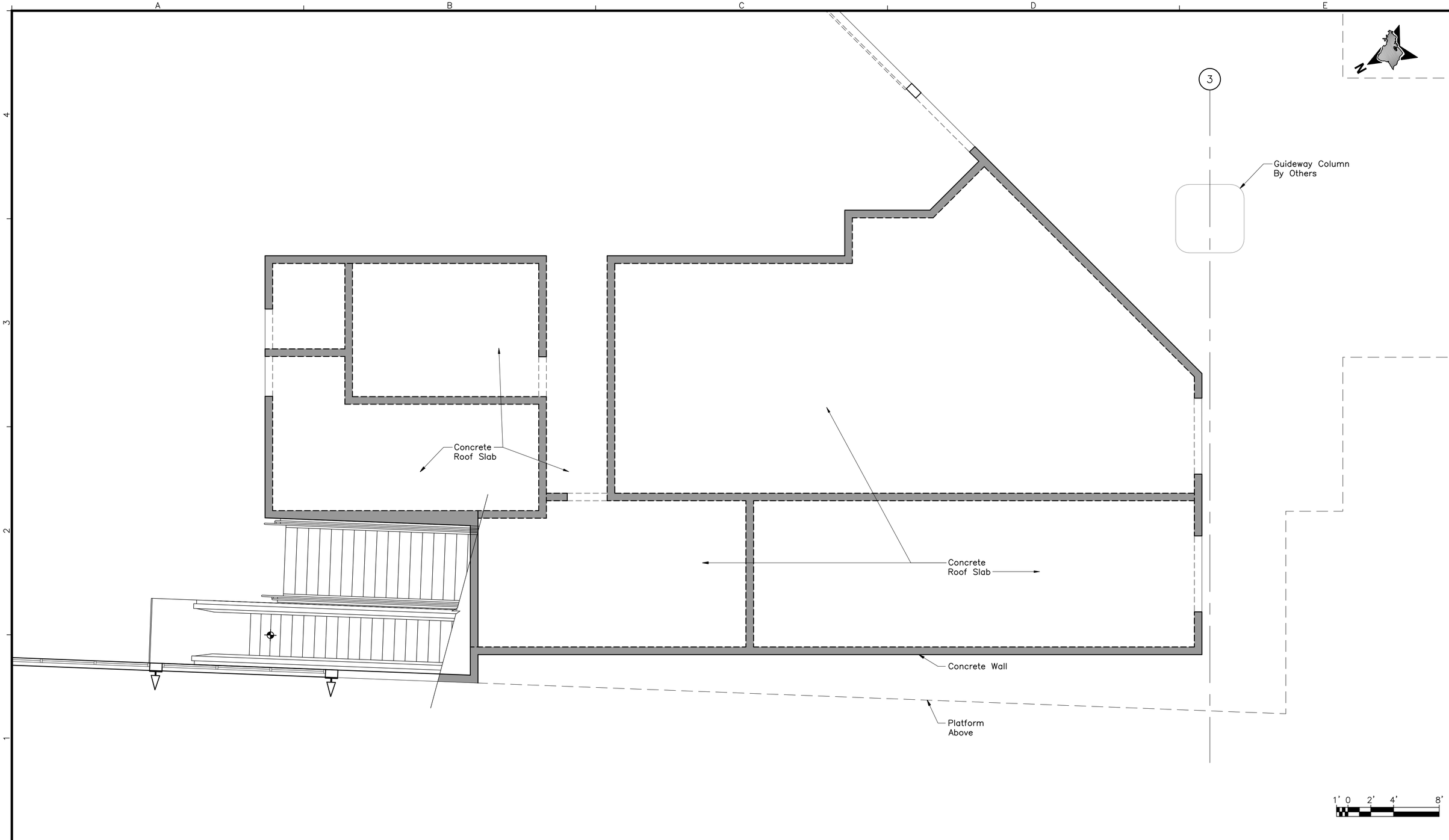

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ALOHA STADIUM STATION

STRUCTURAL LOW ROOF FRAMING PLAN

Contract No.: SV–340
CADD File: SJ1–G14–ST002
Drawing No.: ST002 Rev.
Scale: 1/4" – 1'–0"
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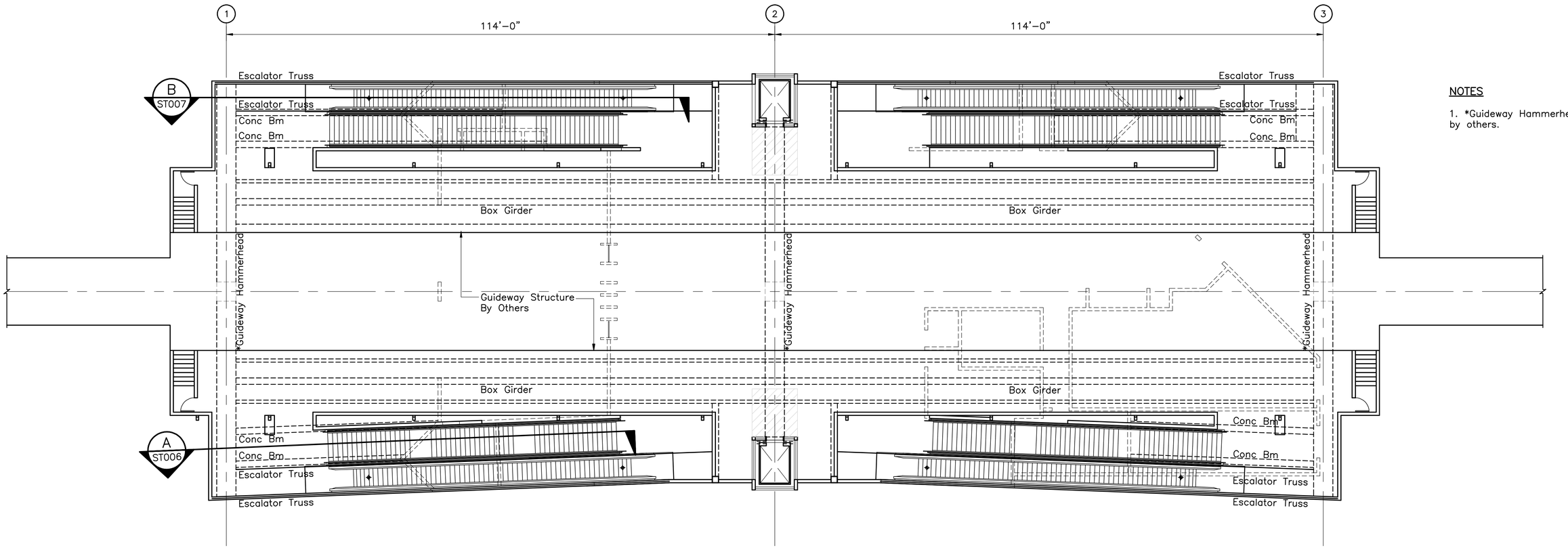

NOTES

1. *Guideway Hammerhead by others.

2' 0 2'4' 8' 12' 20'

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HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
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HONOLULU, HAWAII 96826

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ALOHA STADIUM STATION

STRUCTURAL PLATFORM LEVEL FRAMING PLAN

Contract No.: SV–340
CADD File: SJ1–G14–ST003
Drawing No: ST003 Rev.
Scale: 3/32" = 1'–0"
Page No. 28 of 53

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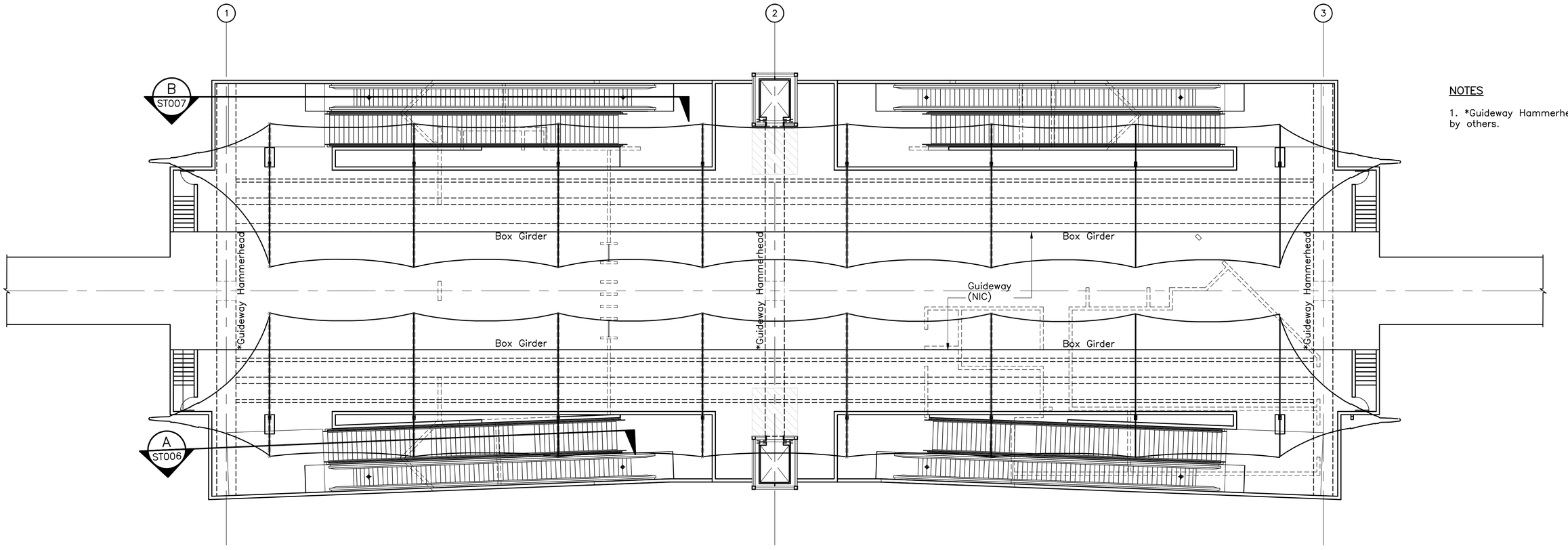

NOTES

1. *Guideway Hammerhead by others.

2' 0 2' 4' 8' 12' 20'

Rev	By	Date	Description

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HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB 1922 PARSONS BRINCKERHOFF
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HONOLULU, HAWAII 96826

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ALOHA STADIUM STATION

STRUCTURAL PLATFORM LEVEL ROOF FRAMING PLAN

Contract No.: SV-340
CADD File: SJ1-G14-ST004
Drawing No: ST004 Rev.
Scale: 3/32" = 1'-0"
Page No. 29 of 53

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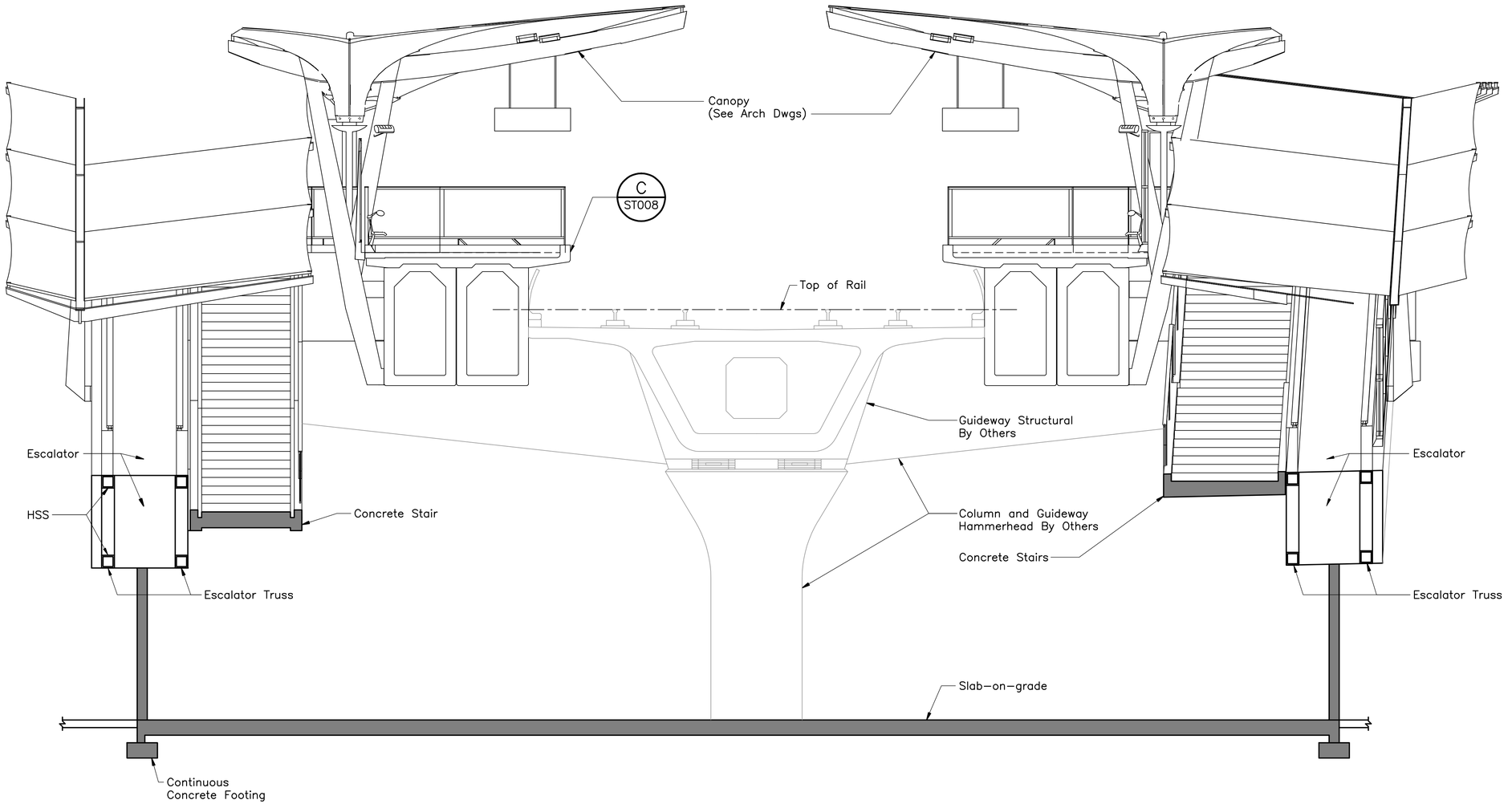

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PRELIMINARY ENGINEERING SUBJECT TO REVISION

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Checked: G Suzuki
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Date: 01–15–10

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

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HONOLULU, HAWAII 96826

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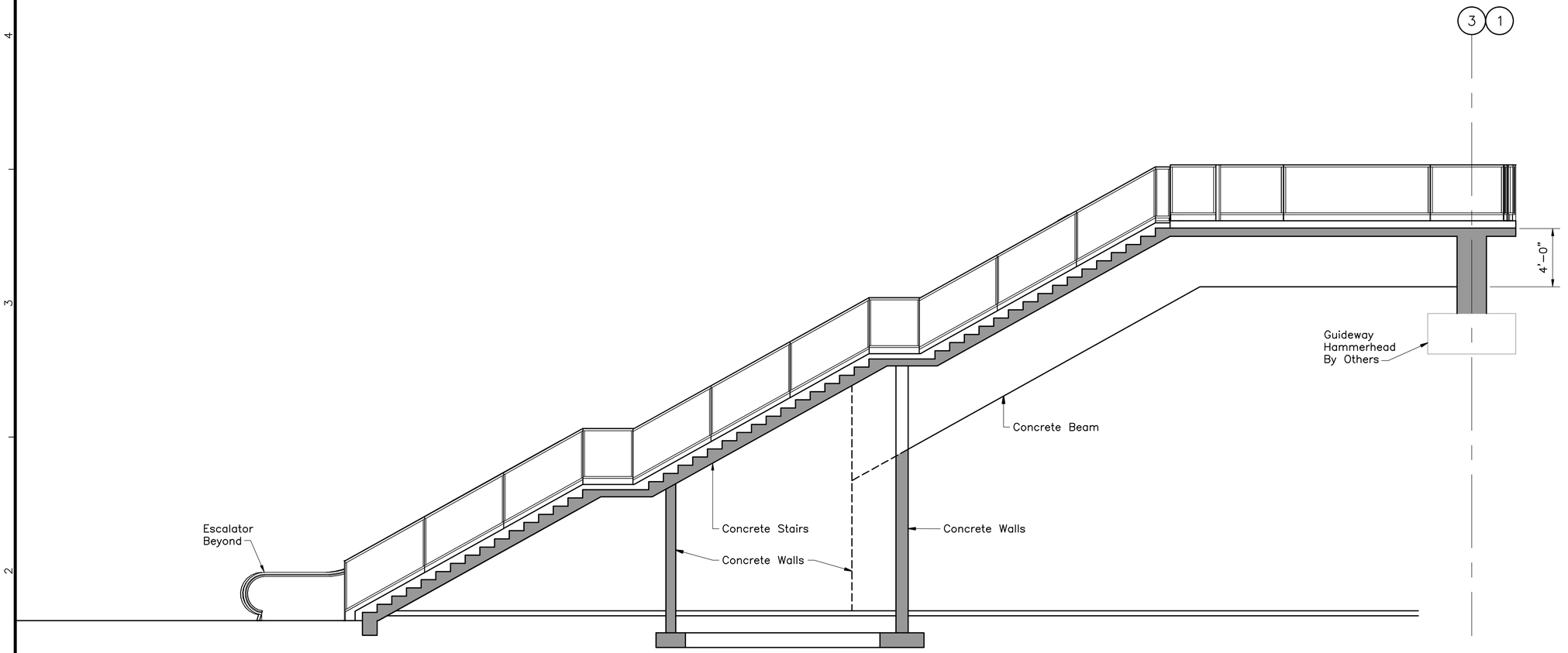
ALOHA STADIUM STATION

STRUCTURAL CROSS SECTION

Contract No.: SV–340
CADD File: SJ1–G15–ST005
Drawing No: ST005 Rev.
Scale: 1/4" – 1'–0"
Page No. 30 of 53

2010–01–11 2:54 PM \\cshdomain\csh_info\Drawings_Design\RKY\09026A_HHCTCP_Aloha_Stadium\SJ1–G15–ST005.dwg



SECTION A
1/4"=1'-0"
ST006, ST001, ST003, ST004

1' 0 2' 4' 8'

Rev	By	Date	Description

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HONOLULU, HAWAII 96826

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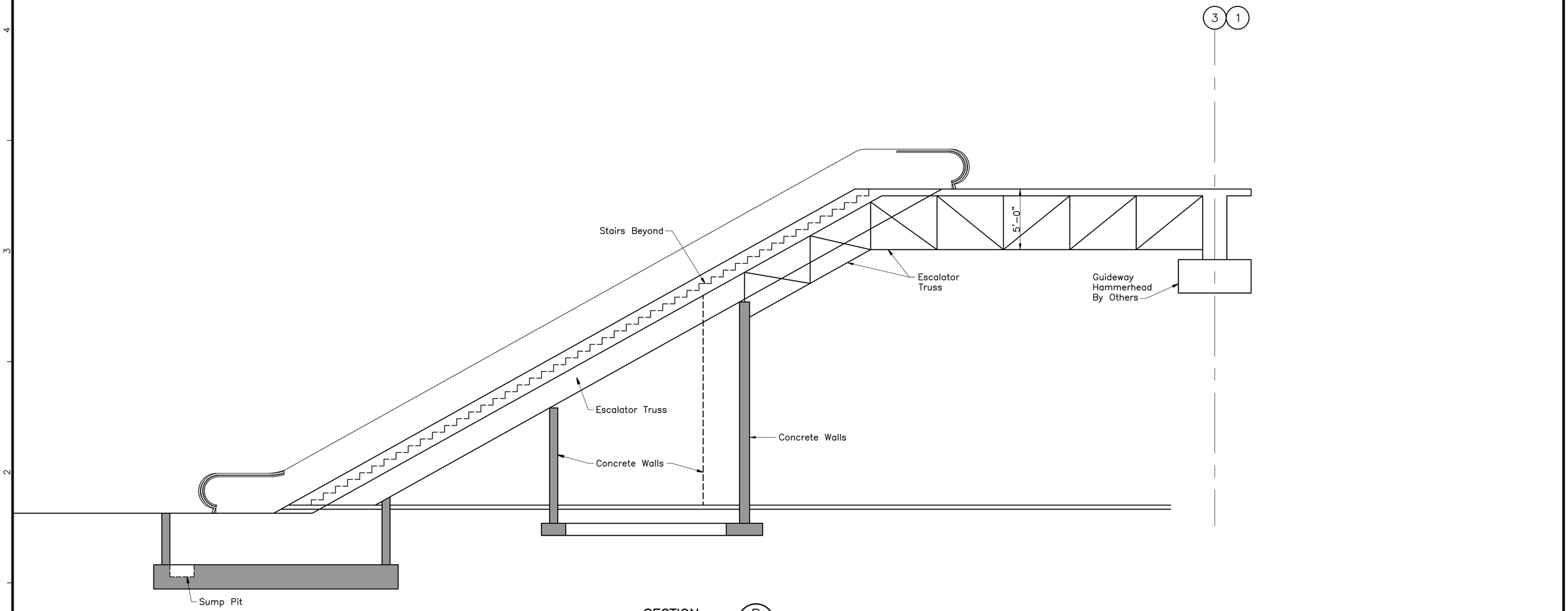
ALOHA STADIUM STATION

STRUCTURAL STAIR SECTION

Contract No.: SV-340
CADD File: SJ1-G15-ST006
Drawing No.: ST006 Rev.
Scale: 1/4" = 1'-0"
Page No. 31 of 53

2010-01-11 2:54 PM \\cshdomain\csh_info\Drawings_Design\RKY\09026A_HHCTCP_Aloha_Stadium\SJ1-G15-ST006.dwg



SECTION B
1/4"=1'-0"
ST007 ,ST001, ST003, ST004

1' 0 2' 4' 8'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: R Yamashiro
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Date: 01-15-10

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
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HONOLULU, HAWAII 96826

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ALOHA STADIUM STATION

STRUCTURAL ESCALATOR SECTION

Contract No.: SV-340
CADD File: SJ1-G15-ST007
Drawing No: ST007
Rev.
Scale: 1/4" = 1'-0"
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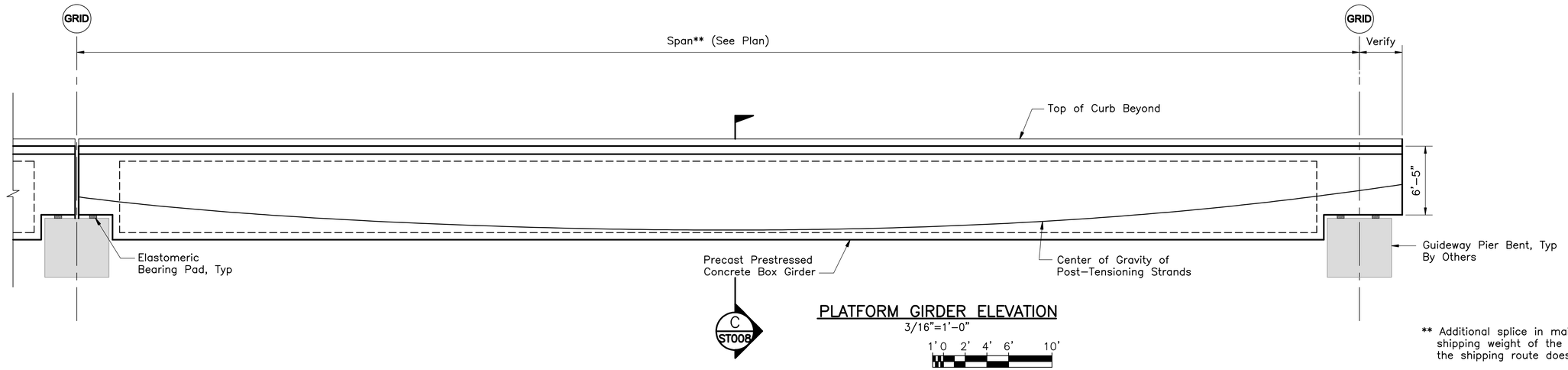


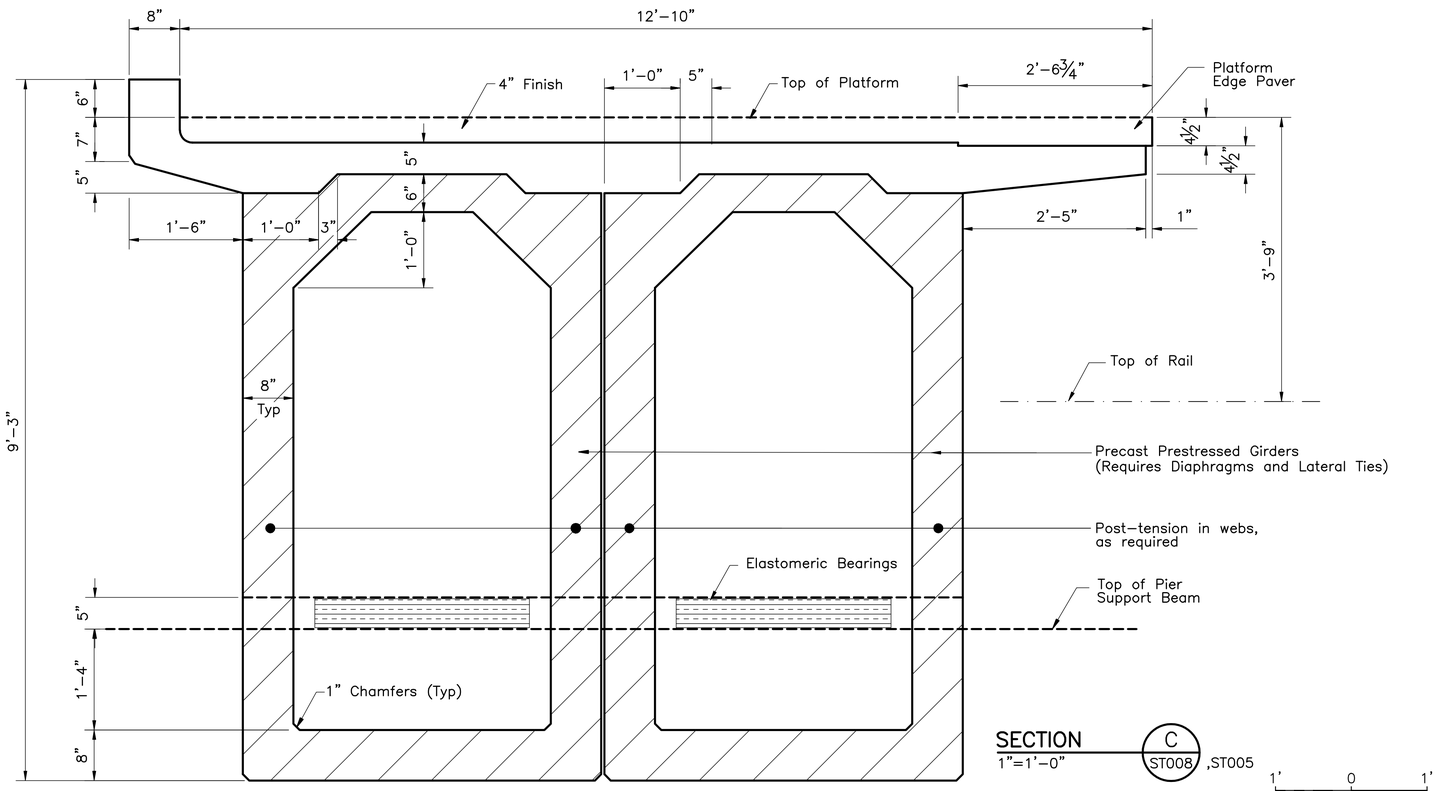
C ST008

PLATFORM GIRDER ELEVATION

3/16"=1'-0"

1' 0 2' 4' 6' 10'

** Additional splice in main girder may be necessary if the shipping weight of the main girder exceeds 100 tons and the shipping route does not allow shipment of long girders.



SECTION C ST008 ,ST005

1"=1'-0"

1' 0 1'

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HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

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For reduced prints, original page size in inches: 0 1 2 3 4

ALOHA STADIUM STATION

STRUCTURAL PLATFORM PRECAST GIRDER

ELEVATION AND SECTION

Contract No.:	SV-340
CADD File:	SJ1-G15-ST008
Drawing No:	ST008
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Scale:	As Noted
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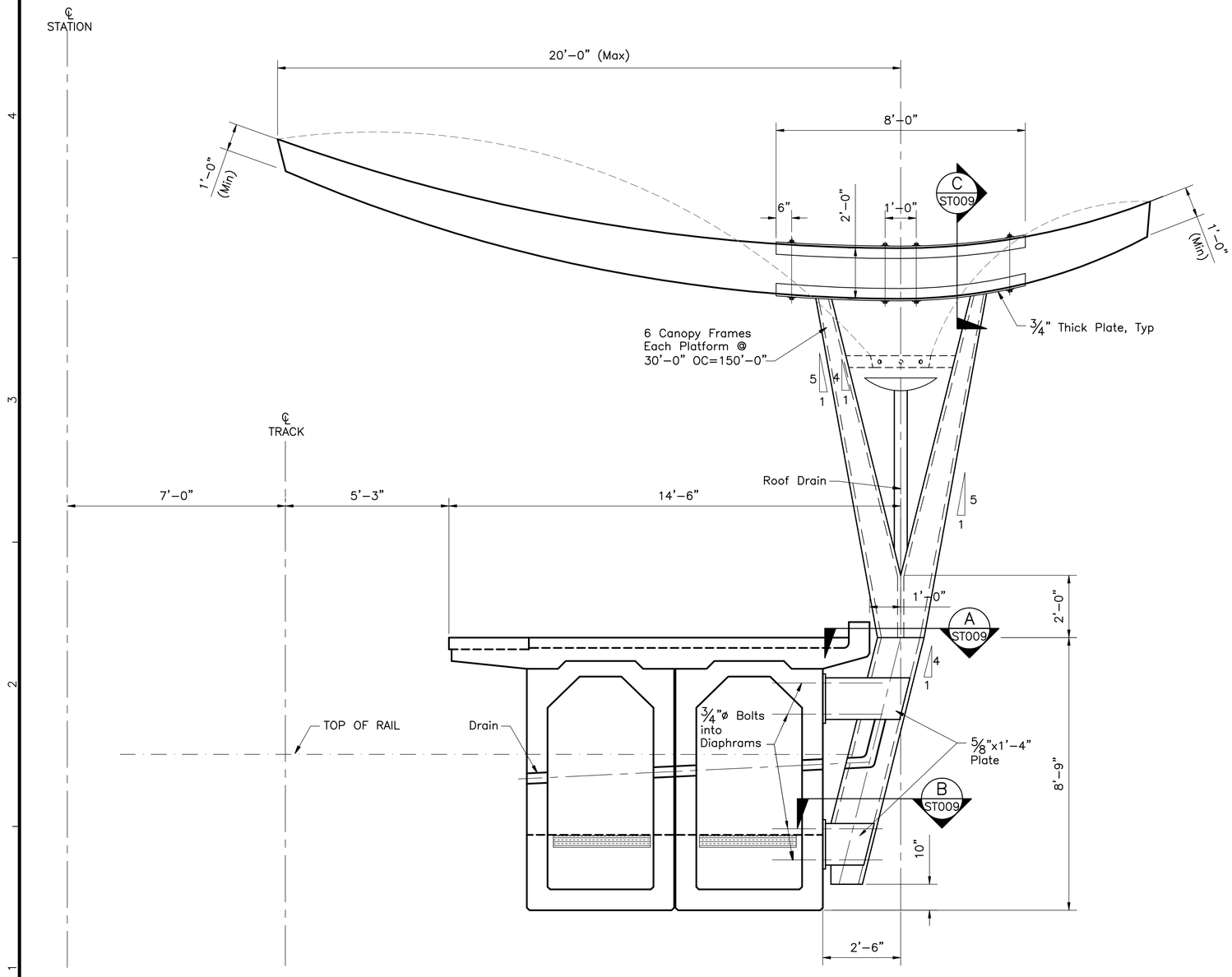
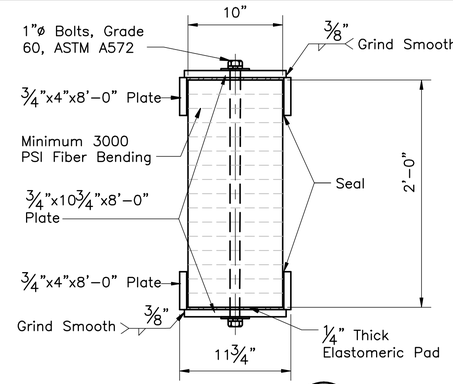


PLATFORM CANOPY SECTION
1/2"=1'–0"

1' 0 2' 4'

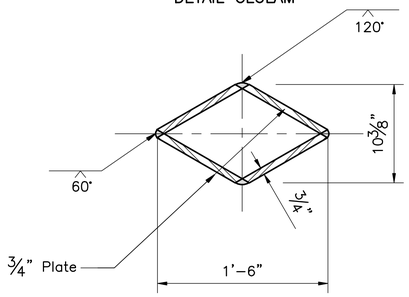
NOTE:

1. See Architectural Directive Drawings for additional canopy details.

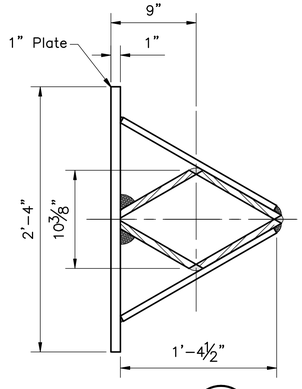


SECTION C
1 1/2"=1'–0" ST009

DETAIL GLULAM



SECTION A
1 1/2"=1'–0" ST009



SECTION B
1 1/2"=1'–0" ST009

STRUCTURAL TUBE

6" 0 6" 12" 18"

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

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Checked: G Suzuki
Approved: G Suzuki
Date: 01–15–10

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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ALOHA STADIUM STATION

STRUCTURAL PLATFORM CANOPY

DETAILS

Contract No.: SV–340
CADD File: SJ1–G15–ST009
Drawing No: ST009 Rev.
Scale: As Noted
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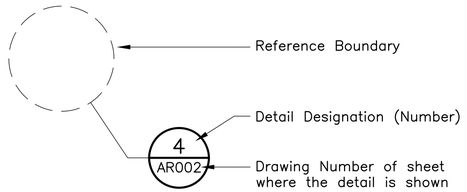
GENERAL ARCHITECTURAL NOTES

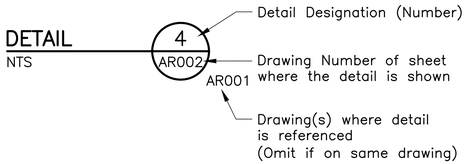
1. Station Designer to Coordinate Limits of Work and Interface with the Airport Guideway Contractor.
2. Refer to Appendix "A": Informative Drawings, for Work Included in the:
   – Airport Guideway Contract &
   – Core Systems Design–Build–Operate–Maintenance Contract.
3. Refer to RTD Architecture Standard and Directive Drawings for Sizing, Configuration and Connections for All System Wide Components Including: Escalators, Elevators, Fare Gates and TVM
4. Not in Contract Items (NIC) Include: TVM, Fare Gates, Escalators, & Elevator Cars.
5. See RTD Directive Drawings Set for Canopy Details and Configuration.

