

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

FARRINGTON HIGHWAY STATIONS
CONTRACT SV-240

VOLUME 3

LEEWARD COMMUNITY COLLEGE STATION

PRELIMINARY ENGINEERING DRAWINGS

September 18, 2009

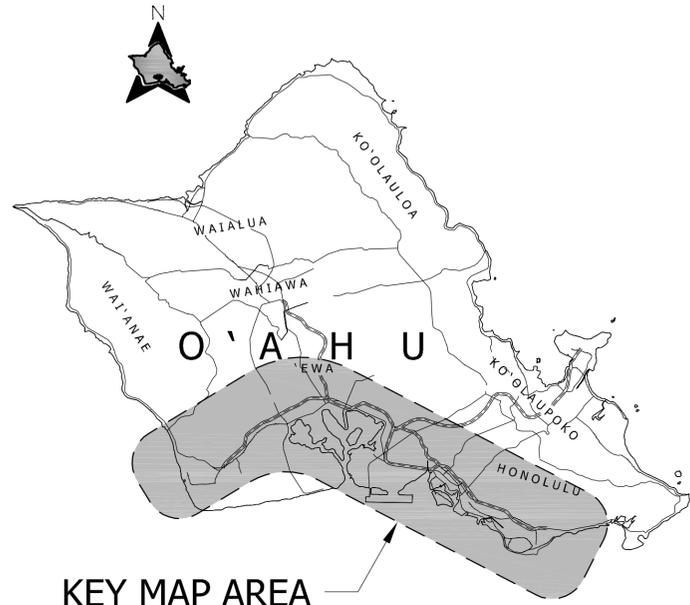
Prepared for:
HHCTCP

Prepared by:
Parsons Brinckerhoff
General Engineering Consultant (GEC)

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

LEEWARD COMMUNITY COLLEGE STATION

PRELIMINARY ENGINEERING DRAWINGS

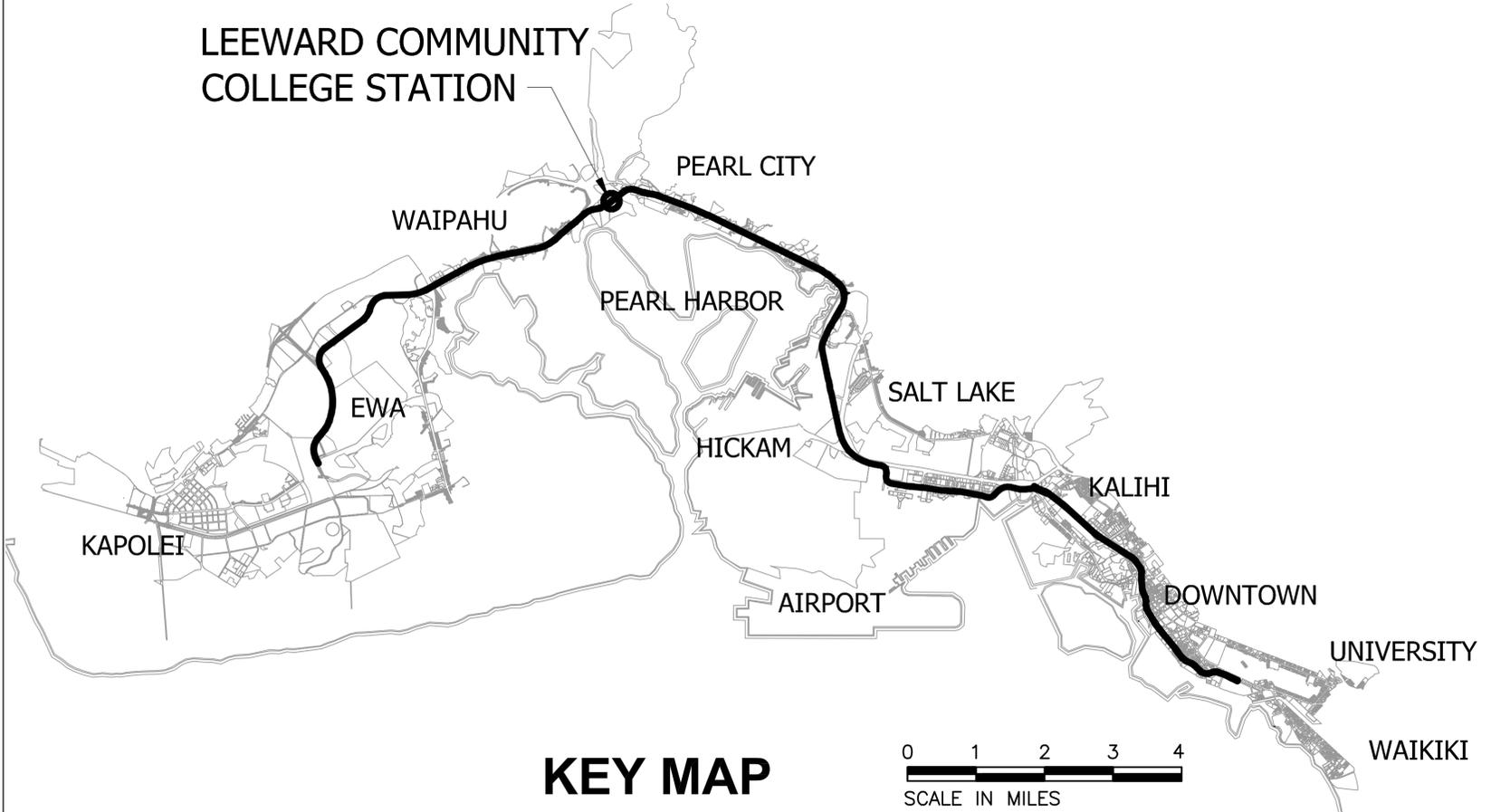


KEY MAP AREA



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

LEEWARD COMMUNITY COLLEGE STATION



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: M Hall
Date: 09-18-09

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

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

Subconsultant:

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

LEEWARD COMMUNITY COLLEGE STATION
INDEX OF DRAWINGS

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APPENDIX A - INDEX OF DRAWINGS

LEEWARD COMMUNITY COLLEGE STATION - INFORMATIVE DRAWINGS

Drawing No.	Rev. No.	Drawing Title
Civil		
RW035	C	EXISTING RIGHT-OF-WAY PLAN & PROPOSED ACQUISITION TABULATIONS EB 720+00 TO EB 730+00
RW036	B	EXISTING RIGHT-OF-WAY PLAN & PROPOSED ACQUISITION TABULATIONS EB 730+00 TO EB 740+00
TA035	B	TRACK ALIGNMENT PLAN & PROFILE EB 720+00 TO EB 730+00
TA036	A	TRACK ALIGNMENT PLAN & PROFILE EB 730+00 TO EB 740+00
TA107	A	TRACK ALIGNMENT DATA SHEET 7 OF 8
TA206	B	TRACK CHARTS SHEET 6 OF 7
RP036	A	ROADWAY CONSTRUCTION PLAN EB 730+00 TO EB 740+00
RP039	B	ROADWAY CONSTRUCTION PLAN ALA 'IKE STREET AL 30+00 TO AL 38+00
RP040	B	ROADWAY CONSTRUCTION PLAN ALA 'IKE STREET AL 38+00 TO AL 42+85
RP044	A	ROADWAY PROFILE ALA 'IKE STREET SHEET 1 OF 2
RP045	A	ROADWAY PROFILE ALA 'IKE STREET SHEET 2 OF 2
RP126	A	SYSTEMWIDE DUCT BANK LAYOUT EB 723+00 TO EB 728+50
RP202	B	ROADWAY HORIZONTAL CONTROL DATA SHEET 2 OF 2
RX008	B	TYPICAL SECTIONS ALA 'IKE STREET & WAIPAHU HIGH SCHOOL ACCESS ROAD SHEET 8 OF 8
GD035	B	GUIDEWAY DRAINAGE LAYOUT PLAN EB 720+00 TO EB 730+00
GD039	B	GUIDEWAY DRAINAGE DOWNSPOUT SCHEDULE SHEET 1 OF 2
GD040	B	GUIDEWAY DRAINAGE DOWNSPOUT SCHEDULE SHEET 2 OF 2
GD339	B	GRADING PLAN ALA 'IKE STREET AL 30+00 TO AL 38+00
GD340	B	GRADING PLAN ALA 'IKE STREET AL 38+00 TO AL 42+85
Traffic		
TR039	A	SIGNING AND STRIPING PLAN ALA 'IKE STREET AL 30+00 TO AL 38+20
TR040	A	SIGNING AND STRIPING PLAN ALA 'IKE STREET AL 38+00 TO AL 42+85

Drawing No.	Rev. No.	Drawing Title
Utilities		
UP035	C	COMPOSITE PLAN EXISTING UTILITIES EB 720+00 TO EB 730+00
UP036	B	COMPOSITE PLAN EXISTING UTILITIES EB 730+00 TO EB 740+00
UP162	D	UTILITY RELOCATION PLAN WATER, SEWER, DRAINAGE, PETROLEUM, & GAS EB 723+00 TO EB 728+50 SHEET 1 OF 1
UP162	D	UTILITY RELOCATION PLAN WATER, SEWER, DRAINAGE, PETROLEUM, & GAS EB 728+50 TO EB 734+00 SHEET 1 OF 1
UP168	B	UTILITY RELOCATION PLAN WATER, SEWER, DRAINAGE, PETROLEUM, & GAS ALA 'IKE ST STA. 30+00 TO STA. 33+31.03 SHEET 1 OF 2
UP168A	B	UTILITY RELOCATION PLAN WATER, SEWER, DRAINAGE, PETROLEUM, & GAS ALA 'IKE ST STA. 30+00 TO STA. 33+31.03 SHEET 2 OF 2
UP169	B	UTILITY RELOCATION PLAN WATER, SEWER, DRAINAGE, PETROLEUM, & GAS NORTH ACCESS RD STA 13+00 TO STA 18+10.51 SHEET 1 OF 2
UP169A	B	UTILITY RELOCATION PLAN WATER, SEWER, DRAINAGE, PETROLEUM, & GAS NORTH ACCESS RD STA 10+00 TO STA 15+50 SHEET 2 OF 2
UP170	B	UTILITY RELOCATION PLAN WATER, SEWER, DRAINAGE, PETROLEUM, & GAS ALA 'IKE ST STA 41+00 TO STA 42+85 SHEET 1 OF 2
UP170A	B	UTILITY RELOCATION PLAN WATER, SEWER, DRAINAGE, PETROLEUM, & GAS ALA 'IKE ST STA 41+00 TO STA 42+85 SHEET 2 OF 2
UP262	C	UTILITY RELOCATION PLAN ELECTRICAL & COMMUNICATIONS EB 723+00 TO EB 728+50 SHEET 1 OF 2
UP262A	B	UTILITY RELOCATION PLAN ELECTRICAL & COMMUNICATIONS EB 723+00 TO EB 728+50 SHEET 2 OF 2
UP263	C	UTILITY RELOCATION PLAN ELECTRICAL & COMMUNICATIONS EB 728+50 TO EB 734+00 SHEET 1 OF 2
UP263A	B	UTILITY RELOCATION PLAN ELECTRICAL & COMMUNICATIONS EB 728+50 TO EB 734+00 SHEET 2 OF 2
SL062	B	UTILITY RELOCATION PLAN STREET LIGHTING PLAN EB 723+00 TO EB 728+50
SL063	B	UTILITY RELOCATION PLAN STREET LIGHTING PLAN EB 728+50 TO EB 734+00
SL068	B	UTILITY RELOCATION PLAN STREET LIGHTING PLAN ALA 'IKE STREER SHEET 1 OF 3
SL069	B	UTILITY RELOCATION PLAN STREET LIGHTING PLAN ALA 'IKE STREER SHEET 2 OF 3
SL070	B	UTILITY RELOCATION PLAN STREET LIGHTING PLAN ALA 'IKE STREER SHEET 3 OF 3

Drawing No.	Rev. No.	Drawing Title
Structures		
GP035	B	STRUCTURAL PLAN & PROFILE EB 720+00 TO EB 730+00
GP039	B	STRUCTURAL PLAN AND PROFILE SECTIONS
FP021	B	LEEWARD COMMUNITY COLLEGE STATION SHEET 1 OF 8 FOUNDATION PLAN AND GUIDEWAY FORCES
FP022	B	LEEWARD COMMUNITY COLLEGE STATION SHEET 2 OF 8 SECTION A
FP023	B	LEEWARD COMMUNITY COLLEGE STATION SHEET 3 OF 8 SECTION B
FP023A	B	LEEWARD COMMUNITY COLLEGE STATION SHEET 4 OF 8 SECTION C
FP023B	B	LEEWARD COMMUNITY COLLEGE STATION SHEET 5 OF 8 SECTION D
FP023C	B	LEEWARD COMMUNITY COLLEGE STATION SHEET 6 OF 8 SECTION G
FP024	B	LEEWARD COMMUNITY COLLEGE STATION SHEET 7 OF 8 SECTION E AND SECTION F
FP024A	A	LEEWARD COMMUNITY COLLEGE STATION SHEET 8 OF 8 SECTION H AND SECTION J
SD029	B	AT-GRADE BALLAST TIES BALLAST AND SLAB ON GRADE DETAILS
Landscape		
LA035	A	LANDSCAPE DEMOLITION PLAN EB 720+00 TO EB 730+00
LA036	A	LANDSCAPE DEMOLITION PLAN EB 730+00 TO EB 740+00
LA101	B	LANDSCAPE PLANTING DETAILS
Systems		
TN003	B	CONTACT RAIL INSTALLATION CONTACT RAIL SCHEMATIC LAYOUT SHEET 3 OF 3
TN008	B	MASTER SINGLE LINE DIAGRAM SHEET 3 OF 3
CM207	A	CORE SYSTEMS LEEWARD COMMUNITY COLLEGE STATION COMMUNICATIONS PLAN CONCOURSE LEVEL
CM208	A	CORE SYSTEMS LEEWARD COMMUNITY COLLEGE STATION COMMUNICATIONS PLAN PLATFORM LEVEL
SY001	A	SYSTEM INTEGRATION CONTRACT WORK DELINEATION AERIAL GUIDEWAY

Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: N/A
 Drawn: J Derosier
 Checked: J Davis
 Approved: M Hall
 Date: 09-18-09

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

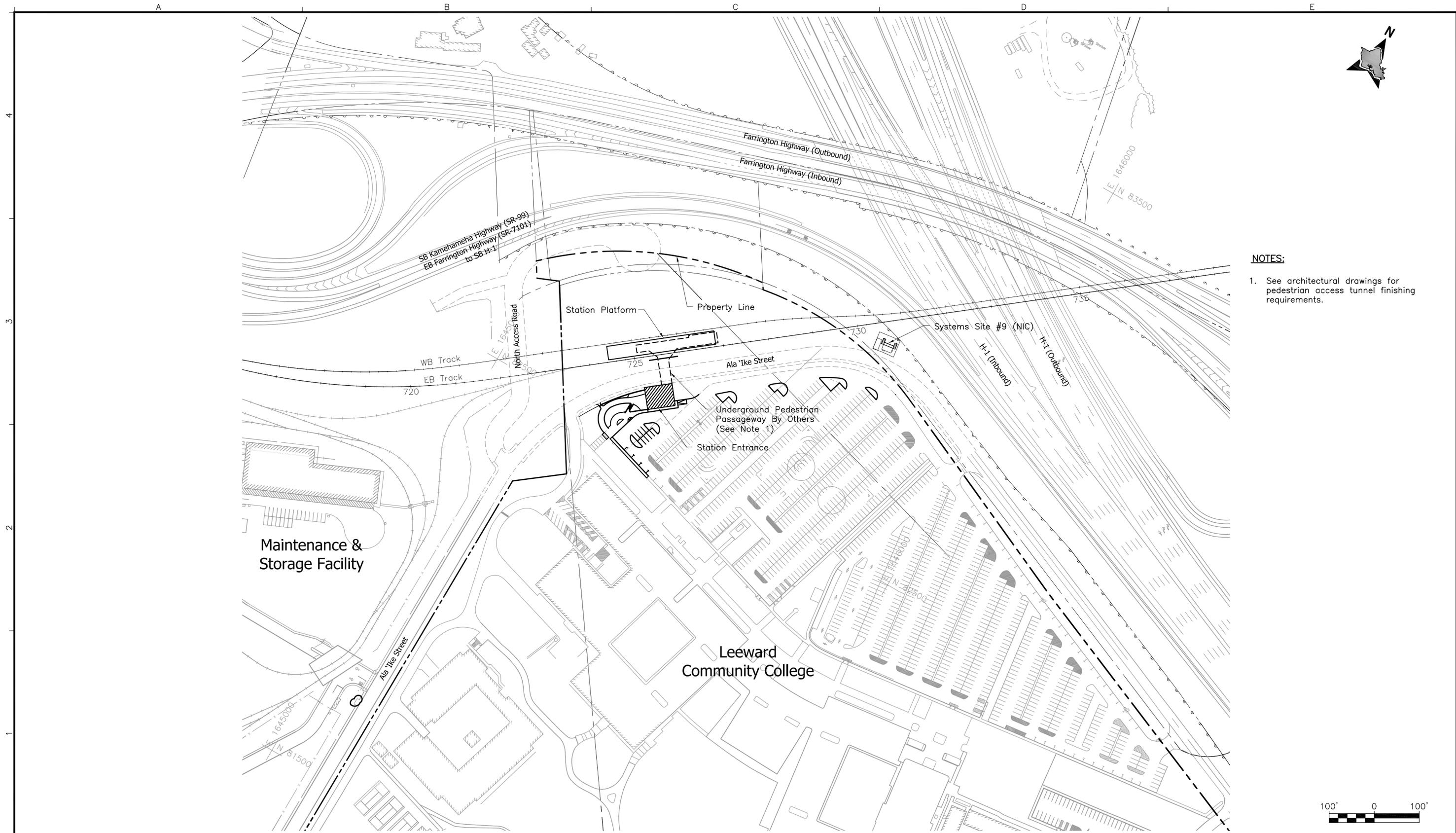
Subconsultant:

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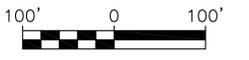
LEEWARD COMMUNITY COLLEGE STATION

**APPENDIX A -INFORMATIVE
INDEX OF DRAWINGS**

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 CADD File: SC3-A03-GN004
 Drawing No: GN004 Rev.
 Scale: N/A
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- NOTES:**
1. See architectural drawings for pedestrian access tunnel finishing requirements.



Rev	By	Date	Description

**PRELIMINARY
SUBJECT TO CHANGE**

Designed: M Hall
 Drawn: J Derosier
 Checked: J Davis
 Approved: A Borst
 Date: 09-18-09

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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**LEEWARD COMMUNITY COLLEGE STATION
STATION AREA PLAN**

Contract No.: SV-240	
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RTD STANDARD DRAWINGS

RTD STANDARD DRAWINGS				
File	Drawing No.	Applicable	Drawing Title	Date
CIVIL				
RTD-B02-CS001	CS001		CIVIL STANDARD SURVEY CONTROL DATA SHEET 1 OF 2	24-Aug-09
RTD-B02-CS002	CS002		CIVIL STANDARD SURVEY CONTROL DATA SHEET 2 OF 2	24-Aug-09
TRACKWORK				
RTD-E03-WS101	WS101		TRACKWORK STANDARD STANDARD RAIL SECTIONS AND DATA	24-Aug-09
RTD-E03-WS102	WS102		TRACKWORK STANDARD PROPOSED WHEEL PROFILE AND WHEEL/TRACK INTERFACE DISTANCES GUARD RAIL & RESTRAINING RAIL	24-Aug-09
RTD-E03-WD254	WS254		TRACKWORK STANDARD BRACKET FOR 33C1 RESTRAINING RAIL CONCRETE TIE TRACK	24-Aug-09
RTD-E03-WS302	WS302		TRACKWORK STANDARD NO. 6 TURNOUT BALLASTED/ CONCRETE TIES WITH 13 FT CURVED SWITCHES (UNIFORM RISERS)	24-Aug-09
RTD-E03-WS303	WS303		TRACKWORK STANDARD 13 FT CURVED SPLIT SWITCH BALLASTED TRACK/CONCRETE TIES 115 RE RAIL	24-Aug-09
RTD-E03-WS305	WS305		TRACKWORK STANDARD NO. 6 CONTOURED STEEL FROG FLANGE BEARING BALLASTED TRACK - 115 RE RAIL	24-Aug-09
RTD-E03-WS306	WS306		TRACKWORK STANDARD 33C1 GUARD RAIL FOR NO 6 AND NO 8 FROGS BALLASTED TRACK (115 RE RAIL)	24-Aug-09
RTD-E03-WS307	WS307		TRACKWORK STANDARD SPECIAL TRACKWORK FASTENING PLATE AND ASSEMBLY CONCRETE SWITCHTIES	24-Aug-09
RTD-E03-WS308	WS308		TRACKWORK STANDARD NO. 8 TURNOUT BALLASTED/ CONCRETE TIES WITH 13 FT CURVED SWITCHES (UNIFORM RISERS)	24-Aug-09
RTD-E03-WS310	WS310		TRACKWORK STANDARD NO. 8 CONTOURED STEEL FROG FLANGE BEARING BALLASTED TRACK - 115 RE RAIL	24-Aug-09
RTD-E03-WS313	WS313		TRACKWORK STANDARD NO. 6 CROSSOVER - BALLASTED TRACK 14'-0" TRACK CENTERS	24-Aug-09
RTD-E03-WS314	WS314		TRACKWORK STANDARD NO 8 SINGLE CROSSOVER BALLASTED/CONCRETE TIES 14'-0" TRACK CENTERS	24-Aug-09
RTD-E03-WS321	WS321		TRACKWORK STANDARD PRESTRESSED TURNOUT CONCRETE SWITCH TIES 115 RE RAIL	24-Aug-09
RTD-E03-WS340	WS340		TRACKWORK STANDARD NO. 10 TURNOUT - BALLASTED CONCRETE TIES WITH 19'-6" CURVED SWITCH UNIFORM RISERS	24-Aug-09
RTD-E03-WS810	WS810		TRACKWORK STANDARD NO. 10 TURNOUT - DIRECT FIXATION WITH 19'-6" CURVED SWITCH PLINTH & RAIL LAYOUT	24-Aug-09
RTD-E03-WS811	WS811		TRACKWORK STANDARD NO. 10 TURNOUT - DIRECT FIXATION NOTES & BILL OF MATERIALS	24-Aug-09
RTD-E03-WS812	WS812		TRACKWORK STANDARD 19'-6" CURVED SPLIT SWITCH DIRECT FIXATION TRACK 115RE RAIL	24-Aug-09
RTD-E03-WS813	WS813		TRACKWORK STANDARD NO. 10 CONTOURED STEEL FROG FLANGE BEARING DIRECT FIXATION TRACK - 115RE RAIL	24-Aug-09
RTD-E03-WS814	WS814		TRACKWORK STANDARD DIRECT FIXATION TURNOUT GUARD RAIL MOUNTING DETAILS	24-Aug-09

