



City and County of Honolulu
Department of Transportation Services
Rapid Transit Division (RTD)

AIRPORT STATIONS DESIGN
CONTRACT SV-440

LAGOON DRIVE STATION

PRELIMINARY ENGINEERING DRAWINGS

December 17, 2010

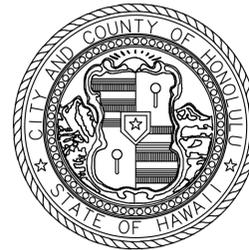
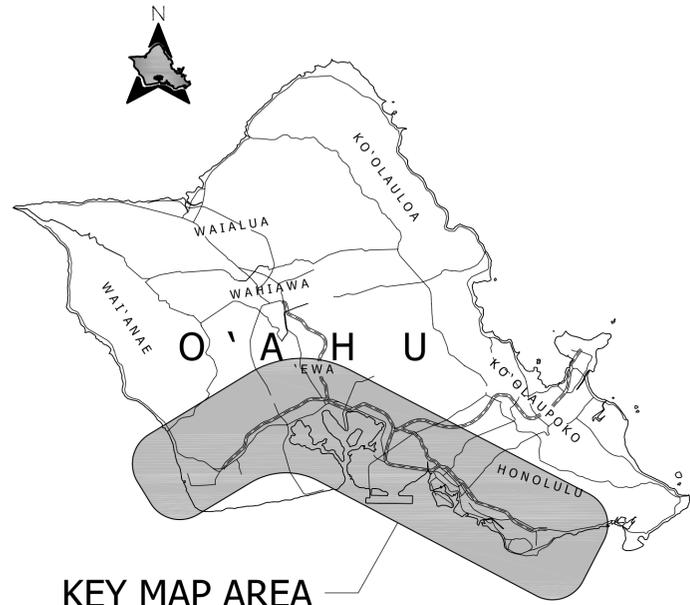
Prepared for:
HHCTCP

Prepared by:
Parsons Brinckerhoff
General Engineering Consultant (GEC)

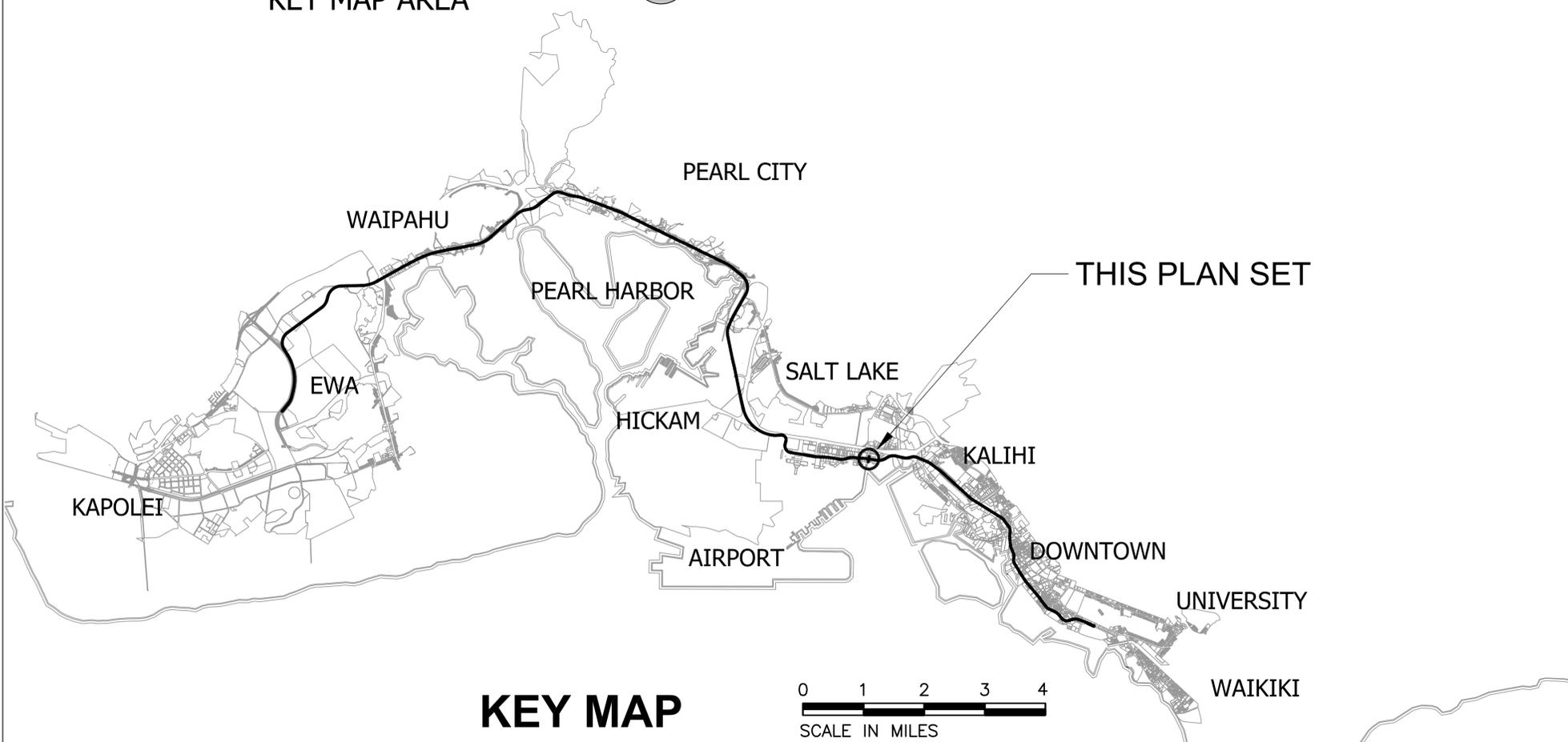
HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

LAGOON DRIVE STATION

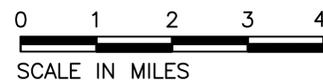
PRELIMINARY ENGINEERING DRAWINGS



City and County of Honolulu
 Department of Transportation Services
 Rapid Transit Division



KEY MAP



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Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: N/A
Drawn: J Derosier
Checked: J Davis
Approved: C Shimizu
Date: 12-17-10

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

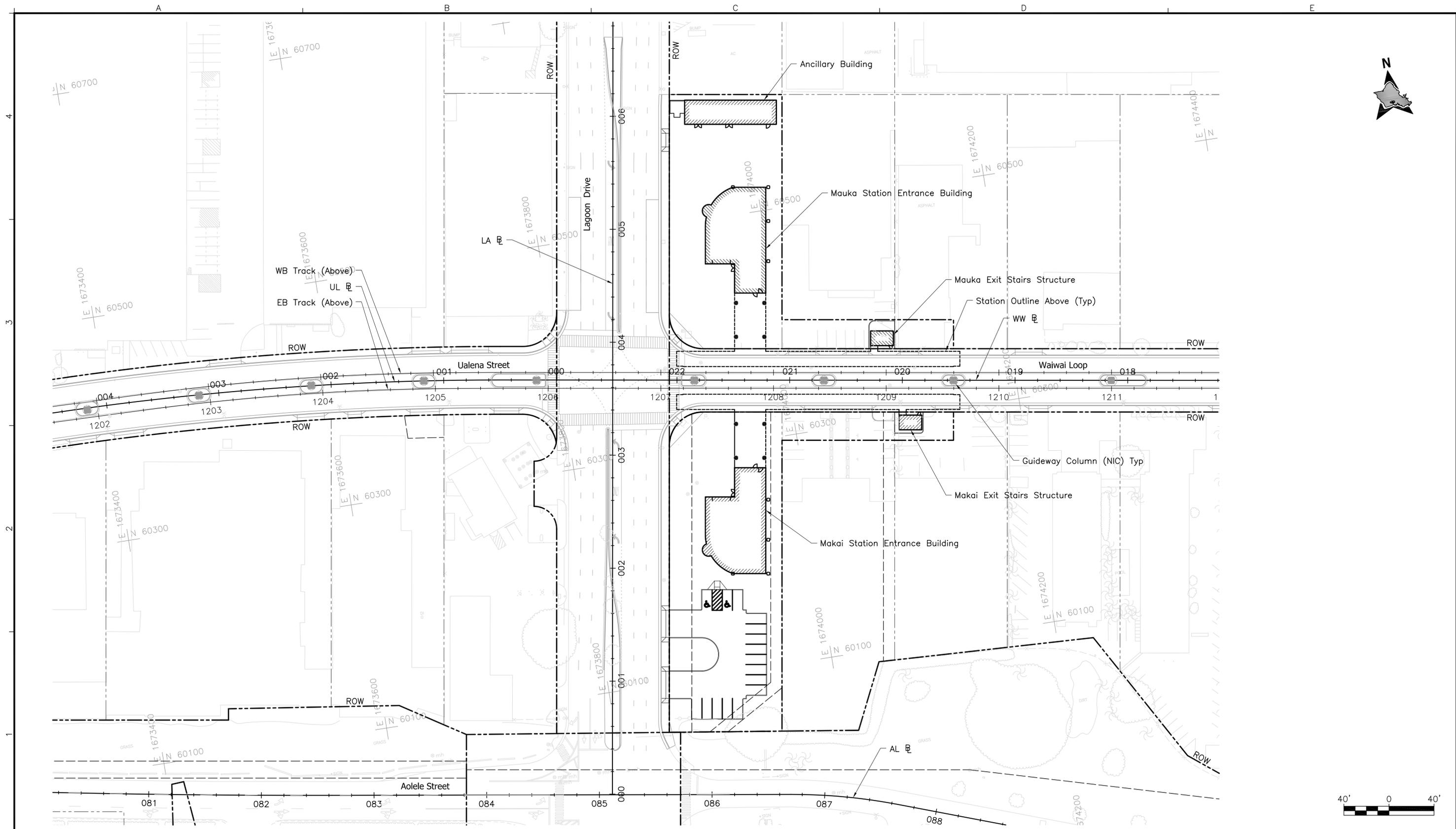
Prime Consultant:  1003 Bishop Street, Suite 2250 - Honolulu, HI 96813	Subconsultant:
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LAGOON DRIVE STATION

INDEX OF DRAWINGS

Contract No.: SV-440	
CADD File: SJ5-A03-GN003	
Drawing No: GN003	Rev.
Scale: N/A	
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Rev	By	Date	Description

Designed:
M Jewell

Drawn:
J Derosier

Checked:
B Wardell

Approved:
C Shimizu

Date:
12-17-10

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:

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LAGOON DRIVE STATION
STATION AREA PLAN

Contract No.:
SV-440

CADD File:
SJ5-A04-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	1		CIVIL STANDARD SURVEY CONTROL DATA SHEET 1 OF 2
CS002	1		CIVIL STANDARD SURVEY CONTROL DATA SHEET 2 OF 2
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WS102	0		TRACKWORK STANDARD PROPOSED WHEEL PROFILE AND WHEEL/TRACK INTERFACE DISTANCES GUARD RAIL & RESTRAINING RAIL
WS302	1		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
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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			
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AS302	0		ARCHITECTURAL STANDARD ELEVATOR CAR PLANS AND ELEVATIONS SHEET 2 OF 2
AS303	0		ARCHITECTURAL STANDARD ELEVATOR CAR DETAILS
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HS001	1		CORROSION CONTROL STANDARD TYPICAL SIMPLE-SPAN VIADUCT STEEL BONDING DETAILS
HS002	1		CORROSION CONTROL STANDARD TYPICAL CONTINUOUS-SPAN VIADUCT STEEL BONDING DETAILS
HS003	1		CORROSION CONTROL STANDARD TYPICAL STEEL BONDING DETAILS
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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

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: N/A
Drawn: J Derosier
Checked: J Davis
Approved: A Borst
Date: 12-17-10

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

Prime Consultant:	Subconsultant:
 PARSONS BRINCKERHOFF	
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813	
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LAGOON DRIVE STATION
STANDARD DRAWING SUMMARY
CITY AND COUNTY OF HONOLULU (RTD)

Contract No.: SV-440	
CADD File: SJ5-A06-GN006	
Drawing No: GN006	Rev.
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RTD DIRECTIVE DRAWINGS

RTD DIRECTIVE DRAWINGS			
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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
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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	1		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	1		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	1		TRACKWORK DIRECTIVE GEOMETRIC CONFIGURATION DIRECT FIXATION TRACK WITH SURVEY MARKER INTERFACE TRACTION POWER CONTACT RAIL
WD605	1		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK DETAILS TRAIN WASH FACILITY
WD606	1		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK DETAILS YARD SERVICE AND CLEANING PLATFORM

RTD DIRECTIVE DRAWINGS			
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TRACKWORK			
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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
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WP002	0		STRUCTURAL DESIGN DIRECTIVE CHAIN LINK FENCE
WP003	0		STRUCTURAL DESIGN DIRECTIVE RETAINING WALL TYPE 1 H=4' THROUGH 30'
WP004	0		STRUCTURAL DESIGN DIRECTIVE RETAINING WALL TYPE 2 H=4' THROUGH 12'
WP005	0		STRUCTURAL DESIGN DIRECTIVE RETAINING WALL DETAILS
WP006	0		STRUCTURAL DESIGN DIRECTIVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 1 OF 5
WP007	0		STRUCTURAL DESIGN DIRECTIVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 2 OF 5
WP008	0		STRUCTURAL DESIGN DIRECTIVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 3 OF 5
WP009	0		STRUCTURAL DESIGN DIRECTIVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 4 OF 5
WP010	0		STRUCTURAL DESIGN DIRECTIVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 5 OF 5
WP011	0		STRUCTURAL DESIGN DIRECTIVE WATERPROOFING DETAILS SHEET 1 OF 3
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RTD DIRECTIVE DRAWINGS			
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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
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Designed: N/A
Drawn: J Derosier
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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:

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LAGOON DRIVE STATION
DIRECTIVE DRAWING SUMMARY
CITY AND COUNTY OF HONOLULU (RTD)

SHEET 1 OF 2

Contract No.: SV-440	
CADD File: SJ5-A06-GN007	
Drawing No: GN007	Rev.
Scale: N/A	
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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	1		MECHANICAL DIRECTIVE HVAC SYSTEMS
MD201	1		MECHANICAL DIRECTIVE PLUMBING AND DRAINAGE SYSTEMS
MD301	1		MECHANICAL DIRECTIVE FIRE PROTECTION SYSTEMS
MD401	1		MECHANICAL DIRECTIVE SEISMIC AND WIND INDICATOR SYSTEMS
MD501	1		MECHANICAL DIRECTIVE TYPICAL TPSS AND GBS AIR CONDITIONING AND CONTROL SYSTEM
ELECTRICAL			
ED001	0		GENERAL ELECTRICAL NOTES Deleted
ED002	1		ELECTRICAL DIRECTIVE PASSENGER STATION ONE-LINE DIAGRAM
ED003	1		GUIDEWAY ELECTRICAL DIRECTIVE ELECTRICAL GUIDEWAY LIGHTING PLANS
ED004	1		GUIDEWAY ELECTRICAL DIRECTIVE ELECTRICAL GUIDEWAY LIGHTING DOUBLE TRACK
ED005	1		GUIDEWAY ELECTRICAL DIRECTIVE ELECTRICAL GUIDEWAY LIGHTING SINGLE TRACK
ED006	1		ELECTRICAL DIRECTIVE PASSENGER STATION SIDE PLATFORM LIGHTING
ED007	1		ELECTRICAL DIRECTIVE PASSENGER STATION CENTER PLATFORM LIGHTING
ED008	1		ELECTRICAL DIRECTIVE PASSENGER STATION ELECTRICAL, UPS, TCC ROOMS
TRACTION POWER			
TD001	1		TRACTION POWER DIRECTIVE TYPICAL SUBSTATION RACEWAY LAYOUT
TD002	1		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	1		TRACTION POWER DIRECTIVE SUBSTATION CABLE TRENCH DETAILS
TD006	0		TRACTION POWER DIRECTIVE SUBSTATION CABLE TRENCH DETAILS ALTERNATIVE
TD050	1		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	1		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: 12-17-10

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:

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**LAGOON DRIVE STATION
DIRECTIVE DRAWING SUMMARY
CITY AND COUNTY OF HONOLULU (RTD)**

SHEET 2 OF 2

Contract No.: SV-440	
CADD File: SJ5-A06-GN008	
Drawing No: GN008	Rev.
Scale: N/A	
Page No. 7 of 49	

GENERAL NOTES

- "EB Track" denotes the centerline of the Eastbound Track. "WB Track" denotes centerline of the Westbound Track.
- Origin of Coordinates: Hawaii State Plane Coordinate Grid System, Zone III with the North American Datum of 83 High Accuracy Reference Network (NAD83 HARN).
- Elevations shown on these plans are reference to Mean Sea Level (MSL).
- For Survey Control data, see RTD Standard Drawings.
- 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.
- 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 design-build contractor is responsible for verifying existing conditions prior to supplying advanced design documents to the RTD.
- 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.
- Contractor shall replace all curbs, gutters, sidewalks and any other appurtenances damaged during construction.

SYMBOLS

DETAILS

DETAIL

SECTION

SECTION

COLUMN LINE GRID INDICATOR

HATCH

SPECIAL TERMS

Makai Ocean
Mauka Mountain

231° 41' 16" South Azimuth

GENERAL SYMBOLS

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

CIVIL SYMBOLS

- x-x- Chain Link Fence
- CB10 Track Curve Name
- △ Point of Intersection
- PVC
- Point of Switch
- SB10-B Track Spiral Name
- Station Equation
- XX-X Roadway Curve Number
- CUT - Limit of Cut Slope (Top of Slope)
- FILL - Limit of Fill Slope (Toe of Slope)
- - - - - Sawcut Line
- - - - - Wetland Boundary
- Proposed guideway column.
- Proposed guideway cantilever bent column.
- Proposed guideway straddle bent column.
- Proposed guideway balanced cantilever bent column.

ABBREVIATIONS

Aggr	Aggregate	NIC	Not in Contract
Ahd, Ah	Ahead	N.I.C.	Not in Contract
AH	Ahead	No.	Number
Align	Alignment	OD	Outside Diameter
Approx	Approximate	OH	Overhead
℄	Baseline	PB	Pullbox
Bk, BK	Back	PC	Point of Curve
BT	Back Tangent	PI	Point of Intersection
Bldg	Building	PITO	Point of Intersection of Turnout
BVC	Begin Vertical Curve	POB	Point of Beginning
BVCE	Begin Vertical Curve Elevation	POC	Point on Curve
BVCS	Begin Vertical Curve Station	POE	Point of Ending
℄	Centerline	POT	Point on Tangent
CB	Catch Basin	POVC	Point on Vertical Curve
CBMN	Catch Basin Manhole	POVT	Point on Vertical Tangent
CCTV	Closed Circuit Television Camera	Prop	Proposed
Comm	Communications	PS	Point of Switch
Conc	Concrete	PSI	Pounds Per Square Inch
Const	Construction	PT	Point of Tangent
CS	Curve to Spiral	PVC	Point of Vertical Curvature
DF	Direct Fixation	PVI	Point of Vertical Intersection
DI	Drainage Inlet	PVT	Point of Vertical Tangency
Dia	Diameter	R	Radius
△	Delta	Reinf	Reinforce, Reinforcing
DMH	Drainage Manhole	RH, R.H.	Right Hand
DS	Downspout	Rm	Room
Dwg	Drawing	ROW	Right-of-Way
E	East	RPM	Revolutions Per Minute
Ea	Actual Superelevation	RT	Right
Eu	Unbalanced Elevation	S	South
EB	Eastbound	SB	Southbound
EG	Existing Ground	SC	Spiral to Curve
EI	Elevation	SDMH	Storm Drain Manhole
Elev	Elevation	Shldr	Shoulder
Esmt	Easement	Sht	Sheet
EVC	End Vertical Curve	Sig	Signal
EVCE	End Vertical Curve Elevation	Sq	Square
EVCS	End Vertical Curve Station	St	Street
Exist	Existing	ST	Spiral to Tangent
FA	Fire Alarm	Sta	Station
FEIS	Final Environmental Impact Statement	T	Tangent Distance
FG	Finish Grade	T&B	Top & Bottom
Fin	Finish, Finished	TCCR	Train Control & Communications Room
FOC	Face of Curb	T.O.	Turnout
Ft, ft	Foot, Feet	TOR	Top of Rail
GB	Grade Break	TPSS	Traction Power Substation
GBS	Gap Breaker Station	TS	Tangent to Spiral
GDI	Grated Drop Inlet	Typ	Typical
Gnd	Ground	UPS	Uninterruptible Power Supply
H, Horiz	Horizontal	UG	Underground
HWY	Highway	USACE	United States Army Corps of Engineers
kV	Kilovolt	V	Speed, Vertical
Jt(s)	Joint(s)	Vert	Vertical
L	Length	W	West
Lc	Length of Curve	WB	Westbound
LH, L.H.	Left Hand	w/	With
LiDAR	Light Detection and Ranging		
Ls	Length of Spiral		
LT	Left		
LVC	Length of Vertical Curve		
Max	Maximum		
Mech	Mechanical		
Min	Minimum		
MHN	Manhole, Negative		
MHP	Manhole, Positive		
MPH	Miles Per Hour		
N	North		
N/A	Not Applicable		
NB	Northbound		

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: N/A
 Drawn: T Cochran
 Checked: M Jewell
 Approved: C Shimizu
 Date: 12-17-10

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

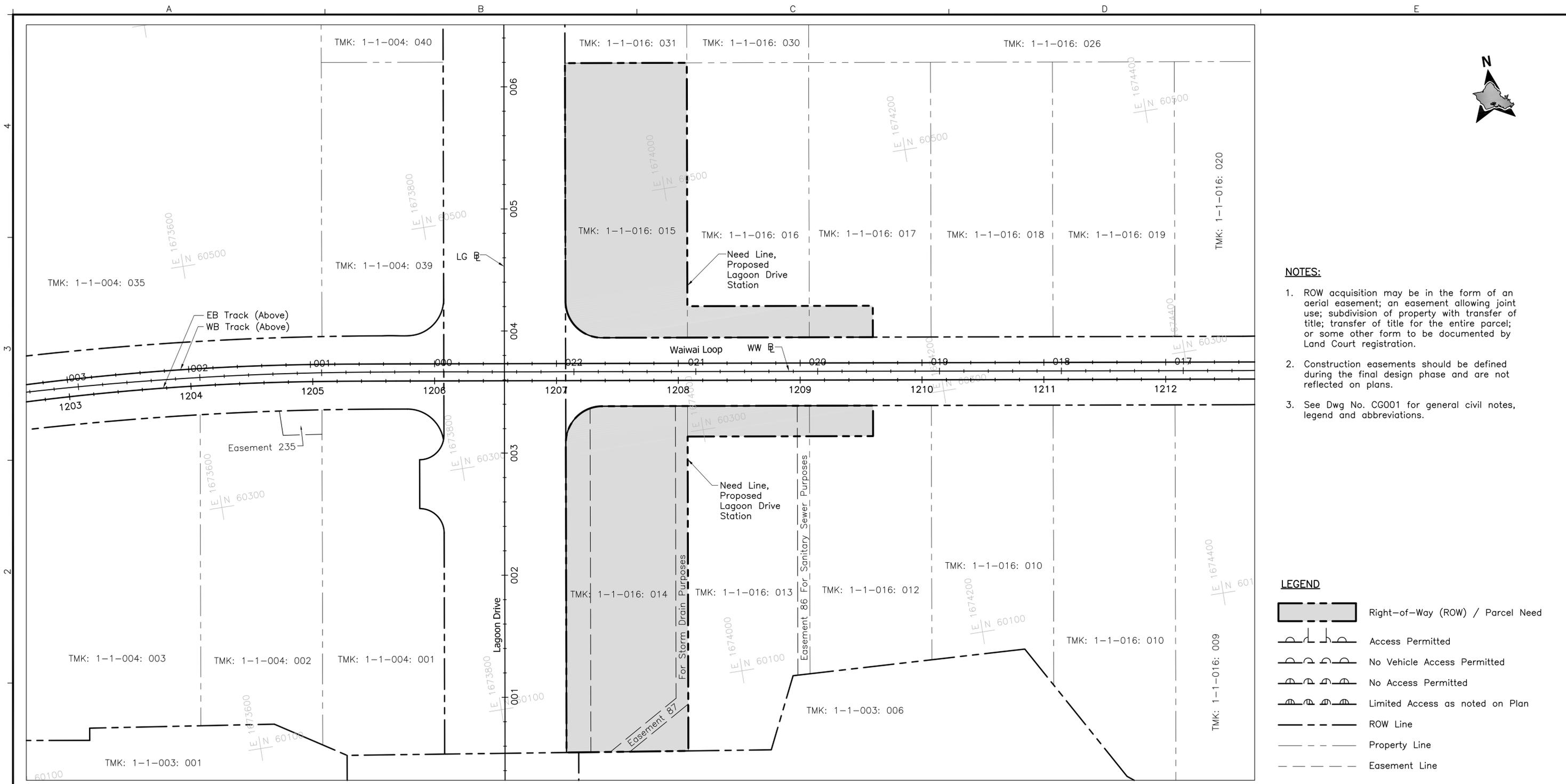
Prime Consultant: **PARSONS BRINCKERHOFF**
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:

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LAGOON DRIVE STATION
**GENERAL CIVIL NOTES,
 SYMBOLS, AND ABBREVIATIONS**

Contract No.: SV-440
 CADD File: SJ5-B01-CG001
 Drawing No: CG001 Rev.
 Scale: N/A
 Page No. 12 of 49



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.

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

Tax Map Key Number	Parcel Acquisitions	House Number	Street Name	Land Use
1-1-016:012	Partial	2620	Waiwai Lp	Industrial
1-1-016:013	Partial	2612	Waiwai Lp	Industrial
1-1-016:014	Full	2604	Waiwai Lp	Industrial
1-1-016:014	Full	479	Lagoon Dr	Industrial

Tax Map Key Number	Parcel Acquisitions	House Number	Street Name	Land Use
1-1-016:015	Full	515	Waiwai Lp	Industrial
1-1-016:016	Partial	2613	Waiwai Lp	Industrial
1-1-016:017	Partial	2621	Waiwai Lp	Industrial



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
L Karamatsu
Drawn:
L Karamatsu
Checked:
K Wong
Approved:
C Shimizu
Date:
12-17-10

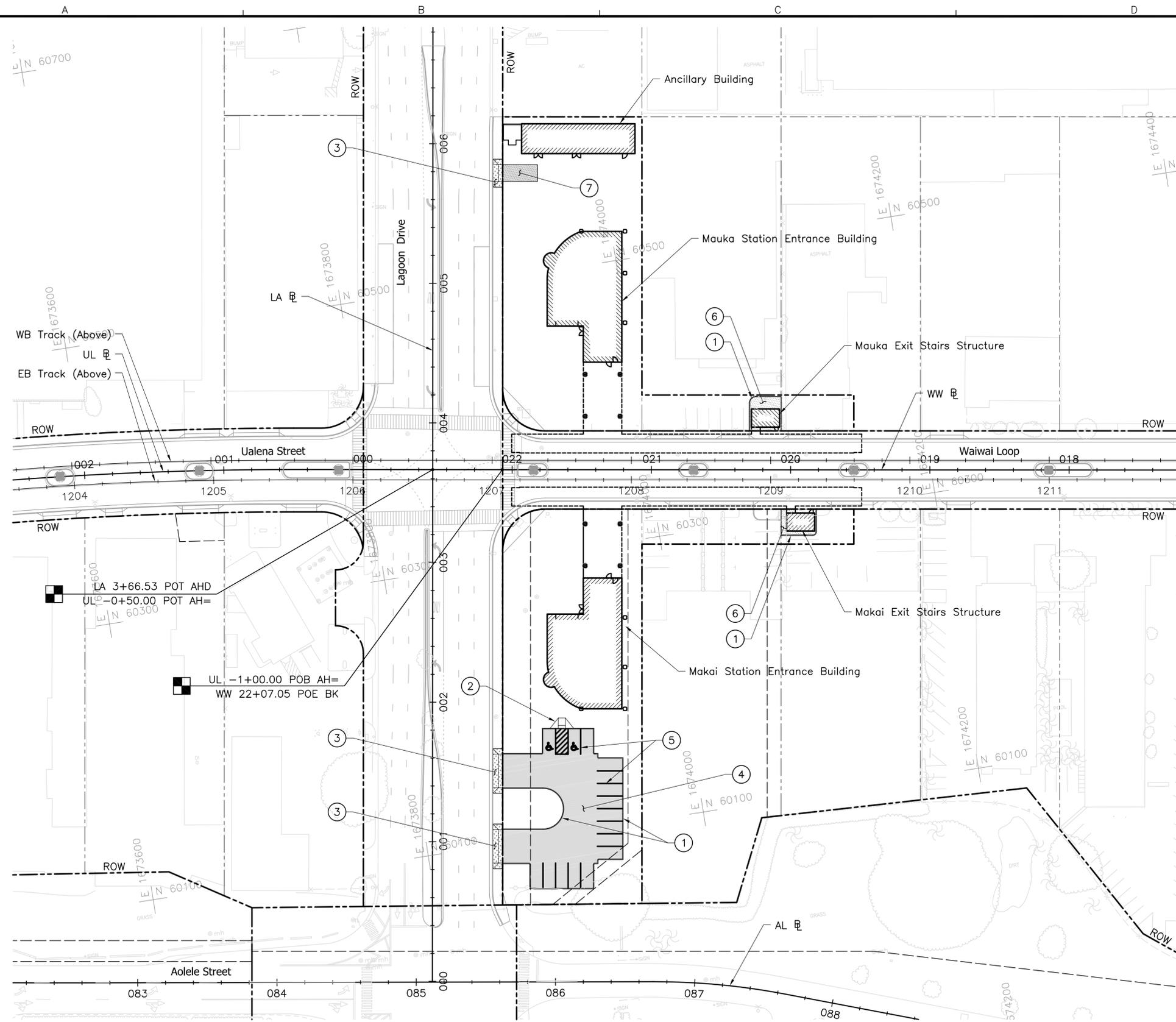
HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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

Subconsultant:

**LAGOON DRIVE STATION
EXISTING RIGHT-OF-WAY &
PROPOSED ACQUISITION TABULATIONS**

Contract No.:
SV-440
CADD File:
SJ5-B04-RW001
Drawing No: RW001 Rev.
Scale: 1"=40'
Page No. 13 of 49



NOTES

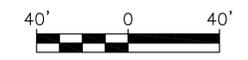
1. For General Civil Notes, Symbols and Abbreviations, see Dwg No. CG001.
2. See architectural plans for architectural details.
3. See landscape plans for landscape details.

LEGEND:

- Proposed full depth pavement area.
- Proposed sidewalk, curb & gutter, curb, driveway and median island paving area.
- Proposed Concrete Driveway.
- Proposed Station Column.
- Proposed guideway column (NIC).
- Proposed guideway straddle bent column (NIC).
- Approximate Limits of Work
- Proposed Conditions by Airport Guideway and Utilities Contractor
- Existing Conditions prior to work by the Airport Contractor

CONSTRUCTION NOTES:

- 1 Construct Concrete Curb.
- 2 Construct Concrete Curb Ramp.
- 3 Construct Concrete Drop Driveway.
- 4 Construct Plantmix Bituminous Pavement.
- 5 Pavement Marking - 4" Solid White Stripe
- 6 Construct Concrete Median Island Paving.
- 7 Construct Concrete Driveway



**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
M Jewell
Drawn:
J Derosier
Checked:
B Wardell
Approved:
C Shimizu
Date:
12-17-10

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:

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**LAGOON DRIVE STATION
CIVIL SITE PLAN**

Contract No.: SV-440
CADD File: SJ5-B09-RP001
Drawing No: RP001 Rev.
Scale: 1"=40'
Page No. 14 of 49

UTILITIES SYMBOLS

<p>---AT&T--- Exist AT&T Line</p> <p>---CTV--- Exist Cable Television</p> <p>---OCTv--- Exist Cable Television, Overhead</p> <p>---FOC--- Exist Communication Fiber Optic</p> <p>---D24--- Exist Drain Line (Size in Inches)</p> <p>---OE--- Exist Electrical Line, Overhead</p> <p>---E--- Exist Electrical Line</p> <p>---FA--- Exist Fire Alarm</p> <p>---F6--- Exist Fuel or Oil Line (Size in Inches)</p> <p>---FM12--- Exist Force Main (Size in Inches)</p> <p>---G6--- Exist Gas Line (Size in Inches)</p> <p>---NPW12--- Exist Non-Potable Water Line (Size in Inches)</p> <p>---SIC--- Exist Sandwich Isle Communications Line</p> <p>---S12--- Exist Sewer Line (Size in Inches)</p> <p>---SC--- Exist Signal Corps Line</p> <p>---SLC--- Exist Street Light Conduit</p> <p>---OT--- Exist Telephone Line, Overhead</p> <p>---T--- Exist Telephone Line</p> <p>---TSC--- Exist Traffic Signal Conduit</p> <p>---W12--- Exist Water Line (Size in Inches)</p>	<p>○ Exist Air Relief Valve</p> <p>▩ Exist AT&T Box</p> <p>⊕ Exist AT&T Manhole</p> <p>⊖ Exist Backflow Preventor</p> <p>□ Exist Utility Box</p> <p>⊕ Exist Catch Basin</p> <p>⊕ Exist Catch Basin</p> <p>⊕ Exist Cable TV Box</p> <p>● Exist Clean Out</p> <p>⊕ Exist Drain Inlet</p> <p>⊕ Exist Drain Manhole</p> <p>⊕ Exist Dry Standpipe</p> <p>⊕ Exist Electrical Box</p> <p>⊕ Exist Electrical Manhole</p> <p>⊕ Exist Electrical Transformer</p> <p>⊕ Exist Fire Alarm Box</p> <p>⊕ Exist Fire Hydrant</p> <p>⊕ Exist Gas Manhole</p> <p>⊕ Exist Gas Valve</p> <p>⊕ Exist Guy Wire</p> <p>⊕ Exist Irrigation Control Valve Box</p> <p>⊕ Exist Irrigation Control Valve</p> <p>⊕ Exist Light Pole</p> <p>○ Exist Manhole</p> <p>⊕ Exist Street Monument</p> <p>○ Exist Pole (EP, U.P.)</p> <p>⊕ Exist Pedestrian Street Light</p>	<p>⊕ Exist Traffic Sensor</p> <p>⊕ Exist Street Light</p> <p>⊕ Exist Street Light Box</p> <p>⊕ Exist Sewer Manhole</p> <p>⊕ Exist Telephone Box</p> <p>⊕ Exist Telephone Manhole</p> <p>⊕ Exist Traffic/Pedestrian Street Light</p> <p>⊕ Exist Traffic Signal Box</p> <p>⊕ Exist Traffic Street Light</p> <p>⊕ Exist Water Meter</p> <p>⊕ Exist Water Manhole</p> <p>⊕ Exist Water Valve</p>	<p>---D24--- Prop Drain Line (Size in Inches)</p> <p>---F6--- Prop Fuel or Oil Line (Size in Inches)</p> <p>---G6--- Prop Gas Line (Size in Inches)</p> <p>---NPW12--- Prop Non-Potable Water Line (Size in Inches)</p> <p>---S8--- Prop Sewer Line (Size in Inches)</p> <p>---W12--- Prop Water Line (Size in Inches)</p>	<p>○ Prop Air Relief Valve</p> <p>⊕ Prop Backflow Preventor</p> <p>⊕ Prop Catch Basin</p> <p>⊕ Prop Catch Basin</p> <p>● Prop Clean Out</p> <p>⊕ Prop Drain Inlet</p> <p>⊕ Prop Drain Manhole</p> <p>⊕ Prop Swale</p> <p>⊕ Prop Fire Hydrant</p> <p>⊕ Prop Gas Manhole</p> <p>⊕ Prop Gas Valve</p> <p>⊕ Prop Sewer Manhole</p> <p>⊕ Prop Water Meter</p> <p>⊕ Prop Water Manhole</p> <p>⊕ Prop Water Valve</p> <p>\\ Cut and Plug</p> <p>---R---R--- Abandon in Place</p> <p>---R---R--- Demolish/Remove</p>
---	--	--	--	--

UTILITIES ABBREVIATIONS

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

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: G Tom
Drawn: D Lee
Checked: H Andrews
Approved: J Yamamoto
Date: 12-17-10

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

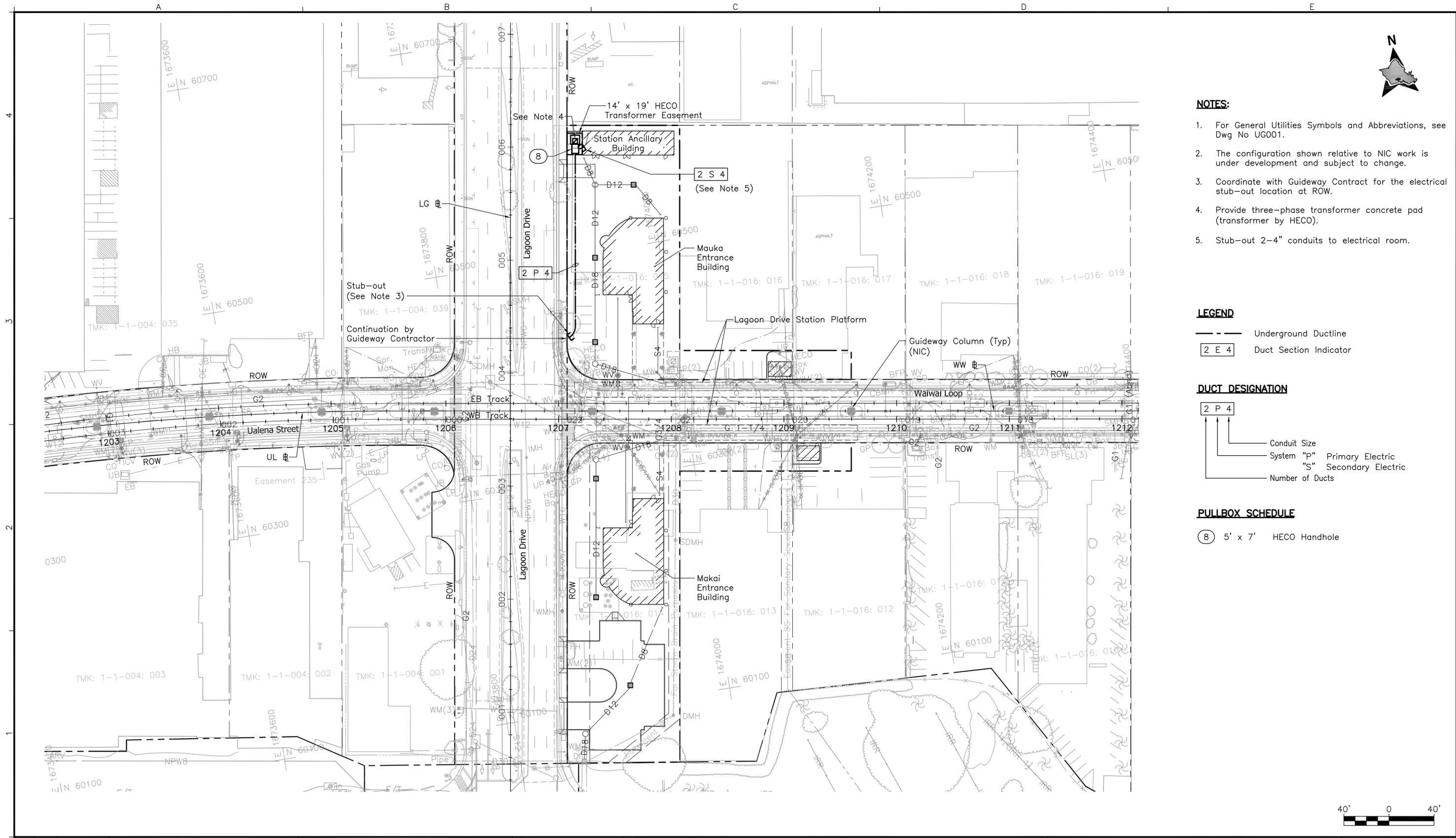
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

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

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**LAGOON DRIVE STATION
GENERAL UTILITIES SYMBOLS
AND ABBREVIATIONS**

Contract No.: SV-440	Rev.
CADD File: SJ5-D01-UG001	
Drawing No: UG001	
Scale: N/A	
Page No. 15 of 49	



- NOTES:**
1. For General Utilities Symbols and Abbreviations, see Dwg No UG001.
 2. The configuration shown relative to NIC work is under development and subject to change.
 3. Coordinate with Guideway Contract for the electrical stub-out location at ROW.
 4. Provide three-phase transformer concrete pad (transformer by HECO).
 5. Stub-out 2-4" conduits to electrical room.

- LEGEND**
- Underground Ductline
 - 2 E 4 Duct Section Indicator

- DUCT DESIGNATION**
- 2 P 4
- Conduit Size
 - System "P" Primary Electric
 - "S" Secondary Electric
 - Number of Ducts

- PULLBOX SCHEDULE**
- 8 5' x 7' HECO Handhole

Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
F Hirakami

Drawn:
D Saito

Checked:
P Uyeda

Approved:
P Uyeda

Date:
12-17-10

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

Prime Consultant: **PARSONS BRINCKERHOFF**

Subconsultant: **mKengineers**

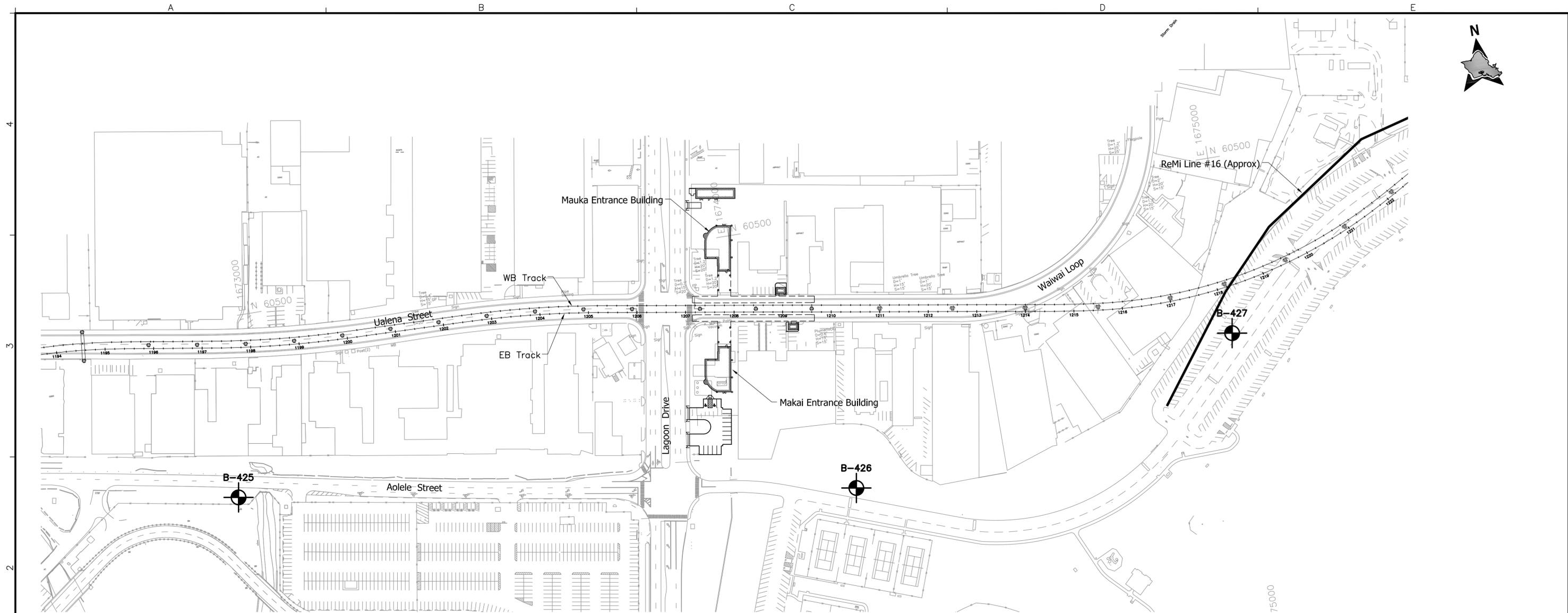
286 Kalia Street
Honolulu, Hawaii 96819
Phone: (808) 848-8622
Fax: (808) 848-5574
E-Mail: info@mkhawaii.com

1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

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**LAGOON DRIVE STATION
UTILITIES PLAN
ELECTRICAL**

Contract No.: SV-440	
CADD File: SJ5-D03-UP002	
Drawing No: UP002	Rev.
Scale: 1"=40'	
Page No. 17	of 49



GEOTECHNICAL NOTES:

1. Geotechnical Investigations Documents
 - a. February 8, 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. Information from 1991 investigations, document 1.b above, available to the Designer for information only as an aid to understanding regional site conditions.
4. See Honolulu High-Capacity Transit Corridor Project, Design Criteria Compendium, Chapter 9 – Structural [and Geotechnical] for minimum geotechnical investigation and performance requirements.
5. 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-420
 – Completed Geotechnical Boring, Ref 1.a



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
Z Batchko
 Drawn:
J Derosier
 Checked:
J Davis
 Approved:
Z Batchko
 Date:
12-17-10

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

Prime Consultant:

 1003 Bishop Street, Suite 2250 – Honolulu, HI 96813

Subconsultant:

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

**LAGOON DRIVE STATION
GEOTECHNICAL
INVESTIGATIONS PLAN**

Contract No.: SV-440	
CADD File: SJ5-F02-GE001	
Drawing No: GE001	Rev.
Scale: 1"=100'	
Page No. 18 of 49	

GENERAL

FOUNDATION

STRUCTURAL CONCRETE

- The Structural design shall be based on the requirements of Chapter 9 – Structural of the HHCTCP Design Criteria.
- 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.
- All work shall conform to the best practice prevailing in the various trades comprising the work.
- Features of construction shown are typical, and they shall apply generally throughout for similar conditions. Modify typical details as directed to meet special conditions.
- Specific notes and details shall take precedence over general notes and typical details.
- The Contractor shall refer to the specifications and technical provisions for information not covered by these general notes or the structural drawings.
- 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.
- 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.
- The Contractor shall take all steps necessary to insure the correct location and orientation of the structure.
- 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.
- 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.