ARCHITECTURAL SYMBOLS

NORTH ARROW
(Location – upper right corner of drawing)

DETAILS





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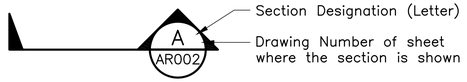
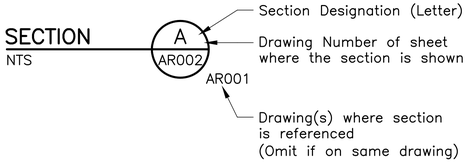
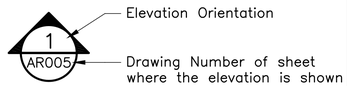
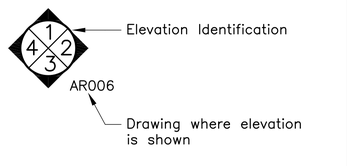




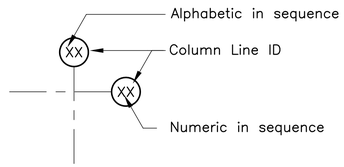
EXTERIOR ELEVATION(S)



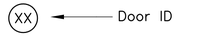
INTERIOR ELEVATION(S)



COLUMN LINE GRID INDICATOR



DOOR OPENING IDENTIFIER



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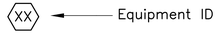
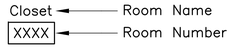
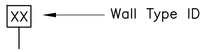


ROOM IDENTIFICATION

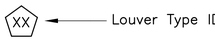


WALL TYPE IDENTIFIER

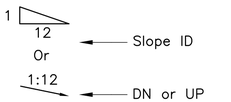


WINDOW IDENTIFIER

LOUVER IDENTIFIER



SLOPE IDENTIFIER



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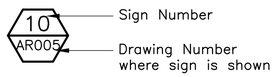
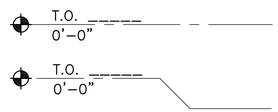


ELEVATION IDENTIFICATION



HATCH

- Brick
- Concrete Masonry Unit
- Concrete
- Composite Panel
- Earth
- Finished Stone
- Gravel
- Insulation (Batt)
- Insulation (Rigid)
- Metal
- Plywood
- Precast Concrete
- Sand, Grout, Mortar, Plaster
- Tile
- Glass (Elevation)

GENERAL SYMBOLS

&	And
@	At
#	Number
ø	Diameter
%	Percent
=	Equal to
>	Greater Than
<	Less Than
≥	Greater Than or Equal To
≤	Less Than or Equal To

Station Equation

Elevation Point

SPECIAL TERMS

Makai	Ocean
Mauka	Mountain

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: W Deguchi
Drawn: D Wong
Checked: W Loui
Approved: K Parmar
Date: 12–18–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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ALOHA STADIUM STATION

GENERAL ARCHITECTURAL NOTES SYMBOLS, AND ABBREVIATIONS

SHEET 1 OF 3

Contract No.: SV–340
CADD File: SJ1–H01–AG001
Drawing No.: AG001 Rev.
Scale: N/A
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ARCHITECTURAL ABBREVIATIONS

AB	Anchor Bolt
Abnd	Abandoned
Abt	About
Abv	Above
Ac	Acre(s)
Acc	Access
Acous	Acoustical
AD	Area Drain
ADA	Americans with Disabilities Act
Addl	Additional
Adh	Adhesive
Adj	Adjacent, Adjust, Adjustable
A/E	Architect/Engineer
AFC	Automatic Fare Collection
AFF	Above Finished Floor
Aggr	Aggregate
Ahd	Ahead
Alum	Aluminum
Alt	Alternate, Alternative
Anch	Anchor
Anod	Anodized
AP	Access Panel
App	Approved
Approx	Approximate
Arch.	Architect, Architectural
ARV	Air Relief Valve
ASC	Above Suspended Ceiling
Asph	Asphalt
Assm	Assembly
ASTM	American Society for Testing & Materials
Auto	Automatic
Aux	Auxiliary
Ave	Avenue
Avg	Average
℄	Baseline
Bal	Balance
BC	Bottom of curb
Bd	Board
Beg	Begin, Beginning
Bet	Between
Bitum	Bituminous
Bldg	Building
Blk	Block, Black
Blkg	Blocking
Blvd	Boulevard
Blw	Below
Bk	Back
BM	Benchmark
Bm	Beam
Bol	Bollard
Bot	Bottom
BP	Back Plaster/Plastered
Br	Bridge
Brz	Bronze
BS	Bottom of Slope, Both Sides
Bsmt	Basement
Btw	Between
Bvl	Beveled
℄	Centerline
C	Cable, Celsius
Cab	Cabinet
Cal	Caliper
Cap	Capacity
CB	Catch Basin
CCTV	Closed–circuit television
Cem	Cement
Cer	Ceramic
CF	Cubic Feet
CG	Corner Guard
Cham	Chamfer
Chk	Check
CI	Cast Iron
CIP	Cast–in–Place
Circ	Circle, Circular
Circum	Circumference
CJ	Construction Joint, Control Joint
CL	Chain Link
Clg	Ceiling

Clkg	Caulking
Clo	Closet
Clr	Clear, Clearance
cm	Centimeter
CMU	Concrete Masonry Unit
Cnd	Conduit
Cntr	Counter
CO	Cleanout
Col	Column
Comm	Communication
Comp	Composite,Component,Comparable,Composition
Conc	Concrete
Cond	Condition, Conduit
Conf	Confirm, Confirmation, Conference
Conn	Connect, Connection, Connector
Const	Construction
Cont	Continuous, Continue
Contd	Continued
Corr	Correction, Corrugated, Corridor
Coord	Coordinate
Cpr	Copper
CR	Card Reader
CT	Ceramic Tile
Ctr	Center
Ctsk	Countersunk
Cu	Cubic
CY	Cubic Yard
Cyl	Cylinder
D	Depth
D.B.G.	Distance Between Guides
Dbl	Double
DD	Down Drain
Deg	Degree
Dept	Department
Desc	Description
Det	Detail
DF	Drinking Fountain
DI	Drain Inlet
Dia	Diameter
Diag	Diagonal, Diagram
Diaph	Diaphragm
Dim	Dimension
Dir	Direction
Disp	Dispenser
Div	Division
Dn	Down
DO	Door Opening
Dr	Door
DS	Downspout
DTA	Dovetail Anchor
DTS	Dovetail Anchor Slot
Dwg	Drawing
Dwy	Driveway
E	East, Electrical
ea	Each
EB	Expansion Joint, Eastbound
EE	Each End
EF	Each Face
EJ	Expansion Joint
El	Elevation
Elec	Electrical
Elev	Elevator
Emer	Emergency
EMP	Emergency Management Panel
Encl	Enclosure
Eq	Equal
Eqmt	Equipment
Esc	Escalator
etc	Et cetera
EW	Each Way
Exh	Exhaust
Exist	Existing
Exp	Expansion
Expo	Exposed
Ext	Exterior, External

F	Fahrenheit, Front
FA	Fire Alarm
FAB	Fire Alarm Box
FAC	Fire Alarm Conduit
FAI	Fresh Air Intake
FB	Flat Bar
FBO	Furnished by Others
FC	Flexible Connection
FCO	Floor Cleanout
FD	Floor Drain
Fdn	Foundation
FE	Fire Extinguisher
FEC	Fire Extinguisher Cabinet
FFE	Finish Floor Elevation
FFL	Finish Floor Line
FG	Finish Grade
FH	Fire Hydrant, Flat Head
FHC	Fire Hose Cabinet
FHV	Fire Hose Valve
Fig.	Figure
Fin	Finish
Fl	Floor
Flex	Flexible
Flg	Flashing
Fluor	Fluorescent
FOC	Face of Concrete
FOF	Face of Finish
FOM	Face of Masonry
FOS	Face of Studs
FP	Fire Protection
Fprf	Fireproof
FR	Fire–rated
FS	Full Size, Fire Service
ft	Foot, Feet
Ftg	Footing
Furr	Furring
Fut	Future
Fwy	Freeway
G	Gas
Ga	Gauge
gal	Gallon
Galv	Galvanized
Gar	Garage
GB	Gypsum Board
Gen	General
GFRC	Glass Fiber Reinforce Concrete
Gl	Glass
GM	Gas Meter
Gnd	Ground
Grl	Grille
Grn	Granite
GSM	Galvanized Sheet metal
Gyp	Gypsum
H	High, Horizontal
HB	Hose Bibb
HD	Heavy–duty
Hdcp	Handicap–ADA Compliant
HDOT	Hawaii Department of Transportation
HDPE	High–Density Polyethylene (membrane)
Hdr	Header
Hdw	Hardware
Hex	Hexagonal
HFD	Honolulu Fire Department
HH	Handhole
HM	Hollow Metal
Horiz	Horizontal
HP	High Point, High Pressure
HPD	Honolulu Police Department
HR	Handrail
Hr	Hour
Ht	Height
HVAC	Heating, Ventilation & Air Conditioning
HWP	High Working Point
Hwy	Highway
Hydr	Hydraulic

I	Iron
ID	Inside Diameter, Identification
IE	Invert Elevation
IF	Inside Face
in.	Inch
Incl	Included, Including, Inclusive
Inf	Information
Inst	Install, Instrument
Insul	Insulation
Int	Interior, Internal
Inv	Invert
Jan	Janitor
JB	Junction Box
JC	Janitor's Closet
Jct	Junction
JF	Joint Filler
Jt(s)	Joint(s)
kg	Kilogram
KP	Knockout Panel
KO	Knock Out
L	Length
LA	Landscape Architect
Lam	Laminate
Lat	Latitude, Lateral
Lav	Lavatory
LB	Pound (unit of measurement)
LC	Landscape Contractor
LF	Linear Foot
Lg	Long
LH	Left Hand
Lin	Linear
Lkr	Locker
Ln	Lane
Loc	Location
Long	Longitude, Longitudinal
LP	Low Point, Light Pole
Lt	Light, Left
Ltg	Lighting
Lvl	Level
LW	Lightweight
LWP	Low Working Point
L/T	Left Track
m	Meter (unit of measure)
Max	Maximum
MB	Mailbox
Mech	Mechanical
Med	Medium
Mem	Membrane
Met	Metal
Mezz	Mezzanine
Mfr	Manufacturer
MH	Manhole
Min	Minimum
Mir	Mirror
Misc	Miscellaneous
mm	Millimeter
MO	Masonry Opening
Mod	Modified
Mtd	Mounted
Mtg	Meeting, Mounting
Matl	Material
Mul	Mullion

N	North
N/A	Not Applicable
NB	Northbound
NE	Northeast
NIC	Not in Contract
No. (Nos.)	Number (Numbers)
Nom	Nominal
NR	Non–rated
NS	Near Side
NTS	Not to Scale
NW	Northwest
OA	Overall
Obs	Obscure
OC	On Center
OCS	Overhead Contact System
OD	Outside Diameter
OF	Outside Face
OH	Overhead
Op	Opaque
Opng	Opening
Opp	Opposite
OSA	Outside Supply Air
oz	Ounce
O to O	Out to Out
PNL	Panel
PA	Public Address, Police Alarm
Par	Parallel
Part	Partial
PB	Pullbox
PBX	Private Branch Exchange
PC	Precast Concrete
Ped	Pedestrian, Pedestal
Perf	Perforated
Perm	Permanent
PG	Profile Grade
Pg	Page
PGL	Profile Grade Line
Ph	Phase
PL	Property Line
Pl	Plate
Plas	Plaster
Platf	Platform
P Lam	Plastic Laminate
PLD	Plastic Duct
PLT	Plastic Tile
Plum	Plumbing
Plywd	Plywood
Pol	Police
Pr	Pair
Proj	Project, Projection
Prop	Property
PS	Point of Switch
PSF	Pounds Per Square Feet
PSI	Pounds Per Square Inch
Pt(s)	Point(s)
Ptd	Painted
PTD/R	Paper Towel Dispenser & Receptacle
PVC	Polyvinyl Chloride
Pvmt	Pavement
Pwr	Power
QT	Quarry Tile
qt	Quart
Qty	Quantity
Quad	Quadrant

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: W Deguchi
Drawn: D Wong
Checked: W Loui
Approved: K Parmar
Date: 12–18–09

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ALOHA STADIUM STATION

GENERAL ARCHITECTURAL NOTES SYMBOLS, AND ABBREVIATIONS

SHEET 2 OF 3

Contract No.: SV–340
CADD File: SJ1–H01–AG002
Drawing No.: AG002 Rev.:
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ARCHITECTURAL ABBREVIATIONS (CONTINUED)

R	Radius
RB	Resilient Base
RC	Reinforced Concrete
RCP	Reinforced Concrete Pipe
RD	Roof Drain
Rdwy	Roadway
Rect	Rectangle
Ref	Reference
Refl	Reflect, Reflected, Reflective, Reflector
Reinf	Reinforce, Reinforcing, Reinforcement
Repl	Replace
Reqd	Required
Resil	Resilient
Ret	Return, Retain, Retaining
Rev	Revised, Revision
Rfg	Roofing
RH	Right Hand
Rm	Room
RO	Rough Opening
ROW	Right-of-Way
Rt	Right
RT	Resilient Tile
R/T	Right Track
RW	Retaining Wall
S	South
San	Sanitary
SB	Southbound
SC	Solid Core
SCD	Seat Cover Dispenser
Sch	Schedule
SD	Soap Dispenser
SE	Southeast
Sect	Section
SF	Square Foot, Square Feet
SFP	Site Finish Plan
Sgl	Single
Sht	Sheet
Sim	Similar
SIP	Support in Place
SL	Street Light
SLC	Street Light Conduit
SLPB	Street Light Pull Box
SND	Sanitary Napkin Dispenser
SNR	Sanitary Napkin Receptacle
Spa.	Spaces, Spacing
Spec	Specification
Spkr	Speaker
Spr	Sprinkler
Sq	Square
SS	Service Sink, Stainless Steel
St	Street
Sta	Station, Stationing
Std	Standard
Stl	Steel
Stor	Storage
Str	Structure
Strl	Structural
Supv	Supervisor, Supervise
Susp	Suspended
SW	Southwest
SY	Square Yard
Sym	Symmetrical
Sys	System
T	Top
T.O.	Top of
T&B	Top and Bottom
Tan.	Tangent
TBD	To Be Determined
TC	Top of Curb
TCCR	Train Control & Communications Room
TD	Trench Drain
TDD	Telecommunications Device for the Deaf
Tel	Telephone
Tele	Telescoping
Temp	Temporary, Temperature
TG	Top of Grate
T&G	Tongue and Groove
Thk	Thick, Thickness
TL	Traffic Light
TOC	Top of Concrete
TOR	Top of Rail
TOS	Top of Steel
Tot.	Total
TOW	Top of Wall
TP	Top of Pavement
TPD	Toilet Paper Dispenser
TPSS	Traction Power Substation
Tr	Tread
TV	Television, Ticket Validator
TVM	Ticket Vending Machine
Typ	Typical
T/C	Top of Curb
T/R	Top of Rail
T/P	Top of Platform
UB	Utility Box
UC	Undercut
UD	Underdrain
Unf	Unfinished
Unk	Unknown
UNO	Unless Noted Otherwise
UPE	Under Platform Exhaust
UR	Urinal
UST	Underground Storage Tank
Util	Utility
UWP	Upper Working Point
V	Vertical
Vac	Vacuum
Var	Variable, Varies
VCT	Vinyl Composition Tile
Vent.	Ventilate, Ventilation
Vert	Vertical
Vest	Vestibule
Vlv	Valve
VMS	Variable Message Sign
VoIP	Voice over Internet Protocol
Vt	Vent
W	West, Wide, Width
w/	With
w/o	Without
WB	Westbound
WC	Water Closet
WCR	Wheel Chair Ramp
Wd	Wood
Whse	Warehouse
WI	Wrought Iron
Wk	Work
WL	Water Line
WM	Water Meter, Water Main
WP	Work Point
Wpf	Waterproof, Waterproofing
WSP	Wet Stand Pipe
Wt	Weight
Wtr	Water
WTW	Wall to Wall
WV	Water Valve
WWF	Welded Wire Fabric
WWM	Welded Wire Mesh

Rev	By	Date	Description

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Approved: K Parmar
Date: 12-18-09

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ALOHA STADIUM STATION

GENERAL ARCHITECTURAL NOTES SYMBOLS, AND ABBREVIATIONS

SHEET 3 OF 3

Contract No.: SV-340
CADD File: SJ1-H01-AG003
Drawing No: AG003 Rev.
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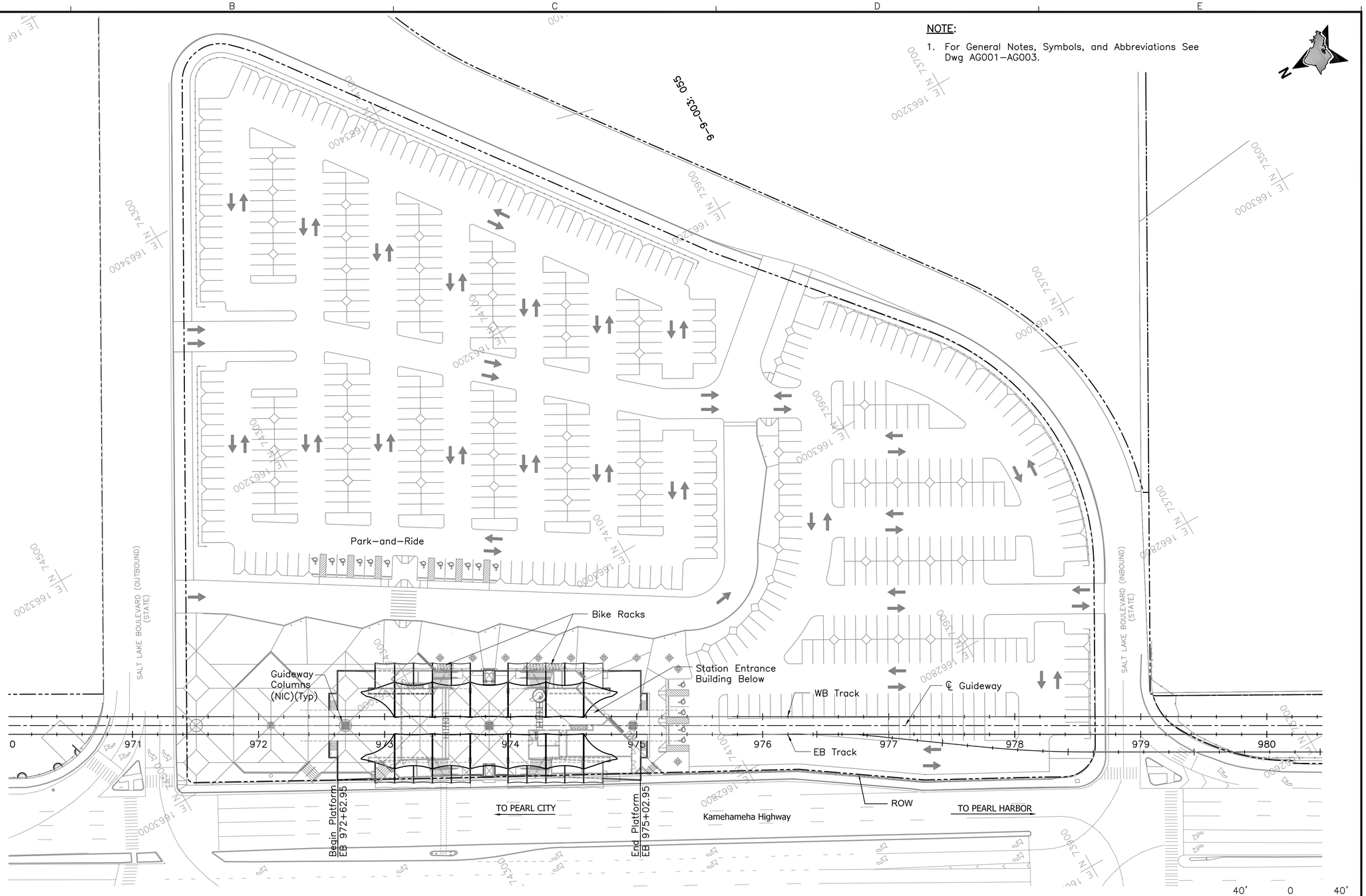
NOTE:

1. For General Notes, Symbols, and Abbreviations See Dwg AG001–AG003.



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ALOHA STADIUM STATION

ARCHITECTURAL SITE PLAN

Contract No.: SV–340
CADD File: SJ1–H02–AR001
Drawing No: AR001 Rev.
Scale: 1" = 40'
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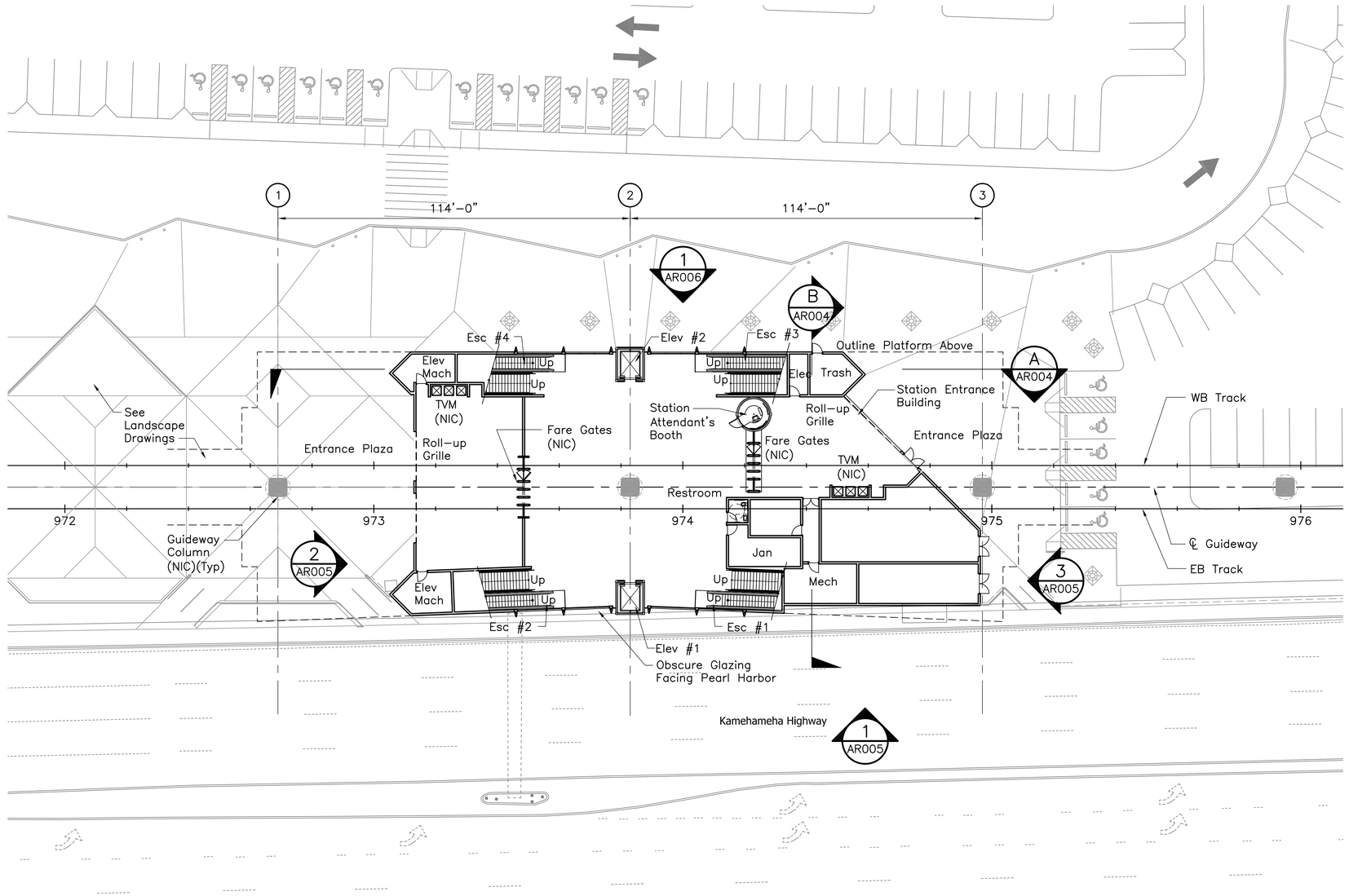
NOTES:

1. For General Notes, Symbols, and Abbreviations See Dwg AG001–AG003.



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ALOHA STADIUM STATION

GROUND LEVEL FLOOR PLAN

Contract No.: SV–340
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Drawing No.: AR002 Rev.
Scale: 1" = 20'
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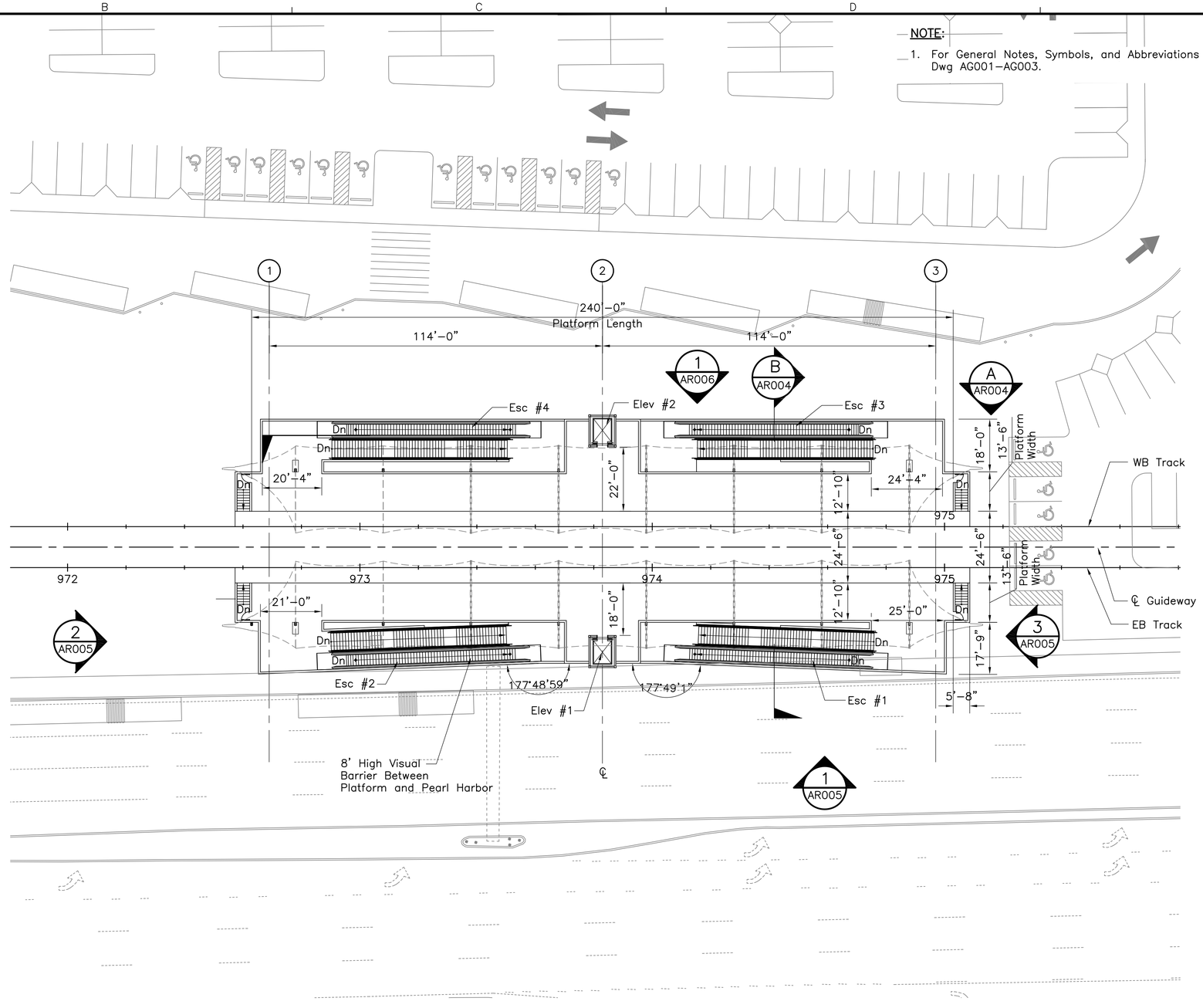
NOTE:

1. For General Notes, Symbols, and Abbreviations See Dwg AG001–AG003.



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ALOHA STADIUM STATION

PLATFORM LEVEL FLOOR PLAN

Contract No.: SV–340
CADD File: SJ1–H03–AR003
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Rev.:
Scale: 1" = 20'
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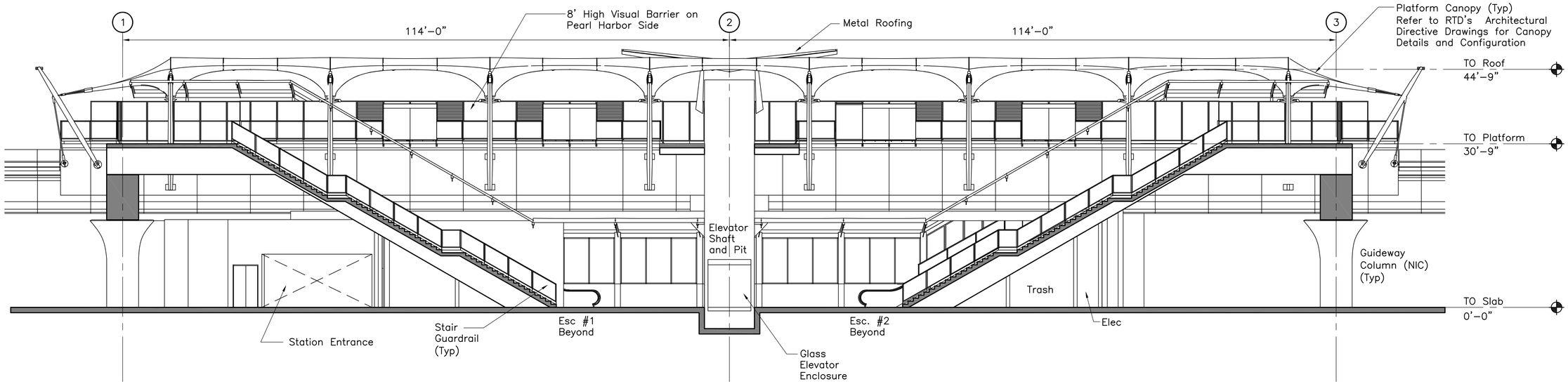
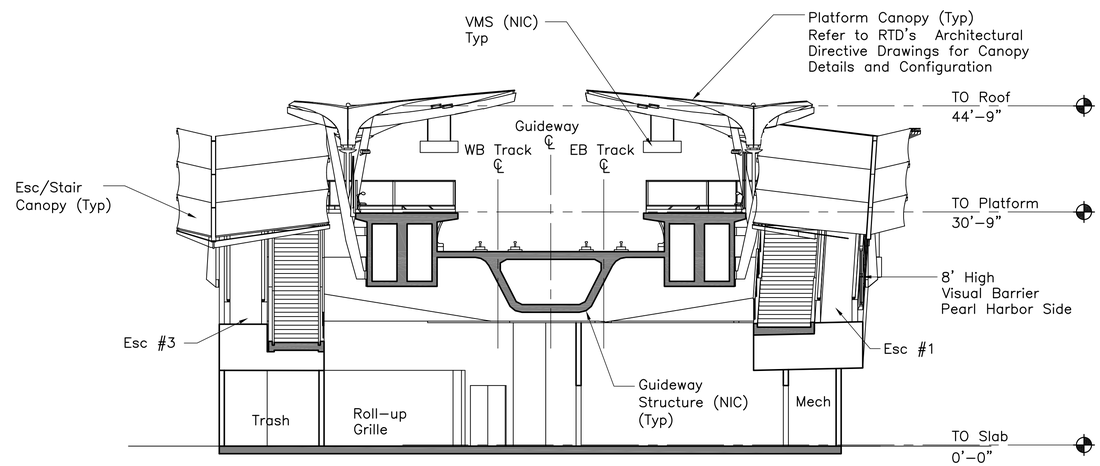


LONGITUDINAL SECTION

1"=10'

A / AR004

AR002
AR003



NOTE:

1. For General Notes, Symbols, and Abbreviations See Dwg AG001–AG003.

LONGITUDINAL SECTION

1"=10'

B / AR004

AR002
AR003

10' 0 10'

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ALOHA STADIUM STATION

BUILDING SECTIONS

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CADD File: SJ1–H05–AR004
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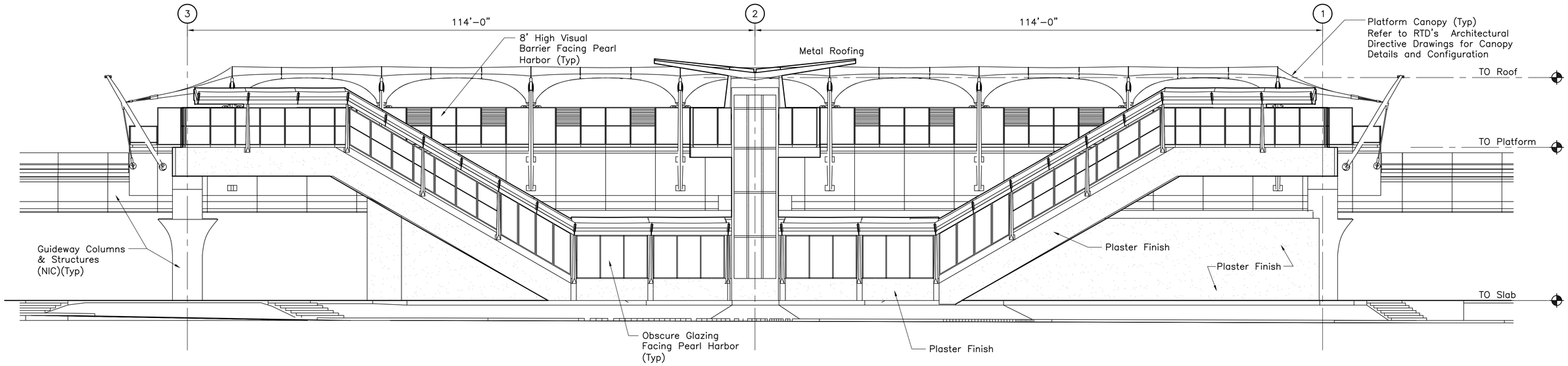


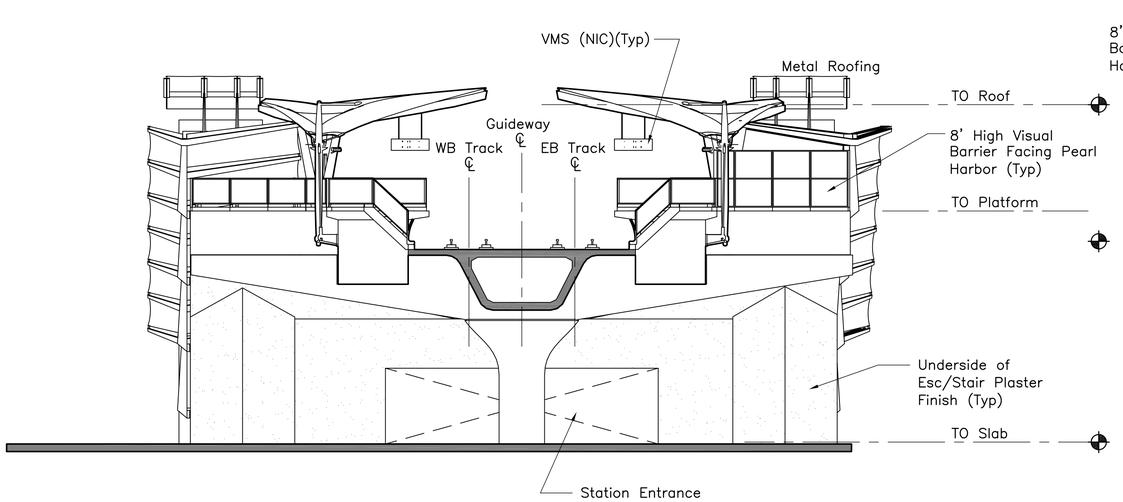
WEST ELEVATION

1"=10'

1 AR005 — AR002, AR003

NOTE:

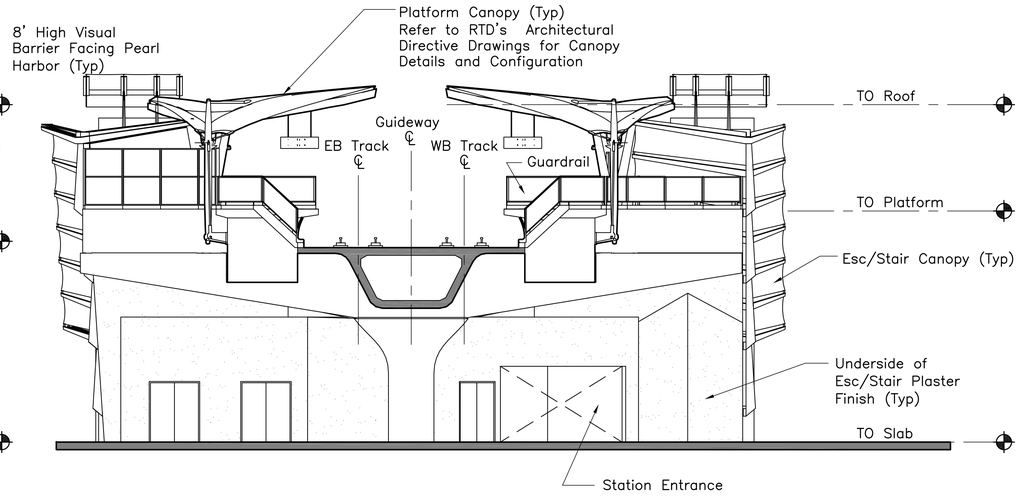
1. For General Notes, Symbols, and Abbreviations See Dwg AG001–AG003.



NORTH ELEVATION

1"=10'

2 AR005 — AR002, AR003



SOUTH ELEVATION

1"=10'

3 AR005 — AR002, AR003

10' 0 10'

Rev	By	Date	Description

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ALOHA STADIUM STATION

BUILDING ELEVATIONS

SHEET 1 OF 2

Contract No.: SV–340
CADD File: SJ1–H06–AR005
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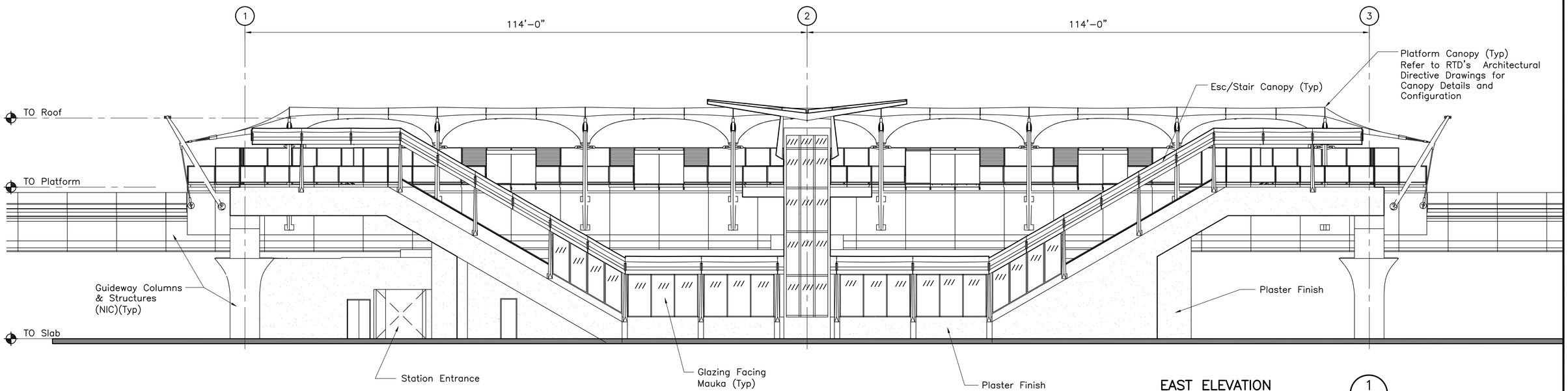
1. For General Notes, Symbols, and Abbreviations See Dwg. AG001–AG003.