RTD STANDARD DRAWINGS				
File	Drawing No.	Applicable	Drawing Title	Date
TRACKWORK				
RTD-E03-WS815	WS815		TRACKWORK STANDARD NO. 15 TURNOUT - DIRECT FIXATION WITH 26'-0" CURVED SWITCH PLINTH & RAIL LAYOUT, SHEET 1 OF 2	24-Aug-09
RTD-E03-WS816	WS816		TRACKWORK STANDARD NO. 15 TURNOUT - DIRECT FIXATION WITH 26'-0" CURVED SWITCH PLINTH & RAIL LAYOUT, SHEET 2 OF 2	24-Aug-09
RTD-E03-WS817	WS817		TRACKWORK STANDARD 26'-0" CURVED SPLIT SWITCH DIRECT FIXATION TRACK 115RE RAIL	24-Aug-09
RTD-E03-WS820	WS820		TRACKWORK STANDARD NO. 10 CROSSOVER - DIRECT FIXATION 14'-0" TRACK CENTERS	24-Aug-09
RTD-E03-WS831	WS831		TRACKWORK STANDARD NO. 10 DOUBLE CROSSOVER DIRECT FIXATION 14'-0" TRACK CENTERS	24-Aug-09
RTD-E03-WS832	WS832		TRACKWORK STANDARD NO. 10 DOUBLE CROSSOVER DIRECT FIXATION DIAMOND DETAILS 14'-0" TRACK CENTERS, SHEET 1 OF 2	24-Aug-09
RTD-E03-WS833	WS833		TRACKWORK STANDARD NO. 10 DOUBLE CROSSOVER-DIRECT FIXATION TURNOUT FROG & DIAMOND FROG DETAILS 14'-0" TRACK CENTERS, SHEET 2 OF 2	24-Aug-09
ARCHITECTURAL				
RTD-H09-AS301	AS301		ARCHITECTURAL STANDARD ELEVATOR CAR PLANS TYPE D-1A & H-1A AND ELEVATIONS	24-Aug-09
RTD-H09-AS302	AS302		ARCHITECTURAL STANDARD ELEVATOR CAR PLANS TYPE D-2A & H-2A AND ELEVATIONS	24-Aug-09
RTD-H09-AS303	AS303		ARCHITECTURAL STANDARD ELEVATOR CAR DETAILS	24-Aug-09
CORROSION CONTROL				
RTD-M01-HS001	HS001		CORROSION CONTROL STANDARD STRUCTURAL BONDING DETAILS SHEET 1 OF 2	24-Jul-09
RTD-M01-HS002	HS002		CORROSION CONTROL STANDARD STRUCTURAL BONDING DETAILS SHEET 2 OF 2	24-Jul-09
RTD-M01-HS003	HS003		CORROSION CONTROL STANDARD UTILITY BONDING DETAILS SHEET 1 OF 2	24-Jul-09
RTD-M01-HS004	HS004		CORROSION CONTROL STANDARD UTILITY BONDING DETAILS SHEET 2 OF 2	24-Jul-09
RTD-M01-HS005	HS005		CORROSION CONTROL STANDARD PIPE ISOLATION DETAILS SHEET 1 OF 2	24-Jul-09
RTD-M01-HS006	HS006		CORROSION CONTROL STANDARD PIPE ISOLATION DETAILS SHEET 2 OF 2	24-Jul-09
RTD-M01-HS007	HS007		CORROSION CONTROL STANDARD CATHODIC PROTECTION DETAILS SHEET 1 OF 2	24-Jul-09
RTD-M01-HS008	HS008		CORROSION CONTROL STANDARD CATHODIC PROTECTION DETAILS SHEET 2 OF 2	24-Jul-09
RTD-M01-HS009	HS009		CORROSION CONTROL STANDARD ELEVATOR CATHODIC PROTECTION DETAILS	24-Jul-09
RTD-M01-HS010	HS010		CORROSION CONTROL STANDARD TESTING FACILITIES	24-Jul-09

Rev	By	Date	Description

Designed: N/A Drawn: J Derosier Checked: J Davis Approved: A Borst Date: 09-18-09	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 For reduced prints, original page size in inches: 0 1 2 3 4
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STANDARD DRAWING SUMMARY CITY AND COUNTY OF HONOLULU (RTD)	Contract No.: SV-240 CADD File: SC3-A06-GN006 Drawing No: GN006 Rev. Scale: N/A Page No. 5 of 52
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RTD DIRECTIVE DRAWINGS

RTD DIRECTIVE DRAWINGS				
File	Drawing No.	Applicable	Drawing Title	Date
SYSTEMS SITES				
DD-B10-RP101	RP101		SYSTEMS SITE DIRECTIVE TYPICAL TRACTION POWER SUBSTATION SITE PLAN AND ELEVATIONS	24-Aug-09
DD-B10-R0102	RP102		SYSTEMS SITE DIRECTIVE TYPICAL GAP BREAKER STATION SITE PLAN AND ELEVATIONS	24-Aug-09
TRACKWORK				
DD-E03-WD120	WD120		TRACKWORK DIRECTIVE PRE-CURVED RAIL DETAILS RESTRAINING RAIL DETAILS TYPICAL LAYOUT	24-Aug-09
DD-E03-WD201	WD201		TRACKWORK DIRECTIVE BALLASTED MAINLINE TRACK CONCRETE CROSS TIES TANGENT AND CURVED TRACK	24-Aug-09
DD-E03-WD202	WD202		TRACKWORK DIRECTIVE BALLASTED MAINLINE TRACK CONCRETE CROSSTIES TANGENT AND CURVED TRACK- DOUBLE TRACK	24-Aug-09
DD-E03-WD205	WD205		TRACKWORK DIRECTIVE AT-GRADE CONCRETE PANEL ROAD CROSSING - TANGENT BALLASTED TRACK	24-Aug-09
DD-E03-WD206	WD206		TRACKWORK DIRECTIVE AT-GRADE TRAPEZOIDAL CONCRETE PANEL ROAD CROSSING - CURVED BALLASTED TRACK	24-Aug-09
DD-E03-WD211	WD211		TRACKWORK DIRECTIVE TRANSITION SLAB - DIRECT FIXATION TRACK TO BALLASTED TRACK 115 RE RAIL	24-Aug-09
DD-E03-WD251	WD251		TRACKWORK DIRECTIVE SERRATED PRESTRESSED CONCRETE CROSSTIE 115 RE RAIL	24-Aug-09
DD-E03-WD253	WD253		TRACKWORK DIRECTIVE SERRATED CONCRETE CROSSTIE FOR RESTRAINING RAIL & CONTACT RAIL 115 RE RAIL	24-Aug-09
DD-E03-WD256	WD256		TRACKWORK DIRECTIVE CONCRETE ROAD CROSSING TIE (10 FT) - 115RE RAIL	24-Aug-09
DD-E03-WD275	WD275		TRACKWORK DIRECTIVE DERAIL AND CAR STOP MSF YARD	24-Aug-09
DD-E03-WD301	WD301		TRACKWORK STANDARD SUMMARY YARD SPECIAL TRACKWORK BALLASTED TURNOUTS	24-Aug-09
DD-E03-WD401	WD401		TRACKWORK DIRECTIVE EMBEDDED APRON AND SHOP TRACK DETAILS	24-Aug-09
DD-E03-WD405	WD405		TRACKWORK DIRECTIVE PEDESTAL TRACK DETAILS MSF PIT TRACKS	24-Aug-09
DD-E03-WD601	WD601		TRACKWORK DIRECTIVE TYPICAL DIRECT FIXATION TRACK INSTALLATION	24-Aug-09
DD-E03-WD602	WD602		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK DETAILS AERIAL/AT-GRADE SLAB STRUCTURES TANGENT TRACK	24-Aug-09
DD-E03-WD603	WD603		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK SECTION AERIAL/AT-GRADE STRUCTURE CURVED TRACK	24-Aug-09
DD-E03-WD604	WD604		TRACKWORK DIRECTIVE GEOMETRIC CONFIGURATION DIRECT FIXATION TRACK WITH SURVEY MARKER INTERFACE TRACTION POWER CONTACT RAIL	24-Aug-09
DD-E03-WD605	WD605		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK DETAILS VEHICLE WASH FACILITY	24-Aug-09
DD-E03-WD606	WD606		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK DETAILS YARD SERVICE & CLEANING PLATFORM	24-Aug-09
DD-E03-WD608	WD608		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK CONCRETE PLINTH REINFORCING DETAILS FOR 2'-3" FASTENER LAYOUTS ON CURVED TRACKS	24-Aug-09

RTD DIRECTIVE DRAWINGS				
File	Drawing No.	Applicable	Drawing Title	Date
TRACKWORK				
DD-E03-WD609	WD609		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK CONCRETE PLINTH REINFORCING DETAILS FOR 2'-6" FASTENER LAYOUTS	24-Aug-09
DD-E03-WD615	WD615		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK PLINTH REINFORCING DETAILS WITH 1 OR 2 INCHES OF SUPERELEVATION	24-Aug-09
DD-E03-WD616	WD616		TRACKWORK DIRECTIVE DIRECT FIXATION TRACK PLINTH REINFORCING DETAILS WITH 3 OR 4 INCHES OF SUPERELEVATION	24-Aug-09
DD-E03-WD620	WD620		TRACKWORK DIRECTIVE SPECIAL TRACKWORK DIRECT FIXATION CONCRETE PLINTH REINFORCING DETAILS	24-Aug-09
DD-E03-WD625	WD625		TRACKWORK DIRECTIVE SPECIAL TRACKWORK SWITCH MACHINE MOUNTING DIRECT FIXATION TRACK	24-Aug-09
DD-E03-WD641	WD641		TRACKWORK DIRECTIVE BRACKET FOR 33C1 RESTRAINING RAIL DIRECT FIXATION TRACK	24-Aug-09
DD-E03-WD643	WD643		TRACKWORK DIRECTIVE 33C1 RESTRAINING RAIL DETAILS	24-Aug-09
DD-E03-WD650	WD650		TRACKWORK DIRECTIVE BALLASTED & DIRECT FIXATION TRACK AT STATION PLATFORMS (LIGHT METRO VEHICLE)	24-Aug-09
DD-E03-WD675	WD675		TRACKWORK DIRECTIVE PEDESTRIAN CROSSWALK DIRECT FIXATION TRACK	24-Aug-09
DD-E03-WS898	WD898		TRACKWORK DIRECTIVE FRICTION TYPE (10EB) BUFFER STOP DIRECT FIXATION TRACK INSTALLATION END OF TRACK	24-Aug-09
DD-E03-WS899	WD899		TRACKWORK DIRECTIVE DF FRICTION BUFFER STOP INSTALLATION END OF TRACK DETAILS	24-Aug-09
STRUCTURAL				
DD-G02-WP001	WP001		GENERAL STRUCTURAL NOTES	24-Aug-09
DD-G11-WP002	WP002		STRUCTURAL DESIGN DIRECTIVE CHAIN LINK FENCE	24-Aug-09
DD-G11-WP003	WP003		STRUCTURAL DESIGN DIRECTIVE RETAINING WALL TYPE 1 H=4' THROUGH 30'	24-Aug-09
DD-G11-WP004	WP004		STRUCTURAL DESIGN DIRECTIVE RETAINING WALL TYPE 2 H=4' THROUGH 12'	24-Aug-09
DD-G11-WP005	WP005		STRUCTURAL DESIGN DIRECTIVE RETAINING WALL DETAILS	24-Aug-09
DD-G11-WP006	WP006		STRUCTURAL DESIGN DIRECTIVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 1 OF 5	24-Aug-09
DD-G11-WP007	WP007		STRUCTURAL DESIGN DIRECTIVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 2 OF 5	24-Aug-09
DD-G11-WP008	WP008		STRUCTURAL DESIGN DIRECTIVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 3 OF 5	24-Aug-09
DD-G11-WP009	WP009		STRUCTURAL DESIGN DIRECTIVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 4 OF 5	24-Aug-09
DD-G11-WP010	WP010		STRUCTURAL DESIGN DIRECTIVE GUIDEWAY STAIRS TO STATION PLATFORM SHEET 5 OF 5	24-Aug-09
DD-G11-WP011	WP011		STRUCTURAL DESIGN DIRECTIVE WATERPROOFING DETAILS SHEET 1 OF 3	24-Aug-09
DD-G11-WP012	WP012		STRUCTURAL DESIGN DIRECTIVE WATERPROOFING DETAILS SHEET 2 OF 3	24-Aug-09
DD-G11-WP013	WP013		STRUCTURAL DESIGN DIRECTIVE WATERPROOFING DETAILS SHEET 3 OF 3	24-Aug-09

RTD DIRECTIVE DRAWINGS				
File	Drawing No.	Applicable	Drawing Title	Date
ARCHITECTURAL				
DD-H01-AG001	AG001		ARCHITECTURAL DIRECTIVE GENERAL ARCHITECTURAL NOTES, SYMBOLS, AND ABBREVIATIONS SHEET 1 OF 3	24-Aug-09
DD-H01-AG002	AG002		ARCHITECTURAL DIRECTIVE GENERAL ARCHITECTURAL NOTES, SYMBOLS, AND ABBREVIATIONS SHEET 2 OF 2	24-Aug-09
DD-H01-AG003	AG003		ARCHITECTURAL DIRECTIVE GENERAL ARCHITECTURAL NOTES, SYMBOLS, AND ABBREVIATIONS SHEET 3 OF 3	24-Aug-09
DD-H09-AD001	AD001		ARCHITECTURAL DIRECTIVE STAIR/ESCALATOR DESIGN LAYOUT	24-Aug-09
DD-H09-AD002	AD002		ARCHITECTURAL DIRECTIVE STAIR/ESCALATOR DESIGN REQUIREMENTS	24-Aug-09
DD-H09-AD003	AD003		ARCHITECTURAL DIRECTIVE TRACTION ELEVATOR DESIGN REQUIREMENT AND CONFIGURATION	24-Aug-09
DD-H09-AD004	AD004		ARCHITECTURAL DIRECTIVE HYDRAULIC ELEVATOR DESIGN REQUIREMENT AND CONFIGURATION	24-Aug-09
DD-H09-AD005	AD005		ARCHITECTURAL DIRECTIVE HOLELESS HYDRAULIC ELEVATOR DESIGN REQUIREMENT AND CONFIGURATION	24-Aug-09
DD-H09-AD006	AD006		ARCHITECTURAL DIRECTIVE ELEVATOR HOISTWAY SECTIONS	24-Aug-09
DD-H09-AD007	AD007		ARCHITECTURAL DIRECTIVE END OF PLATFORM DESIGN LAYOUT SIDE PLATFORM	24-Aug-09
DD-H09-AD008	AD008		ARCHITECTURAL DIRECTIVE END OF PLATFORM DESIGN LAYOUT CENTER PLATFORM	24-Aug-09
DD-H09-AD009	AD009		ARCHITECTURAL DIRECTIVE STAIR/ESCALATOR DETAILS	24-Aug-09
DD-H09-AD010	AD010		ARCHITECTURAL DIRECTIVE FORMLINER DETAILS PIER COLUMN 1	24-Aug-09
DD-H09-AD011	AD011		ARCHITECTURAL DIRECTIVE FORMLINER DETAILS STATION COLUMN 2	24-Aug-09
DD-H09-AD012	AD012		ARCHITECTURAL DIRECTIVE FORMLINER DETAILS COLUMN SECTIONS	24-Aug-09
DD-H09-AD013	AD013		ARCHITECTURAL DIRECTIVE STAIR/ESCALATOR 1 LANDING REQUIREMENTS - CONCOURSE LEVEL	24-Aug-09
DD-H09-AD014	AD014		ARCHITECTURAL DIRECTIVE STAIR/ESCALATOR 2 LANDINGS REQUIREMENTS - CONCOURSE LEVEL	24-Aug-09
DD-H09-AD015	AD015		ARCHITECTURAL DIRECTIVE ELEVATOR HOISTWAY PLANS, SECTION, AND DETAILS	24-Aug-09
DD-H09-AD016	AD016		ARCHITECTURAL DIRECTIVE ELEVATOR HOISTWAY SECTION AND DETAILS	24-Aug-09
DD-H09-AD017	AD017		ARCHITECTURAL DIRECTIVE ELEVATOR HOISTWAY ELEVATIONS, DATA TABULATION, AND DETAILS	24-Aug-09
DD-H09-AD018	AD018		ARCHITECTURAL DIRECTIVE ELEVATOR SCHEDULE SHEET 1 OF 2	24-Aug-09
DD-H09-AD019	AD019		ARCHITECTURAL DIRECTIVE ELEVATOR SCHEDULE SHEET 2 OF 2	24-Aug-09
DD-H09-AD020	AD020		ARCHITECTURAL DIRECTIVE TYPICAL TOILET LAYOUT AND ELEVATIONS	24-Aug-09
DD-H09-AD021	AD021		ARCHITECTURAL DIRECTIVE TACTILE WARNING PAVER DETAILS	24-Aug-09
DD-H09-AD101	AD101		ARCHITECTURAL DIRECTIVE CONCOURSE LEVEL PLAN SIDE PLATFORM PROTOTYPE	24-Aug-09

Rev	By	Date	Description

Designed: N/A	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 For reduced prints, original page size in inches: 0 1 2 3 4	Subconsultant:
Drawn: J Derosier		
Checked: J Davis		
Approved: A Borst		
Date: 09-18-09		

Contract No.: SV-240	DIRECTIVE DRAWING SUMMARY CITY AND COUNTY OF HONOLULU (RTD) SHEET 1 OF 2
CADD File: SC3-A06-GN007	
Drawing No: GN007	
Scale: N/A	
Page No. 6 of 52	
Rev.	

RTD DIRECTIVE DRAWINGS

RTD DIRECTIVE DRAWINGS				
File	Drawing No.	Applicable	Drawing Title	Date
ARCHITECTURAL				
DD-H09-AD102	AD102		ARCHITECTURAL DIRECTIVE PLATFORM LEVEL PLAN SIDE PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD103	AD103		ARCHITECTURAL DIRECTIVE ROOF PLAN SIDE PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD104	AD104		ARCHITECTURAL DIRECTIVE CONCOURSE REFLECTED CEILING PLAN SIDE PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD105	AD105		ARCHITECTURAL DIRECTIVE PLATFORM REFLECTED CEILING PLAN SIDE PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD106	AD106		ARCHITECTURAL DIRECTIVE FLOOR FINISH PLAN - CONCOURSE SIDE PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD107	AD107		ARCHITECTURAL DIRECTIVE FLOOR FINISH PLAN - PLATFORM SIDE PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD108	AD108		ARCHITECTURAL DIRECTIVE LONGITUDINAL & CROSS SECTIONS SIDE PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD111	AD111		ARCHITECTURAL DIRECTIVE INTERIOR ELEVATIONS SIDE PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD112	AD112		ARCHITECTURAL DIRECTIVE ENLARGED ELEVATIONS SIDE PLATFORM PROTOTYPE SHEET 1 OF 2	24-Aug-09
DD-H09-AD114	AD114		ARCHITECTURAL DIRECTIVE ENLARGED ELEVATIONS SIDE PLATFORM PROTOTYPE SHEET 2 OF 2	24-Aug-09
DD-H09-AD116	AD116		ARCHITECTURAL DIRECTIVE TYPICAL BAY SIDE PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD117	AD117		ARCHITECTURAL DIRECTIVE PLATFORM CANOPY DETAILS SIDE PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD118	AD118		ARCHITECTURAL DIRECTIVE STAIR & BRIDGE CANOPY DETAILS SIDE PLATFORM PROTOTYPE SHEET 1 OF 2	24-Aug-09
DD-H09-AD119	AD119		ARCHITECTURAL DIRECTIVE STAIR & BRIDGE CANOPY DETAILS SIDE PLATFORM PROTOTYPE SHEET 2 OF 2	24-Aug-09
DD-H09-AD120	AD120		ARCHITECTURAL DIRECTIVE GUARDRAIL DETAILS SIDE PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD122	AD122		ARCHITECTURAL DIRECTIVE 3D VIEWS SIDE PLATFORM PROTOTYPE SHEET 1 OF 3	24-Aug-09
DD-H09-AD123	AD123		ARCHITECTURAL DIRECTIVE 3D VIEWS SIDE PLATFORM PROTOTYPE SHEET 2 OF 3	24-Aug-09
DD-H09-AD124	AD124		ARCHITECTURAL DIRECTIVE 3D VIEWS SIDE PLATFORM PROTOTYPE SHEET 3 OF 3	24-Aug-09
DD-H09-AD201	AD201		ARCHITECTURAL DIRECTIVE CONCOURSE LEVEL PLAN CENTER PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD202	AD202		ARCHITECTURAL DIRECTIVE PLATFORM LEVEL PLAN CENTER PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD203	AD203		ARCHITECTURAL DIRECTIVE ROOF PLAN CENTER PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD204	AD204		ARCHITECTURAL DIRECTIVE CONCOURSE REFLECTED CEILING PLAN CENTER PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD205	AD205		ARCHITECTURAL DIRECTIVE PLATFORM REFLECTED CEILING PLAN CENTER PLATFORM PROTOTYPE	24-Aug-09

RTD DIRECTIVE DRAWINGS				
File	Drawing No.	Applicable	Drawing Title	Date
ARCHITECTURAL				
DD-H09-AD206	AD206		ARCHITECTURAL DIRECTIVE CONCOURSE FLOOR FINISH PLAN CENTER PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD207	AD207		ARCHITECTURAL DIRECTIVE PLATFORM FLOOR FINISH PLAN CENTER PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD208	AD208		ARCHITECTURAL DIRECTIVE LONGITUDINAL & CROSS SECTIONS CENTER PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD210	AD210		ARCHITECTURAL DIRECTIVE TYPICAL BAY END CONDITION DETAILS CENTER PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD211	AD211		ARCHITECTURAL DIRECTIVE TYPICAL BAY DETAILS CENTER PLATFORM PROTOTYPE SHEET 1 OF 2	24-Aug-09
DD-H09-AD212	AD212		ARCHITECTURAL DIRECTIVE TYPICAL BAY DETAILS CENTER PLATFORM PROTOTYPE SHEET 2 OF 2	24-Aug-09
DD-H09-AD214	AD214		ARCHITECTURAL DIRECTIVE PLATFORM CANOPY DETAILS CENTER PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD215	AD215		ARCHITECTURAL DIRECTIVE STAIR & BRIDGE CANOPY DETAILS CENTER PLATFORM PROTOTYPE SHEET 1 OF 2	24-Aug-09
DD-H09-AD216	AD216		ARCHITECTURAL DIRECTIVE STAIR & BRIDGE CANOPY DETAILS CENTER PLATFORM PROTOTYPE SHEET 2 OF 2	24-Aug-09
DD-H09-AD217	AD217		ARCHITECTURAL DIRECTIVE GUARDRAIL DETAILS CENTER PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD218	AD218		ARCHITECTURAL DIRECTIVE MISC DETAILS CENTER PLATFORM PROTOTYPE	24-Aug-09
DD-H09-AD219	AD219		ARCHITECTURAL DIRECTIVE 3D VIEWS CENTER PLATFORM PROTOTYPE	24-Aug-09
MECHANICAL				
DD-K11-MD101	MD101		MECHANICAL DIRECTIVE HVAC SYSTEMS	24-Aug-09
DD-K11-MD201	MD201		MECHANICAL DIRECTIVE PLUMBING AND DRAINAGE SYSTEMS	24-Aug-09
DD-K11-MD301	MD301		MECHANICAL DIRECTIVE FIRE PROTECTION SYSTEMS	24-Aug-09
DD-K11-MD401	MD401		MECHANICAL DIRECTIVE SEISMIC AND WIND INDICATOR SYSTEMS	24-Aug-09
DD-K11-MD501	MD501		MECHANICAL DIRECTIVE TYPICAL TPSS AND GBS AIR CONDITIONING AND CONTROL SYSTEM	24-Aug-09
ELECTRICAL				
DD-L01-ED001	ED001		GENERAL ELECTRICAL NOTES	3-Apr-09
DD-L03-ED002	ED002		ELECTRICAL DIRECTIVE TYPICAL PASSENGER STATION ONE-LINE DIAGRAM	3-Jun-09
DD-L05-ED003	ED003		GUIDEWAY ELECTRICAL DIRECTIVE ELECTRICAL GUIDEWAY LIGHTING PLANS	3-Apr-09
DD-L05-ED004	ED004		GUIDEWAY ELECTRICAL DIRECTIVE ELECTRICAL GUIDEWAY LIGHTING DOUBLE TRACK	3-Apr-09
DD-L05-ED005	ED005		GUIDEWAY ELECTRICAL DIRECTIVE ELECTRICAL GUIDEWAY LIGHTING SINGLE TRACK	3-Apr-09
DD-L05-ED006	ED006		ELECTRICAL DIRECTIVE PASSENGER STATION - CENTER PLATFORM PLATFORM LIGHTING	-
DD-L05-ED007	ED007		ELECTRICAL DIRECTIVE PASSENGER STATION - SIDE PLATFORM SIDE LIGHTING	-
DD-L08-ED008	ED008		ELECTRICAL DIRECTIVE PASSENGER STATION ELECTRICAL, UPS, TCC ROOMS	-

RTD DIRECTIVE DRAWINGS				
File	Drawing No.	Applicable	Drawing Title	Date
TRACTION POWER				
DD-N06-TD001	TD001		TRACTION POWER DIRECTIVE TYPICAL SUBSTATION RACEWAY LAYOUT	24-Jul-09
DD-N06-TD002	TD002		TRACTION POWER DIRECTIVE TYPICAL DC RACEWAYS ON AERIAL GUIDEWAY SECTIONS AND DETAILS	24-Jul-09
DD-N06-TD003	TD003		TRACTION POWER DIRECTIVE TYPICAL MANHOLE/PULLBOX DETAILS	24-Jul-09
DD-N06-TD004	TD004		TRACTION POWER DIRECTIVE TYPICAL UNDERGROUND DUCTBANK SECTIONS & DETAILS	24-Jul-09
DD-N06-TD005	TD005		TRACTION POWER DIRECTIVE SUBSTATION CABLE TRENCH DETAILS	24-Jul-09
DD-N06-TD006	TD006		TRACTION POWER DIRECTIVE SUBSTATION CABLE TRENCH DETAILS ALTERNATIVE	24-Jul-09
DD-N06-TD050	TD050		TRACTION POWER DIRECTIVE TYPICAL SUBSTATION GROUND GRID ARRANGEMENT	24-Jul-09
DD-N06-TD051	TD051		TRACTION POWER DIRECTIVE TYPICAL GAP BREAKER STATION GROUND GRID ARRANGEMENT	24-Jul-09
DD-N06-TD052	TD052		TRACTION POWER DIRECTIVE TYPICAL SUBSTATION GROUND GRID DETAILS	24-Jul-09
DD-N06-TD100	TD100		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION SPLICE JOINT ASSEMBLY	24-Jul-09
DD-N06-TD101	TD101		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION END-APPROACH ASSEMBLY	24-Jul-09
DD-N06-TD102	TD102		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION EXPANSION JOINT ASSEMBLY	24-Jul-09
DD-N06-TD103	TD103		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION ANCHOR ASSEMBLY DIRECT FIXATION TRACK	24-Jul-09
DD-N06-TD104	TD104		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION MOUNTING AND PEDESTAL DETAILS	24-Jul-09
DD-N06-TD105	TD105		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION INSULATOR BRACKET & ANCHOR BALLASTED TRACKS	24-Jul-09
DD-N06-TD106	TD106		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION COVERBOARD ASSEMBLY	24-Jul-09
DD-N06-TD107	TD107		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION COVERBOARD MOUNTING DETAILS	24-Jul-09
DD-N06-TD108	TD108		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION COVERBOARD ASSEMBLY AT EXPANSION JOINT	24-Jul-09
TRAIN CONTROL				
DD-P04-ND001	ND001		TRAIN CONTROL DIRECTIVE MAINLINE SWITCH MACHINE LAYOUT DIRECT FIXATION	24-Jul-09
DD-P04-ND002	ND002		TRAIN CONTROL DIRECTIVE MAINLINE SWITCH MACHINE LAYOUT BALLASTED TRACK	24-Jul-09
DD-P04-ND003	ND003		TRAIN CONTROL DIRECTIVE YARD SWITCH MACHINE LAYOUT BALLASTED TRACK	24-Jul-09