- Reference Geotechnical Notes on Dwg No. GE001 for available geotechnical information and locations.
- 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.
- 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.
- The Contractor shall provide for dewatering of excavations from surface water, ground water or seepage.
- The Contractor shall be responsible for design and installation of all cribbing, sheeting, and shoring necessary to preserve excavations and earth banks.
- 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.
- All building slabs-on-grade shall be underlain by a 6-inch layer of aggregate subbase compacted to a minimum of 95% relative compaction.
- 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.
- 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.

- The design and construction of structural concrete shall conform to the "Building Code Requirements for Structural Concrete", ACI 318-05, including the following:
 - Concrete mixing..... ASTM C94
 - Concrete placement..... ACI 304
- Materials shall conform to the following standard specifications, current edition:
 - Portland cement..... ASTM C150, Type I or II
 - Normal weight aggregates..... ASTM C33
 - Air entraining admixture..... ASTM C260
 - Water-reducing and retarding admixtures..... ASTM C494
- Verify locations and dimensions of slots, anchors, ducts, etc., relating to mechanical, electrical and architectural work before pouring concrete.
- All inserts, anchor bolts, plates, etc. embedded in concrete shall be hot-dipped galvanized unless noted otherwise.
- 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.
- Unless otherwise indicated on architectural drawings, provide exposed corners of beams, walls columns, etc. with 3/4" chamfers.
- 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.
- 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.....	4,000 PSI
K. Prestressed and Post Tensioned Concrete.....	6,000 PSI
- 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

CONCRETE TOPPING ON METAL DECK

PRECAST CONCRETE (TILT-UP) WALL PANELS

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

- Concrete topping shall not contain calcium chloride or admixtures containing calcium chloride.
- Electrical conduits are not allowed to be embedded in concrete topping on metal deck without prior approval of the Design Engineer.
- 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.
- 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.
- Concrete topping shall be placed over beams first before pouring at midspan of the decking.
- 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.
- 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.

- 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.
- 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.
- The Contractor shall verify all dimensions, openings in walls, and details prior to forming and pouring.
- 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.
- 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.
- 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.
- 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.
- 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.

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
D Sengupta
Drawn:
J Perreira
Checked:
E Okuna
Approved:
G Suzuki
Date:
12-17-10

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

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

LAGOON DRIVE STATION
**GENERAL STRUCTURAL NOTES,
SYMBOLS, AND ABBREVIATIONS**
SHEET 1 OF 4

Contract No.:
SV-440
CADD File:
SJ5-G01-SG001
Drawing No: SG001 Rev.
Scale:
N/A
Page No.
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REINFORCING STEEL	STEEL JOISTS	METAL DECKING
<ol style="list-style-type: none"> 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. Plain steel welded plain wire fabric shall conform to ASTM A 185, fabricated from as-drawn steel wire into flat sheets and galvanized. Minimum concrete protection (cover) for reinforcement shall be provided in conformance with Chapter 7 of ACI 318-05. Development and splices of reinforcement shall be in conformance with Chapter 12 of ACI 318-05. Welding of reinforcing steel bars shall conform to "Structural Welding Code-Reinforcing Steel", AWS D1.4. Bolster and support bars for slab and topping reinforcement (including slabs on grade) shall be a minimum of #4 at 36" o.c. 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. 	<ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> Standard specifications for joist girders, JG-1.1-05 Standard specifications for open web steel joists, K-series, K-1.1-05 Standard specifications for longspan steel joists, LH series and deep longspan steel joists, DLH series, LH/DLH 1.1-05 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. 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). Roof joist design loads: <ul style="list-style-type: none"> 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 Floor joists design loads: <ul style="list-style-type: none"> 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.) Live load deflection limits: <ul style="list-style-type: none"> Floor.....Not to exceed L/360 - unless noted otherwise Roof.....Not to exceed L/360 - unless noted otherwise 	<ol style="list-style-type: none"> 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. 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. 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. Rectangular or circular openings in metal deck shall be reinforced. 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. 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. Construction loads (including those due to storage of construction materials) shall not exceed the design live load of the roof or floor system.
STRUCTURAL STEEL AND MISCELLANEOUS IRON	COLD-FORMED STEEL FRAMING	CONCRETE MASONRY UNIT
<ol style="list-style-type: none"> 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. 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. Common bolts shall comply with ASTM A 307, hot-dip galvanized per ASTM A 153. 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. Anchor rod material shall conform to ASTM F 1554, Grade 36 (Grade 55 or 105 where noted), hot-dip galvanized, per ASTM A 153. 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). 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. Unless otherwise indicated, all steel joints not detailed shall be fully welded using minimum fillet welds per AISC. Shop drawings shall be submitted to the City for all structural steel, fabricated brackets hardware and miscellaneous metals prior to fabrication. All anchor plates embedded in concrete shall be hot-dip galvanized after fabrication. 	<ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> Standard for Cold-Formed Steel Framing - General Provisions, General-04 Standard for Cold-Formed Steel Framing - Header Design, Header-04 Standard for Cold-Formed Steel Framing - Truss Design, Truss-04 Standard for Cold-Formed Steel Framing - Wall Stud Design, WSD-04 All light gauge structural steel members, plates and angles shall be hot dip galvanized. (Minimum G90 coating) per ASTM A 924. 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. Shop drawings shall be submitted to the City for all fabricated connections and hardware prior to fabrication. 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. 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. 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. The Contractor shall be responsible for temporary bracing of all cold-formed metal framing including trusses. 	<ol style="list-style-type: none"> The design, construction and quality of masonry structures shall be in accordance with the "Building Code Requirements for Masonry Structures", ACI 530 - 05. 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. Mortar and grout materials: <ol style="list-style-type: none"> Portland Cement: ASTM C 150, Type I or II Masonry Cement: ASTM C 91 Mortar Cement: ASTM C 1329 Aggregate for Mortar: ASTM C 144 Aggregate for Grout: ASTM C 404, with grading per ASTM D 448, No. 10 Hydrated Lime: ASTM C 207, Type S Plasticizer Additive: Powder or liquid type with current ICC acceptance as a substitute for lime in mortar. Water: Potable and complying with ASTM C 94. 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. 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. Reinforcing bar positioners: Commercial, non-metallic positioners that prevent displacement of reinforcing bars during construction. Install at intervals not exceeding 8 feet. Fill all cells solid with grout. No grouting shall commence prior to inspection by the Engineer or Special Inspector. Unless noted otherwise, all walls shall be constructed in running bond. 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.
	PEDESTRIAN BRIDGES	TIMBER
	<ol style="list-style-type: none"> Pedestrian bridges shall be designed in accordance with Section 9.4 of the HHCTCP Design Criteria. 	<ol style="list-style-type: none"> The design of timber framing shall be in accordance with the International Building Code (IBC). 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 Association. <ol style="list-style-type: none"> The allowable bending stress, F_b, shall be taken as 3000 psi modified with the appropriate adjustment factors.

<table border="1"> <thead> <tr> <th>Rev</th> <th>By</th> <th>Date</th> <th>Description</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Rev	By	Date	Description																																									<p>PRELIMINARY ENGINEERING SUBJECT TO REVISION</p>	<table border="1"> <tr><td>Designed:</td><td>D Sengupta</td></tr> <tr><td>Drawn:</td><td>J Perreira</td></tr> <tr><td>Checked:</td><td>E Okuna</td></tr> <tr><td>Approved:</td><td>G Suzuki</td></tr> <tr><td>Date:</td><td>12-17-10</td></tr> </table>	Designed:	D Sengupta	Drawn:	J Perreira	Checked:	E Okuna	Approved:	G Suzuki	Date:	12-17-10	<p style="text-align: center;">HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION</p> <table border="1"> <tr> <td>Prime Consultant:</td> <td>Subconsultant:</td> </tr> <tr> <td style="text-align: center;">  PARSONS BRINCKERHOFF <small>1003 Bishop Street, Suite 2250 - Honolulu, HI 96813</small> </td> <td style="text-align: center;">  CONSULTING STRUCTURAL HAWAII, INC. <small>931 HAUSTEN STREET, SUITE 200 HONOLULU, HAWAII 96826</small> </td> </tr> </table> <p style="text-align: center;"><small>For reduced prints, original page size in inches: 0 1 2 3 4</small></p>	Prime Consultant:	Subconsultant:	 PARSONS BRINCKERHOFF <small>1003 Bishop Street, Suite 2250 - Honolulu, HI 96813</small>	 CONSULTING STRUCTURAL HAWAII, INC. <small>931 HAUSTEN STREET, SUITE 200 HONOLULU, HAWAII 96826</small>	<p>LAGOON DRIVE STATION</p> <p>GENERAL STRUCTURAL NOTES, SYMBOLS, AND ABBREVIATIONS</p> <p>SHEET 2 OF 4</p>	<table border="1"> <tr><td>Contract No.:</td><td>SV-440</td></tr> <tr><td>CADD File:</td><td>SJ5-G01-SG002</td></tr> <tr><td>Drawing No:</td><td>SG002</td><td>Rev.</td><td> </td></tr> <tr><td>Scale:</td><td colspan="3">N/A</td></tr> <tr><td>Page No.</td><td colspan="3">20 of 49</td></tr> </table>	Contract No.:	SV-440	CADD File:	SJ5-G01-SG002	Drawing No:	SG002	Rev.		Scale:	N/A			Page No.	20 of 49		
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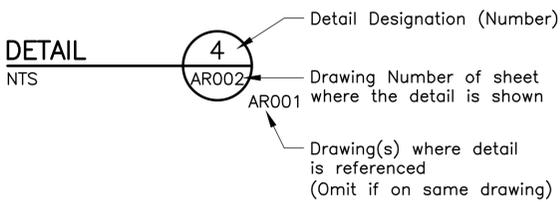
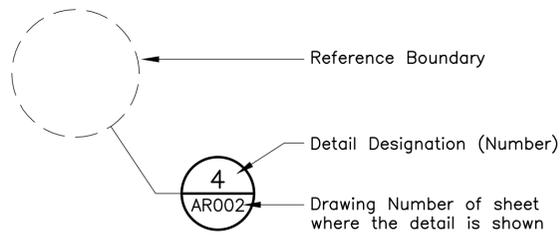
STRUCTURAL ABBREVIATIONS

<p>& 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</p> <p>Ⓟ Baseline Bal Balance BF Both Faces Bldg Building Blkg Blocking Bm Beam Bot Bottom</p> <p>Ⓞ 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</p> <p>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</p> <p>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</p>	<p>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</p> <p>Ga Gauge Galv Galvanized GB Grade Beam Gen General Gnd Ground Govt Government Grd Grade</p> <p>H High, Height, Horizontal HDOT Hawaii Department of Transportation HHCTCP Honolulu High-Capacity Transit Corridor 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</p> <p>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</p> <p>JG Joint Girders Jt Joint Jt(s) Joints</p> <p>K Kip(s) KF Kip Foot KLF Kips Per Linear Foot KSF Kips Per Square Foot KSI Kips Per Square Inch</p> <p>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</p> <p>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</p>	<p>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</p> <p>OC On Center OD Outside Diameter OF Outside Face Opng Opening Opp Opposite Opp Hd Opposite Hand oz Ounce</p> <p>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</p> <p>QA/QC Quality Assurance/Quality Control Qty Quantity</p> <p>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 Right-of-Way Rt Right RTD Rapid Transit Division RW Retaining Wall</p>	<p>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</p> <p>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</p> <p>UNO Unless Noted Otherwise</p> <p>V Vertical Var Variable, Varies Veh Vehicle Vert Vertical Vol Volume</p> <p>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</p> <p>SPECIAL TERMS</p> <p>Makai Ocean Mauka Mountain</p>
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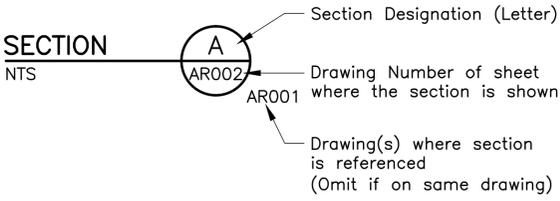
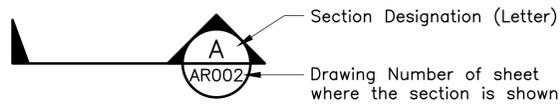
<p align="center">PRELIMINARY ENGINEERING SUBJECT TO REVISION</p>	Designed: D Sengupta Drawn: J Perreira Checked: E Okuna Approved: G Suzuki Date: 12-17-10	<p>HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION</p> <p>Prime Consultant: PARSONS BRINCKERHOFF 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813</p> <p>Subconsultant: CONSULTING STRUCTURAL HAWAII, INC. 931 HAUSTEN STREET, SUITE 200 HONOLULU, HAWAII 96826</p>	<p>LAGOON DRIVE STATION</p> <p>GENERAL STRUCTURAL NOTES, SYMBOLS, AND ABBREVIATIONS</p> <p>SHEET 3 OF 4</p>	Contract No.: SV-440 CADD File: SJ5-G01-SG003 Drawing No: SG003 Rev. Scale: N/A Page No. 21 of 49
	Rev By Date Description			

STRUCTURAL SYMBOLS

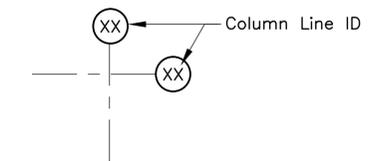
DETAILS



SECTIONS



COLUMN LINE GRID INDICATOR



GENERAL SYMBOLS

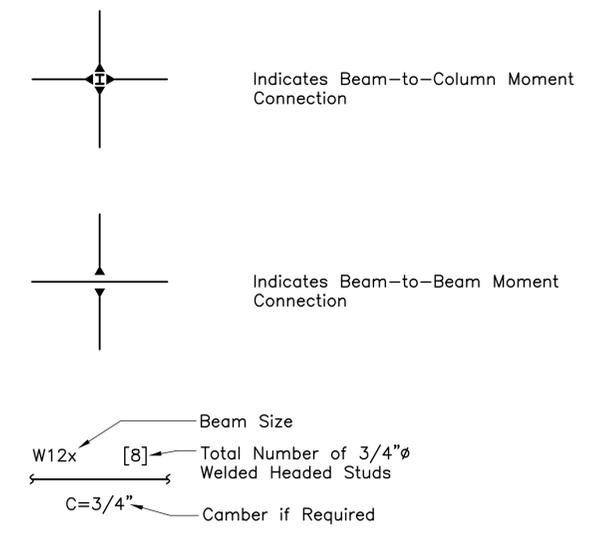
- & And
- @ At
- # Number
- ∅ Diameter
- % Percent
- = Equal to
- > Greater Than
- < Less Than
- ≥ Greater Than or Equal To
- ≤ Less Than or Equal To
- ± Plus or Minus

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)
- Struct. Steel 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
- Steel Col (6.75x8x1.5)
- Indicates Continuous Footing 3'(W) x 1.5'(T)



Rev	By	Date	Description

**PRELIMINARY
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 Drawn: J Perreira
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 Date: 12-17-10

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

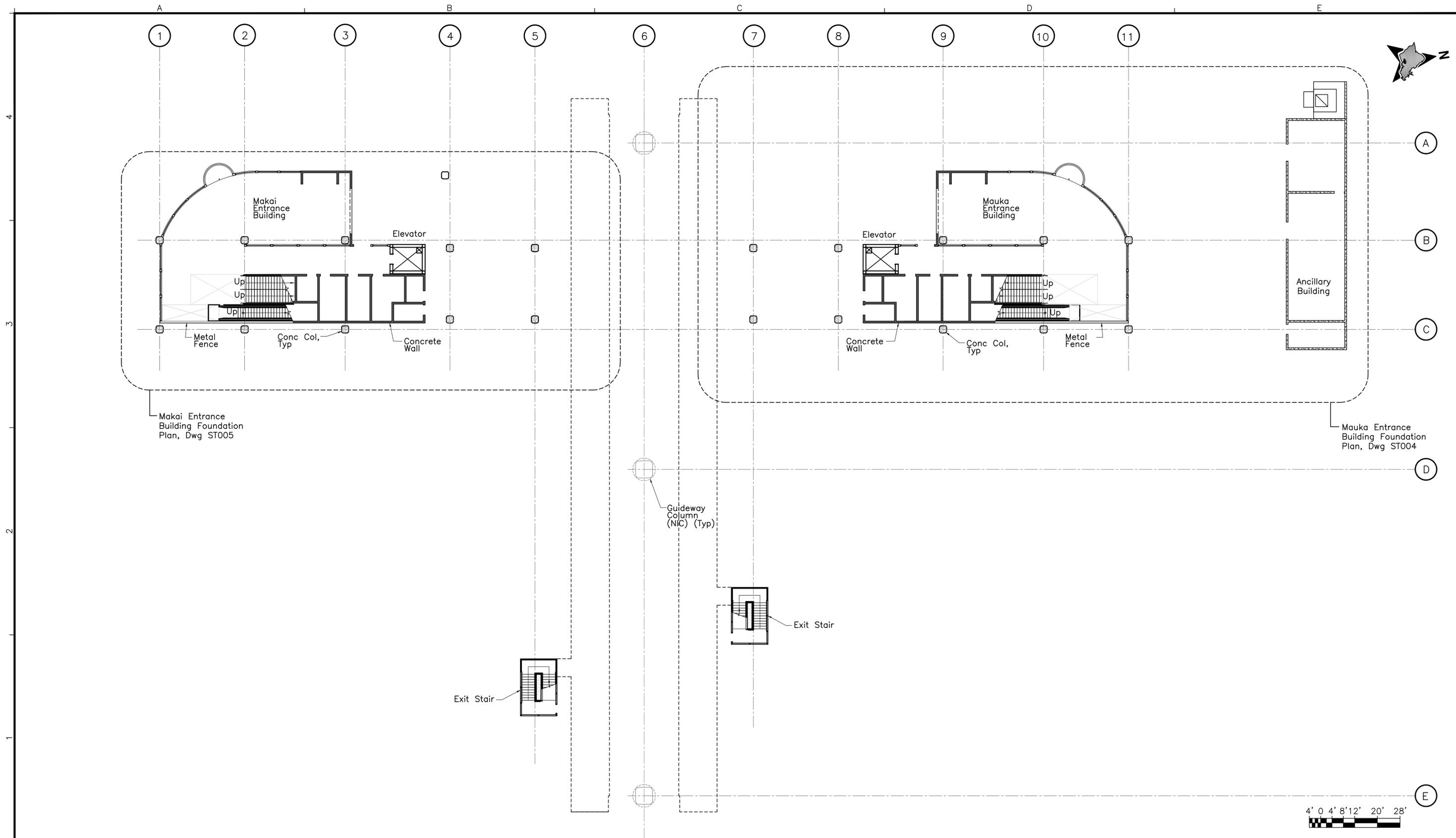
Subconsultant: **CONSULTING STRUCTURAL HAWAII, INC.**
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LAGOON DRIVE STATION
**GENERAL STRUCTURAL NOTES,
 SYMBOLS, AND ABBREVIATIONS**

SHEET 4 OF 4

Contract No.: SV-440	
CADD File: SJ5-G01-SG004	
Drawing No: SG004	Rev.
Scale: N/A	
Page No. 22	of 49



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**PRELIMINARY
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D Sengupta
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E Okuna
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G Suzuki
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12-17-10

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

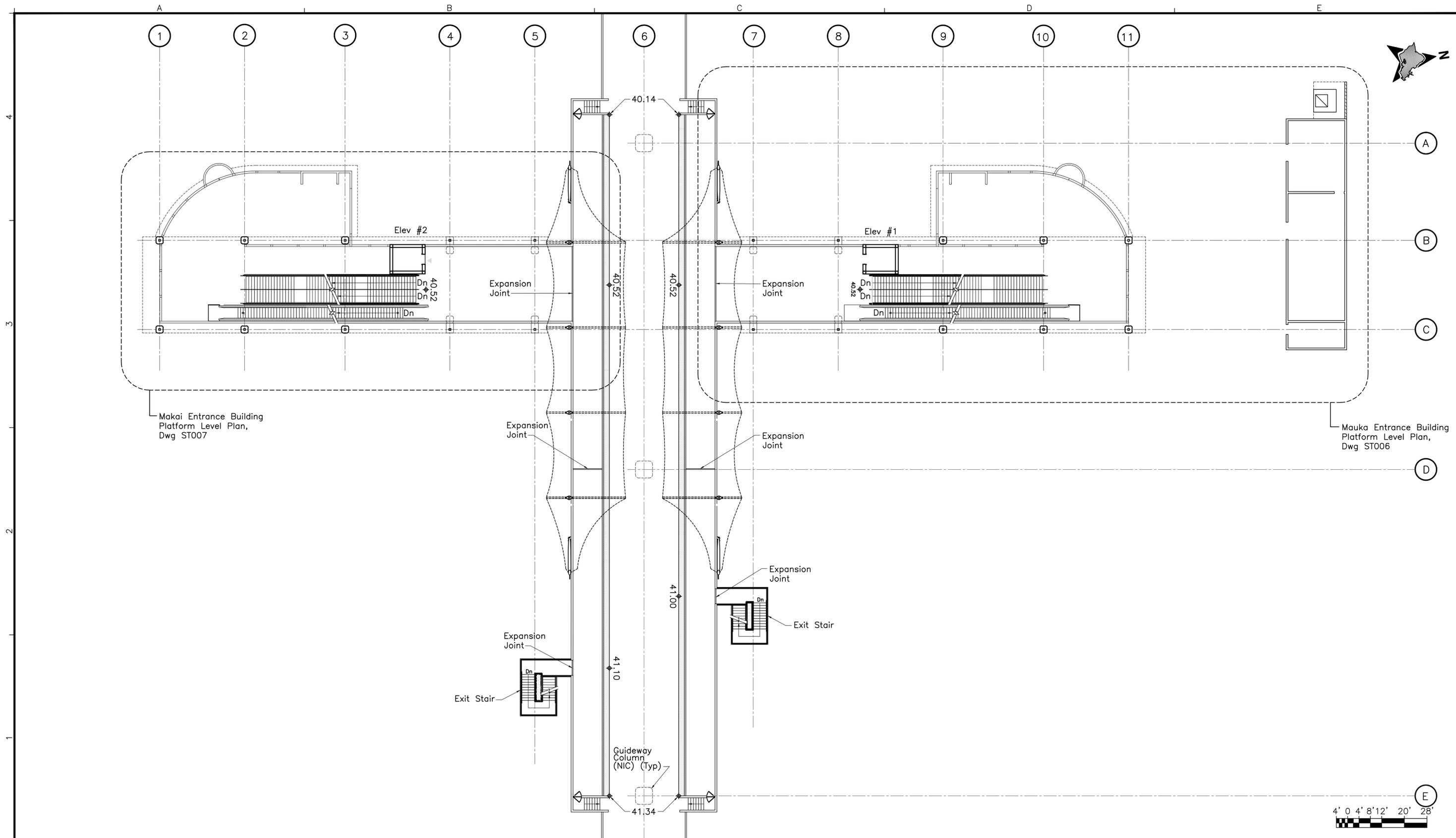
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

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HONOLULU, HAWAII 96826

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**LAGOON DRIVE STATION
STRUCTURAL
OVERALL FOUNDATION PLAN**

Contract No.: SV-440
CADD File: SJ5-G12-ST001
Drawing No: ST001 Rev.
Scale: 1/16" = 1'-0"
Page No. 23 of 49



Rev	By	Date	Description

**PRELIMINARY
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D Sengupta
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12-17-10

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

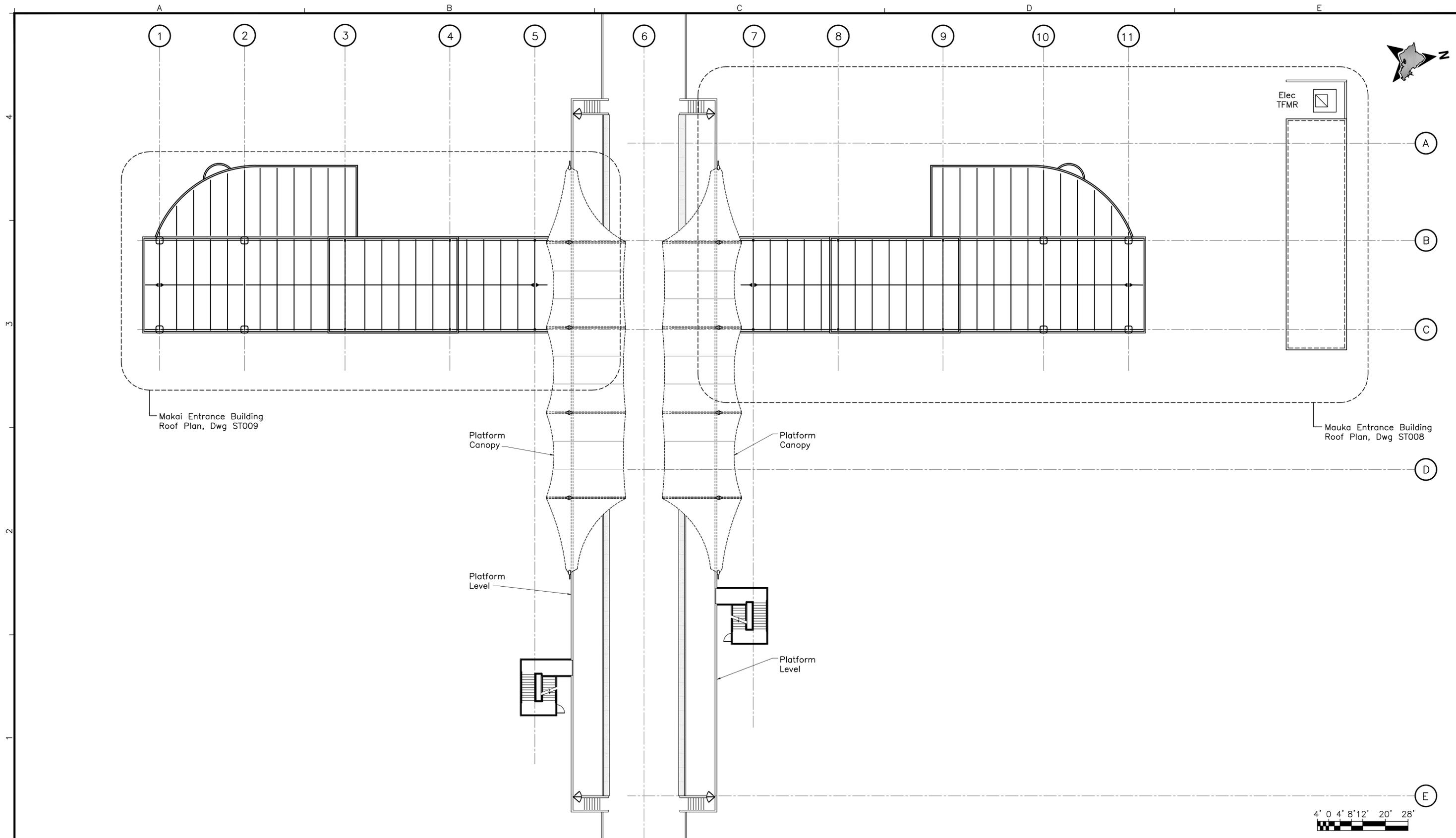
Prime Consultant: **PARSONS BRINCKERHOFF**
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LAGOON DRIVE STATION
STRUCTURAL
OVERALL PLATFORM LEVEL PLAN

Contract No.: SV-440
CADD File: SJ5-G12-ST002
Drawing No: ST002 Rev.
Scale: 1/16" = 1'-0"
Page No. 24 of 49



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**PRELIMINARY
ENGINEERING
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D Sengupta
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Checked:
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HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

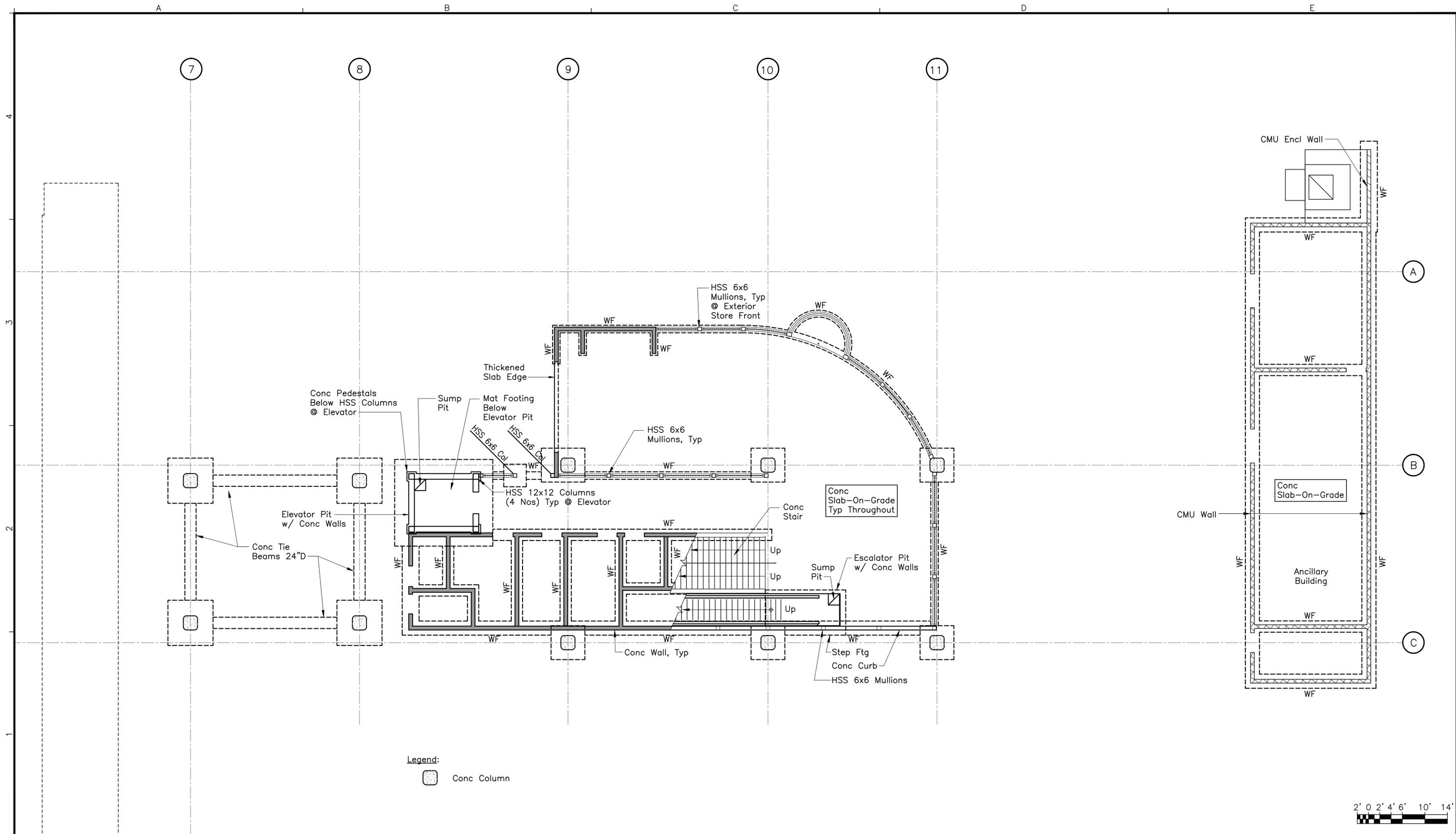
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

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

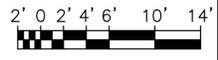
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**LAGOON DRIVE STATION
STRUCTURAL
OVERALL ROOF PLAN**

Contract No.: SV-440
CADD File: SJ5-G12-ST003
Drawing No: ST003 Rev.
Scale: 1/16" = 1'-0"
Page No. 25 of 49



Legend:
 Conc Column



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

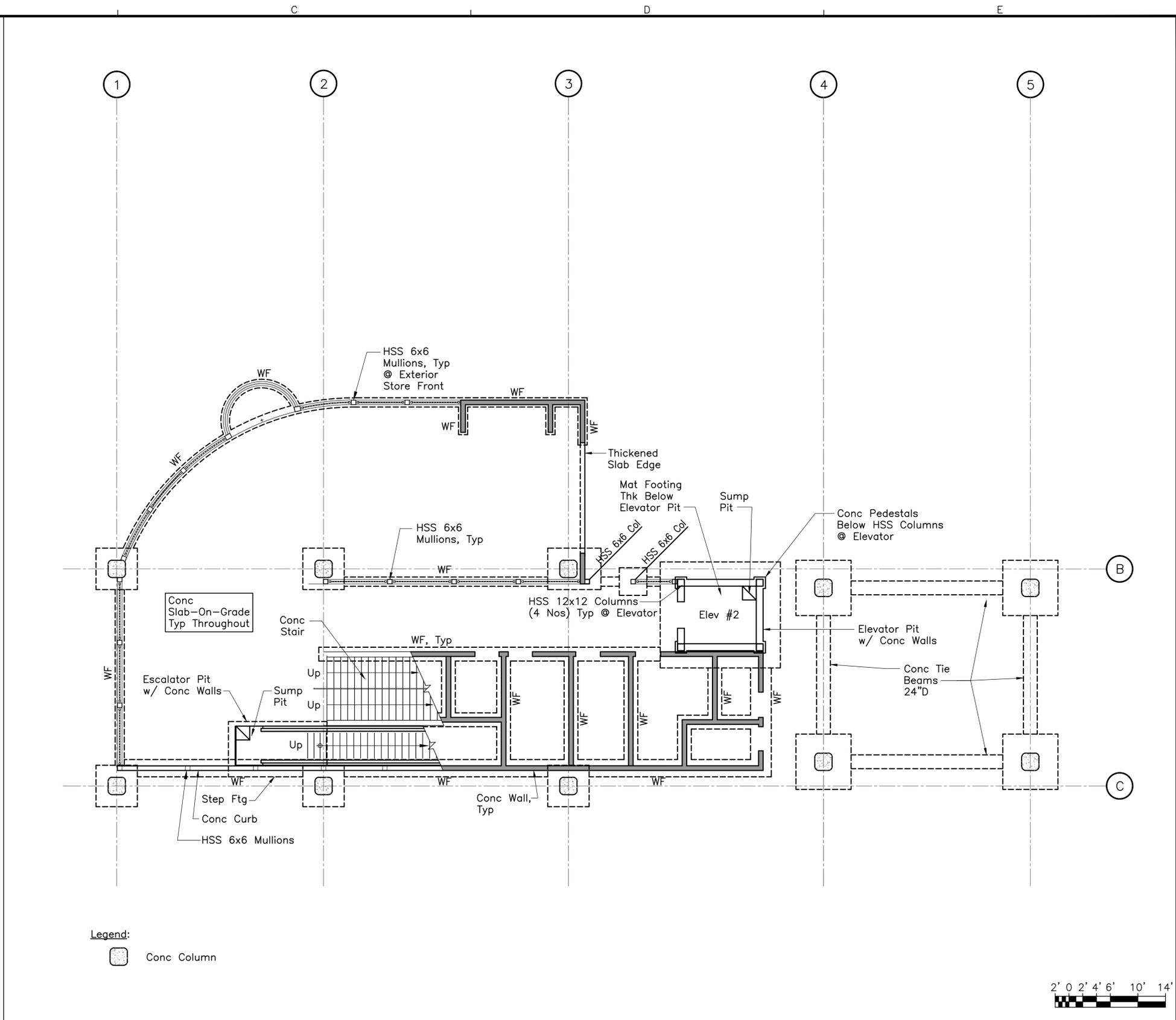
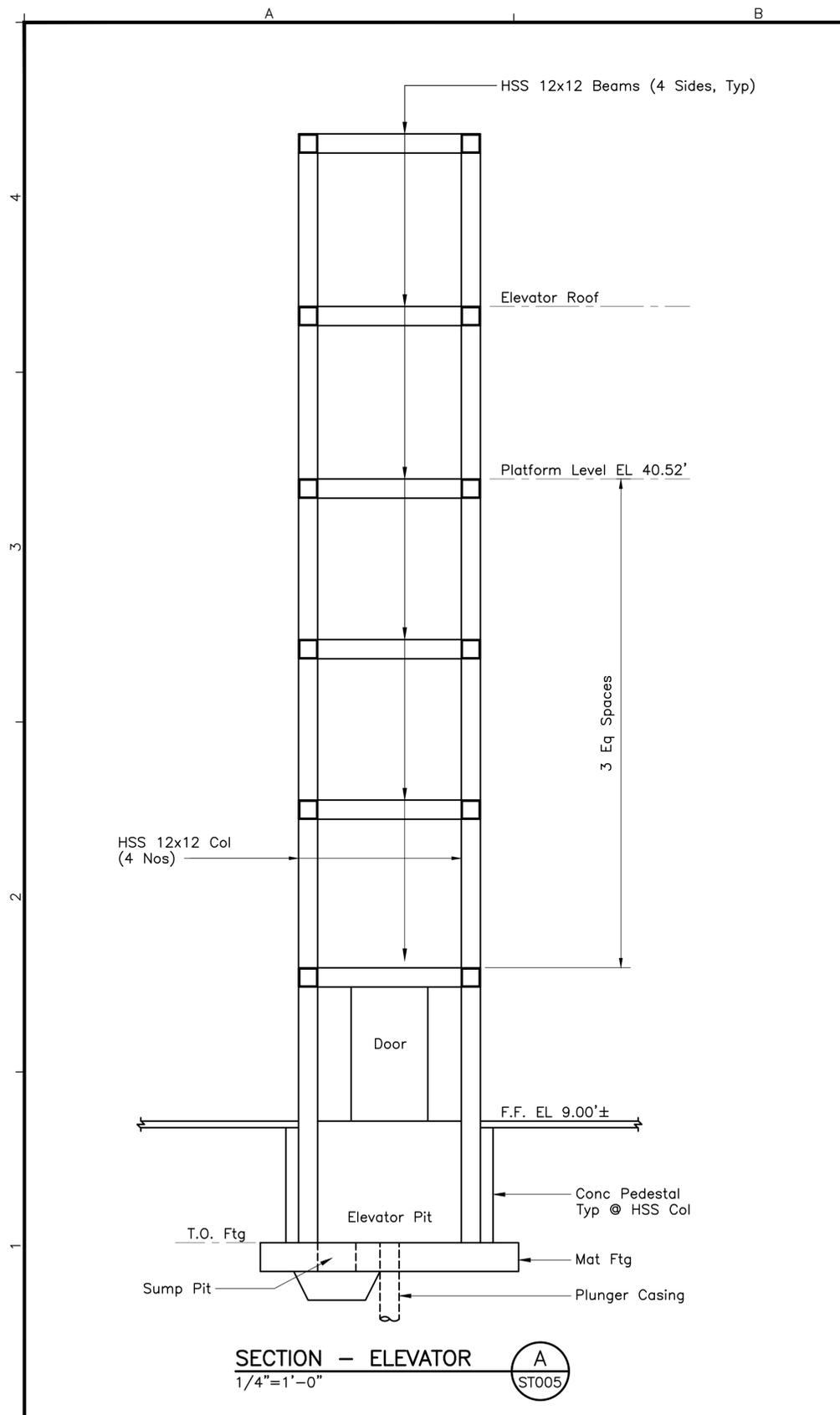
Prime Consultant: **PARSONS BRINCKERHOFF**
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **CONSULTING STRUCTURAL HAWAII, INC.**
 931 HAUSTEN STREET, SUITE 200
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**LAGOON DRIVE STATION
STRUCTURAL
PARTIAL FOUNDATION PLAN
MAUKA ENTRANCE BUILDING**

Contract No.: SV-440
 CADD File: SJ5-G13-ST004
 Drawing No: ST004 Rev.
 Scale: 1/8" = 1'-0"
 Page No. 26 of 49



Rev	By	Date	Description

**PRELIMINARY
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Designed:
D Sengupta
Drawn:
J Perreira
Checked:
E Okuna
Approved:
G Suzuki
Date:
12-17-10

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

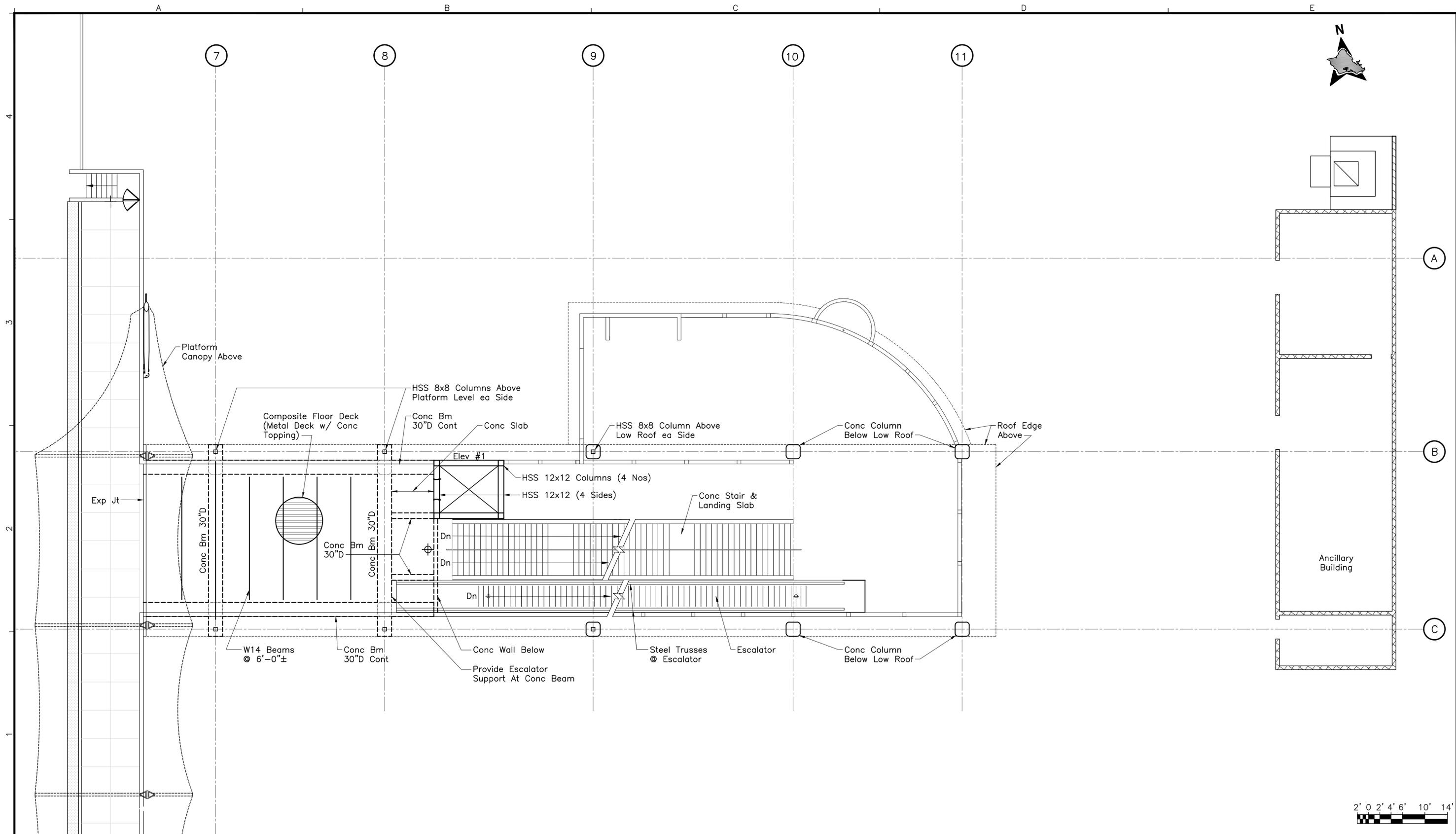
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