EAST ELEVATION
1"=10'

1 AR006 / AR002 AR003

10' 0 10'

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ALOHA STADIUM STATION

BUILDING ELEVATIONS

SHEET 2 OF 2

Contract No.: SV–340
CADD File: SJ1–H06–AR006
Drawing No.: AR006 Rev.
Scale: 1" = 10'
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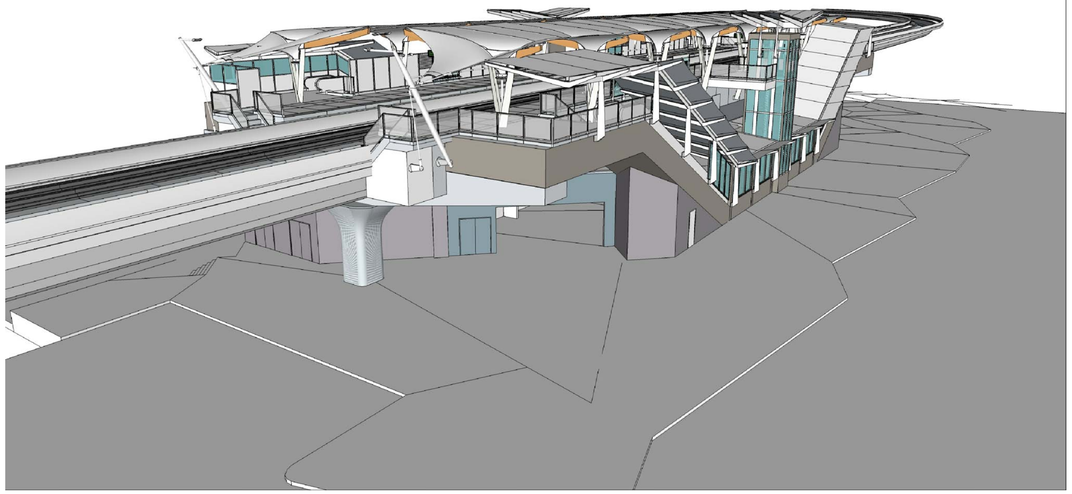
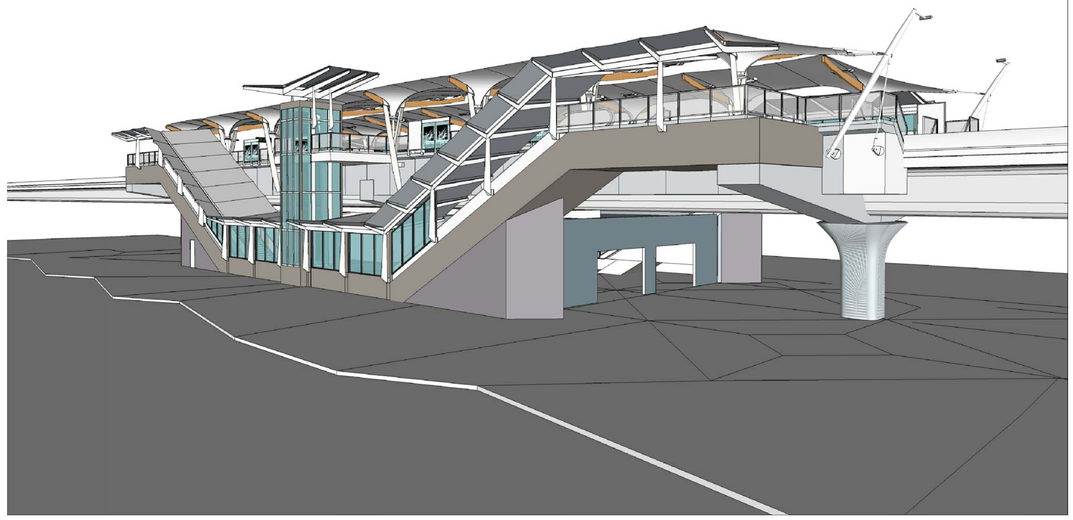
2010–01–04 3:48 PM P:\8042 HHTCP Transit Stations\8042 Production\8042 CAD Files\8042 Current Dwgs\8042 HCCT Station\Sheets\8042 SJ Airport\SJ1–H06–AR006.dwg

ACROSS HIGHWAY
NTS
1
AR007



AERIAL VIEW
NTS
2
AR007



FROM PARKING
NTS
3
AR007

AERIAL OVER STADIUM
NTS
4
AR007

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: W Deguchi
Drawn: D Wong
Checked: W Loui
Approved: K Parmar
Date: 12-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: DURRANT° Media Five
345 QUEEN STREET, SUITE 901
HONOLULU, HAWAII 96813

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ALOHA STADIUM STATION

3D VIEWS

Contract No.: SV-340
CADD File: SJ1-H06-AR007
Drawing No: AR007
Rev.
Scale: NTS
Page No. 44 of 53

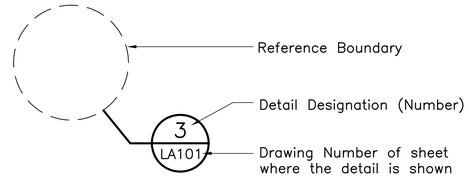
2010-01-04 9:32 AM P:\8042 HHTCP Transit Stations\8042 Production\8042 CAD Files\8042 Current Dwgs\8042 HCCT Station\Sheets\8042 SJ Airport\SJ1-H06-AR007.dwg

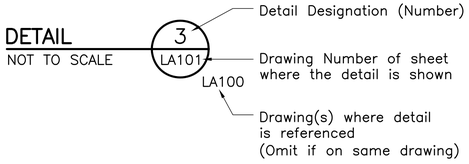
GENERAL NOTES

1. "EB Track" denotes the centerline of the Eastbound Track. "WB Track" denotes the centerline of the Westbound Track.
2. Origin of Coordinates: Hawaii State Plane Coordinate Grid System, Zone III with the North American Datum of 83 High Accuracy Reference Network (NAD83 HARN).
3. The proposed WB Track alignment stationing equals to the proposed EB Track alignment stationing in all parallel tangent sections. Station equations are given at the endpoint of each westbound curve.
4. Underground facilities, poles, structures, and utilities have been plotted from available surveys and records. Their locations must be considered approximate only. There may be others, the existence of which is at present unknown. Verification of all the locations, shown or not shown, will be the responsibility of the contractor.
5. The existing conditions shown hereon are based on LiDAR data collected in September and October of 2007, supplemental ground surveys were performed between September of 2007 and December of 2008, and record information from various design projects either constructed, under construction, or proposed. The selected designer is responsible for verifying existing conditions prior to supplying advanced design documents to the RTD.
6. Contact the Hawaii Department of Transportation (HDOT) and/or the City and County of Honolulu for additional plan sheet details not included in the Standard Details Summary and Standars Plans Summary plan sheets.
7. All planting areas to receive 3 inches minimum depth crushed aggregate mulch on landscape weed barrier fabric except at ground cover areas or unless noted otherwise.

SYMBOLS

DETAILS





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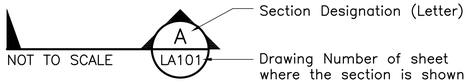
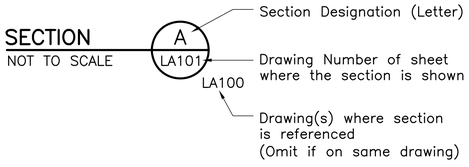
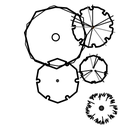




GENERAL SYMBOLS

&	And
@	At
#	Number
Ø	Diameter
%	Percent
=	Equal
>	Greater Than
<	Less Than
≥	Greater Than or Equal To
≤	Less Than or Equal To
	Guideway Column (NIC)

LANDSCAPE SYMBOLS



Proposed Trees

Proposed Palms

Proposed Hedge

Vines

Groundcovers

Groundcovers

Decorative Iron Tree Grate

Seatwalls and/or Benches

Tree Bubbler

Location of Irrigation Equipment: Controller, POC

Low-Flow Drip Irrigated Area

ABBREVIATIONS

℄	Baseline
BR	Bottom of Ramp Elevation
BS	Bottom of Stair Elevation
℄	Centerline
Conc	Concrete
Dia	Diameter
Dwg	Drawing
EB	Eastbound
FFE	Finish Floor Elevation
FG	Finish Grade Elevation
GB#	Gap Breaker
Max	Maximum
Min	Minimum
MH	Manhole
N/A	Not Applicable
NB	Northbound
NIC	Not in Contract
NTS	Not to scale
POC	Point of Connection
ROW	Right of Way
SB	Southbound
SR	State Route
TBD	To Be Determined
TR	Top of Ramp Elevation
TS	Top of Stair Elevation
Typ	Typical
WB	Westbound

SPECIAL TERMS

Makai	Ocean
Mauka	Mountain

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: K Fishman
Drawn: K Fishman
Checked: R Higa
Approved: R S Duncan
Date: 12-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: Land Planning, Landscape Architecture, Environmental Studies, Graphic Design
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ALOHA STADIUM STATION

GENERAL LANDSCAPE NOTES, SYMBOLS, AND ABBREVIATIONS

Contract No.: SV-340
CADD File: SJ1-J01-LG001
Drawing No: LG001 Rev.
Scale: NTS
Page No. 45 of 53

Salt Lake Boulevard

Salt Lake Boulevard

971 972 973 974 975 976 977 978 979

LA002

Station Entrance Building

Proposed Electrical Transformer Location

Guideway Column (NIC) (Typ)

Kamehameha Highway (SR-99)

WB Track

Aloha 3rd Track

EB Track

REFERENCE NOTES SCHEDULE LA001

SYMBOL	DESCRIPTION
1	Plaza
2	Sidewalk
5	Retaining Wall: Lava Rock Veneer
6	Security Fencing: 4–FT Height
7	Security Fencing: 6–FT Height
9	Planting Area
14	Bollard
15	Driveway and Parking Lot: See Civil Drawings
17	Pavement Markings, See Civil Drawings
18	Bus Zone
19	Accessible Curb Ramp, See Civil Drawings
20	Parking Lot Tree Planting Island

40' 0 40'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

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Drawn: K Fishman
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Approved: R S Duncan
Date: 12–18–09

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ALOHA STADIUM STATION

LANDSCAPE SITE PLAN PARK-AND-RIDE

Contract No.: SV–340
CADD File: SJ1–J02–LA001
Drawing No: LA001 Rev.
Scale: 1"=40'–0"
Page No. 46 of 53

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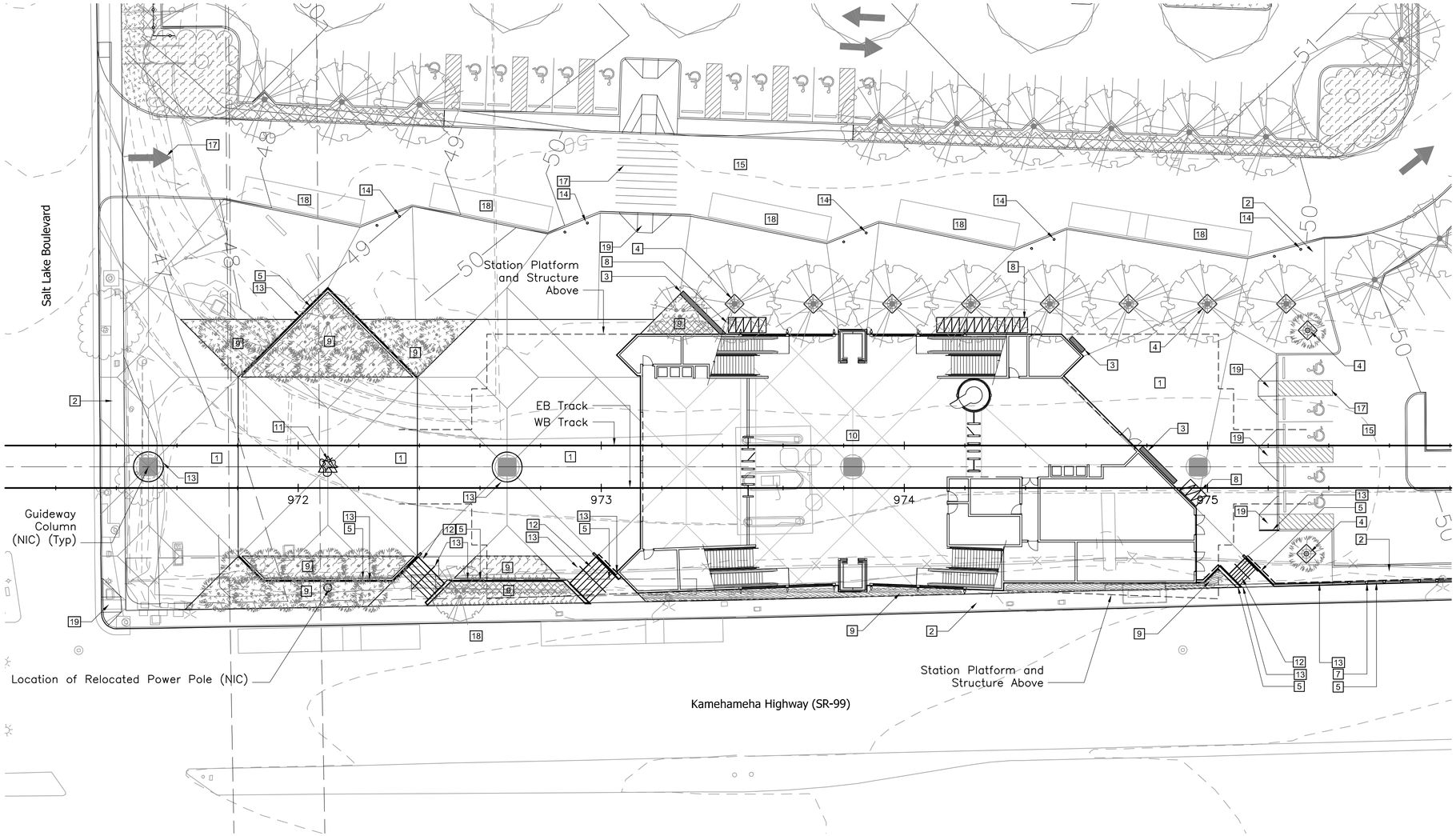

REFERENCE NOTES SCHEDULE LA002

SYMBOL	DESCRIPTION
1	Plaza
2	Sidewalk
3	Seat Wall or Bench
4	Tree Well Planter with Decorative Cover
5	Retaining Wall: Lava Rock Veneer
7	Security Fencing: 6–FT Height
8	Bike Rack
9	Planting Area
10	Art Opportunity: Paving Mosaic
11	Art Opportunity: Sculpture Location
12	Site Stairs
13	Handrail and/ or Guardrail
14	Bollard
15	Driveway and Parking Lot: See Civil Drawings
17	Pavement Markings, See Civil Drawings
18	Bus Zone
19	Accessible Curb Ramp, See Civil Drawings

20' 0 20'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

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ALOHA STADIUM STATION

LANDSCAPE SITE PLAN STATION AREA

Contract No.: SV–340
CADD File: SJ1–J02–LA002
Drawing No: LA002 Rev.
Scale: 1"=20'–0"
Page No. 47 of 53

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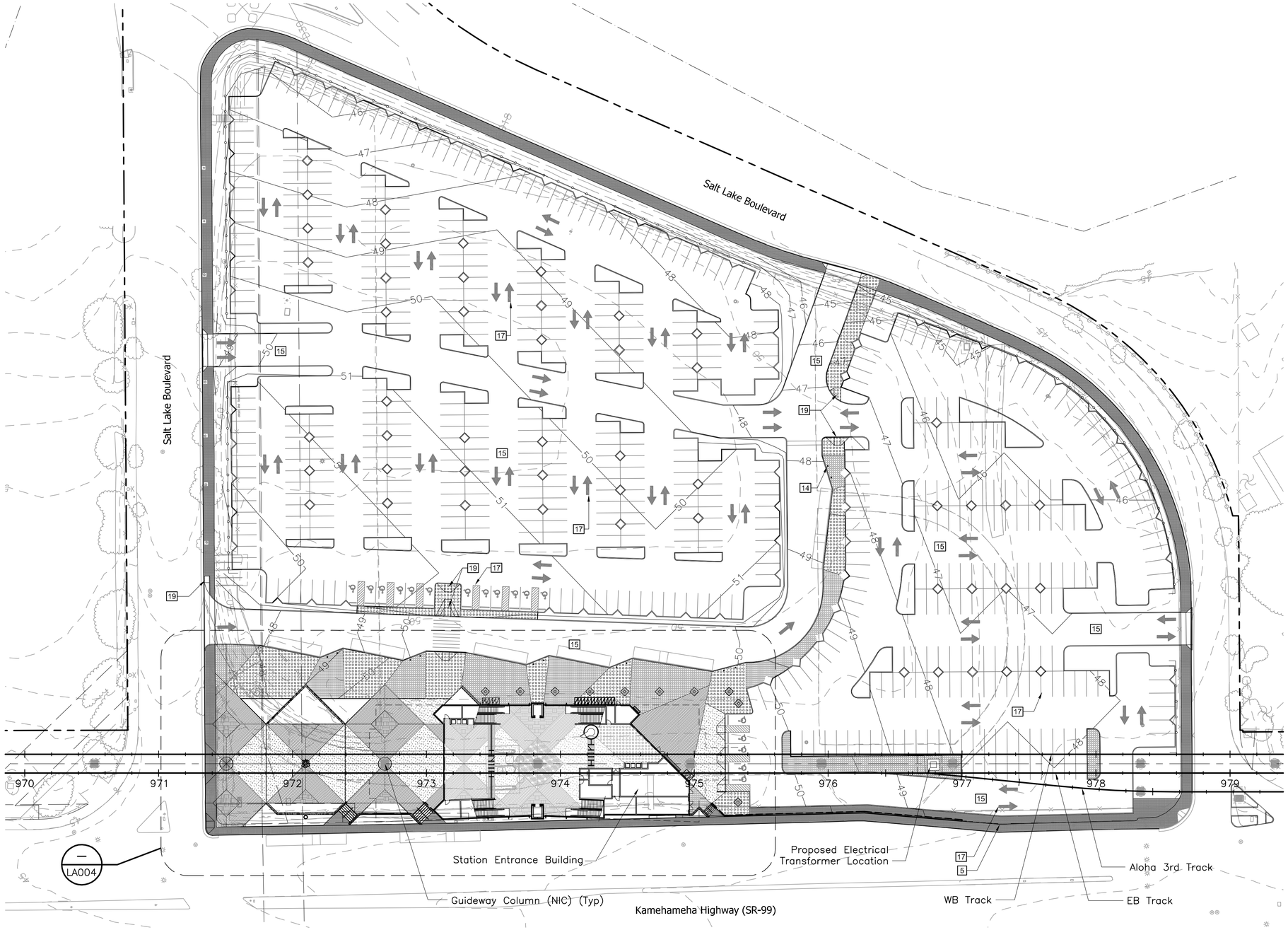

REFERENCE NOTES SCHEDULE LA003

SYMBOL	DESCRIPTION
5	Retaining Wall: Lava Rock Veneer
14	Bollard
15	Driveway and Parking Lot: See Civil Drawings
17	Pavement Markings, See Civil Drawings
19	Accessible Curb Ramp, See Civil Drawings

PAVING LEGEND LA003

SYMBOL	DESCRIPTION
	Natural Concrete Paving
	Walkway Paving 1
	Walkway Paving 2

40' 0 40'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

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ALOHA STADIUM STATION

PAVING PLAN
PARK-AND-RIDE

Contract No.: SV–340
CADD File: SJ1–J02–LA003
Drawing No: LA003 Rev.
Scale: 1"=40'–0"
Page No. 48 of 53

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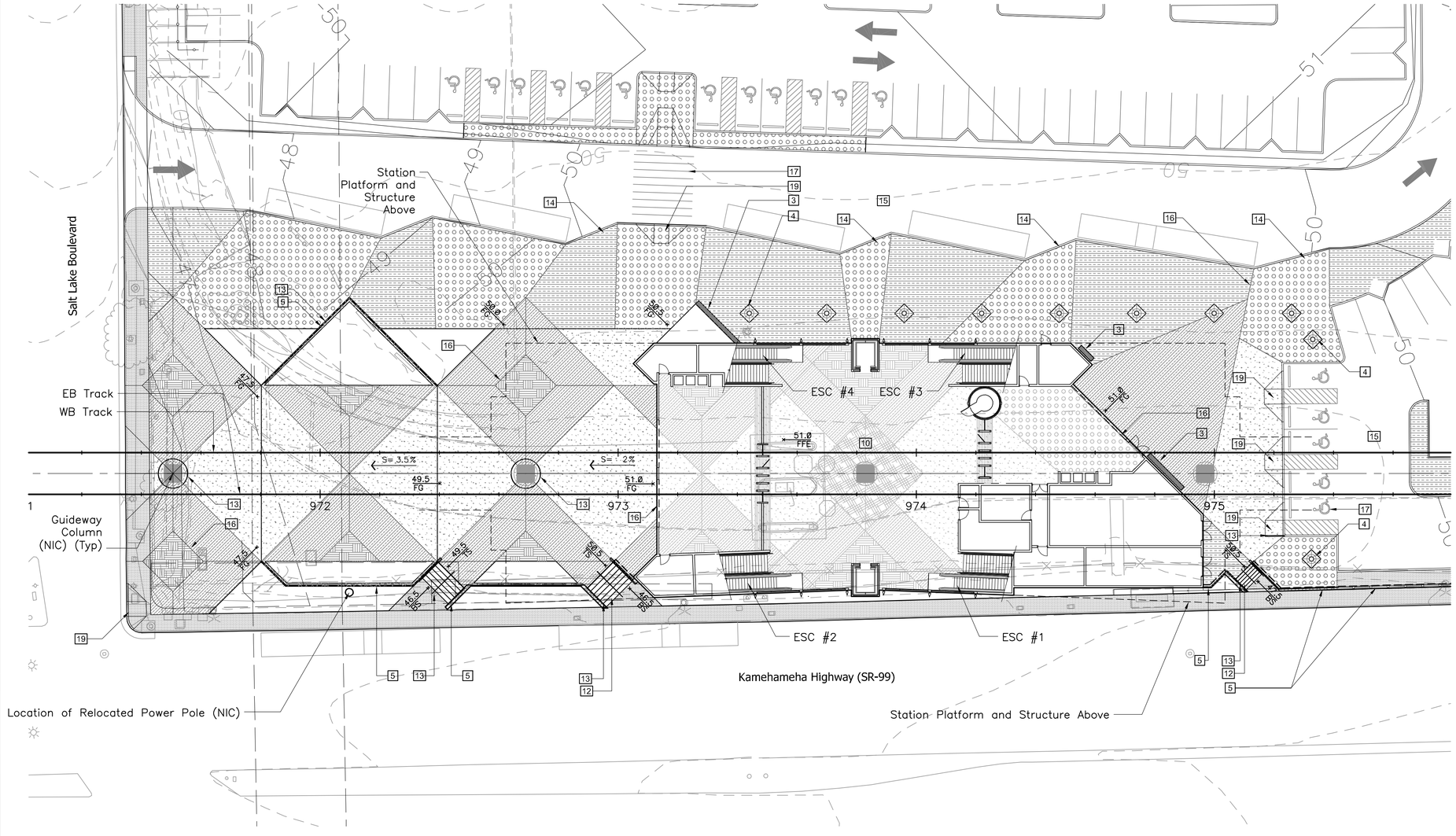

NOTES:

1. Refer to Architectural Drawings for interior paving pattern and material. Shown here for reference only.
2. Spot elevations are for perliminary design purposes only. Final elevations shall be calculated by designer during final phase of design.

REFERENCE NOTES SCHEDULE LA004

SYMBOL	DESCRIPTION
3	Seat Wall or Bench
4	Tree Well Planter with Decorative Cover
5	Retaining Wall: Lava Rock Veneer
10	Art Opportunity: Paving Mosaic
12	Site Stairs
13	Handrail and/ or Guardrail
14	Bollard
15	Driveway and Parking Lot: See Civil Drawings
16	Paving Expansion/ Control Joint
17	Pavement Markings, See Civil Drawings
19	Accessible Curb Ramp, See Civil Drawings

PAVING LEGEND LA004

SYMBOL	DESCRIPTION
	Natural Concrete Paving
	Plaza Paving
	Plaza Accent Paving
	Lauhala Accent Paving
	Walkway Paving 1
	Walkway Paving 2
	Paving Mosaic Area
	Granite Warning Strip

20' 0 20'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

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Drawn: K Fishman
Checked: R Higa
Approved: R S Duncan
Date: 12-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
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ALOHA STADIUM STATION

PAVING PLAN
STATION AREA

Contract No.: SV-340
CADD File: SJ1-J02-LA004
Drawing No: LA004 Rev.
Scale: 1"=20'-0"
Page No. 49 of 53

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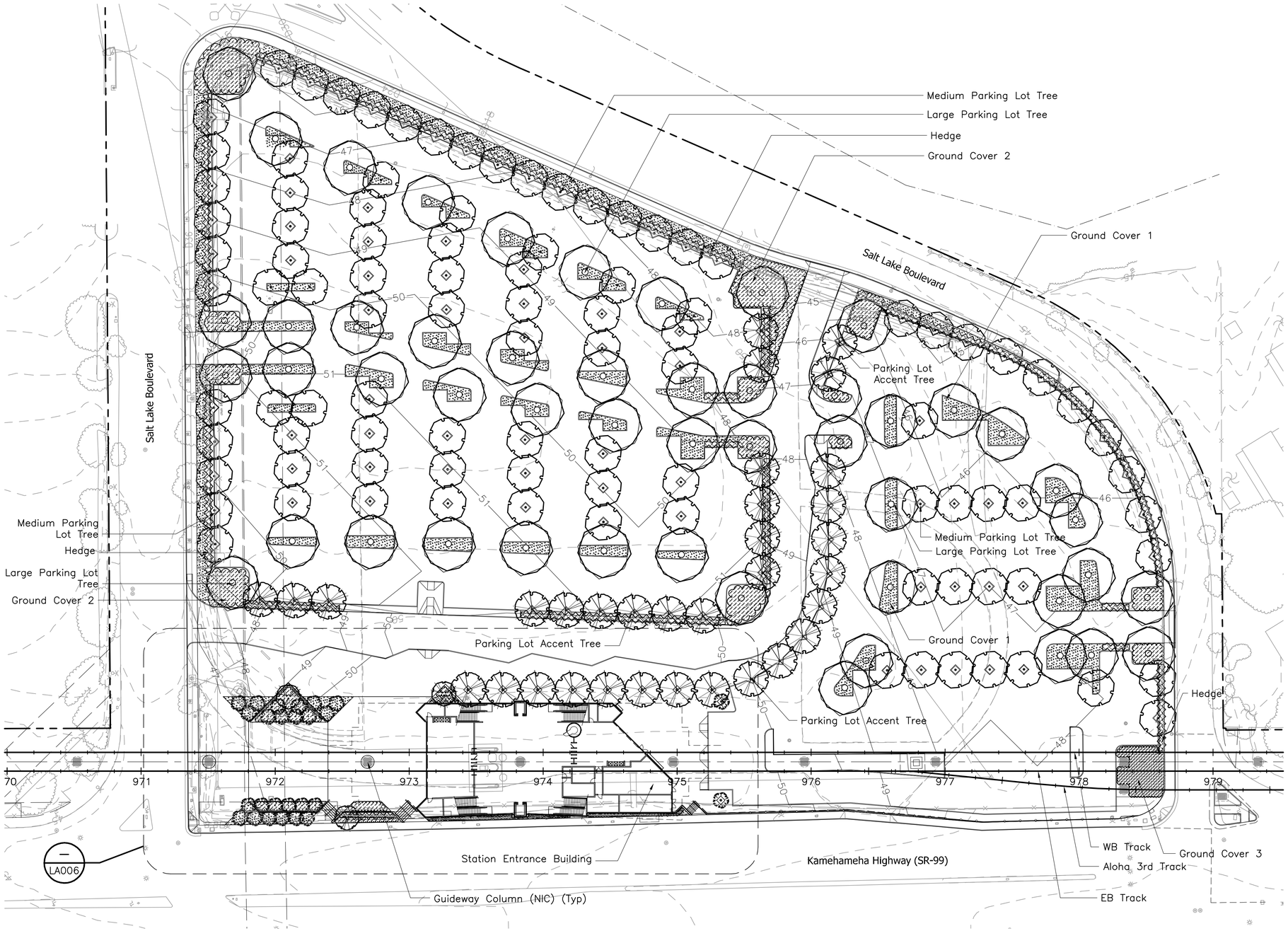

CONCEPT PLANT SCHEDULE LA005

LARGE PARKING LOT TREES
Ficus lyrata / Fiddle Leaf Fig
Samanea saman / Monkeypod Tree

MEDIUM PARKING LOT TREES
Cassia x nealiae / Rainbow Shower
Cordia subcordata / True Kou

PARKING LOT ACCENT TREES
Tabebuia aurea / Silver Trumpet
Tabebuia heterophylla / Pink Tacoma

HEDGES
Carissa macrocarpa / Natal Plum
Codiaeum variegatum / Croton
Osteomeles anthyllidifolia / 'Ulei
Plumbago auriculata / Blue Plumbago
Pseuderanthemum carruthersii reticulatum / Yellow–Veined False Eranthemum
Rondeletia odorata / Rondeletia
Scaevola taccada / Beach Naupaka

GROUND COVER 1
Myoporum sandwicense 'Papa' / Naio Papa
Plumbago zeylanica / 'Ilie'e
Scaevola coriaceae / Dwarf Naupaka
Vitex rotundifolia / Pohinahina
Wikstroemia uva–ursi / 'Akia

GROUND COVER 2
Agapanthus praecox orientalis / Lily of the Nile
Epipremnum pinnatum / Golden Pothos
Hemerocallis aurantiaca / Golden Summer Daylily
Lantana montevidensis / Trailing Lantana
Tradescantia pallida 'Purpurea' / Purple Heart

GROUND COVER 3
Epipremnum pinnatum / Golden Pothos
Farfugium japonicum / Ligularia
Ophiopogon japonicus / Mondo Grass

40' 0 40'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: K Fishman
Drawn: K Fishman
Checked: R Higa
Approved: R S Duncan
Date: 12–18–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: Land Planning, Landscape Architecture, Environmental Studies, Graphic Design
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ALOHA STADIUM STATION

PLANTING PLAN PARK-AND-RIDE

Contract No.: SV–340
CADD File: SJ1–J02–LA005
Drawing No.: LA005 Rev.
Scale: 1"=40'–0"
Page No. 50 of 53

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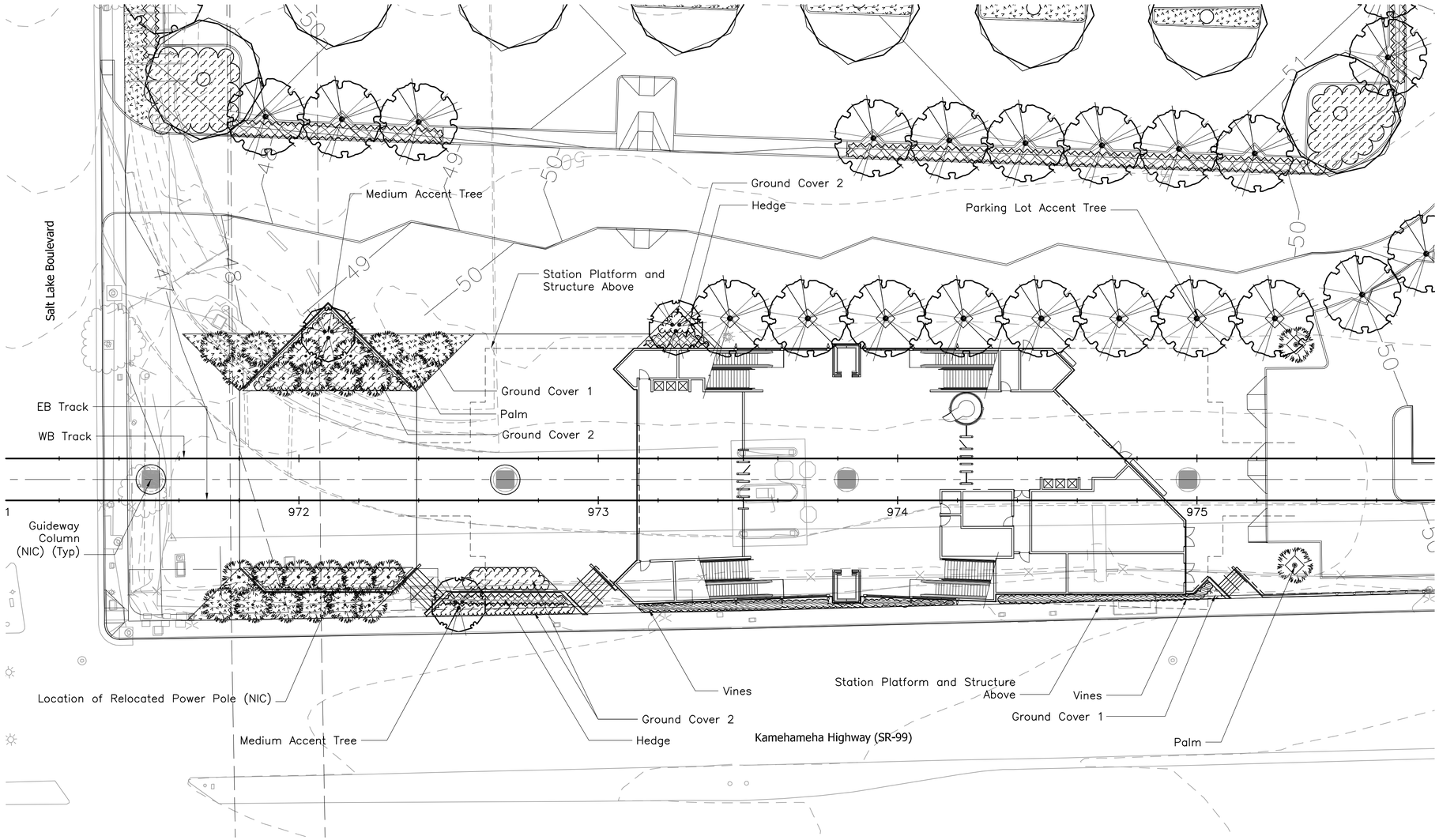

CONCEPT PLANT SCHEDULE LA006

PARKING LOT ACCENT TREES
Tabebuia aurea / Silver Trumpet
Tabebuia heterophylla / Pink Tacoma

PALMS
Howea forsteriana / Sentry Palm
Livistona chinensis / Chinese Fountain Palm
Pritchardia thurstonii / Thurston Fan Palm

MEDIUM ACCENT TREES
Pandanus tectorius / Hala
Plumeria obtusa / Singapore Plumeria

HEDGES
Carissa macrocarpa / Natal Plum
Codiaeum variegatum / Croton
Osteomeles anthyllidifolia / 'Ulei
Plumbago auriculata / Blue Plumbago
Pseuderanthemum carruthersii reticulatum / Yellow–Veined False Eranthemum
Rondeletia odorata / Rondeletia
Scaevola taccada / Beach Naupaka

VINES
Bougainvillea spectabilis / Climbing Bougainvillea
Ficus pumila / Creeping Fig

GROUND COVER 1
Myoporum sandwicense 'Papa' / Naio Papa
Plumbago zeylanica / 'Ilie'e
Scaevola coriaceae / Dwarf Naupaka
Vitex rotundifolia / Pohinahina
Wikstroemia uva–ursi / 'Akia

GROUND COVER 2
Agapanthus praecox orientalis / Lily of the Nile
Epipremnum pinnatum / Golden Pothos
Hemerocallis aurantiaca / Golden Summer Daylily
Lantana montevidensis / Trailing Lantana
Tradescantia pallida 'Purpurea' / Purple Heart

20' 0 20'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: K Fishman
Drawn: K Fishman
Checked: R Higa
Approved: R S Duncan
Date: 12–18–09

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CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
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PBR HAWAII & ASSOCIATES, INC.

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ALOHA STADIUM STATION

PLANTING PLAN
STATION AREA

Contract No.: SV–340
CADD File: SJ1–J02–LA006
Drawing No.: LA006
Rev.:
Scale: 1"=20'–0"
Page No.: 51 of 53

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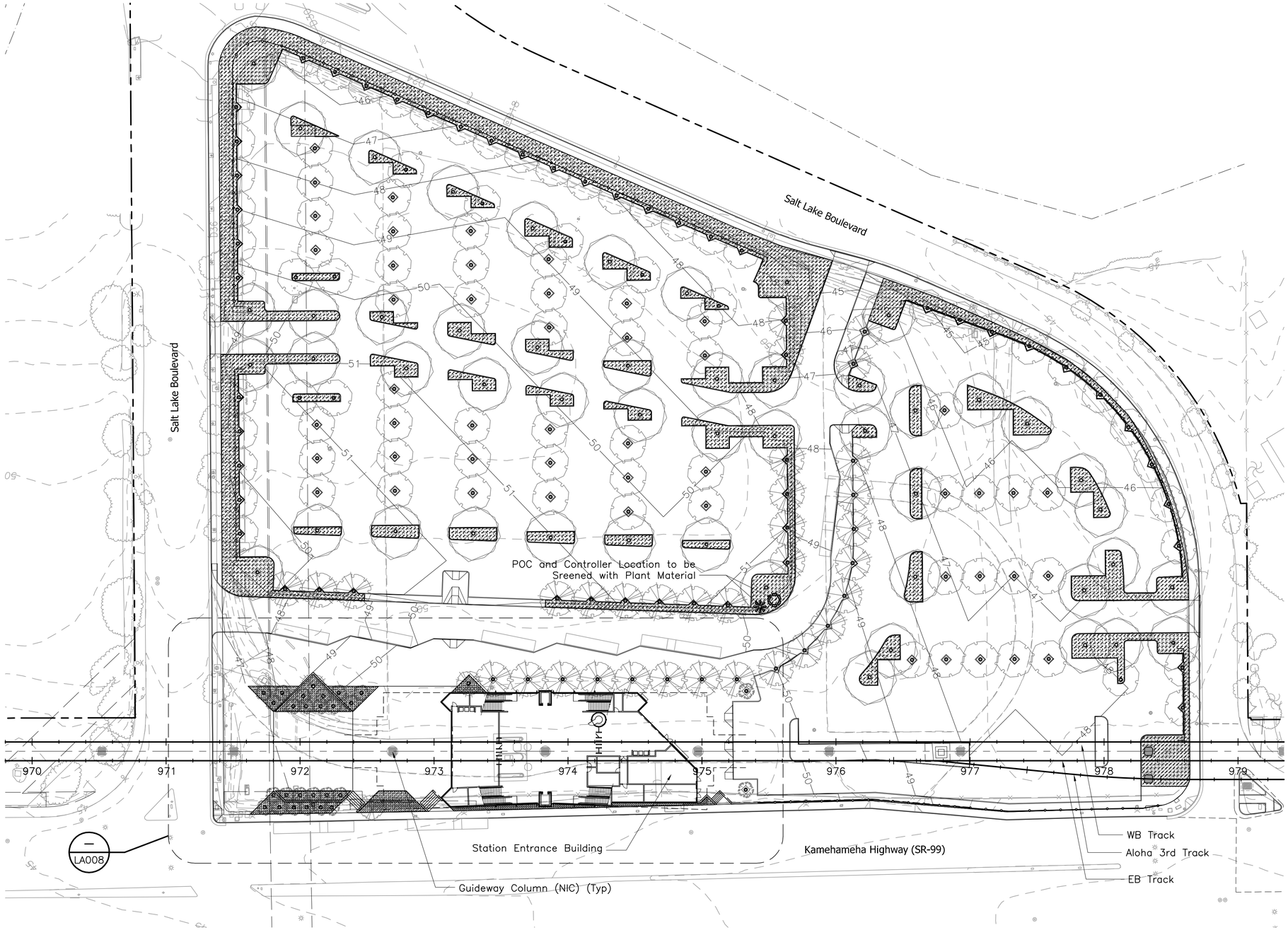

NOTES:

1. Provide a two-wire type irrigation controller capable of being expanded to a central computer. Central Computer located at the Project Maintenance Facility (NIC).
2. Irrigation valves, heads, and piping locations T.B.D. during final design phase of Project.
3. Provide sufficient irrigation heads and driplines for full coverage of planting areas.
4. Provide electrical handholes for irrigation control wires at 250-feet minimum spacing.