Rev	By	Date	Description

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

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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DIRECTIVE DRAWING SUMMARY
CITY AND COUNTY OF HONOLULU (RTD)

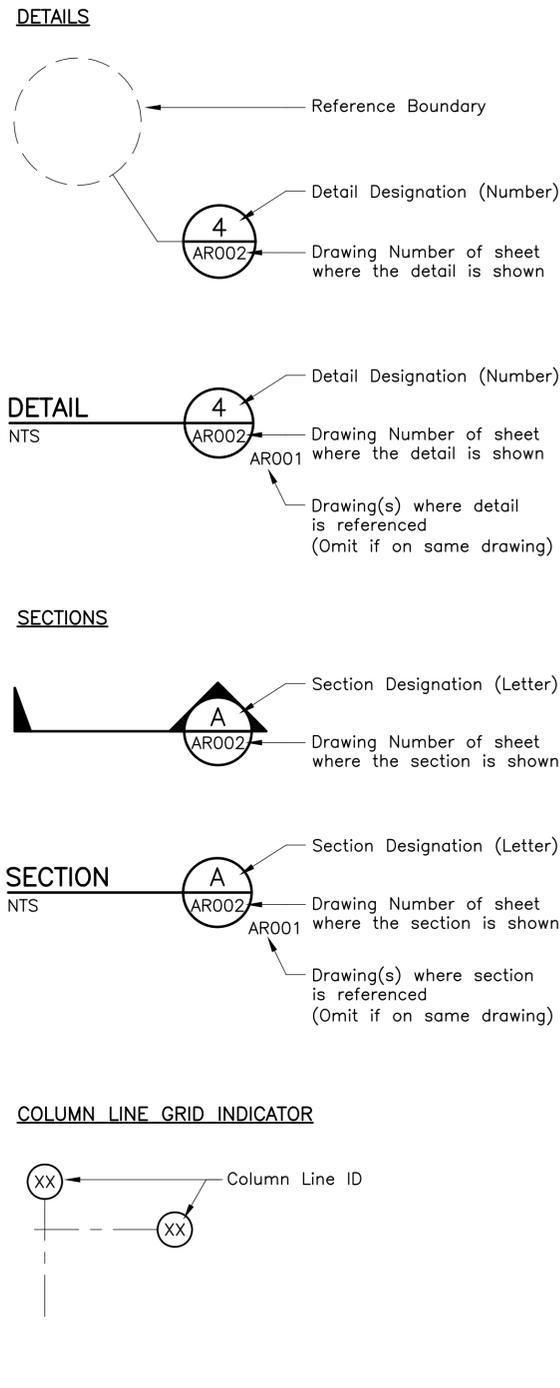
SHEET 2 OF 2

Contract No.: SV-240	
CADD File: SC3-A06-GN008	
Drawing No: GN008	Rev.
Scale: N/A	
Page No. 7	of 52

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).
- 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 Designer 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.
- For Survey Control Data see RTD Standard Drawings.

SYMBOLS



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

- △ Point of Intersection
- PVC
- Station Equation
- XX-X Roadway Curve Number
- CUT — Limit of Cut Slope (Top of Slope)
- FILL — Limit of Fill Slope (Toe of Slope)

SPECIAL TERMS

- Makai Ocean
- Mauka Mountain
- 231° 41' 16" South Azimuth

ABBREVIATIONS

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

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
N/A

Drawn:
T Cochran

Checked:
E Liberman

Approved:
A Borst

Date:
09-18-09

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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LEEWARD COMMUNITY COLLEGE STATION

**GENERAL CIVIL NOTES,
SYMBOLS, AND ABBREVIATIONS**

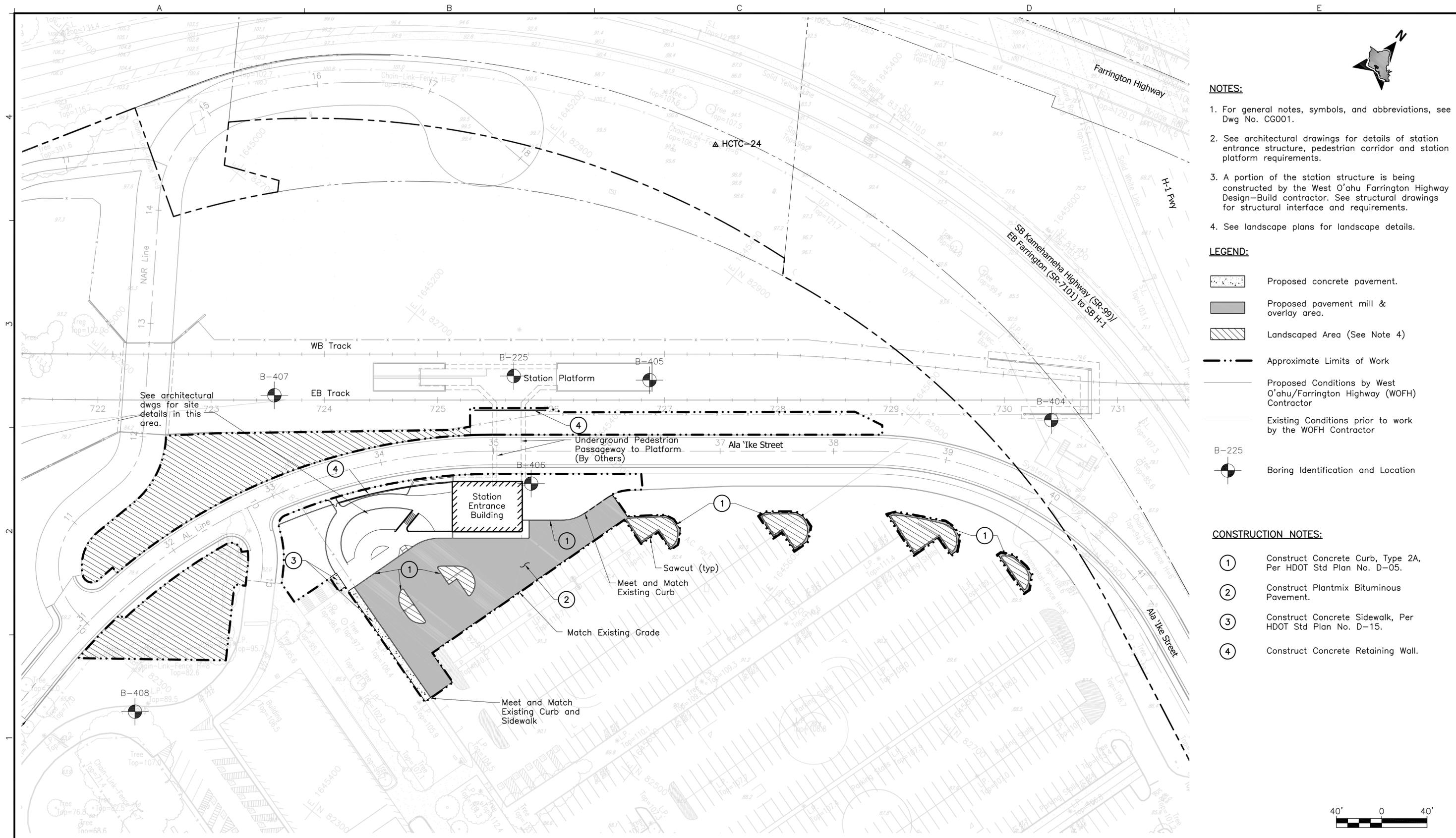
Contract No.:
SV-240

CADD File:
SC3-B01-CG001

Drawing No: CG001 Rev.

Scale:
N/A

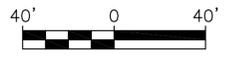
Page No. 8 of 52



- NOTES:**
1. For general notes, symbols, and abbreviations, see Dwg No. CG001.
 2. See architectural drawings for details of station entrance structure, pedestrian corridor and station platform requirements.
 3. A portion of the station structure is being constructed by the West O'ahu Farrington Highway Design-Build contractor. See structural drawings for structural interface and requirements.
 4. See landscape plans for landscape details.

- LEGEND:**
- Proposed concrete pavement.
 - Proposed pavement mill & overlay area.
 - Landscaped Area (See Note 4)
 - Approximate Limits of Work
 - Proposed Conditions by West O'ahu/Farrington Highway (WOFH) Contractor
 - Existing Conditions prior to work by the WOFH Contractor
 - Boring Identification and Location

- CONSTRUCTION NOTES:**
1. Construct Concrete Curb, Type 2A, Per HDOT Std Plan No. D-05.
 2. Construct Plantmix Bituminous Pavement.
 3. Construct Concrete Sidewalk, Per HDOT Std Plan No. D-15.
 4. Construct Concrete Retaining Wall.



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
M Jewell

Drawn:
J Derosier

Checked:
E Liberman

Approved:
M Hall

Date:
09-18-09

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

Prime Consultant: **PARSONS BRINCKERHOFF**

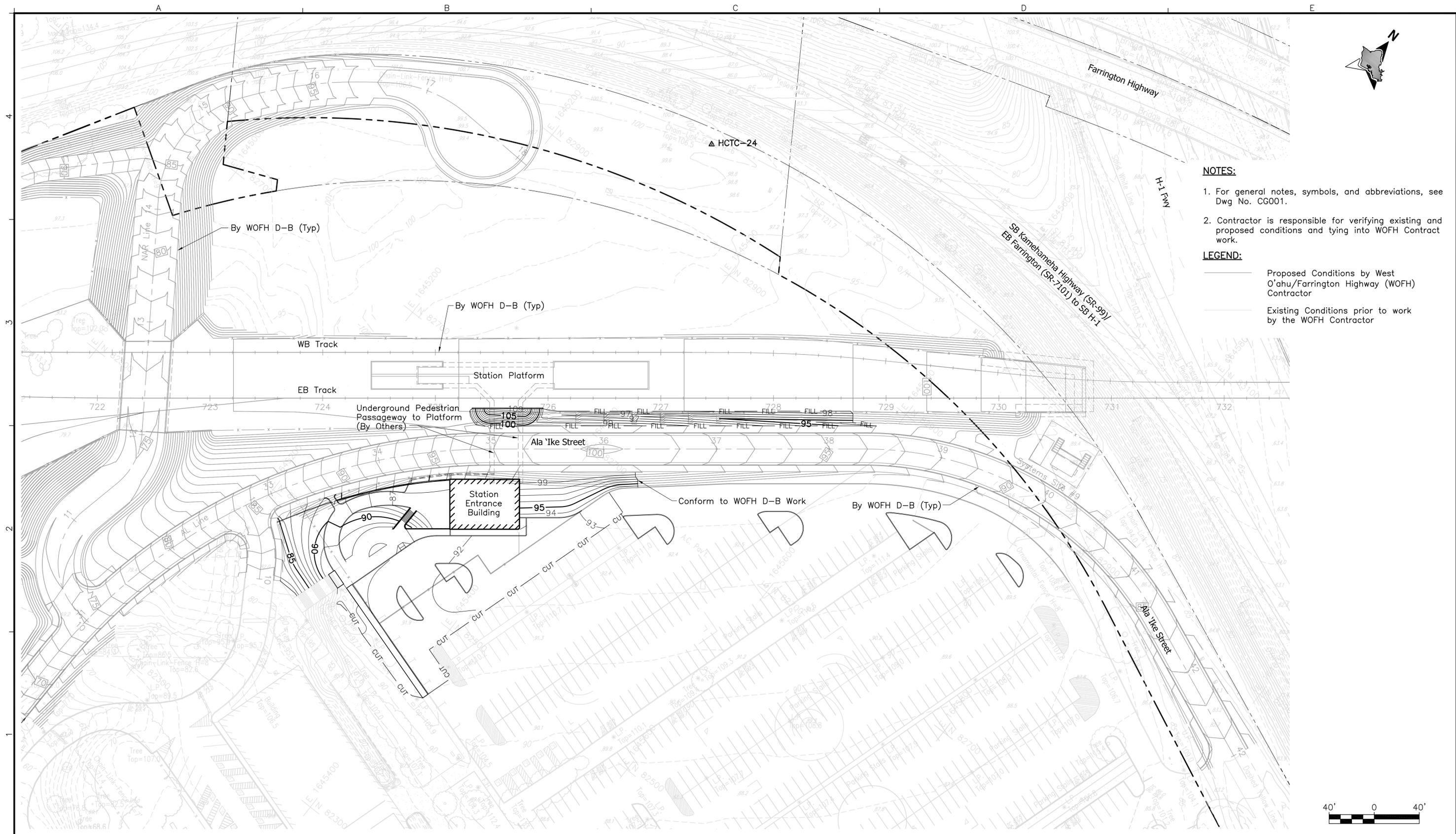
Subconsultant:

1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

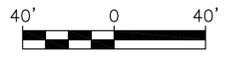
For reduced prints, original page size in inches: 0 1 2 3 4

**LEEWARD COMMUNITY COLLEGE STATION
CIVIL SITE PLAN**

Contract No.: SV-240	
CADD File: SC3-B09-RP001	
Drawing No: RP001	Rev.
Scale: 1"=40'	
Page No. 9	of 52



- NOTES:**
1. For general notes, symbols, and abbreviations, see Dwg No. CG001.
 2. Contractor is responsible for verifying existing and proposed conditions and tying into WOFH Contract work.
- LEGEND:**
- Proposed Conditions by West O'ahu/Farrington Highway (WOFH) Contractor
 - - - Existing Conditions prior to work by the WOFH Contractor



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
M Jewell

Drawn:
J Derosier

Checked:
E Liberman

Approved:
M Hall

Date:
09-18-09

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

Prime Consultant: **PARSONS BRINCKERHOFF**

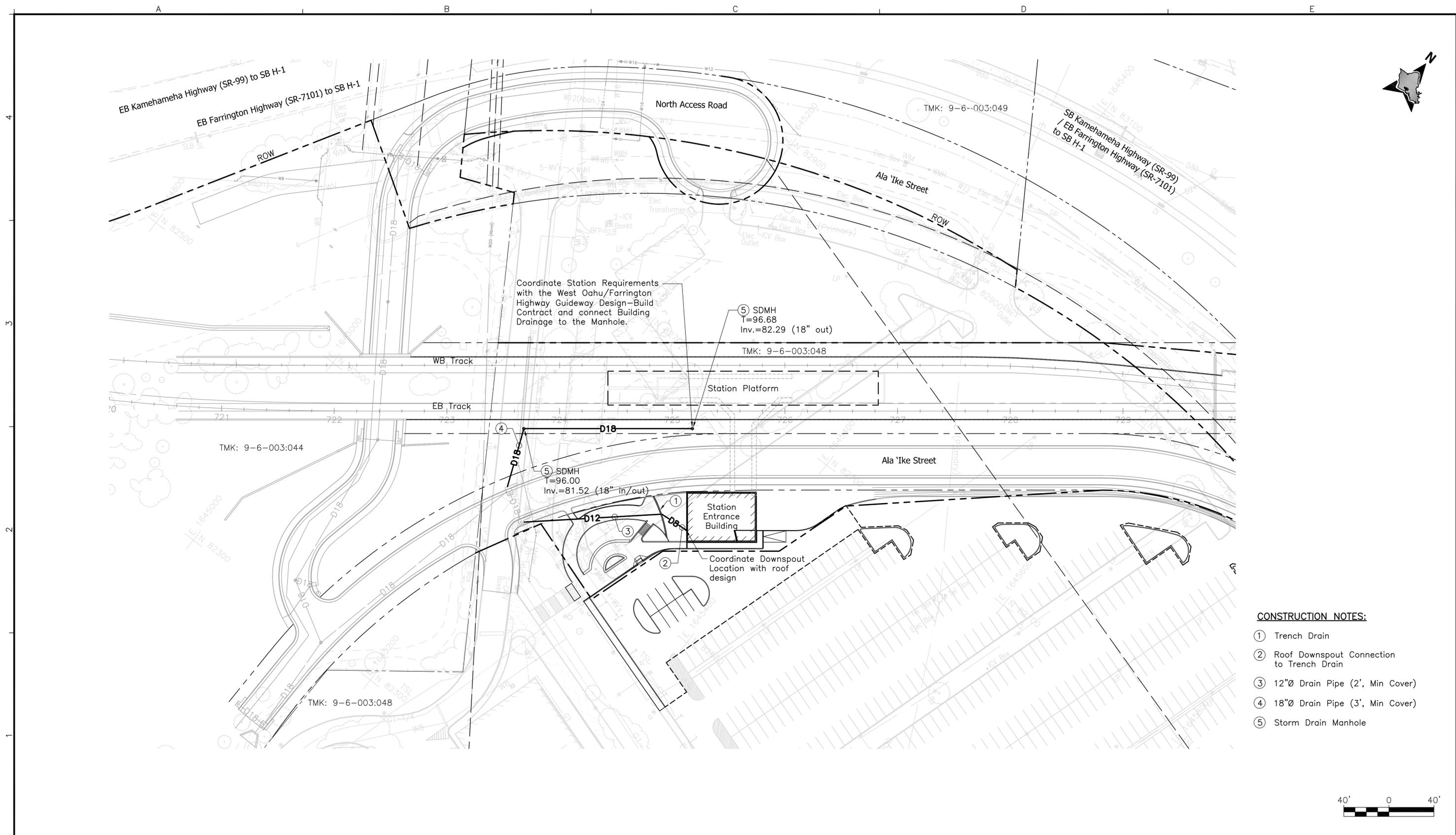
Subconsultant:

1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

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

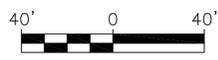
**LEEWARD COMMUNITY COLLEGE STATION
GRADING PLAN**

Contract No.: SV-240	
CADD File: SC3-B17-GD001	
Drawing No: GD001	Rev.
Scale: 1"=40'	
Page No. 10	of 52



CONSTRUCTION NOTES:

- ① Trench Drain
- ② Roof Downspout Connection to Trench Drain
- ③ 12"Ø Drain Pipe (2', Min Cover)
- ④ 18"Ø Drain Pipe (3', Min Cover)
- ⑤ Storm Drain Manhole



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: E Leung
 Drawn: D Chua
 Checked: N Orense
 Approved: M Yonamine
 Date: 09-18-09

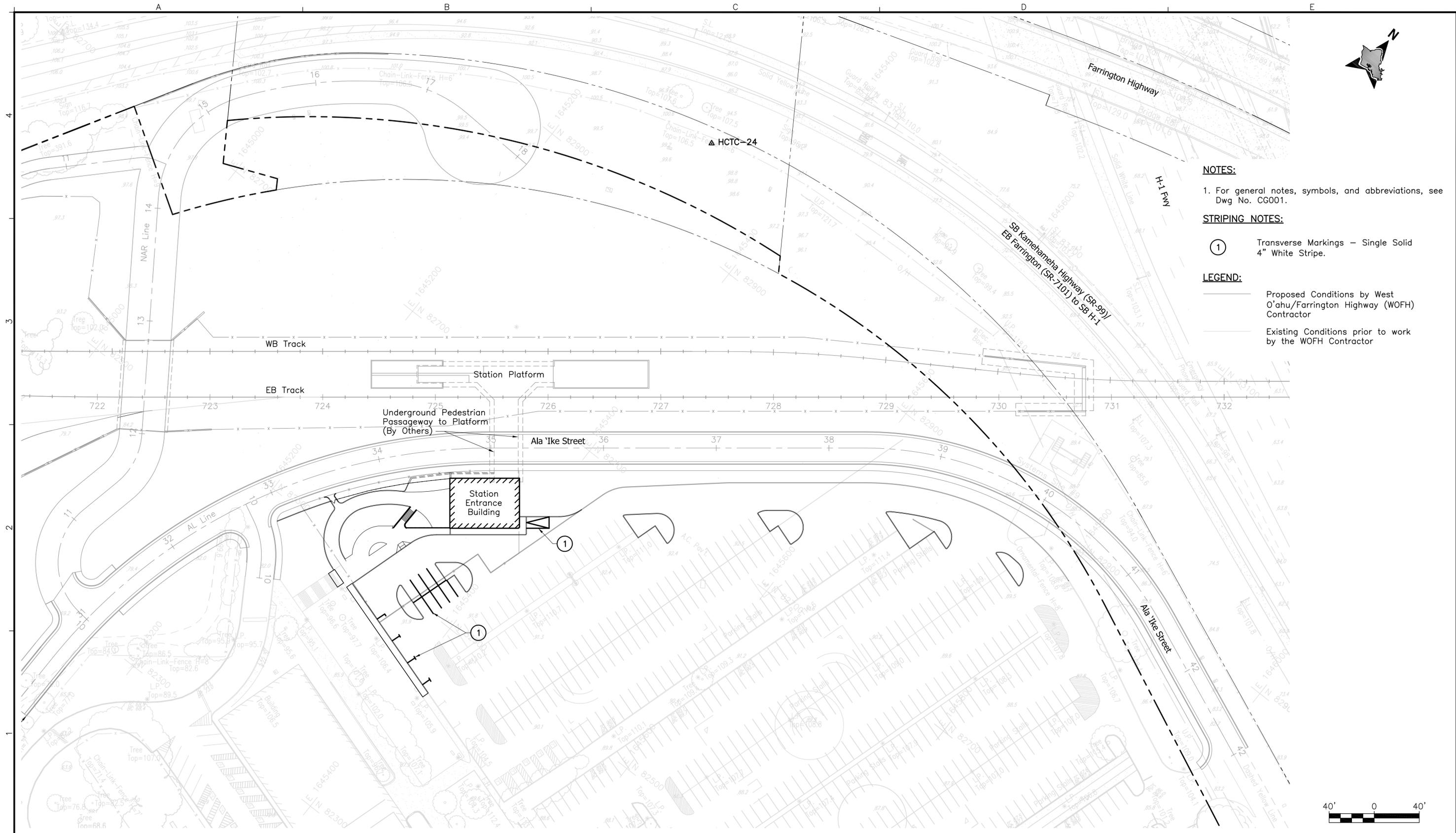
HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**
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 For reduced prints, original page size in inches: 0 1 2 3 4

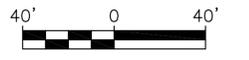
Subconsultant: **LYON ASSOCIATES**
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 Fax: (808) 523-1738
 E-mail: admin@lyonassociates.com
 www.lyonassociates.com

**LEEWARD COMMUNITY COLLEGE STATION
DRAINAGE PLAN**

Contract No.: SV-240	
CADD File: SC3-B17-GD101	
Drawing No: GD101	Rev.
Scale: 1"=40'	
Page No. 11	of 52



- NOTES:**
- For general notes, symbols, and abbreviations, see Dwg No. CG001.
- STRIPING NOTES:**
- Transverse Markings – Single Solid 4" White Stripe.
- LEGEND:**
- Proposed Conditions by West O'ahu/Farrington Highway (WOFH) Contractor
 - Existing Conditions prior to work by the WOFH Contractor



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
M Jewell

Drawn:
J Derosier

Checked:
E Liberman

Approved:
M Hall

Date:
09-18-09

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

Prime Consultant:
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Subconsultant:

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**LEEWARD COMMUNITY COLLEGE STATION
STRIPING PLAN**

Contract No.:
SV-240

CADD File:
SC3-C02-TR001

Drawing No.:
TR001

Scale:
1"=40'

Page No.:
12 of 52

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--- Abandon in Place</p> <p>---R--- Demolish/Remove</p>
---	--	--	--	--