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**LAGOON DRIVE STATION
STRUCTURAL
PARTIAL FOUNDATION PLAN
MAKAI ENTRANCE BUILDING**

Contract No.: SV-440
CADD File: SJ5-G13-ST005
Drawing No: ST005 Rev.
Scale: 1/8" = 1'-0"
Page No. 27 of 49



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**PRELIMINARY
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D Sengupta

Drawn:
J Perreira

Checked:
E Okuna

Approved:
G Suzuki

Date:
12-17-10

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

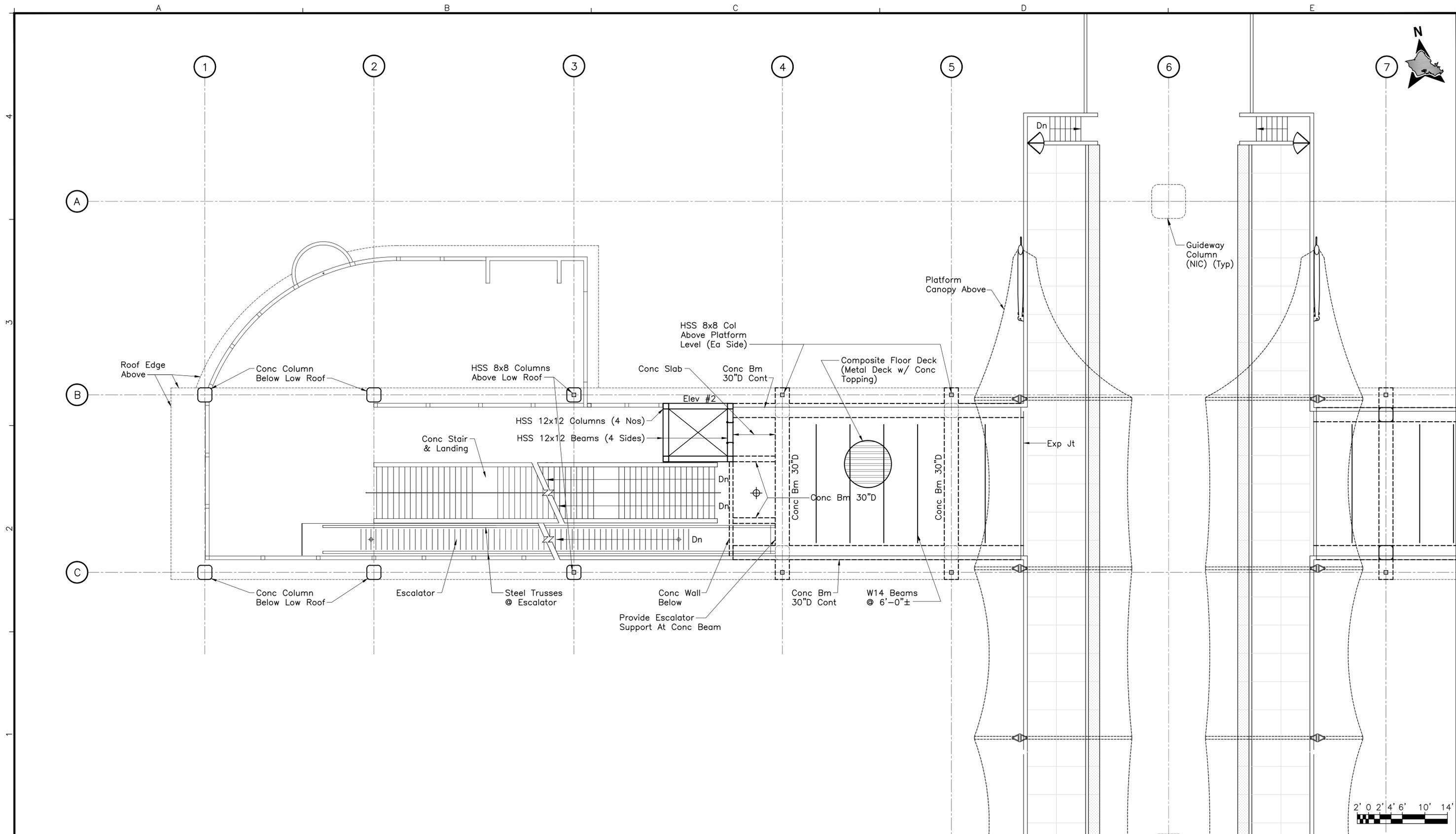
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **CONSULTING STRUCTURAL HAWAII, INC.**
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**LAGOON DRIVE STATION
STRUCTURAL
PLATFORM LEVEL PLAN
MAUKA ENTRANCE BUILDING**

Contract No.: SV-440
CADD File: SJ5-G14-ST006
Drawing No: ST006 Rev.
Scale: 1/8" = 1'-0"
Page No. 28 of 49



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D Sengupta
Drawn:
J Perreira
Checked:
E Okuna
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Date:
12-17-10

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

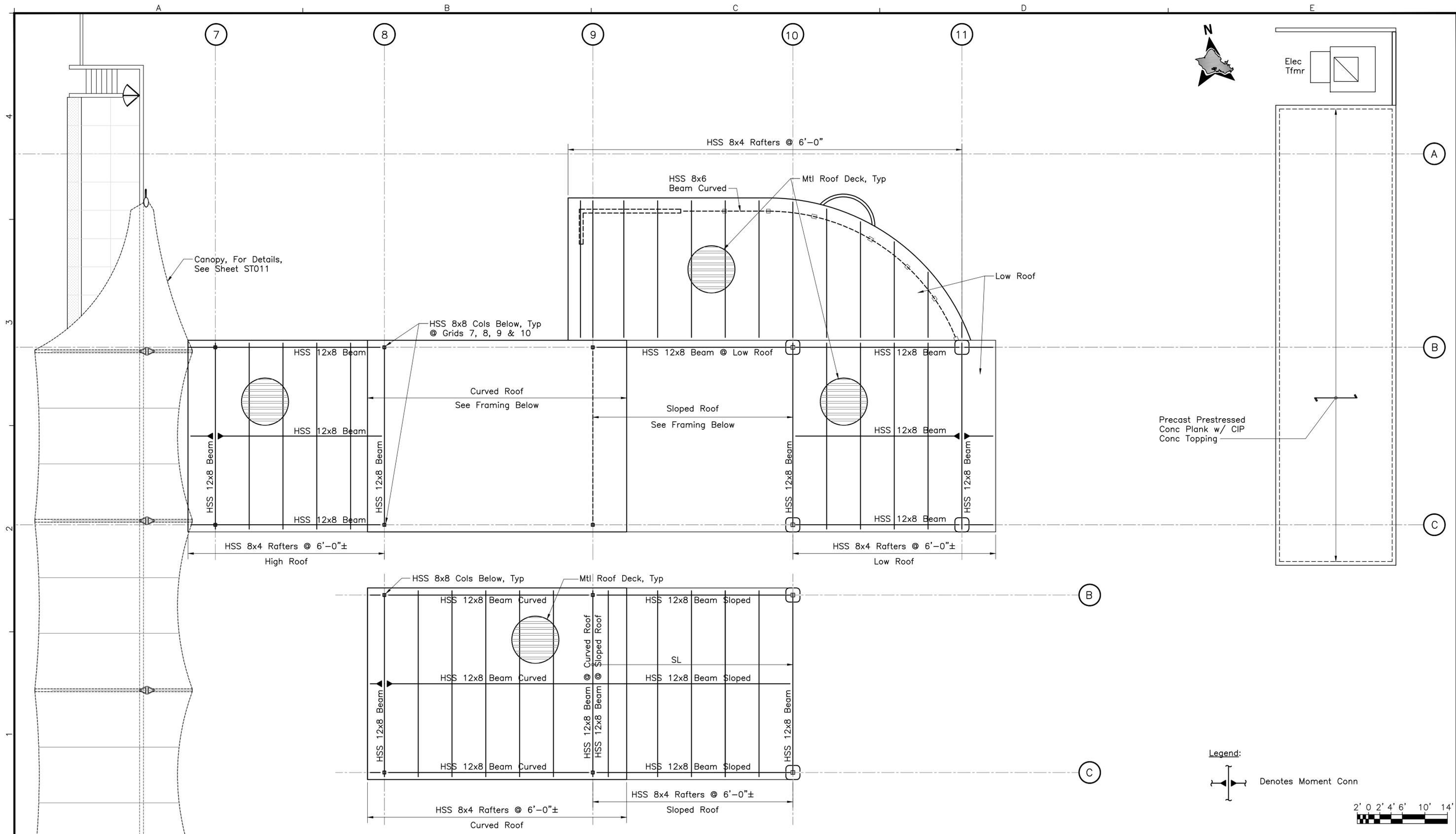
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **CONSULTING STRUCTURAL HAWAII, INC.**
931 HAUSTEN STREET, SUITE 200
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**LAGOON DRIVE STATION
STRUCTURAL
PLATFORM LEVEL PLAN
MAKAI ENTRANCE BUILDING**

Contract No.: SV-440
CADD File: SJ5-G14-ST007
Drawing No: ST007 Rev.
Scale: 1/8" = 1'-0"
Page No. 29 of 49



Rev	By	Date	Description

**PRELIMINARY
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D Sengupta
Drawn:
J Perreira
Checked:
E Okuna
Approved:
G Suzuki
Date:
12-17-10

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

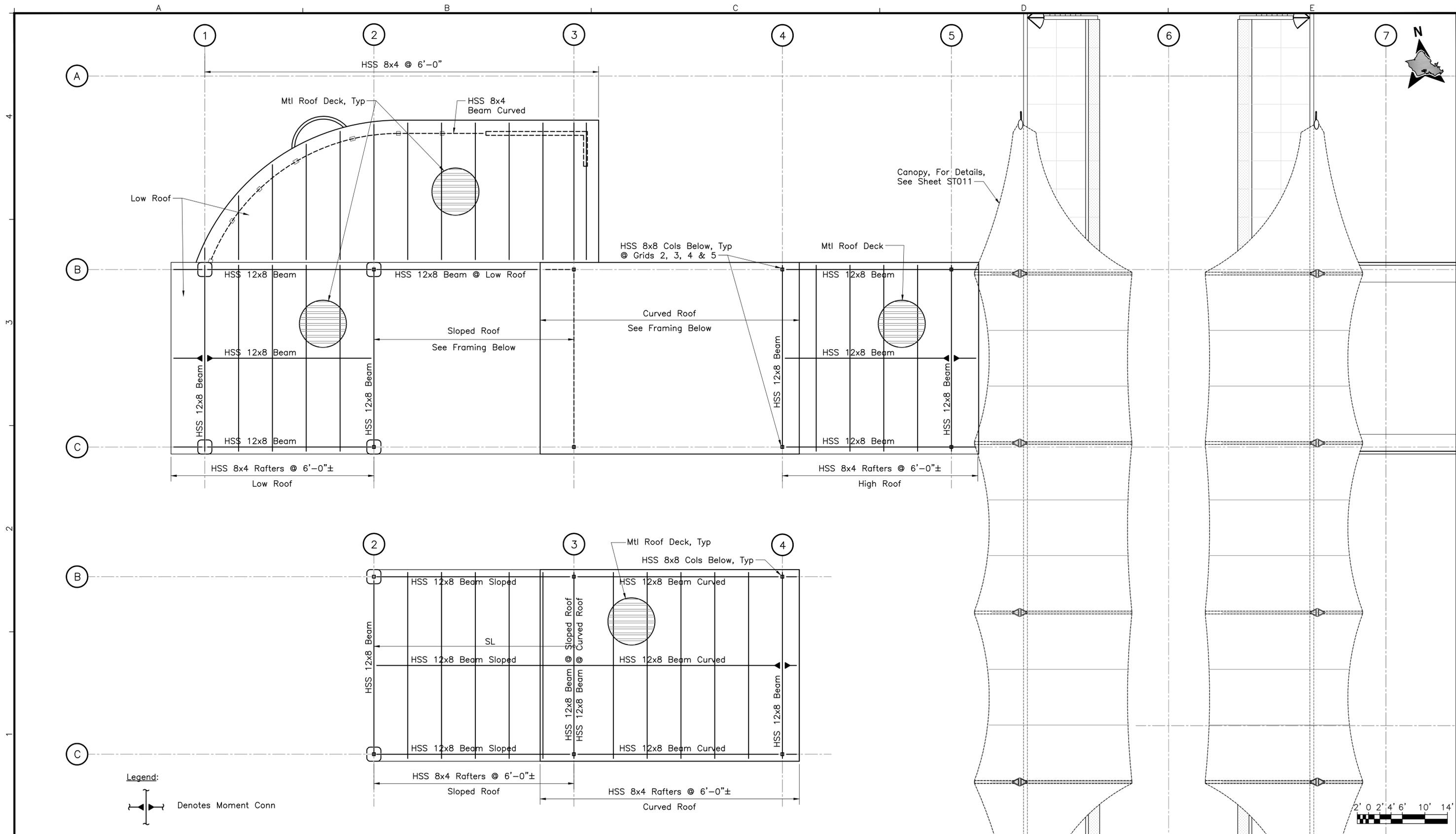
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **CONSULTING STRUCTURAL HAWAII, INC.**
931 HAUSTEN STREET, SUITE 200
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**LAGOON DRIVE STATION
STRUCTURAL
ROOF PLAN
MAUKA ENTRANCE BUILDING**

Contract No.: SV-440
CADD File: SJ5-G14-ST008
Drawing No: ST008 Rev.
Scale: 1/8" = 1'-0"
Page No. 30 of 49



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**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
D Sengupta
Drawn:
J Perreira
Checked:
E Okuna
Approved:
G Suzuki
Date:
12-17-10

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

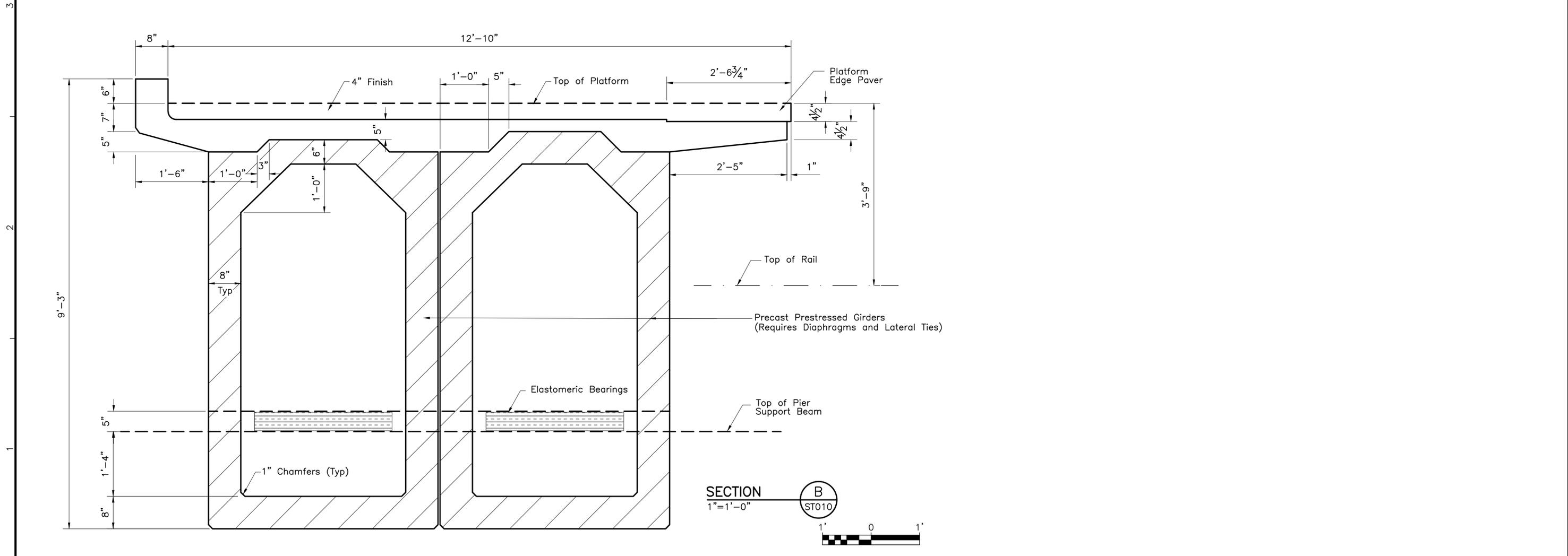
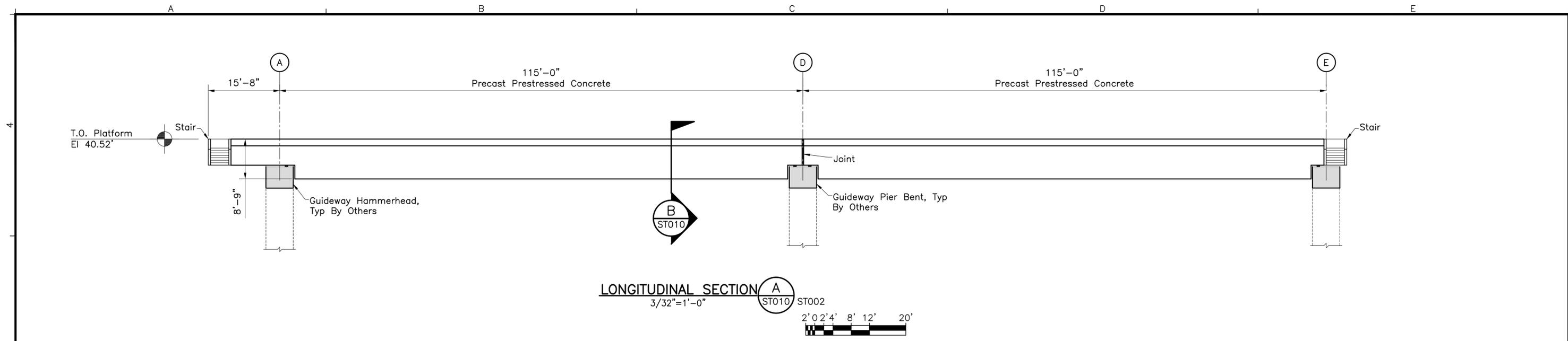
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **CONSULTING STRUCTURAL HAWAII, INC.**
931 HAUSTEN STREET, SUITE 200
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LAGOON DRIVE STATION
**STRUCTURAL
ROOF PLAN**
MAKAI ENTRANCE BUILDING

Contract No.: SV-440
CADD File: SJ5-G14-ST009
Drawing No: ST009 Rev.
Scale: 1/8" = 1'-0"
Page No. 31 of 49



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**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

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D Sengupta
Drawn:
J Perreira
Checked:
E Okuna
Approved:
G Suzuki
Date:
12-17-10

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

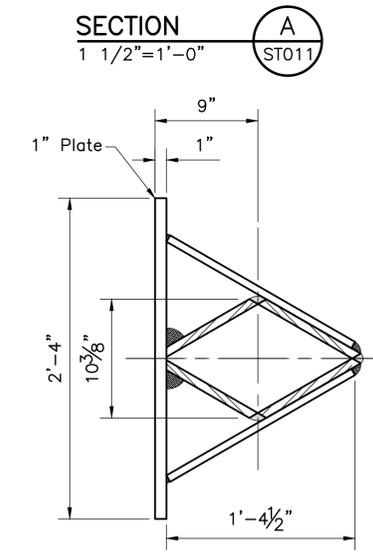
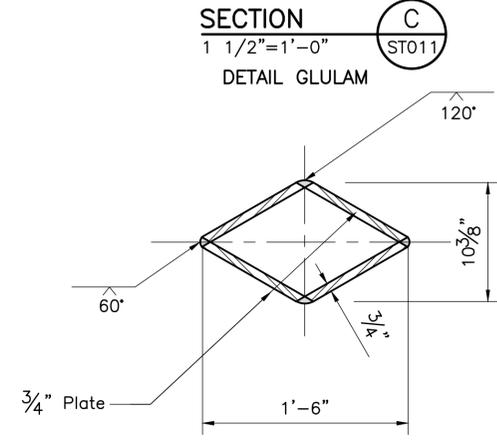
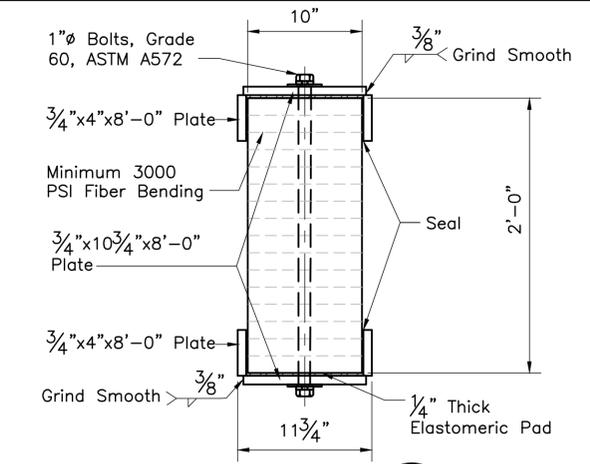
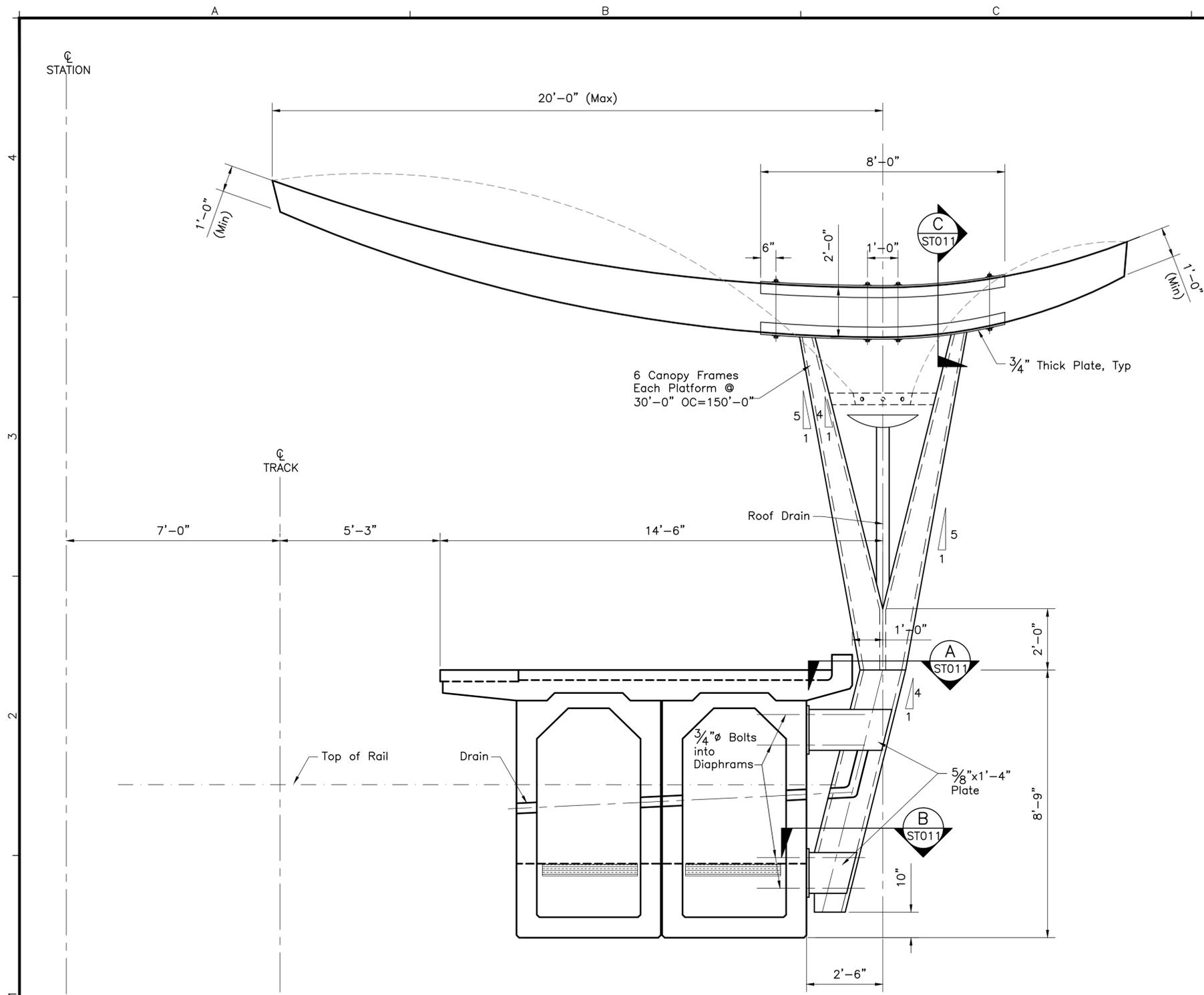
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

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**LAGOON DRIVE STATION
STRUCTURAL
PLATFORM PRECAST GIRDER
ELEVATION AND SECTION**

Contract No.: SV-440	Rev.
CADD File: SJ5-G15-ST010	
Drawing No: ST010	
Scale: As Noted	
Page No. 32 of 49	

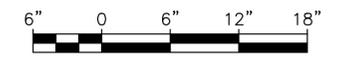


NOTE:
1. See Architectural Directive Drawings for additional canopy details.

PLATFORM CANOPY SECTION
1/2"=1'-0"



SECTION B
1 1/2"=1'-0"
STRUCTURAL TUBE



Rev	By	Date	Description

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J Perreira
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E Okuna
Approved:
G Suzuki
Date:
12-17-10

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

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931 HAUSTEN STREET, SUITE 200
HONOLULU, HAWAII 96826

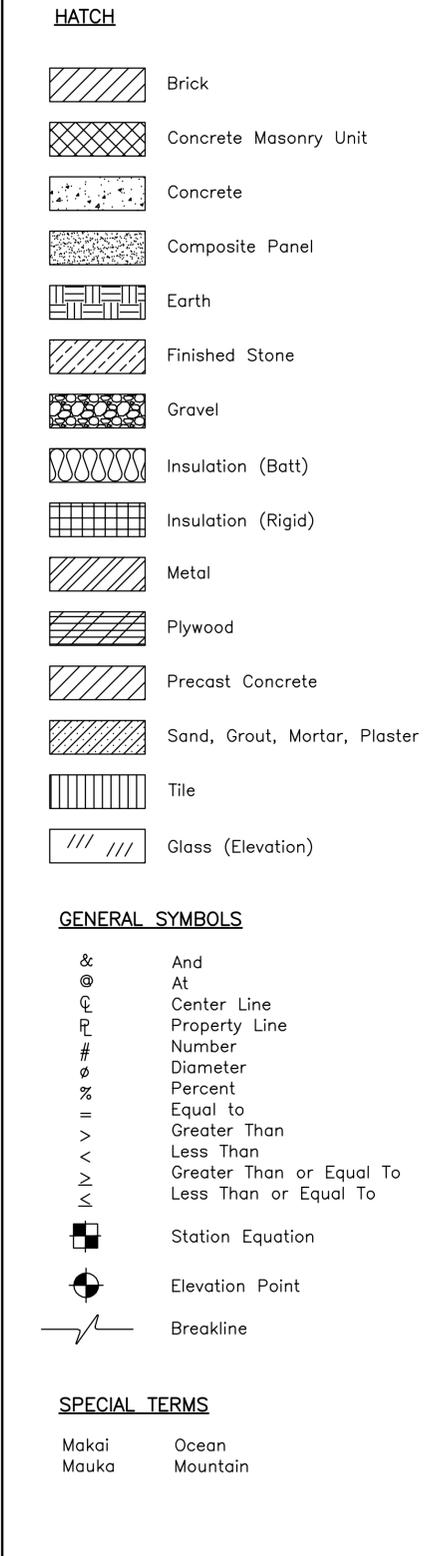
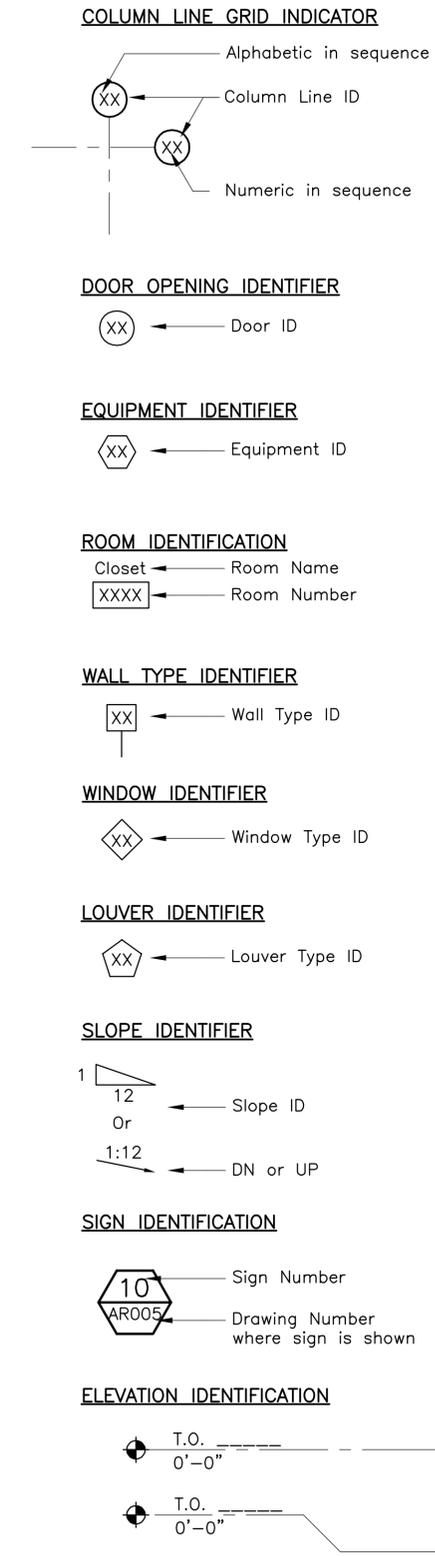
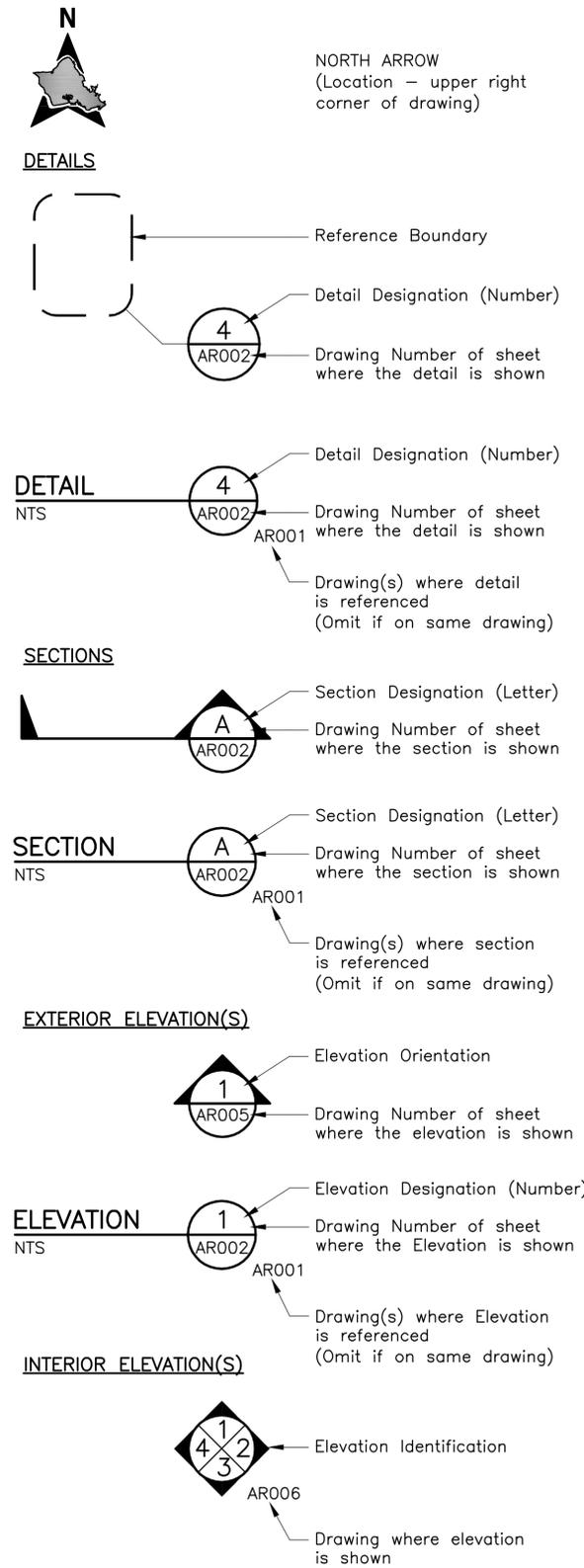
LAGOON DRIVE STATION
STRUCTURAL
PLATFORM CANOPY
DETAILS

Contract No.: SV-440	Rev.
CADD File: SJ5-G15-ST011	
Drawing No: ST011	
Scale: As Noted	
Page No. 33 of 49	

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 Architectural 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 and Elevator Cars.
5. See RTD Directive Drawings in set for Canopy Details and Configuration.

ARCHITECTURAL SYMBOLS



Rev	By	Date	Description

PRELIMINARY ENGINEERING SUBJECT TO REVISION

Designed: Z. Criste
 Drawn: Z. Criste
 Checked: T. Man
 Approved: K. Parmar
 Date: 12-17-10

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:

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LAGOON DRIVE STATION

GENERAL ARCHITECTURAL NOTES, SYMBOLS, AND ABBREVIATIONS

SHEET 1 OF 3

Contract No.: SV-440	
CADD File: SJ5-H01-AG001	
Drawing No: AG001	Rev.
Scale: N/A	
Page No. 34	of 49

ARCHITECTURAL ABBREVIATIONS

<p>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</p> <p>Ⓟ 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</p> <p>Ⓞ 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 Cl Cast Iron CIP Cast-in-Place Circ Circle, Circular Circum Circumference CJ Construction Joint, Control Joint CL Chain Link Clg Ceiling</p>	<p>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</p> <p>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</p> <p>E East, Electrical ea Each EB Expansion Joint, Eastbound EE Each End EF Each Face EJ Expansion Joint EI 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</p>	<p>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</p> <p>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</p> <p>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</p>	<p>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</p> <p>Jan Janitor JB Junction Box JC Janitor's Closet Jct Junction JF Joint Filler Jt(s) Joint(s)</p> <p>kg Kilogram KP Knockout Panel KO Knock Out</p> <p>L Length LA Landscape Architect Lam Laminated 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</p> <p>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 Mtl Material Mul Mullion</p>	<p>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</p> <p>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</p> <p>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 Plas Plate Platf Plaster P Lam Platform PLD Plastic Laminate PLT Plastic Duct Plum Plastic Tile Plywd Plumbing Pol Plywood Pr Police Proj Pair Prop Project, Projection PS Property PSF Point of Switch PSI Pounds Per Square Feet PSI Pounds Per Square Inch Pt(s) Painted PTD/R Point(s) PVC Paper Towel Dispenser & Receptacle Pvmt Polyvinyl Chloride Pwr Pavement Power</p> <p>QT Quarry Tile qt Quart Qty Quantity Quad Quadrant</p>
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<p align="center">PRELIMINARY ENGINEERING SUBJECT TO REVISION</p>	<p>Designed: Z Criste</p>	<p align="center">HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION</p>	<p align="center">LAGOON DRIVE STATION</p>	<p>Contract No.: SV-440</p>
	<p>Drawn: Z Criste</p>			<p>CADD File: SJ5-H01-AG002</p>
	<p>Checked: T Man</p>	<p>Prime Consultant: PARSONS BRINCKERHOFF</p>	<p>Subconsultant:</p>	<p>Drawing No: AG002</p>
	<p>Approved: K Parmar</p>	<p>1003 Bishop Street, Suite 2250 - Honolulu, HI 96813</p>	<p>Scale: N/A</p>	<p>Rev.</p>
	<p>Date: 12-17-10</p>	<p>For reduced prints, original page size in inches: 0 1 2 3 4</p>	<p align="center">SHEET 2 OF 3</p>	<p>Page No. 35 of 49</p>

ARCHITECTURAL ABBREVIATIONS (CONTINUED)

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

Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: Z Criste
 Drawn: Z Criste
 Checked: T Man
 Approved: K Parmar
 Date: 12-17-10

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

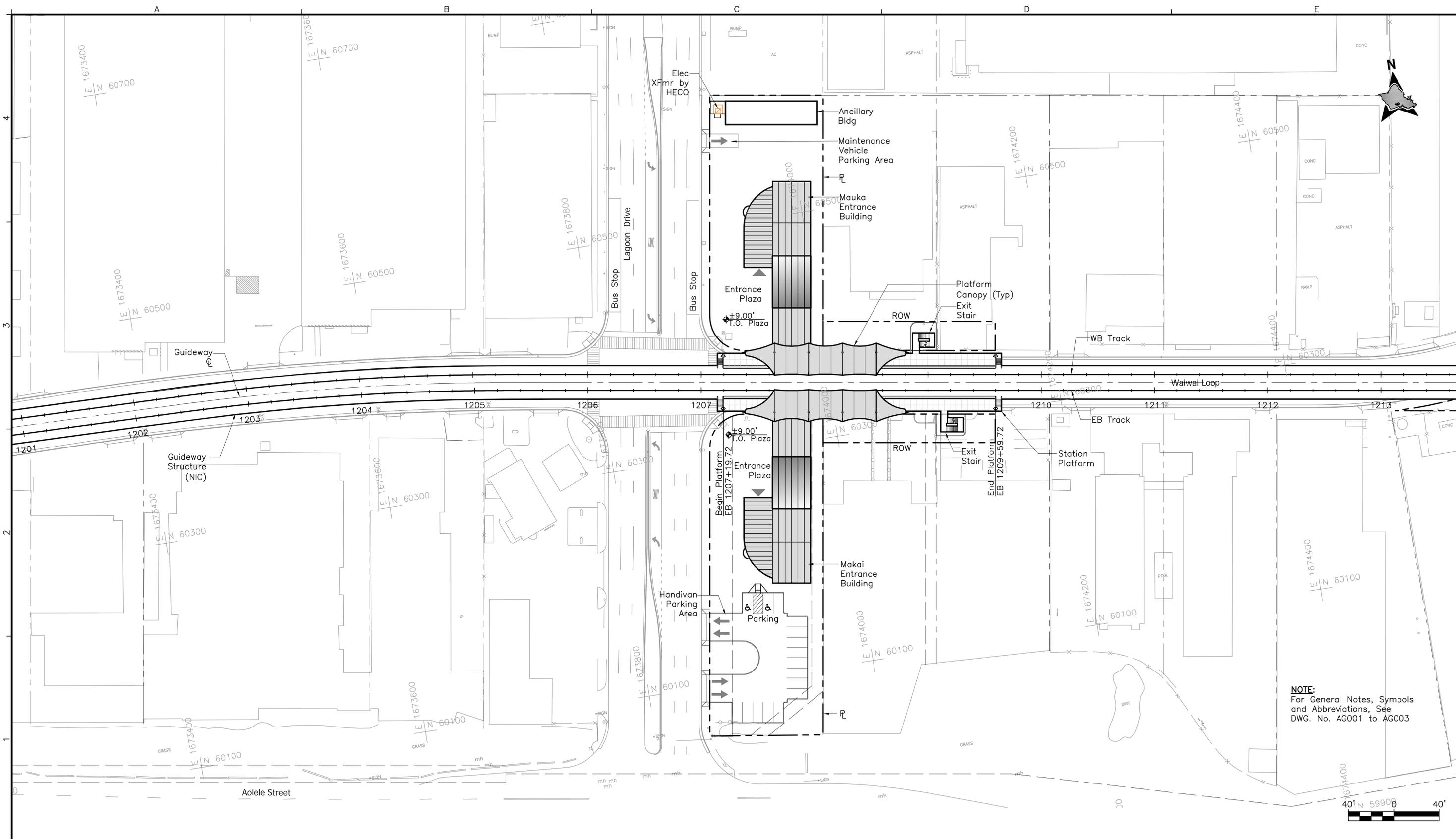
Subconsultant:

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LAGOON DRIVE STATION
**GENERAL ARCHITECTURAL NOTES,
 SYMBOLS, AND ABBREVIATIONS**

SHEET 3 OF 3

Contract No.: SV-440
 CADD File: SJ5-H01-AG003
 Drawing No: AG003 Rev.
 Scale: N/A
 Page No. 36 of 49



NOTE:
For General Notes, Symbols
and Abbreviations, See
DWG. No. AG001 to AG003



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Approved:
K Parmar
Date:
12-17-10