LEGEND:

- Proposed Location of Irrigation Point-of-Connection and Backflow Preventer
- Proposed Location of Irrigation Controller
- Tree Bubbler
- Low-Flow Drip Irrigated Area

40' 0 40'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: K Fishman
Drawn: K Fishman
Checked: R Higa
Approved: R S Duncan
Date: 12-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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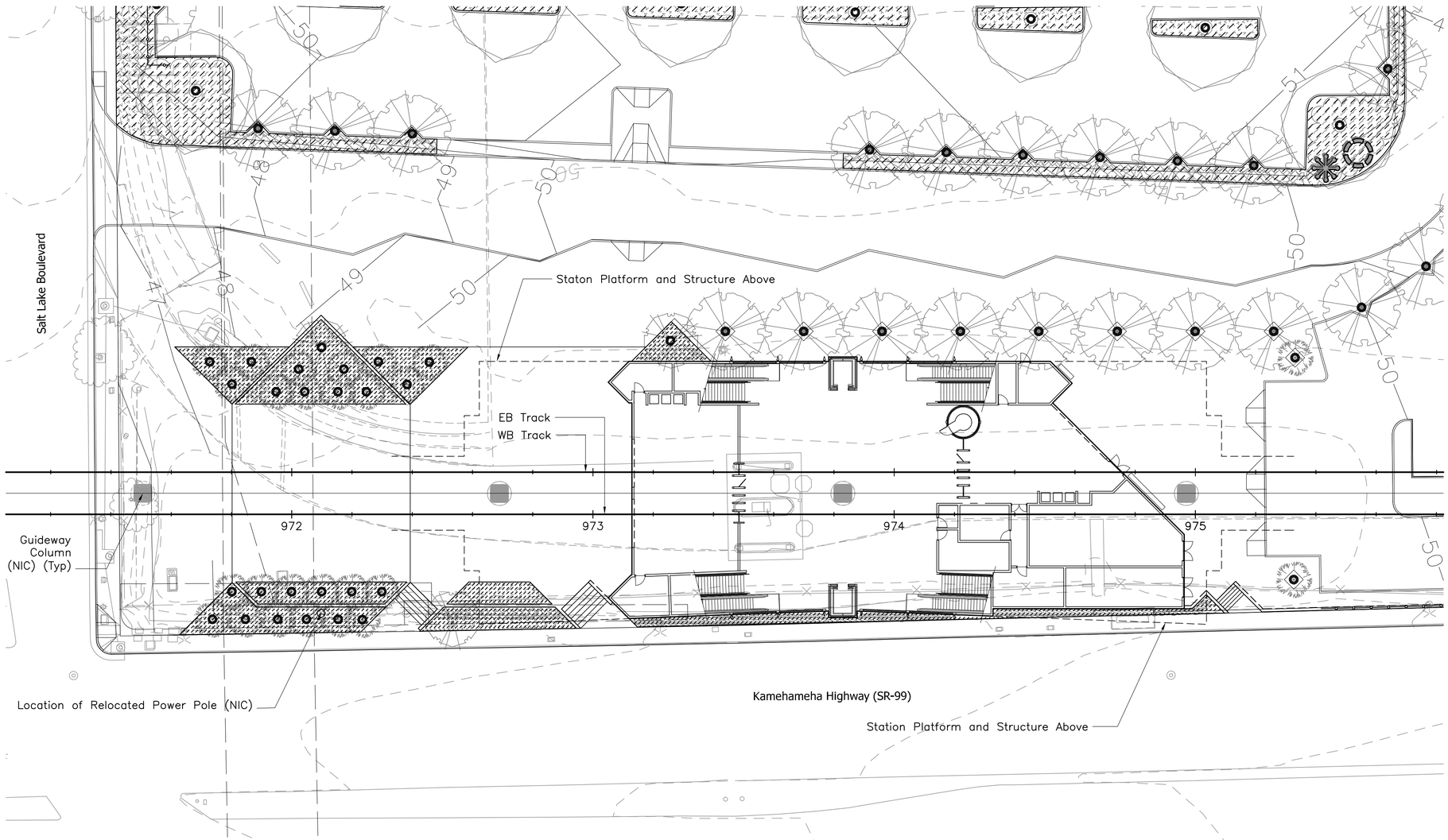
ALOHA STADIUM STATION

IRRIGATION PLAN
PARK-AND-RIDE

Contract No.: SV-340
CADD File: SJ1-J02-LA007
Drawing No: LA007
Rev.
Scale: 1"=40'-0"
Page No. 52 of 53

2010-01-04 8:26 AM P:\PROJECTS\OAHU\HHCTCP\PBR Working File\Segment J\Aloha Stadium Station\Black Submittal\SJ1-J02-LA007.dwg



N

NOTES:

1. Provide a two–wire type irrigation controller capable of being expanded to a central computer. Central Computer located at the Project Maintenance Facility (NIC).
2. Irrigation valves, heads, and piping locations T.B.D. during final design phase of Project.
3. Provide sufficient irrigation heads and driplines for full coverage of planting areas.
4. Provide electrical handholes for irrigation control wires at 250–feet minimum spacing.

LEGEND:

- Proposed Location of Irrigation Point–of–Connection and Backflow Preventer
- Proposed Location of Irrigation Controller
- Tree Bubbler
- Low–Flow Drip Irrigated Area

40' 0 40'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: K Fishman
Drawn: K Fishman
Checked: R Higa
Approved: R S Duncan
Date: 12–18–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
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ALOHA STADIUM STATION

IRRIGATION PLAN STATION AREA

Contract No.: SV–340
CADD File: SJ1–J02–LA008
Drawing No: LA008 Rev.
Scale: 1"=20'–0"
Page No. 53 of 53

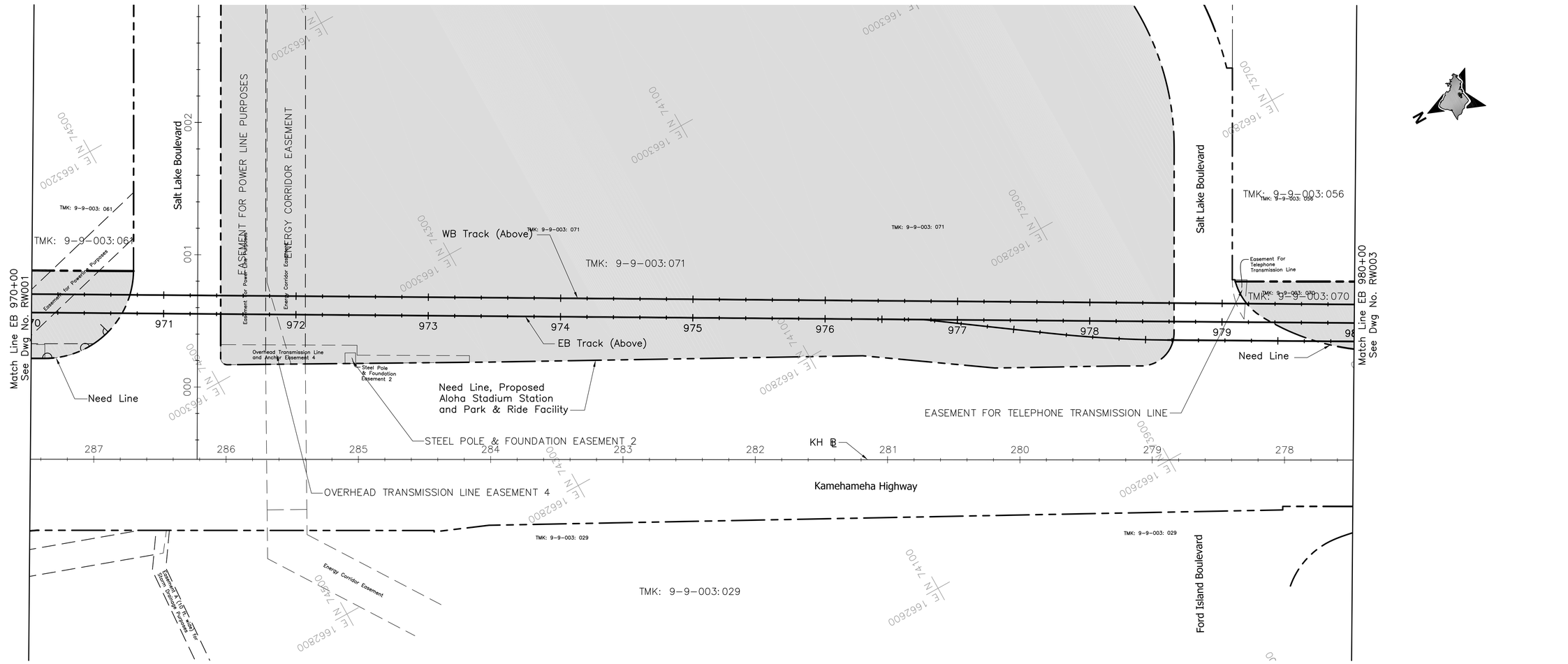
2009–12–11 8:29 PM P:\PROJECTS\OAHU\HHCTCP\PBR Working File\Segment J\Aloha Stadium Station\Black Submittal\SJ1–J02–LA008.dwg

ALOHA STADIUM STATION

APPENDIX A - INFORMATIVE DRAWINGS

FROM THE AIRPORT GUIDEWAY & UTILITIES PRELIMINARY ENGINEERING PLANS

AND THE CORE SYSTEMS RFP PLANS



NOTES:

1. ROW acquisition may be in the form of an aerial easement; an easement allowing joint use; subdivision of property with transfer of title; transfer of title for the entire parcel; or some other form to be documented by Land Court registration.
2. Construction easements should be defined during the final design phase and are not reflected on plans.
3. See Dwg No. CG001 for general civil notes, legend and abbreviations.
4. See Dwg No. RW001 for Right-of-Way legend.

Tax Map Key Number	Parcel Acquisitions	House Number	Street Name	Land Use
9-9-003:061	Partial	99-500	Salt Lake Blvd	Public
9-9-003:070	Partial	–	–	Public
9-9-003:071	Partial	–	–	Public

40' 0 40'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 11-30-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: R. M. TOWILL CORPORATION
Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

For reduced prints, original page size in inches: 0 1 2 3 4

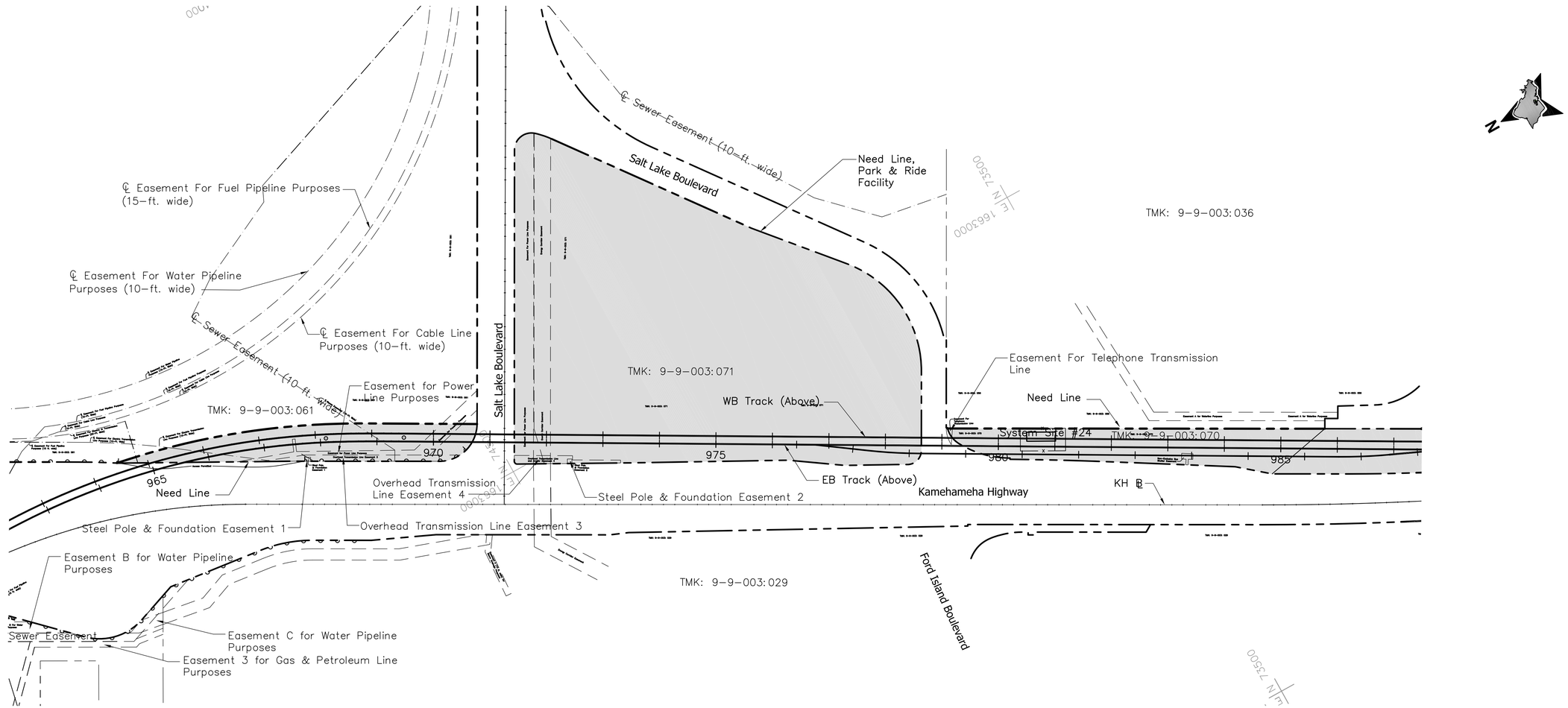
AIRPORT GUIDEWAY & UTILITIES

EXISTING RIGHT-OF-WAY & PROPOSED ACQUISITION TABULATIONS

EB 970+00 TO EB 980+00

Contract No.: SV-430
CADD File: AP-B04-RW002
Drawing No.: RW002 Rev.
Scale: 1"=40'
Page No.: 26 of 270

2009-11-23 6:28 PM K:\civil\21132 Honolulu Transit Corridor\Segment J\dwg\SJ_Sheets\Vol1 – 03 ROW\AP-B04-RW.dwg



NOTES:

1. ROW acquisition may be in the form of an aerial easement; an easement allowing joint use; subdivision of property with transfer of title; transfer of title for the entire parcel; or some other form to be documented by Land Court registration.
2. Construction easements should be defined during the final design phase and are not reflected on plans.
3. See Dwg No. CG001 for general civil notes, legend and abbreviations.
4. See Dwg No. RW001 for Right–of–Way legend.

Tax Map Key Number	Parcel Acquisitions	House Number	Street Name	Land Use
9–9–003:061	Partial	99–500	Salt Lake Blvd	Public
9–9–003:070	Partial	–	–	Public
9–9–003:071	Partial	–	–	Public

100' 0 100'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
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Date: 11–30–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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AIRPORT GUIDEWAY & UTILITIES

EXISTING RIGHT-OF-WAY & PROPOSED ACQUISITION TABULATIONS

ALOHA STADIUM PARK AND RIDE FACILITY

Contract No.: SV–430
CADD File: AP–B04–RW030
Drawing No.: RW030 Rev.
Scale: 1"=40'
Page No. 54 of 270

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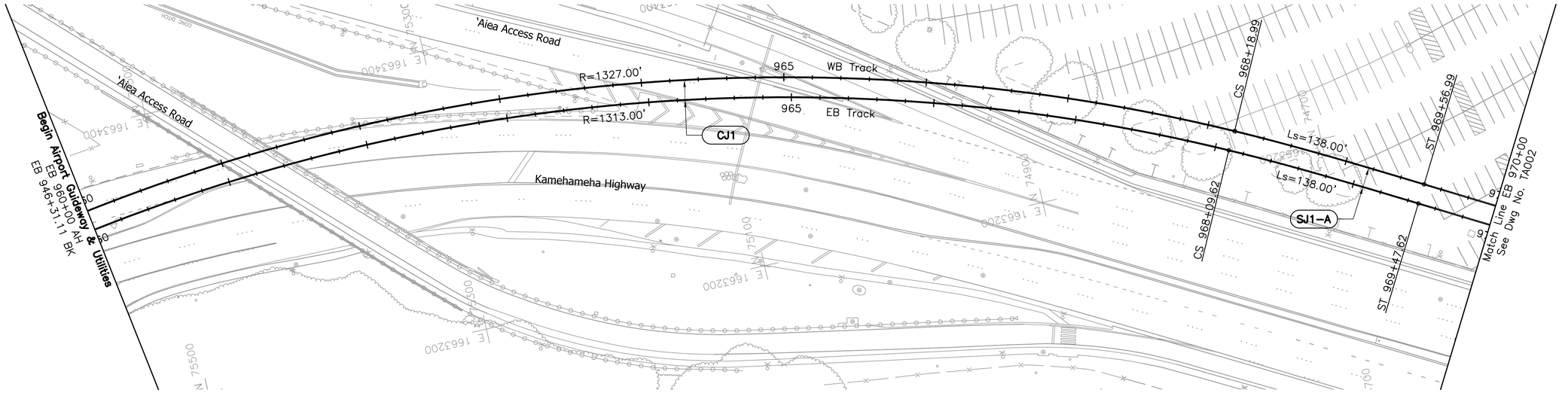

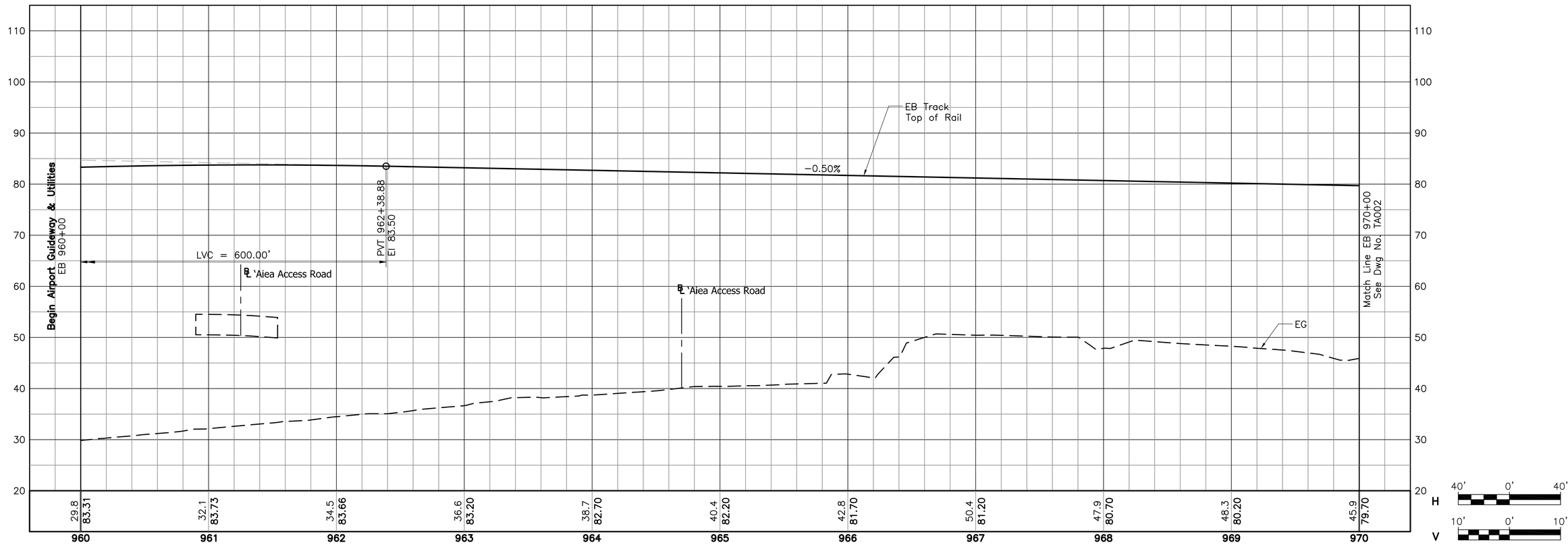

NOTES:

See Dwg No. CG001 for General Notes, Symbols and Abbreviations.

See Dwg No. CG002 for Track Alignment Abbreviations.

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 11-30-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
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AIRPORT GUIDEWAY & UTILITIES

TRACK ALIGNMENT PLAN & PROFILE

EB 960+00 TO EB 970+00

Contract No.: SV-430
CADD File: AP-B05-TA001
Drawing No: TA001 Rev.
Scale: 1"=40' H, 1"=10' V
Page No. 55 of 270

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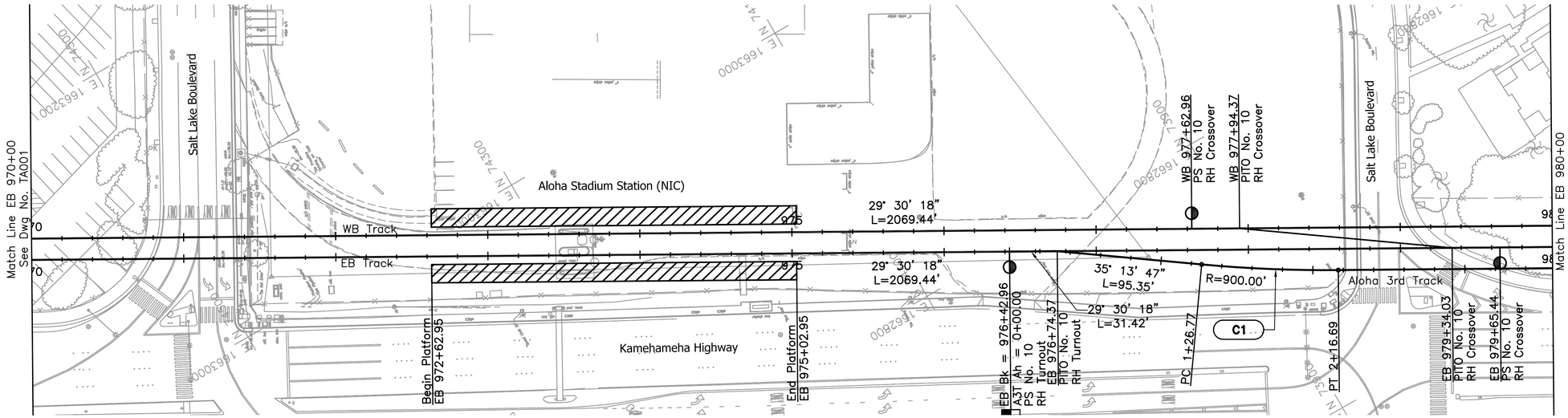

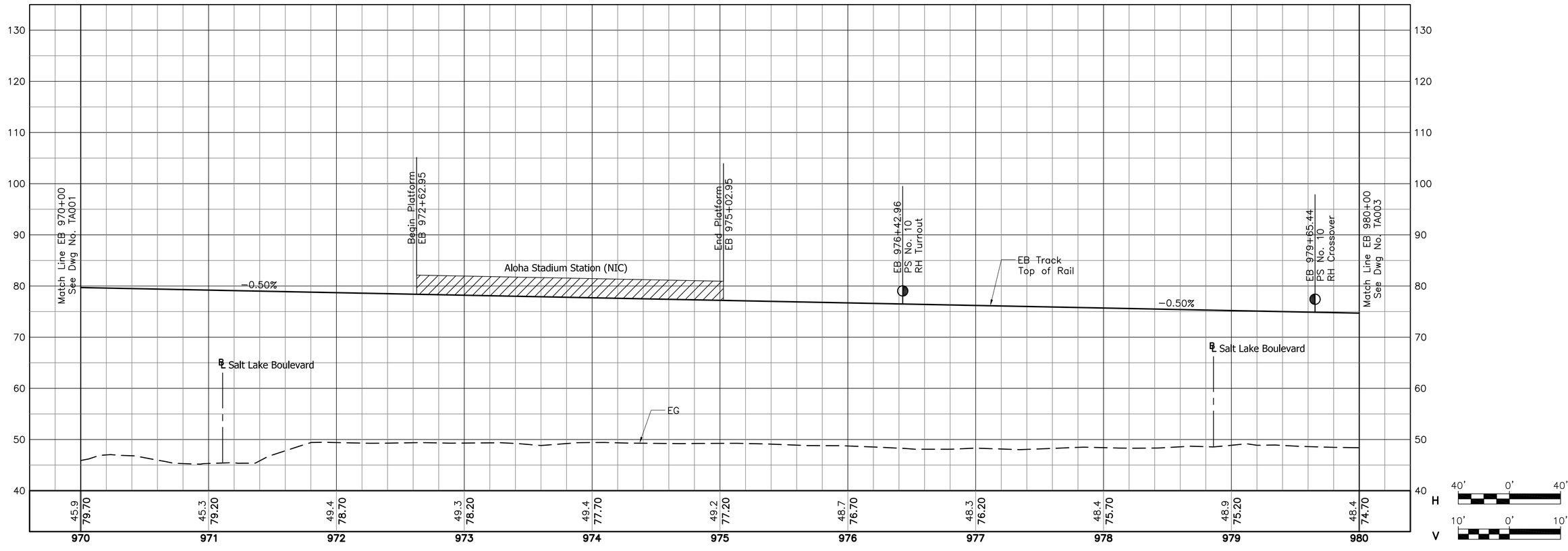

NOTES:

See Dwg No. CG001 for General Notes, Symbols and Abbreviations.

See Dwg No. CG002 for Track Alignment Abbreviations.

For Station Information, Refer to Structural Plans.

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 11−30−09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
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808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819−3470

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AIRPORT GUIDEWAY & UTILITIES

TRACK ALIGNMENT PLAN & PROFILE

EB 970+00 TO EB 980+00

Contract No.: SV−430
CADD File: AP−B05−TA002
Drawing No.: TA002 Rev.
Scale: 1"=40' H, 1"=10' V
Page No. 56 of 270

2009−11−23 8:27 PM K:\civil\21132 Honolulu Transit Corridor\Segment J\dwg\SJ_Sheets\Vol1 − 04 Track\AP−B05_Sheets.dwg

ALIGNMENT: SEG J – EB Track

Curve No	Curve Element	Type	Station	Northing	Easting	Data	
		BEG:	0+00.00	76473.841	1662729.087	L =	82.54'
						Di =	308° 25' 01.40"
		TS:	0+82.54	76422.550	1662793.761	Ls =	138.00'
	SJ1–B					Ts =	1192.66'
						Θs =	03° 00' 39.51"
		SC:	2+20.54	76334.929	1662900.353	I =	81° 05' 16.69"
	V=40 mph					R =	1313.00'
CJ1	Ea=2.00"	PI:	–	75681.452	1663728.222	Lc =	1720.23'
	Eu=2.83"					Δ =	75° 03' 57.67"
		CS:	968+09.62	74764.723	1663206.679	Dc =	04° 21' 49.43"
	SJ1–A						
		ST:	969+47.62	74643.462	1663140.836		
						L =	2069.44'
						Di =	29° 30' 18.08"
Aloha Stadium Station			972+62.95	–	–		
			975+02.95	–	–		
No. 10 T/O RH Aloha 3rd Track		PS:	976+42.96	74038.304	1662798.384		
		PITO:	976+74.37	74010.962	1662782.911		
No. 10 RH Single Xover		PITO:	979+34.03	73784.983	1662655.032		
		PS:	979+65.44	73757.641	1662639.560		
No. 10 LH Single Xover		PS:	984+88.61	73302.320	1662381.899		
		PITO:	985+20.03	73274.978	1662366.426		
No. 10 T/O LH Aloha 3rd Track		PITO:	987+87.68	73042.040	1662234.610		
		PS:	988+19.09	73014.698	1662219.137		
		TS:	990+17.06	72842.403	1662121.637	Ls =	125.00'
	SJ2–B					Ts =	213.66'
						Θs =	01° 08' 59.87"
		SC:	991+42.06	72733.207	1662060.805	I =	05° 33' 28.01"
	V=55 mph					R =	3114.00'
CJ2	Ea=2.00"	PI:	–	72656.453	1662016.410	Lc =	177.06'
	Eu=1.85"					Δ =	03° 15' 28.27"
		CS:	993+19.13	72575.082	1661981.186	Dc =	01° 50' 23.79"
	SJ2–A						
		ST:	994+44.13	72461.186	1661929.687		
						L =	407.40'
						Di =	23° 56' 50.07"
		TS:	998+51.53	72088.851	1661764.323	Ls =	279.00'
	SJ3–B					Ts =	593.14'
						Θs =	05° 39' 09.32"
		SC:	1001+30.53	71830.394	1661659.568	I =	35° 31' 26.68"
	V=55 mph					R =	1414.00'
CJ3	Ea=4.50"	PI:	–	71546.767	1661523.570	Lc =	597.70'
	Eu=3.97"					Δ =	24° 13' 08.04"
		CS:	1007+28.23	71240.590	1661595.649	Dc =	04° 03' 07.33"
	SJ3–A						
		ST:	1010+07.23	70965.692	1661642.603		
						L =	1915.34'
						Di =	348° 25' 23.39"

ALIGNMENT: SEG J – WB Track

Curve No	Curve Element	Type	Station	Northing	Easting	Data	
		BEG:	0+00.00	76484.810	1662737.787	L =	82.55'
						Di =	308° 25' 01.40"
		TS:	0+82.55	76433.516	1662802.464	Ls =	138.00'
	SJ1–B					Ts =	1204.63'
						Θs =	02° 58' 45.15"
		SC:	2+20.55	76345.915	1662909.073	I =	81° 05' 16.69"
	V=40 mph					R =	1327.00'
CJ1	Ea=2.00"	PI:	–	75684.980	1663746.305	Lc =	1740.04'
	Eu=2.77"					Δ =	75° 07' 46.39"
		CS:	968+18.99	74757.821	1663218.888	Dc =	04° 19' 03.69"
	SJ1–A						
		ST:	969+56.99	74636.572	1663153.023		
						L =	2069.44'
						Di =	29° 30' 18.08"
Aloha Stadium Station			972+62.95	–	–		
			975+02.95	–	–		
No. 10 RH Single Xover		PS:	977+62.96	73926.972	1662751.468		
		PITO:	977+94.37	73899.629	1662735.996		
No. 10 LH Single Xover		PITO:	986+59.68	73146.542	1662309.832		
		PS:	986+91.10	73119.200	1662294.359		
		TS:	990+17.06	72835.509	1662133.822	Ls =	125.00'
	SJ2–B					Ts =	212.98'
						Θs =	01° 09' 18.56"
		SC:	991+42.06	72726.310	1662072.993	I =	05° 33' 28.01"
	V=55 mph					R =	3100.00'
CJ2	Ea=2.00"	PI:	–	72650.150	1662028.929	Lc =	175.70'
	Eu=1.86"					Δ =	03° 14' 50.88"
		CS:	993+17.76	72569.397	1661993.984	Dc =	01° 50' 53.70"
	SJ2–A						
		ST:	994+42.76	72455.503	1661942.482		
						L =	407.40'
						Di =	23° 56' 50.07"
		TS:	998+51.53	72083.174	1661777.121	Ls =	279.00'
	SJ3–B					Ts =	588.66'
						Θs =	05° 42' 32.81"
		SC:	1001+30.53	71824.685	1661672.452	I =	35° 31' 26.68"
	V=55 mph					R =	1400.00'
CJ3	Ea=4.50"	PI:	–	71545.183	1661538.185	Lc =	589.02'
	Eu=4.06"					Δ =	24° 06' 21.05"
		CS:	1007+19.54	71243.406	1661609.456	Dc =	04° 05' 33.20"
	SJ3–A						
		ST:	1010+07.24	70968.495	1661656.319		
						L =	1915.33'
						Di =	348° 25' 23.39"

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: R Nacion
Drawn: R Nacion
Checked: E Liberman
Approved: A Borst
Date: 11–30–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

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AIRPORT GUIDEWAY & UTILITIES

TRACK ALIGNMENT DATA

SHEET 1 OF 6

Contract No.: SV–430
CADD File: AP–B06–TA101
Drawing No: TA101 Rev.
Scale: N/A
Page No. 84 of 270

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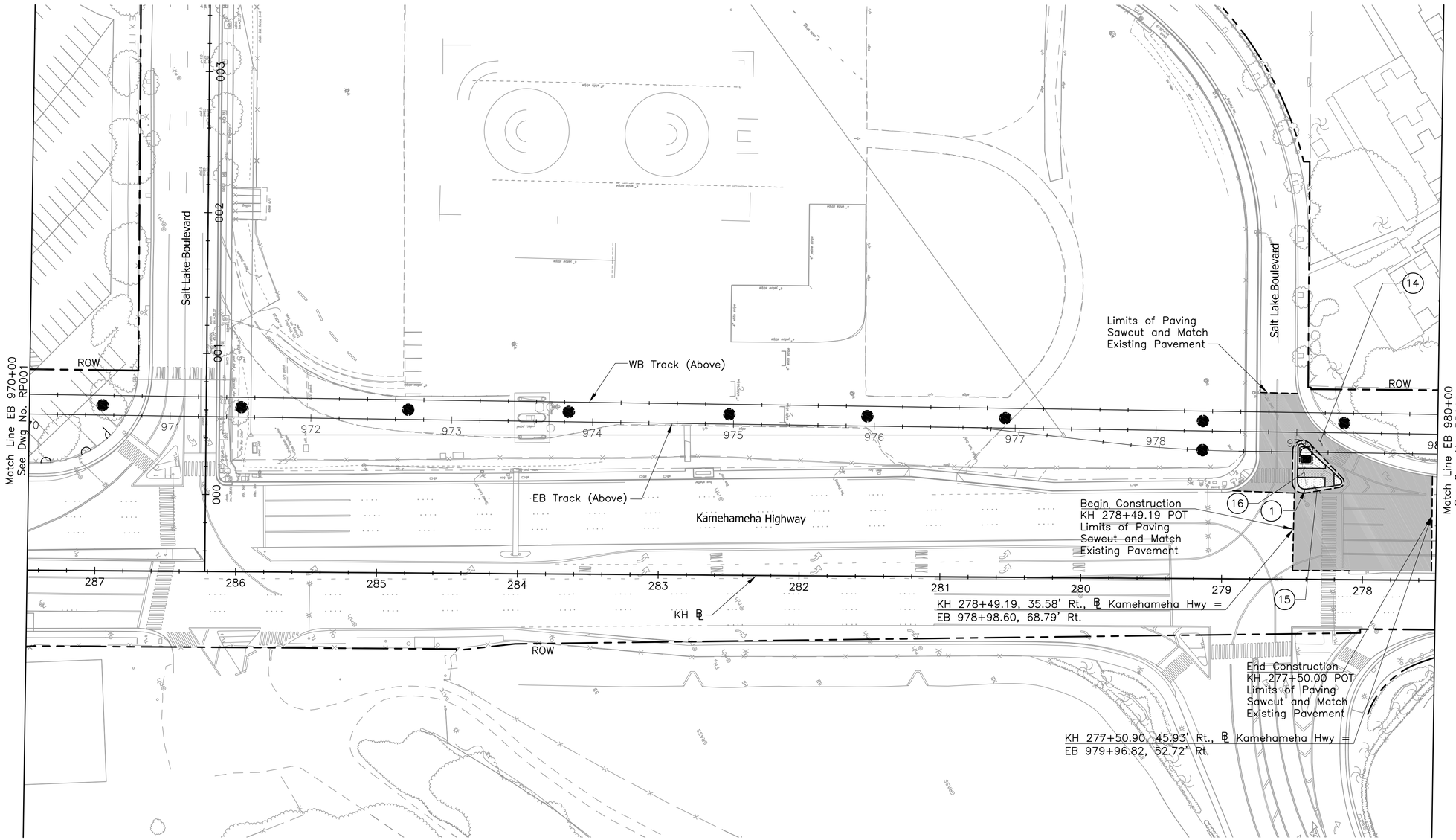

NOTES:

1. For general notes, symbols, and abbreviations, see Dwg No. CG001.

2. For roadway construction plan notes and legend, see Dwg No. CG003.

LEGEND:

- Proposed full depth pavement area.
- Proposed concrete pavement.
- Proposed pavement mill & overlay area.
- Proposed sidewalk, curb & gutter, curb, and median island paving area.
- Proposed landscaped median island area.
- Proposed guideway column.
- Proposed guideway cantilever bent column.
- Proposed guideway straddle bent column.

CONSTRUCTION NOTES:

(1) Construct Concrete Curb.

(14) Construct Plantmix Bituminous Surface Overlay.

(15) Construct Plantmix Bituminous Pavement.

(16) Construct Concrete Median Island Paving.