UTILITIES ABBREVIATIONS

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

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: N/A
 Drawn: D Toba
 Checked: H Andrews
 Approved: J Yamamoto
 Date: 09-18-09

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

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

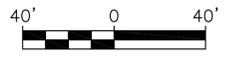
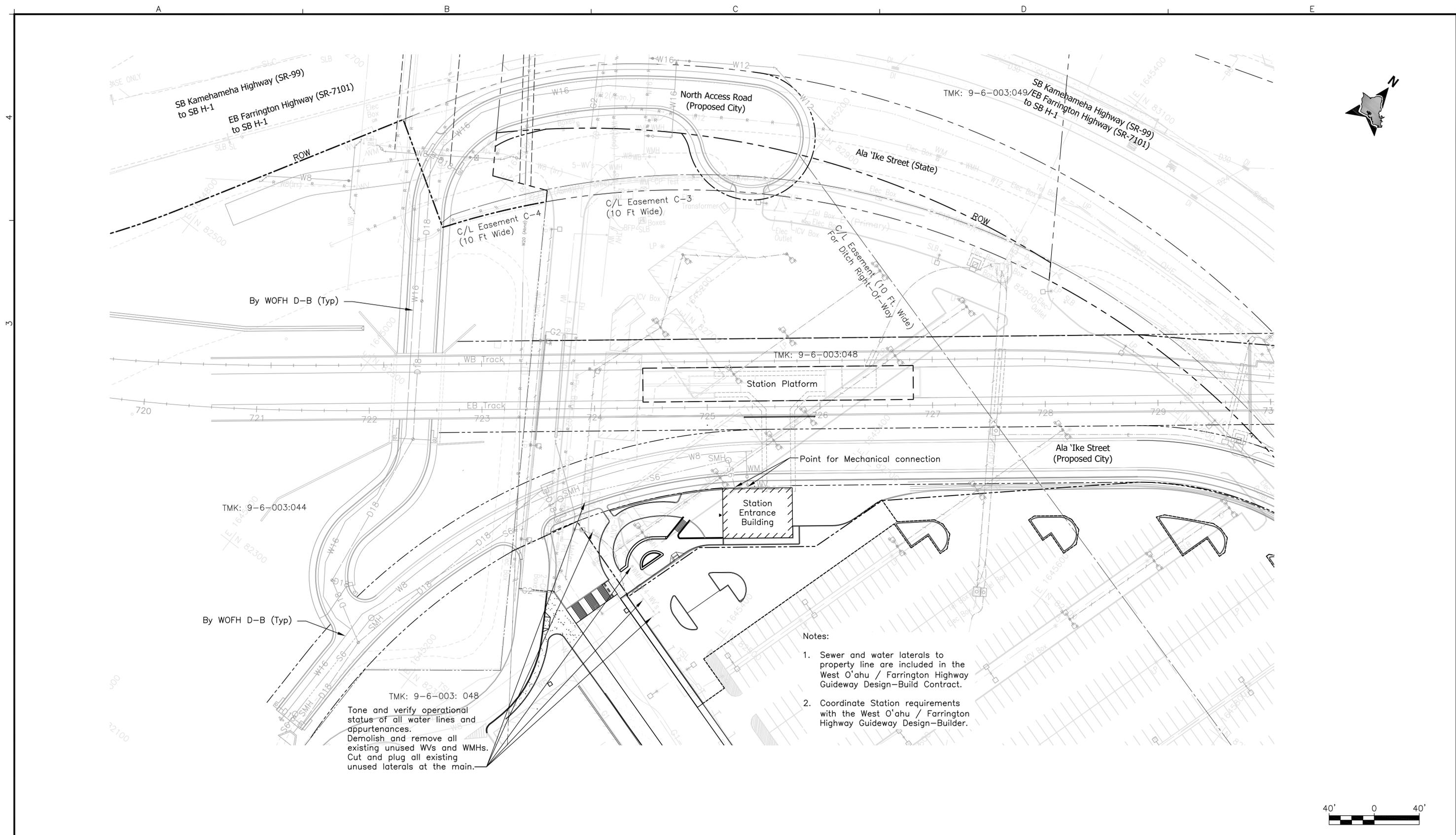
Subconsultant: **R. M. TOWILL CORPORATION**
 808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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LEEWARD COMMUNITY COLLEGE STATION
**GENERAL UTILITIES SYMBOLS
 AND ABBREVIATIONS**

Contract No.: SV-240
 CADD File: SC3-D01-UG001
 Drawing No: UG001 Rev.
 Scale: None
 Page No. 13 of 52

Rev	By	Date	Description
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Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: D Toba
 Drawn: D Toba
 Checked: H Andrews
 Approved: J Yamamoto
 Date: 09-18-09

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

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

LEEWARD COMMUNITY COLLEGE STATION

**UTILITIES PLAN
WATER & SEWER**

Contract No.: SV-240	Rev.
CADD File: SC3-D03-UP001	
Drawing No: UP001	
Scale: 1"=40'	
Page No. 14 of 52	

A

B

C

D

E

GENERAL

FOUNDATION

STRUCTURAL CONCRETE

- All work shall conform to the 2006 International Building Code (IBC) with the City and County of Honolulu Amendments unless noted otherwise.
- 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.

- City-developed geotechnical data through the contract area (Leeward Community College) is presented in "Geotechnical Data Report, HHCTP - East Kapolei to Pearl Highlands" dated March 27, 2009, by GeoLabs, Inc. as amended May 15, 2009. Also Available for reference is "Fixed Guideway Foundation Technical Memorandum, HHCTP - East Kapolei to Pearl Highlands" dated April 30, 2009, by GeoLabs, Inc. The latter document is made available for information only. The interpretations and recommendations contained therein are solely for the benefit of the City's Engineer in advancing alternatives and preliminary design. The Designer shall engage the services of a Hawaii licensed geotechnical engineer to perform subsurface exploration, investigation, testing, and analyses for the design and construction of the foundations of the indicated buildings and structures.
- All earthwork shall be performed in accordance with the above-mentioned recommendations. All foundation excavations shall be observed and approved by a Hawaii licensed geotechnical engineer prior to placement of reinforcement and concrete. All structural fill material (both onsite and imported) shall be reviewed and approved by the 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:
 - Sidewalks..... 2,500 PSI
 - Floor Slab on Grade..... 3,000 PSI
 - Footings, Grade Beams & Piers..... 3,000 PSI
 - Walls (incl precast or Tilt-up concrete)..... 3,000 PSI
 - Columns..... 4,000 PSI
 - Suspended Slabs and Beams..... 4,000 PSI
 - Concrete Fill on Metal Deck..... 3,000 PSI
 - All Others..... 3,000 PSI
 - Site Retaining Walls..... See wall schedule
- 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

- The structural design shall be based on the provisions of the International Building Code (IBC), 2006 Edition, as amended by the City and County of Honolulu.
- The structural design shall comply with the applicable provisions of Section 9.0 - Structural and Section 23.0 - Fire/Life Safety of the HHCTCP Design Criteria.
- 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
 - Importance factor..... 1.0
- Seismic design data:
 - Occupancy Category II
 - Importance factor = 1.25
 - Site class = C
 - Mapped spectral response accelerations:
 - * Ss = 0.60
 - * SI = 0.17
 - Design spectral response acceleration:
 - * Sds = 0.46
 - * Sd1 = 0.18
 - Seismic Design Category = C

- 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 structural engineer responsible for preparing shop drawings 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

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

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

LEEWARD COMMUNITY COLLEGE STATION

GENERAL STRUCTURAL NOTES, SYMBOLS AND ABBREVIATIONS

SHEET 1 OF 4

Contract No.: SV-240	
CADD File: SC3-G01-SG001	
Drawing No: SG001	Rev.
Scale: N/A	
Page No. 15	of 52

A REINFORCING STEEL	C STEEL JOISTS	D METAL DECKING
<p>1. All reinforcing steel shall be deformed bars conforming to ASTM A 615 Grade 60, except ties and stirrups smaller than #4 which may be grade 40. All reinforcing steel to be welded shall conform to ASTM A 706 Grade 60.</p> <p>2. Plain steel welded plain wire fabric shall conform to ASTM A 185, fabricated from as-drawn steel wire into flat sheets and galvanized.</p> <p>3. Minimum concrete protection (cover) for reinforcement shall be provided in conformance with Chapter 7 of ACI 318-05.</p> <p>4. Development and splices of reinforcement shall be in conformance with Chapter 12 of ACI 318-05.</p> <p>5. Welding of reinforcing steel bars shall conform to "Structural Welding Code-Reinforcing Steel", AWS D1.4.</p> <p>6. Bolster and support bars for slab and topping reinforcement (including slabs on grade) shall be a minimum of #4 at 36" o.c.</p> <p>7. Before placing of concrete, reinforcement placement shall be inspected to insure conformance with the drawings. All discrepancies shall be corrected prior to concrete pour or grouting.</p>	<p>1. The design, manufacture and installation of open web steel joists and joist girders shall be in accordance with the following Steel Joist Institute (SJI) specifications:</p> <p>a. Standard specifications for joist girders, JG-1.1-05 b. Standard specifications for open web steel joists, K-series, K-1.1-05 c. Standard specifications for longspan steel joists, LH series and deep longspan steel joists, DLH series, LH/DLH 1.1-05</p> <p>2. Joist manufacturer shall provide all bridging and blocking, both permanent and erection. Shop drawings and design calculations stamped by a licensed Hawaii Structural Engineer shall be submitted to the City for approval two weeks prior to fabrication.</p> <p>3. All roof joists, joist girders and bridging shall be designed for the net wind uplift pressures in accordance with the requirements of the 2006 International Building Code (IBC).</p> <p>4. Roof joist design loads: Dead load.....Actual weight of roof system Additional (equipment) loads.....See roof framing plans (it shall be the responsibility of the Designer to verify the weight of all mechanical equipment.) Live load.....20 psf--unless noted otherwise</p> <p>5. Floor joists design loads: Dead load.....Actual weight of floor system Live load.....As noted on the drawings Additional (equipment) loads.....See floor framing plans (It shall be the responsibility of the Designer to verify the weight of all mechanical equipment.)</p> <p>6. Live load deflection limits: Floor.....Not to exceed L/360 Roof.....Not to exceed L/360</p>	<p>1. Steel sheets for roof and composite floor metal deck and accessories shall conform to ASTM A 653, with minimum yield strength of 38 ksi. Decks shall be galvanized in accordance with ASTM A 653, G90.</p> <p>2. Decking shall be continuous for 2 or more spans, where applicable, and bear on supports a minimum of 2 inches. Ends of roof deck units shall be lapped a minimum of 2 inches over supports.</p> <p>3. 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.</p> <p>4. 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.</p> <p>5. Rectangular or circular openings in metal deck shall be reinforced as shown.</p> <p>6. Shop drawings showing the deck unit layout and fastener locations, manufacturer's brochures and ICC-ES Legacy Report shall be submitted to the Architect for approval.</p> <p>7. 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.</p> <p>8. Construction loads (including those due to storage of construction materials) shall not exceed the design live load of the roof or floor system.</p>
<p>STRUCTURAL STEEL AND MISCELLANEOUS IRON</p>	<p>COLD-FORMED LIGHT GAUGE STRUCTURAL STEEL FRAMING</p>	<p>CONCRETE MASONRY UNIT</p>
<p>1. The design, fabrication and erection of structural steel shall be in accordance with the "Specifications for Structural Steel Buildings", AISC 360-05. Seismic design of steel structures shall be in accordance with the "Seismic Provisions for Structural Steel Buildings", including Supplement No.1 dated 2006, AISC 341-05.</p> <p>2. W-shapes shall conform to ASTM A 992 (Fy = 50 ksi). All steel plates, bars, and other shapes shall comply with ASTM A 36 unless noted otherwise. Structural pipe shall conform to ASTM A 53, Grade B. Round HSS shall conform to ASTM A 500, Grade B, (Fy = 42 ksi). Rectangular and square HSS shall conform to ASTM A 500, Grade B (Fy = 46 ksi). All exposed steel members and assemblies shall be hot-dip galvanized after fabrication in accordance with ASTM A 123.</p> <p>3. Common bolts shall comply with ASTM A 307, hot-dip galvanized per ASTM A 153.</p> <p>4. High strength bolts shall comply with ASTM A 325N or A 325SC (where noted), Galvanized. Nuts shall conform to ASTM A 563, galvanized. Washers shall conform to ASTM F 436, Galvanized.</p> <p>5. Anchor rod material shall conform to ASTM F 1554, Grade 36 (Grade 55 or 105 where noted), hot-dip galvanized, per ASTM A 153.</p> <p>6. Shear stud connectors shall be as specified in AWS D1.1-04, Chapter 7, Type B made from ASTM A 108 material (Fu = 60 ksi).</p> <p>7. All welds shall be arc welded, matching the electrode to the base steel, according to AWS standards and performed by certified welders. All welds shall be ground smooth and painted with 2 coats of Z.R.C. cold galvanizing compound.</p> <p>8. Unless otherwise indicated, all steel joints not detailed shall be fully welded using minimum fillet welds per AISC.</p> <p>9. Shop drawings shall be submitted to the City for all structural steel, fabricated brackets hardware and miscellaneous metals prior to fabrication.</p> <p>10. All anchor plates embedded in concrete shall be hot-dip galvanized after fabrication.</p>	<p>1. The design, fabrication, installation and construction of cold-formed light gauge structural and non-structural steel framing shall be in accordance with the "North American Specification For Design of Cold-Formed Steel Structural Members", including 2004 Supplement, NAS-01 and the following American Iron and Steel Institute (AIS) standards:</p> <p>a. Standard for Cold-Formed Steel Framing - General Provisions, General-04 b. Standard for Cold-Formed Steel Framing - Header Design, Header-04 c. Standard for Cold-Formed Steel Framing - Truss Design, Truss-04 d. Standard for Cold-Formed Steel Framing - Wall Stud Design, WSD-04</p> <p>2. All light gauge structural steel members, plates and angles shall be hot dip galvanized. (Minimum G90 coating) per ASTM A 924.</p> <p>3. All light gauge structural steel framing members shall be cold formed to shapes from structural quality sheet steel complying with the requirements of ASTM A 1003, Grade 50 for 14 and 16 gauge members; Grade 33 for 18 thru 26 gauge members.</p> <p>4. Shop drawings shall be submitted to the City for all fabricated connections and hardware prior to fabrication.</p> <p>5. Structural calculations and shop drawings stamped by a Structural Engineer licensed in the State of Hawaii shall be submitted for review to the City for all pre-engineered framing, including trusses prior to fabrication.</p> <p>6. Fasteners shall be self-piercing and self-drilling, power-driven screws intended for cold formed steel application and shall be zinc plated or galvanized.</p> <p>7. All welding shall be done in accordance with "Structural Welding Code", AWS D1.1 and "Structural Welding Code Sheet Steel", AWS D1.3 for sheet steel and performed by certified welders.</p> <p>8. The Contractor shall be responsible for temporary bracing of all light metal structural framing including trusses.</p> <p>9. Each joist, rafter, truss and structural wall stud shall be aligned vertically so that the distance between the web of the horizontal framing member to the edge of the wall stud does not exceed 1/8 inch (3 mm), unless otherwise indicated in the drawings.</p>	<p>1. The design, construction and quality of masonry structures shall be in accordance with the "Building Code Requirements for Masonry Structures", ACI 530 - 05.</p> <p>2. Hollow concrete masonry units: ASTM C 90, Grade N, 1,900 psi compressive strength, medium weight. Units shall be 2-core type, 8" nominal height, 16" nominal length and width indicated on the plans.</p> <p>3. Mortar and grout materials:</p> <p>a. Portland Cement: ASTM C 150, Type I or II b. Masonry Cement: ASTM C 91 c. Mortar Cement: ASTM C 1329 d. Aggregate for Mortar: ASTM C 144 e. Aggregate for Grout: ASTM C 404, with grading per ASTM D 448, No. 10 f. Hydrated Lime: ASTM C 207, Type S g. Plasticizer Additive: Powder or liquid type with current ICC acceptance as a substitute for lime in mortar. h. Water: Potable and complying with ASTM C 94.</p> <p>4. Mortar shall be ASTM C 270 Type 'M' or 'S' with a minimum 28-day compressive strength of 1,800 psi for Type S and 2,500 psi for Type M. Use mortar within 2 hours after initial mixing.</p> <p>5. Grout (fine) shall be proportioned to attain a 28-day compressive strength of 2,500 psi and a slump between 8 and 11 inches. Grout shall be placed within 90 minutes after mixing.</p> <p>6. Reinforcing bar positioners: Commercial, non-metallic positioners that prevent displacement of reinforcing bars during construction. Install at intervals not exceeding 8 feet.</p> <p>7. Fill all cells solid with grout. No grouting shall commence prior to inspection by the Engineer or Special Inspector.</p> <p>8. Unless noted otherwise, all walls shall be constructed in running bond.</p> <p>9. Post-installed anchors in grouted masonry: corrosion-resistant anchors with capacity to support design shear and tension loads with a factor of safety of at least 4.0 as documented in a current ICC legacy report.</p>
	<p>PEDESTRIAN BRIDGES</p> <p>1. Pedestrian bridges shall be designed in accordance with Section 9.4 of the HHCTCP Design Criteria.</p>	<p>TIMBER</p> <p>1. The design of timber framing shall be in accordance with the International Building Code (IBC).</p> <p>2. The design of glued-laminated (glulam) beams for the canopy system shall be in accordance with NDS National Design Specification for Wood Construction from the American Forest and Paper Association.</p> <p>a. The allowable bending stress, F_b, shall be taken as 3000 psi modified with the appropriate adjustment factors.</p>

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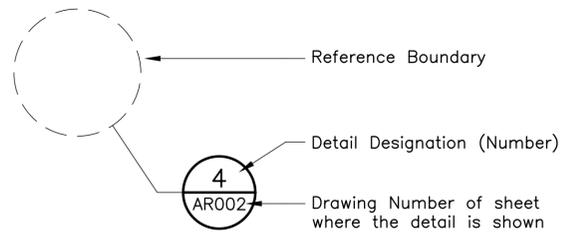
STRUCTURAL ABBREVIATIONS (CONTINUED)

<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 AIISI 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>B Baseline Bal Balance BF Both Faces Bldg Building Blkg Blocking Bm Beam Bot Bottom</p> <p>C 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 Dwg Drawing Dwl Dowel</p> <p>E East ea Each EB Eastbound EE Each End EF Each Face, Exhaust Fan EJ Expansion Joint EI, 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 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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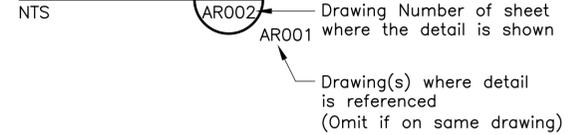
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	Drawn: T Cochran			CADD File: SC3-G01-SG001	
	Checked: T Kimura			Drawing No: SC003	Rev.
	Approved: A Borst			Scale: N/A	
	Date: 09-18-09			Page No. 17 of 52	

STRUCTURAL SYMBOLS

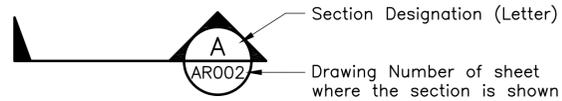
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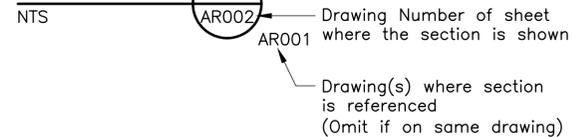
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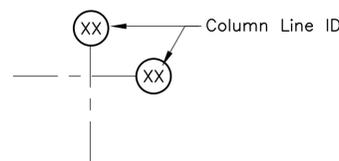
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SECTION



COLUMN LINE GRID INDICATOR



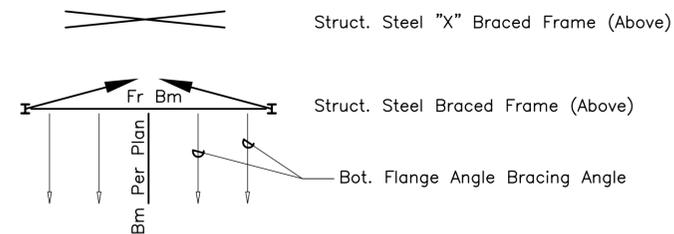
GENERAL SYMBOLS

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

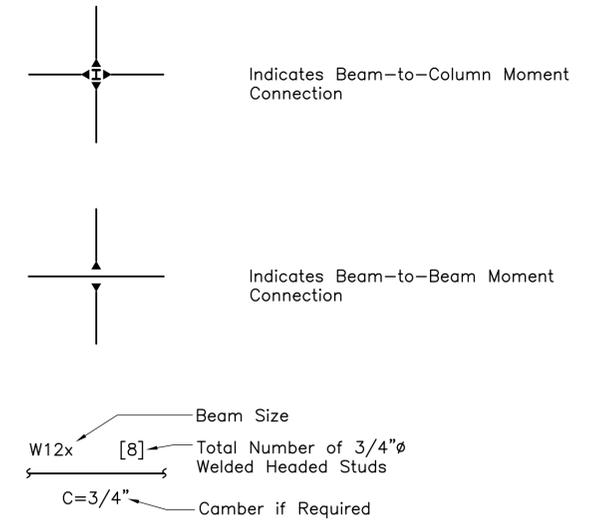
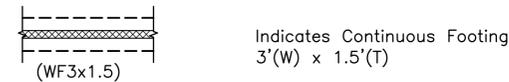
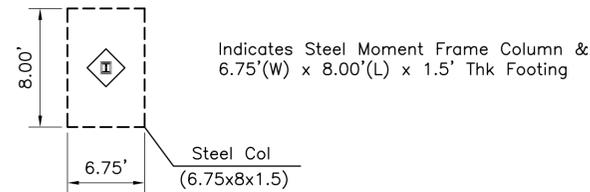
HATCH

- Metal Deck w/Conc Topping (Plan View)
- Metal Deck w/No Topping (Plan View)
- Slab on Grade (Plan View)

LEGEND



- Non-Struct. Partition (See Arch. Drawings)
- Non-Struct. Shaft Wall
- Tilt-Up Wall
- CMU Wall
- Wall Below



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**PRELIMINARY
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SUBJECT TO REVISION**

Designed: D Yavorsky
 Drawn: T Cochran
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 Approved: A Borst
 Date: 09-18-09

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

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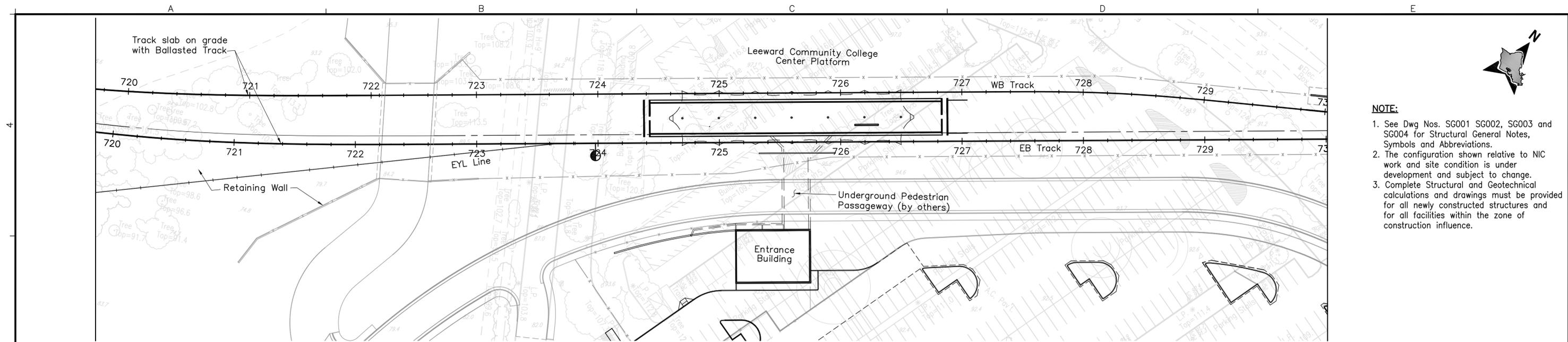
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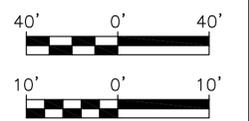
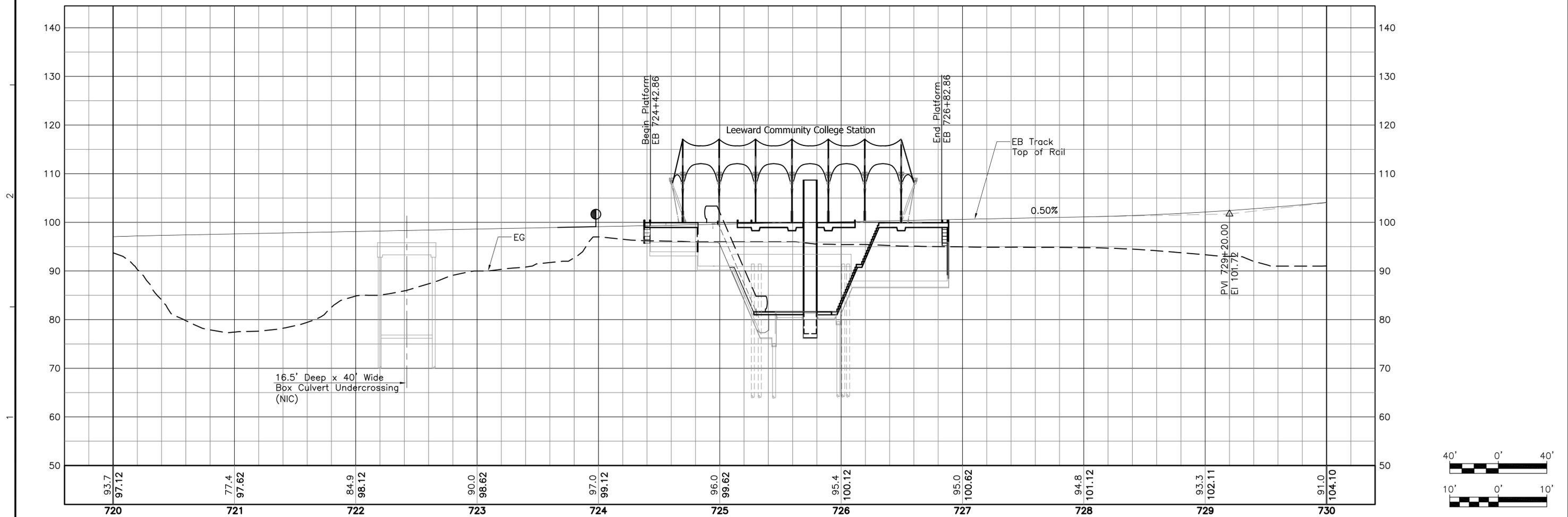
LEEWARD COMMUNITY COLLEGE STATION
**GENERAL STRUCTURAL NOTES,
 SYMBOLS AND ABBREVIATIONS**