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

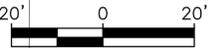
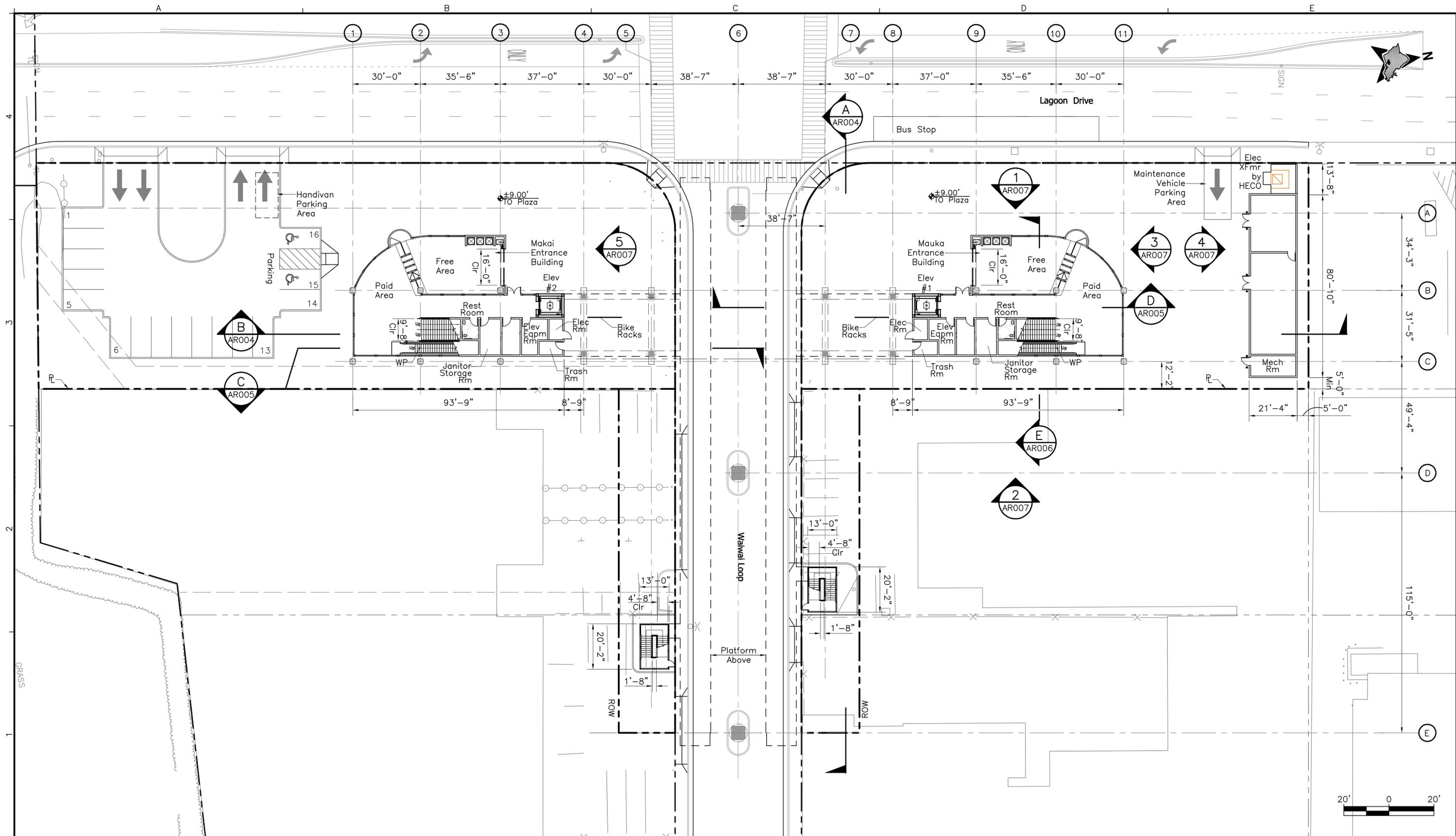
Prime Consultant:
PARSONS BRINCKERHOFF
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Subconsultant:

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**LAGOON DRIVE STATION
ARCHITECTURAL SITE PLAN**

Contract No.:
SV-440
CADD File:
SJ5-H02-AR001
Drawing No: AR001 Rev.
Scale:
1"=40'
Page No. 37 of 49



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

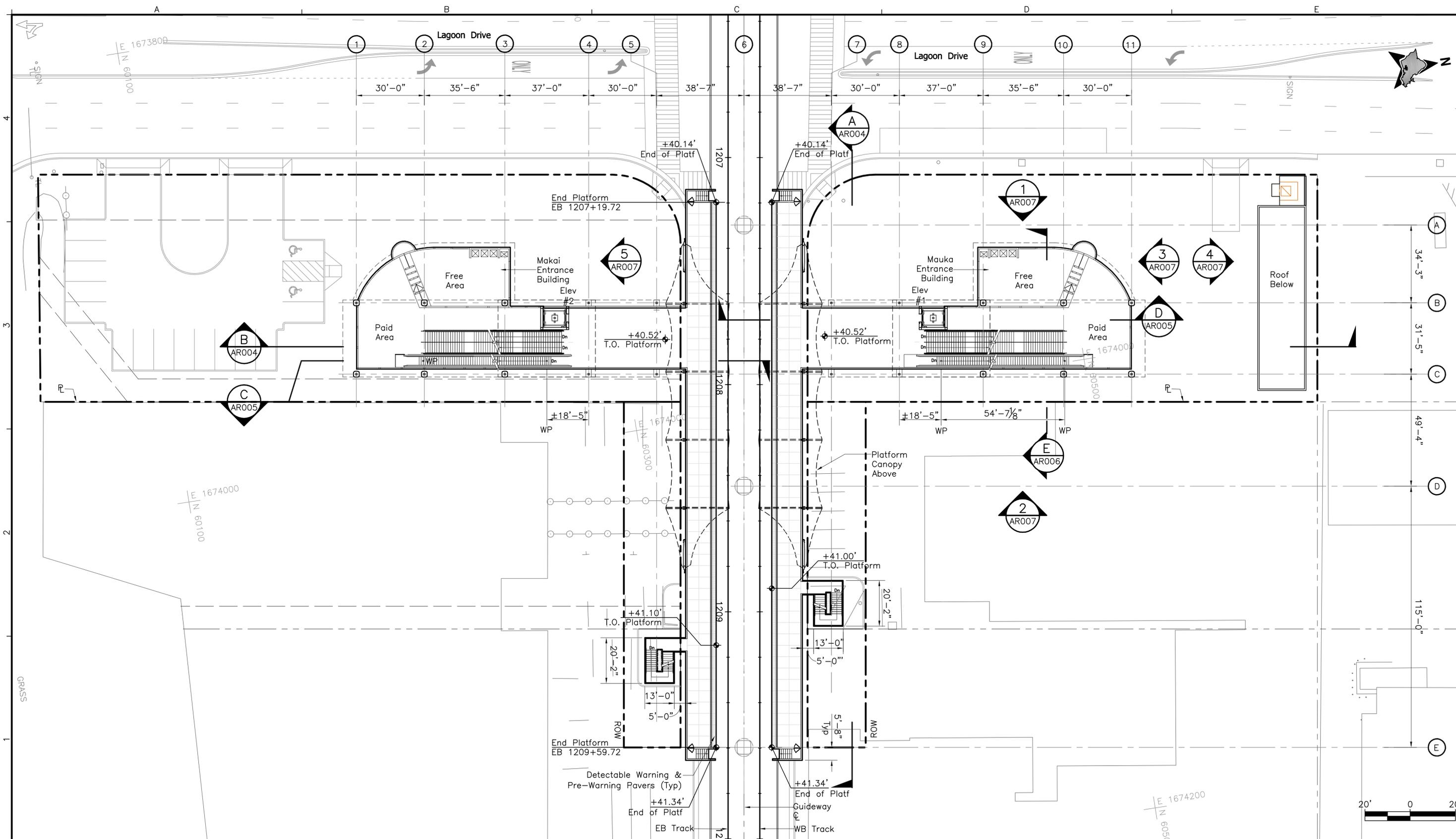
Prime Consultant: **PARSONS BRINCKERHOFF**
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**LAGOON DRIVE STATION
GROUND LEVEL FLOOR PLAN**

Contract No.: SV-440
 CADD File: SJ5-H03-AR002
 Drawing No: AR002 Rev.
 Scale: 1"=20'
 Page No. 38 of 49



Rev	By	Date	Description

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Approved:	K Parmar
Date:	12-17-10

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

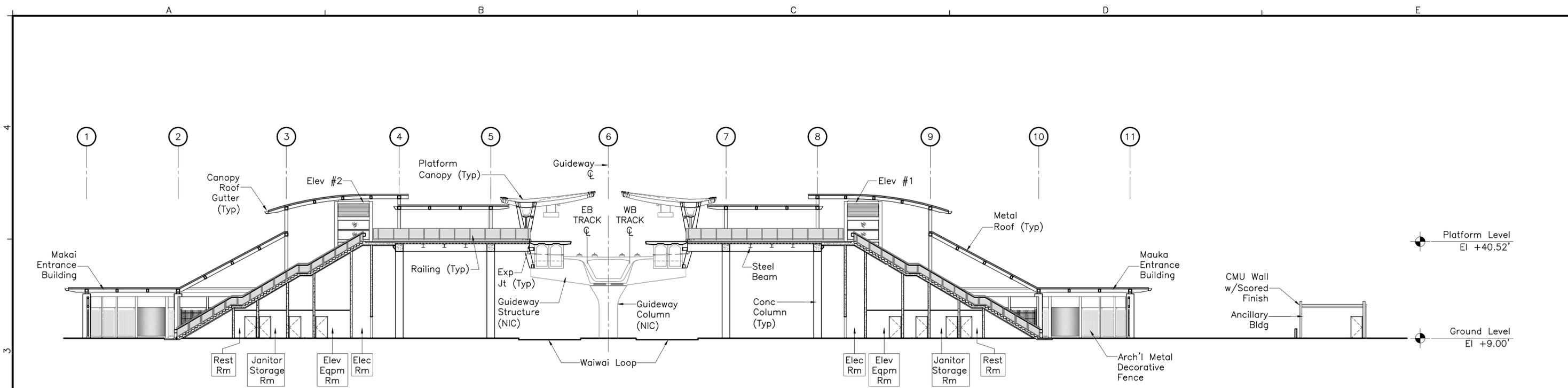
Prime Consultant: **PARSONS BRINCKERHOFF**
Subconsultant: **1222**

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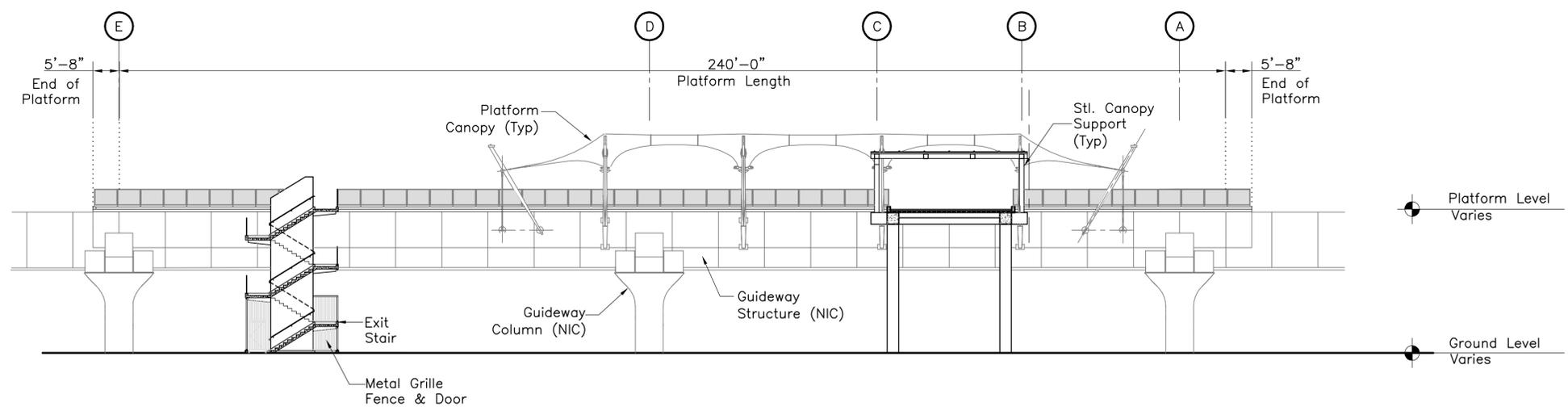
For reduced prints, original page size in inches: 0 1 2 3 4 5

**LAGOON DRIVE STATION
PLATFORM LEVEL FLOOR PLAN**

Contract No.:	SV-440
CADD File:	SJ5-H03-AR003
Drawing No.:	AR003
Scale:	1"=20'
Page No.:	39 of 49



TRANSVERSE SECTION
 1/16"=1'-0"
 B
 AR004 AR002 AR003



LONGITUDINAL SECTION
 1/16"=1'-0"
 A
 AR004 AR002 AR003



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

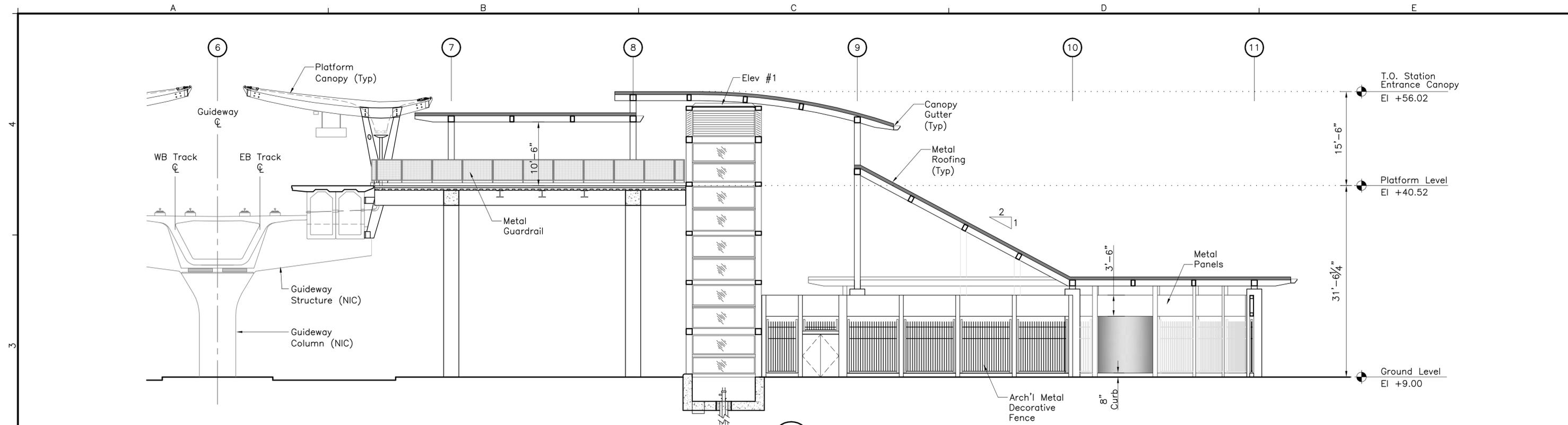
Prime Consultant: **PARSONS BRINCKERHOFF**
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Subconsultant:

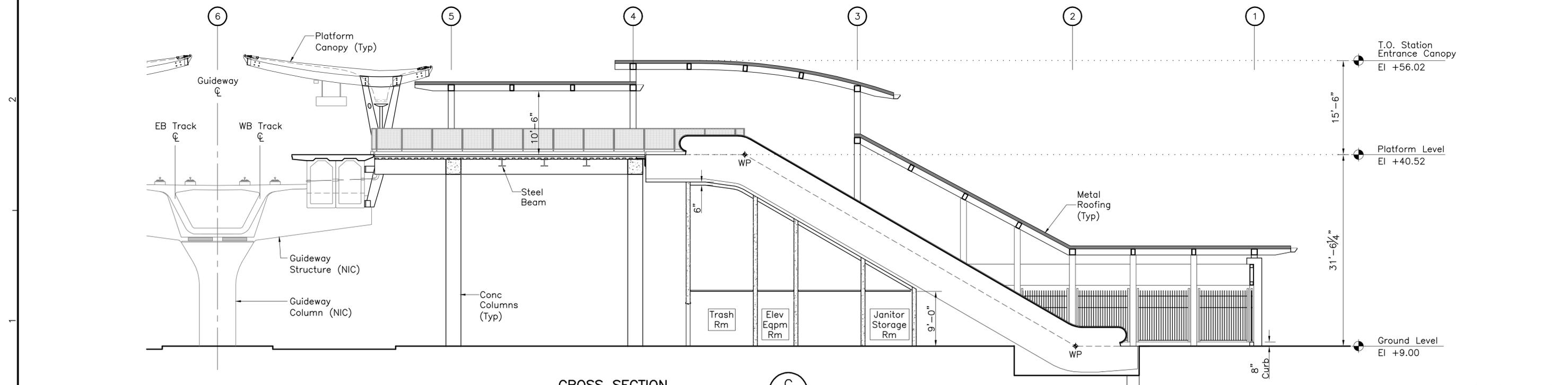
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**LAGOON DRIVE STATION
 BUILDING SECTIONS**

Contract No.: SV-440
 CADD File: SJ5-H05-AR004
 Drawing No: AR004
 Scale: 1/16"=1'-0"
 Page No. 40 of 49



CROSS SECTION
 1/8"=1'-0"
 D
 AR005 AR002 AR003



CROSS SECTION
 1/8"=1'-0"
 C
 AR005 AR002 AR003



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

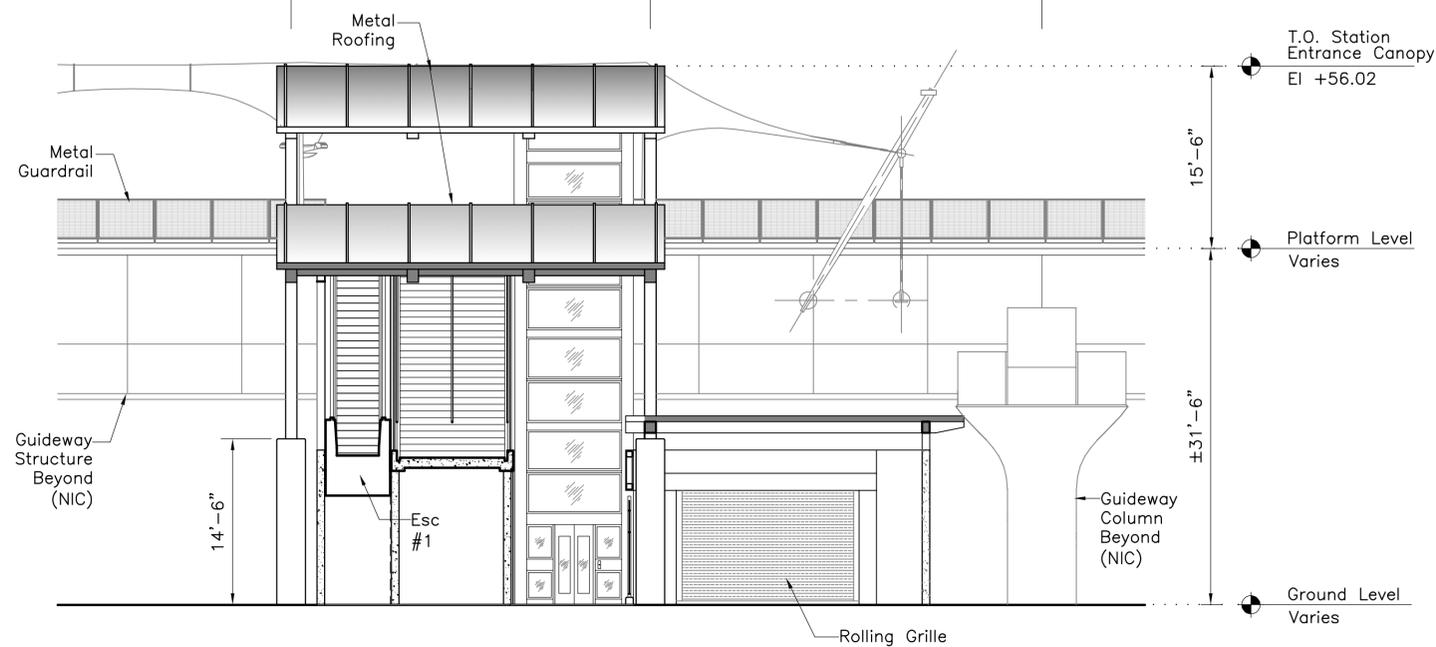
Prime Consultant: **PARSONS BRINCKERHOFF**
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**LAGOON DRIVE STATION
 CROSS SECTIONS**

SHEET 1 OF 2

Contract No.: SV-440	
CADD File: SJ5-H05-AR005	
Drawing No: AR005	Rev.
Scale: 1/8"=1'-0"	
Page No. 41	of 49



SECTION
1/8"=1'-0"
E
AR006 AR002
AR003



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

Prime Consultant:
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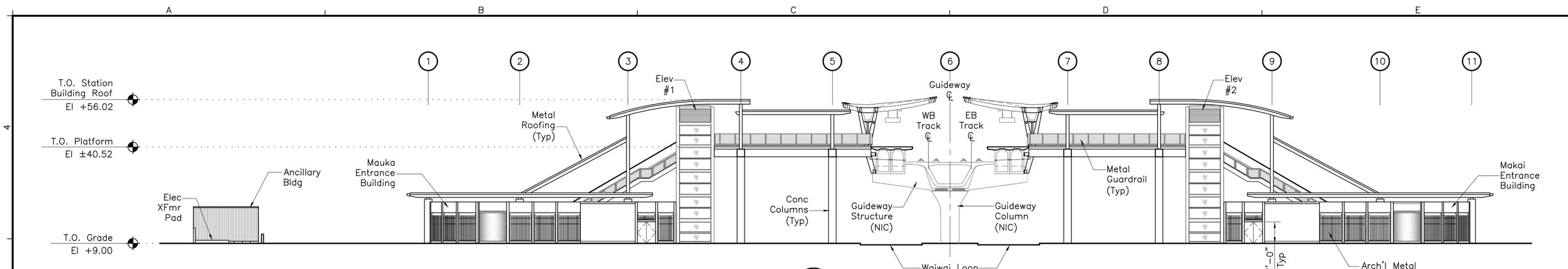
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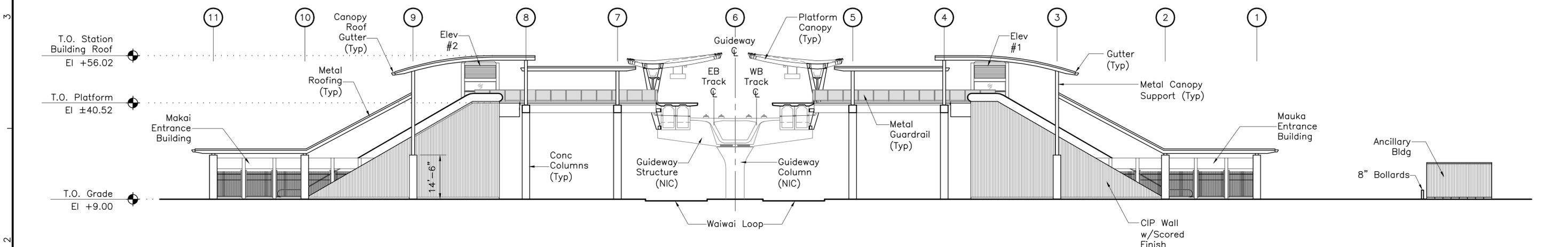
LAGOON DRIVE STATION
CROSS SECTIONS

SHEET 2 OF 2

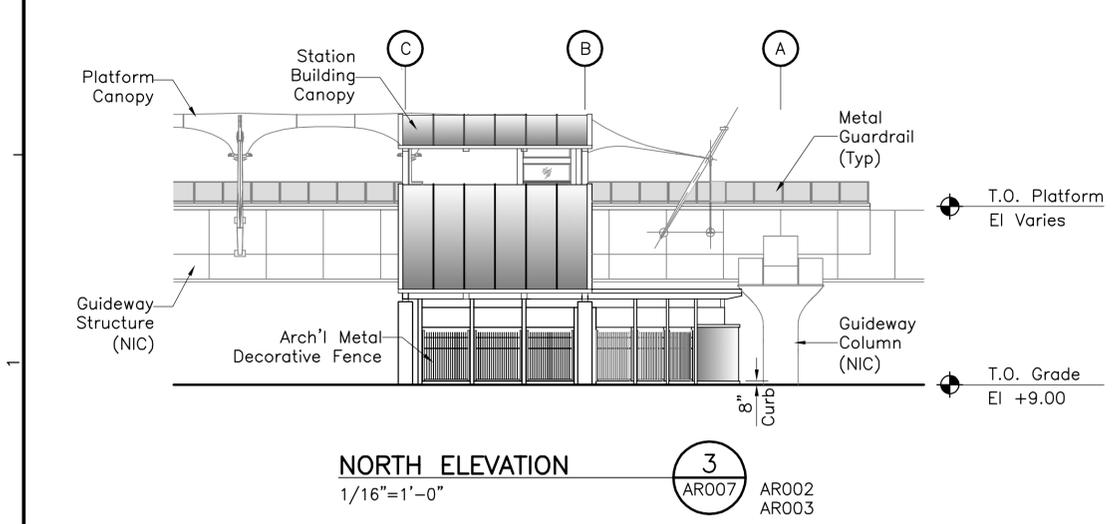
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SV-440
CADD File:
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Drawing No: AR006 Rev.
Scale:
1/8"=1'-0"
Page No. 42 of 49



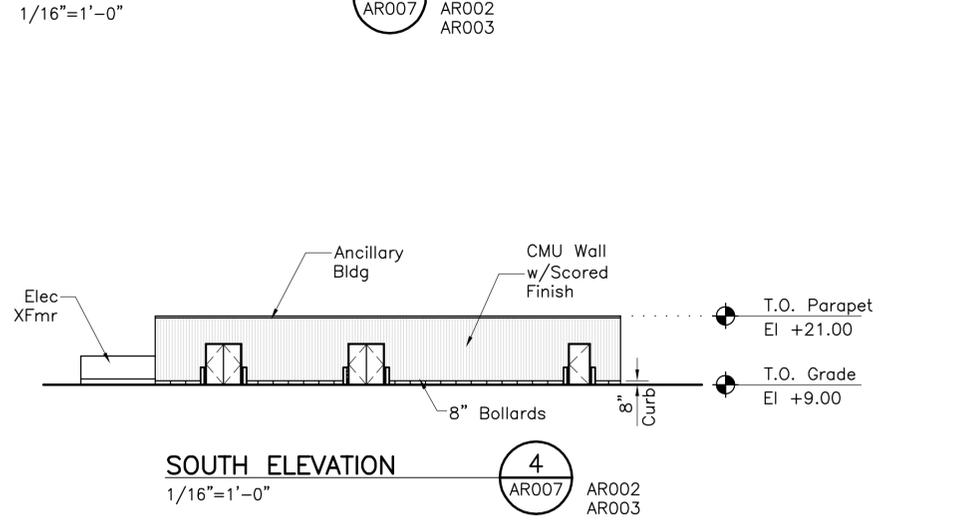
EAST ELEVATION
 1/16"=1'-0"
 1 AR007 AR002 AR003



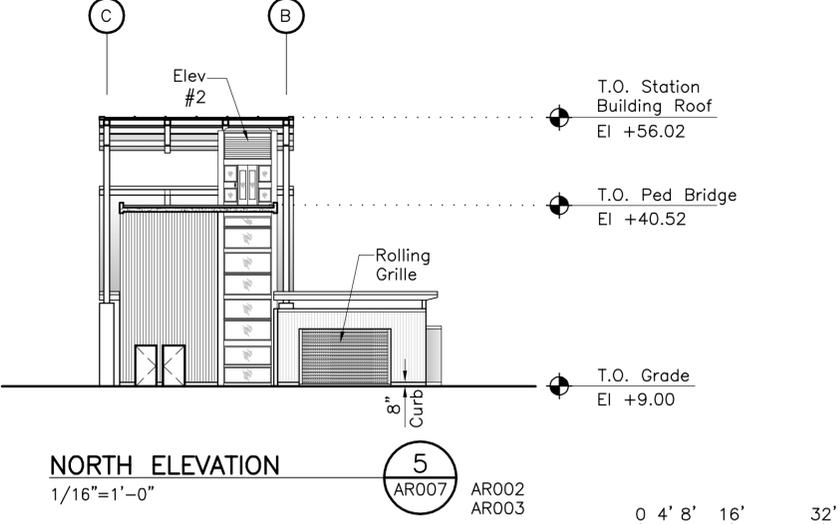
WEST ELEVATION
 1/16"=1'-0"
 2 AR007 AR002 AR003



NORTH ELEVATION
 1/16"=1'-0"
 3 AR007 AR002 AR003



SOUTH ELEVATION
 1/16"=1'-0"
 4 AR007 AR002 AR003



NORTH ELEVATION
 1/16"=1'-0"
 5 AR007 AR002 AR003



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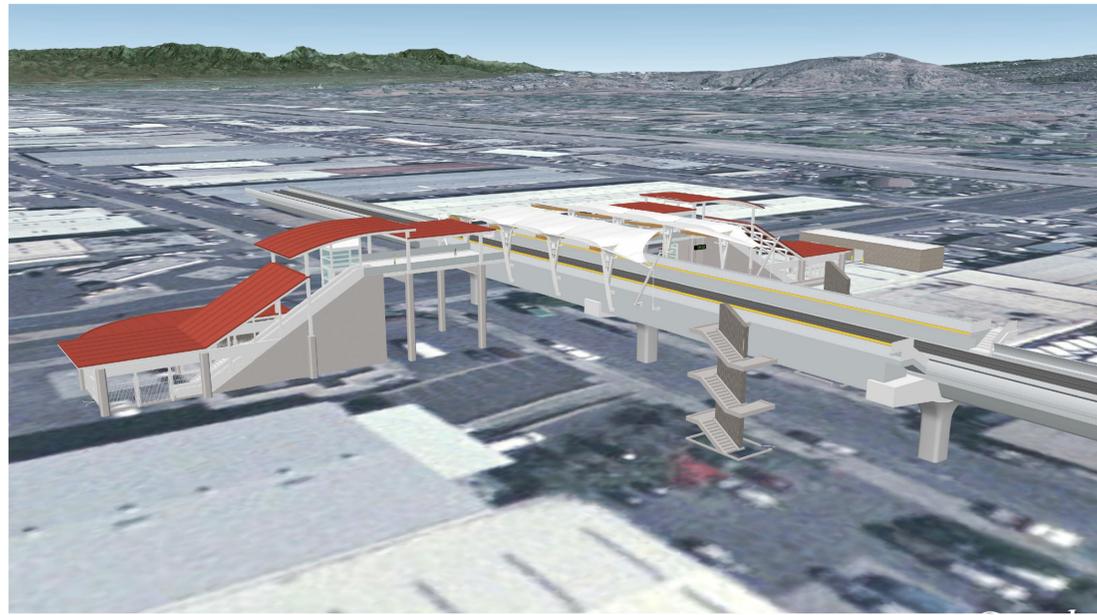
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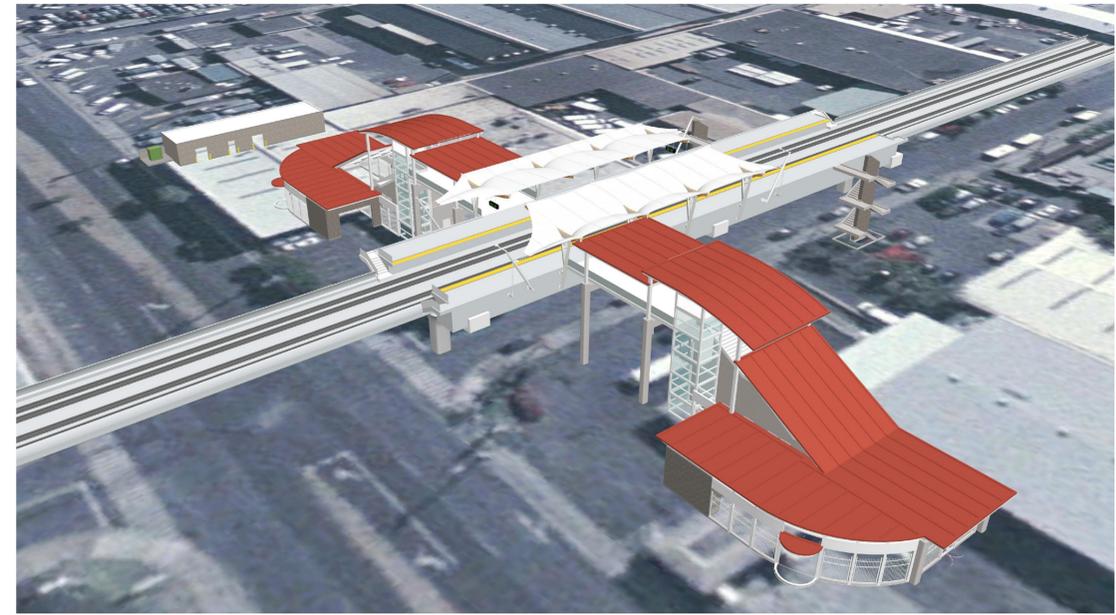
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813
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**LAGOON DRIVE STATION
 ELEVATIONS**

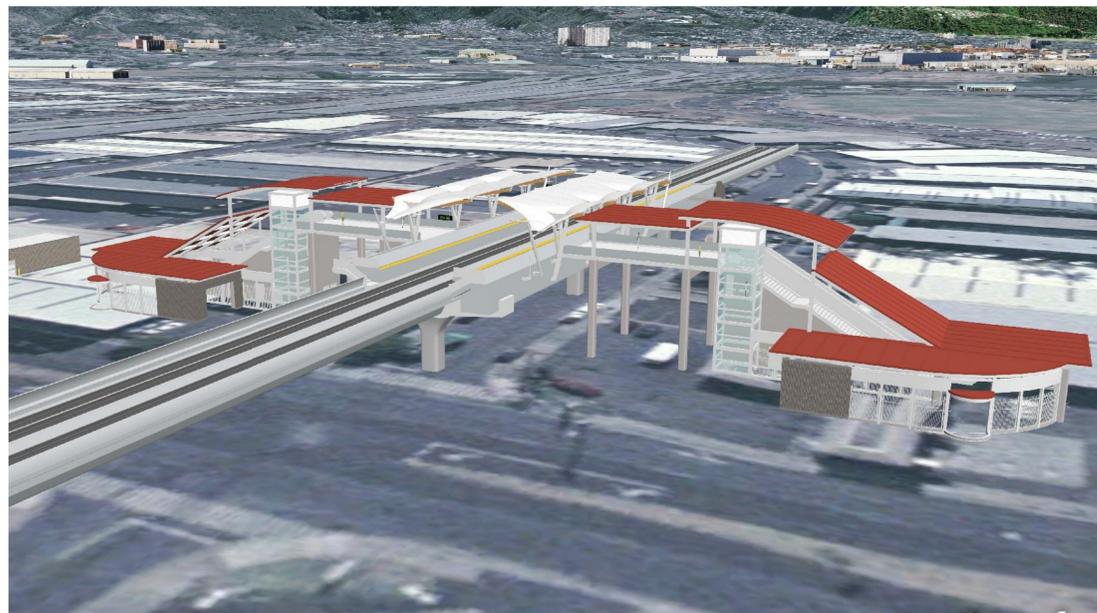
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 CADD File: SJ5-H06-AR007
 Drawing No: AR007 Rev.
 Scale: 1/16"=1'-0"
 Page No. 43 of 49



VIEW 1
NTS



VIEW 2
NTS



VIEW 3
NTS



VIEW 4
NTS



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HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION
Prime Consultant:
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1003 Bishop Street, Suite 2250 - Honolulu, HI 96813
Subconsultant:
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**LAGOON DRIVE STATION
3D VIEWS**

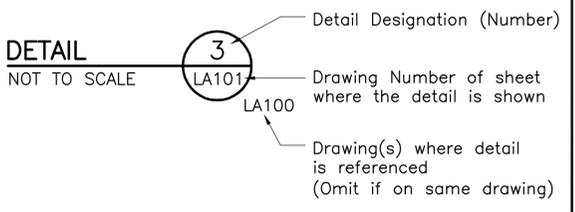
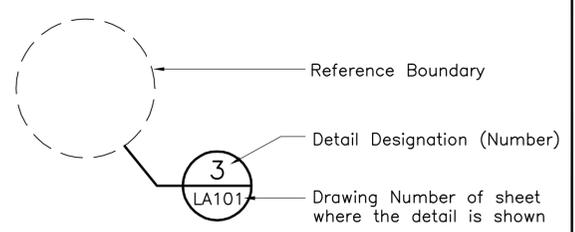
Contract No.:
SV-440
CADD File:
SJ5-H07-AR008
Drawing No: AR008 Rev.
Scale:
NTS
Page No. 44 of 49

GENERAL NOTES

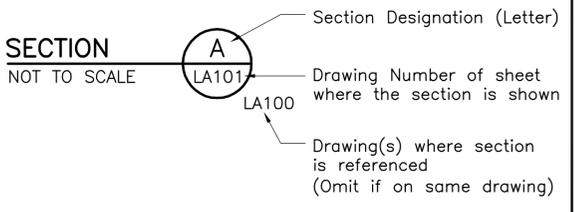
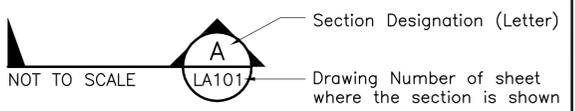
- "EB Track" denotes the centerline of the Eastbound Track. "WB Track" denotes the centerline of the Westbound Track.
- Origin of Coordinates: Hawaii State Plane Coordinate Grid System, Zone III with the North American Datum of 83 High Accuracy Reference Network (NAD83 HARN).
- The proposed WB Track 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.
- 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.
- 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 design-build contractor is responsible for verifying existing conditions prior to supplying advanced design documents to the RTD.
- 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.
- All remaining trees within project limits are to remain and be protected unless otherwise noted.
- All utilities servicing existing facilities shall remain in service at all times. Exercise caution during tree root removal. Notify owner's representative immediately if service is interrupted and pay for repair at no cost to owner.
- All existing utilities, site furnishings, paving, landscape and other elements to remain shall be protected from any damage unless otherwise noted.
- Contractor shall notify all necessary utility companies 48 hours minimum prior to digging for verification of all underground utilities, and other obstructions and coordinate with owner's representative prior to initiating operations.
- Landscape contractor shall coordinate all work with related contractors and with the general construction of the project in order not to impede the progress of the work of others or the contractor's own work.
- Landscape contractor shall field adjust locations of plant material as necessary to avoid damage to existing underground utilities and/or existing above ground elements. All changes required shall be completed at the contractor's expense and shall be coordinated with the owner's representative and the landscape architect.
- The contractor shall perform its own quantity estimates for the purposes of bidding and construction. The contractor shall provide plants and other materials in the quantities necessary to complete the installation as shown on the drawings.
- Stake tree and palm locations and obtain approval of the landscape architect prior to planting trees and palms.