40' 0 40'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 11-30-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
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Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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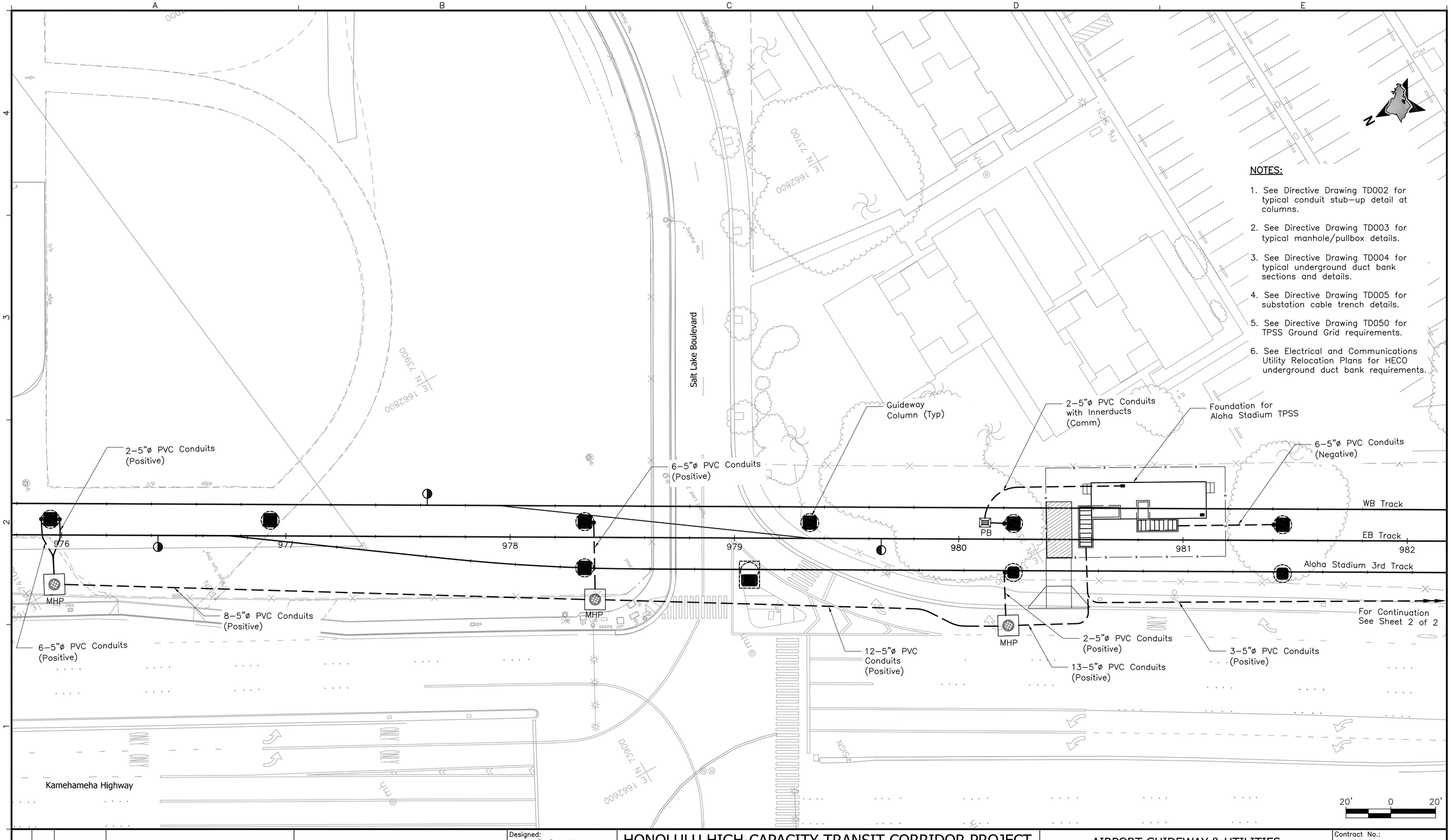
AIRPORT GUIDEWAY AND UTILITIES

ROADWAY CONSTRUCTION PLAN

EB 970+00 to EB 980+00

Contract No.: SV-430
CADD File: AP-B09-RP002
Drawing No.: RP002 Rev.
Scale: 1"=40'
Page No. 91 of 270

2009-11-23 3:47 PM K:\civil\21132 Honolulu Transit Corridor\Segment J\dwg\SJ_Sheets\Vol1 – 05 Roadway, Site\AP-B09-RP_sheets.dwg



NOTES:

1. See Directive Drawing TD002 for typical conduit stub–up detail at columns.
2. See Directive Drawing TD003 for typical manhole/pullbox details.
3. See Directive Drawing TD004 for typical underground duct bank sections and details.
4. See Directive Drawing TD005 for substation cable trench details.
5. See Directive Drawing TD050 for TPSS Ground Grid requirements.
6. See Electrical and Communications Utility Relocation Plans for HECO underground duct bank requirements.

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: D Gobelle
Drawn: C Jamison
Checked: L Mayola
Approved: A Borst
Date: 11–30–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

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AIRPORT GUIDEWAY & UTILITIES

SYSTEMS SITE PLAN
SITE # 24

SHEET 1 OF 2

Contract No.: SV–330
CADD File: AP–B10–RP101
Drawing No: RP101
Rev.
Scale: 1"=20'
Page No. 114 of 270

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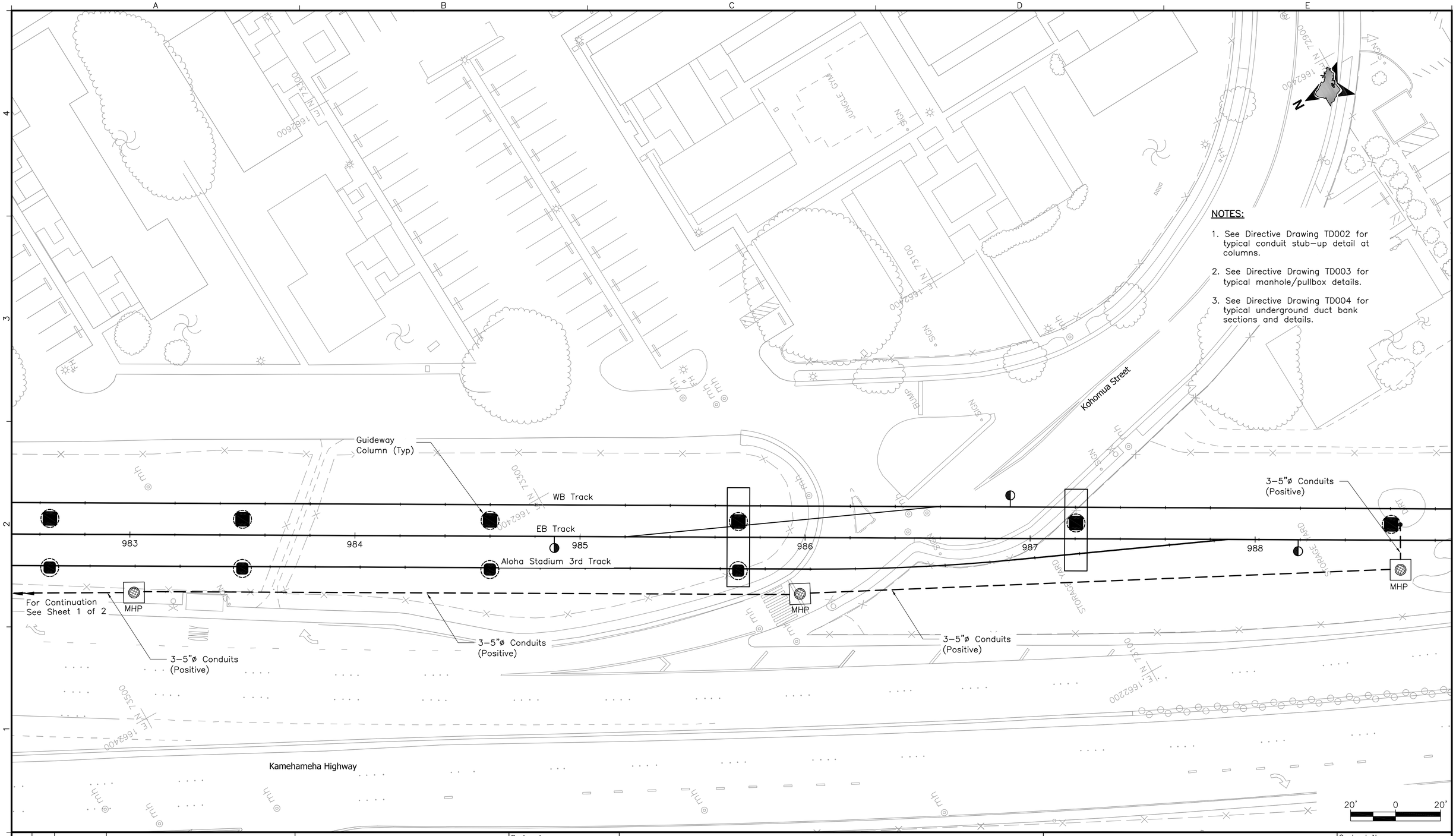

NOTES:

1. See Directive Drawing TD002 for typical conduit stub–up detail at columns.
2. See Directive Drawing TD003 for typical manhole/pullbox details.
3. See Directive Drawing TD004 for typical underground duct bank sections and details.

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: D Gobelle
Drawn: C Jamison
Checked: L Mayola
Approved: A Borst
Date: 11–30–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

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AIRPORT GUIDEWAY & UTILITIES

SYSTEMS SITE PLAN SITE # 24

SHEET 2 OF 2

Contract No.: SV–330
CADD File: AP–B10–RP102
Drawing No.: RP102 Rev.:
Scale: 1"=20'
Page No.: 115 of 270

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SURVEYED AOLELE STREET BASELINE – AL

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
AL	POB	0+00.00	62382.96	1666716.78	8° 57′ 42.3″	1079.53	–	–	–	–	–
	PC	10+79.53	61316.61	1666548.62	–	–	88°57′34.2″	50.00	49.10	77.63	AL-1
	PT	11+57.16	61259.58	1666589.32	280° 00′ 08.1″	516.94	–	–	–	–	–
	PC	16+74.10	61169.80	1667098.41	–	–	14°09′15.8″	1000.00	124.15	247.04	AL-2
	PT	19+21.14	61097.43	1667333.95	294° 09′ 23.8″	240.33	–	–	–	–	–
	PC	21+61.47	60999.08	1667553.23	–	–	19°42′56.5″	550.00	95.57	189.26	AL-3
	PT	23+50.73	60952.56	1667735.72	274° 26′ 27.2″	193.38	–	–	–	–	–
	PC	25+44.11	60937.59	1667928.52	–	–	20°54′18.4″	300.00	55.35	109.46	AL-4
	PT	26+53.56	60909.61	1668033.72	295° 20′ 45.5″	53.20	–	–	–	–	–
	PC	27+06.77	60886.84	1668081.80	–	–	16°21′28.8″	400.00	57.49	114.20	AL-5
	PT	28+20.97	60853.24	1668190.54	278° 59′ 16.7″	963.58	–	–	–	–	–
	PC	37+84.55	60702.71	1669142.29	–	–	11°04′37.9″	1200.00	116.36	232.00	AL-6
	PT	40+16.55	60644.61	1669366.53	290° 03′ 54.4″	86.44	–	–	–	–	–
	PC	41+02.99	60614.95	1669447.72	–	–	11°01′26.4″	1400.00	135.10	269.37	AL-7
	PT	43+72.36	60547.37	1669708.05	279° 02′ 28.0″	1931.34	–	–	–	–	–
	PC	63+03.70	60243.87	1671615.39	–	–	24°53′42.0″	350.00	77.26	152.08	AL-8
	PT	64+55.78	60252.83	1671766.01	254° 08′ 46.1″	162.82	–	–	–	–	–
	PC	66+18.60	60297.31	1671922.63	–	–	25°15′37.8″	350.00	78.43	154.31	AL-9
	PT	67+72.90	60305.92	1672075.45	279° 24′ 24.0″	413.18	–	–	–	–	–
	PC	71+86.09	60238.39	1672483.08	–	–	1°12′24.8″	20000.00	210.65	421.28	AL-9
	PT	76+07.37	60165.16	1672897.94	280° 36′ 48.8″	359.03	–	–	–	–	–
	PC	79+66.40	60099.04	1673250.83	–	–	1°41′48.1″	10000.00	148.08	296.13	AL-10
	PT	82+62.53	60048.81	1673542.65	278° 55′ 00.7″	407.61	–	–	–	–	–
	PC	86+70.14	59985.63	1673945.34	–	–	10°51′31.0″	500.00	47.52	94.76	AL-11
	PT	87+64.90	59962.19	1674037.01	289° 46′ 31.5″	351.57	–	–	–	–	–
	PC	91+16.47	59843.24	1674367.85	–	–	64°48′10.8″	450.00	285.60	508.96	AL-12
	PT	96+25.43	59948.65	1674838.45	224° 58′ 20.7″	376.83	–	–	–	–	–
	PC	100+02.26	60215.24	1675104.78	–	–	54°05′29.8″	750.00	382.90	708.06	AL-13
	PT	107+10.32	60425.80	1675753.52	279° 03′ 50.4″	206.62	–	–	–	–	–
	POE	109+16.93	60393.25	1675957.55	–	–	–	–	–	–	–

SURVEYED ROAD 'A' BASELINE – A

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
A	POB/PC	0+00.00	61103.28	1666600.65	–	–	89°55′57.0″	50.00	49.94	78.48	A-1
	PT	0+78.48	61046.02	1666642.07	279° 09′ 02.5″	851.52	–	–	–	–	–
	PC	9+30.00	60910.61	1667482.75	–	–	49°00′00.0″	48.00	21.87	41.05	A-2
	PT/POE	9+71.05	60888.55	1667515.89	–	–	–	–	–	–	–

SURVEYED H-1 FREEWAY BASELINE – H1

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
H1	POB	55+00.00	68457.93	1663551.79	10° 52′ 56.5″	2407.37	–	–	–	–	–
	PC	79+07.37	66093.85	1663097.30	–	–	91°51′37.1″	3000.00	3099.02	4809.79	H1-1
	PT	127+17.16	62564.59	1665572.90	279° 01′ 19.5″	8282.84	–	–	–	–	–
	POE	210+00.00	61265.71	1673753.27	–	–	–	–	–	–	–

SURVEYED H-1 (WEST) FREEWAY BASELINE – H1W

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
H1W	POB	210+00.03	61324.25	1673762.94	279° 35′ 19.4″	1060.16	–	–	–	–	–
	PC	220+60.19	61147.65	1674808.28	–	–	5°04′37.2″	7000.06	310.34	620.28	H1W-1
	PT	226+80.47	61071.54	1675423.67	274° 30′ 42.1″	1782.64	–	–	–	–	–
	PC	244+63.11	60931.32	1677200.79	–	–	41°53′37.7″	2000.02	765.61	1462.38	H1W-2
	PT	259+25.49	61335.92	1678572.38	232° 37′ 04.5″	1115.72	–	–	–	–	–
	PC	270+41.21	62013.30	1679458.94	–	–	23°50′41.3″	800.01	168.92	332.94	H1W-3
	PT/POE	273+74.15	62155.39	1679757.38	–	–	–	–	–	–	–

SURVEYED KAMEHAMEHA HIGHWAY BASELINE – KH

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
KH	POB	181+07.25	64490.85	1662987.78	168° 224′ 10.3″	6906.42	–	–	–	–	–
	PC	250+13.67	71256.28	1661599.39	–	–	35°04′59.9″	1228.11	388.20	752.00	KH-3
	PT	257+65.67	71992.59	1661676.23	203° 29′ 59.5″	954.52	–	–	–	–	–
	PC	267+20.19	72867.94	1662056.85	–	–	5°35′30.1″	5729.65	279.81	559.17	KH-2
	PT	272+79.36	73369.05	1662304.46	209° 05′ 29.5″	1798.89	–	–	–	–	–
	PC	290+78.25	74941.00	1663179.10	–	–	33°32′44.2″	1079.15	325.26	631.82	KH-1
	PT/POE	297+10.07	75549.49	1663311.98	–	–	–	–	–	–	–

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Checked: J Yamamoto
Approved: G Takahashi
Date: 11–30–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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AIRPORT GUIDEWAY & UTILITIES

ROADWAY HORIZONTAL CONTROL DATA

SHEET 1 OF 3

Contract No.: SV-430
CADD File: AP–B12–RP201
Drawing No.: RP201 Rev.:
Scale: N/A
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SURVEYED RAMP EA BASELINE – REA

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
REA	POB/PC	39+05.91	61027.38	1667676.54	–	–	56°18′37.1″	415.00	222.10	407.86	REA-1
	PT	43+13.77	61339.39	1667913.26	189° 01′ 56.5″	764.41	–	–	–	–	–
	PC	50+78.18	62094.32	1668033.26	–	–	89°59′22.9″	250.00	249.96	392.65	REA-2
	PT	54+70.84	62301.98	1668319.37	279° 01′ 19.5	962.15	–	–	–	–	–
	PC	64+32.99	62151.10	1669269.61	–	–	2°48′31.0″	11000.00	269.66	539.22	REA-3
	PT	69+72.20	62053.52	1669799.87	281° 49′ 50.5″	1328.97	–	–	–	–	–
	POE	83+01.17	61781.06	1671100.61	–	–	–	–	–	–	–

SURVEYED RAMP EN BASELINE – REN

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
REN	POB	0+00.00	64139.62	1661963.46	296° 08′ 29.5″	364.32	–	–	–	–	–
	PC	3+64.32	63979.11	1662290.51	–	–	46°05′33.0″	795.00	338.22	639.55	REN-1
	PT	10+03.87	63945.50	1662912.05	250° 02′ 56.5″	227.85	–	–	–	–	–
	PC	12+31.72	64023.24	1663126.22	–	–	73°42′00.0″	600.00	449.68	771.79	REN-2
	PT	20+03.50	63814.05	1663814.81	323° 44′ 56.5″	379.49	–	–	–	–	–
	PC	23+82.99	63508.01	1664039.21	–	–	13°07′59.9″	1486.78	171.15	340.80	REN-3
	PC	27+23.79	63258.58	1664270.34	–	–	5°31′34.0″	3000.00	144.78	289.34	REN-4
	PT/POE	30+13.14	63081.09	1664498.71	–	–	–	–	–	–	–

SURVEYED RAMP IW BASELINE – RIW

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
RIW	POB	36+27.65	62513.61	1666487.04	277° 54′ 00.5″	1540.54	–	–	–	–	–
	PC	51+68.19	62301.86	1668012.95	–	–	1°07′18.8″	20000.00	195.82	391.63	RIW-1
	PT	55+59.82	62244.24	1668400.32	279° 01′ 19.5″	758.76	–	–	–	–	–
	PC	63+18.58	62125.25	1669149.69	–	–	90°00′37.1″	335.00	335.06	526.28	RIW-2
	PT	68+44.86	61741.81	1669428.00	9° 01′ 56.5″	791.90	–	–	–	–	–
	PC	76+36.76	60959.73	1669303.68	–	–	90°00′00.0″	295.00	295.00	463.39	RIW-3
	PT/POE	81+00.14	60622.07	1669548.71	–	–	–	–	–	–	–

SURVEYED RAMP KN BASELINE – RKN

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
RKN	POB	0+00.00	66045.48	1662634.67	353° 08′ 59.5″	382.70	–	–	–	–	–
	PC	3+82.70	65665.51	1662680.32	–	–	7°13′03.0″	4000.00	252.27	503.88	RKN-1
	PT	8+86.58	65170.33	1662771.72	345° 55′ 56.5″	529.37	–	–	–	–	–
	POE	14+15.95	64656.84	1662900.40	–	–	–	–	–	–	–

SURVEYED RAMP MW BASELINE – RMW

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
RMW	POB/PC	0+00.00	65614.70	1663230.04	–	–	15°38′58.9″	1878.75	258.19	513.16	RMW-1
	PT	5+13.16	65126.70	1663383.53	334° 42′ 56.5″	1553.16	–	–	–	–	–
	POE	20+66.32	63722.33	1664046.90	–	–	–	–	–	–	–

SURVEYED RAMP NS BASELINE – RNS

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
RNS	POB	0+00.00	63869.64	1662268.43	300° 54′ 29.5″	349.58	–	–	–	–	–
	PC	3+49.58	63690.08	1662568.37	–	–	16°56′33.0″	1600.00	238.30	473.12	RNS-1
	PT	8+22.70	63510.16	1663004.08	283° 57′ 56.5″	278.08	–	–	–	–	–
	PC	11+00.78	63443.04	1663273.94	–	–	20°30′00.0″	1000.00	180.83	357.79	RNS-2
	PT	14+58.58	63297.07	1663598.52	304° 27′ 56.5″	335.36	–	–	–	–	–
	POE	17+93.94	63107.29	1663875.01	–	–	–	–	–	–	–

SURVEYED RAMP WN BASELINE – RWN

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
RWN	POB	0+00.00	66998.68	1663196.92	13° 44′ 56.5″	726.95	–	–	–	–	–
	PC	7+26.95	66292.56	1663024.14	–	–	3°28′00.1″	4000.00	121.05	242.02	RWN-1
	PT	9+68.97	66059.36	1662959.55	17° 12′ 56.5″	359.12	–	–	–	–	–
	PC	13+28.09	65716.33	1662853.26	–	–	28°25′00.1″	1200.00	303.83	595.16	RWN-2
	PT	19+23.25	65128.07	1662822.35	348° 47′ 56.5″	637.36	–	–	–	–	–
	PC	25+60.61	64502.85	1662946.16	–	–	127°20′33.0″	450.00	909.36	1000.15	RWN-3
	PT/POE	35+60.75	64011.47	1662306.47	–	–	–	–	–	–	–

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AIRPORT GUIDEWAY & UTILITIES

ROADWAY HORIZONTAL CONTROL DATA

SHEET 3 OF 3

Contract No.: SV–430
CADD File: AP–B12–RP203
Drawing No.: RP203 Rev.
Scale: N/A
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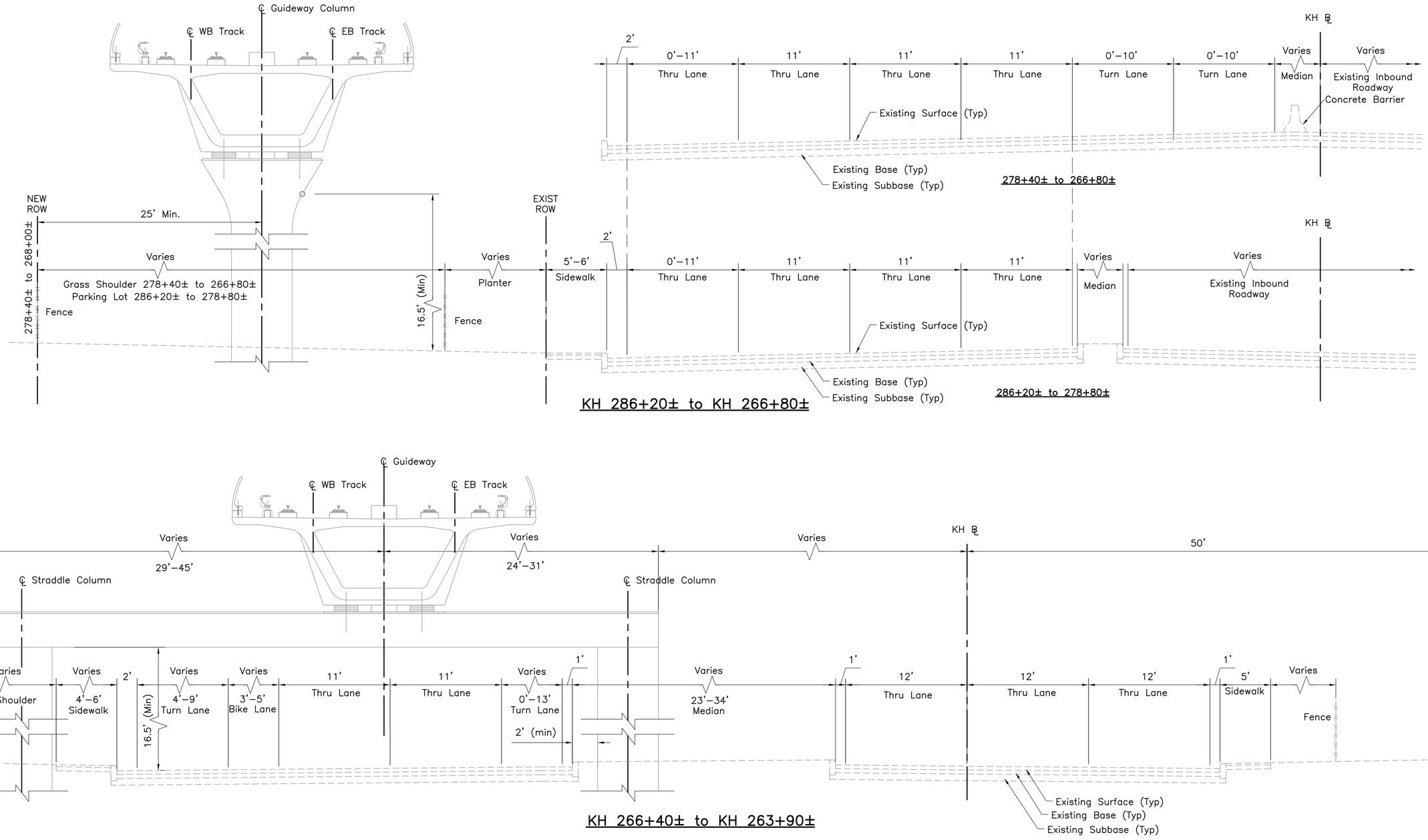

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AIRPORT GUIDEWAY & UTILITIES

TYPICAL SECTIONS KAMEHAMEHA HIGHWAY

KH 286+20± TO KH 263+90±

Contract No.: SV–430
CADD File: AP–B13–RX003
Drawing No.: RX003 Rev.
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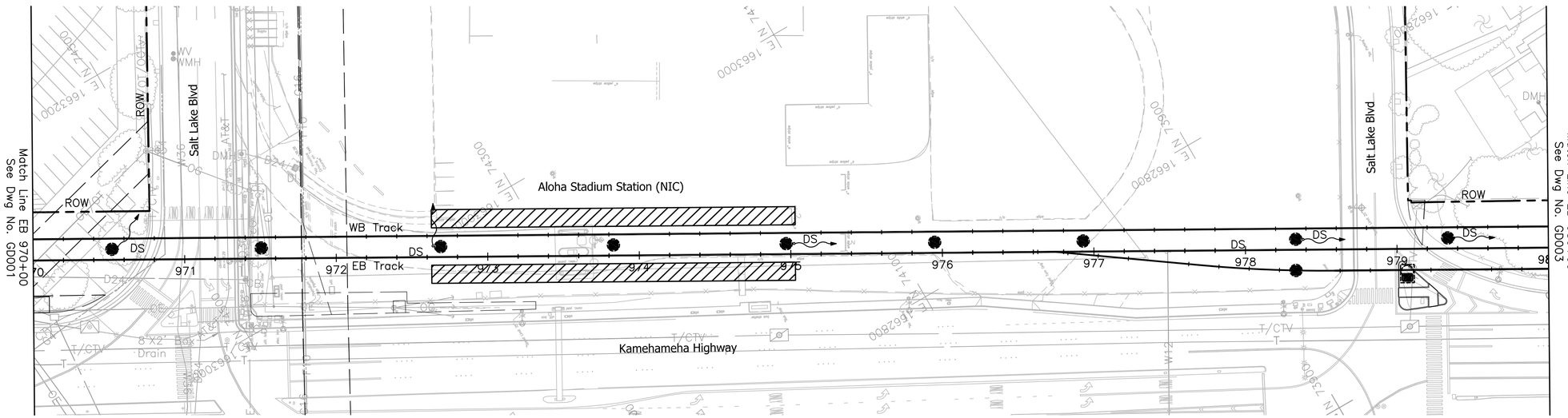

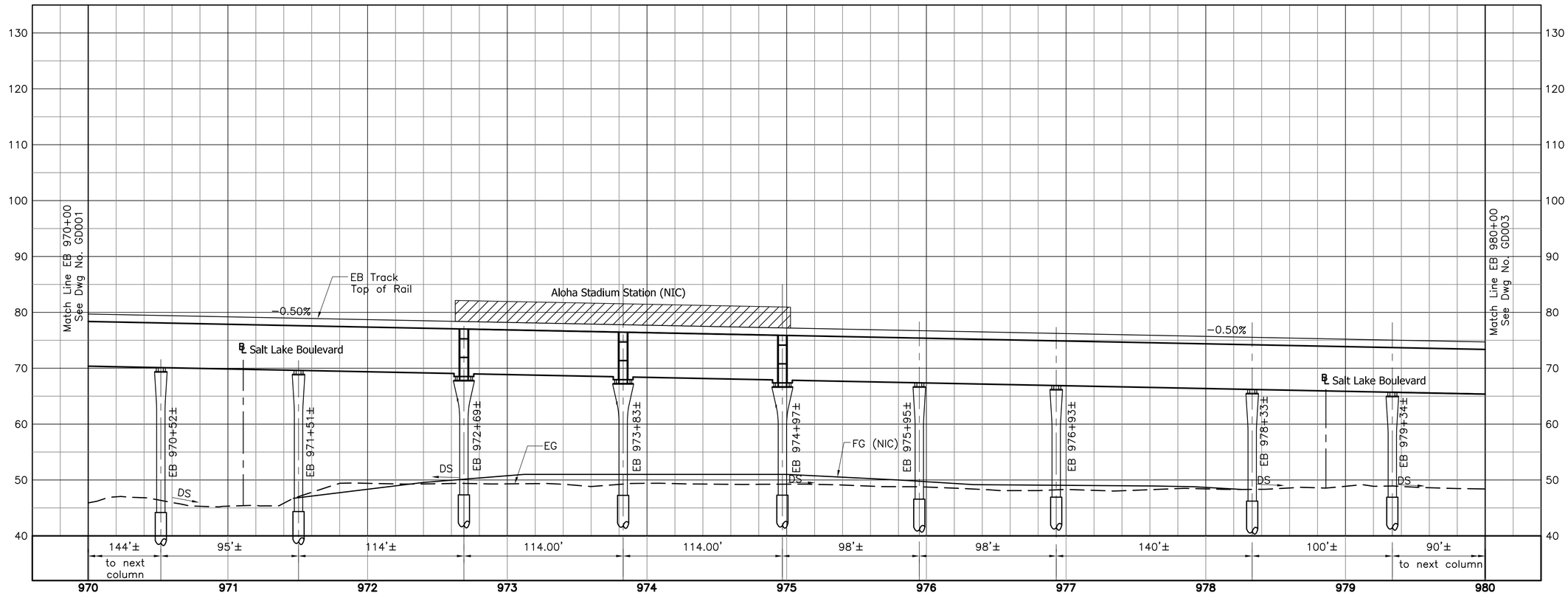

NOTES:

See Dwg No. GD001 for General Notes, Legend, Symbols and Abbreviations.

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AIRPORT GUIDEWAY & UTILITIES

GUIDEWAY DRAINAGE LAYOUT PLAN PLAN & PROFILE

EB 970+00 TO EB 980+00

Contract No.: SV−430
CADD File: AP−B16−GD002
Drawing No.: GD002 Rev.
Scale: 1"=40' H, 1"=10' V
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COLUMN LOCATION APPROX STATION	LOCATION	DISCHARGE CONDITION PER GD105	REMARKS
960+52	Forward	3	Provide Underground D24 Connection to Existing CB
963+58	Backward	3	Provide Underground D8 Connection to Existing DI
966+34	Backward	3	Provide Underground D8 Connection to Existing CB
969+08	Forward	1	Splash Block w/ Channel Connection to Existing DI
970+52	Foward	2	Splash Block, No Underground Connection
972+68	Left	4	Splash Block, No Underground Connection
974+95	Foward	4	Splash Block, No Underground Connection
978+33	Foward	4	Splash Block, No Underground Connection
979+34	Forward	2	Splash Block, No Underground Connection
981+44	Forward	2	Splash Block, No Underground Connection
983+50	Forward	2	Splash Block, No Underground Connection
985+70	Forward	3	Provide Underground D8 Connection to Existing CB
987+20	Right	3	Provide Underground D8 Connection to Existing DMH
990+10	Forward	2	Splash Block, No Underground Connection
993+10	Forward	3	Provide Underground D12 Connection to Existing CB
996+69	Right	3	Provide Underground D24 Connection to Existing CB
999+84	Forward	3	Provide Underground D12 Connection to Existing CB
1003+53	Backward	3	Provide Underground D12 Connection to Existing CB
1006+30	Forward	3	Provide Underground D18 Connection to Existing DMH
1009+08	Backward	3	Provide Underground D18 Connection to Existing DMH
1011+70	Backward	3	Provide Underground D12 Connection to Existing CB
1014+50	Forward	3	Provide Underground D18 Connection to Existing DMH
1017+48	Backward	3	Provide Underground D18 Connection to Existing DMH
1020+28	Backward	3	Provide Underground D18 Connection to Existing DMH
1023+08	Backward	3	Provide Underground D18 Connection to Existing DMH
1028+65	Forward	3	Provide Underground D18 Connection to Existing DI
1031+25	Forward	3	Provide Underground D18 Connection to Existing DI
1033+90	Forward	3	Provide Underground D18 Connection to Existing DI
1036+83	Forward	3	Provide Underground D18 Connection to Existing DI
1039+20	Forward	3	Provide Underground D18 Connection to Existing DMH
1041+69	Forward	3	Provide Underground D18 Connection to Existing CB
1043+88	Backward	3	Provide Underground D18 Connection to Existing CB
1045+38	Backward	3	Provide Underground D24 Connection to Existing CB
1047+98	Left	3	Provide Underground D24 Connection to Existing DI
1050+88	Backward	3	Provide Underground D24 Connection to Existing DI

COLUMN LOCATION APPROX STATION	LOCATION	DISCHARGE CONDITION PER GD105	REMARKS
1053+68	Left	3	Provide Underground D24 Connection to Existing DI
1057+37	Left	3	Provide Underground D24 Connection to Existing DI
1060+17	Backward	3	Provide Underground D8 Connection to Existing DI
1063+03	Right	2	Splash Block, No Underground Connection
1065+35	Right	2	Splash Block, No Underground Connection
1068+66	Backward	2	Splash Block, No Underground Connection
1071+22	Backward	2	Splash Block, No Underground Connection
1073+45	Forward	1	Splash Block w/ Channel Connection to Existing DI
1076+45	Backward	1	Splash Block w/ Channel Connection to Existing DI
1079+30	Left	2	Splash Block, No Underground Connection
1086+01	Right	2	Splash Block, No Underground Connection
1089+10	Right	2	Splash Block, No Underground Connection
1092+03	Right	2	Splash Block, No Underground Connection
1094+88	Backward	3	Provide Underground D12 Connection to Existing DI
1098+04	Forward	3	Provide Underground D12 Connection to Existing DMH
1100+93	Forward	3	Provide Underground D12 Connection to Existing CB
1102+35	Backward	3	Provide Underground D12 Connection to Existing CB
1103+77	Forward	2	Splash Block, No Underground Connection
1106+70	Forward	2	Splash Block, No Underground Connection
1109+60	Forward	2	Splash Block, No Underground Connection
1112+53	Right	3	Provide Underground D8 Connection to Existing DMH
1115+32	Forward	3	Provide Underground D12 Connection to Existing DI
1118+60	Left	3	Provide Underground D12 Connection to New DMH
1121+87	Forward	3	Provide Underground D12 Connection to Existing CB
1124+35	Forward	2	Splash Block, No Underground Connection
1127+32	Backward	2	Splash Block, No Underground Connection
1129+75	Forward	2	Splash Block, No Underground Connection
1132+00	Backward	3	Provide Underground D8 Connection to Existing CB
1134+28	Right	3	Provide Underground D12 Connection to Existing DI
1136+91	Left	2	Splash Block, No Underground Connection
1137+73	Left	3	Provide Underground D18 Connection to Existing DI
1139+14	Backward	3	Provide Underground D18 Connection to Existing CB
1142+54	Right	3	Provide Underground D18 Connection to Existing DI
1145+85	Backward	3	Provide Underground D18 Connection to Existing CB
1148+75	Right	3	Provide Underground D18 Connection to Existing DI

COLUMN LOCATION APPROX STATION	LOCATION	DISCHARGE CONDITION PER GD105	REMARKS
1151+65	Forward	3	Provide Underground D18 Connection to Existing DMH
1153+10	Right	3	Provide Underground D12 Connection to Existing DI
1158+33	Left	1	Splash Block w/ Channel Connection to Existing DI
1161+32	Right	3	Provide Underground D12 Connection to Existing CB
1163+65	Backward	3	Provide Underground D12 Connection to Existing DI
1167+85	Backward	3	Provide Underground D12 Connection to Existing CB
1170+76	Right	3	Provide Underground D12 Connection to Existing CB
1173+82	Left	2	Splash Block, No Underground Connection, Downspout Filter to Drainage Canal
1176+79	Left	2	Splash Block, No Underground Connection, Downspout Filter to Drainage Canal
1179+79	Left	2	Splash Block, No Underground Connection, Downspout Filter to Drainage Canal
1182+70	Left	2	Splash Block, No Underground Connection, Downspout Filter to Drainage Canal
1185+69	Right	2	Splash Block, No Underground Connection, Downspout Filter to Drainage Canal
1188+66	Forward	2	Splash Block, No Underground Connection
1191+63	Forward	4	Splash Block, No Underground Connection
1194+04	Forward	4	Splash Block, No Underground Connection
1196+81	Forward	2	Splash Block, No Underground Connection
1198+23	Backward	2	Splash Block, No Underground Connection
1199+73	Backward	2	Splash Block, No Underground Connection
1201+23	Forward	2	Splash Block, No Underground Connection
1202+72	Forward	2	Splash Block, No Underground Connection
1205+32	Left	2	Splash Block, No Underground Connection
1208+32	Backward	2	Splash Block, No Underground Connection
1210+97	Left	2	Splash Block, No Underground Connection
1213+27	Left	2	Splash Block, No Underground Connection
1215+57	Left	2	Splash Block, No Underground Connection
1221+11	Backward	2	Splash Block, No Underground Connection
1224+01	Forward	2	Splash Block, No Underground Connection
1227+68	Forward	2	Splash Block, No Underground Connection
1229+19	Forward	2	Splash Block, No Underground Connection
1230+67	Backward	2	Splash Block, No Underground Connection
1233+18	Backward	2	Splash Block, No Underground Connection
1235+59	Backward	2	Splash Block, No Underground Connection
1238+15	Right	2	Splash Block, No Underground Connection, Downspout Filter to Stream
1240+44	Forward	2	Splash Block, No Underground Connection
1242+92	Right	2	Splash Block, No Underground Connection
1247+72	Left	2	Splash Block, No Underground Connection
1250+20	Left	2	Splash Block, No Underground Connection

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 11-30-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: R. M. TOWILL CORPORATION
Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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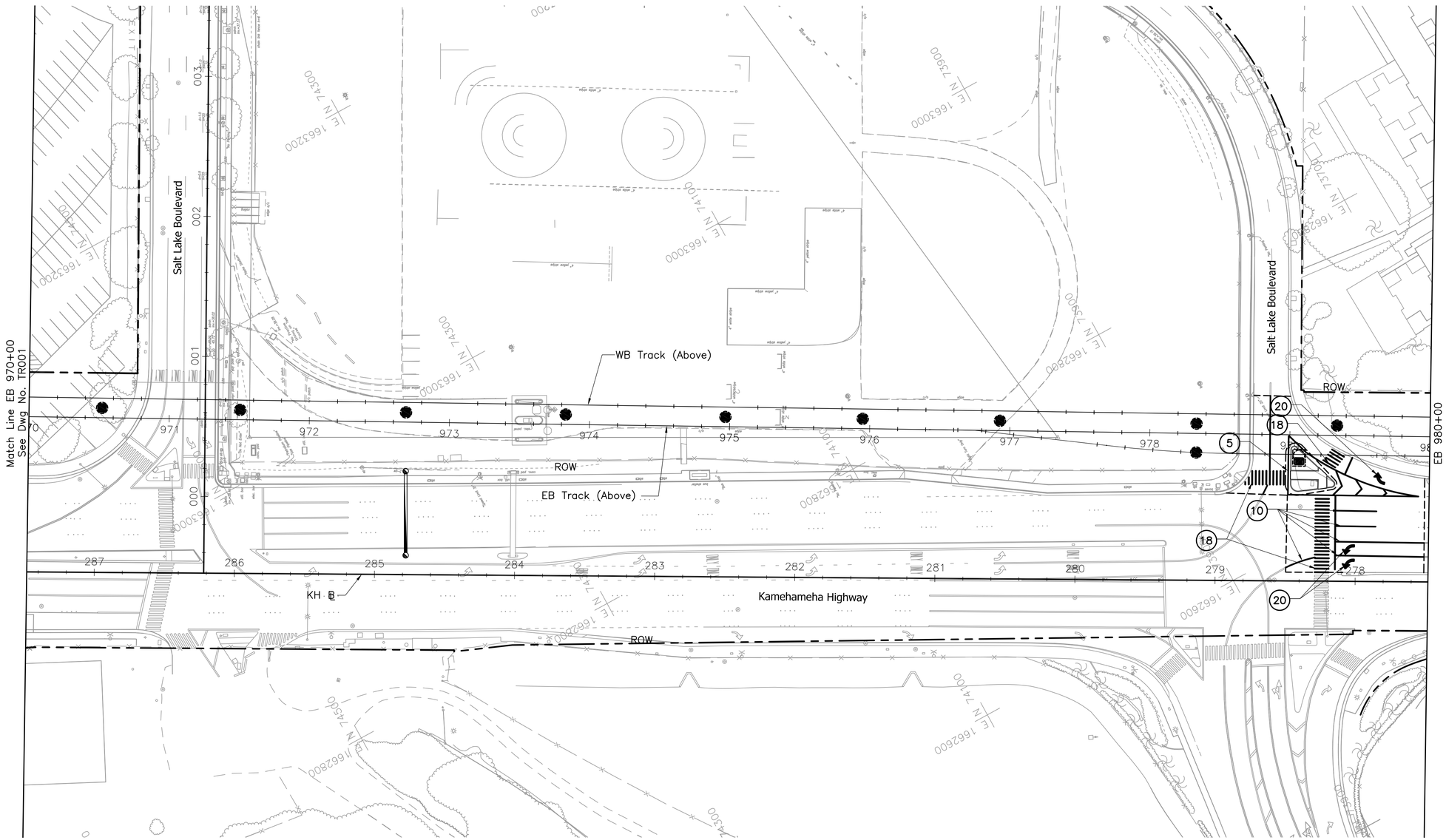
AIRPORT GUIDEWAY & UTILITIES

GUIDEWAY DRAINAGE DOWNSPOUT SCHEDULE

Contract No.: SV-430
CADD File: AP-B16-GD030
Drawing No: GD030 Rev.
Scale: N/A
Page No. 168 of 270

2009-11-23 3:58 PM K:\civil\21132 Honolulu Transit Corridor\Segment J\dwg\SJ_Sheets\Vol1 – 06 Drainage, Grading\Downspout Schedule.dwg



NOTES:

1. For general notes, symbols, and abbreviations, see Dwg. No. CG001.
2. For signing and typical pavement marking notes and legend, see Dwg. No. TG002 to TG006.