SHEET 4 OF 4

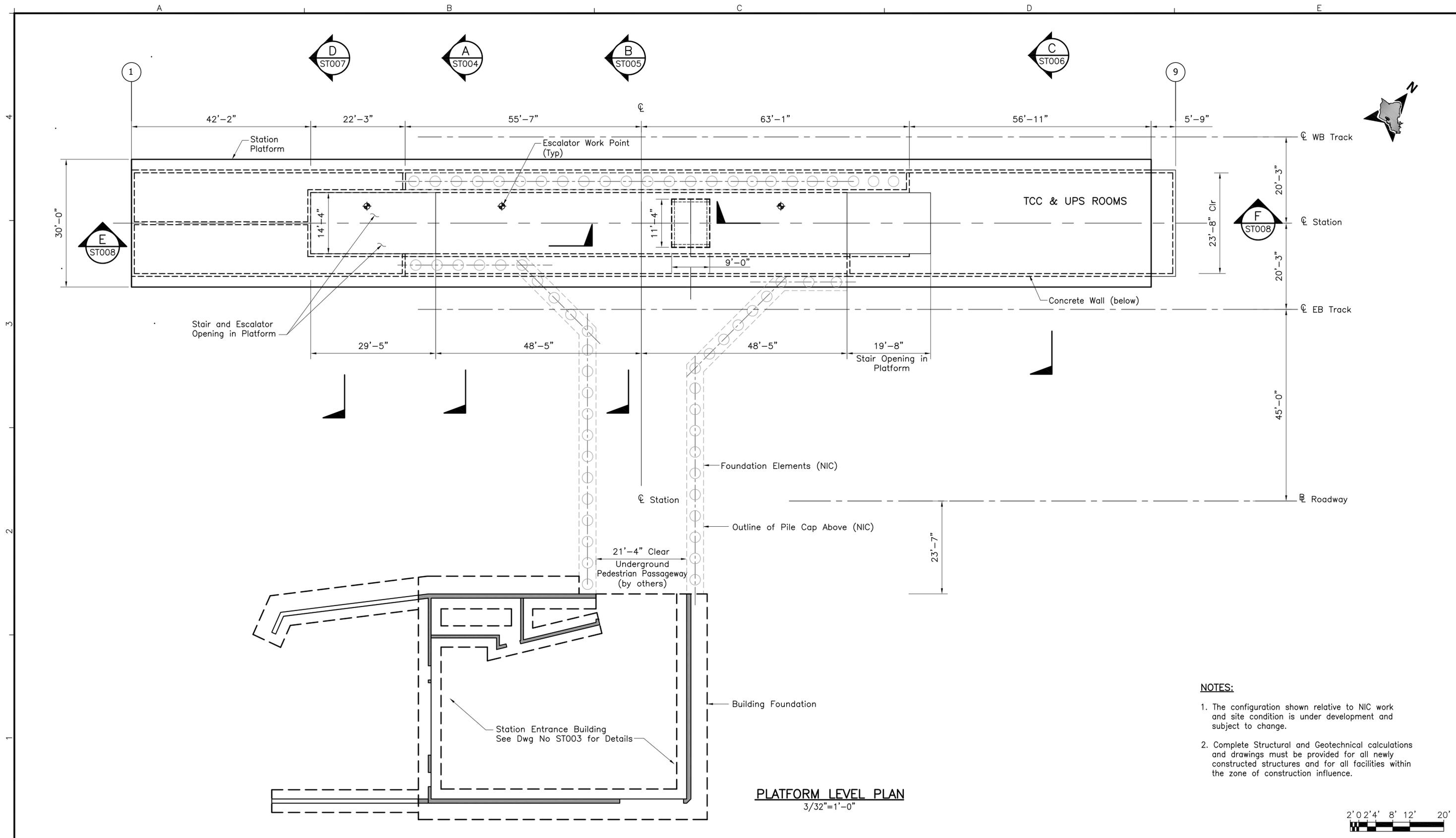
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CADD File: SC3-G01-SG001	
Drawing No: SG004	Rev.
Scale: N/A	
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- NOTE:**
1. See Dwg Nos. SG001 SG002, SG003 and SG004 for Structural General Notes, Symbols and Abbreviations.
 2. The configuration shown relative to NIC work and site condition is under development and subject to change.
 3. Complete Structural and Geotechnical calculations and drawings must be provided for all newly constructed structures and for all facilities within the zone of construction influence.



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PLATFORM LEVEL PLAN
3/32"=1'-0"



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

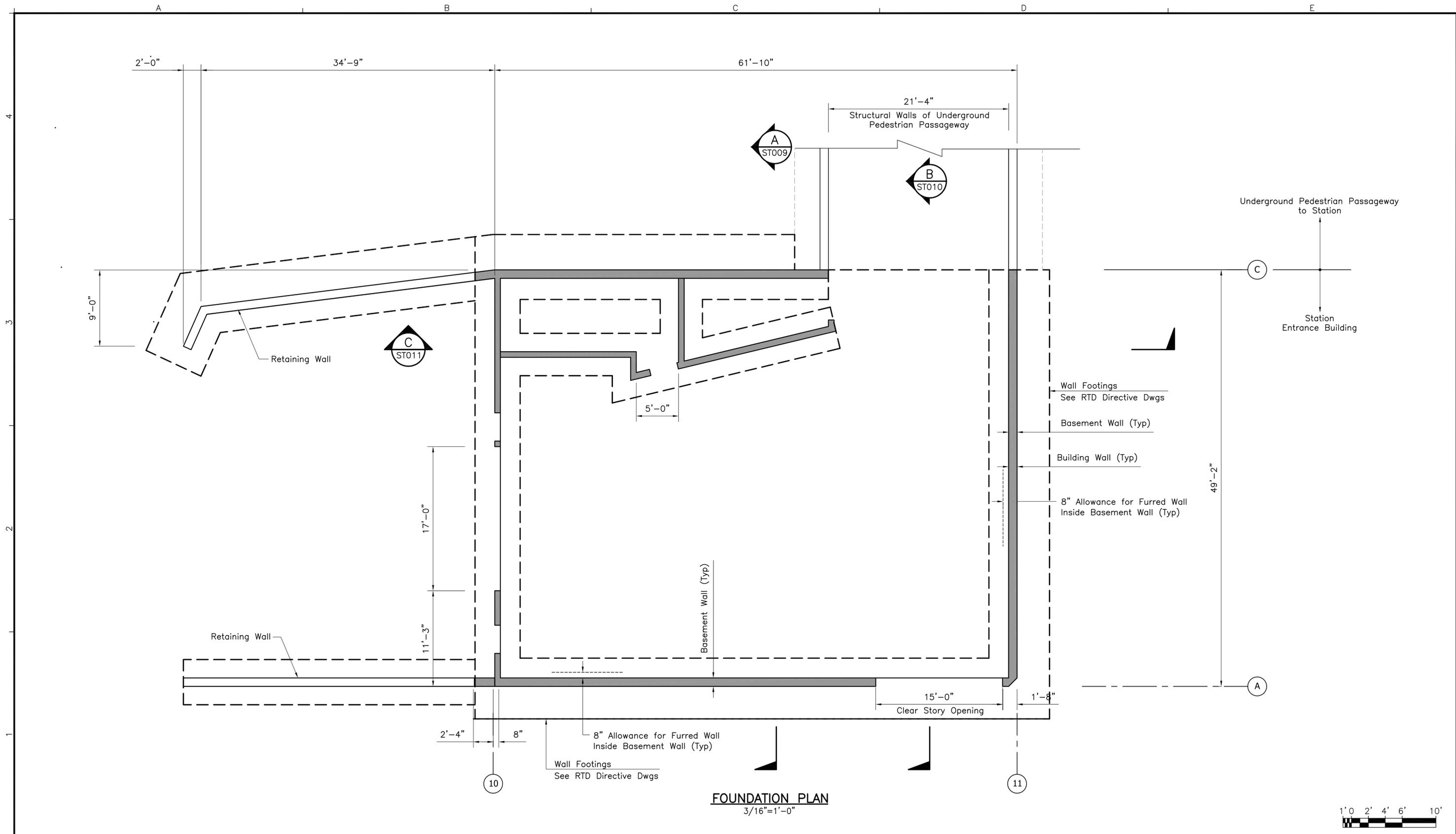
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LEEWARD COMMUNITY COLLEGE STATION

**STRUCTURAL
PLATFORM LEVEL
BASE SLAB PLAN**

Contract No.: SV-240	
CADD File: SC3-G13-ST002	
Drawing No: ST002	Rev.
Scale: 3/32"=1'-0"	
Page No. 20	of 52



FOUNDATION PLAN
3/16"=1'-0"



Rev	By	Date	Description

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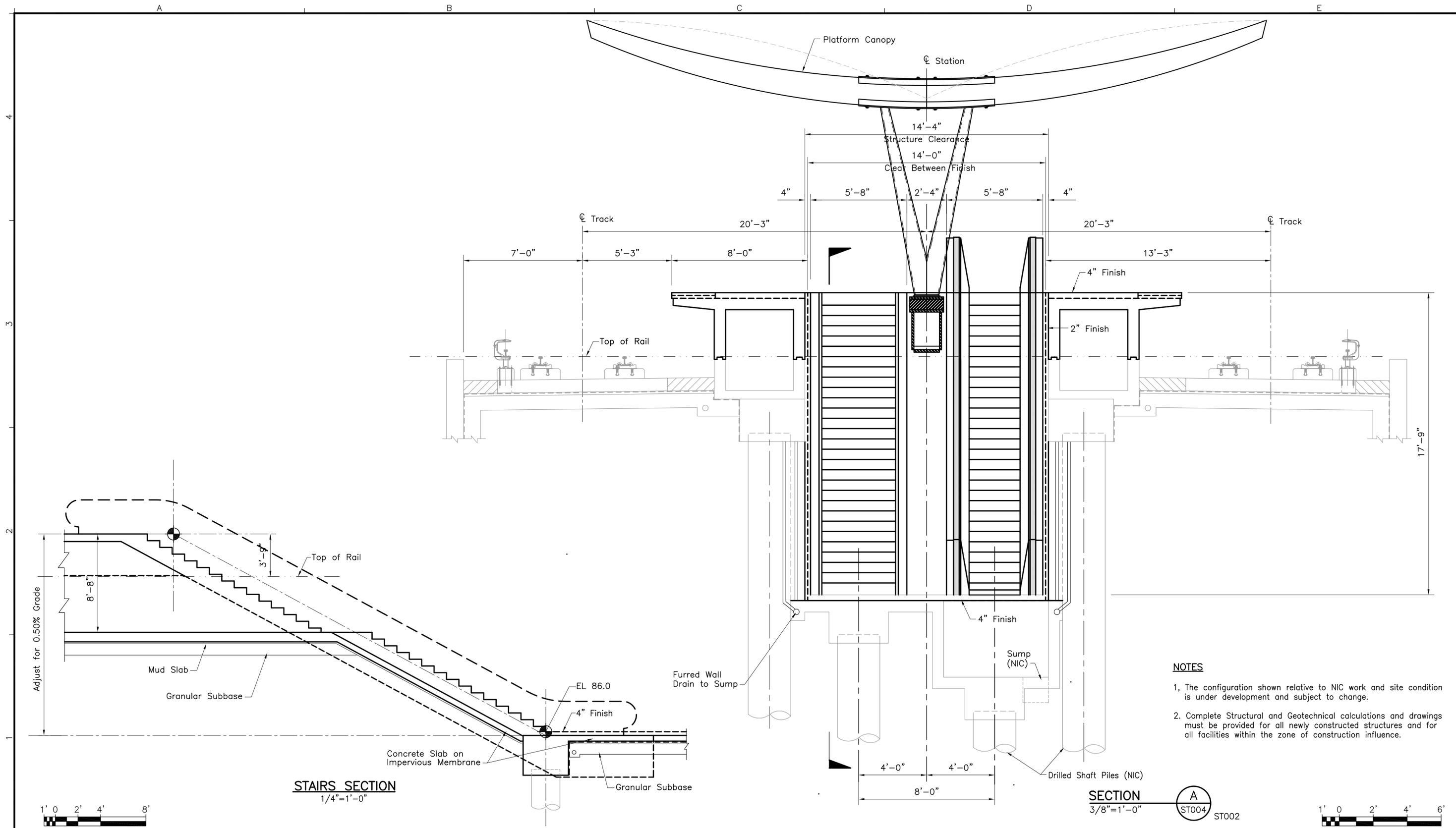
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Subconsultant:

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LEEWARD COMMUNITY COLLEGE STATION
**STRUCTURAL
ENTRANCE BUILDING**
FOUNDATION PLAN

Contract No.: SV-240	
CADD File: SC3-G13-ST003	
Drawing No: ST003	Rev.
Scale: 3/16"=1'-0"	
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Rev	By	Date	Description

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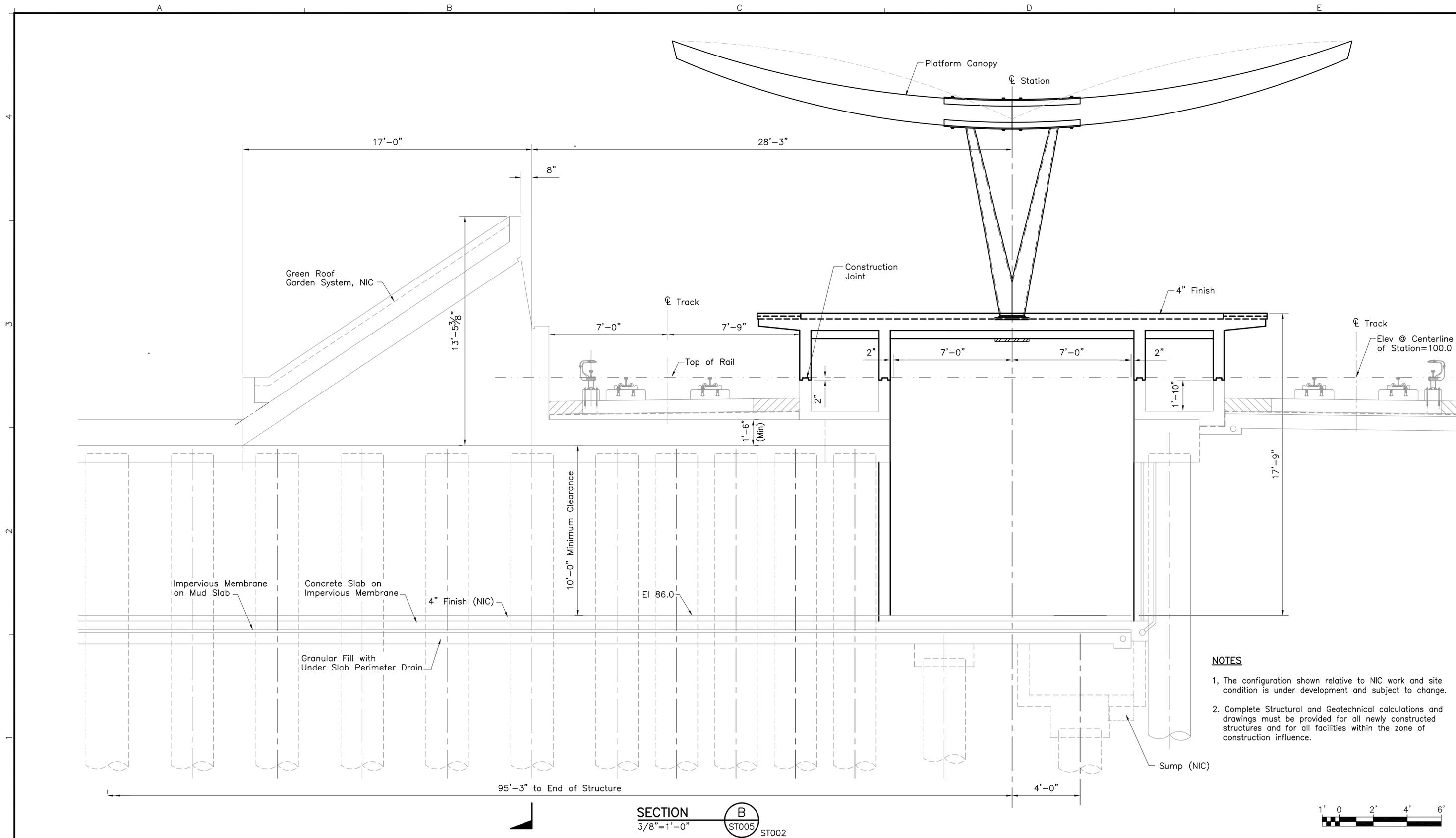
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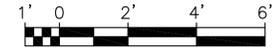
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LEEWARD COMMUNITY COLLEGE STATION
STRUCTURAL
STATION CROSS SECTIONS
SECTION A

Contract No.: SV-240	
CADD File: SC3-G15-ST004	
Drawing No: ST004	Rev. _____
Scale: As Noted	
Page No. 22	of 52



- NOTES**
1. The configuration shown relative to NIC work and site condition is under development and subject to change.
 2. Complete Structural and Geotechnical calculations and drawings must be provided for all newly constructed structures and for all facilities within the zone of construction influence.



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: D Yavorsky
 Drawn: T Cochran
 Checked: T Kimura
 Approved: A Borst
 Date: 09-18-09

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

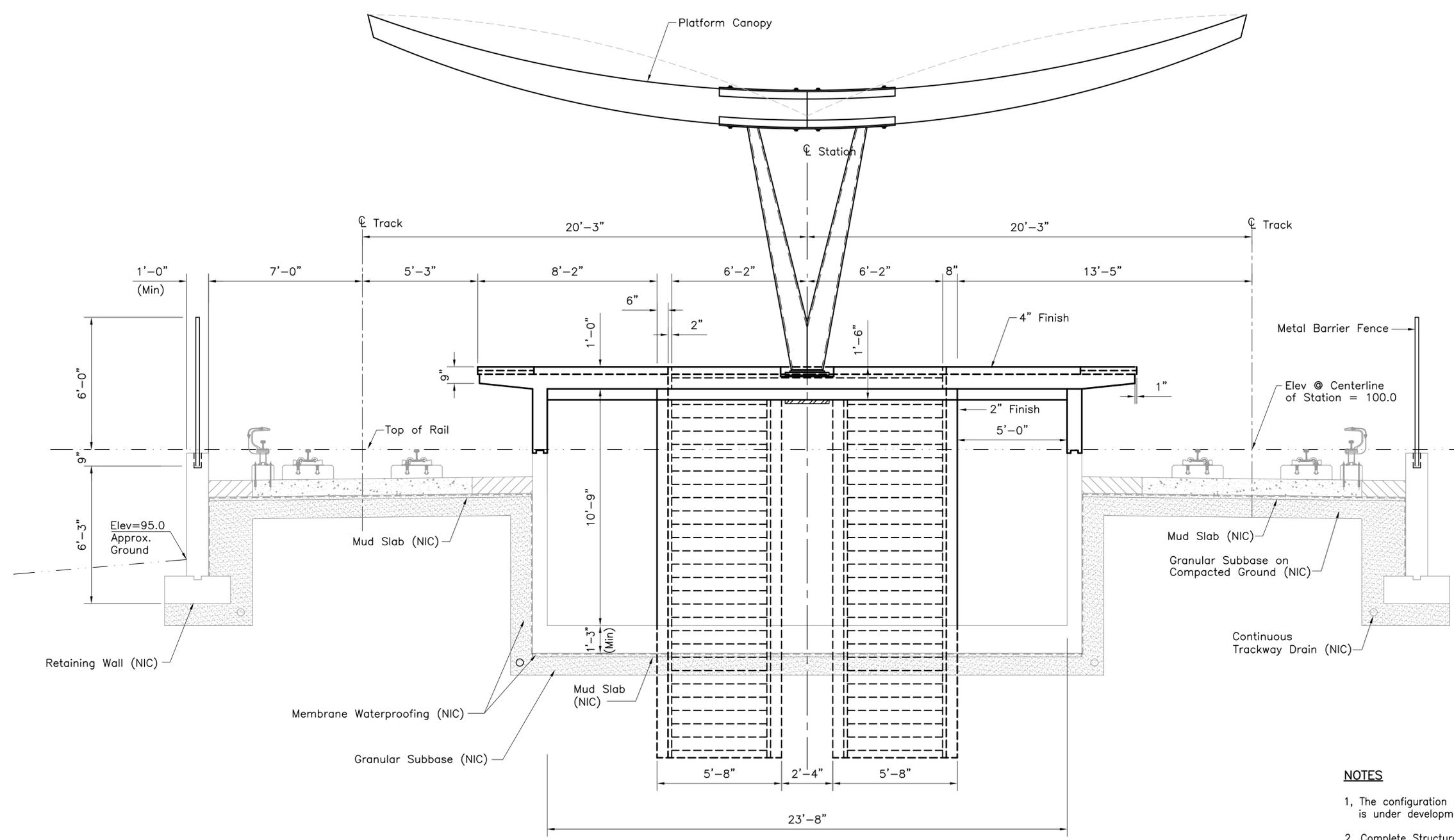
Prime Consultant: **PARSONS BRINCKERHOFF**
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: _____

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**LEEWARD COMMUNITY COLLEGE STATION
STRUCTURAL
STATION CROSS SECTIONS
SECTION B**

Contract No.: SV-240	Rev.
CADD File: SC3-G15-ST005	
Drawing No: ST005	
Scale: 3/8"=1'-0"	
Page No. 23 of 52	



- NOTES**
1. The configuration shown relative to NIC work and site condition is under development and subject to change.
 2. Complete Structural and Geotechnical calculations and drawings must be provided for all newly constructed structures and for all facilities within the zone of construction influence.