SYMBOLS

DETAILS



SECTIONS



SPECIAL TERMS

Makai Ocean
Mauka Mountain

GENERAL SYMBOLS

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

LANDSCAPE SYMBOLS

- Existing Palm
- Existing Tree
- Existing Vegetation
- Large Tree**
 - Kukui Aleurites moluccana
 - Monkeypod Samanea saman
- Medium Tree**
 - Queen's White Shower Cassia javanica
- Small Tree**
 - Kou Cordia subcordata
- Palm**
 - Mexican Fan Washingtonia robusta
 - Loulu Pritchardia spp.
- Hedge**
 - Croton Codiaeum variegatum
 - False Eranthemum Pseuderanthemum carruthersii reticulatum
- Groundcover-1**
 - Variegated Lily Wikstroemia uva-ursi
 - Kupukupu Nephrolepis cordifolia
- Groundcover-2**
 - Golden Pothos Epipremnum pinnatum
 - Syngonium Syngonium auritum
- Lawn**
 - St. Augustine Stenotaphrum secundatum

ABBREVIATIONS

- B Baseline
- BWS Board of Water Supply
- CL Centerline
- Conc Concrete
- Cont Container
- Dia Diameter
- Dwg Drawing
- EB Eastbound
- FS Field Specimen
- Gal Gallon
- GB# Gap Breaker
- HDPE High Density Polyethylene
- Max Maximum
- Min Minimum
- MH Manhole
- N/A Not Applicable
- NB Northbound
- NIC Not in Contract
- N.I.C. Not in Contract
- NTS Not To Scale
- OC On Center
- ROW Right of Way
- RPBP Reduce Pressure Backflow Preventer
- SB Southbound
- SR State Route
- Typ Typical
- Typ Sym Typical Symbol
- WB Westbound
- WM Water Meter

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
C Hironaka
Drawn:
L Keliia
Checked:
B Tanimura
Approved:
D Easterday
Date:
12-17-10

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

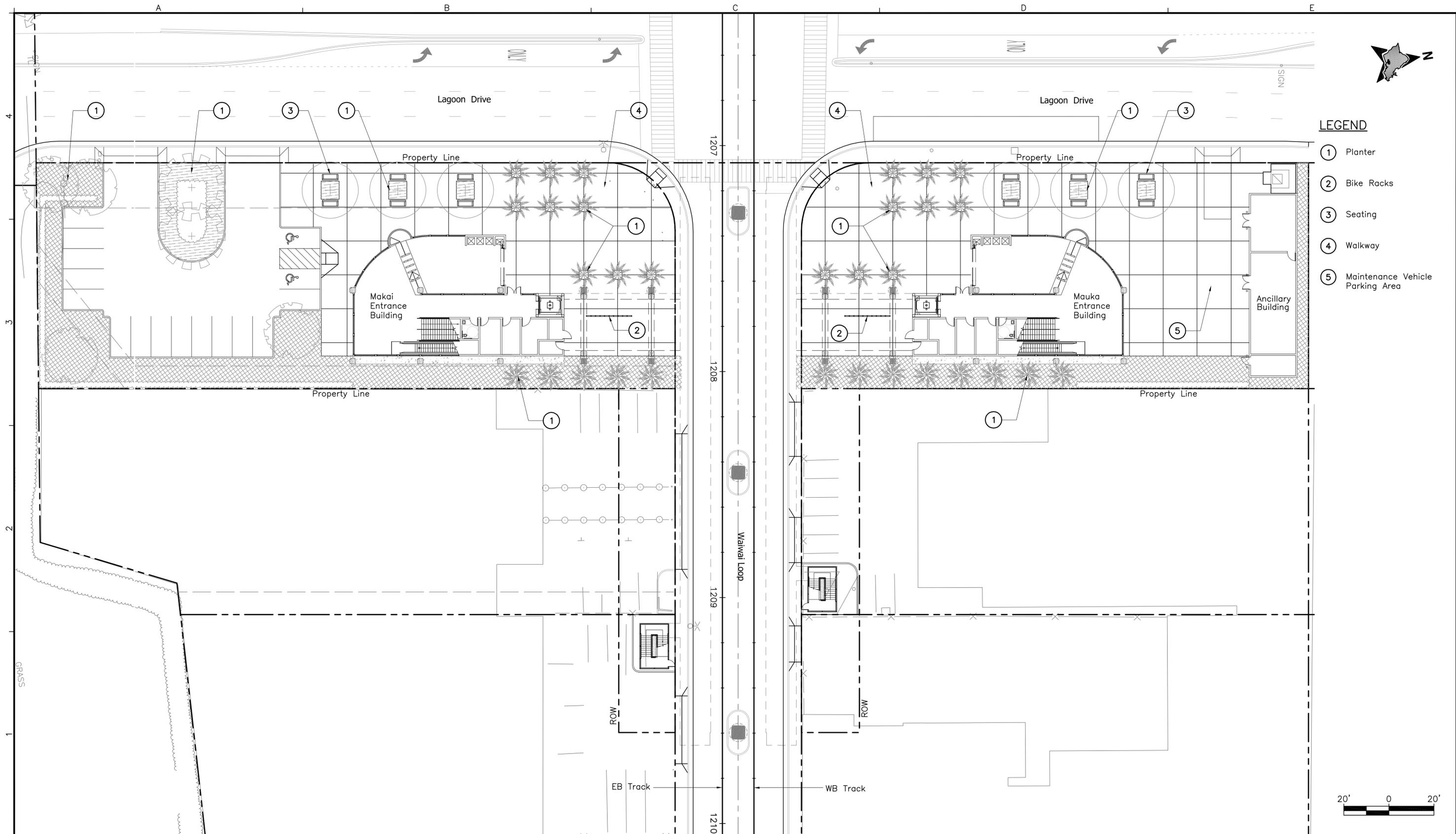
Prime Consultant: **PARSONS BRINCKERHOFF**
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2153 North King Street, Suite 200
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LAGOON DRIVE STATION
**GENERAL LANDSCAPE NOTES,
SYMBOLS, AND ABBREVIATIONS**

Contract No.: SV-440
CADD File: SJ5-J01-LG001
Drawing No: LG001 Rev.
Scale: N/A
Page No. 45 of 49

Rev	By	Date	Description



LEGEND

- ① Planter
- ② Bike Racks
- ③ Seating
- ④ Walkway
- ⑤ Maintenance Vehicle Parking Area

Rev	By	Date	Description

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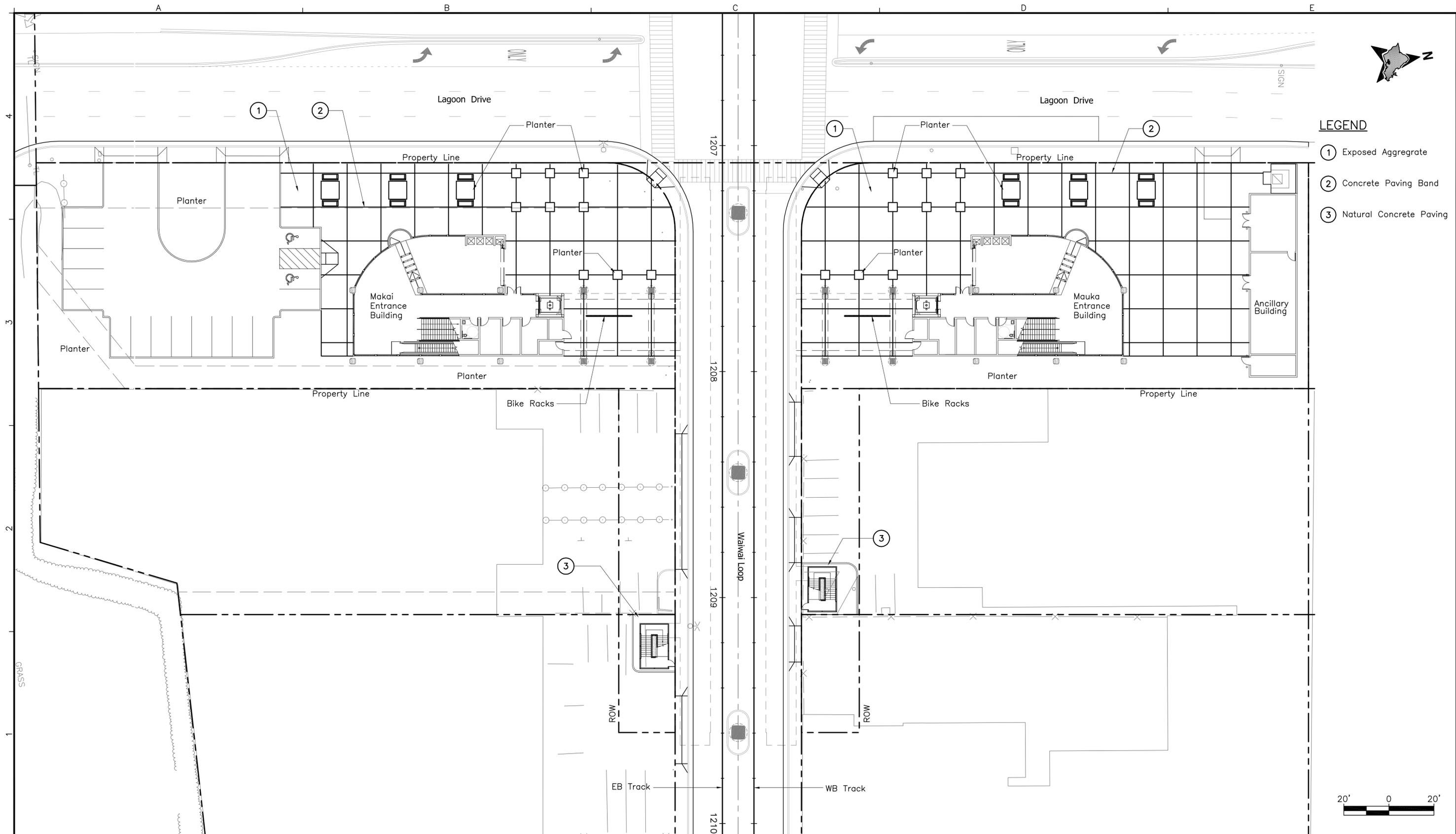
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CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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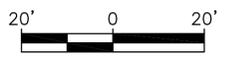
**LAGOON DRIVE STATION
LANDSCAPE SITE PLAN**

Contract No.: SV-440	Rev.
CADD File: SJ5-J02-LA001	
Drawing No: LA001	
Scale: 1"=20'	
Page No. 46 of 49	



LEGEND

- ① Exposed Aggregate
- ② Concrete Paving Band
- ③ Natural Concrete Paving



Rev	By	Date	Description

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12-17-10

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

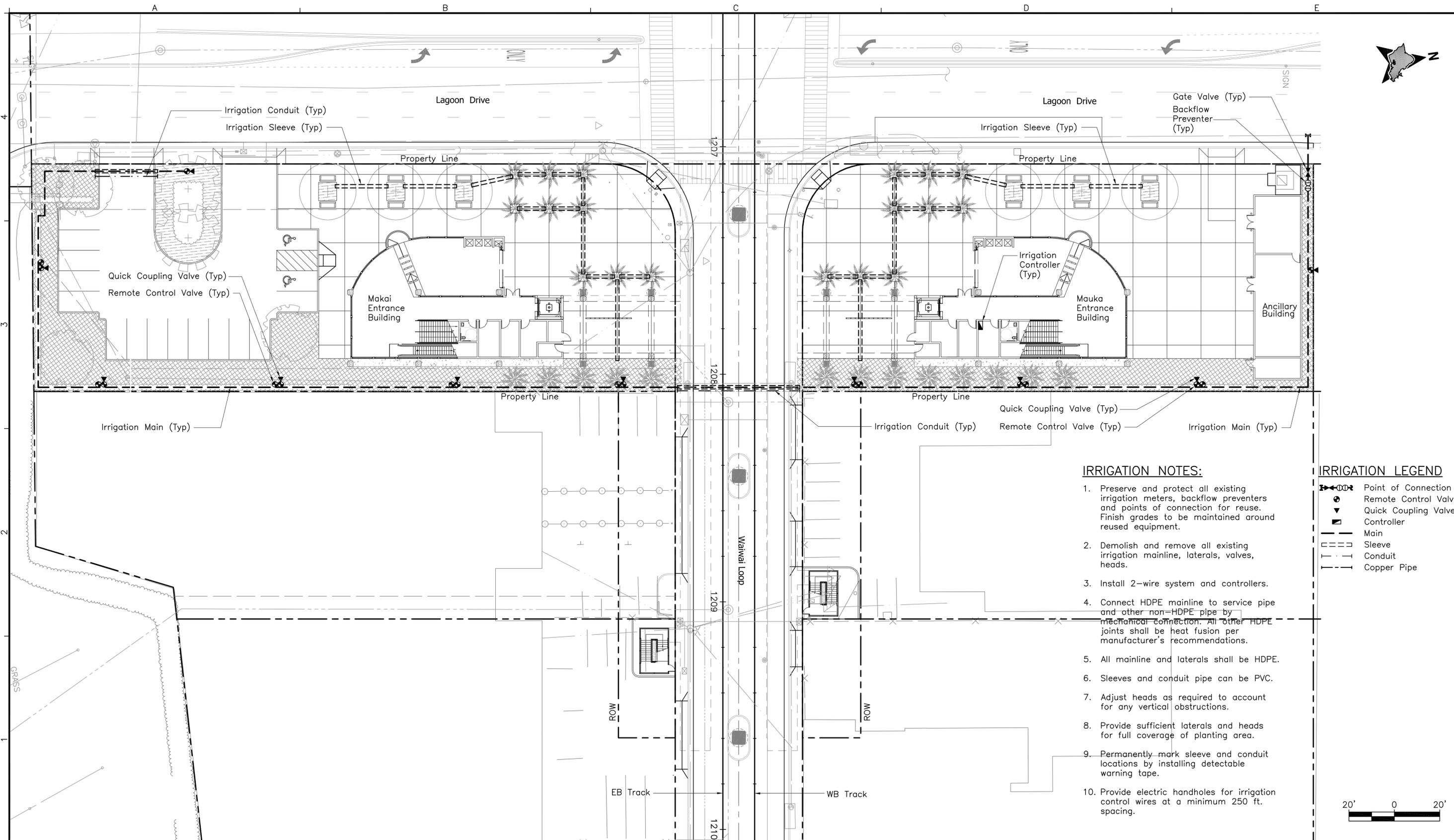
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**LAGOON DRIVE STATION
PAVING PLAN**

Contract No.: SV-440
CADD File: SJ5-J03-LA002
Drawing No: LA002 Rev.
Scale: 1"=20'
Page No. 47 of 49

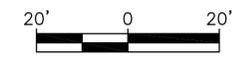


IRRIGATION NOTES:

1. Preserve and protect all existing irrigation meters, backflow preventers and points of connection for reuse. Finish grades to be maintained around reused equipment.
2. Demolish and remove all existing irrigation mainline, laterals, valves, heads.
3. Install 2-wire system and controllers.
4. Connect HDPE mainline to service pipe and other non-HDPE pipe by mechanical connection. All other HDPE joints shall be heat fusion per manufacturer's recommendations.
5. All mainline and laterals shall be HDPE.
6. Sleeves and conduit pipe can be PVC.
7. Adjust heads as required to account for any vertical obstructions.
8. Provide sufficient laterals and heads for full coverage of planting area.
9. Permanently mark sleeve and conduit locations by installing detectable warning tape.
10. Provide electric handholes for irrigation control wires at a minimum 250 ft. spacing.

IRRIGATION LEGEND

- Point of Connection
- Remote Control Valve
- Quick Coupling Valve Controller
- Main
- Sleeve
- Conduit
- Copper Pipe



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Date:
12-17-10

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**LAGOON DRIVE STATION
IRRIGATION PLAN**

Contract No.: SV-440	
CADD File: SJ5-J05-LA004	
Drawing No: LA004	Rev.
Scale: 1"=20'	
Page No. 49	of 49

Rev	By	Date	Description

LAGOON DRIVE STATION

APPENDIX A - INFORMATIVE DRAWINGS

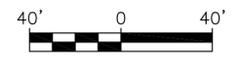
**FROM AIRPORT GUIDEWAY & UTILITIES PRELIMINARY ENGINEERING PLANS
AND CORE SYSTEMS RFP PLANS**



- 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. RW003 for Right-of-Way legend.

Tax Map Key Number	Parcel Acquisitions	House Number	Street Name	Land Use
1-1-016:012	Partial	2620	Waiwai Lp	Industrial
1-1-016:013	Partial	2612	Waiwai Lp	Industrial
1-1-016:014	Full	2604	Waiwai Lp	Industrial
1-1-016:014	Full	479	Lagoon Dr	Industrial

Tax Map Key Number	Parcel Acquisitions	House Number	Street Name	Land Use
1-1-016:015	Full	515	Waiwai Lp	Industrial
1-1-016:016	Partial	2613	Waiwai Lp	Industrial
1-1-016:017	Partial	2621	Waiwai Lp	Industrial



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

Designed: L Karamatsu
Drawn: L Karamatsu
Checked: K Wong
Approved: C Shimizu
Date: 10-01-10

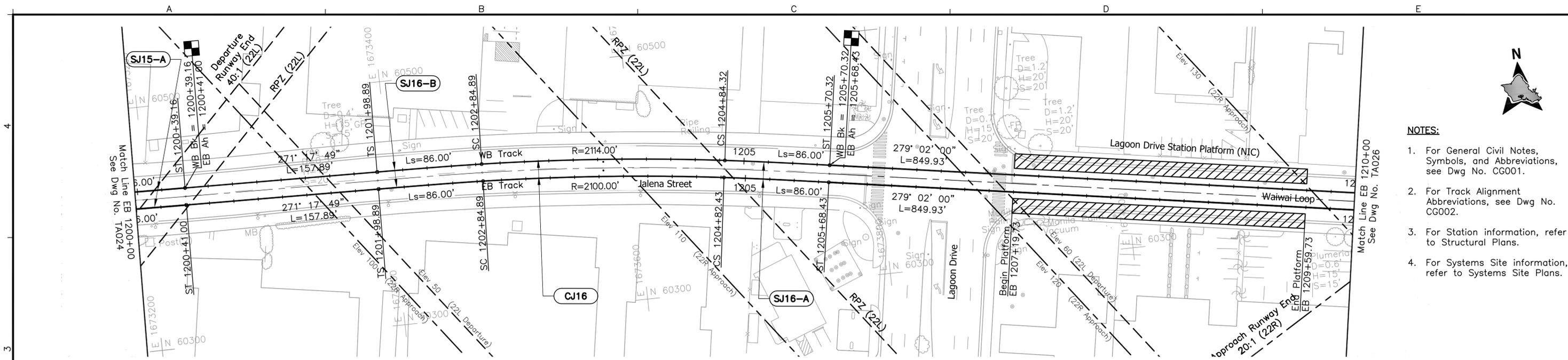
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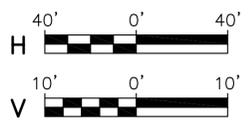
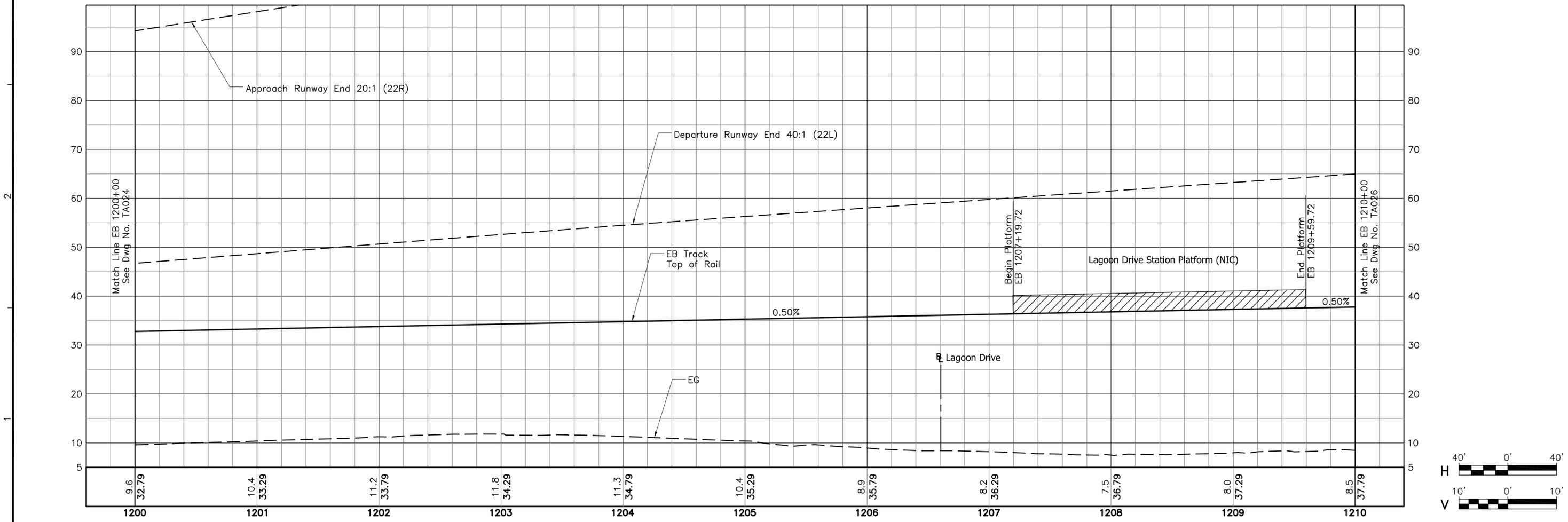
**AIRPORT GUIDEWAY & UTILITIES
EXISTING RIGHT-OF-WAY &
PROPOSED ACQUISITION TABULATIONS**

EB 1200+00 TO EB 1210+00

Contract No.:	
CADD File: AP-B04-RW025	
Drawing No: RW025	Rev.
Scale: 1"=40'	
Page No. 48 of 279	



- NOTES:**
1. For General Civil Notes, Symbols, and Abbreviations, see Dwg No. CG001.
 2. For Track Alignment Abbreviations, see Dwg No. CG002.
 3. For Station information, refer to Structural Plans.
 4. For Systems Site information, refer to Systems Site Plans.



Rev	By	Date	Description

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 Date: 10-01-10

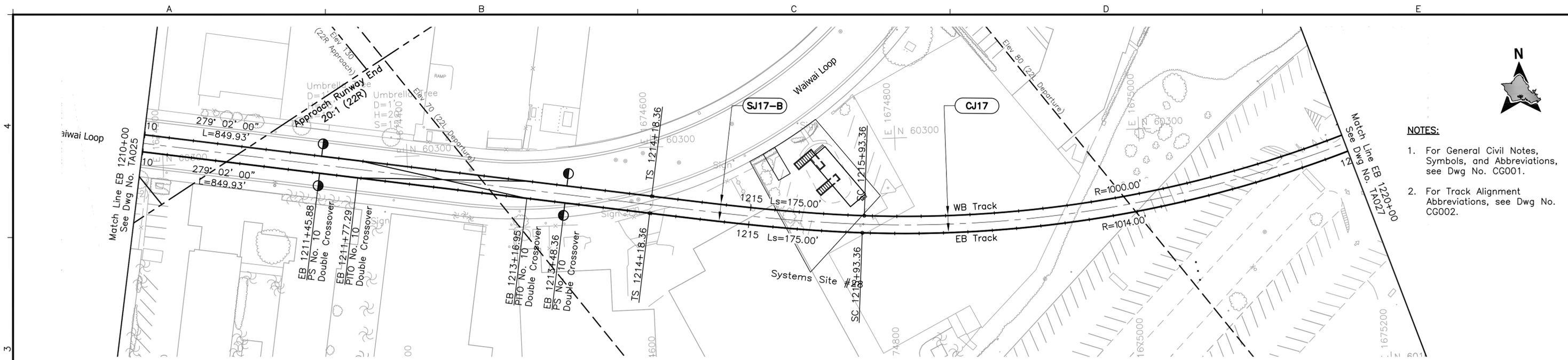
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 Subconsultant: **122**

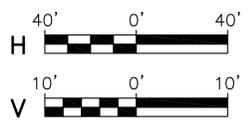
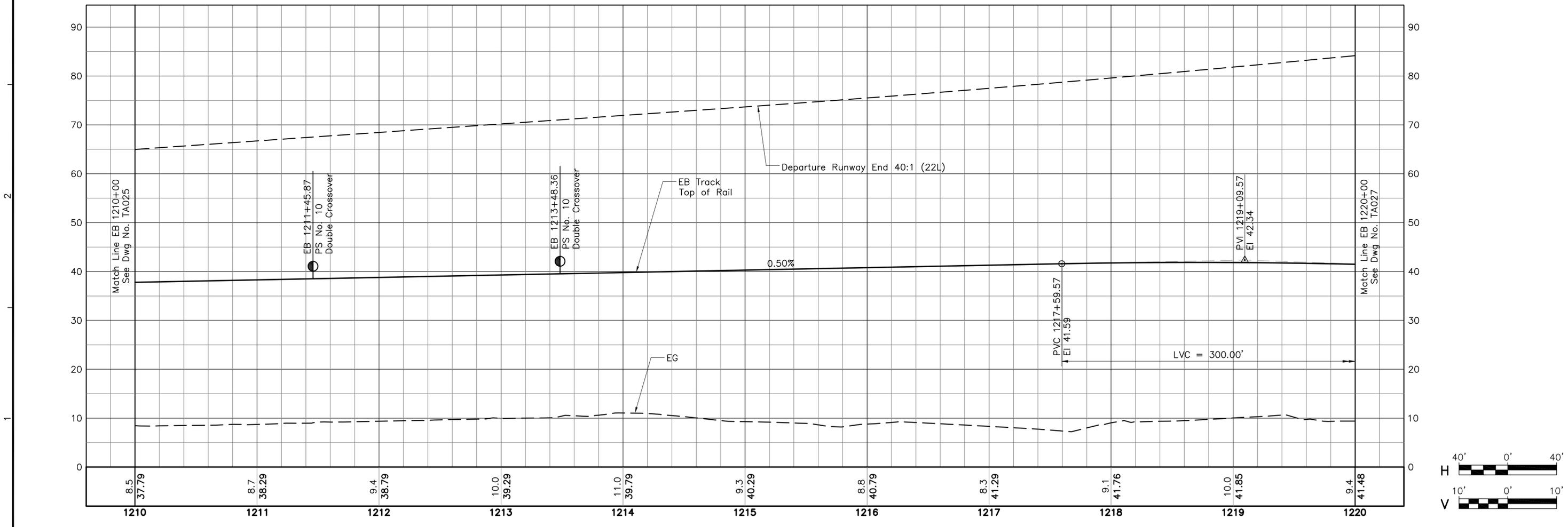
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AIRPORT GUIDEWAY AND UTILITIES
**TRACK ALIGNMENT
PLAN & PROFILE**
 EB 1200+00 TO EB 1210+00

Contract No.: SV-430
 CADD File: AP-B05-TA025
 Drawing No: TA025
 Scale: 1"=40' H, 1"=10' V
 Page No. 77 of 279



- NOTES:**
1. For General Civil Notes, Symbols, and Abbreviations, see Dwg No. CG001.
 2. For Track Alignment Abbreviations, see Dwg No. CG002.



Rev	By	Date	Description

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AIRPORT GUIDEWAY AND UTILITIES

**TRACK ALIGNMENT
PLAN & PROFILE**

EB 1210+00 TO EB 1220+00

Contract No.: SV-430
 CADD File: AP-B05-TA026
 Drawing No: TA026
 Scale: 1"=40' H, 1"=10' V
 Page No. 78 of 279

ALIGNMENT: SEG J – EB Track						
Curve No	Curve Element	Type	Station	Northing	Easting	Data
						L = 157.89'
						Di = 271' 17' 49.41"
CJ16	SJ16-B	TS:	1201+98.88	60412.695	1673389.986	Ls = 86.00'
						Ts = 184.99'
		SC:	1202+84.88	60410.162	1673475.947	Os = 01' 10' 23.52"
	V=40 mph				I = 07' 44' 10.11"	
	Ea=1.25"	PI:	-	60408.507	1673574.936	R = 2100.00'
	Eu=1.77"					Lc = 197.54'
SJ16-A	CS:	1204+82.43	60392.384	1673672.617	Δ = 05' 23' 23.07"	
					Dc = 02' 43' 42.13"	
	ST:	1205+68.43	60379.462	1673757.639		
						L = 849.93'
						Di = 279' 01' 59.52"
Lagoon Drive Station		Platform	1207+19.72	-	-	
		Platform	1209+59.72	-	-	
No. 10 Crossover		PS	1211+45.87	60288.798	1674327.924	
		PITO	1211+77.29	60283.865	1674358.951	
No. 10 Crossover		PITO	1213+16.94	60261.939	1674496.871	
		PS	1213+48.36	60257.007	1674527.898	
CJ17	SJ17-B	TS:	1214+18.36	60246.016	1674597.030	Ls = 175.00'
						Ts = 454.32'
		SC:	1215+93.36	60223.529	1674770.521	Os = 04' 56' 38.98"
	V=40 mph				I = 39' 43' 56.86"	
	Ea=2.75"	PI:	-	60174.685	1675045.716	R = 1014.00'
	Eu=3.50"					Lc = 528.17'
SJ17-A	CS:	1221+21.53	60321.679	1675283.435	Δ = 29' 50' 38.89"	
					Dc = 05' 39' 01.70"	
	ST:	1222+96.53	60406.630	1675436.367		
						L = 85.07'
						Di = 239' 18' 02.66"
CJ18	SJ18-B	TS:	1223+81.60	60450.061	1675509.516	Ls = 175.00'
						Ts = 491.65'
		SC:	1225+56.60	60534.950	1675662.480	Os = 05' 00' 48.17"
	V=40 mph				I = 43' 57' 49.63"	
	Ea=2.75"	PI:	-	60701.065	1675932.266	R = 1000.00'
	Eu=3.59"					Lc = 592.31'
SJ18-A	CS:	1231+48.91	60623.414	1676239.430	Δ = 33' 56' 13.29"	
					Dc = 05' 43' 46.48"	
	ST:	1233+23.91	60588.257	1676410.801		
						L = 489.19'
						Di = 283' 15' 52.30"
CJ19	SJ19-B	TS:	1238+13.10	60476.014	1676886.937	Ls = 175.00'
						Ts = 330.95'
		SC:	1239+88.10	60440.788	1677058.296	Os = 04' 56' 38.93"
	V=40 mph				I = 26' 58' 15.43"	
	Ea=2.75"	PI:	-	60400.079	1677209.056	R = 1014.00'
	Eu=3.50"					Lc = 302.32'
SJ19-A	CS:	1242+90.42	60441.949	1677359.498	Δ = 17' 04' 57.46"	
					Dc = 05' 39' 01.70"	
	ST:	1244+65.42	60478.496	1677530.579		

ALIGNMENT: SEG J – WB Track						
Curve No	Curve Element	Type	Station	Northing	Easting	Data
						L = 157.89'
						Di = 271' 17' 49.41"
CJ16	SJ16-B	TS:	1201+98.88	60426.691	1673390.303	Ls = 86.00'
						Ts = 185.94'
		SC:	1202+84.88	60424.162	1673476.264	Os = 01' 09' 55.55"
	V=40 mph				I = 07' 44' 10.11"	
	Ea=1.25"	PI:	-	60422.482	1673576.199	R = 2114.00'
	Eu=1.75"					Lc = 199.43'
SJ16-A	CS:	1204+84.32	60406.214	1673674.815	Δ = 05' 24' 19.01"	
					Dc = 02' 42' 37.09"	
	ST:	1205+70.32	60393.288	1673759.837		
						L = 849.93'
						Di = 279' 01' 59.52"
Lagoon Drive Station		Platform	1207+19.72	-	-	
		Platform	1209+59.72	-	-	
No. 10 Crossover		PS	1211+45.87	60302.625	1674330.122	
		PITO	1211+77.29	60297.692	1674361.150	
No. 10 Crossover		PITO	1213+16.94	60275.766	1674499.069	
		PS	1213+48.36	60270.833	1674530.097	
CJ17	SJ17-B	TS:	1214+18.35	60259.844	1674599.223	Ls = 175.00'
						Ts = 449.27'
		SC:	1215+93.35	60237.427	1674772.721	Os = 05' 00' 48.17"
	V=40 mph				I = 39' 43' 56.86"	
	Ea=2.75"	PI:	-	60189.306	1675042.918	R = 1000.00'
	Eu=3.59"					Lc = 518.46'
SJ17-A	CS:	1221+11.82	60333.783	1675276.260	Δ = 29' 42' 20.51"	
					Dc = 05' 43' 46.48"	
	ST:	1222+96.54	60418.671	1675429.224		
						L = 85.07'
						Di = 239' 18' 02.66"
CJ18	SJ18-B	TS:	1223+81.61	60462.103	1675502.374	Ls = 175.00'
						Ts = 497.29'
		SC:	1225+56.61	60547.053	1675655.306	Os = 04' 56' 38.98"
	V=40 mph				I = 43' 57' 49.63"	
	Ea=2.75"	PI:	-	60715.988	1675929.978	R = 1014.00'
	Eu=3.50"					Lc = 603.05'
SJ18-A	CS:	1231+59.66	60637.112	1676242.648	Δ = 34' 04' 31.66"	
					Dc = 05' 39' 01.70"	
	ST:	1233+34.66	60601.885	1676414.007		
						L = 489.19'
						Di = 283' 15' 52.30"
CJ19	SJ19-B	TS:	1238+13.10	60489.642	1676890.146	Ls = 175.00'
						Ts = 327.59'
		SC:	1239+88.10	60454.484	1677061.517	Os = 05' 00' 48.17"
	V=40 mph				I = 26' 58' 15.43"	
	Ea=2.75"	PI:	-	60414.476	1677209.001	R = 1000.00'
	Eu=3.59"					Lc = 295.73'
SJ19-A	CS:	1242+83.83	60455.621	1677356.171	Δ = 16' 56' 39.09"	
					Dc = 05' 43' 46.48"	
	ST:	1244+65.43	60492.099	1677527.266		

Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
R Nacion
Drawn:
R Nacion
Checked:
E Liberman
Approved:
A Borst
Date:
10-01-10

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

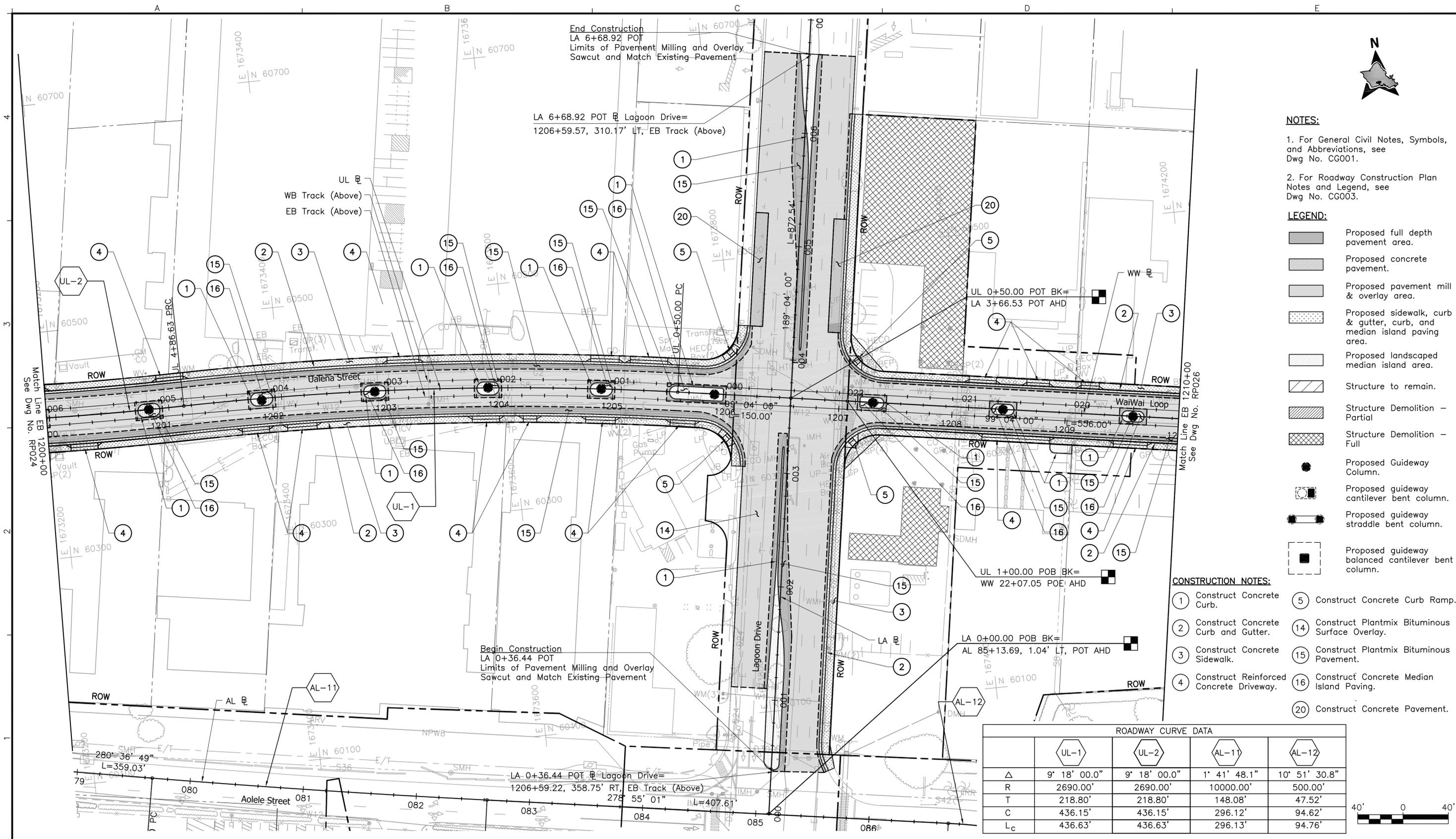
Prime Consultant:
PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:

**AIRPORT GUIDEWAY & UTILITIES
TRACK ALIGNMENT DATA**

SHEET 5 OF 6

Contract No.:
SV-430
CADD File:
AP-B06-TA105
Drawing No: TA105 Rev.
Scale:
N/A
Page No.
88 of 279



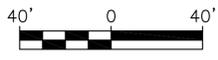
- NOTES:**
- For General Civil Notes, Symbols, and Abbreviations, see Dwg No. CG001.
 - For Roadway Construction Plan Notes and Legend, see Dwg No. CG003.

- 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.
 - Structure to remain.
 - Structure Demolition - Partial
 - Structure Demolition - Full
 - Proposed Guideway Column.
 - Proposed guideway cantilever bent column.
 - Proposed guideway straddle bent column.
 - Proposed guideway balanced cantilever bent column.

- CONSTRUCTION NOTES:**
- | | |
|---|---|
| 1 Construct Concrete Curb. | 5 Construct Concrete Curb Ramp. |
| 2 Construct Concrete Curb and Gutter. | 14 Construct Plantmix Bituminous Surface Overlay. |
| 3 Construct Concrete Sidewalk. | 15 Construct Plantmix Bituminous Pavement. |
| 4 Construct Reinforced Concrete Driveway. | 16 Construct Concrete Median Island Paving. |
| | 20 Construct Concrete Pavement. |

ROADWAY CURVE DATA

	UL-1	UL-2	AL-11	AL-12
Δ	9° 18' 00.0"	9° 18' 00.0"	1° 41' 48.1"	10° 51' 30.8"
R	2690.00'	2690.00'	10000.00'	500.00'
T	218.80'	218.80'	148.08'	47.52'
C	436.15'	436.15'	296.12'	94.62'
L _c	436.63'	436.63'	296.13'	94.76'



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
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Designed: M Jewell
 Drawn: J Derosier
 Checked: B Wardell
 Approved: C Shimizu
 Date: 10-01-10

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

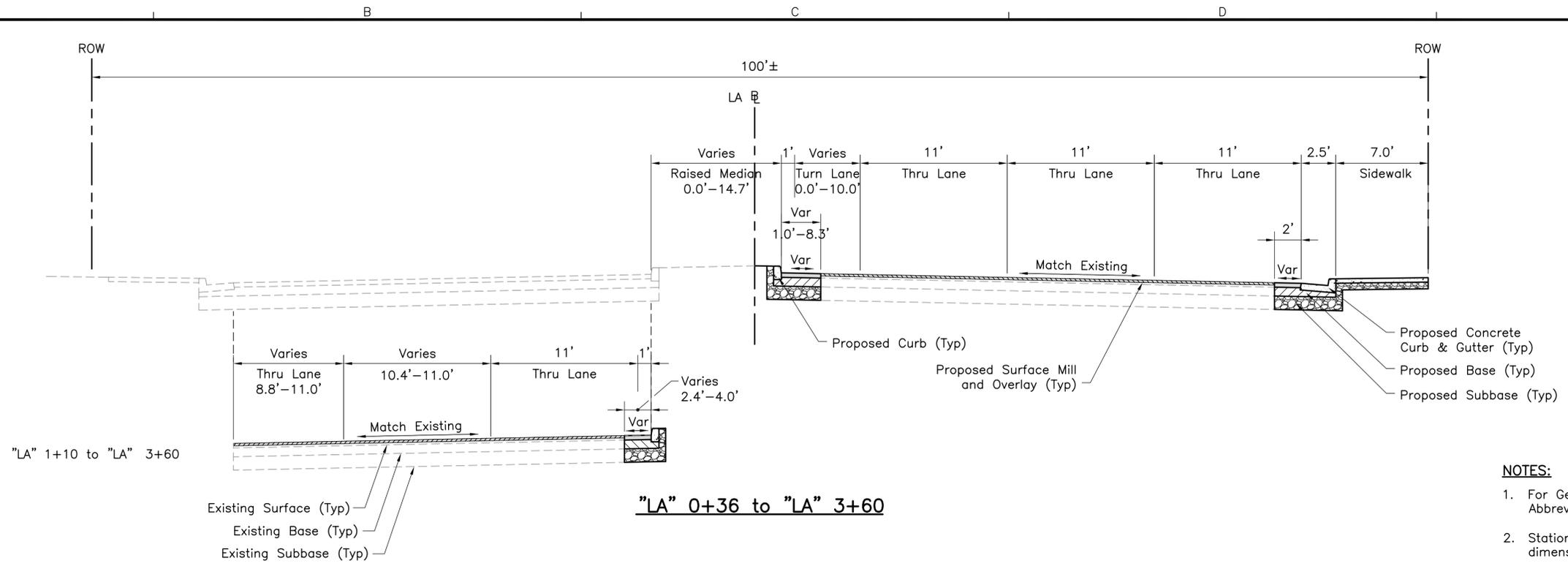
Prime Consultant: **PARSONS BRINCKERHOFF**
 Subconsultant: **1003 Bishop Street, Suite 2250 - Honolulu, HI 96813**

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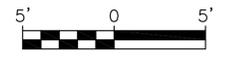
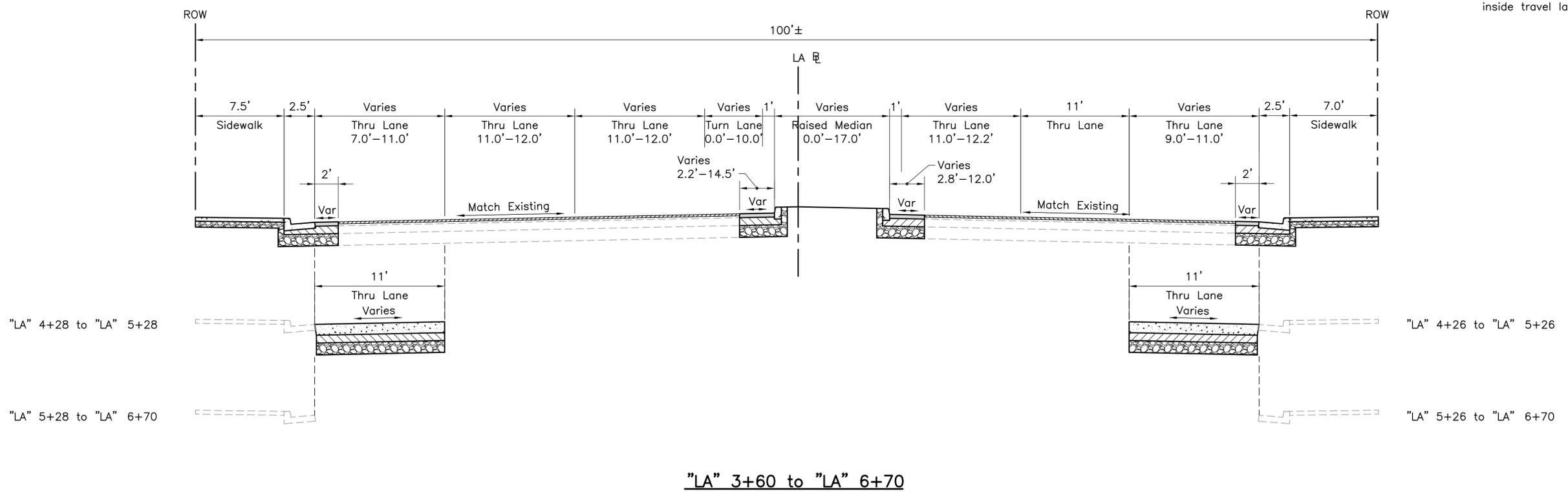
**AIRPORT GUIDEWAY AND UTILITIES
ROADWAY CONSTRUCTION PLAN**

EB 1200+00 to EB 1210+00

Contract No.: SV-430
 CADD File: AP-B09-RP025
 Drawing No: RP025 Rev.
 Scale: 1"=40'
 Page No. 108 of 279



- NOTES:**
1. For General Civil Notes, Symbols and Abbreviations, See Dwg No. CG001.
 2. Station ranges not listed have 0' width dimension.
 3. Maintain a minimum of 16.5' clearance above inside travel lane for all Guideway columns.



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

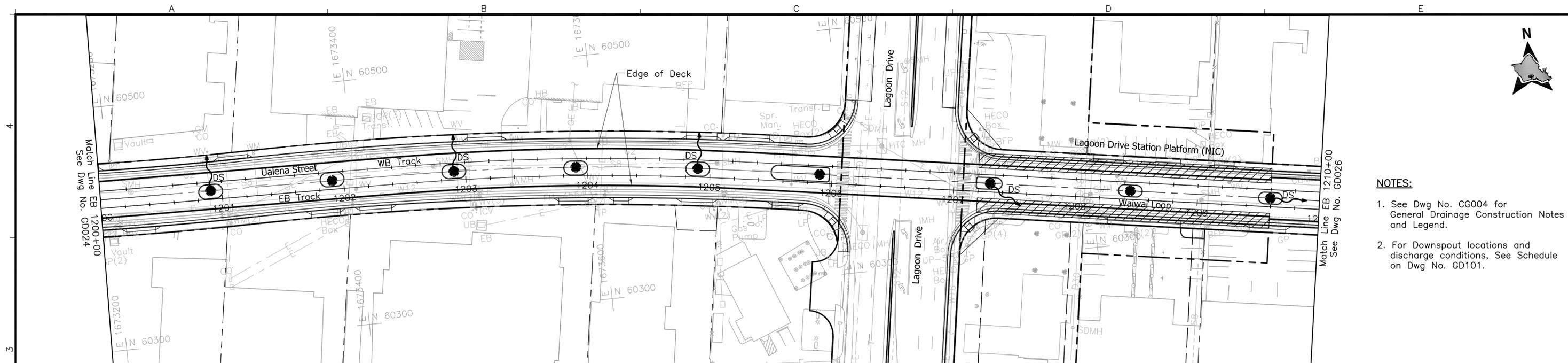
Designed:
M Jewell
Drawn:
J Derosier
Checked:
B Wardell
Approved:
C Shimizu
Date:
10-01-10

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

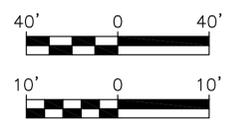
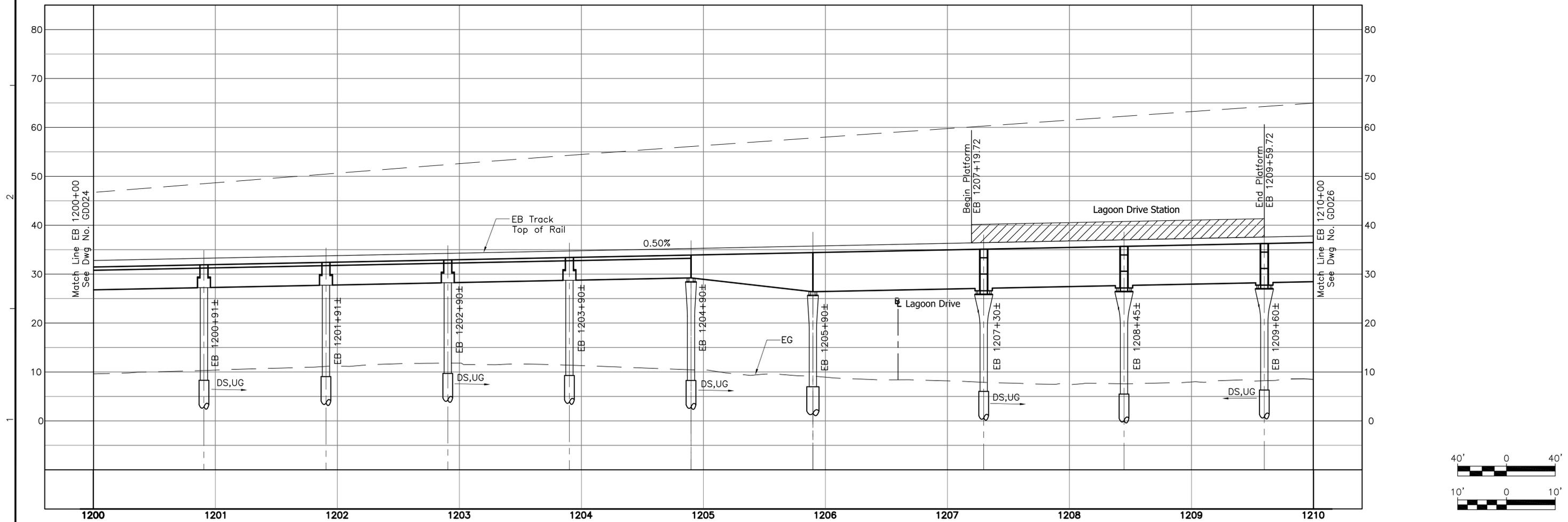
Prime Consultant: **PARSONS BRINCKERHOFF**
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**AIRPORT GUIDEWAY AND UTILITIES
TYPICAL SECTIONS
LAGOON DRIVE
LA 0+36 TO LA 6+68**

Contract No.: SV-430	
CADD File: AP-B13-RX016	
Drawing No: RX016	Rev.
Scale: 1"=5'	
Page No. 136	of 279



- NOTES:**
1. See Dwg No. CG004 for General Drainage Construction Notes and Legend.
 2. For Downspout locations and discharge conditions, See Schedule on Dwg No. GD101.