LEGEND:

- Proposed guideway column.
- Proposed guideway cantilever bent column.
- Proposed guideway straddle bent column.
- Relocate Overhead Sign Bridge with Multiple Posts

PAVEMENT MARKING NOTES:

(5) Edge Line – Single Solid 4" White Stripe with RPM

(10) Lane Line – Single Solid 8" White Stripe with RPM

(18) Transverse Marking – Single Dashed 12" White Stripe

(20) Pavement Markings – Turn Arrows

40' 0 40'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 11–30–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: R. M. TOWILL CORPORATION
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808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819–3470

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AIRPORT GUIDEWAY AND UTILITIES

SIGNING AND STRIPING PLAN

EB 970+00 to EB 980+00

Contract No.: SV–430
CADD File: AP–C02–TR002
Drawing No.: TR002 Rev.
Scale: 1"=40'
Page No. 185 of 270

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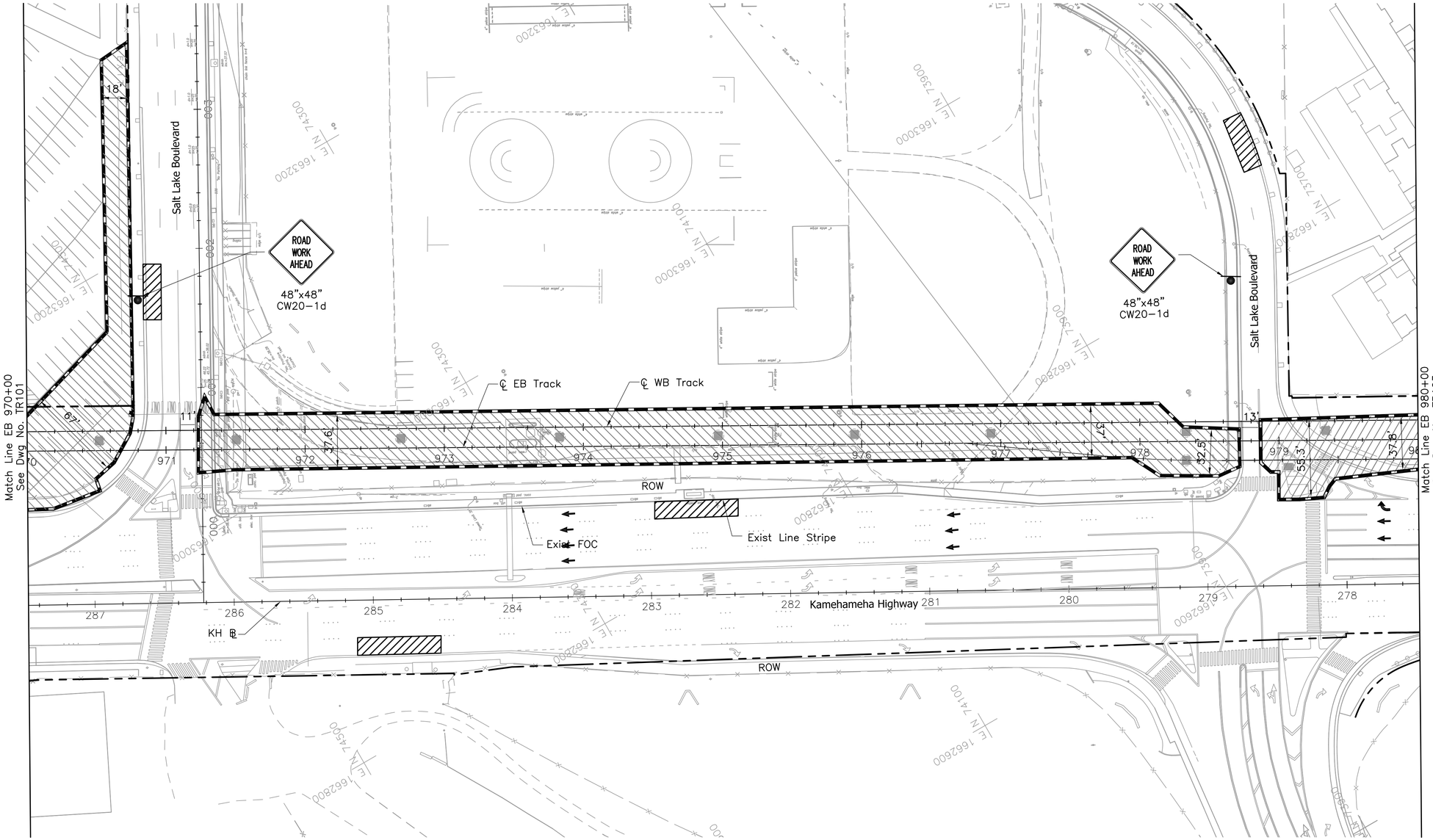

NOTES

1. For general notes, see Dwg No. TG001.

LEGEND

	Work Zone
	Bus Pullout Area
	Concrete Barrier
	Proposed Traffic Control
SYL	Temporary Solid Yellow Line
SWL	Temporary Solid White Line
BWL	Temporary Broken White Line
DWL	Temporary Dashed White Line
	Flow of Traffic
	Guideway Column Location
	Attenuator
	Existing Sign
FOC	Face of Curb
EP	Edge of Pavement

40' 0 40'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 11-30-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: R. M. TOWILL CORPORATION
Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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AIRPORT GUIDEWAY & UTILITIES

MAINTENANCE OF TRAFFIC PLAN

EB 970+00 TO EB 980+00

Contract No.: SV-430
CADD File: AP-C03-TR102
Drawing No: TR102 Rev.
Scale: 1"=40'
Page No. 202 of 270

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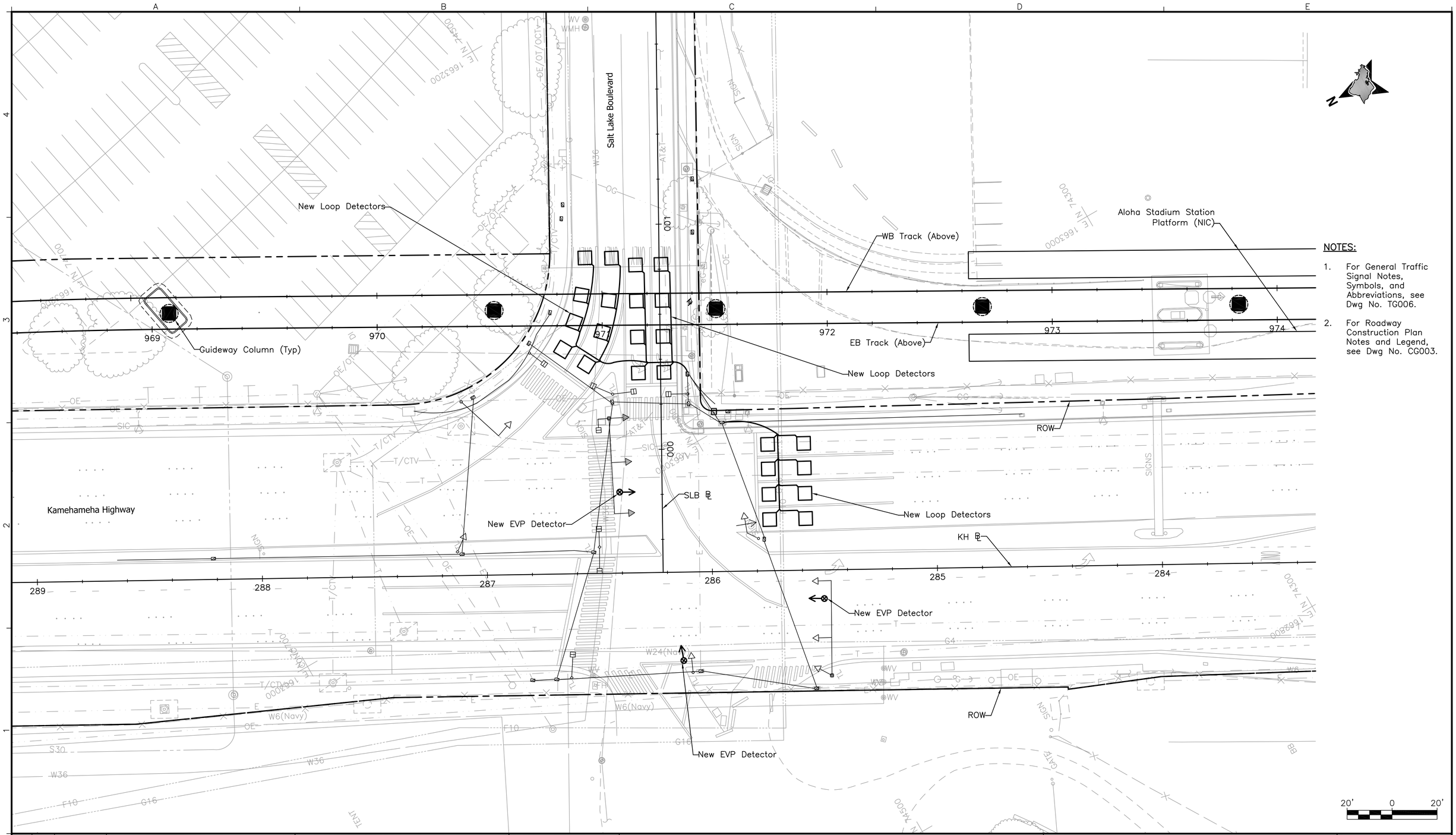

NOTES:

1. For General Traffic Signal Notes, Symbols, and Abbreviations, see Dwg No. TG006.
2. For Roadway Construction Plan Notes and Legend, see Dwg No. CG003.

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: K Okazaki
Drawn: Z Tong
Checked: L Yokomizo
Approved: K Niiya
Date: 11-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: AUSTIN, TSUTSUMI & ASSOC., INC.
ENGINEERS, SURVEYORS • HONOLULU, HAWAII

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AIRPORT GUIDEWAY AND UTILITIES

TRAFFIC SIGNAL PLAN
KAMEHAMEHA HWY AT SALT LAKE BLVD

SALT LAKE OUTBOUND

Contract No.: SV-430
CADD File: AP-C04-TR502
Drawing No: TR502
Rev.
Scale: 1" = 20'
Page No. 230 of 270

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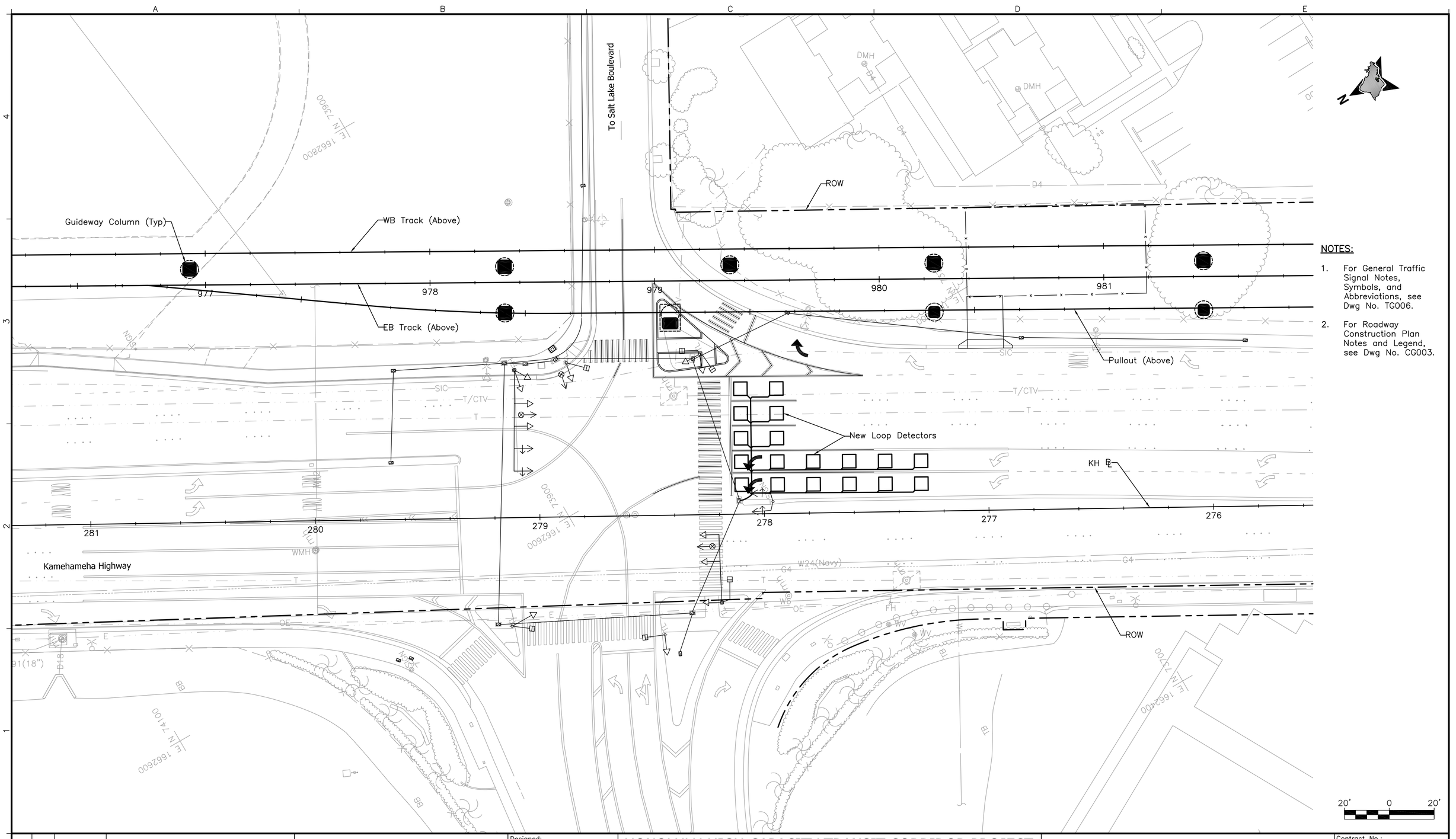

NOTES:

1. For General Traffic Signal Notes, Symbols, and Abbreviations, see Dwg No. TG006.
2. For Roadway Construction Plan Notes and Legend, see Dwg No. CG003.

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: K Okazaki
Drawn: Z Tong
Checked: L Yokomizo
Approved: K Niiya
Date: 11-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: AUSTIN, TSUTSUMI & ASSOC., INC. ENGINEERS, SURVEYORS • HONOLULU, HAWAII

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AIRPORT GUIDEWAY AND UTILITIES

TRAFFIC SIGNAL PLAN KAMEHAMEHA HWY AT SALT LAKE BLVD

SALT LAKE INBOUND

Contract No.: SV-430
CADD File: AP-C04-TR503
Drawing No.: TR503 Rev.
Scale: 1" = 20'
Page No. 231 of 270

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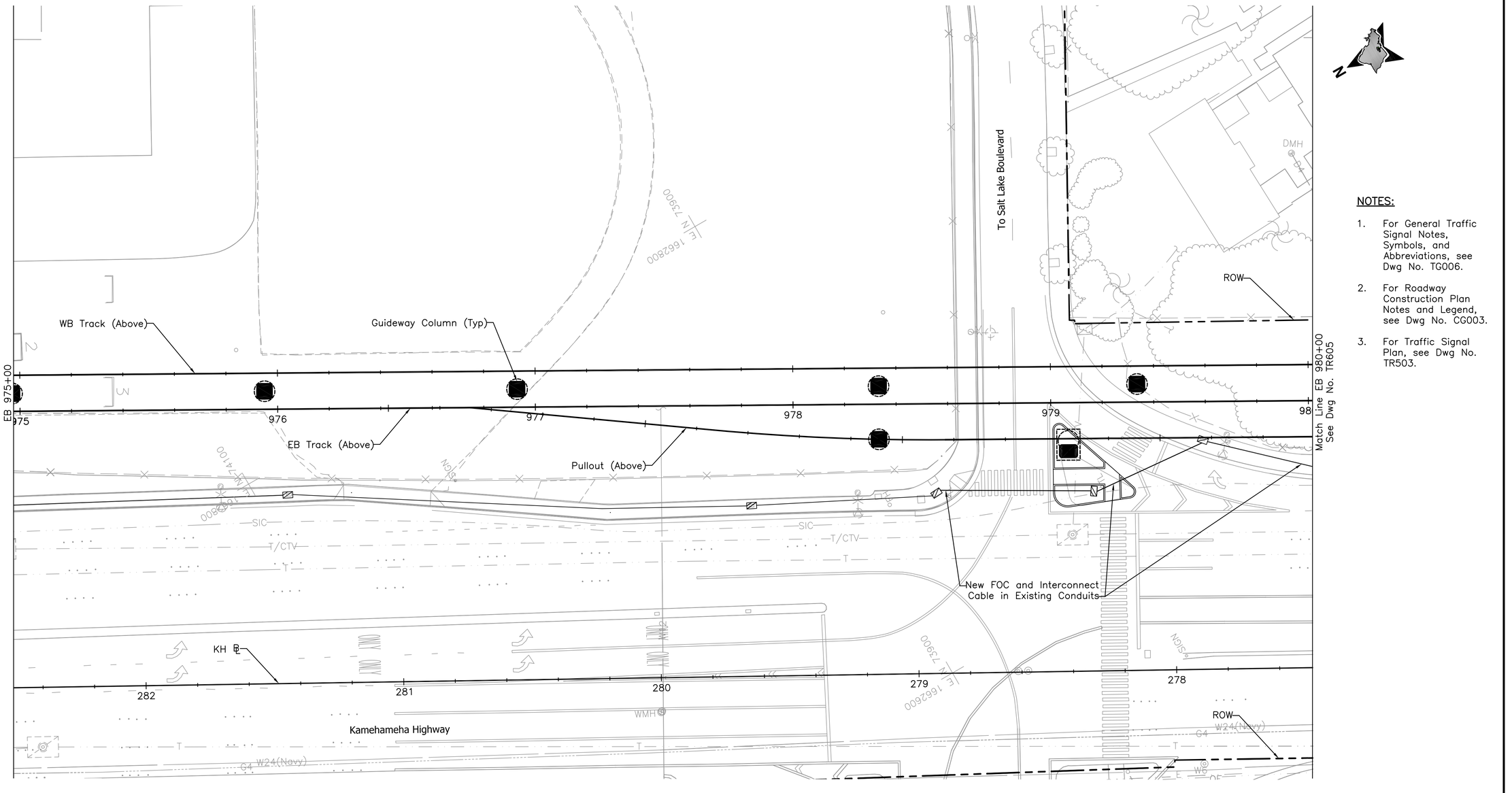

NOTES:

1. For General Traffic Signal Notes, Symbols, and Abbreviations, see Dwg No. TG006.
2. For Roadway Construction Plan Notes and Legend, see Dwg No. CG003.
3. For Traffic Signal Plan, see Dwg No. TR503.

20' 0 20'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: K Okazaki
Drawn: Z Tong
Checked: L Yokomizo
Approved: K Niiya
Date: 11-18-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: AUSTIN, TSUTSUMI & ASSOC., INC.
ENGINEERS, SURVEYORS • HONOLULU, HAWAII

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AIRPORT GUIDEWAY AND UTILITIES

FIBER OPTIC & TRAFFIC SIGNAL INTERCONNECT PLAN

EB 975+00 TO EB 980+00

Contract No.: SV-430
CADD File: AP-C04-TR604
Drawing No: TR604 Rev.
Scale: 1" = 20'
Page No. 240 of 270

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N

NOTES:

4 Contractor Shall Provide Portable DMS.

6 Contractor Shall Provide and Install Two (2) Temporary LPR Cameras Per Direction Of Travel During Construction. Contractor Shall Replace Temporary LPR Cameras With Two (2) Permanent LPR Cameras Per Direction of Travel As Soon As Permanent Power Can Be Accommodated.

11 Contractor Shall Provide And Install Two (2) Temporary CCTV Cameras. Mount To Existing Street Light Pole On Roadside. Contractor Shall Replace Temporary CCTV Cameras With One (1) Permanent CCTV Camera As Soon As Permanent Power Can Be Accommodated.

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Kurashima
Drawn: C Matias
Checked: G Fromm
Approved: G Fromm
Date: 11-27-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: jca transportation
1003 Bishop Street, Suite 720 – Honolulu, HI 96813

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AIRPORT GUIDEWAY & UTILITIES

TRAFFIC MANAGEMENT PLAN INTELLIGENT TRANSPORTATION SYSTEMS

SHEET 1 OF 4

Contract No.: SV-430
CADD File: AP-C04-TR701
Drawing No.: TR701 Rev.
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Page No. 257 of 270

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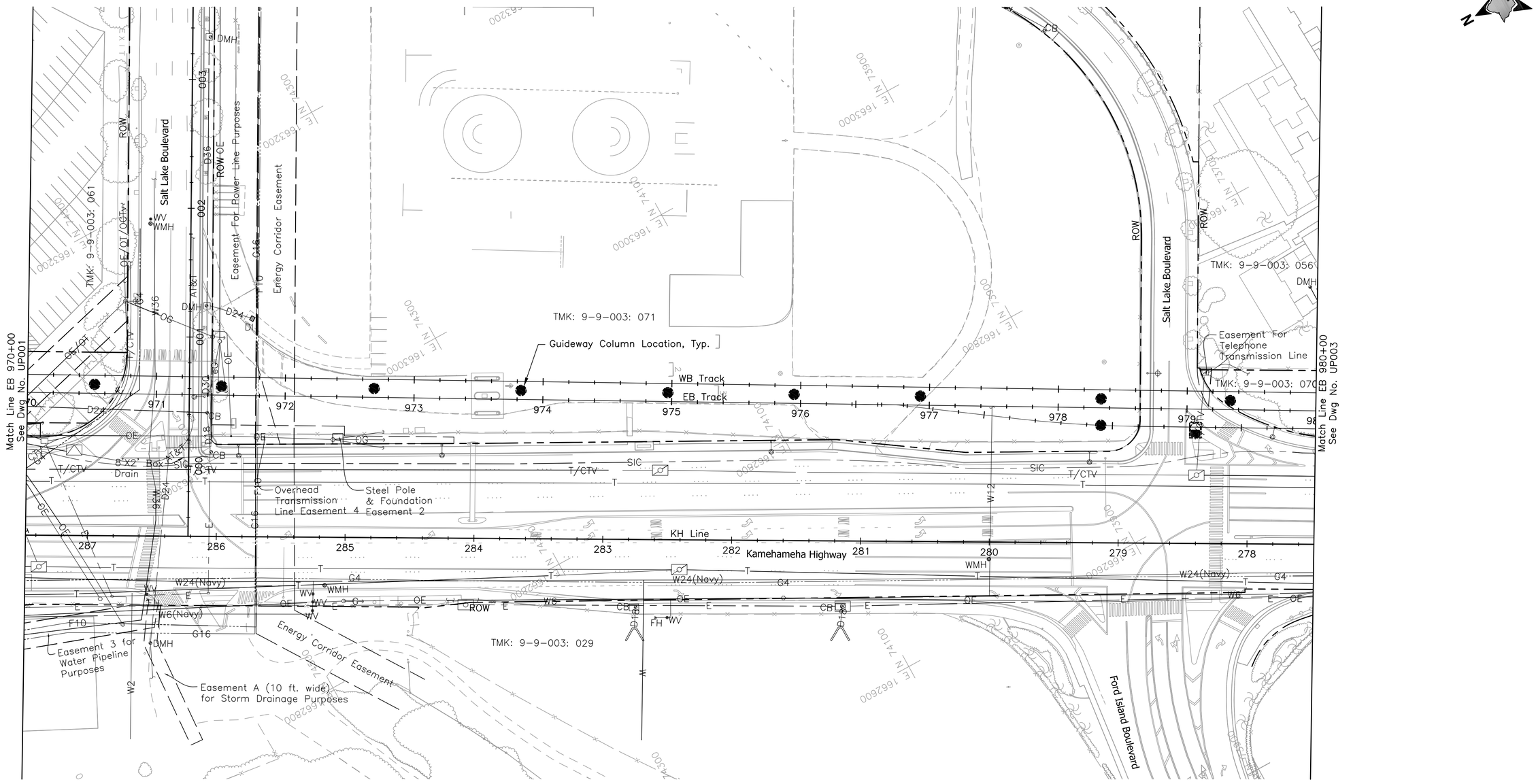

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 11-30-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: R. M. TOWILL CORPORATION
Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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AIRPORT GUIDEWAY & UTILITIES

COMPOSITE PLAN EXISTING UTILITIES

EB 970+00 TO EB 980+00

Contract No.: SV-430
CADD File: AP-D02-UP002
Drawing No: UP002 Rev.
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Page No. 34 of 199

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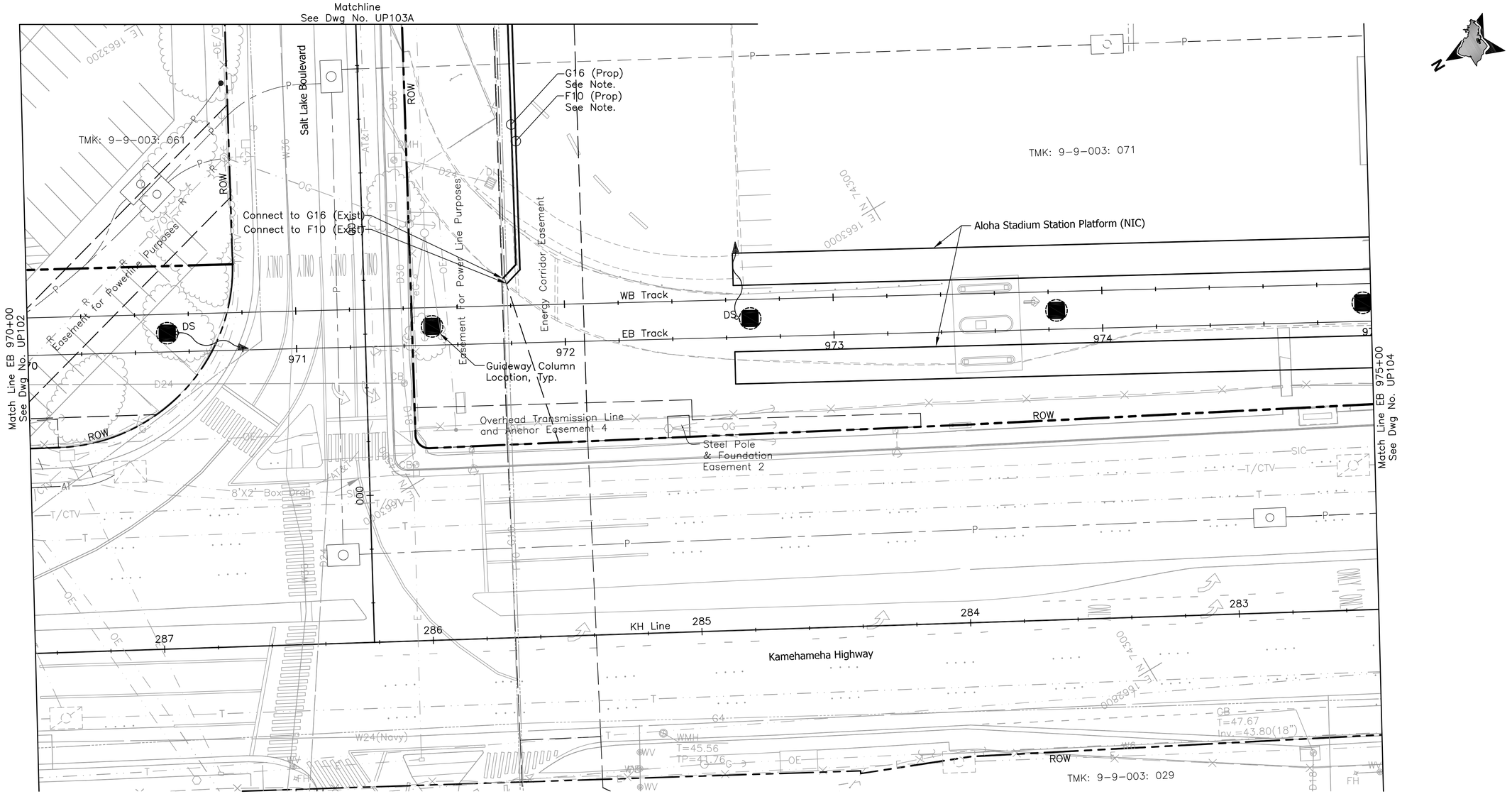

NOTE:

Final Designer to coordinate depth of relocation with Aloha Stadium Station. Final Designer to provide a minimum 3' cover based on proposed grade.

20' 0 20'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 11-30-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: R. M. TOWILL CORPORATION
Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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AIRPORT GUIDEWAY & UTILITIES

UTILITY RELOCATION PLAN
WATER, SEWER, DRAINAGE, PETROLEUM, & GAS

EB 970+00 TO EB 975+00

Contract No.: SV-430
CADD File: AP-D03-UP103
Drawing No: UP103 Rev.
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Page No. 64 of 199

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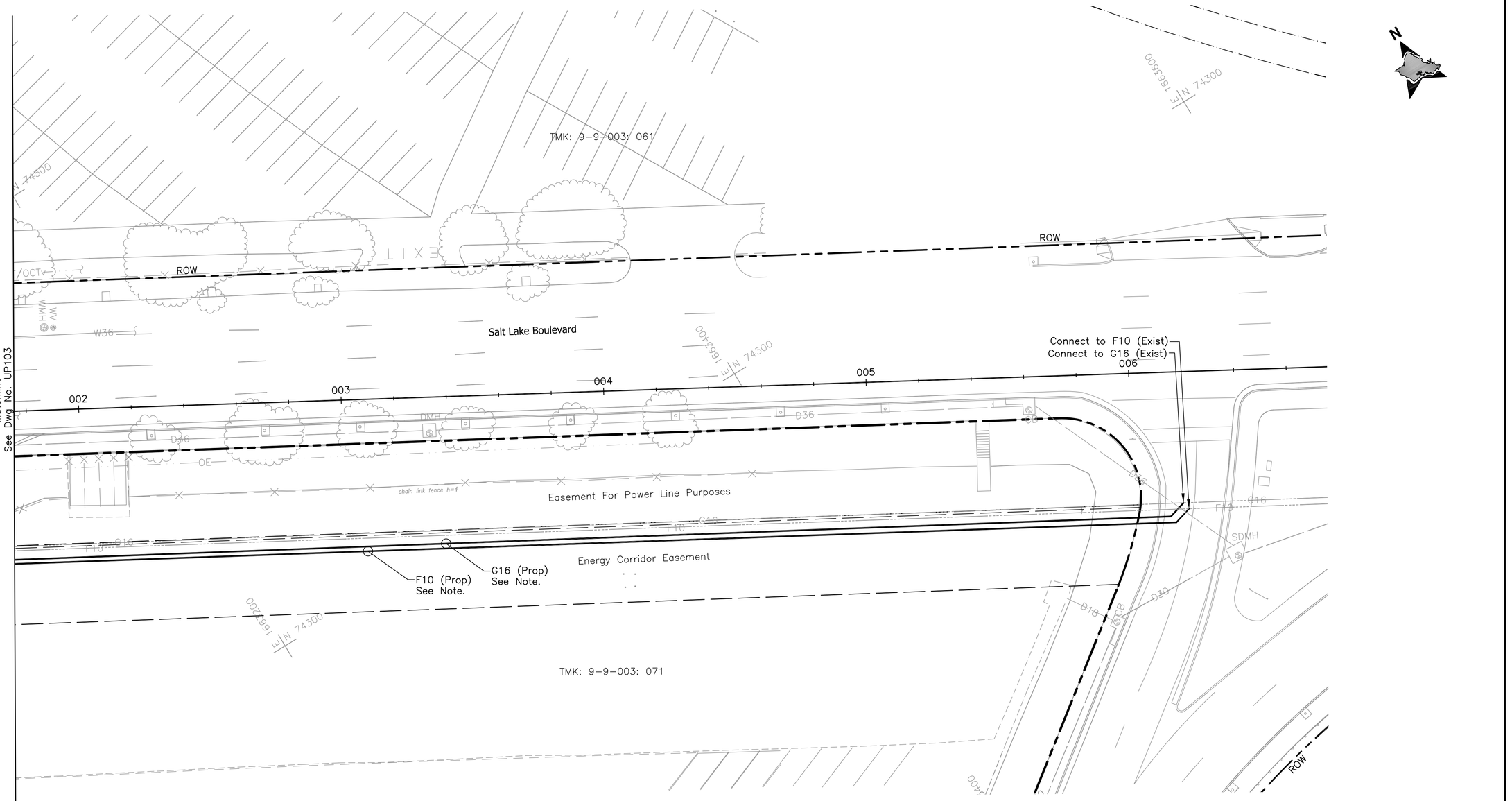

NOTE:

Final Designer to coordinate depth of relocation with Aloha Stadium Station. Final Designer to provide a minimum 3' cover based on proposed grade.