SECTION C
 3/8"=1'-0"
 ST006 ST002 ST008



Rev	By	Date	Description

**PRELIMINARY
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Designed:
D Yavorsky
 Drawn:
T Cochran
 Checked:
T Kimura
 Approved:
A Borst
 Date:
09-18-09

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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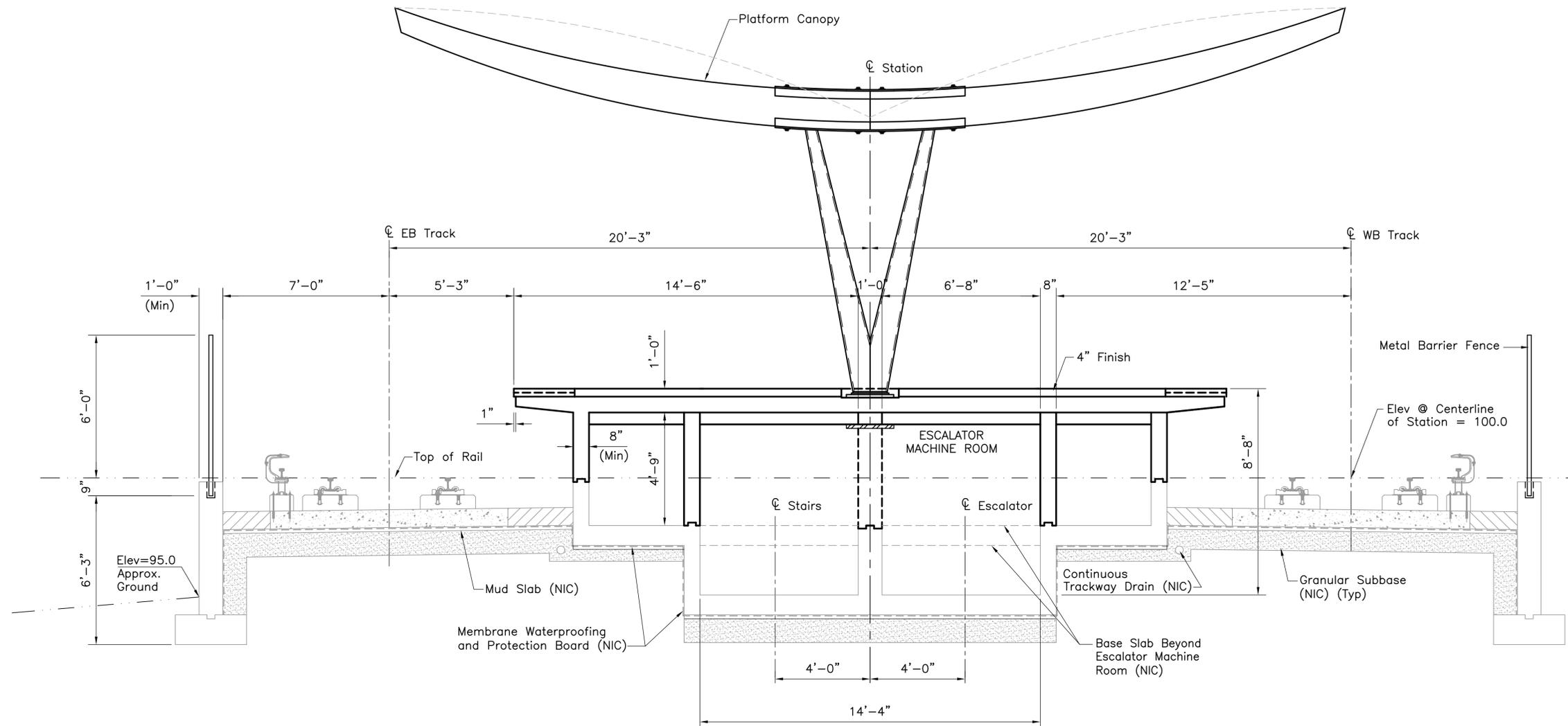
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LEEWARD COMMUNITY COLLEGE STATION

**STRUCTURAL
 STATION CROSS SECTIONS**

SECTION C

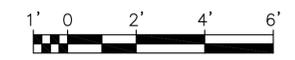
Contract No.:	SV-240
CADD File:	SC3-G15-ST006
Drawing No:	ST006
Scale:	3/8"=1'-0"
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SECTION D
 3/8"=1'-0" ST007 ST002

NOTES

1. The configuration shown relative to NIC work and site condition is under development and subject to change.
2. Complete Structural and Geotechnical calculations and drawings must be provided for all newly constructed structures and for all facilities within the zone of construction influence.



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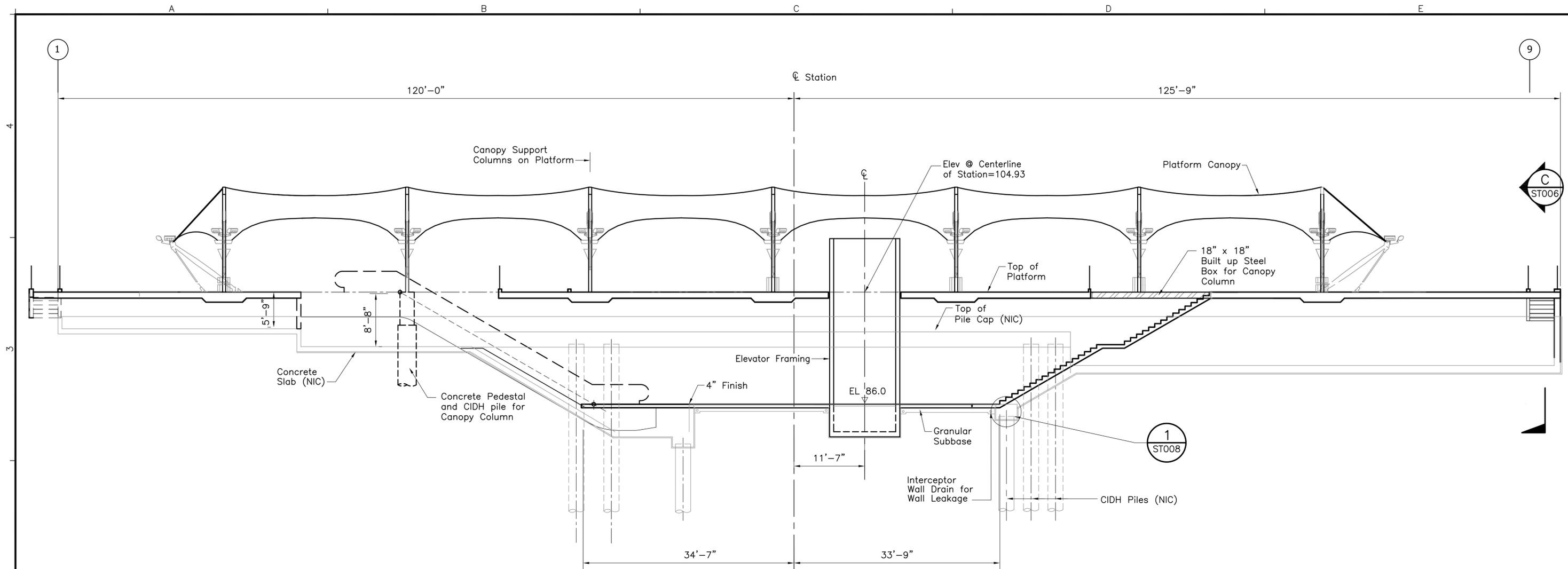
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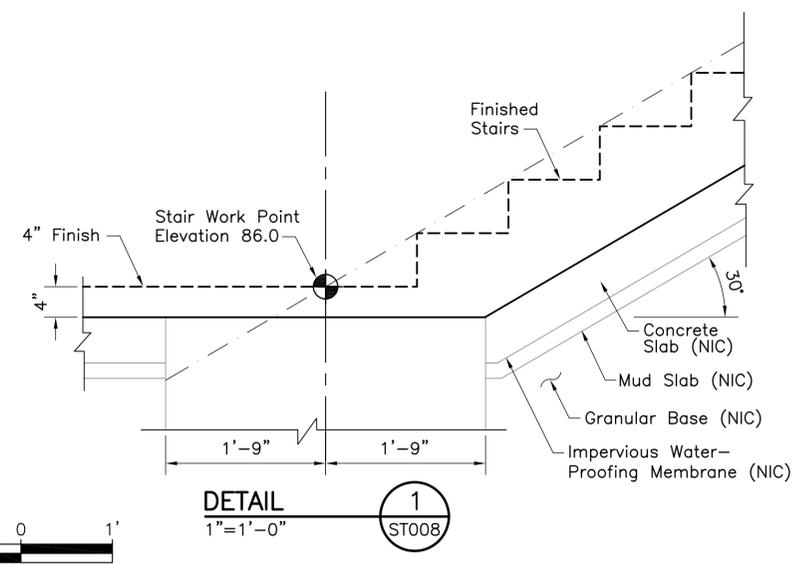
**LEEWARD COMMUNITY COLLEGE STATION
 STRUCTURAL
 STATION CROSS SECTIONS
 SECTION D**

Contract No.: SV-240
CADD File: SC3-G15-ST007
Drawing No: ST007
Scale: 3/8"=1'-0"
Page No. 25 of 52



SECTION E ST008 1/8"=1'-0" ST002 2' 0' 2' 4' 6' 10' 14'

SECTION F ST008 1/8"=1'-0" ST002



NOTES

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2. Complete Structural and Geotechnical calculations and drawings must be provided for all newly constructed structures and for all facilities within the zone of construction influence.

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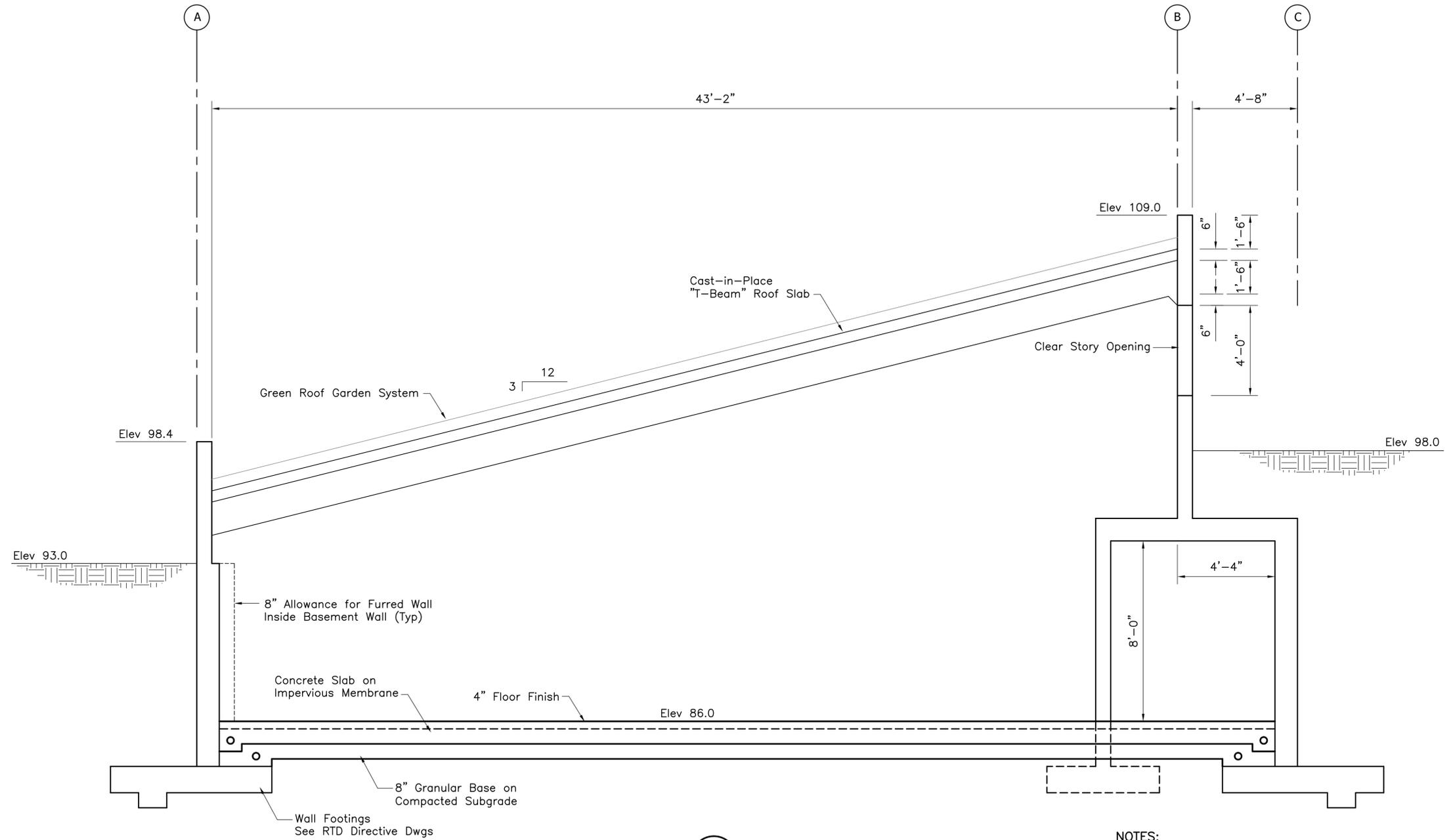
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LEEWARD COMMUNITY COLLEGE STATION

**STRUCTURAL
STATION LONGITUDINAL SECTIONS**

SECTION E AND SECTION F

Contract No.: SV-240
CADD File: SC3-G15-ST008
Drawing No: ST008
Scale: As Noted
Page No. 26 of 52



SECTION A
3/8"=1'-0" ST009 ST003

- NOTES:**
- Green Roof Garden System shall be assumed to add 70 PSF to the Roof Dead Load
 - For Waterproofing Details, See Structural Directive Drawings.



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**PRELIMINARY
ENGINEERING
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T Kimura
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A Borst
Date:
09-18-09

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

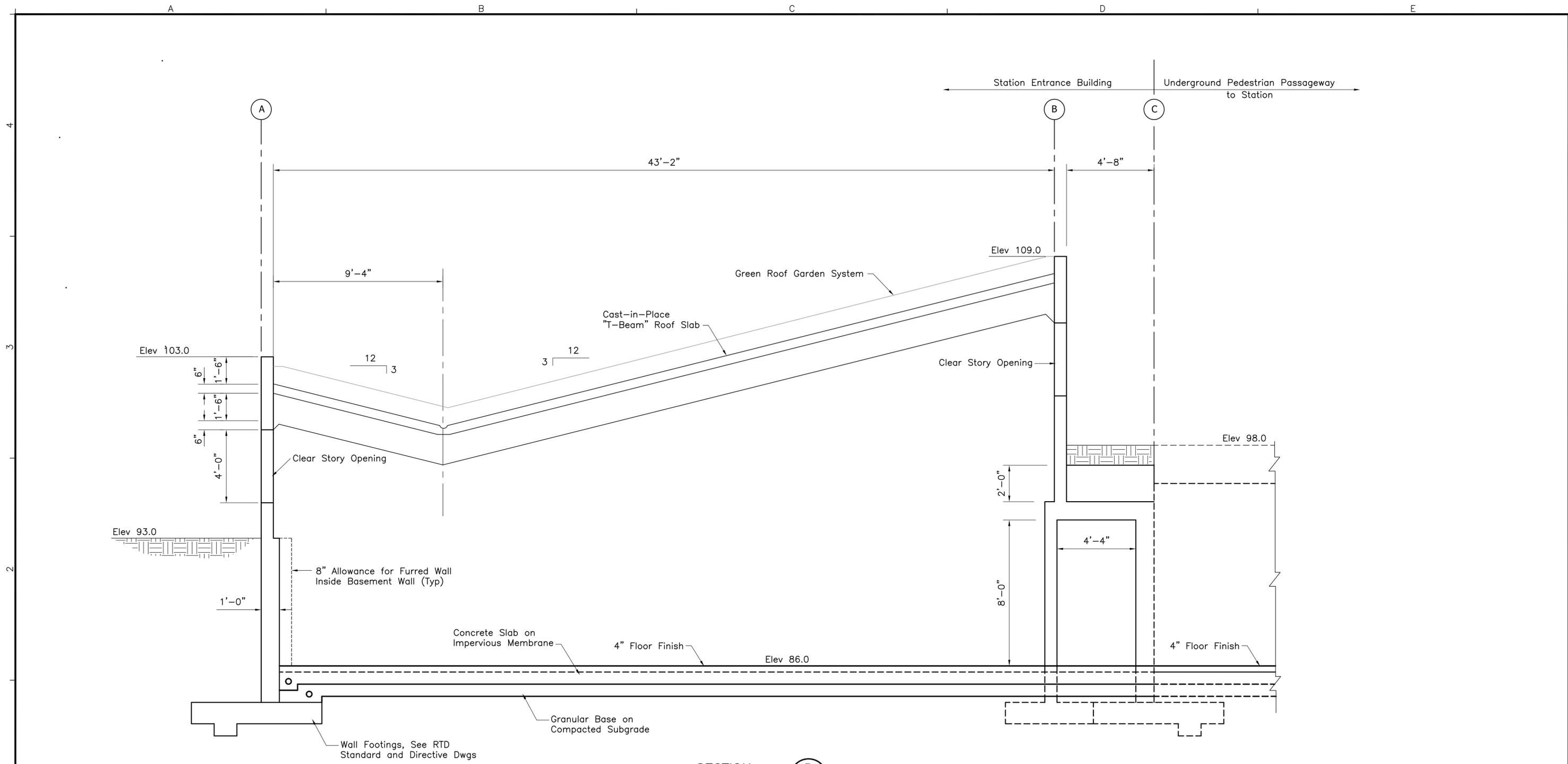
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**LEEWARD COMMUNITY COLLEGE STATION
STRUCTURAL
ENTRANCE PLAZA CROSS SECTIONS
SECTION A**

Contract No.: SV-240	
CADD File: SC3-G15-ST009	
Drawing No: ST009	Rev.
Scale: 3/8"=1'-0"	
Page No. 27	of 52



SECTION **B**
 3/8"=1'-0" ST010 ST003

- NOTES:**
- Green Roof Garden System shall be assumed to add 70 PSF to the Roof Dead Load
 - For Waterproofing Details, See Structural Directive Drawings.



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

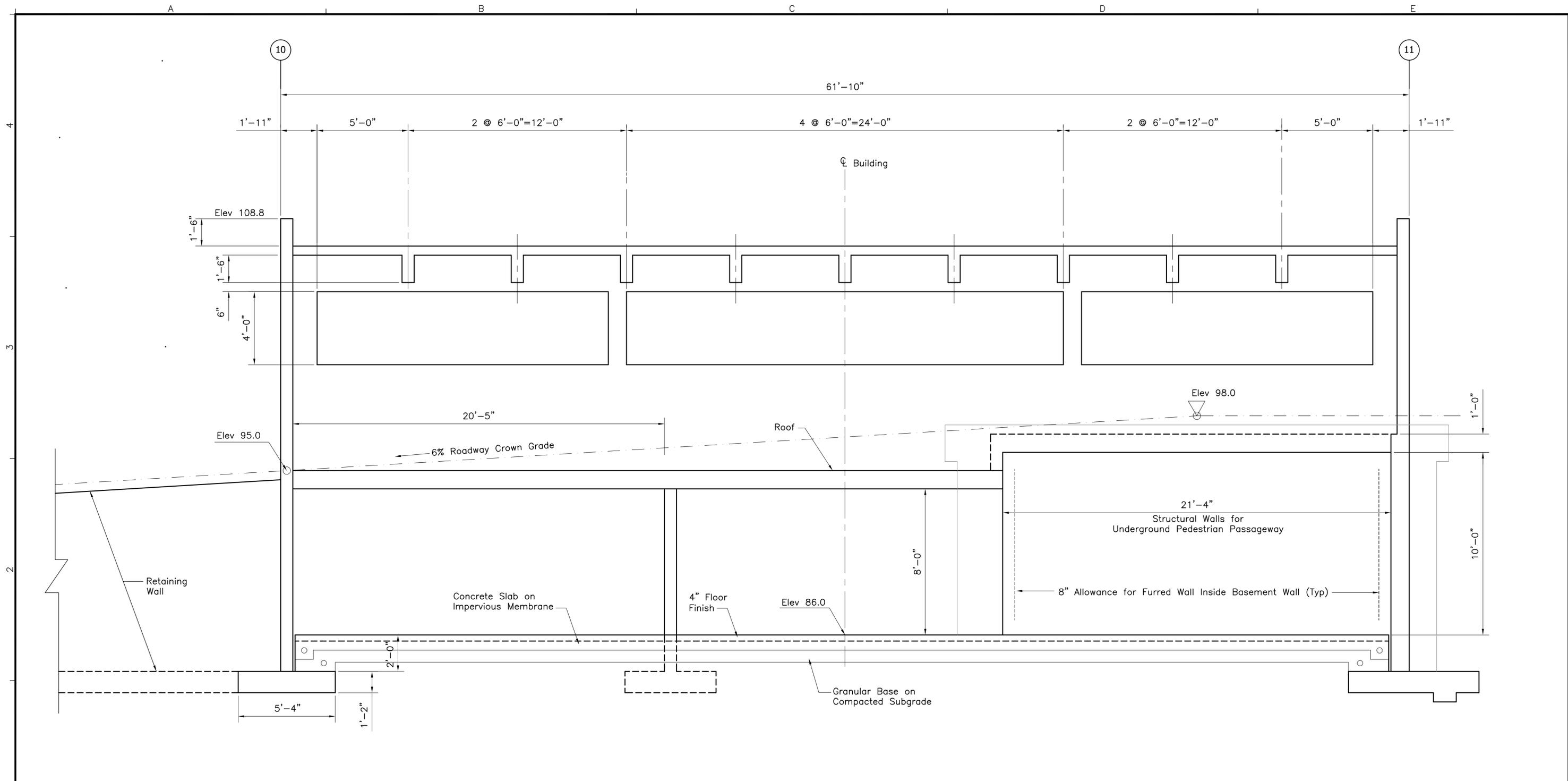
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**LEEWARD COMMUNITY COLLEGE STATION
 STRUCTURAL
 ENTRANCE PLAZA CROSS SECTIONS
 SECTION B**

Contract No.: SV-240
CADD File: SC3-G15-ST010
Drawing No: ST010
Scale: 3/8"=1'-0"
Page No. 28 of 52



SECTION C
 3/8"=1'-0" ST011 ST003



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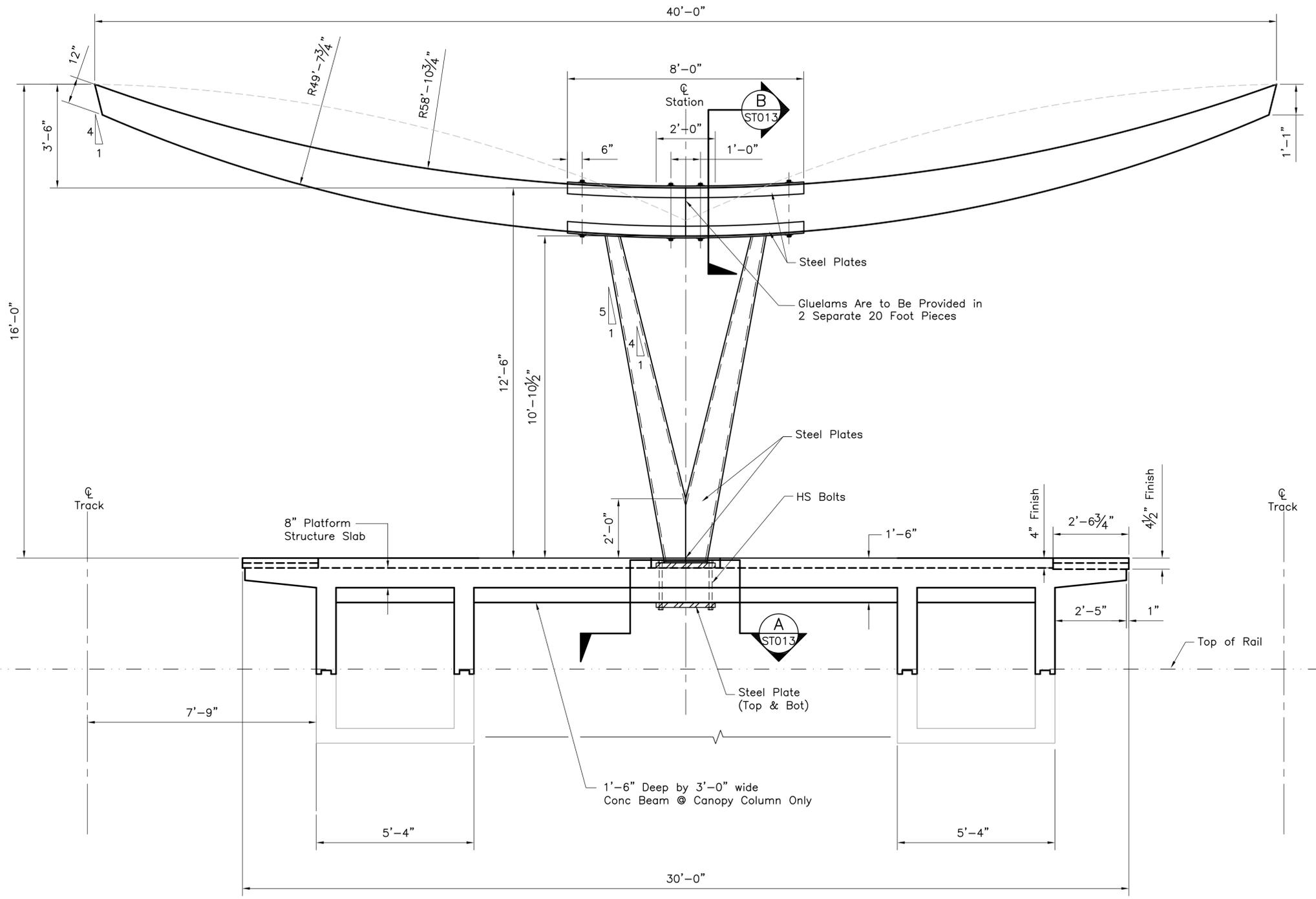
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 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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LEEWARD COMMUNITY COLLEGE STATION
STRUCTURAL
ENTRANCE PLAZA CROSS SECTIONS
 SECTION C