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
P Fujii
Drawn:
T Cochran
Checked:
K Wong
Approved:
C Shimizu
Date:
10-01-10

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

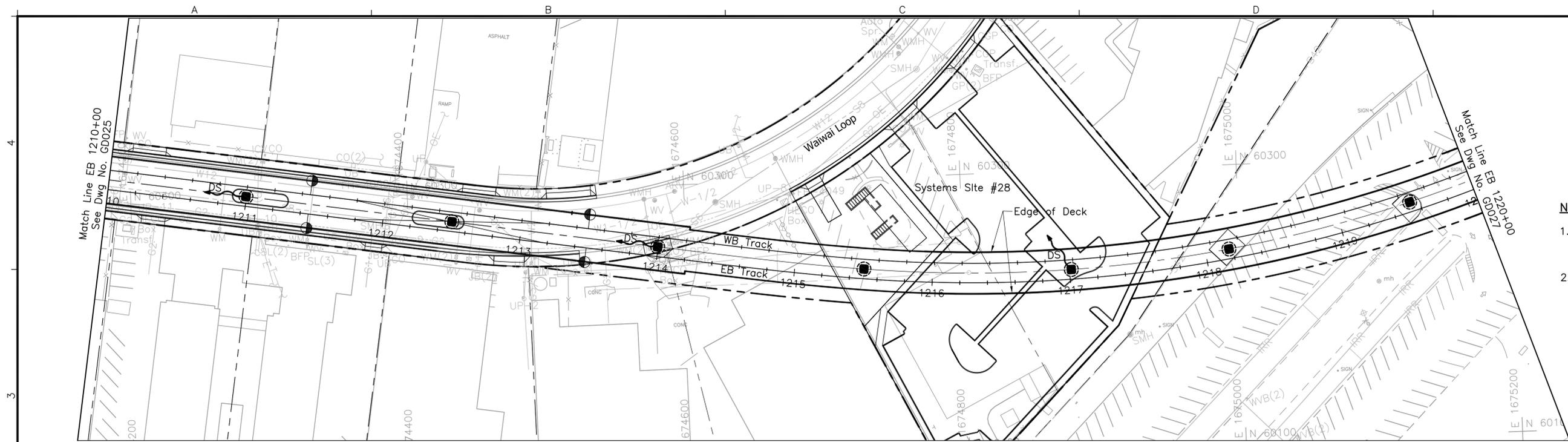
Prime Consultant: **PARSONS BRINCKERHOFF**
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Subconsultant:

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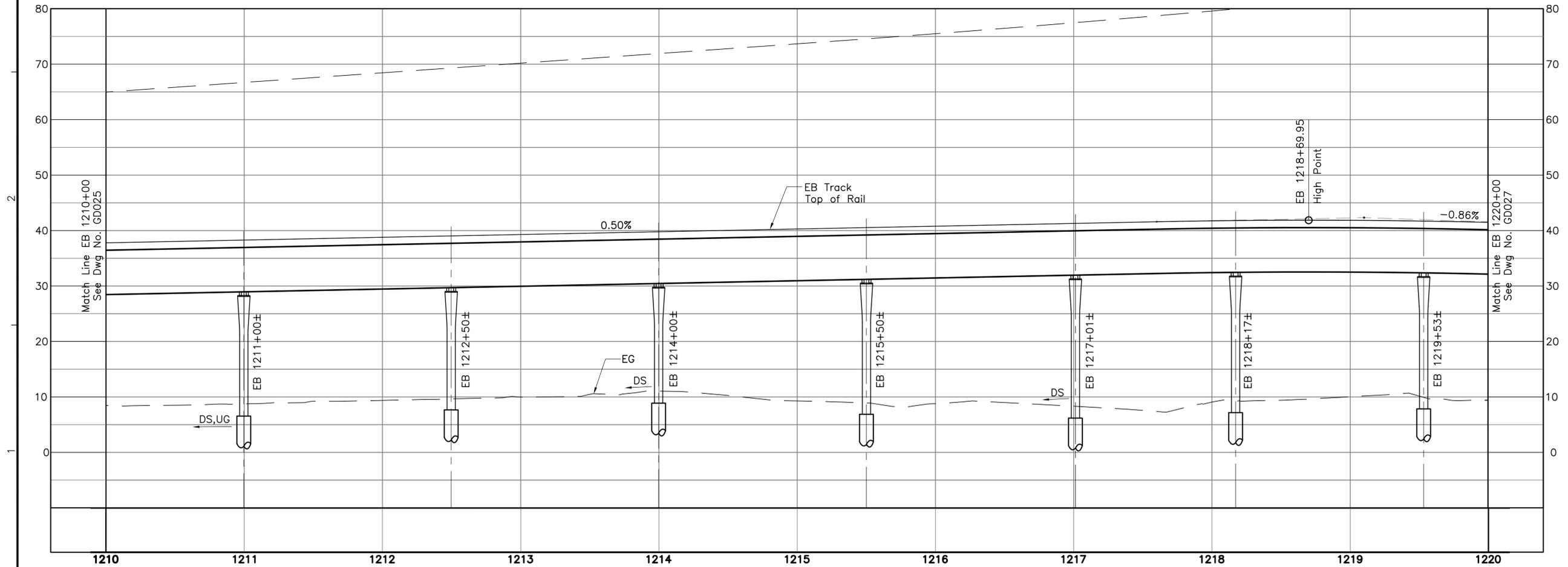
**AIRPORT GUIDEWAY & UTILITIES
GUIDEWAY DRAINAGE LAYOUT
PLAN AND PROFILE**

EB 1200+00 TO EB 1210+00

Contract No.: SV-430
CADD File: AP-B16-GD025
Drawing No: GD025 Rev.
Scale: 1"=40' H, 1"=10' V
Page No. 161 of 279



- NOTES:**
1. See Dwg No. CG004 for General Drainage Construction Notes and Legend.
 2. For Downspout locations and discharge conditions, See Schedule on Dwg No. GD101.



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
P Fujii
Drawn:
T Cochran
Checked:
K Wong
Approved:
C Shimizu
Date:
10-01-10

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

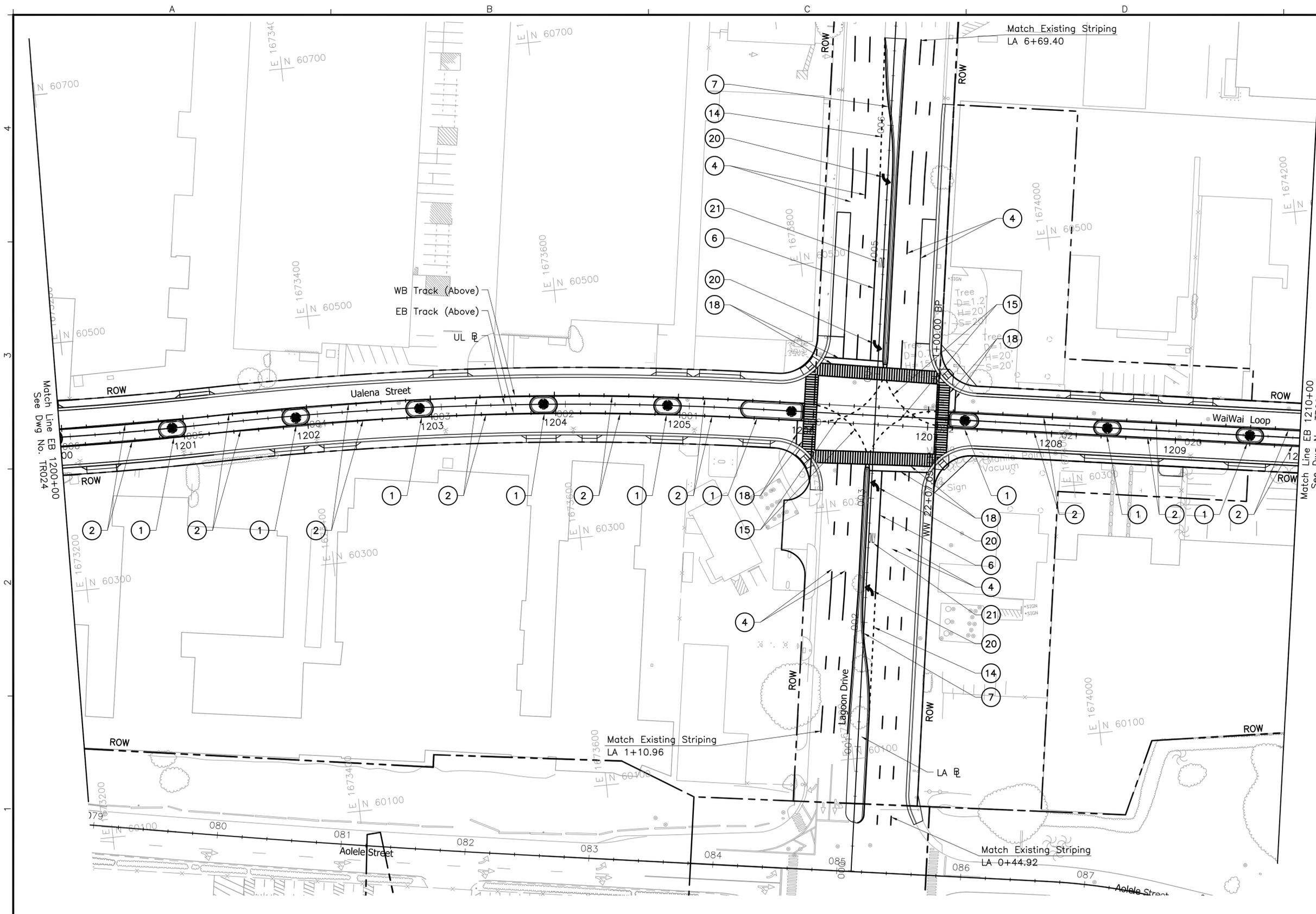
Prime Consultant: **PARSONS BRINCKERHOFF**
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Subconsultant:

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**AIRPORT GUIDEWAY & UTILITIES
GUIDEWAY DRAINAGE LAYOUT
PLAN AND PROFILE**

EB 1210+00 TO EB 1220+00

Contract No.:
SV-430
CADD File:
AP-B16-GD026
Drawing No: GD026 Rev.
Scale:
1"=40' H, 1"=10' V
Page No. 162 of 279



- NOTES:**
- For General Civil Notes, Symbols, and Abbreviations, see Dwg No. CG001.
 - For Signing and Typical Pavement Marking Notes and Legend, see Dwg No. TG002 to TG005.

- LEGEND:**
- Proposed guideway column.
 - Proposed guideway cantilever bent column.
 - Proposed guideway straddle bent column.
 - Proposed guideway balanced cantilever bent column.

- PAVEMENT MARKING NOTES:**
- ① Double Solid 4" Yellow Stripe with RPM
 - ② Single Solid 4" Yellow Stripe with RPM
 - ④ Lane Line RPM
 - ⑥ Single Solid 8" White Stripe with RPM
 - ⑦ Single Solid 4" Yellow Stripe with RPM
 - ⑭ Single Dashed 4" White Stripe
 - ⑮ Single Dashed 4" Yellow Stripe
 - ⑱ Single Solid 12" White Stripe
 - ⑳ Turn Arrows
 - ㉑ Text

Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: M Jewell
 Drawn: J Derosier
 Checked: B Wardell
 Approved: C Shimizu
 Date: 10-01-10

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

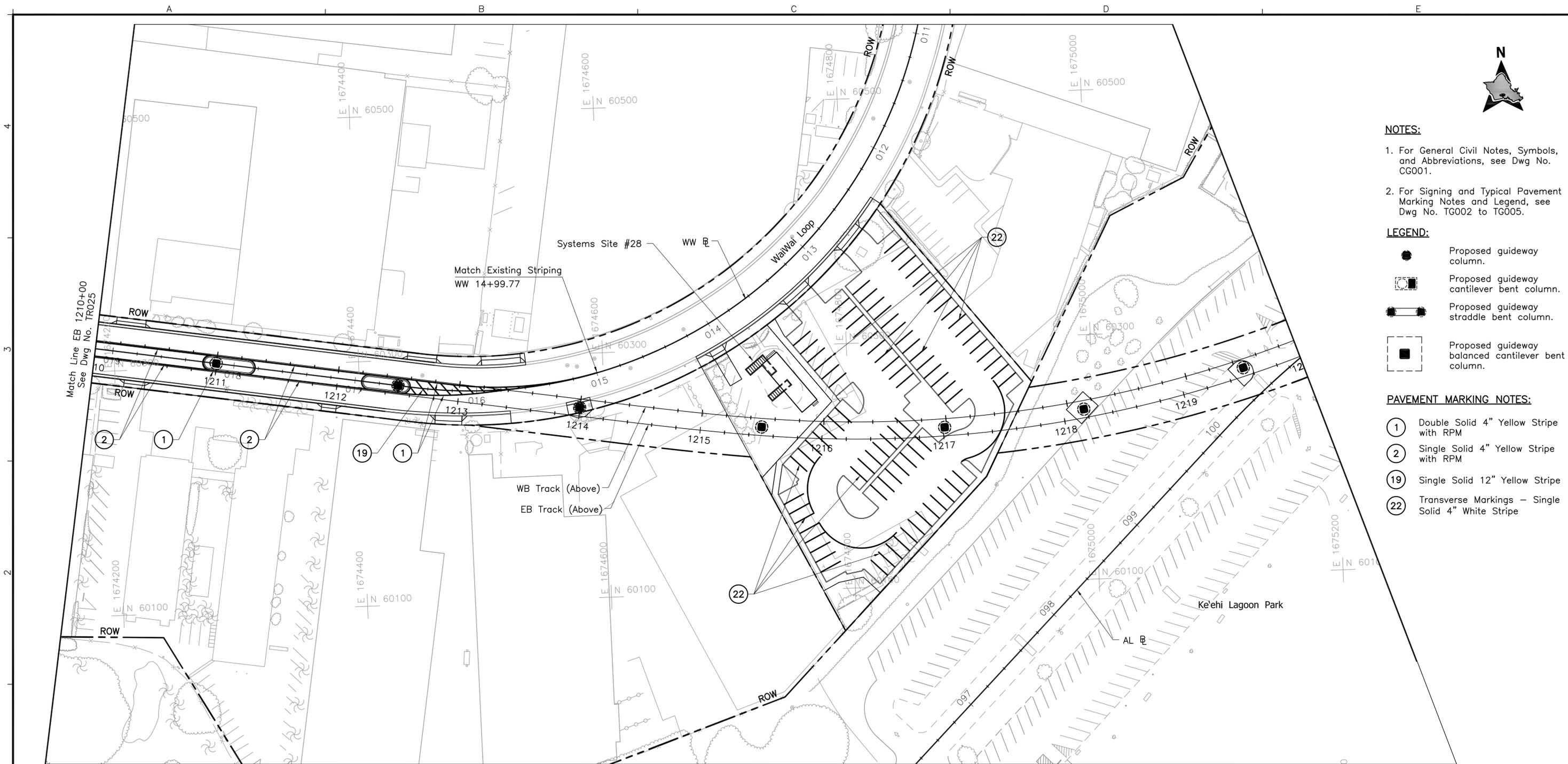
Subconsultant:

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**AIRPORT GUIDEWAY AND UTILITIES
SIGNING AND STRIPING PLAN**

EB 1200+00 to EB 1210+00

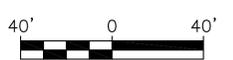
Contract No.: SV-430	
CADD File: AP-C02-TR025	
Drawing No: TR025	Rev.
Scale: 1"=40'	
Page No. 199	of 279



- NOTES:**
- For General Civil Notes, Symbols, and Abbreviations, see Dwg No. CG001.
 - For Signing and Typical Pavement Marking Notes and Legend, see Dwg No. TG002 to TG005.

- LEGEND:**
- Proposed guideway column.
 - Proposed guideway cantilever bent column.
 - Proposed guideway straddle bent column.
 - Proposed guideway balanced cantilever bent column.

- PAVEMENT MARKING NOTES:**
- Double Solid 4" Yellow Stripe with RPM
 - Single Solid 4" Yellow Stripe with RPM
 - Single Solid 12" Yellow Stripe
 - Transverse Markings - Single Solid 4" White Stripe



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: M Jewell
 Drawn: J Derosier
 Checked: B Wardell
 Approved: C Shimizu
 Date: 10-01-10

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:

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**AIRPORT GUIDEWAY AND UTILITIES
SIGNING AND STRIPING PLAN**

EB 1210+00 to EB 1220+00

Contract No.: SV-430
 CADD File: AP-C02-TR026
 Drawing No: TR026 Rev.
 Scale: 1"=40'
 Page No. 200 of 279



NOTES

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

LEGEND

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



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: B Wardell
 Drawn: J Derosier
 Checked: M Jewell
 Approved: C Shimizu
 Date: 10-01-10

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

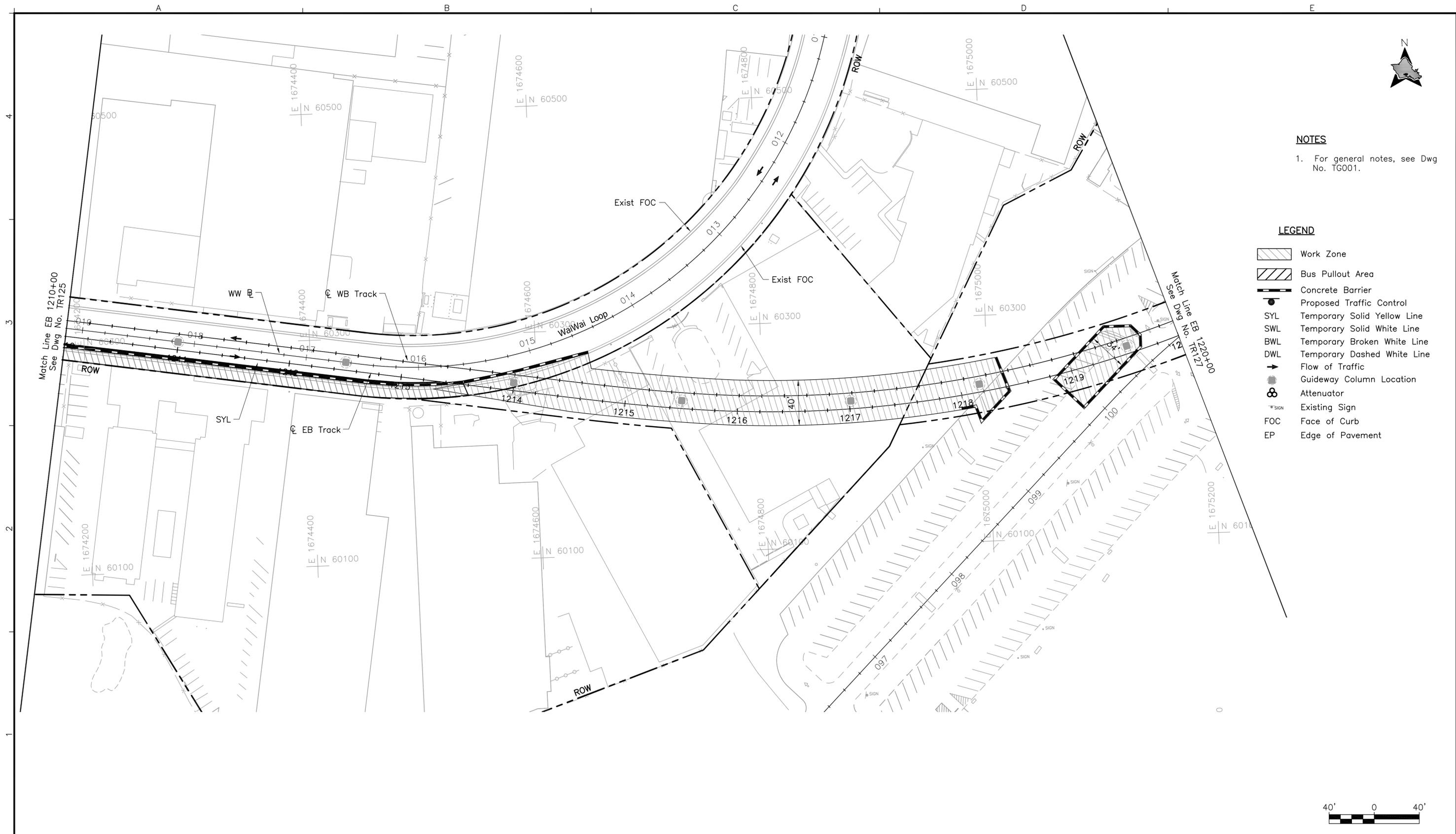
Subconsultant:

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**AIRPORT GUIDEWAY & UTILITIES
MAINTENANCE OF TRAFFIC PLAN
PHASE 1**

EB 1200+00 TO EB 1210+00

Contract No.: SV-430	
CADD File: AP-C03-TR125	
Drawing No: TR125	Rev.
Scale: 1"=40'	
Page No. 225	of 279



NOTES

- 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



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
B Wardell
Drawn:
J Derosier
Checked:
M Jewell
Approved:
C Shimizu
Date:
10-01-10

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:

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**AIRPORT GUIDEWAY & UTILITIES
MAINTENANCE OF TRAFFIC PLAN
PHASE 1**

EB 1210+00 TO EB 1220+00

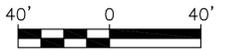
Contract No.: SV-430	
CADD File: AP-C03-TR126	
Drawing No: TR126	Rev.
Scale: 1"=40'	
Page No. 226	of 279



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



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: B Wardell
 Drawn: J Derosier
 Checked: M Jewell
 Approved: C Shimizu
 Date: 10-01-10

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

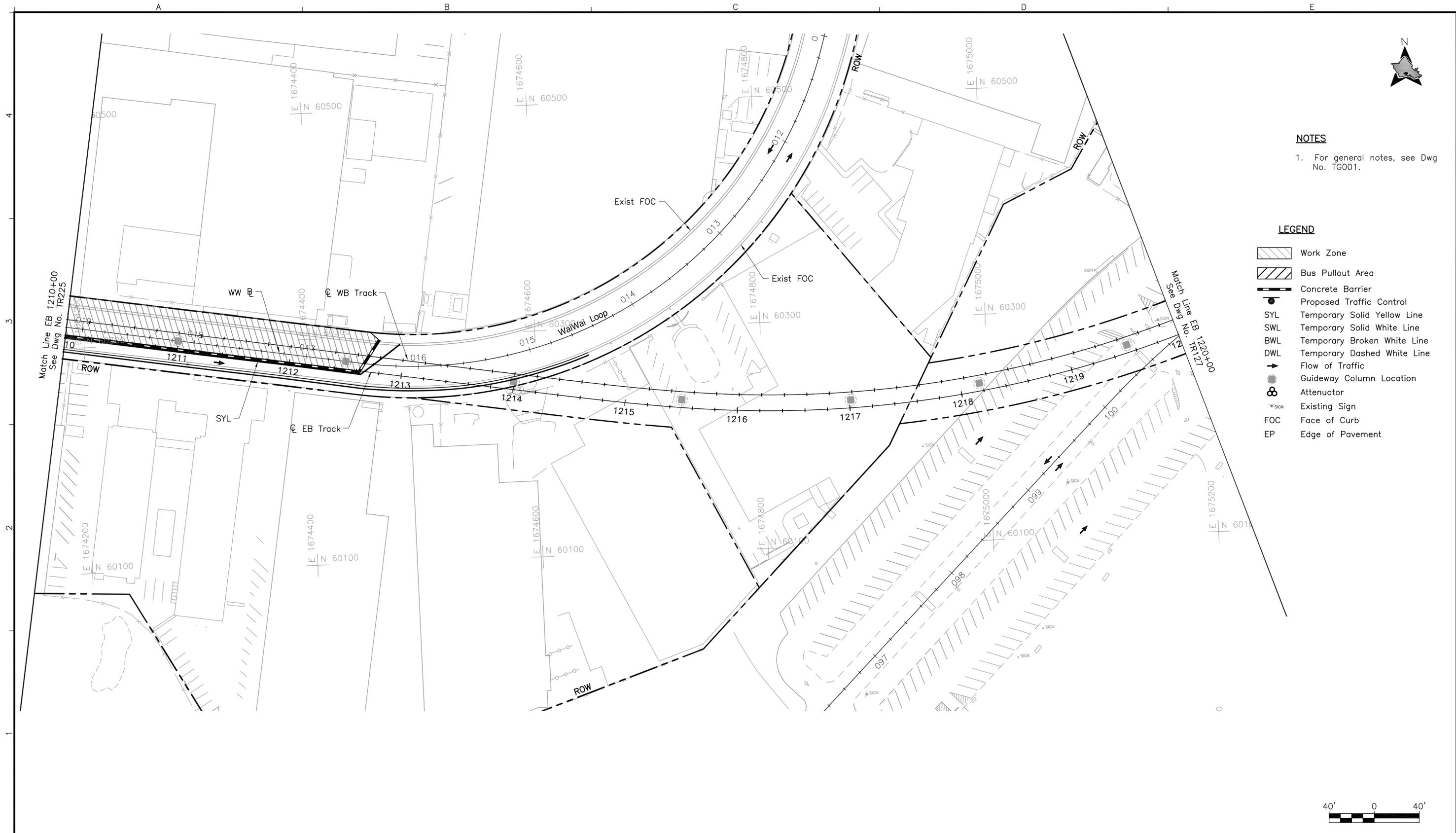
Prime Consultant: **PARSONS BRINCKERHOFF**
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:

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**AIRPORT GUIDEWAY & UTILITIES
 MAINTENANCE OF TRAFFIC PLAN
 PHASE 2
 EB 1200+00 TO EB 1210+00**

Contract No.: SV-430
 CADD File: AP-C03-TR225
 Drawing No: TR225 Rev.
 Scale: 1"=40'
 Page No. 233 of 279



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



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: B Wardell
 Drawn: J Derosier
 Checked: M Jewell
 Approved: C Shimizu
 Date: 10-01-10

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

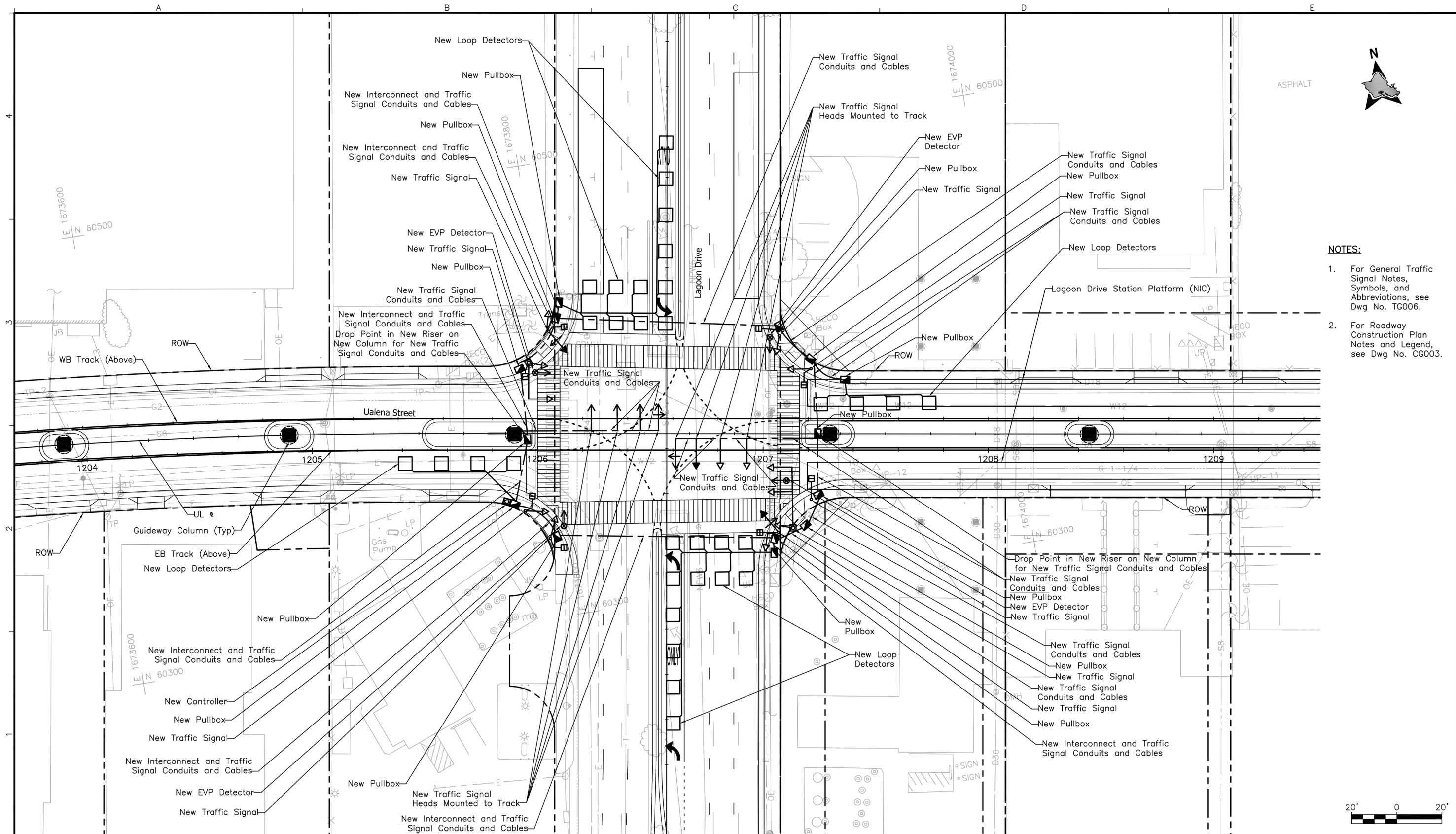
Subconsultant:

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**AIRPORT GUIDEWAY & UTILITIES
MAINTENANCE OF TRAFFIC PLAN
PHASE 2**

EB 1210+00 TO EB 1220+00

Contract No.: SV-430
 CADD File: AP-C03-TR226
 Drawing No: TR226 Rev.
 Scale: 1"=40'
 Page No. 234 of 279



- 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.

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
K Okazaki
Drawn:
Z Tong
Checked:
L Yokomizo
Approved:
K Niiya
Date:
10-01-10

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

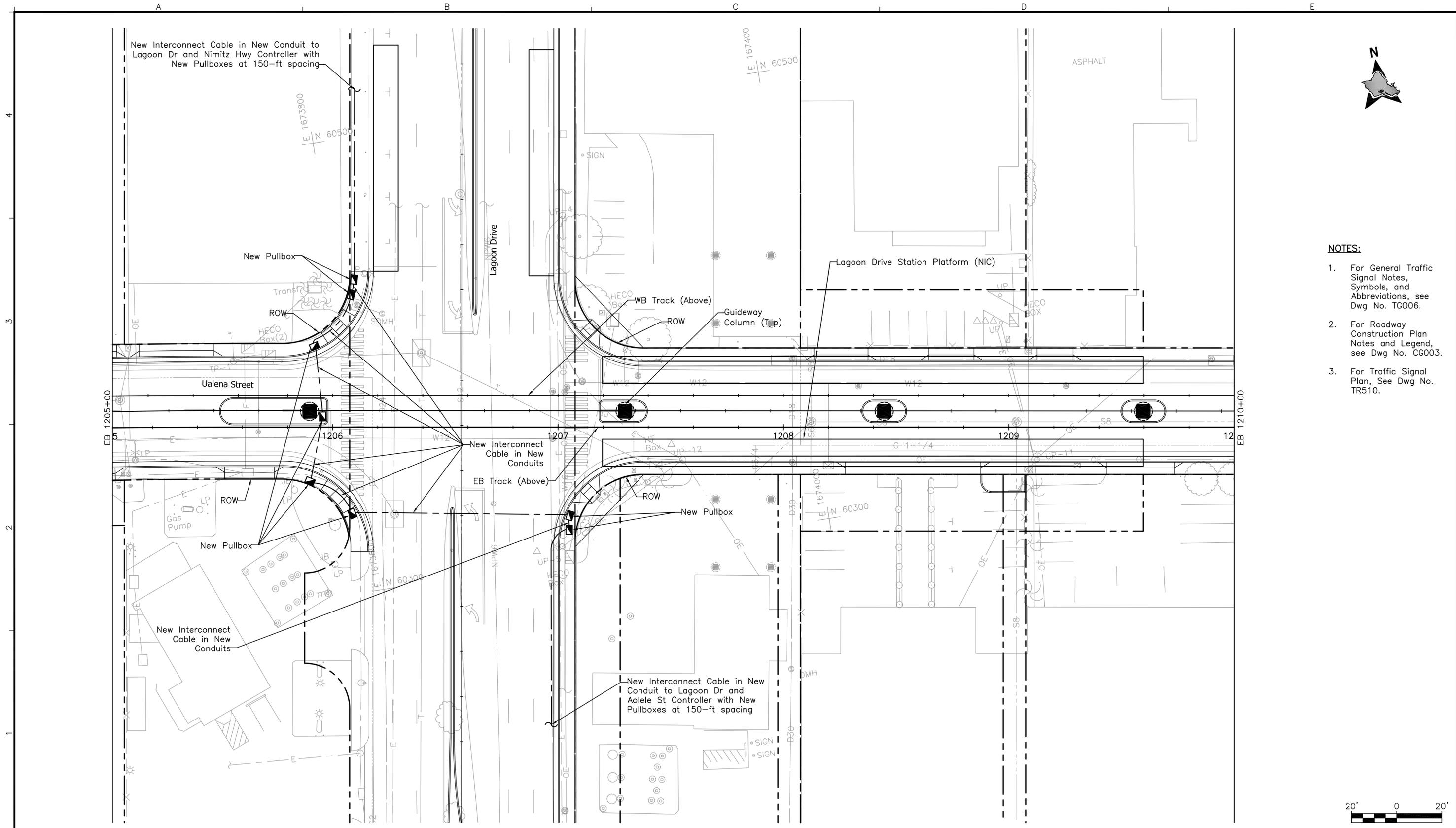
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

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

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AIRPORT GUIDEWAY AND UTILITIES
TRAFFIC SIGNAL PLAN
UALENA ST AT LAGOON DR

Contract No.: SV-430
CADD File: AP-C04-TR510
Drawing No: TR510 Rev.
Scale: 1" = 20'
Page No. 243 of 279



- 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. TR510.

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
K Okazaki
Drawn:
Z Tong
Checked:
L Yokomizo
Approved:
K Niiya
Date:
10-01-10

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
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**AIRPORT GUIDEWAY AND UTILITIES
FIBER OPTIC & TRAFFIC SIGNAL
INTERCONNECT PLAN**

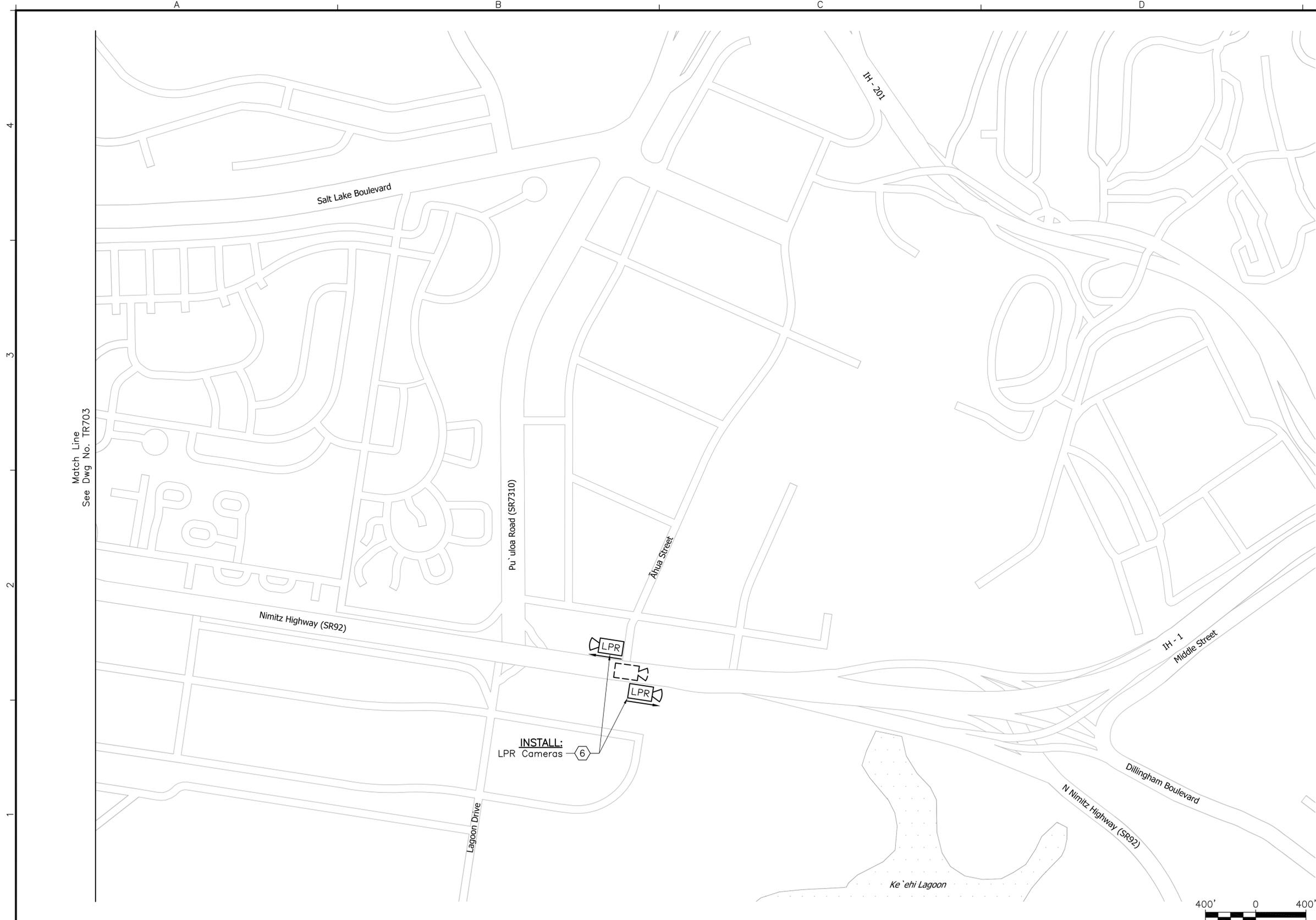
EB 1205+00 TO EB 1210+00

Contract No.:
SV-430
CADD File:
AP-C04-TR650
Drawing No: TR650 Rev.
Scale:
1" = 20'
Page No. 262 of 279



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.