20' 0 20'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 11-30-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: R. M. TOWILL CORPORATION
Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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AIRPORT GUIDEWAY & UTILITIES

UTILITY RELOCATION PLAN
WATER, SEWER, DRAINAGE, PETROLEUM, & GAS

Contract No.: SV-430
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Page No. 65 of 199

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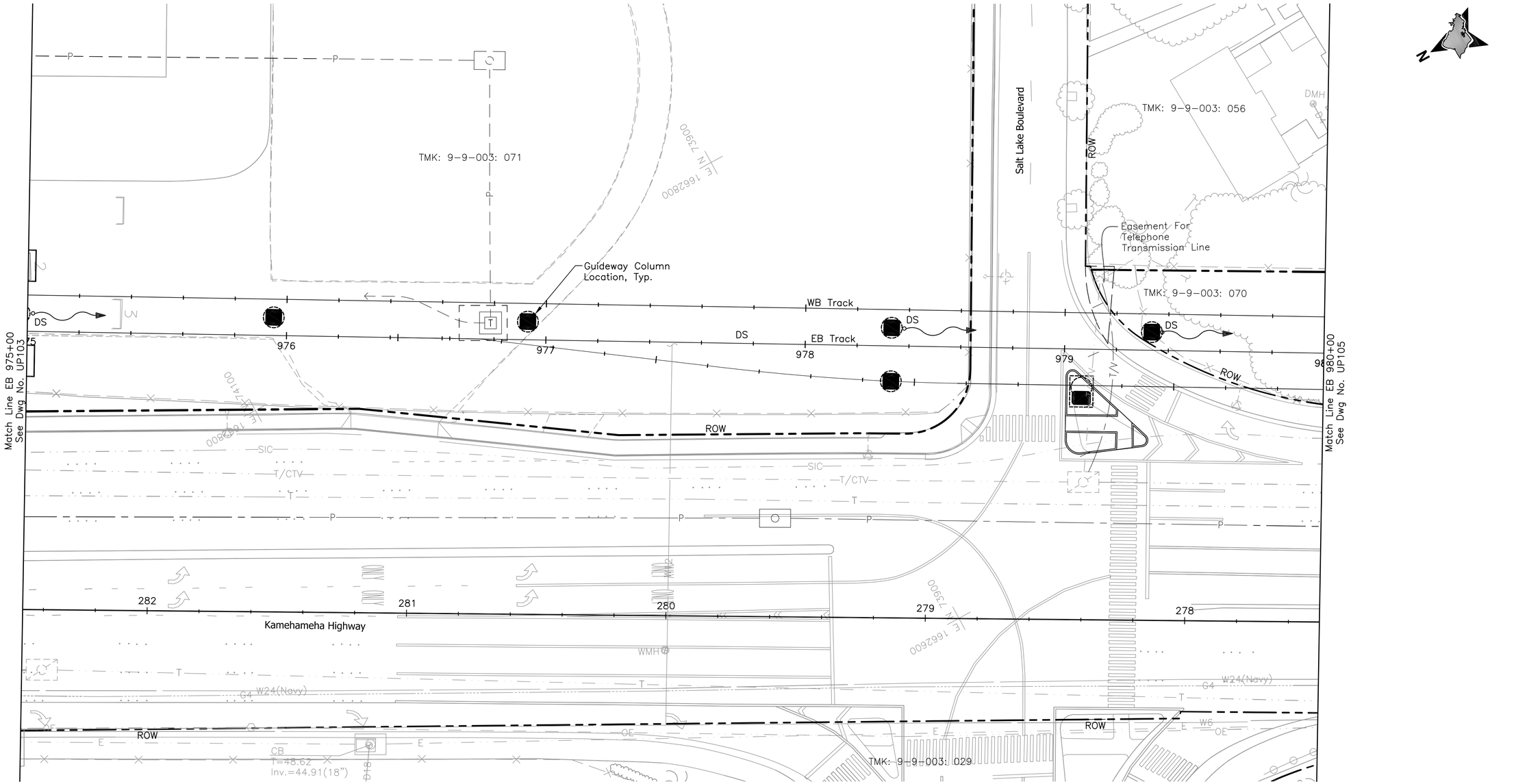

20' 0 20'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 11-30-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: R. M. TOWILL CORPORATION
Planning – Engineering – Environmental Services – Photogrammetry – Surveying – Construction Management
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AIRPORT GUIDEWAY & UTILITIES

UTILITY RELOCATION PLAN WATER, SEWER, DRAINAGE, PETROLEUM, & GAS

EB 975+00 TO EB 980+00

Contract No.: SV-430
CADD File: AP-D03-UP104
Drawing No.: UP104 Rev.:
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Page No.: 66 of 199

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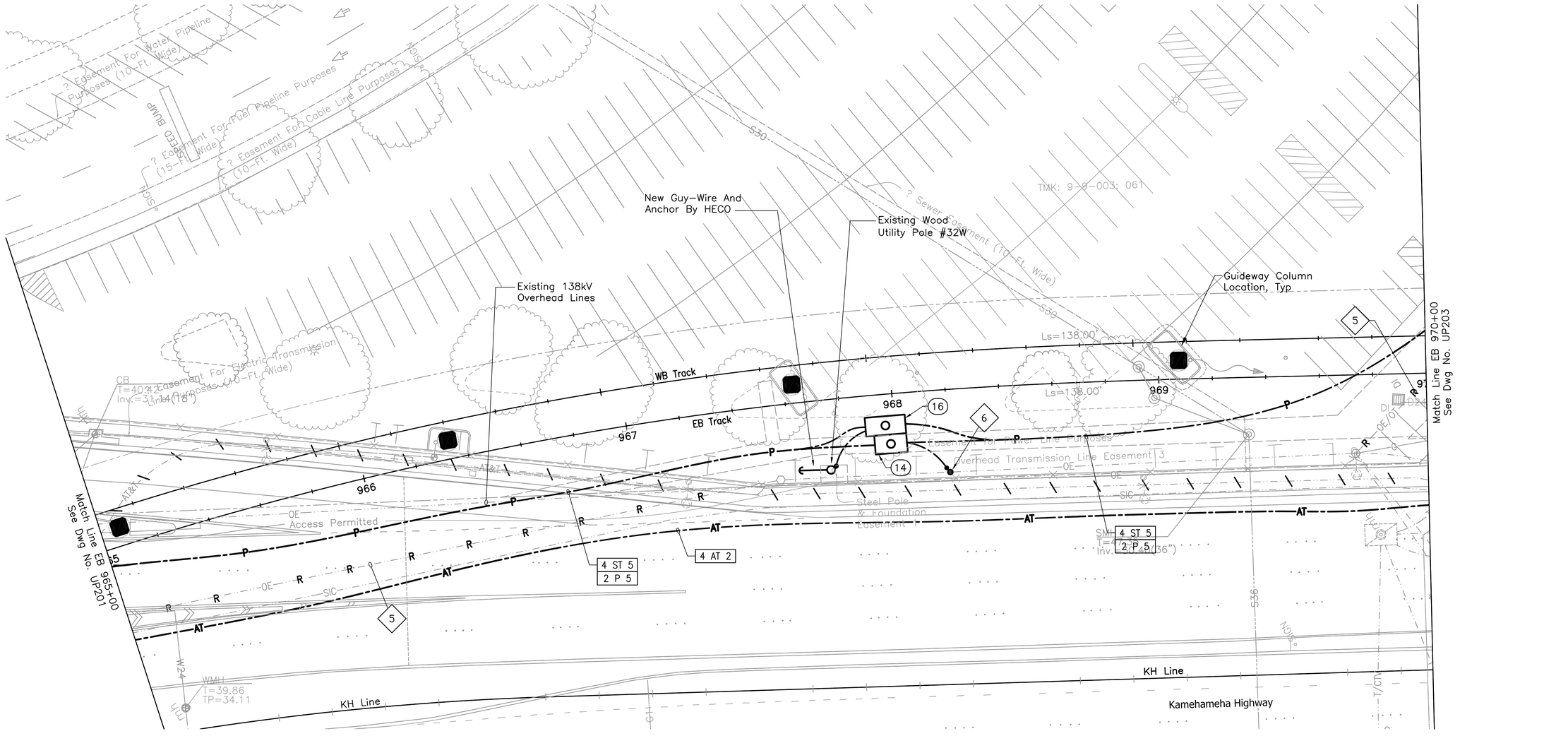

NOTES:

5 HECO will remove 46kV and 12kV overhead lines.

6 New riser utility pole by HECO.

NOTE:

Sandwich Isles Communications (SIC) line is a proposed future communication utility project by others and shown for informational purposes only.

20' 0 20'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: T Higa
Drawn: I Pascua
Checked: L Nishimura
Approved: L Nishimura
Date: 11-30-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: ECS, INC. 615 PIIKOI ST., SUITE 207 HONOLULU, HI 96814

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AIRPORT GUIDEWAY & UTILITIES

UTILITY RELOCATION PLAN ELECTRICAL & COMMUNICATIONS

EB 965+00 TO EB 970+00

Contract No.: SV-430
CADD File: AP-D03-UP202
Drawing No.: UP202 Rev.
Scale: 1"=20'
Page No. 125 of 199

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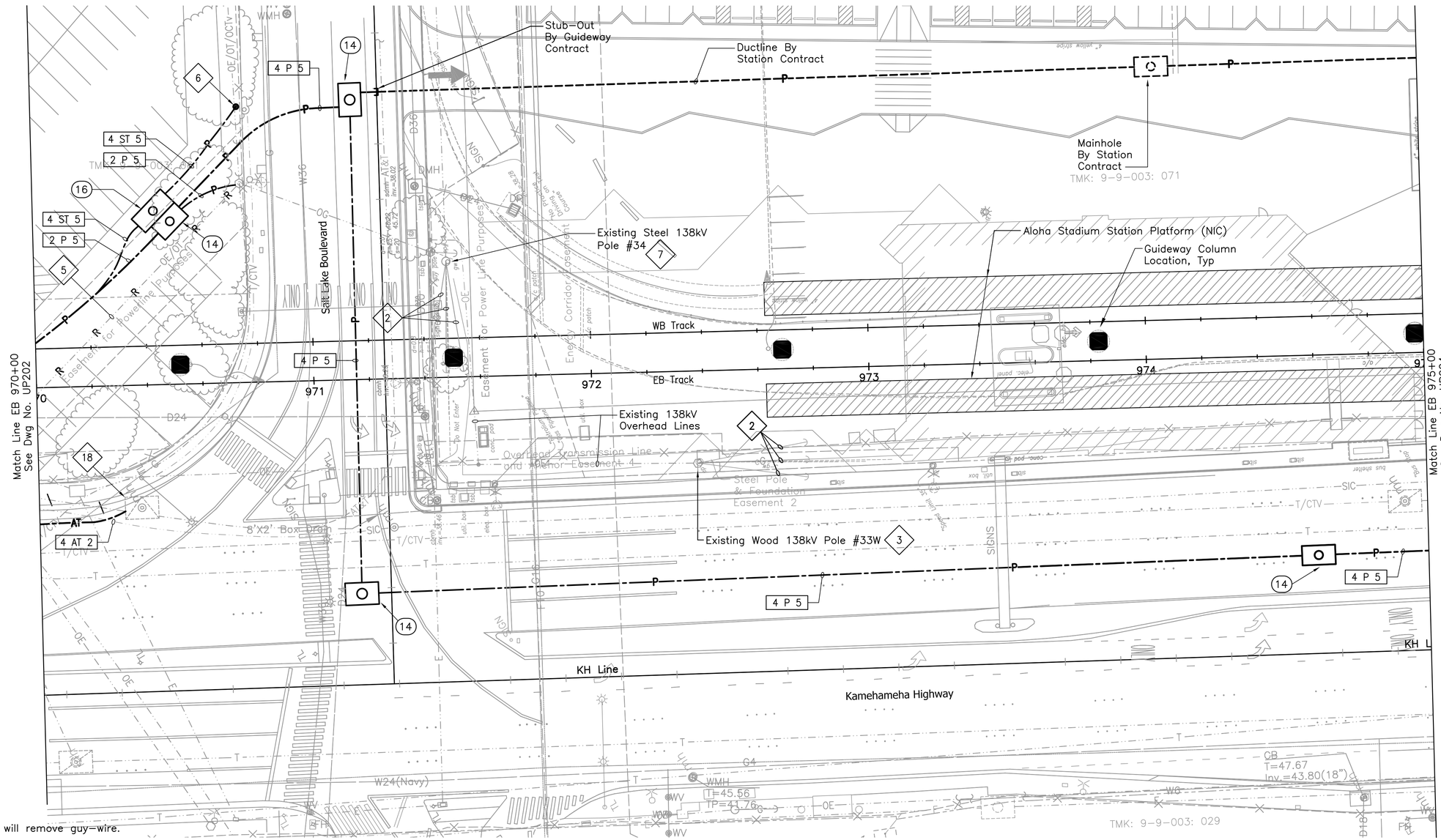

NOTES:

2. HECO will remove guy-wire.
3. HECO will replace wood pole with self-sustaining pole.
5. HECO will remove 46kV and 12kV overhead lines.
6. New riser utility pole by HECO.
7. HECO will replace steel pole with self-sustaining pole.
18. Penetrate and patch existing AT&T manhole.

NOTE:

Sandwich Isles Communications (SIC) line is a proposed future communication utility project by others and shown for informational purposes only.

20' 0 20'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: T Higa
Drawn: I Pascua
Checked: L Nishimura
Approved: L Nishimura
Date: 11-30-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: ECS, INC. 615 PIIKOI ST., SUITE 207 HONOLULU, HI 96814

For reduced prints, original page size in inches: 0 1 2 3 4

AIRPORT GUIDEWAY & UTILITIES

UTILITY RELOCATION PLAN ELECTRICAL & COMMUNICATIONS

EB 970+00 TO EB 975+00

Contract No.: SV-430
CADD File: AP-D03-UP203
Drawing No.: UP203 Rev.
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Page No.: 126 of 199

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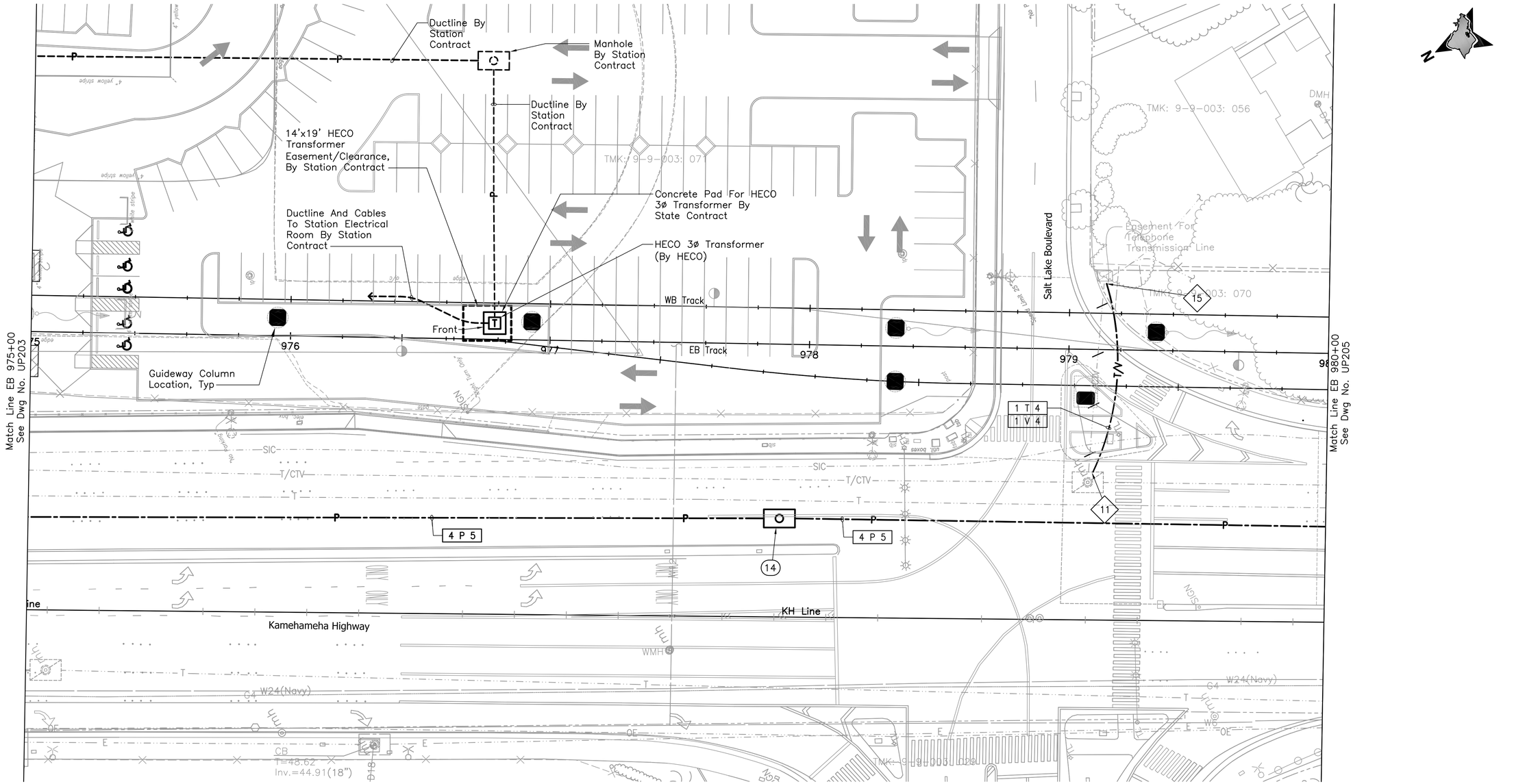

NOTES:

(11) Penetrate and patch existing HT manhole.

(15) Penetrate and patch existing HT handhole.

NOTE:

Sandwich Isles Communications (SIC) line is a proposed future communication utility project by others and shown for informational purposes only.

20' 0 20'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: T Higa
Drawn: I Pascua
Checked: L Nishimura
Approved: L Nishimura
Date: 11-30-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: ECS, INC.
615 PIIKOI ST., SUITE 207
HONOLULU, HI 96814

For reduced prints, original page size in inches: 0 1 2 3 4

AIRPORT GUIDEWAY & UTILITIES

UTILITY RELOCATION PLAN ELECTRICAL & COMMUNICATIONS

EB 975+00 TO EB 980+00

Contract No.: SV-430
CADD File: AP-D03-UP204
Drawing No.: UP204 Rev.
Scale: 1"=20'
Page No. 127 of 199

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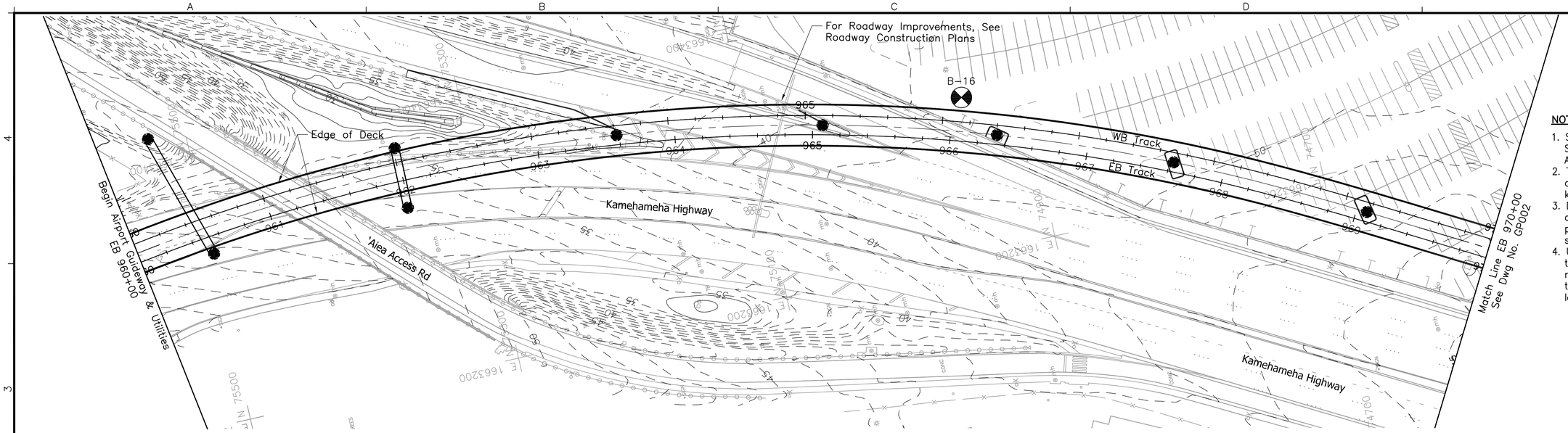

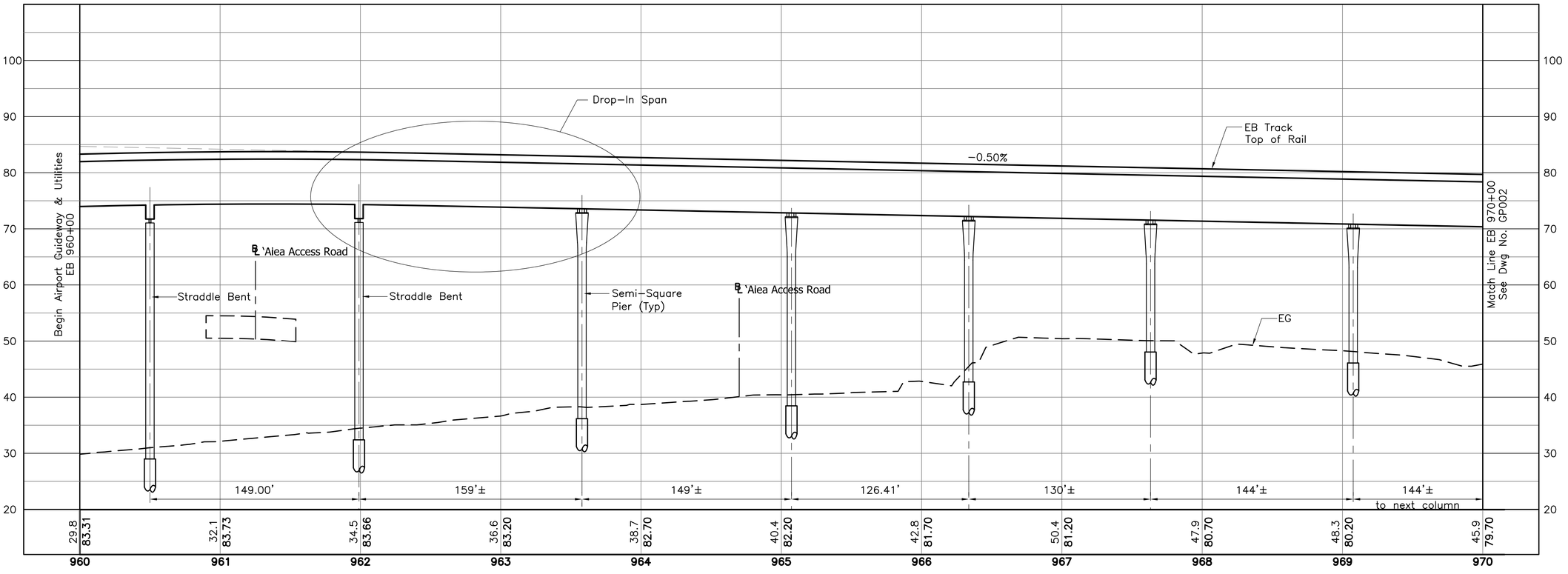

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: D Yavorsky
Drawn: T Cochran
Checked: T Kimura
Approved: A Borst
Date: 11-30-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

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AIRPORT GUIDEWAY & UTILITIES

STRUCTURAL PLAN AND PROFILE

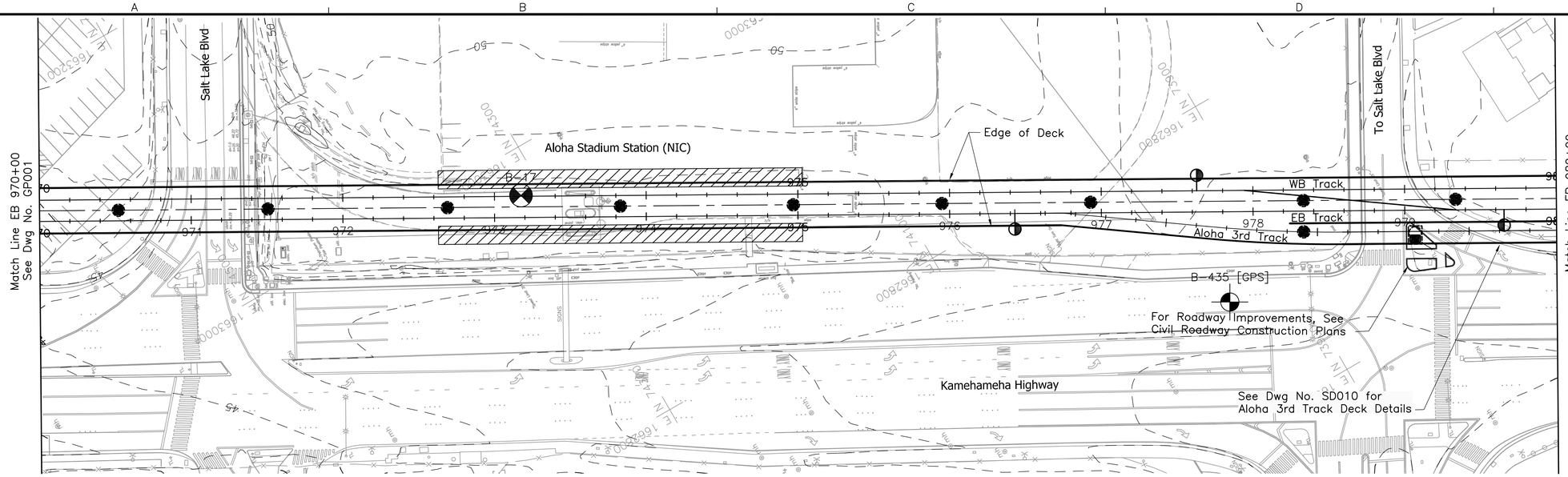
EB 960+00 TO EB 970+00

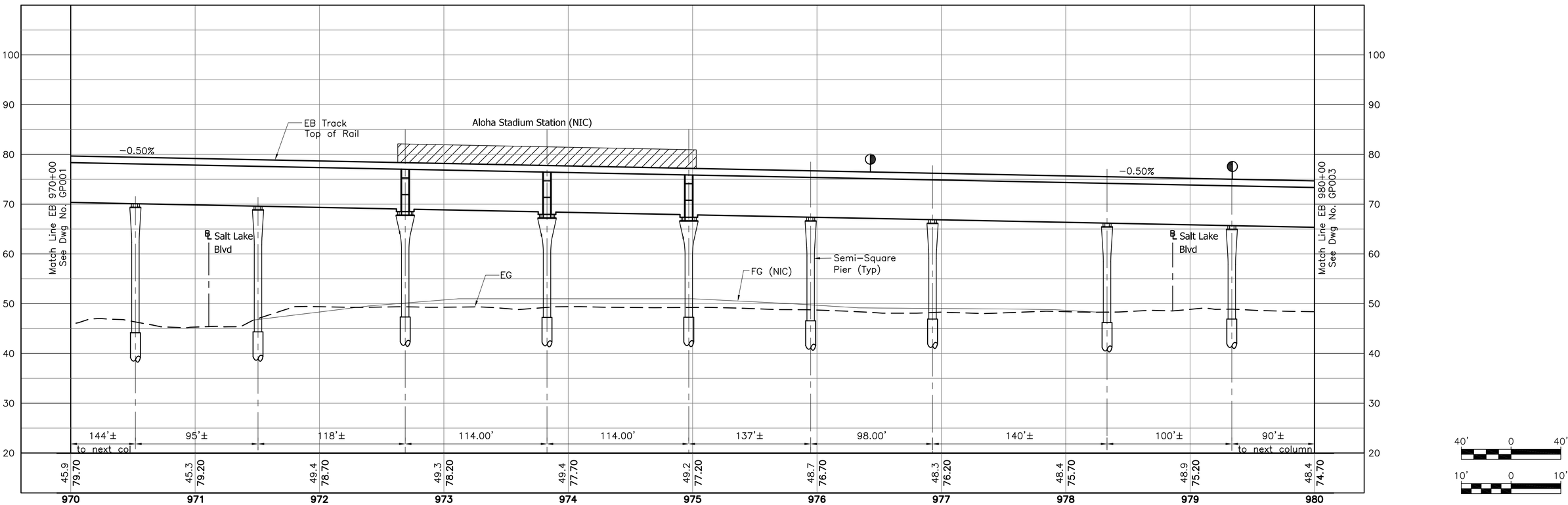
Contract No.: SV-430
CADD File: AP-G04-GP001
Drawing No.: GP001 Rev.:
Scale: 1"=40' H, 1"=10' V
Page No.: 24 of 186

2009-11-23 8:32 AM K:\CADD\08 Structural\Segment J_Airport\AP-G04-GP001.dwg

NOTES:

1. See Dwg Nos. SG001 and SG002 for Structural General Notes, Symbols and Abbreviations.
2. The Structural Facilities information on the drawings represents current knowledge without guarantee of accuracy.
3. Drawings shall not be scaled. Facilities dimensions, elevations, and relationship to project stationing are approximate and shall be verified by the Designer.
4. Unless shown otherwise on the drawings, the semi-square columns, if used, shall not be less than 6-foot by 6-foot, and the associated drilled shafts shall not be less than 8-foot in diameter.





NOTES:

1. See Dwg Nos. SG001 and SG002 for Structural General Notes, Symbols and Abbreviations.
2. The Structural Facilities information on the drawings represents current knowledge without guarantee of accuracy.
3. Drawings shall not be scaled. Facilities dimensions, elevations, and relationship to project stationing are approximate and shall be verified by the Designer.
4. Unless shown otherwise on the drawings, the semi−square columns, if used, shall not be less than 6−foot by 6−foot, and the associated drilled shafts shall not be less than 8−foot in diameter.
5. For clarity, Aloha 3rd Track girder and columns not shown in profile. See plan (this sheet) and Drawing Nos. SD009 and SD010 for locations and details.

40' 0 40'

10' 0 10'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: D Yavorsky
Drawn: T Cochran
Checked: T Kimura
Approved: A Borst
Date: 11−30−09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 − Honolulu, HI 96813

Subconsultant:

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AIRPORT GUIDEWAY & UTILITIES

STRUCTURAL
PLAN AND PROFILE

EB 970+00 TO EB 980+00

Contract No.: SV−430
CADD File: AP−G04−GP002
Drawing No.: GP002 Rev.
Scale: 1"=40' H, 1"=10' V
Page No.: 25 of 186

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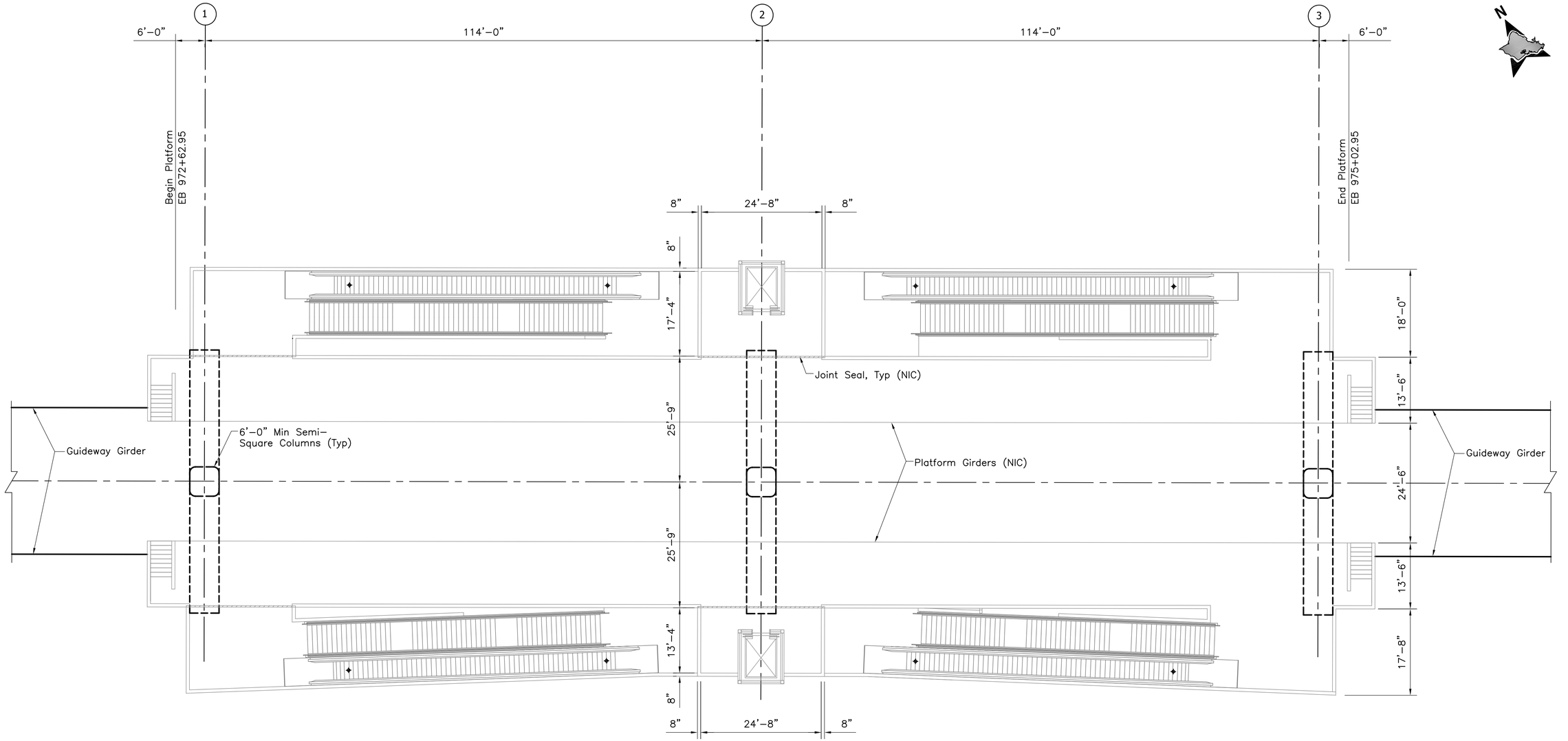

NOTES:

1. Fade out lines indicate work that is not in the Contract.
2. The configuration shown relative to NIC work and site condition is under development and subject to change.
3. Dimensions defining clearances, heights and widths of the proposed guideway trackways, and those to existing or proposed roadways and other City and County of Honolulu facilities shall not be revised without the approval of the City and County of Honolulu, Department of Transportation Services, Rapid Transit Division (RTD). Dimensions and clearances for future station structural elements, station equipment, and passenger headroom and horizontal clearance shall not be revised without the approval of RTD.
4. See Aloha Stadium Station drawings for additional information.

2' 0 2' 4' 8' 12' 20'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: D Yavorsky
Drawn: T Cochran
Checked: T Kimura
Approved: A Borst
Date: 11–30–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

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AIRPORT GUIDEWAY & UTILITIES

ALOHA STADIUM STATION PLATFORM LEVEL PLAN

Contract No.: SV–430
CADD File: AP–G05–FP001
Drawing No.: FP001 Rev.
Scale: 3/32"=1'–0"
Page No. 53 of 186

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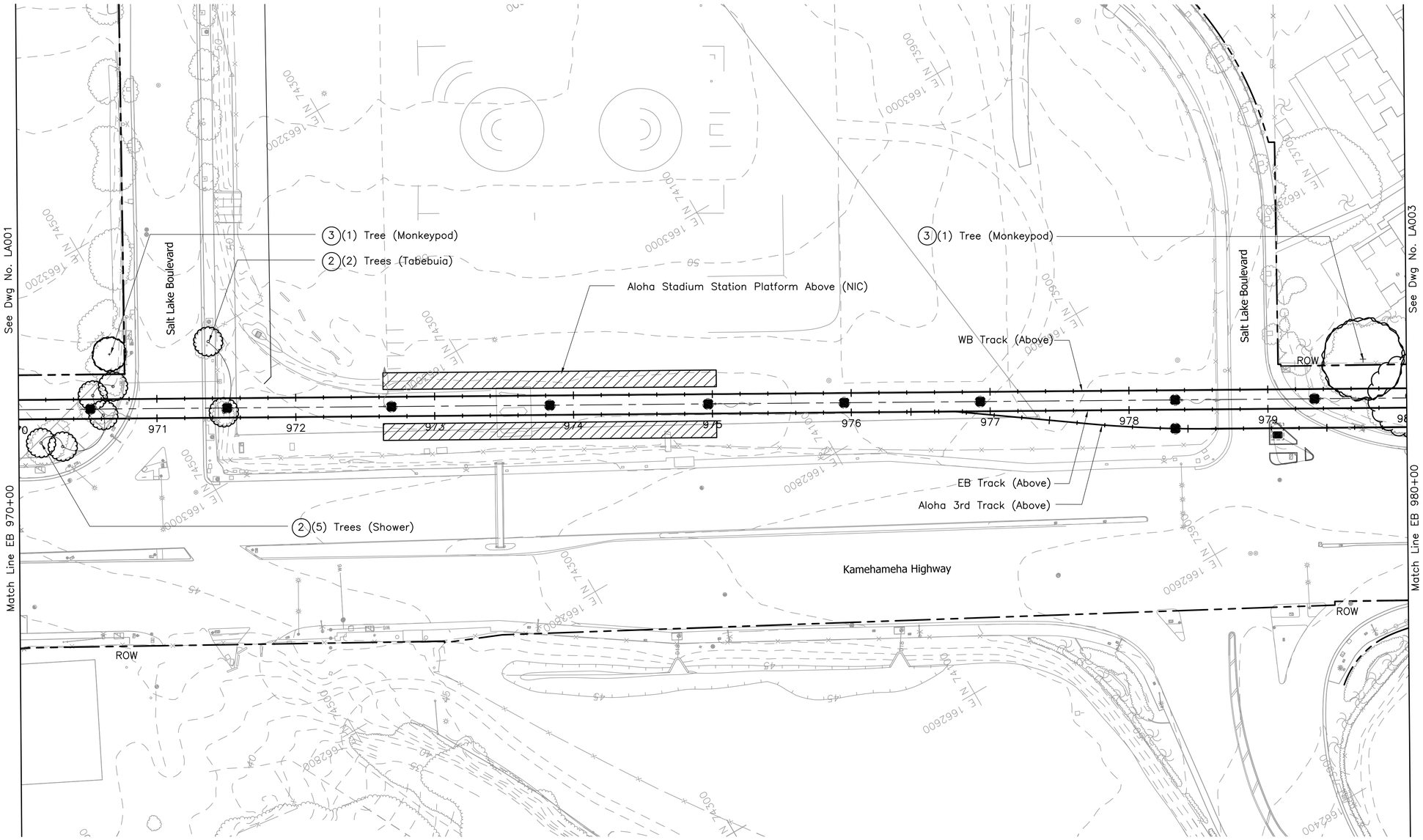

NOTE:

1. See Dwg No. LG001 for General Notes, Symbols and Abbreviations.

2. See Roadway construction plan sheets for proposed roadway construction.

3. Tree species information are shown for reference only and shall be field verified by certified arborist prior to proceeding with demolition.

LEGEND:

Existing trees

CONSTRUCTION NOTES:

(2) Remove tree or palm including grinding stump 18" below finish grade.

(3) Protect tree or palm in place. (See Detail 1–LA201). Prune per Arborists instructions.

40' 0 40'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed:	K Fishman
Drawn:	K Fishman
Checked:	R Higa
Approved:	R S Duncan
Date:	11–30–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: Land Planning, Landscape Architecture, Environmental Studies, Graphic Design
1001 Bishop Street, Suite 650 Honolulu, HI 96813
PBR HAWAII & ASSOCIATES, INC.