Match Line
See Dwg No. TR703



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
G Kurashima
Drawn:
C Matias
Checked:
G Fromm
Approved:
G Fromm
Date:
10-01-10

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

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

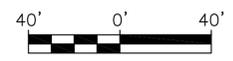
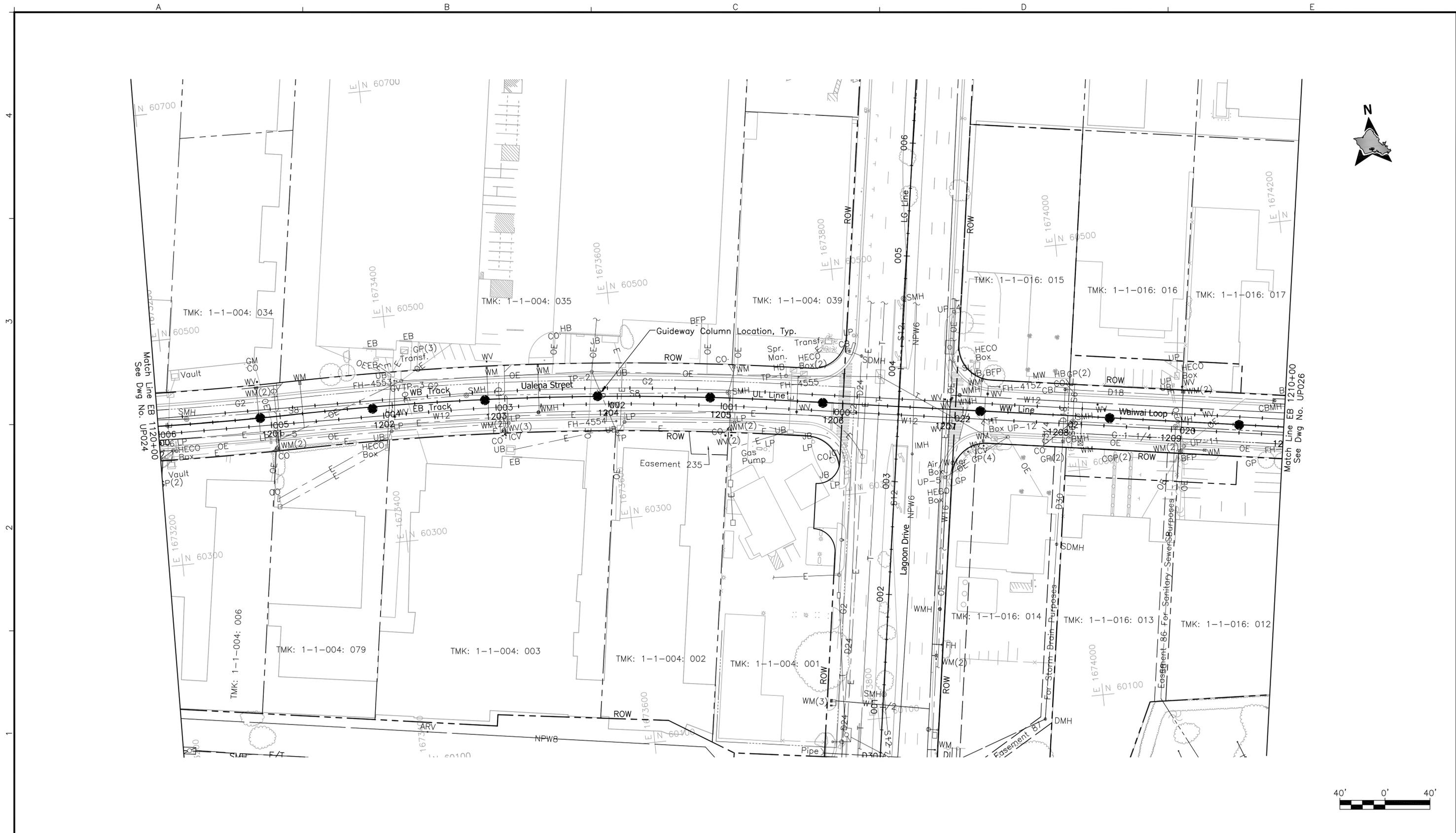
Subconsultant: **icx transportation**
1003 Bishop Street, Suite 720 - Honolulu, HI 96813

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**AIRPORT GUIDEWAY & UTILITIES
TRAFFIC MANAGEMENT PLAN
INTELLIGENT TRANSPORTATION SYSTEMS**

SHEET 4 OF 4

Contract No.: SV-430	
CADD File: AP-C04-TR704	
Drawing No: TR704	Rev.
Scale: 1" = 400'	
Page No. 269 of 279	



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**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
G Tom
Drawn:
D Lee
Checked:
H Andrews
Approved:
J Yamamoto
Date:
10-01-10

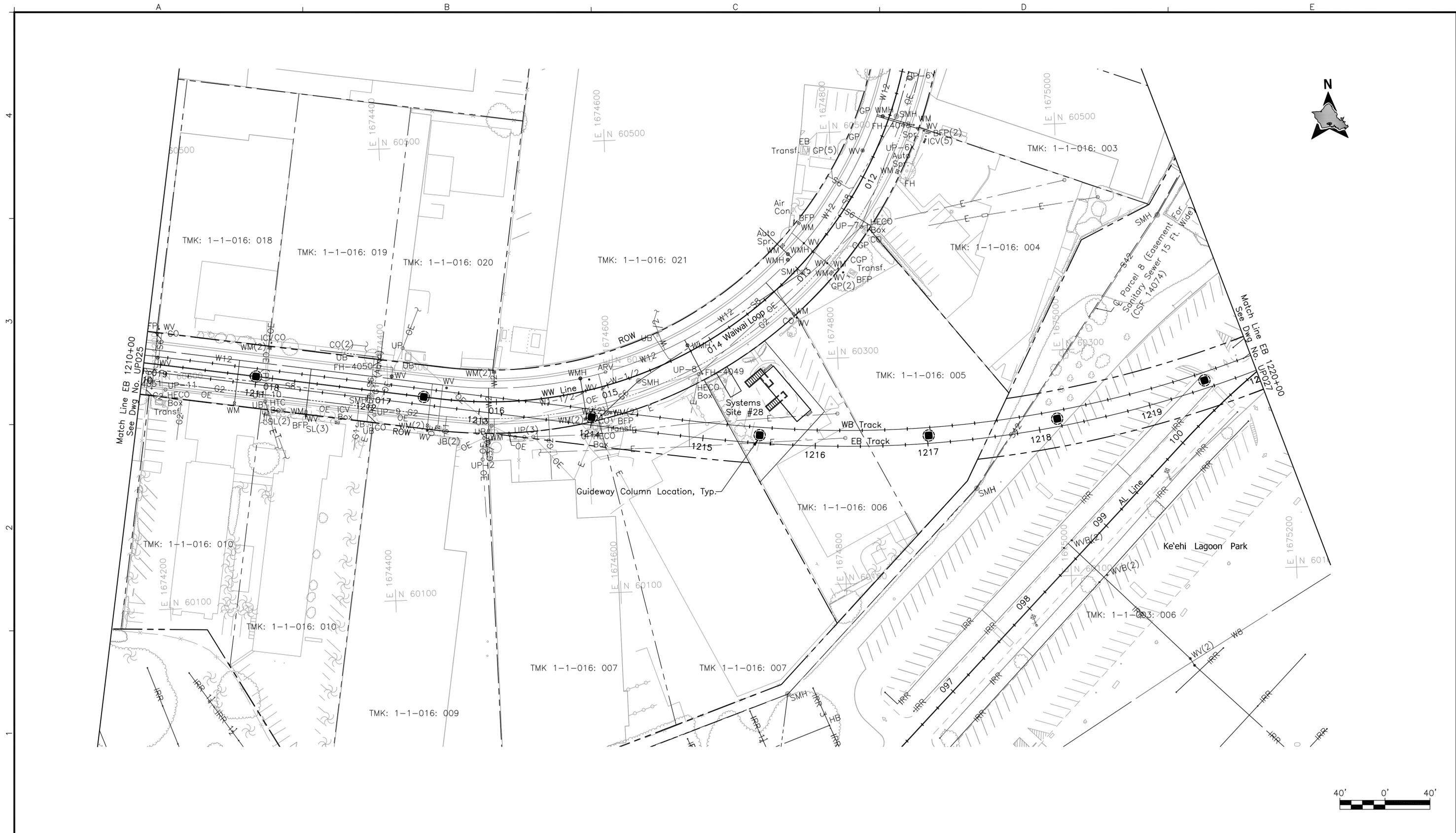
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Prime Consultant:
PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813
For reduced prints, original page size in inches: 0 1 2 3 4 5

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

**AIRPORT GUIDEWAY & UTILITIES
COMPOSITE PLAN
EXISTING UTILITIES
EB 1200+00 TO EB 1210+00**

Contract No.:
SV-430
CADD File:
AP-D02-UP025
Drawing No: UP025 Rev.
Scale:
1"=40'
Page No.
55 of 222



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Designed:
G Tom
Drawn:
D Lee
Checked:
H Andrews
Approved:
J Yamamoto
Date:
10-01-10

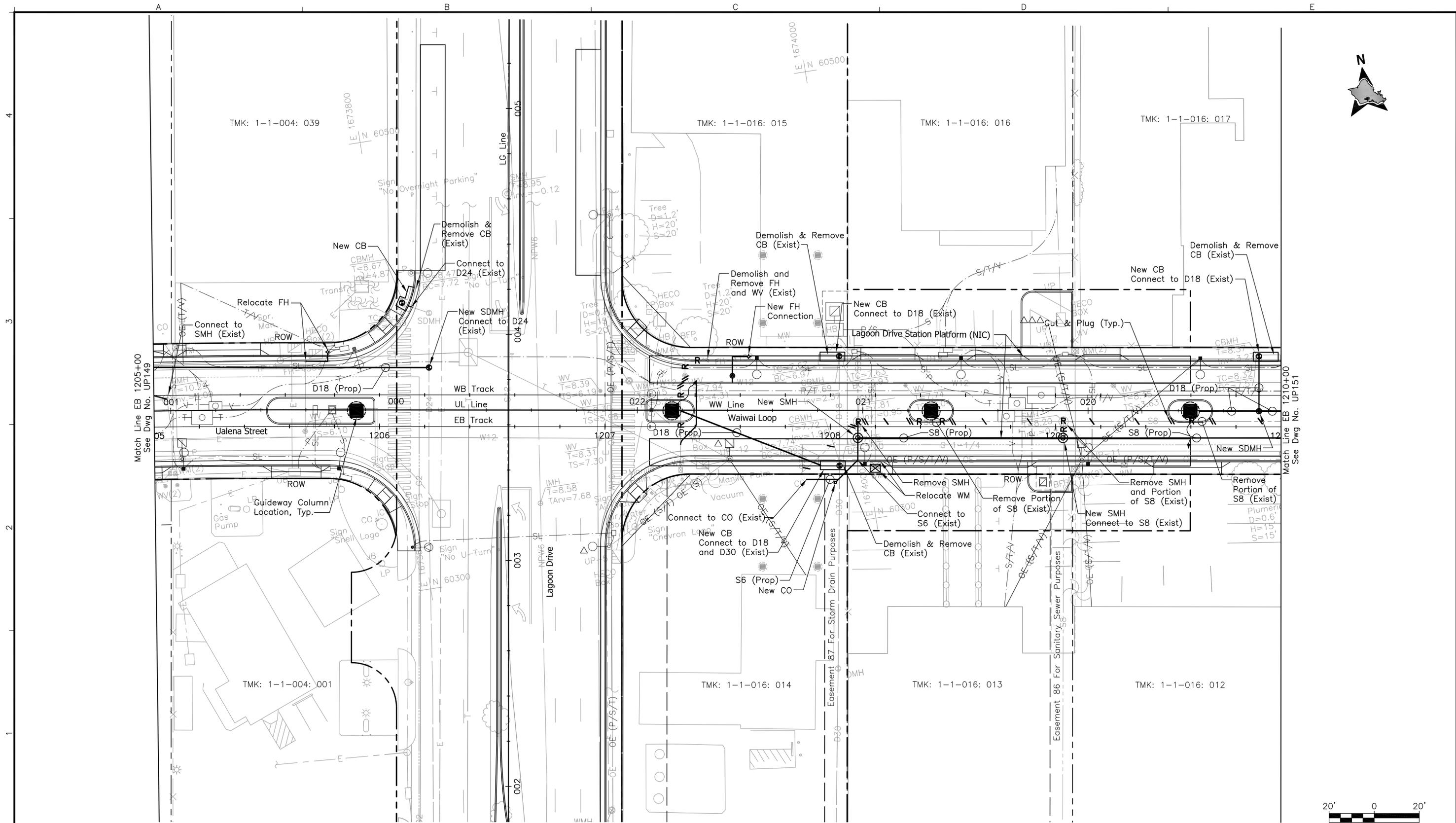
HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant:
PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813
For reduced prints, original page size in inches:

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

AIRPORT GUIDEWAY & UTILITIES
COMPOSITE PLAN
EXISTING UTILITIES
EB 1210+00 TO EB 1220+00

Contract No.:
SV-430
CADD File:
AP-D02-UP026
Drawing No.:
UP026
Scale:
1"=40'
Page No.:
56 of 222



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
G Tom
Drawn:
D Lee
Checked:
H Andrews
Approved:
J Yamamoto
Date:
10-01-10

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

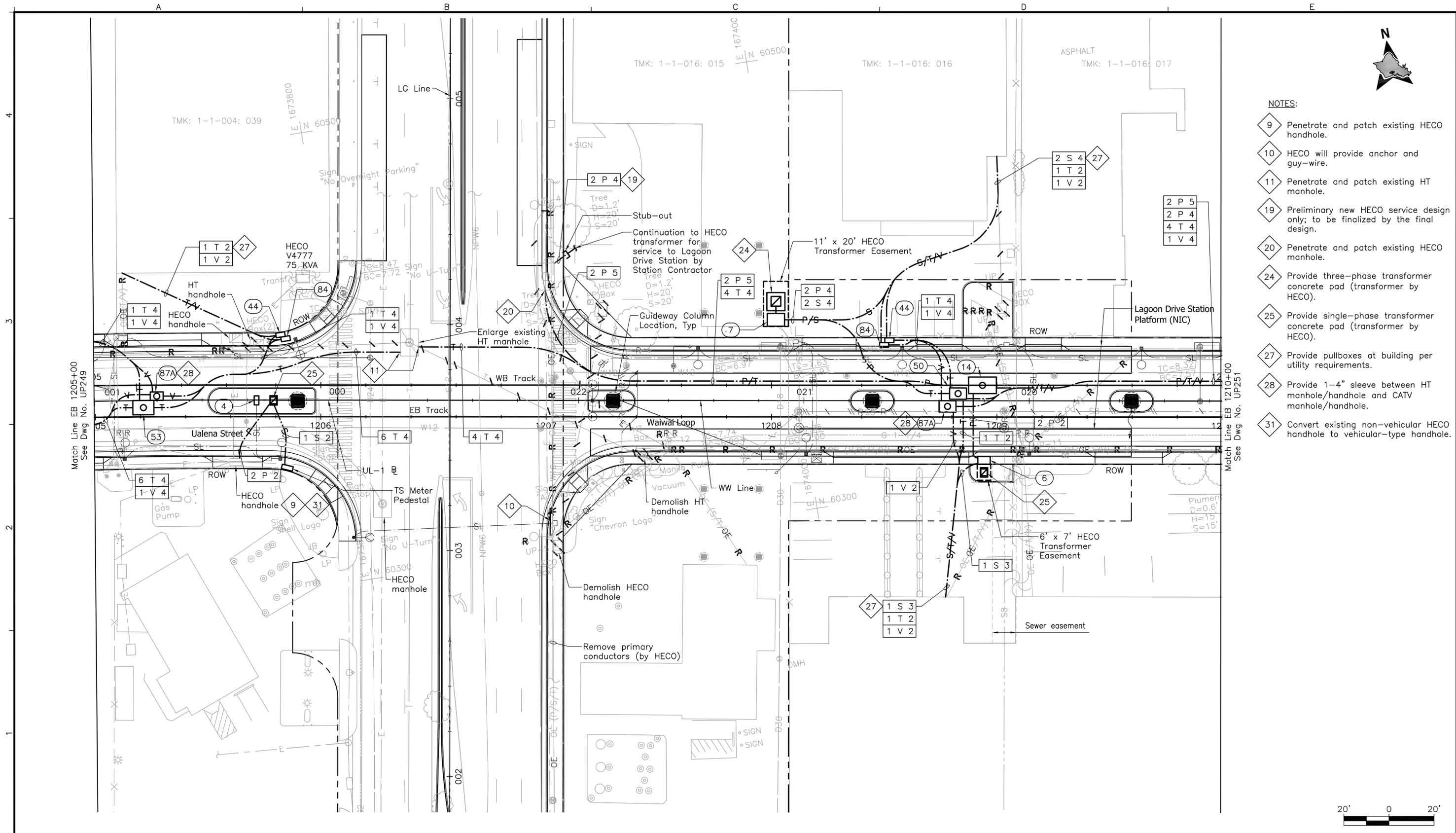
Prime Consultant:
PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813
For reduced prints, original page size in inches: 0 1 2 3 4

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

**AIRPORT GUIDEWAY & UTILITIES
UTILITY RELOCATION PLAN
WATER, SEWER, DRAINAGE, PETROLEUM, & GAS**

EB 1205+00 TO EB 1210+00

Contract No.:	SV-430
CADD File:	AP-D03-UP150
Drawing No:	UP150
Scale:	1"=20'
Page No.	106 of 222



- NOTES:**
- 9 Penetrate and patch existing HECO handhole.
 - 10 HECO will provide anchor and guy-wire.
 - 11 Penetrate and patch existing HT manhole.
 - 19 Preliminary new HECO service design only; to be finalized by the final design.
 - 20 Penetrate and patch existing HECO manhole.
 - 24 Provide three-phase transformer concrete pad (transformer by HECO).
 - 25 Provide single-phase transformer concrete pad (transformer by HECO).
 - 27 Provide pullboxes at building per utility requirements.
 - 28 Provide 1-4" sleeve between HT manhole/handhole and CATV manhole/handhole.
 - 31 Convert existing non-vehicular HECO handhole to vehicular-type handhole.



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
F Hirakami

Drawn:
D Saito

Checked:
P Uyeda

Approved:
P Uyeda

Date:
10-01-10

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

Prime Consultant: **PARSONS BRINCKERHOFF**

Subconsultant: **mKengineers**

286 Kalia Street
Honolulu, Hawaii 96819
Phone: (808) 848-8622
Fax: (808) 848-5574
E-Mail: info@mkhawaii.com

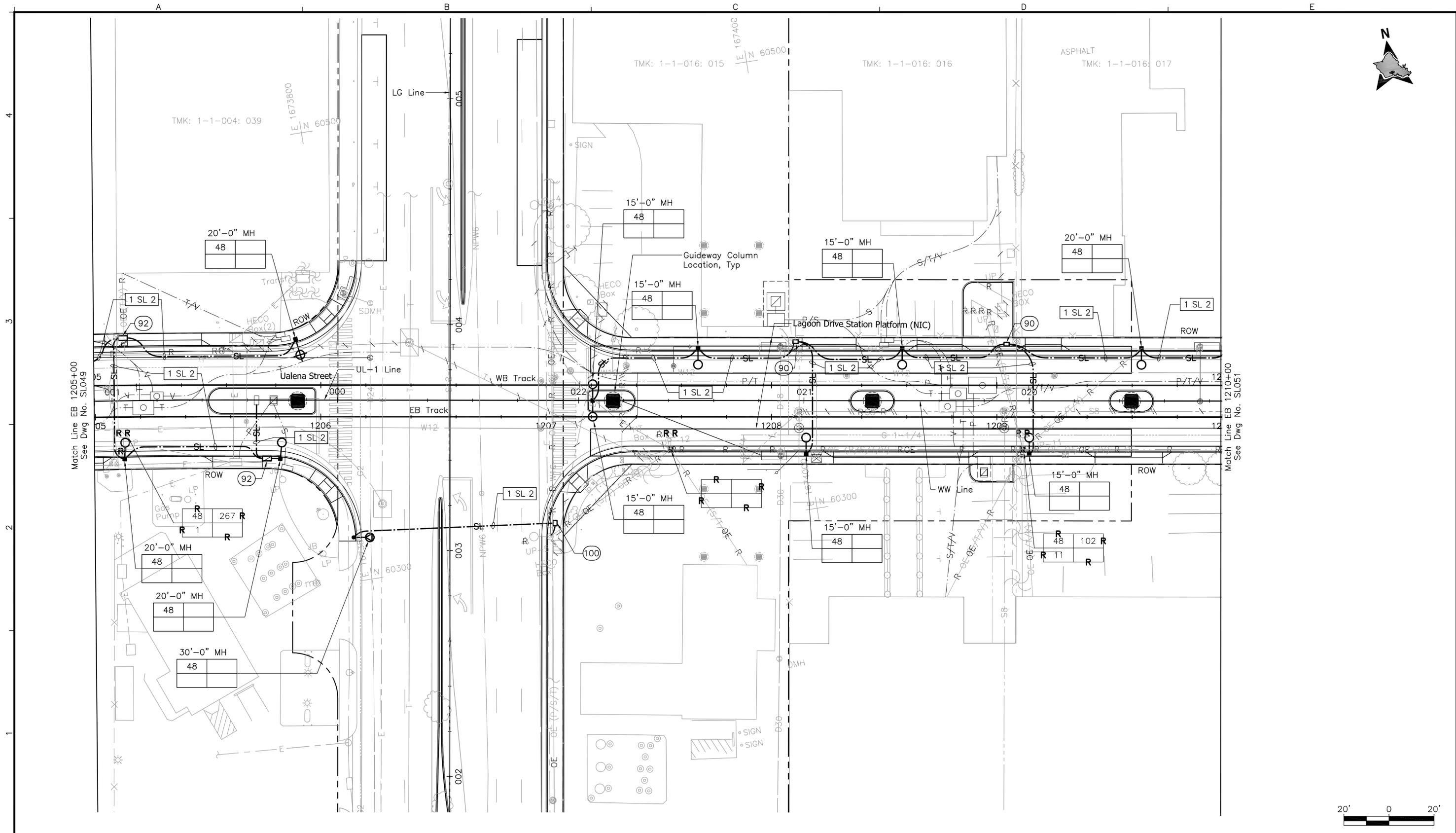
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**AIRPORT GUIDEWAY & UTILITIES
UTILITY RELOCATION PLAN
ELECTRICAL & COMMUNICATIONS**

EB 1205+00 TO EB 1210+00

Contract No.: SV-430	Rev.
CADD File: AP-D03-UP250	
Drawing No: UP250	Page No. 166 of 222
Scale: 1"=20'	



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
R Katahara
Drawn:
D Saito
Checked:
P Uyeda
Approved:
P Uyeda
Date:
10-01-10

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

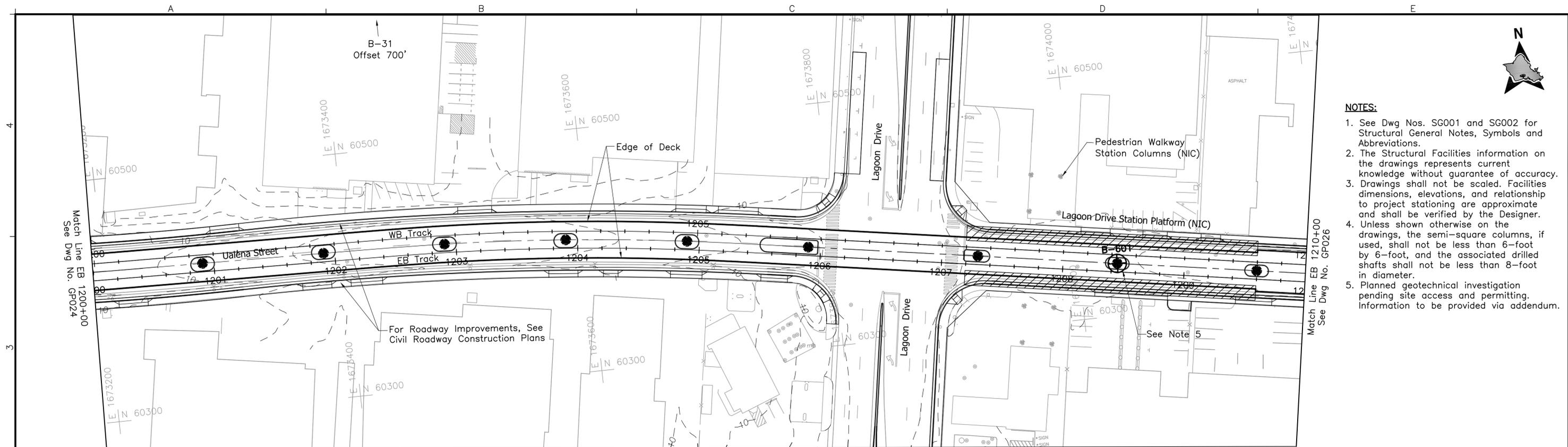
Prime Consultant:
PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813
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Honolulu, Hawaii 96819
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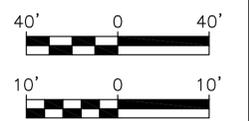
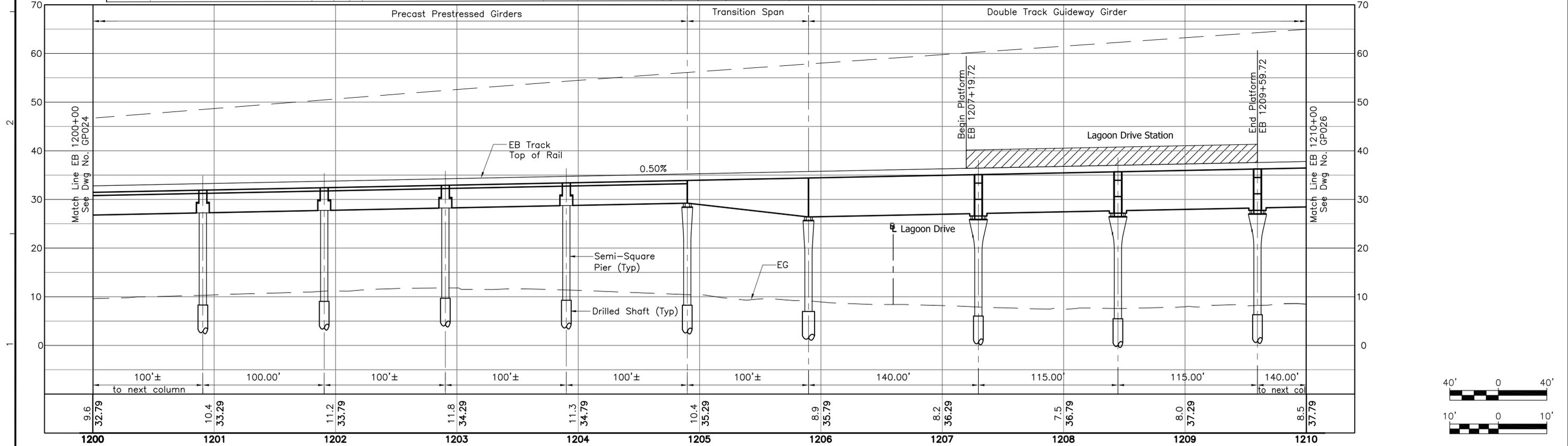
**AIRPORT GUIDEWAY & UTILITIES
STREET LIGHTING PLAN**

EB 1205+00 TO EB 1210+00

Contract No.: SV-430	
CADD File: AP-D04-SL050	
Drawing No: SL050	Rev.
Scale: 1"=20'	
Page No. 201 of 222	



- 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. Planned geotechnical investigation pending site access and permitting. Information to be provided via addendum.



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
D Yavorsky
Drawn:
T Cochran
Checked:
T Kimura
Approved:
A Borst
Date:
10-01-10

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

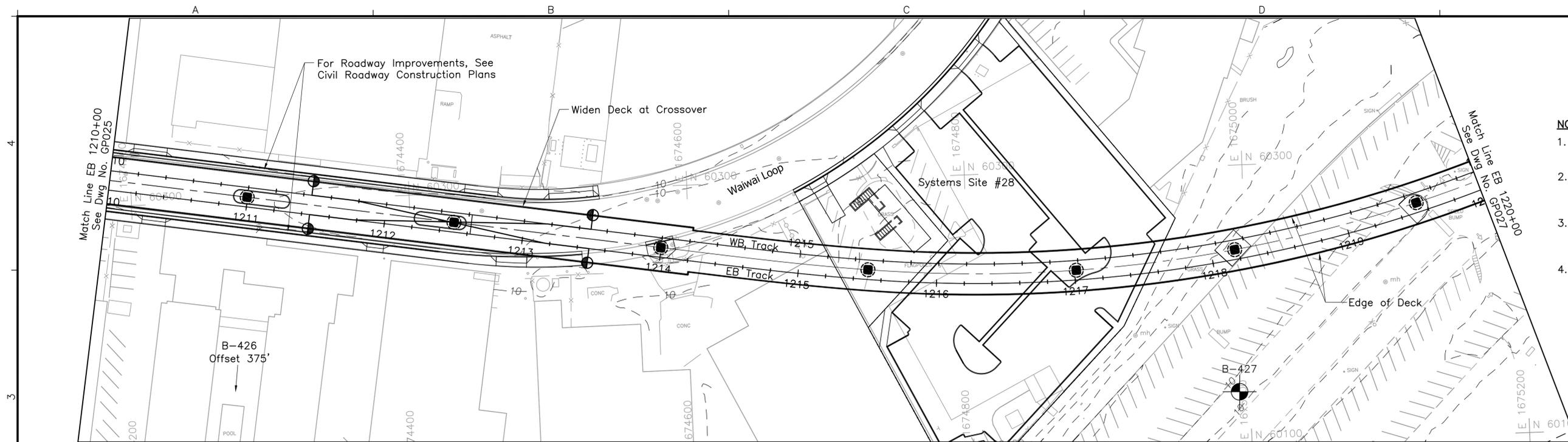
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813
Subconsultant:

AIRPORT GUIDEWAY & UTILITIES

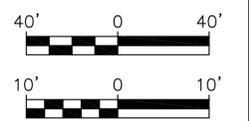
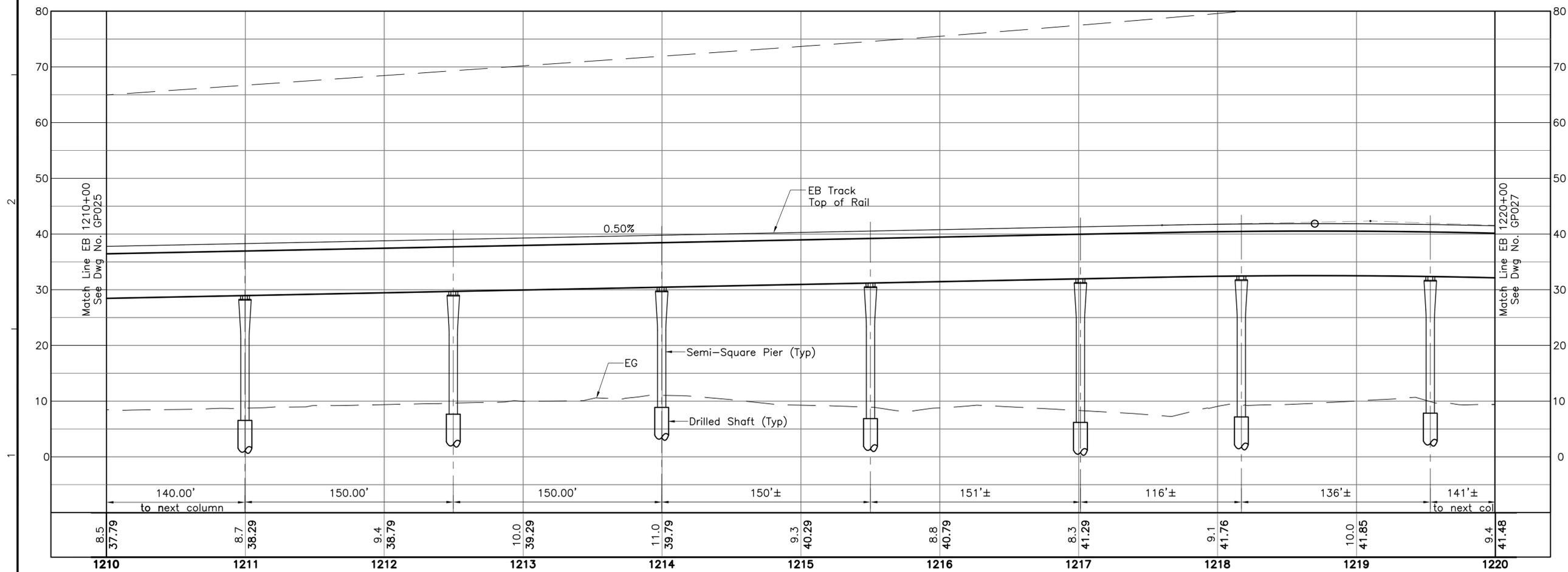
**STRUCTURAL
PLAN AND PROFILE**

EB 1200+00 TO EB 1210+00

Contract No.:
SV-430
CADD File:
AP-G04-GP025
Drawing No: GP025 Rev.
Scale:
1"=40' H, 1"=10' V
Page No. 46 of 193



- 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.



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
D Yavorsky
Drawn:
T Cochran
Checked:
T Kimura
Approved:
A Borst
Date:
10-01-10

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

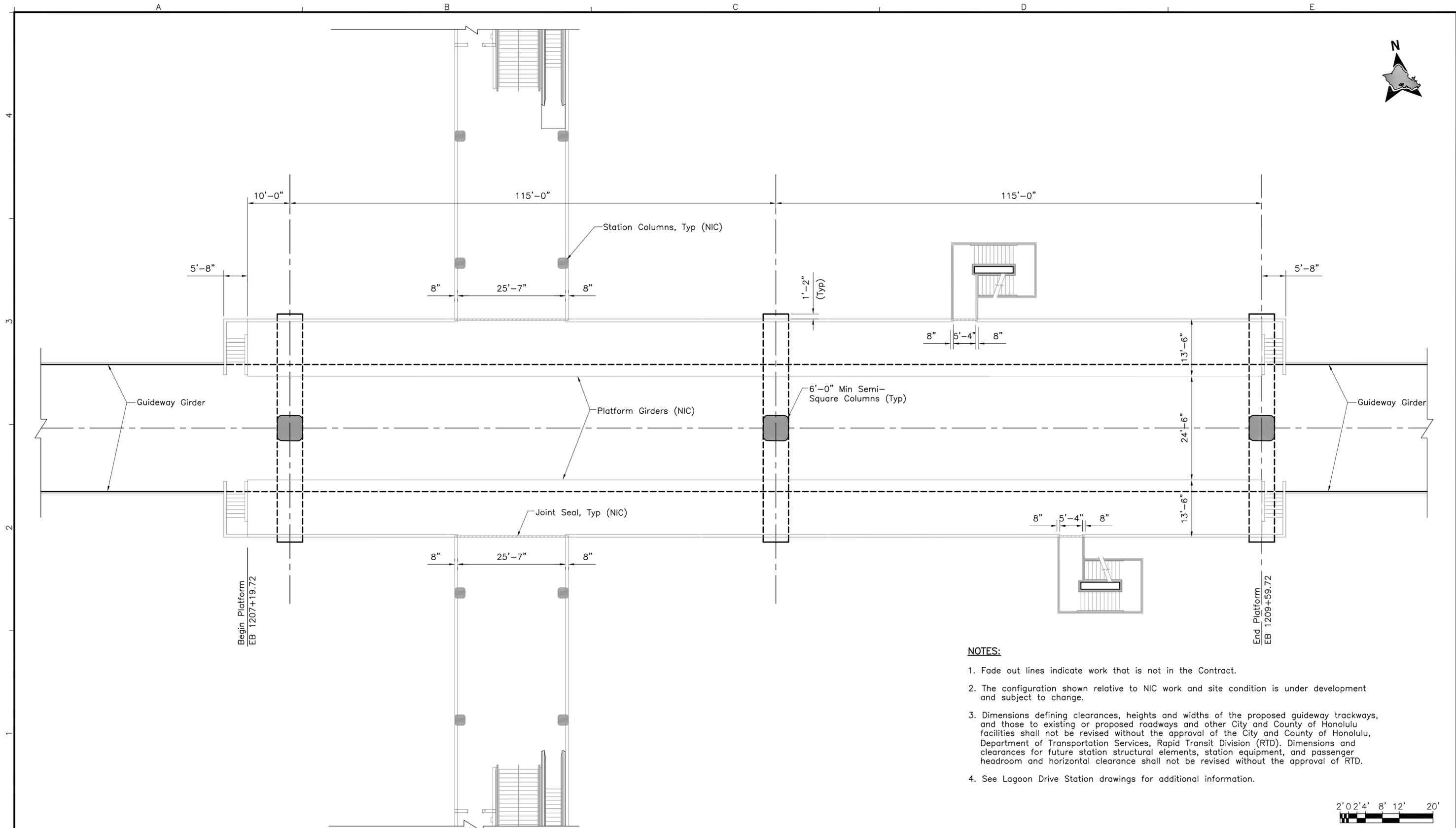
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813
Subconsultant:

AIRPORT GUIDEWAY & UTILITIES

**STRUCTURAL
PLAN AND PROFILE**

EB 1210+00 TO EB 1220+00

Contract No.:
SV-430
CADD File:
AP-G04-GP026
Drawing No: GP026 Rev.
Scale:
1"=40' H, 1"=10' V
Page No. 47 of 193



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 Lagoon Drive Station drawings for additional information.



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

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Drawn:
T Cochran
Checked:
T Kimura
Approved:
A Borst
Date:
10-01-10

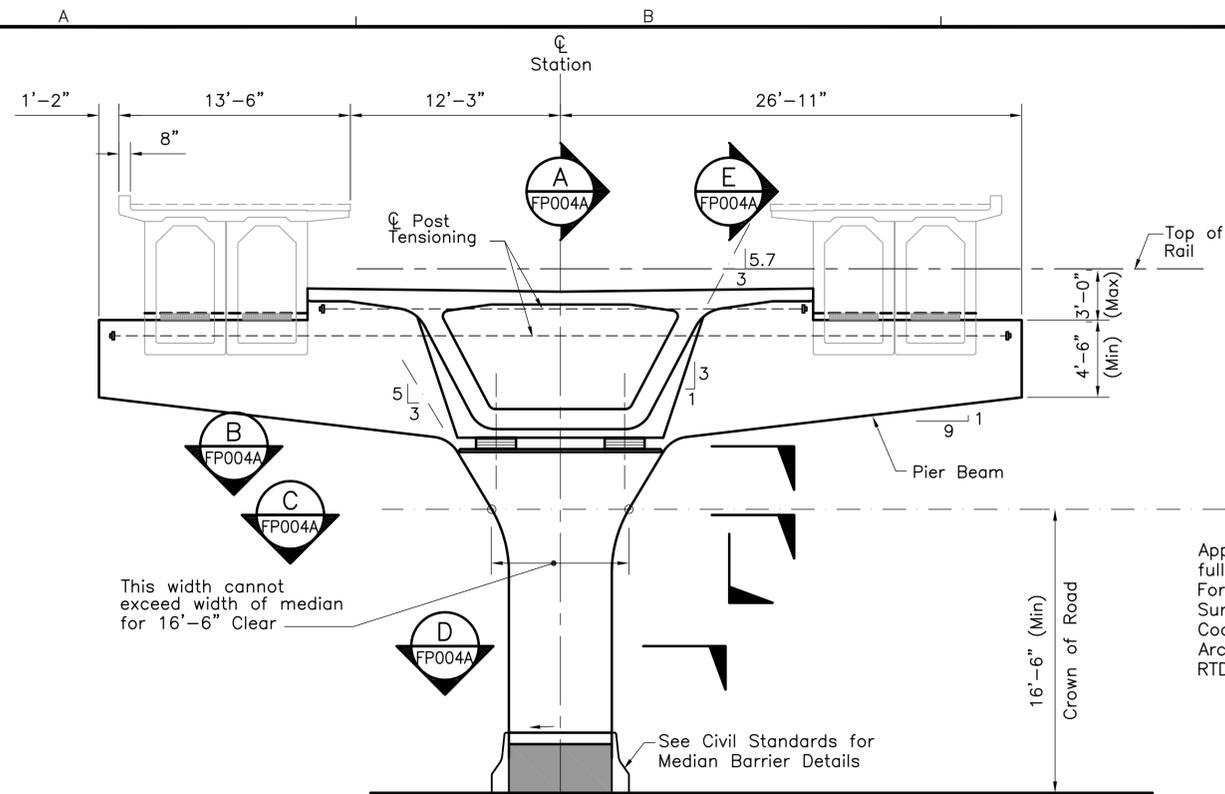
HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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

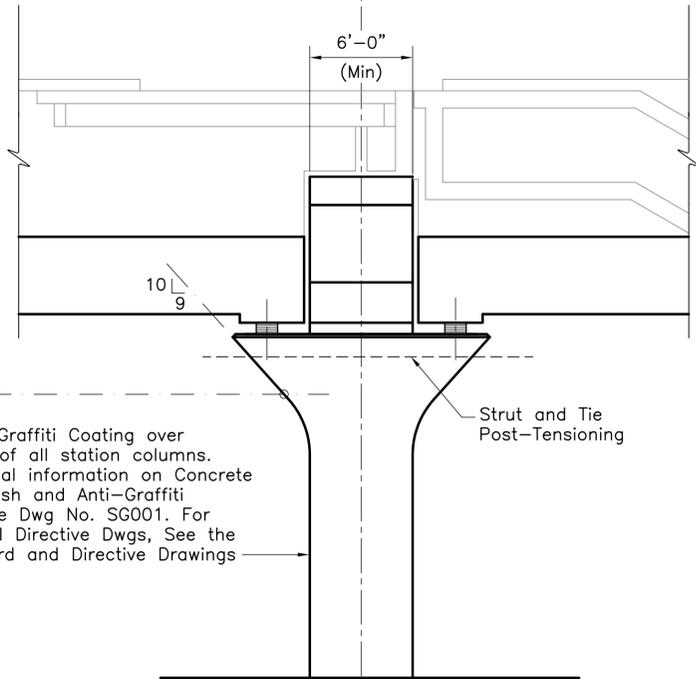
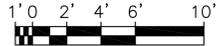
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**AIRPORT GUIDEWAY & UTILITIES
LAGOON DRIVE STATION
PLATFORM LEVEL PLAN**

Contract No.: SV-430
CADD File: AP-G05-FP004
Drawing No: FP004 Rev.
Scale: 3/32"=1'-0"
Page No. 58 of 193



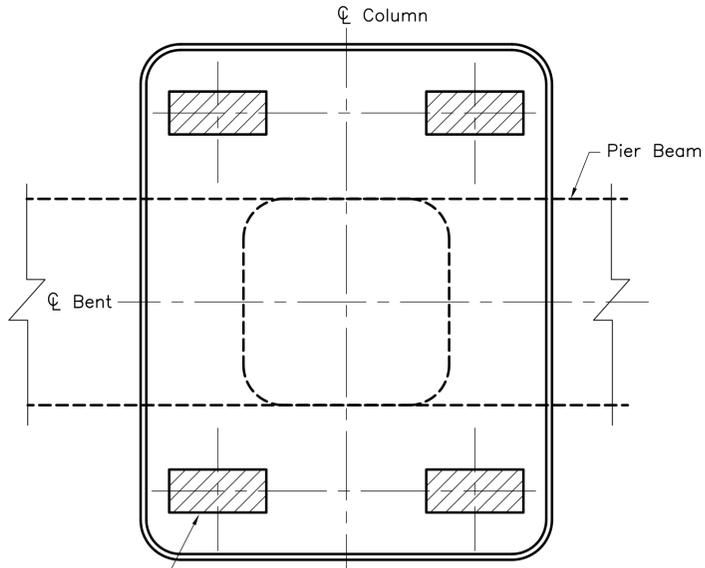
ELEVATION
3/16"=1'-0"



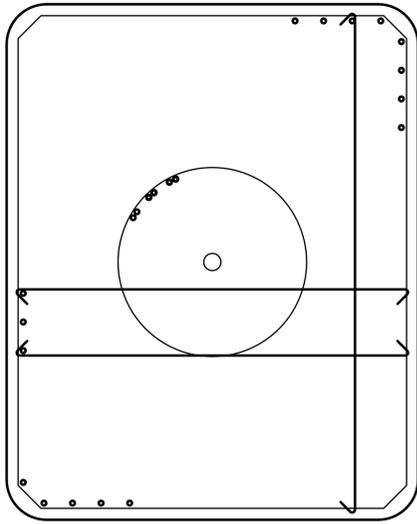
SECTION A
3/16"=1'-0"



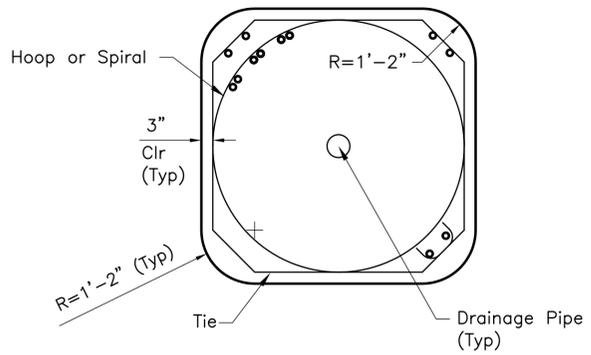
- NOTES:**
1. Fade out lines indicate work that is Not in Contract (NIC).
 2. The configuration shown relative to NIC work and site condition is under development and subject to change.
 3. Dimensions defining clearances, heights and widths of the proposed guideway trackways, and those to existing or 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. Deep foundations are predominantly shown as single cast-in-drilled-hole (CIDH) concrete shafts. The most efficient and cost effective constructed foundation solution is the responsibility of the Design-Builder. Where deep foundations are shown, a deep foundation shall be provided unless the Design-Builder receives approval from RTD upon receipt of calculations sealed by both a structural engineer and geotechnical engineer licensed in the State of Hawaii that demonstrate that his foundation design can meet the performance and differential settlement criteria of Chapter 9 of the HHCTC Design Criteria.



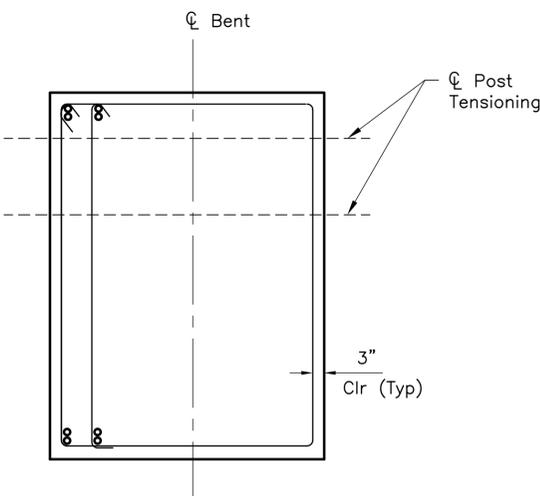
SECTION B
3/8"=1'-0"



SECTION C
3/8"=1'-0"



SECTION D
1/2"=1'-0"



SECTION E
1/2"=1'-0"

Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: D Yavorsky
 Drawn: T Cochran
 Checked: T Kimura
 Approved: A Borst
 Date: 10-01-10

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

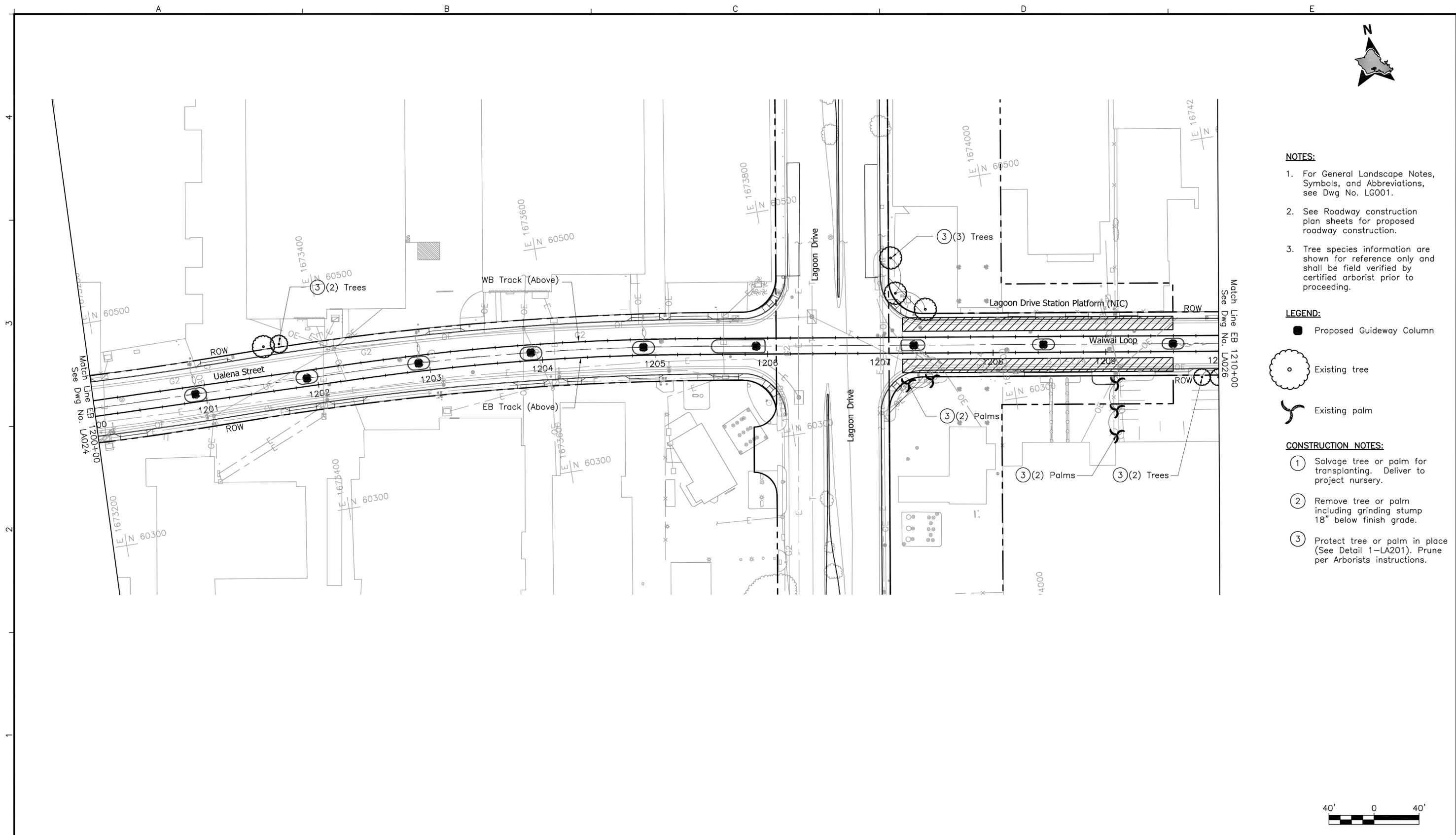
Prime Consultant: **PARSONS BRINCKERHOFF**
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: _____

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**AIRPORT GUIDEWAY & UTILITIES
LAGOON DRIVE STATION
STATION COLUMN BENT DETAILS**

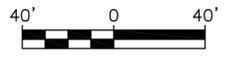
Contract No.: SV-430	Rev.
CADD File: AP-G05-FP004A	
Drawing No: FP004A	
Scale: As Noted	
Page No. 59 of 193	



- NOTES:**
1. For General Landscape Notes, Symbols, and Abbreviations, see Dwg No. LG001.
 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.