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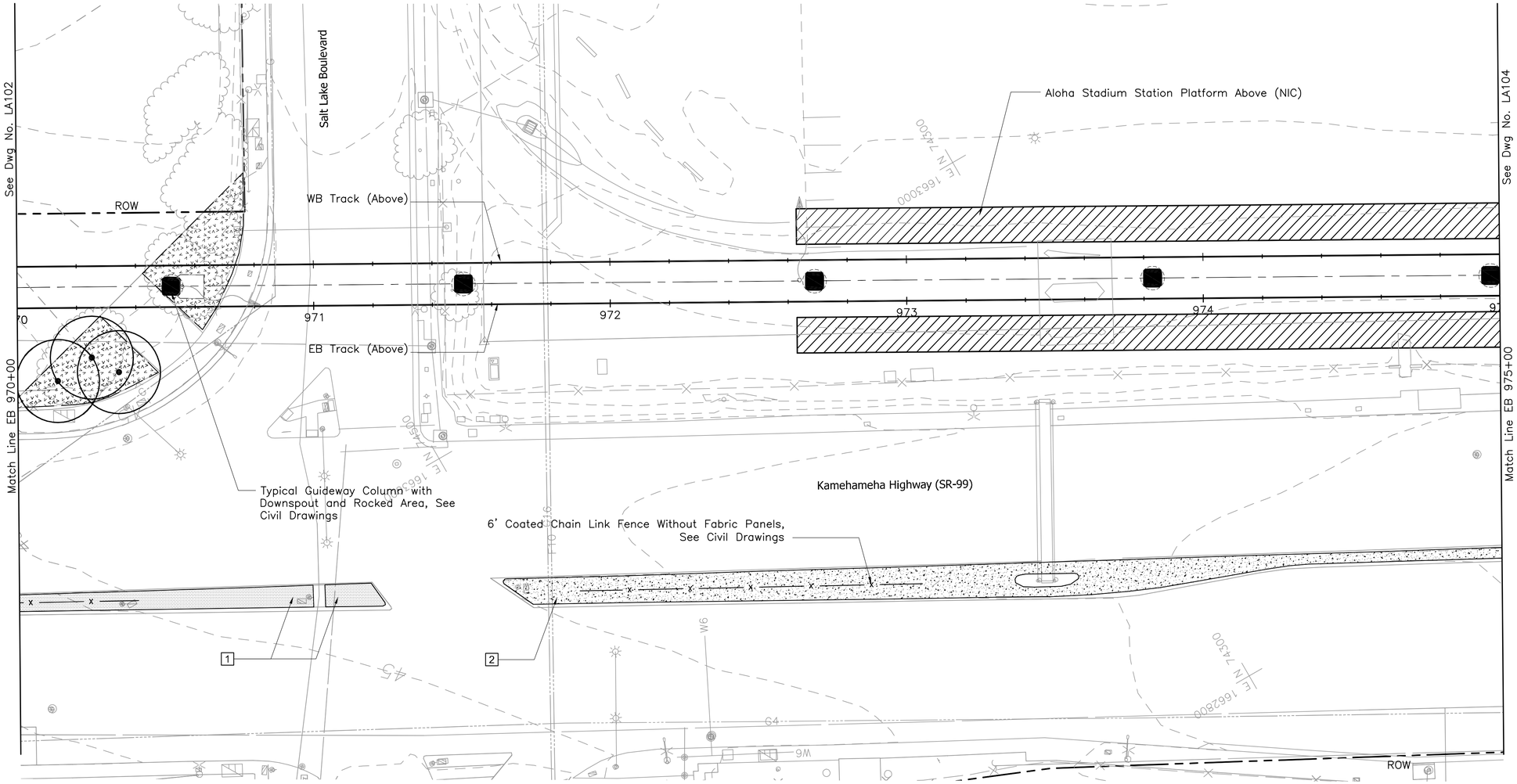
AIRPORT GUIDEWAY AND UTILITIES

LANDSCAPE DEMOLITION PLAN

EB 970+00 TO EB 980+00

Contract No.:	SV–430
CADD File:	AP–J02–LA002
Drawing No.:	LA002
Rev.	
Scale:	1"=40'
Page No.	88 of 186



NOTES:

1. See Dwg No. LG001 for General Notes, Symbols and Abbreviations.
2. See Roadway construction plan sheets for proposed roadway construction

PLANT SCHEDULE LA103

RELOCATED TREE	BOTANICAL/COMMON
•	Relocated Tree Medium / Relocated Tree

SHRUB AREAS	BOTANICAL/COMMON
	Pittosporum tobira 'Wheelers Dwarf' / Wheeler's Dwarf Pittosporum

REFERENCE NOTES SCHEDULE LA103

SYMBOL	DESCRIPTION
1	Decorative Concrete Paving Equivalent to L.M. Scofield Company's: Chromix Admixture Porcelain Gray 3987; Lithotex Pavecrafters Sculptured Granite Pattern; Lithocrome Antiquing Release Mohagany Red 2775; Cementone Clear Sealer
2	Decorative Concrete Paving Equivalent to L.M. Scofield Company's: Chromix Admixture Porcelain Gray 3987; Lithotex Pavecrafters Sculptured Granite Pattern; Lithocrome Antiquing Release Blue Smoke 1138–S; Cementone Clear Sealer

20' 0 20'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: K Fishman
Drawn: M McMillen
Checked: M Shimatsu
Approved: R S Duncan
Date: 11–30–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

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AIRPORT GUIDEWAY AND UTILITIES

LANDSCAPE PAVING AND PLANTING PLAN

EB 970+00 TO EB 975+00

Contract No.: SV–430
CADD File: AP–J04–LA103
Drawing No.: LA103 Rev.
Scale: 1"=20'
Page No. 118 of 186

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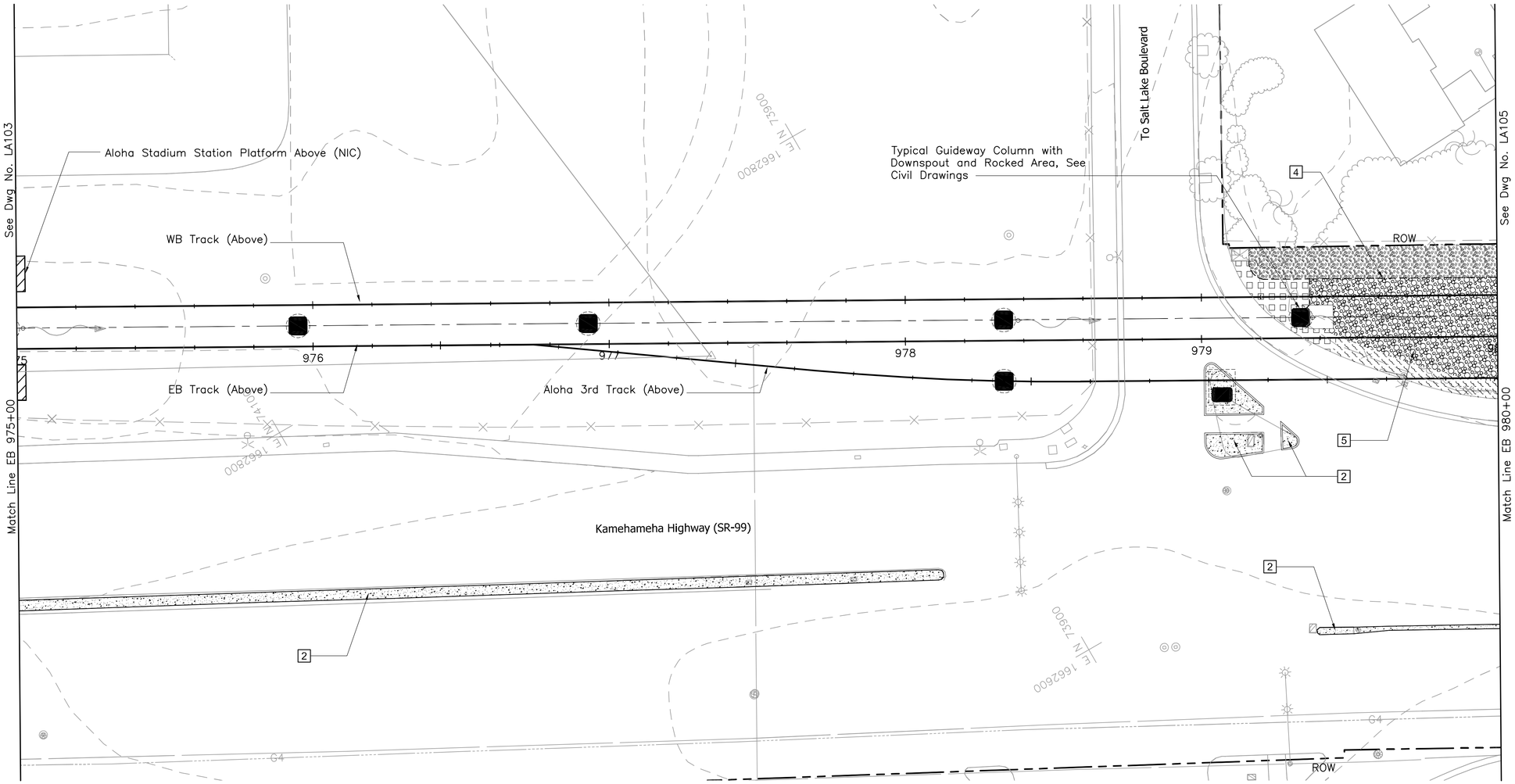

PLANT SCHEDULE LA104

GROUND COVERS	BOTANICAL/COMMON
	Myoporum sandwicense 'Papa' / Naio Papa
	Syngonium auritum / Five Fingers Syngonium
	Vitex rotundifolia / Pohinahina

REFERENCE NOTES SCHEDULE LA104

SYMBOL	DESCRIPTION
2	Decorative Concrete Paving Equivalent to L.M. Scofield Company's: Chromix Admixture Porcelain Gray 3987; Lithotex Pavecrafters Sculptured Granite Pattern; Lithocrome Antiquing Release Blue Smoke 1138–S; Cementone Clear Sealer
4	Recycled Composite Header Equivalent to: Epic Plastics Epic Edge
5	Gravel Mulch: 3in Layer Crushed Gravel Over Landscape Weed Barrier Fabric

NOTES:

1. See Dwg No. LG001 for General Notes, Symbols and Abbreviations.
2. See Roadway construction plan sheets for proposed roadway construction

20' 0 20'

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: K Fishman
Drawn: M McMillen
Checked: M Shimatsu
Approved: R S Duncan
Date: 11–30–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant: Land Planning, Landscape Architecture, Environmental Studies, Graphic Design
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PBR HAWAII & ASSOCIATES, INC.

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AIRPORT GUIDEWAY AND UTILITIES

LANDSCAPE PAVING AND PLANTING PLAN

EB 975+00 TO EB 980+00

Contract No.: SV–430
CADD File: AP–J04–LA104
Drawing No.: LA104 Rev.
Scale: 1"=20'
Page No. 119 of 186

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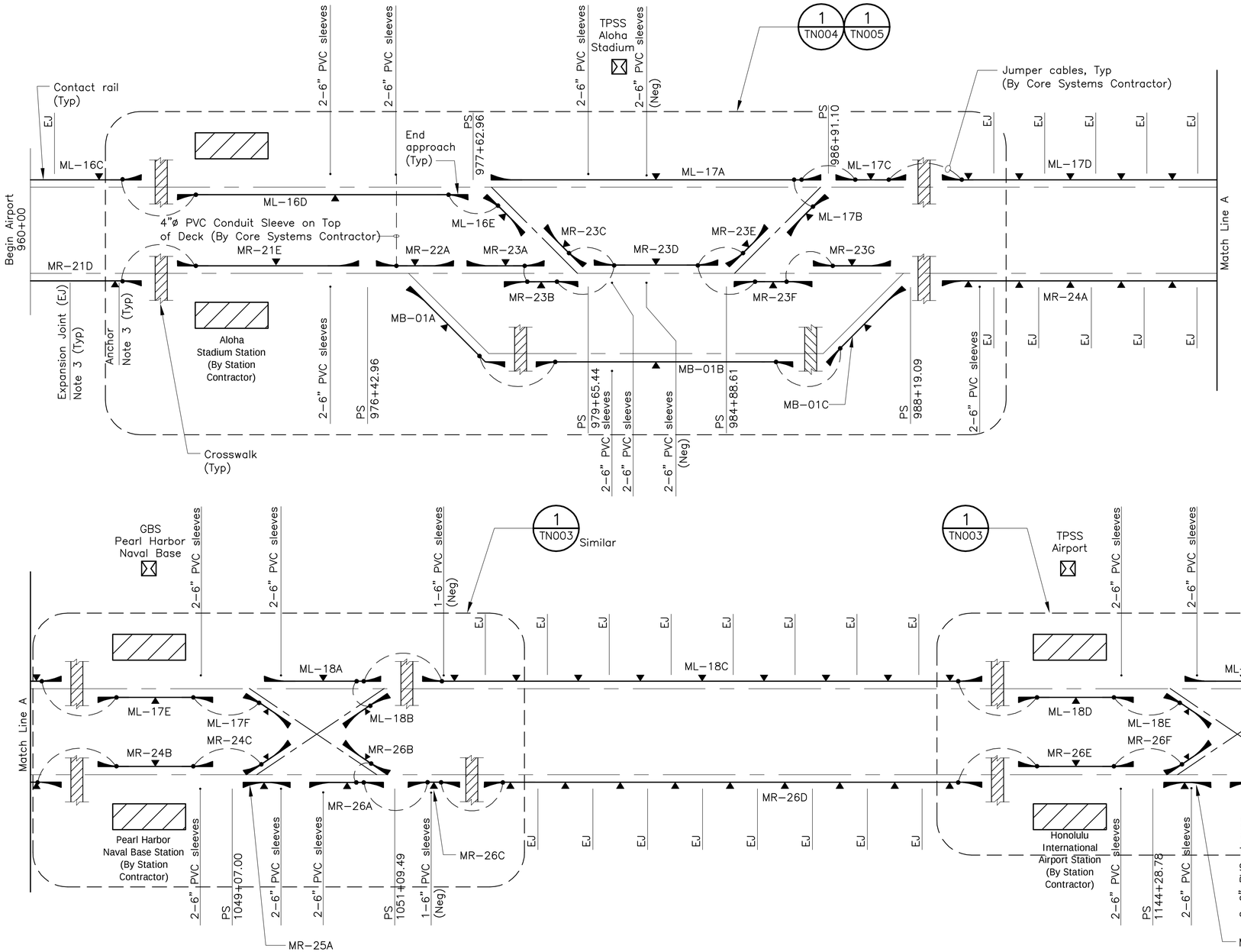

NOTES

1. Contractor shall develop and submit final design of the contact rail layout, including conduit sleeves locations, and breaks in the rail plinths for continuity jumpers and negative return cable connections.
2. Refer to drawings DD–N06–TD001 and DD–N06–TD002 for raceway installation details.
3. Contractor shall determine the precise location of contact rail anchors and expansion joints (EJ).

LEGEND:

MR–21D, ML–16C, MB–01A

M – Mainline contact rail section

R or L – Right or Left
(facing direction of increasing stationing)

B – Bypass

21, 16, 01 – Electrical section number

D, C, A – Physical contact rail segment

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: J Sun
Drawn: O Kurnovskaya
Checked: A Patel
Approved: S Stoilov
Date: 11–30–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

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AIRPORT GUIDEWAY & UTILITIES

CONTACT RAIL INSTALLATION
CONTACT RAIL SCHEMATIC LAYOUT

SHEET 1 OF 2

Contract No.: SV–430
CADD File: AP–N06–TN001
Drawing No.: TN001 Rev.:
Scale: NTS
Page No.: 180 of 186

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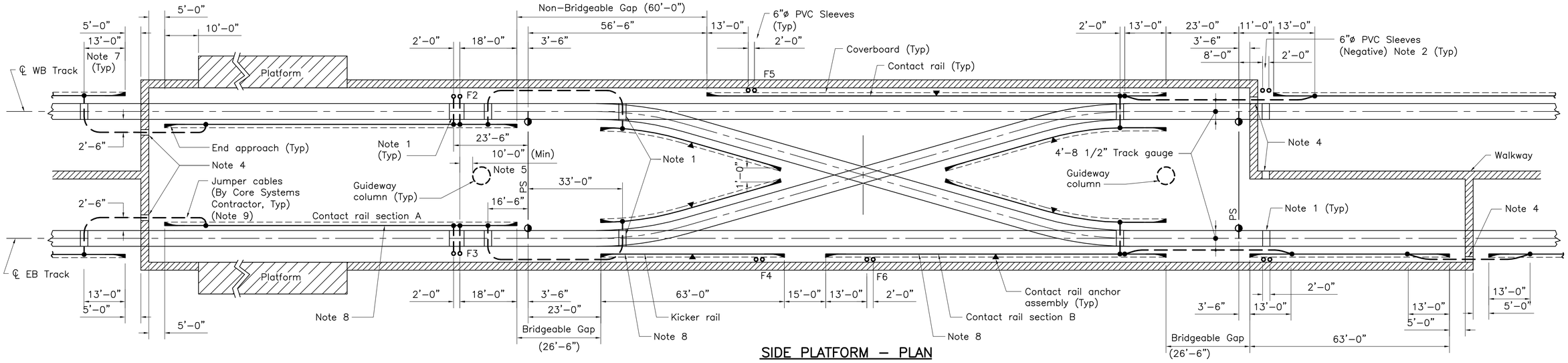

SIDE PLATFORM – PLAN

DETAIL 1 / NTS / TN003 / TN001 TN002

TABLE 1		
Sleeves through safety Walkway for Cross Bonding		
Location (Note 6)	Conduit	Remarks
961+71	1–5"	PVC Schedule 40
981+22	1–5"	PVC Schedule 40
999+57	1–5"	PVC Schedule 40
1017+92	1–5"	PVC Schedule 40
1036+27	1–5"	PVC Schedule 40
1054+62	1–5"	PVC Schedule 40
1072+97	1–5"	PVC Schedule 40
1091+32	1–5"	PVC Schedule 40
1109+67	1–5"	PVC Schedule 40
1128+02	1–5"	PVC Schedule 40
1146+39	1–5"	PVC Schedule 40
1163+30	1–5"	PVC Schedule 40
1180+21	1–5"	PVC Schedule 40
1197+14	1–5"	PVC Schedule 40
1212+15	1–5"	PVC Schedule 40
1227+16	1–5"	PVC Schedule 40
1242+17	1–5"	PVC Schedule 40

NOTES

1. Provide break in rail plinths, (10" wide) for cable way, coordinated with required cable connections to contact rail.
2. Location of sleeves and break in plinths will vary per site, refer to drawings TN001 and TN002.
3. Locations of sleeves for conduit stub–ups as shown are approximate. Contractor to determine the exact locations, coordinated with the final contact rail layout.
4. Install 2–5"ø PVC conduit sleeves for cable way.
5. The distance from the face of the nearest guideway column to the sleeves locations shall be 10'–0" minimum.
6. Locations for cross bonding as shown are approximate. Contractor to locate sleeves in line with the running rail concrete plinth breaks nearby to allow for cross bonding of the four running rails.
7. Shown distance from end of approach ramp to jumper connection to contact rail is approximate. Contractor to determine exact distance based on the final contact rail layout.
8. Shown distance between kicker rail and contact rail section B is preliminary. Contractor to determine exact distance in coordination with the vehicle shoe spacing so that a multi–car train does not form electrical bridge between contact rail section A and contact rail section B when kicker rail is de–energized.
9. For contact rail jumper sizes refer to Master Single Line Diagrams TN006 and TN007.

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: J Sun
Drawn: O Kurnovskaya
Checked: A Patel
Approved: S Stoilov
Date: 11–30–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

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AIRPORT GUIDEWAY & UTILITIES

CONTACT RAIL INSTALLATION
TYPICAL CONTACT RAIL LAYOUT
AT CROSSOVERS

Contract No.: SV–430
CADD File: AP–N06–TN003
Drawing No.: TN003 Rev.:
Scale: NTS
Page No.: 182 of 186

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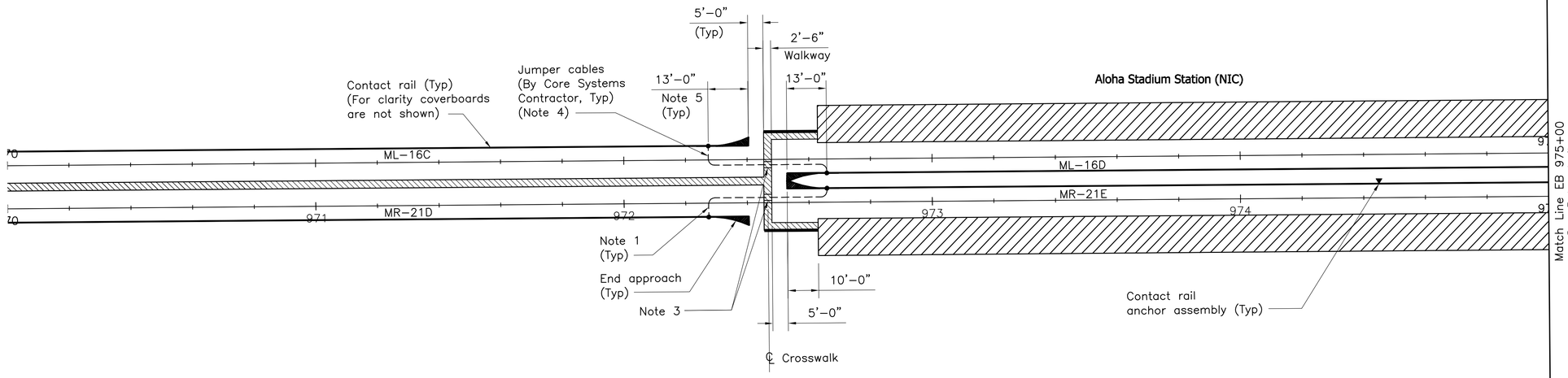

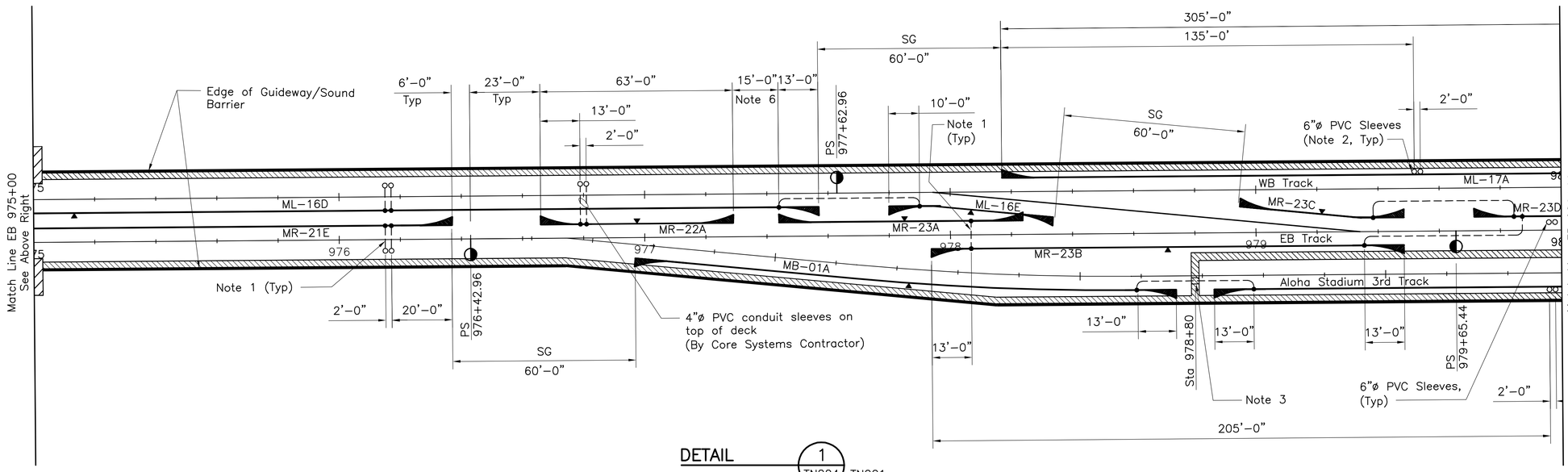

DETAIL 1 / TN004 TN001

20' 0 20'

NOTES

1. Provide break in rail plinths, (10" wide) for cable way, coordinated with required cable connections to contact rail.
2. Locations of sleeves for conduit stub–ups as shown are approximate. Contractor to determine the exact locations, coordinated with the final contact rail layout.
3. Install 2–5"ø PVC conduit sleeves for cable way.
4. For contact rail jumper sizes refer to Master Single Line Diagrams TN006 and TN007.
5. Shown distance from end of approach ramp to jumper connection to contact rail is approximate. Contractor to determine exact distance based on the final contact rail layout.
6. Shown distance between contact rail sections MR–22A and MR–23A is preliminary. Contractor to determine exact distance in coordination with the vehicle shoe spacing so that a multi–car train does not form electrical bridge between MR–21E and MR–23A when MR–22A is de–energized.

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: D Maniti
Drawn: O Kurnovskaya
Checked: L Mayola
Approved: S Stoilov
Date: 11–30–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

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AIRPORT GUIDEWAY & UTILITIES

CONTACT RAIL LAYOUT AT ALOHA STADIUM STATION

SHEET 1 OF 2

Contract No.: SV–430
CADD File: AP–N06–TN004
Drawing No.: TN004 Rev.
Scale: 1"=20'
Page No.: 183 of 186

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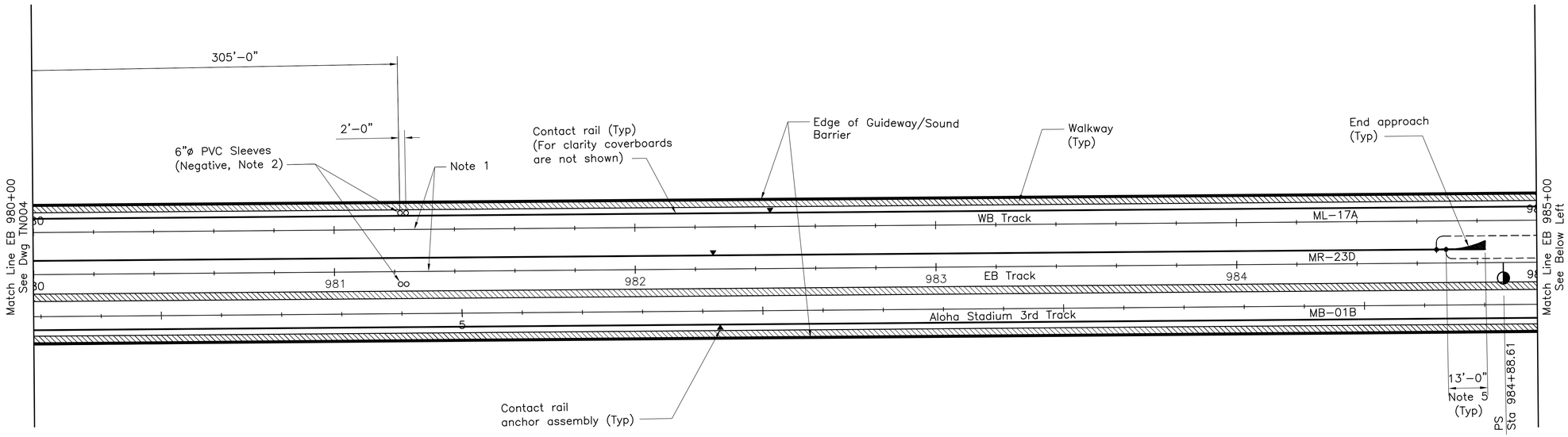

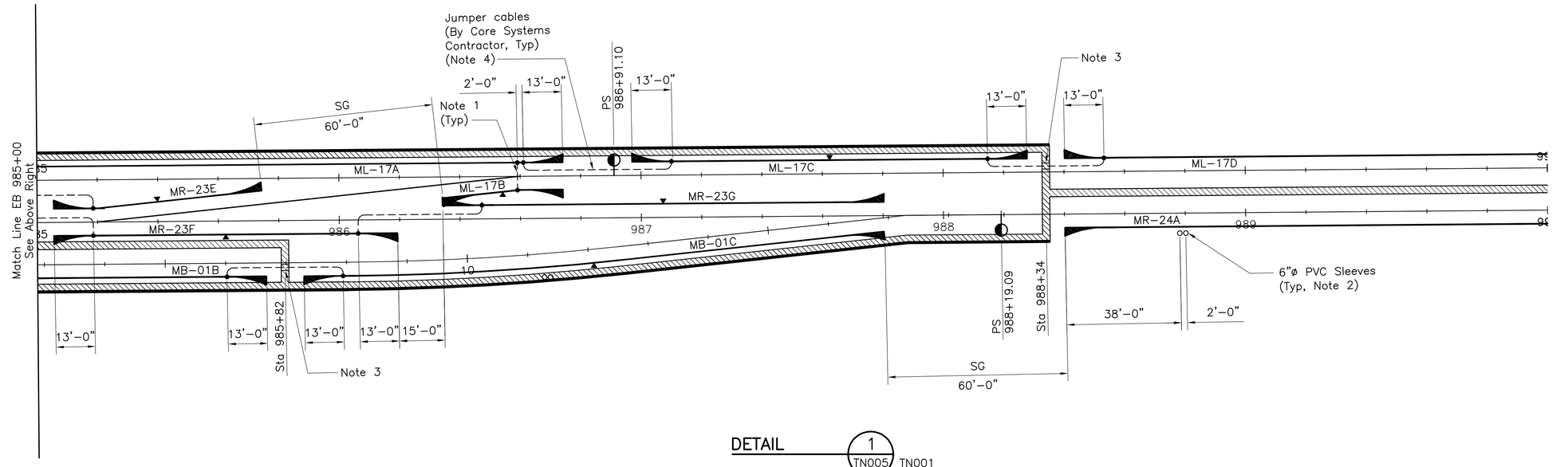

DETAIL 1 / TN005 — TN001

20' 0 20'

NOTES

1. For general notes, refer to drawing TN004.

Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: D Maniti
Drawn: O Kurnovskaya
Checked: L Mayola
Approved: S Stoilov
Date: 11-30-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

For reduced prints, original page size in inches: 0 1 2 3 4

AIRPORT GUIDEWAY & UTILITIES

CONTACT RAIL LAYOUT AT ALOHA STADIUM STATION

SHEET 2 OF 2

Contract No.: SV-430
CADD File: AP-N06-TN005
Drawing No.: TN005 Rev.:
Scale: 1"=20'
Page No.: 184 of 186

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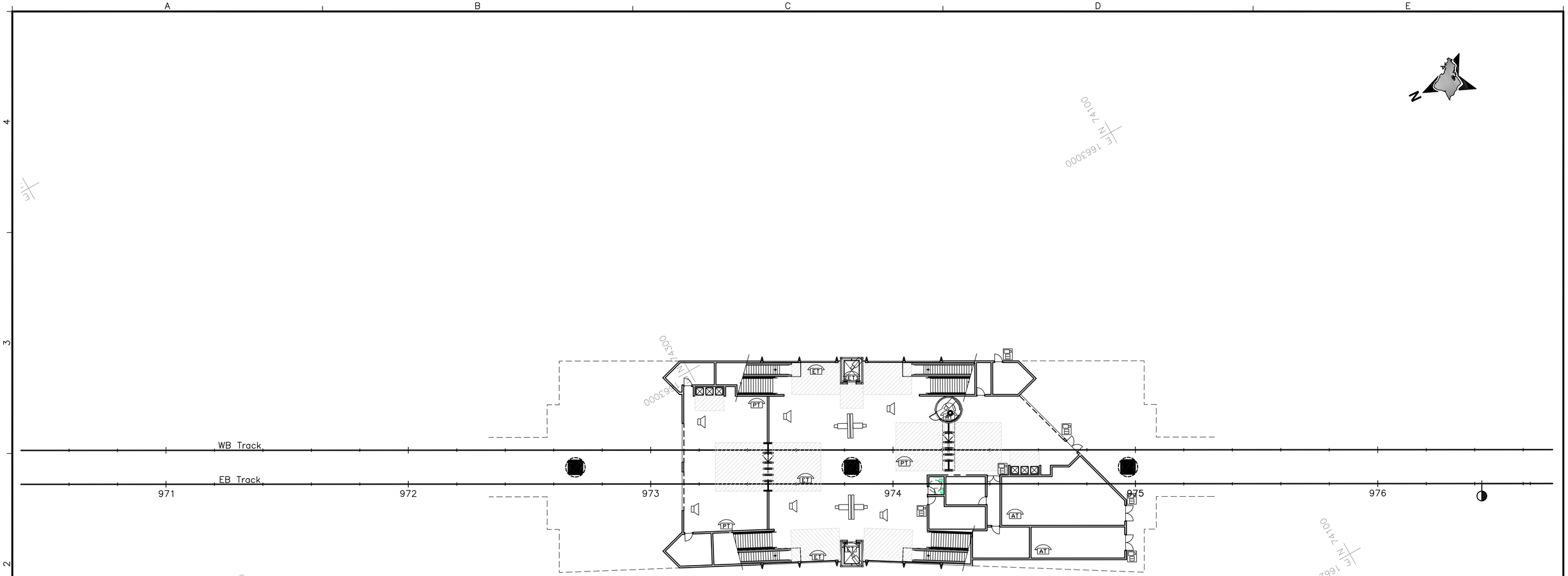

LEGEND

- BLS-ET — Blue Light Stations with Integral ETEL
- AT — Administrative Telephones
- ET — Emergency Telephones
- PT — Passenger Assistance Telephones
- Access Control Card Reader with Integral Camera
- PA Speakers
- CCTV Camera
- Message Board

20' 0 20'

Rev	By	Date	Description
A	HB	11–13–09	Issued For Addendum

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: H Bowie
Drawn: C Jamison
Checked: B Russo
Approved: H Bowie
Date: 11–13–09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PB PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

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CORE SYSTEMS

ALOHA STADIUM STATION COMMUNICATIONS PLAN

GROUND LEVEL

Contract No.: MI–920
CADD File: CS–R06–CM401
Drawing No.: CM401 Rev. A
Scale: 1" = 20'
Page No. 154 of 202

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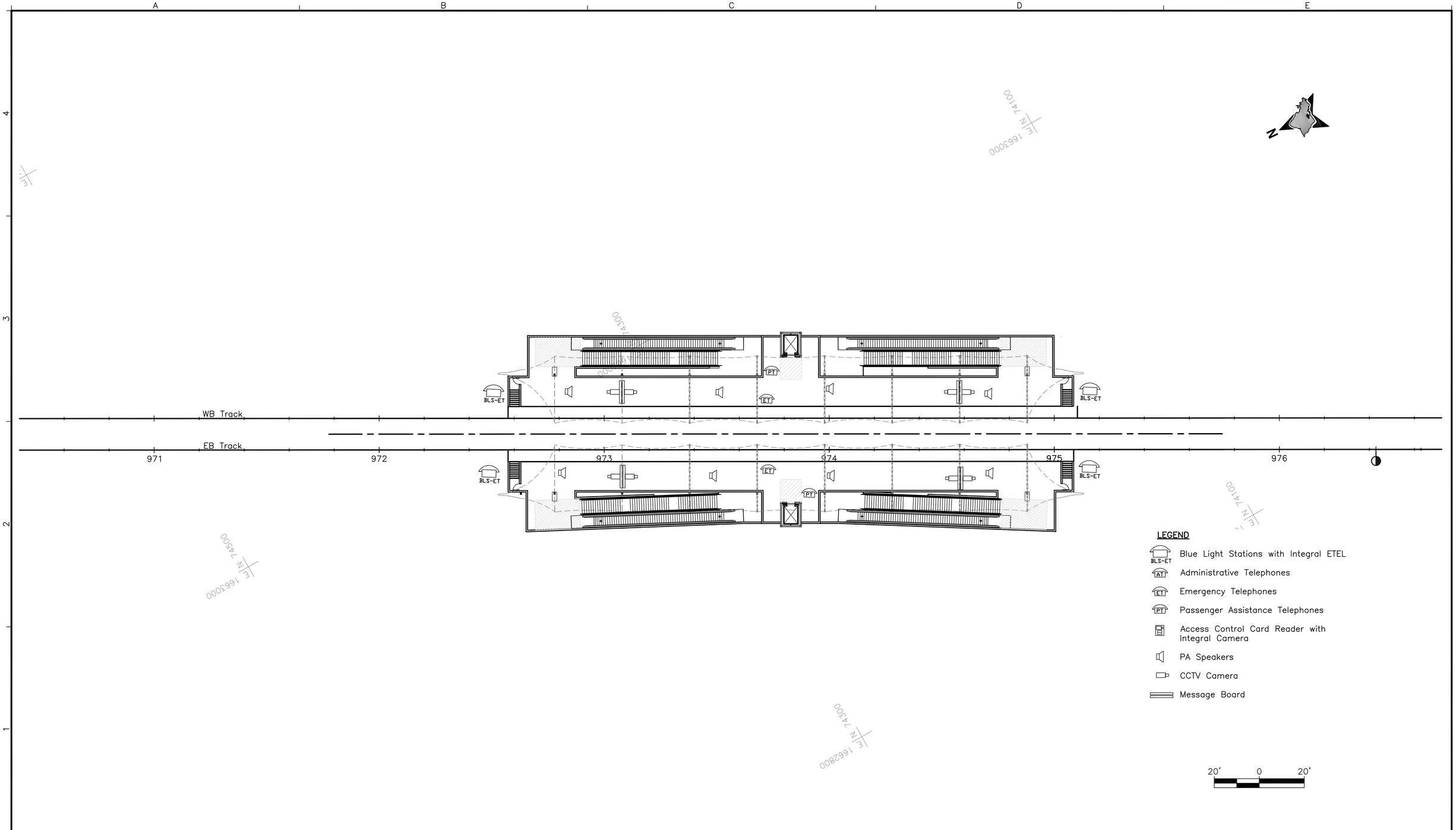

Rev	By	Date	Description
A	HB	11-13-09	Issued For Addendum

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: H Bowie
Drawn: C Jamison
Checked: B Russo
Approved: H Bowie
Date: 11-13-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

For reduced prints, original page size in inches: 0 1 2 3 4

CORE SYSTEMS

ALOHA STADIUM STATION COMMUNICATIONS PLAN

PLATFORM LEVEL

Contract No.: MI-920
CADD File: CS-R06-CM402
Drawing No: CM402
Rev. A
Scale: 1" = 20'
Page No. 155 of 202

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