- LEGEND:**
- Proposed Guideway Column
 - ☁ Existing tree
 - Y Existing palm

- CONSTRUCTION NOTES:**
- ① Salvage tree or palm for transplanting. Deliver to project nursery.
 - 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.



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
C Hironaka

Drawn:
B Tanimura

Checked:
L Keliiaa

Approved:
A Akau

Date:
10-01-10

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: **BELT COLLINS**
PLANNING • CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL CONSULTING
Belt Collins Hawaii Ltd.
2153 North King Street, Suite 200
Honolulu, Hawaii 96819
T: 808.521.5361 • F: 808.538.7819
www.beltcollins.com

**AIRPORT GUIDEWAY AND UTILITIES
LANDSCAPE DEMOLITION PLAN**

EB 1200+00 TO EB 1210+00

Contract No.: SV-430	
CADD File: AP-J02-LA025	
Drawing No: LA025	Rev.
Scale: 1"=40'	
Page No. 120	of 193



NOTES:

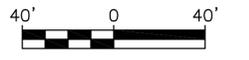
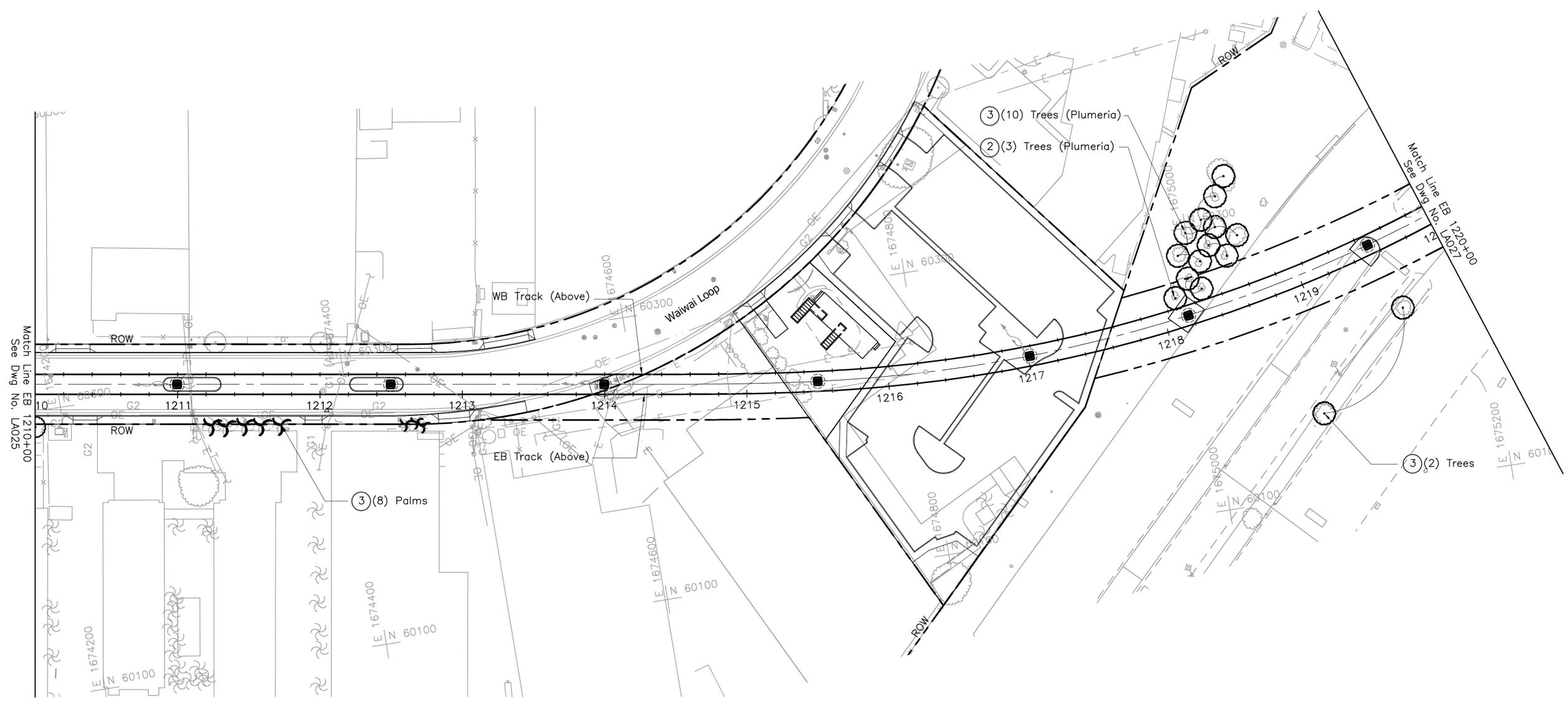
1. For General Landscape Notes, Symbols, and Abbreviations, see Dwg No. LG001.
2. See Roadway construction plan sheets for proposed roadway construction.
3. Tree species information are shown for reference only and shall be field verified by certified arborist prior to proceeding.

LEGEND:

- Proposed Guideway Column
- Existing tree
- ☙ Existing palm

CONSTRUCTION NOTES:

- ① Salvage tree or palm for transplanting. Deliver to project nursery.
- 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.



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
C Hironaka
Drawn:
B Tanimura
Checked:
L Keliiaa
Approved:
A Akau
Date:
10-01-10

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

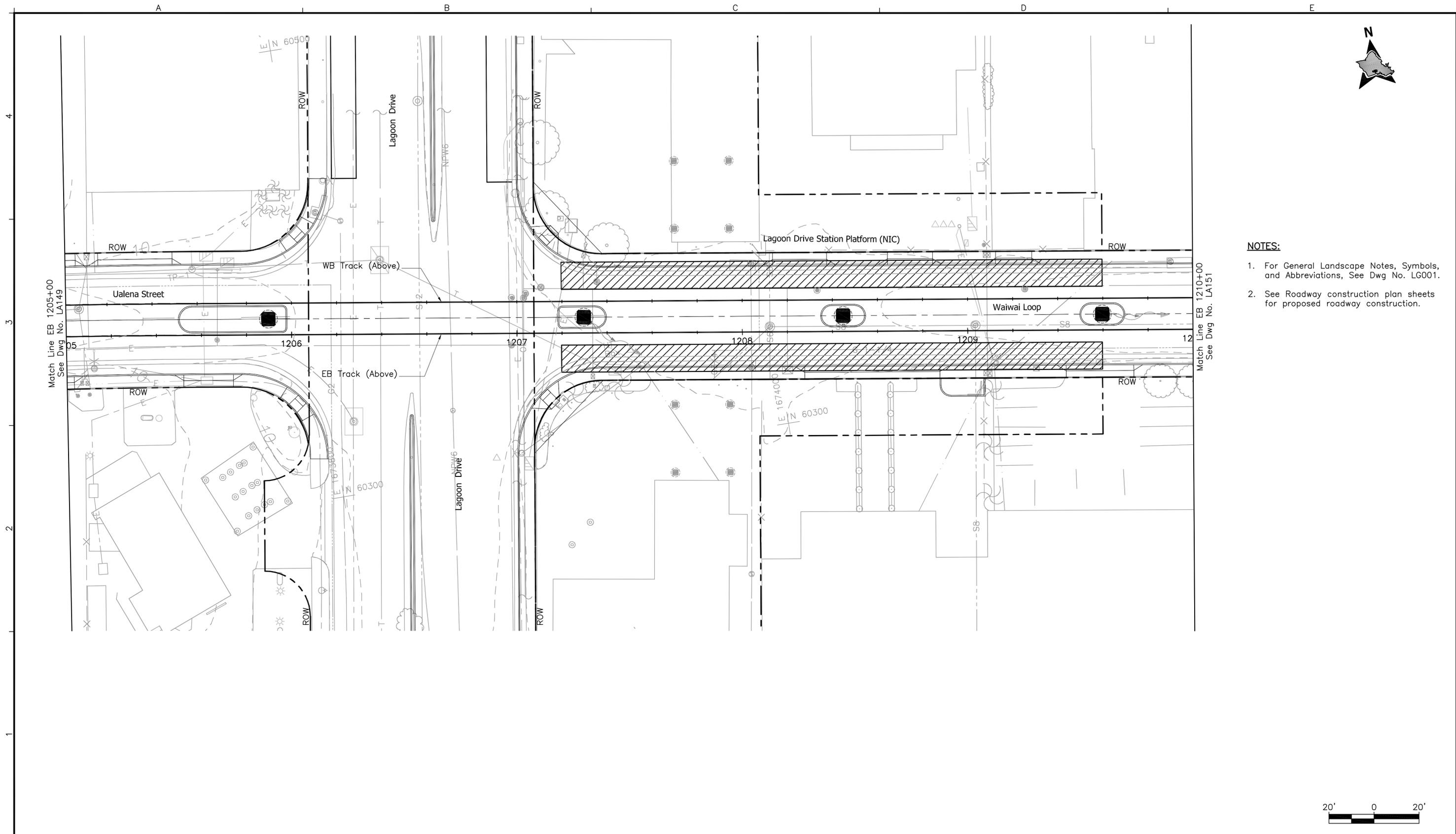
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **BELT COLLINS**
PLANNING • CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL CONSULTING
Belt Collins Hawaii Ltd.
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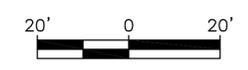
**AIRPORT GUIDEWAY AND UTILITIES
LANDSCAPE DEMOLITION PLAN**

EB 1210+00 TO EB 1220+00

Contract No.: SV-430	
CADD File: AP-J02-LA026	
Drawing No: LA026	Rev.
Scale: 1"=40'	
Page No. 121	of 193



- NOTES:**
1. For General Landscape Notes, Symbols, and Abbreviations, See Dwg No. LG001.
 2. See Roadway construction plan sheets for proposed roadway construction.



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
C Hironaka

Drawn:
B Tanimura

Checked:
L Keliiaa

Approved:
A Akau

Date:
10-01-10

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

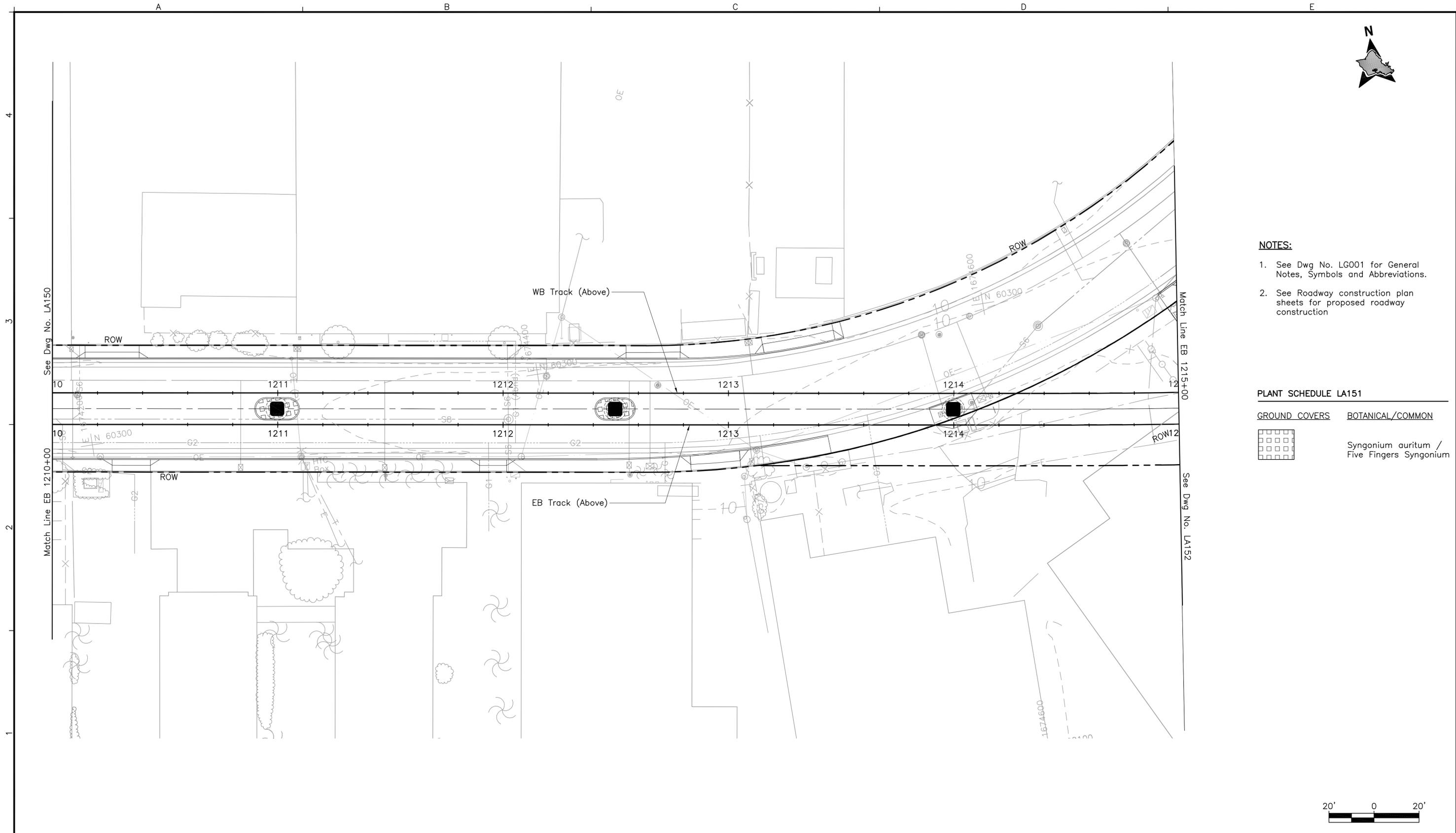
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **BELT COLLINS**
PLANNING • CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL CONSULTING
Belt Collins Hawaii Ltd.
2153 North King Street, Suite 200
Honolulu, Hawaii 96819
T: 808.521.5361 • F: 808.538.7819
www.beltcollins.com

**AIRPORT GUIDEWAY AND UTILITIES
LANDSCAPE PAVING AND
PLANTING PLAN**

EB 1205+00 TO EB 1210+00

Contract No.: SV-430	
CADD File: AP-J04-LA150	
Drawing No: LA150	Rev.
Scale: 1"=20'	
Page No.	169 of 193



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

PLANT SCHEDULE LA151

GROUND COVERS	BOTANICAL / COMMON
	Syngonium auritum / Five Fingers Syngonium

Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
C Hironaka
Drawn:
B Tanimura
Checked:
L Keliiaa
Approved:
A Akau
Date:
08-27-10

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

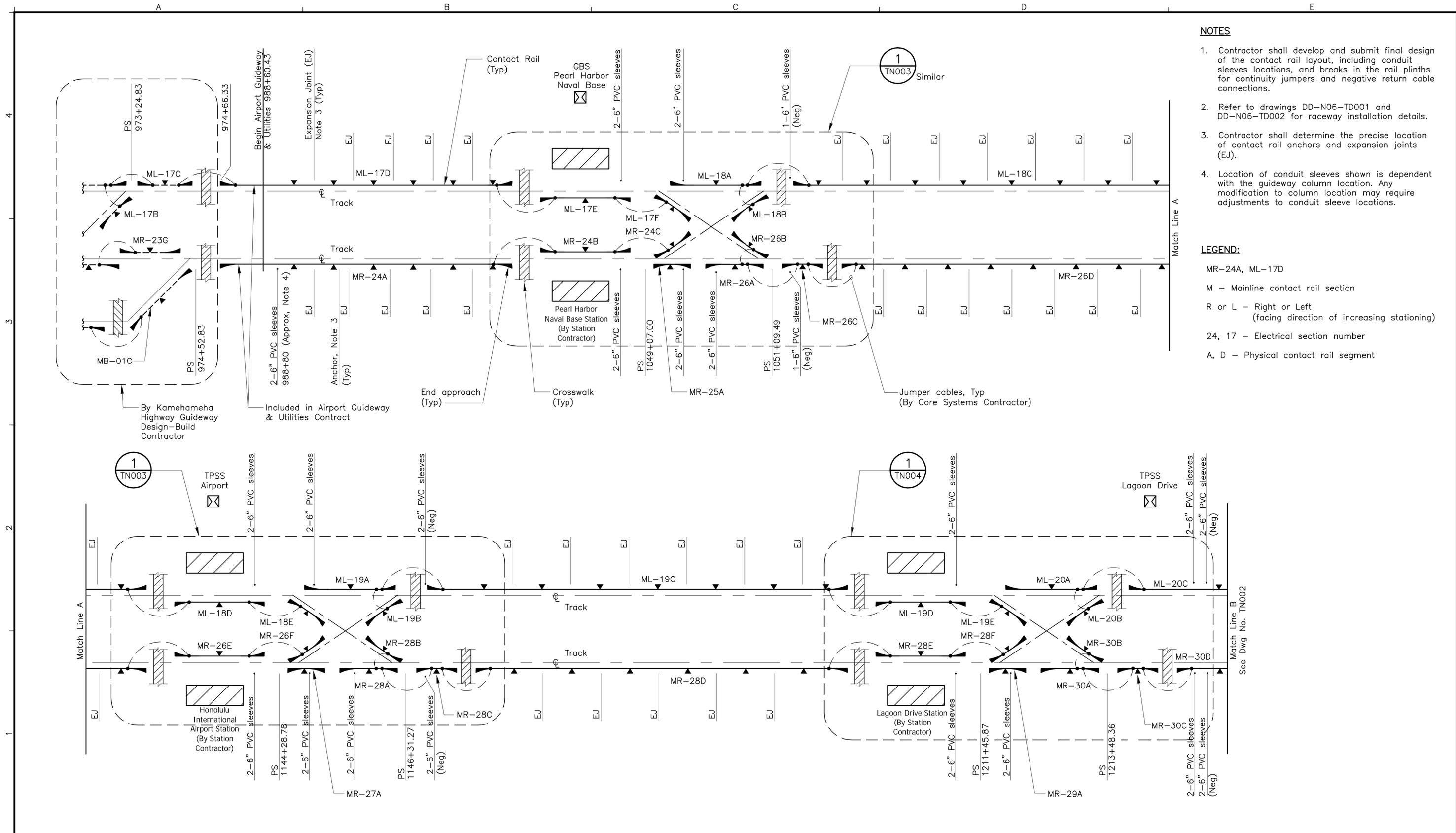
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **BELT-COLLINS**
PLANNING • CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL CONSULTING
Belt Collins Hawaii Ltd.
2153 North King Street, Suite 200
Honolulu, Hawaii 96819
T: 808.521.5361 • F: 808.538.7819
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**AIRPORT GUIDEWAY AND UTILITIES
LANDSCAPE PAVING AND
PLANTING PLAN**

EB 1210+00 TO EB 1215+00

Contract No.: SV-430	Rev.
CADD File: AP-J04-LA151	
Drawing No: LA151	
Scale: 1"=20'	
Page No. 173 of	



- NOTES**
- 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.
 - Refer to drawings DD-N06-TD001 and DD-N06-TD002 for raceway installation details.
 - Contractor shall determine the precise location of contact rail anchors and expansion joints (EJ).
 - Location of conduit sleeves shown is dependent with the guideway column location. Any modification to column location may require adjustments to conduit sleeve locations.

- LEGEND:**
- MR-24A, ML-17D
 - M - Mainline contact rail section
 - R or L - Right or Left (facing direction of increasing stationing)
 - 24, 17 - Electrical section number
 - A, D - Physical contact rail segment

Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: J Sun
 Drawn: O Kurnovskaya
 Checked: L Mayola
 Approved: S Stoilov
 Date: 10-01-10

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

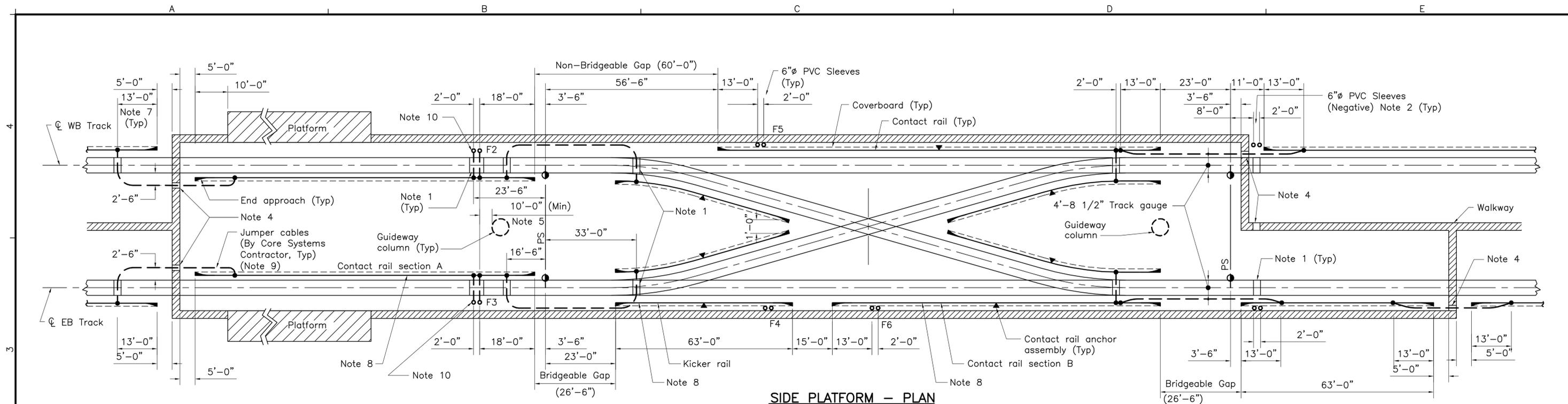
Prime Consultant: **PARSONS BRINCKERHOFF**
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AIRPORT GUIDEWAY & UTILITIES

**CONTACT RAIL INSTALLATION
CONTACT RAIL SCHEMATIC LAYOUT**

SHEET 1 OF 2

Contract No.: SV-430	Rev.
CADD File: AP-N06-TN001	
Drawing No: TN001	
Scale: NTS	
Page No: 188 of 193	



SIDE PLATFORM - PLAN

DETAIL 1
 NTS
 TN003 TN001
 TN002

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 and guideway column locations.
4. Install 2-5" 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.
10. At Honolulu International Airport Station, the distance from the face of the nearest guideway column to the sleeves locations shall be 20'-0" minimum.

Location (Note 6)	Conduit	Remarks
998+35	1-5"	PVC Schedule 40
1015+96	1-5"	PVC Schedule 40
1033+57	1-5"	PVC Schedule 40
1051+18	1-5"	PVC Schedule 40
1070+22	1-5"	PVC Schedule 40
1089+26	1-5"	PVC Schedule 40
1108+30	1-5"	PVC Schedule 40
1127+34	1-5"	PVC Schedule 40
1146+40	1-5"	PVC Schedule 40
1163+72	1-5"	PVC Schedule 40
1181+04	1-5"	PVC Schedule 40
1198+36	1-5"	PVC Schedule 40
1215+70	1-5"	PVC Schedule 40
1234+15	1-5"	PVC Schedule 40
1252+60	1-5"	PVC Schedule 40
1271+04	1-5"	PVC Schedule 40

Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

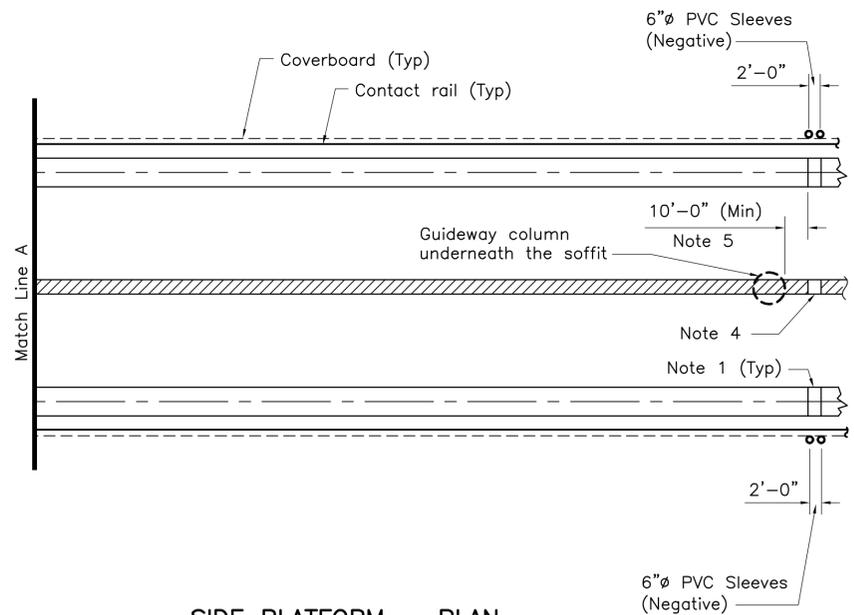
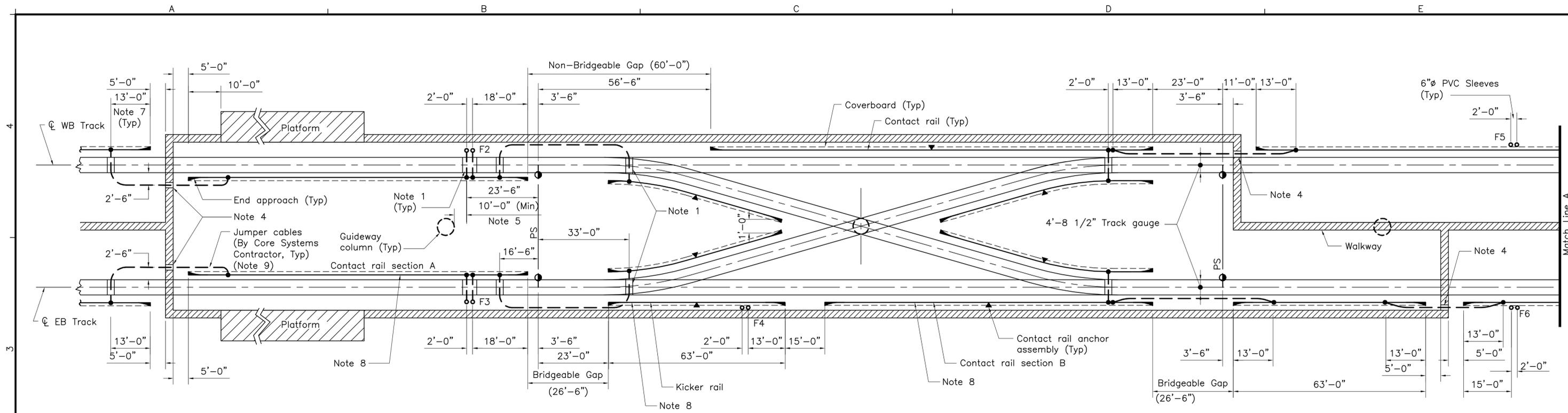
Designed:
J Sun
 Drawn:
O Kurnovskaya
 Checked:
L Mayola
 Approved:
S Stoilov
 Date:
10-01-10

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
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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.
190 of 193



SIDE PLATFORM - PLAN
 DETAIL 1
 NTS TNO04 TNO01

- NOTES**
1. Provide break in rail plinths, (10" wide) for cable way, coordinated with required cable connections to contact rail.
 2. Not used.
 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 and guideway column locations.
 4. Install 2-5" diameter 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. Not used.
 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**

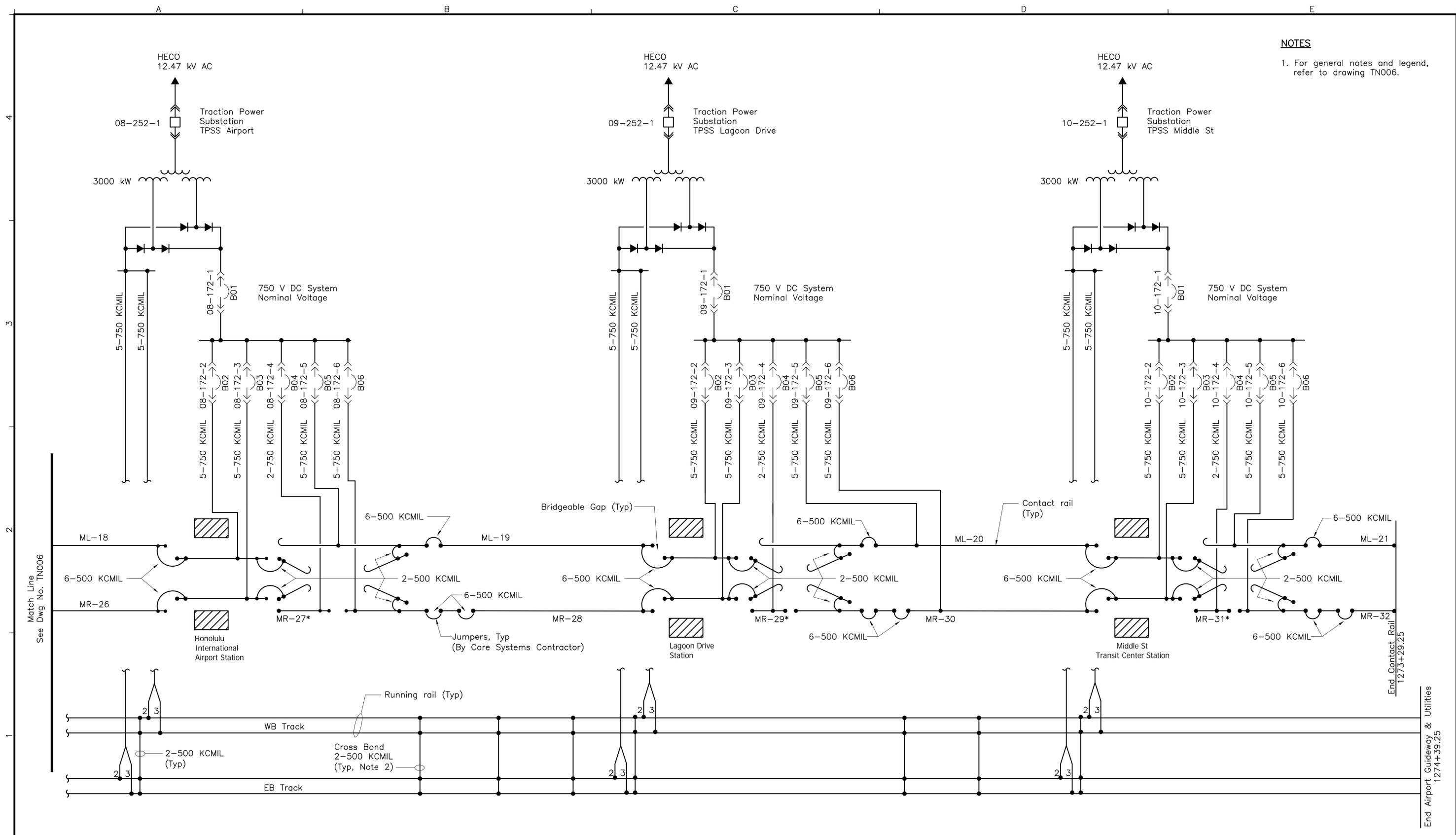
HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Designed: J Sun
 Drawn: O Kurnovskaya
 Checked: L Mayola
 Approved: S Stoilov
 Date: 10-01-10

Prime Consultant: **PARSONS BRINCKERHOFF**
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813
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AIRPORT GUIDEWAY & UTILITIES
CONTACT RAIL INSTALLATION
CONTACT RAIL LAYOUT
AT LAGOON DRIVE STATION

Contract No.: SV-430	
CADD File: AP-N06-TN004	
Drawing No: TNO04	Rev.
Scale: NTS	
Page No. 191	of 193



NOTES
 1. For general notes and legend, refer to drawing TN006.

Match Line
 See Dwg No. TN006

End Contact Rail
 1273+29.25

End Airport Guideway & Utilities
 1274+39.25

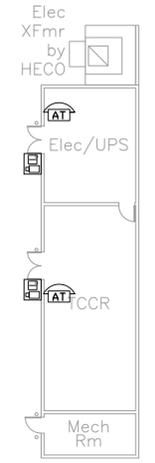
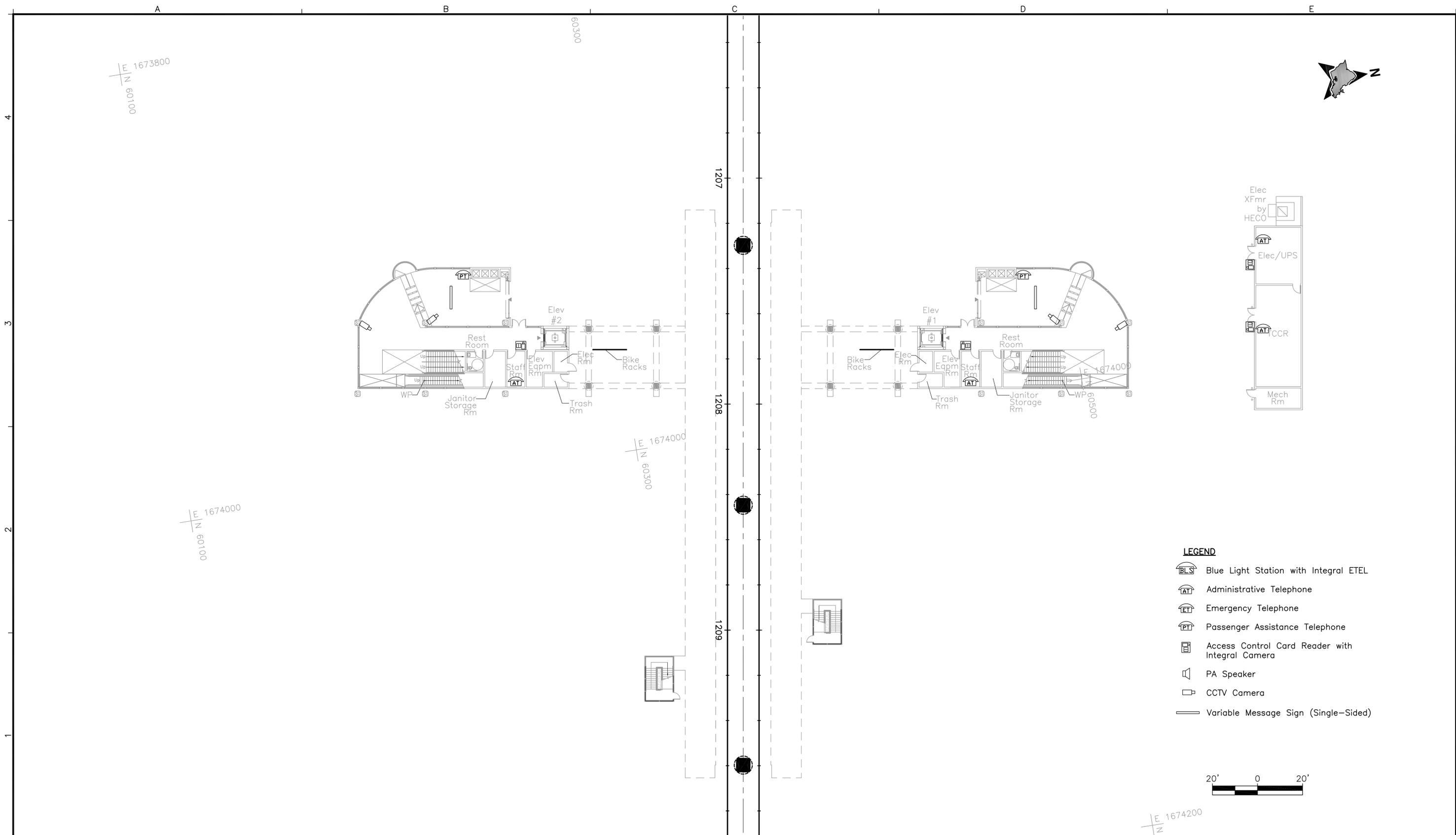
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AIRPORT GUIDEWAY & UTILITIES
MASTER SINGLE LINE DIAGRAM
 SHEET 2 OF 2

Contract No.:
 SV-430
 CADD File:
 AP-N06-TN007
 Drawing No:
 TN007
 Rev.
 NTS
 Page No.
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LEGEND

- Blue Light Station with Integral ETEL
- Administrative Telephone
- Emergency Telephone
- Passenger Assistance Telephone
- Access Control Card Reader with Integral Camera
- PA Speaker
- CCTV Camera
- Variable Message Sign (Single-Sided)



Rev	By	Date	Description
B	DG	12-08-10	Station Relocated/Equipment Updated
A	HB	11-13-09	Issued For Addendum

**RFP DRAWING
NOT FOR CONSTRUCTION**

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

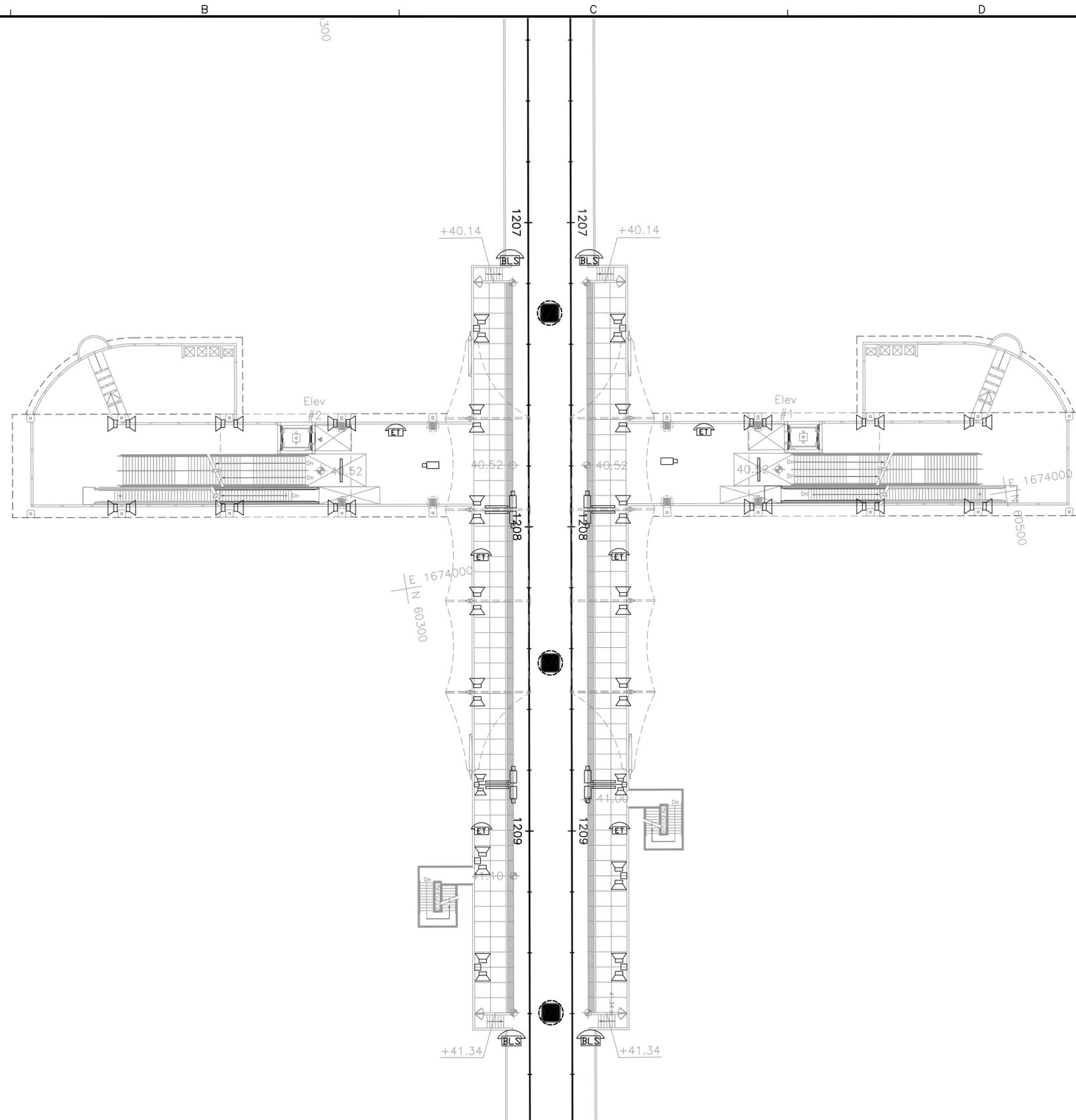
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**CORE SYSTEMS
LAGOON DRIVE STATION
COMMUNICATIONS PLAN
GROUND LEVEL**

Contract No.: MI-920	
CADD File: CS-R06-CM409	
Drawing No: CM409	Rev. B
Scale: 1" = 20'	
Page No. 162 of 202	



LEGEND

- Blue Light Station with Integral ETEL
- Administrative Telephone
- Emergency Telephone
- Passenger Assistance Telephone
- Access Control Card Reader with Integral Camera
- PA Speaker
- CCTV Camera
- Variable Message Sign (Double-Sided)
- Variable Message Sign (Single-Sided)



Rev	By	Date	Description
B	DG	12-08-10	Station Relocated/Equipment Updated
A	HB	11-13-09	Issued For Addendum

**RFP DRAWING
NOT FOR CONSTRUCTION**

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:

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**CORE SYSTEMS
LAGOON DRIVE STATION
COMMUNICATIONS PLAN
PLATFORM LEVEL**

Contract No.: MI-920	
CADD File: CS-R06-CM410	
Drawing No: CM410	Rev. B
Scale: 1" = 20'	
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