Contract No.: SV-240
CADD File: SC3-G15-ST011
Drawing No: ST011
Scale: 3/8"=1'-0"
Page No. 29 of 52



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



Rev	By	Date	Description

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D Yavorsky
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M Udrescu
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T Kimura
Approved:
A Borst
Date:
09-18-09

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

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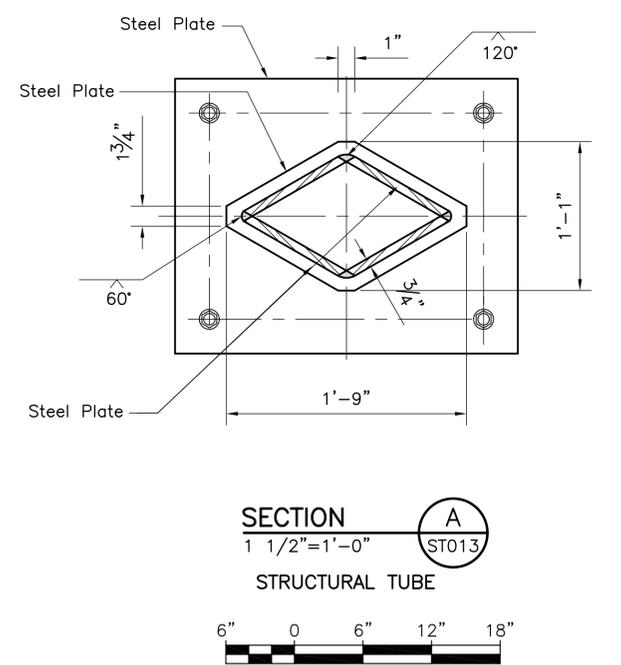
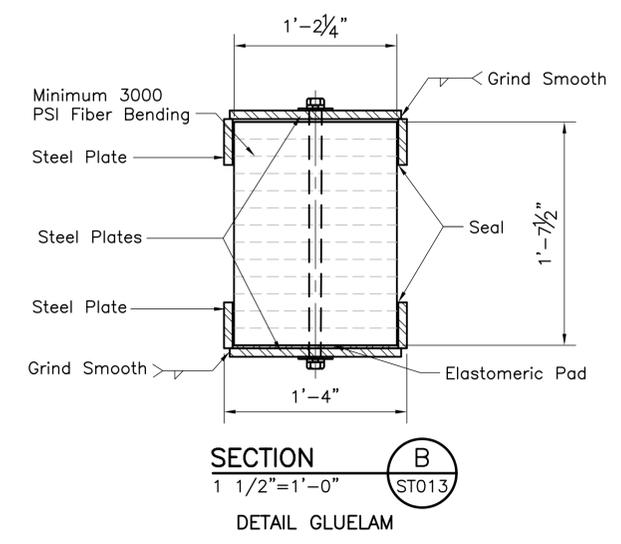
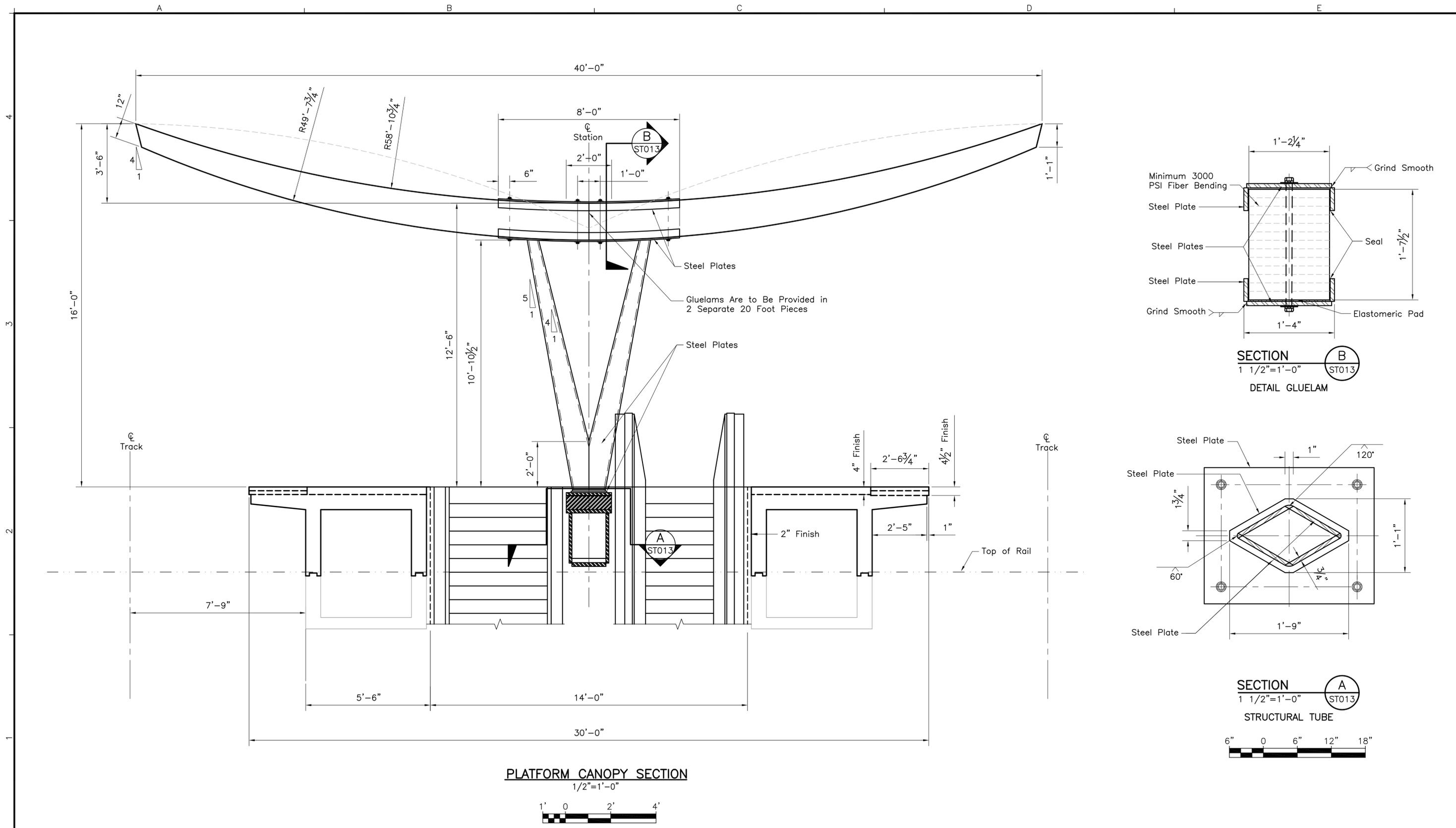
Subconsultant:

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LEEWARD COMMUNITY COLLEGE STATION

**STRUCTURAL
PLATFORM DETAILS**

Contract No.: SV-240
CADD File: SC3-G15-ST012
Drawing No: ST012 Rev.
Scale: 1/2"=1'-0"
Page No. 30 of 52



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

Rev	By	Date	Description

**PRELIMINARY
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SUBJECT TO REVISION**

Designed:
D Yavorsky
Drawn:
M Udrescu
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T Kimura
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Date:
09-18-09

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:

LEEWARD COMMUNITY COLLEGE STATION
**STRUCTURAL
PLATFORM CANOPY DETAILS**

Contract No.:
SV-240
CADD File:
SC3-G15-ST013
Drawing No.:
ST013
Scale:
As Noted
Page No.:
31 of 52

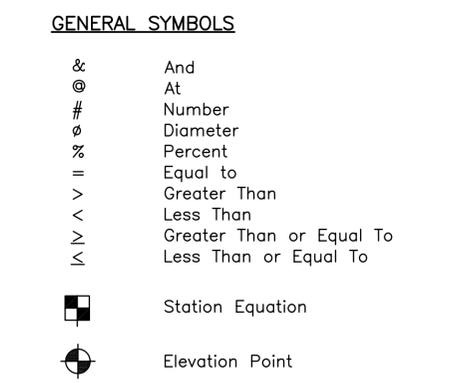
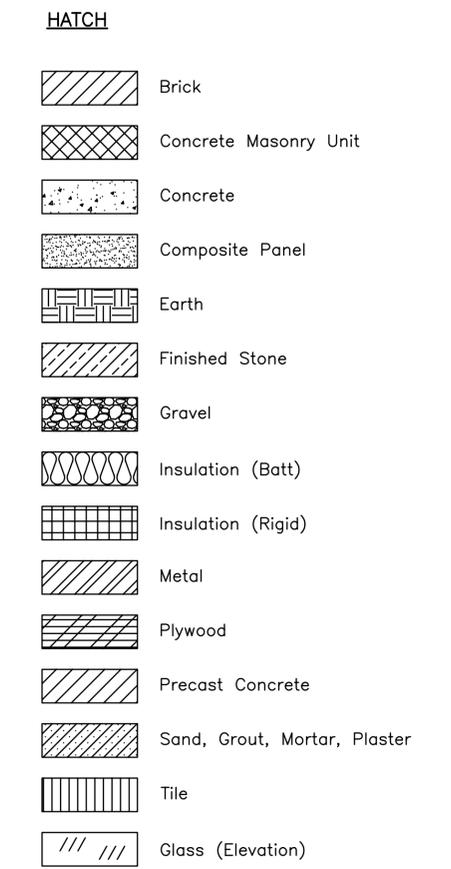
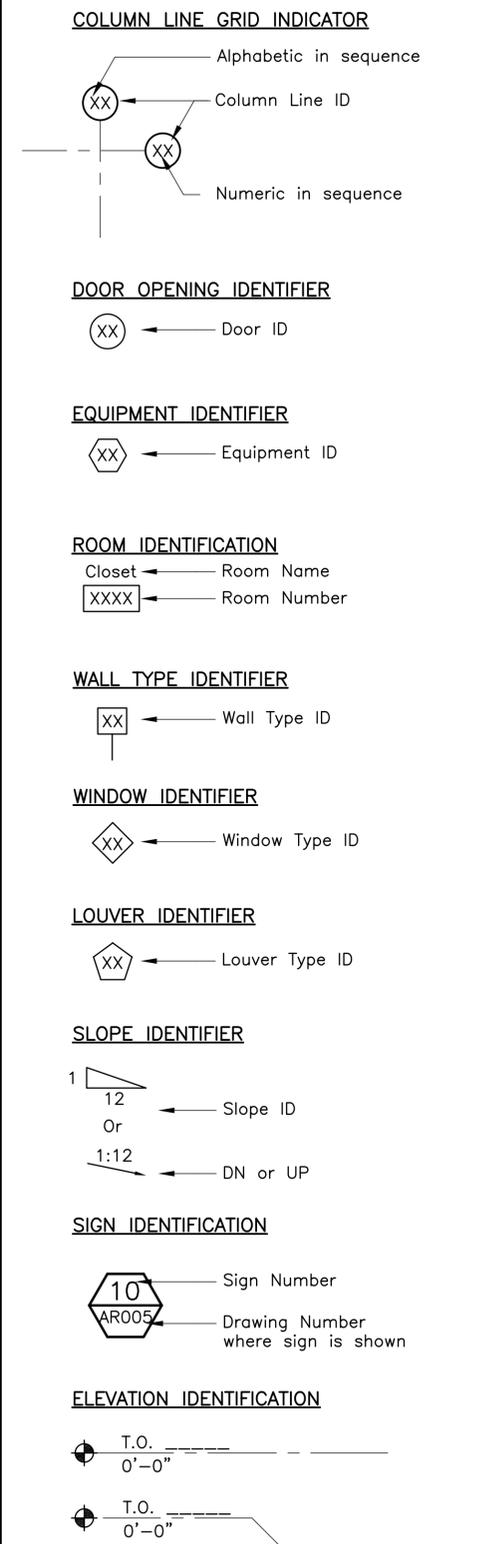
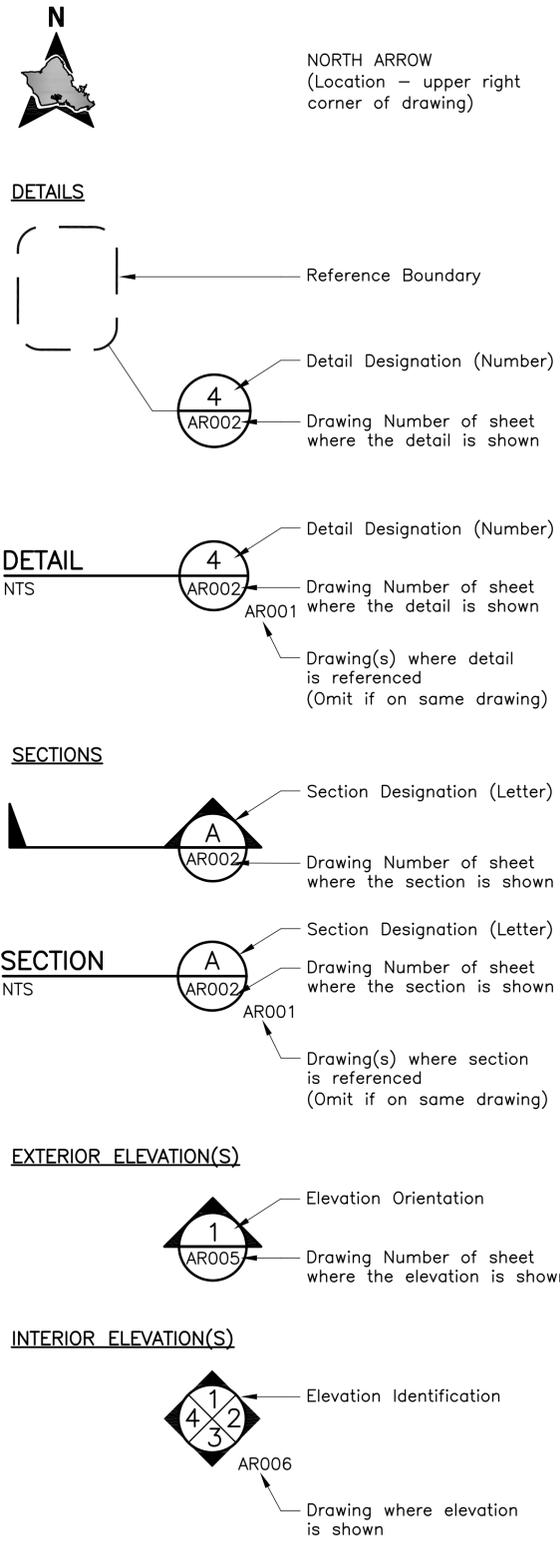
GENERAL ARCHITECTURAL NOTES

- Station Designer to Coordinate limits of work and interface with the WEST OAHU / FARRINGTON Highway (WOFH) Guideway Design-Build Contractor.
- Refer to APPENDIX "A": INFORMATIVE Drawings, for work included in the:
 - WEST OAHU / FARRINGTON Highway Guideway Design-Build Contract &
 - CORE SYSTEMS Design-Build-Operate-Maintain Contract.
- 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.
- NOT IN CONTRACT Items (NIC) include: TVM, Fare gates, Escalators & Elevator Cars.
- See RTD Directive drawings set for Canopy details and configuration.

LEGEND:

- Proposed Conditions by WEST O'AHU / FARRINGTON Highway (WOFH) Guideway Design-Build Contractor
- Existing Conditions prior to work by the WOFH Contractor
- Work Performed under this contract

ARCHITECTURAL SYMBOLS



Rev	By	Date	Description

**PRELIMINARY
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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:

Designed: K Parmar
Drawn: E Birnbaum
Checked: T Man
Approved: K Parmar
Date: 09-18-09

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**LEEWARD COMMUNITY COLLEGE
GENERAL ARCHITECTURAL NOTES,
SYMBOLS, AND ABBREVIATIONS**

SHEET 1 OF 3

Contract No.: SV-240	
CADD File: SC3-H01-AG001	
Drawing No: AG001	Rev.
Scale: N/A	
Page No. 32	of 52

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 CI 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 El Elevation Elec Electrical Elev Elevator Emer Emergency EMP Emergency Management Panel Encl Enclosure Eq Equal Eqmt Equipment Esc Escalator etc Et cetera EW Each Way Exh Exhaust Exist Existing Exp Expansion Expo Exposed Ext Exterior, External</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 GI 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 Laminate Lat Latitude, Lateral Lav Lavatory LB Pound (unit of measurement) LC Landscape Contractor LF Linear Foot Lg Long LH Left Hand Lin Linear Lkr Locker Ln Lane Loc Location Long Longitude, Longitudinal LP Low Point, Light Pole Lt Light, Left Ltg Lighting Lvl Level LW Lightweight LWP Low Working Point L/T Left Track</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 Matl 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 PI Plate Plas Plaster Platf Platform P Lam Plastic Laminate PLD Plastic Duct PLT Plastic Tile Plum Plumbing Plywd Plywood Pol Police Pr Pair Proj Project, Projection Prop Property PS Point of Switch PSF Pounds Per Square Feet PSI Pounds Per Square Inch Pt(s) Point(s) PTD/R Paper Towel Dispenser & Receptacle PVC Polyvinyl Chloride Pvmt Pavement Pwr Power</p> <p>QT Quarry Tile qt Quart Qty Quantity Quad Quadrant</p>
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<p>Rev By Date Description</p>	<p>PRELIMINARY ENGINEERING SUBJECT TO REVISION</p>		<p>Designed: K Parmar</p>	<p>HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION</p>		<p>LEeward COMMUNITY COLLEGE</p>		<p>Contract No.: SV-240</p>
	<p>Drawn: E Birnbaum</p>	<p>Prime Consultant: PARSONS BRINCKERHOFF</p>		<p>Subconsultant:</p>		<p>GENERAL ARCHITECTURAL NOTES, SYMBOLS, AND ABBREVIATIONS</p>		<p>CADD File: SC3-H01-AG002</p>
	<p>Checked: T Man</p>	<p>1003 Bishop Street, Suite 2250 - Honolulu, HI 96813</p>		<p>For reduced prints, original page size in inches: 0 1 2 3 4</p>		<p>SHEET 2 OF 3</p>		<p>Drawing No: AG002 Rev.</p>
	<p>Approved: K Parmar</p>	<p>09-18-09</p>		<p>Scale: N/A</p>		<p>Page No. 33 of 52</p>		<p>Scale: N/A</p>
	<p>Date: 09-18-09</p>	<p>09-18-09</p>		<p>0 1 2 3 4</p>		<p>0 1 2 3 4</p>		<p>Page No. 33 of 52</p>

ARCHITECTURAL ABBREVIATIONS (CONTINUED)

R Radius
 RB Resilient Base
 RC Reinforced Concrete
 RCP Reinforced Concrete Pipe
 RD Roof Drain
 Rdwy Roadway
 Rect Rectangle
 Ref Reference
 Refl Reflect, Reflected, Reflective, Reflector
 Reinf Reinforce, Reinforcing, Reinforcement
 Repl Replace
 Req Required
 Resil Resilient
 Ret Return, Retain, Retaining
 Rev Revised, Revision
 Rfg Roofing
 RH Right Hand
 Rm Room
 RO Rough Opening
 ROW Right-of-Way
 Rt Right
 RT Resilient Tile
 R/T Right Track
 RW Retaining Wall

S South
 San Sanitary
 SB Southbound
 SC Solid Core
 SCD Seat Cover Dispenser
 Sch Schedule
 SD Soap Dispenser
 SE Southeast
 Sect Section
 SF Square Foot, Square Feet
 SFP Site Finish Plan
 Sgl Single
 Sht Sheet
 Sim Similar
 SIP Support in Place
 SL Street Light
 SLC Street Light Conduit
 SLPB Street Light Pull Box
 SND Sanitary Napkin Dispenser
 SNR Sanitary Napkin Receptacle
 Spa Spaces, Spacing
 Spec Specification
 Spkr Speaker
 Spr Sprinkler
 Sq Square
 SS Service Sink, Stainless Steel
 St Street
 Sta Station, Stationing
 Std Standard
 Stl Steel
 Stor Storage
 Str Structure
 Strl Structural
 Supv Supervisor, Supervise
 Susp Suspended
 SW Southwest
 SY Square Yard
 Sym Symmetrical
 Sys System

T Top
 T.O. Top of
 T&B Top and Bottom
 Tan. Tangent
 TBD To Be Determined
 TC Top of Curb
 TC&C Train Control & Communications
 TD Trench Drain
 TDD Telecommunications Device for the Deaf
 Tel Telephone
 Tele Telescoping
 Temp Temporary, Temperature
 TG Top of Grate
 T&G Tongue and Groove
 Thk Thick, Thickness
 TL Traffic Light
 TOC Top of Concrete
 TOR Top of Rail
 TOS Top of Steel
 Tot. Total
 TOW Top of Wall
 TP Top of Pavement
 TPD Toilet Paper Dispenser
 TPSS Traction Power Substation
 Tr Tread
 TV Television, Ticket Validator
 TVM Ticket Vending Machine
 Typ Typical
 T/C Top of Curb
 T/R Top of Rail
 T/P Top of Platform

UB Utility Box
 UC Undercut
 UD Underdrain
 Unf Unfinished
 Unk Unknown
 UNO Unless Noted Otherwise
 UPE Under Platform Exhaust
 UR Urinal
 UST Underground Storage Tank
 Util Utility
 UWP Upper Working Point

V Vertical
 Vac Vacuum
 Var Variable, Varies
 VCT Vinyl Composition Tile
 Vent. Ventilate, Ventilation
 Vert Vertical
 Vest Vestibule
 Vlv Valve
 VMS Variable Message Sign
 VoIP Voice over Internet Protocol
 Vt Vent

W West, Wide, Width
 w/ With
 w/o Without
 WB Westbound
 WC Water Closet
 WCR Wheel Chair Ramp
 Wd Wood
 Whse Warehouse
 WI Wrought Iron
 Wk Work
 WL Water Line
 WM Water Meter, Water Main
 WP Work Point
 Wpf Waterproof, Waterproofing
 WSP Wet Stand Pipe
 Wt Weight
 Wtr Water
 WTW Wall to Wall
 WV Water Valve
 WWF Welded Wire Fabric
 WWM Welded Wire Mesh

**PRELIMINARY
 ENGINEERING
 SUBJECT TO REVISION**

Designed:
K Parmar
 Drawn:
E Birnbaum
 Checked:
T Man
 Approved:
K Parmar
 Date:
09-18-09

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

Prime Consultant:

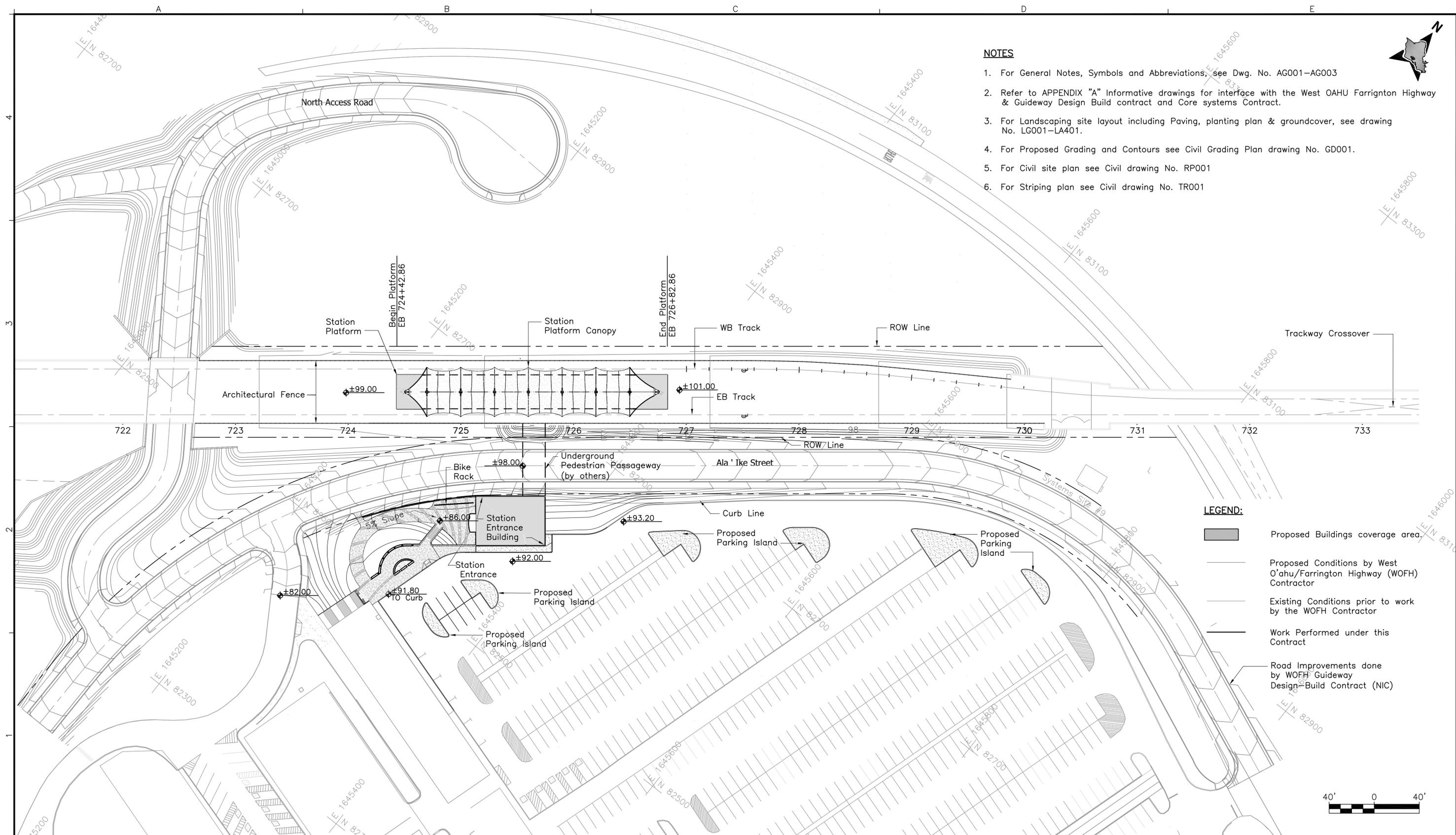
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:

LEEWARD COMMUNITY COLLEGE
**GENERAL ARCHITECTURAL NOTES,
 SYMBOLS, AND ABBREVIATIONS**

SHEET 3 OF 3

Contract No.:
SV-240
 CADD File:
SC3-H01-AG003
 Drawing No: AG003 Rev.
 Scale:
N/A
 Page No. 34 of 52



- NOTES**
1. For General Notes, Symbols and Abbreviations, see Dwg. No. AG001-AG003
 2. Refer to APPENDIX "A" Informative drawings for interface with the West OAHU Farrington Highway & Guideway Design Build contract and Core systems Contract.
 3. For Landscaping site layout including Paving, planting plan & groundcover, see drawing No. LG001-LA401.
 4. For Proposed Grading and Contours see Civil Grading Plan drawing No. GD001.
 5. For Civil site plan see Civil drawing No. RP001
 6. For Striping plan see Civil drawing No. TR001

- LEGEND:**
- Proposed Buildings coverage area.
 - Proposed Conditions by West O'ahu/Farrington Highway (WOFH) Contractor
 - Existing Conditions prior to work by the WOFH Contractor
 - Work Performed under this Contract
 - Road Improvements done by WOFH Guideway Design-Build Contract (NIC)



**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: K Parmar
 Drawn: E Birnbaum
 Checked: T Man
 Approved: K Parmar
 Date: 09-18-09

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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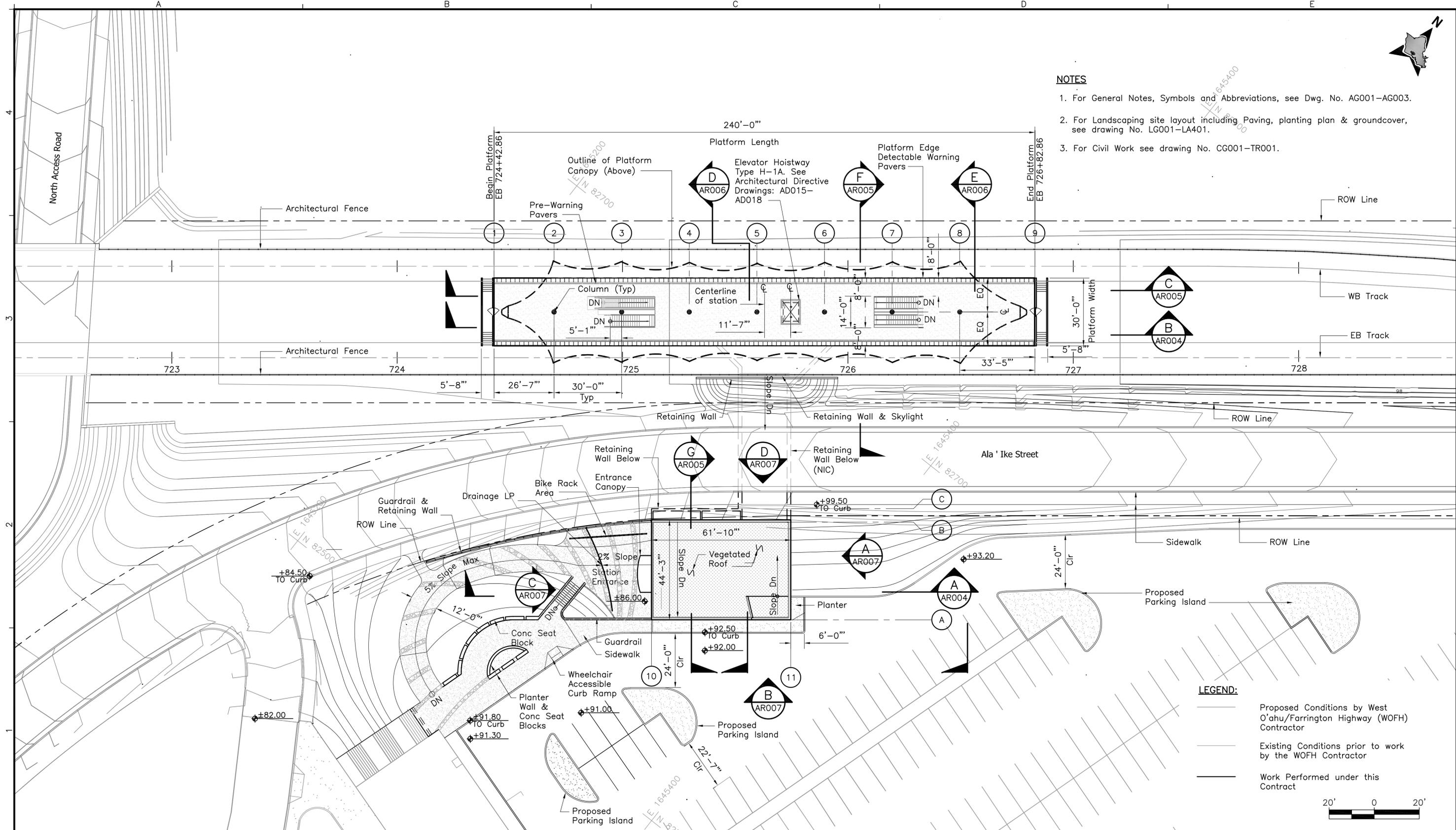
**LEEWARD COMMUNITY COLLEGE
ARCHITECTURAL SITE PLAN**

Contract No.: SV-240
 CADD File: SC3-H02-AR001
 Drawing No: AR001 Rev.
 Scale: 1"=40'-0"
 Page No. 35 of 52



NOTES

1. For General Notes, Symbols and Abbreviations, see Dwg. No. AG001-AG003.
2. For Landscaping site layout including Paving, planting plan & groundcover, see drawing No. LG001-LA401.
3. For Civil Work see drawing No. CG001-TR001.



LEGEND:

- Proposed Conditions by West O'ahu/Farrington Highway (WOFH) Contractor
- Existing Conditions prior to work by the WOFH Contractor
- Work Performed under this Contract



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ENGINEERING
SUBJECT TO REVISION**

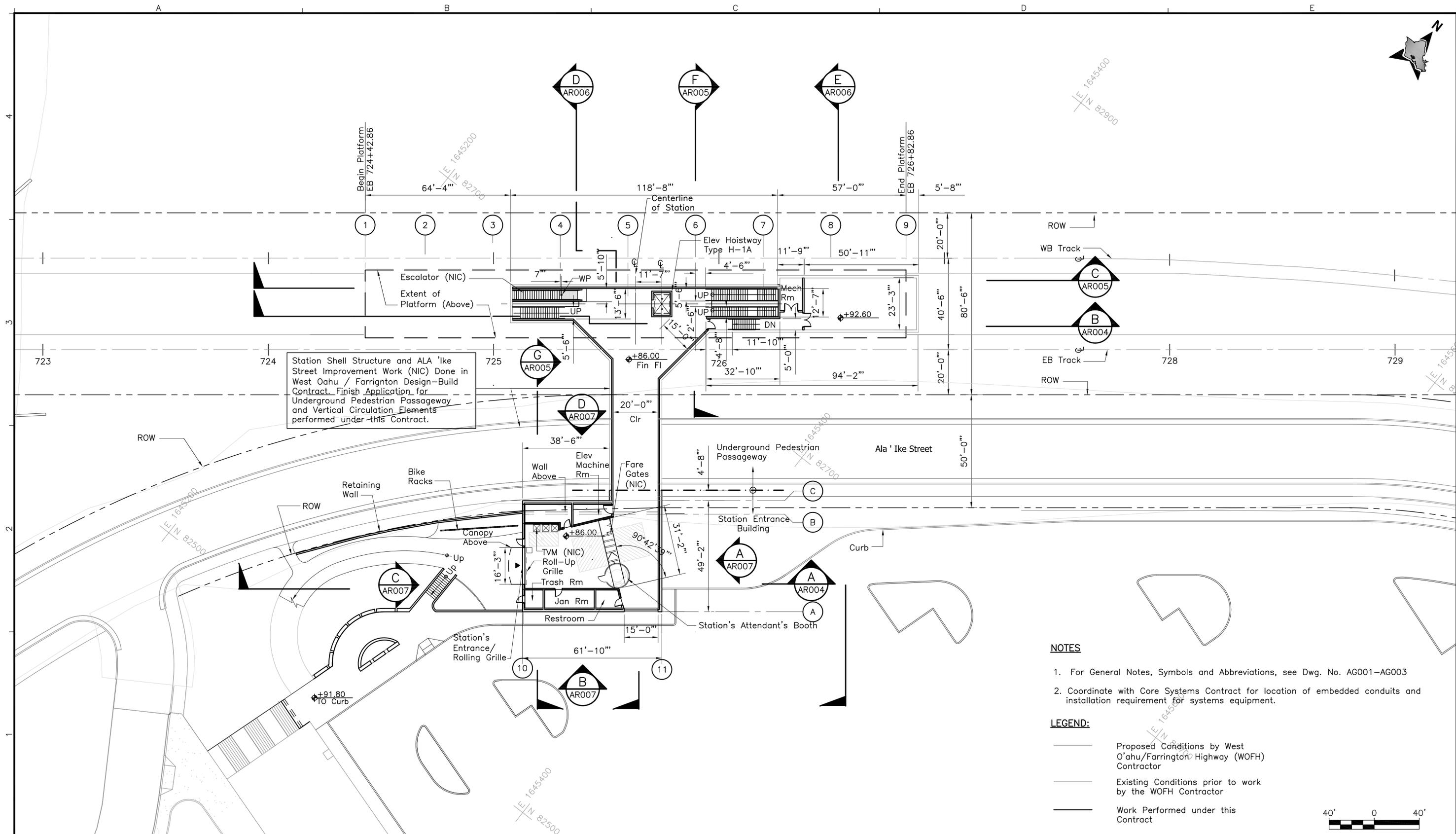
Designed:
K Parmar
Drawn:
E Birnbaum
Checked:
T Man
Approved:
K Parmar
Date:
09-18-09

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

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**LEEWARD COMMUNITY COLLEGE
PLATFORM LEVEL PLAN**

Contract No.: SV-240	
CADD File: SC3-H03-AR002	
Drawing No: AR002	Rev.
Scale: 1"=20'-0"	
Page No. 36	of 52



Station Shell Structure and Ala 'Ike Street Improvement Work (NIC) Done in West Oahu / Farrington Design-Build Contract. Finish Application for Underground Pedestrian Passageway and Vertical Circulation Elements performed under this Contract.

NOTES

1. For General Notes, Symbols and Abbreviations, see Dwg. No. AG001-AG003
2. Coordinate with Core Systems Contract for location of embedded conduits and installation requirement for systems equipment.

LEGEND:

- Proposed Conditions by West O'ahu/Farrington Highway (WOFH) Contractor
- Existing Conditions prior to work by the WOFH Contractor
- Work Performed under this Contract



Rev	By	Date	Description

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

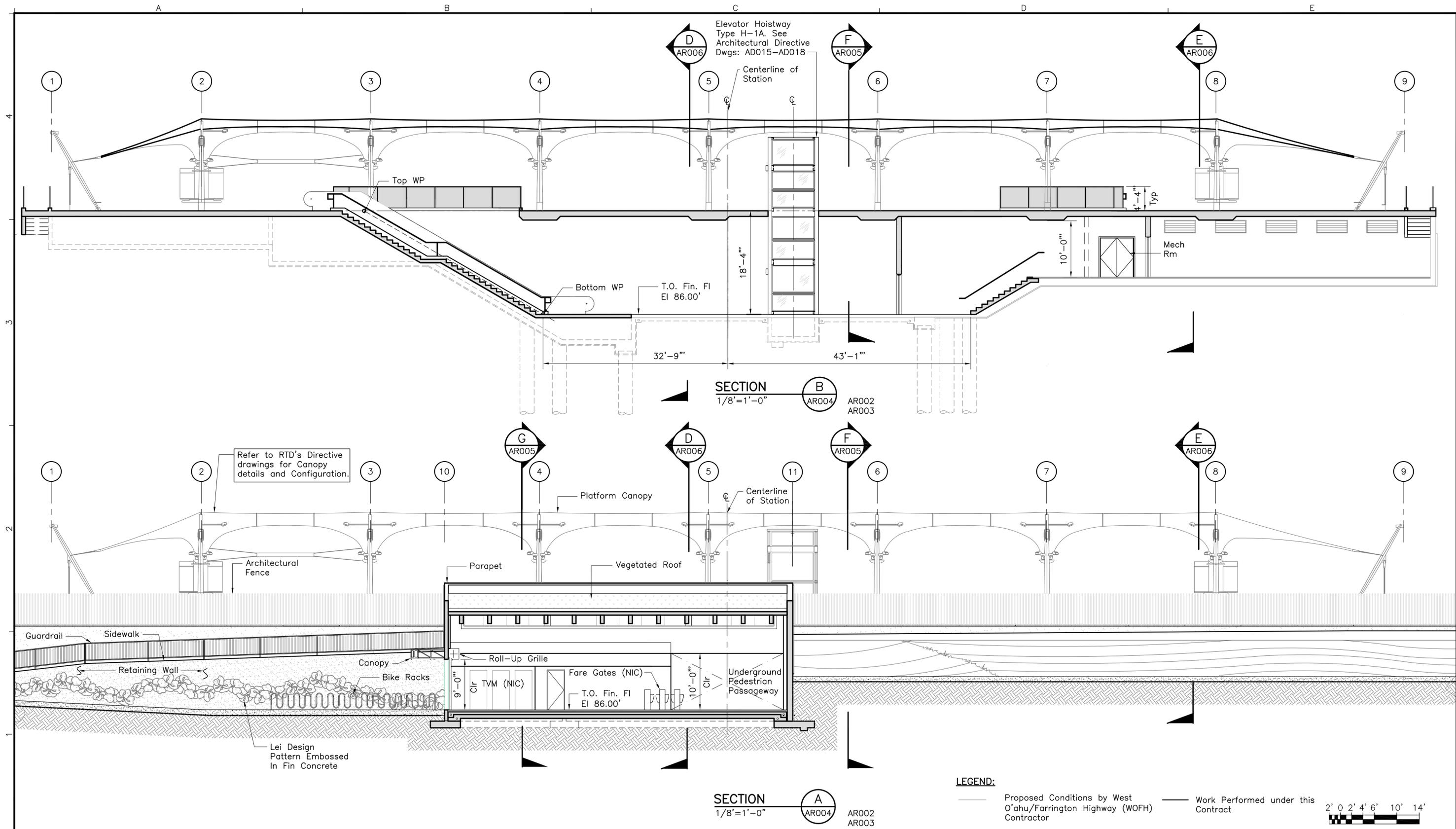
Designed: K Parmar
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**LEEWARD COMMUNITY COLLEGE
CONCOURSE LEVEL PLAN**

Contract No.: SV-240
 CADD File: SC3-H03-AR003
 Drawing No: AR003 Rev.
 Scale: 1"=20'-0"
 Page No. 37 of 52



Rev	By	Date	Description

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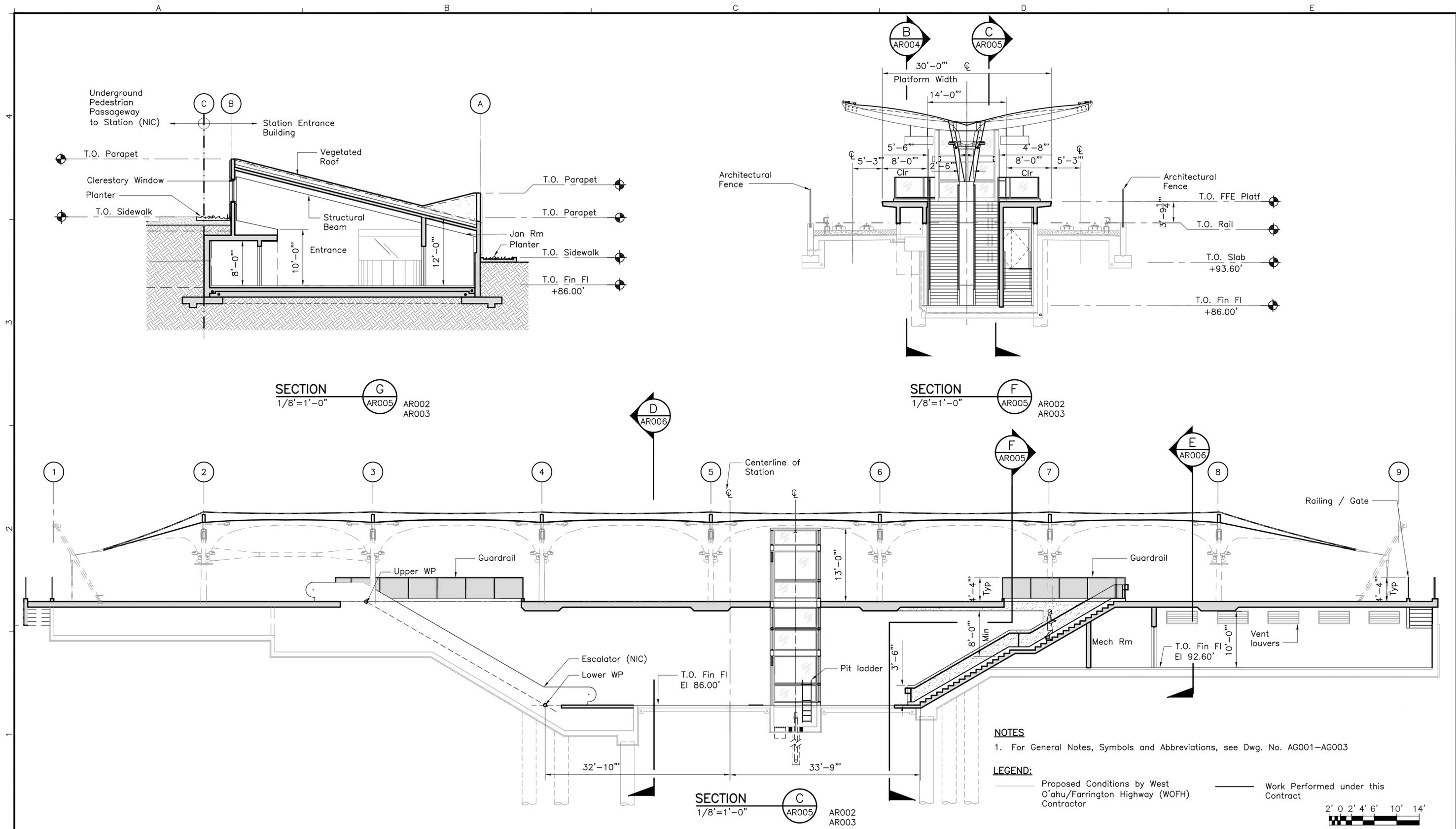
Subconsultant: _____

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**LEEWARD COMMUNITY COLLEGE
BUILDING SECTIONS**

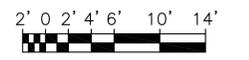
SHEET 1 OF 3

Contract No.: SV-240	
CADD File: SC3-H05-AR004	
Drawing No: AR004	Rev. _____
Scale: 1/8"=1'-0"	
Page No. 38	of 52



NOTES
 1. For General Notes, Symbols and Abbreviations, see Dwg. No. AG001-AG003

LEGEND:
 — Proposed Conditions by West O'ahu/Farrington Highway (WOFH) Contractor
 — Work Performed under this Contract



Rev	By	Date	Description

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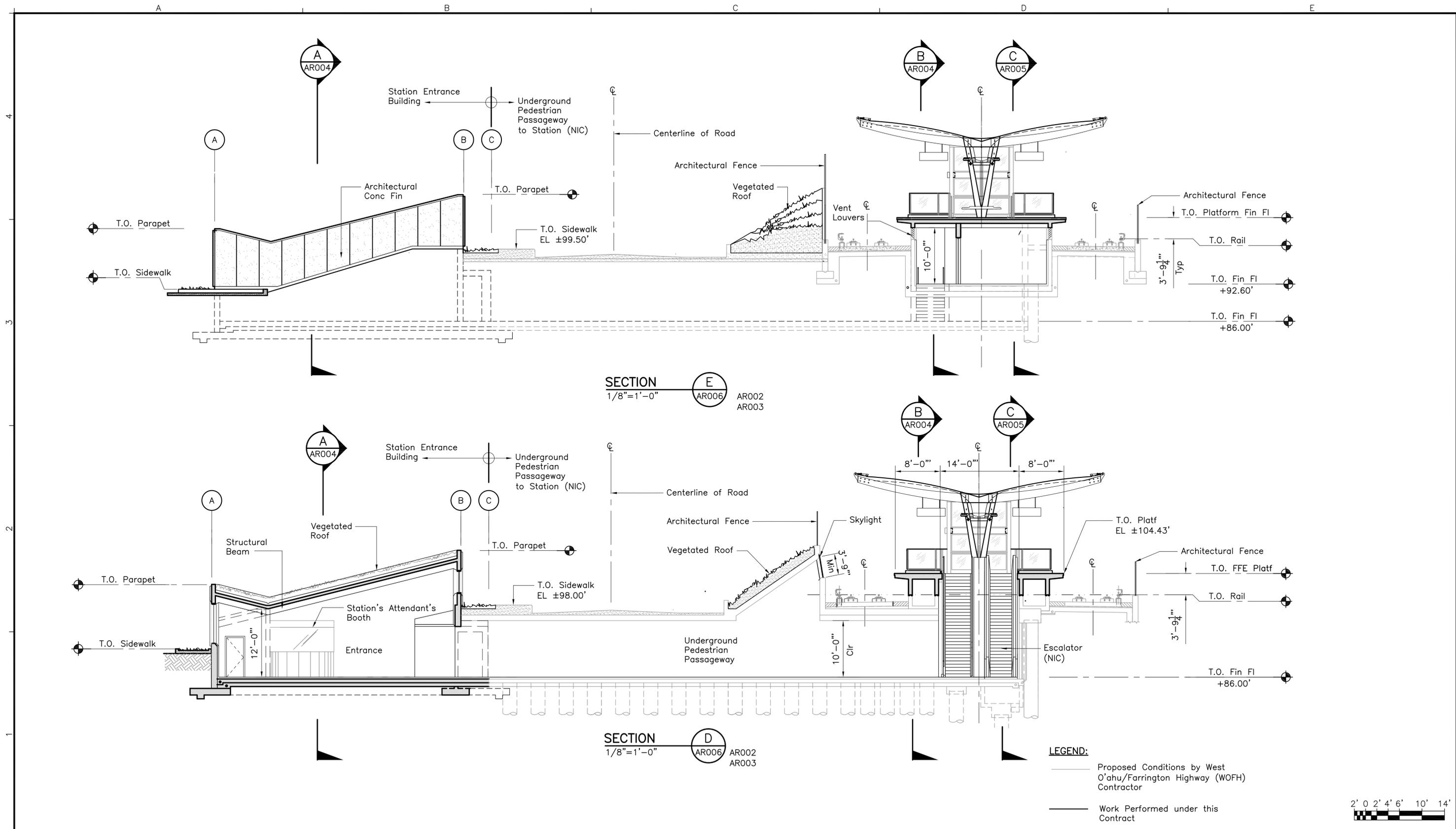
Subconsultant:

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

**LEEWARD COMMUNITY COLLEGE
 BUILDING SECTIONS**

SHEET 2 OF 3

Contract No.: SV-240
 CADD File: SC3-H05-AR005
 Drawing No: AR005 Rev.
 Scale: 1/8"=1'-0"
 Page No. 39 of 52



Rev	By	Date	Description

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SUBJECT TO REVISION**

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

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 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813
 Subconsultant:

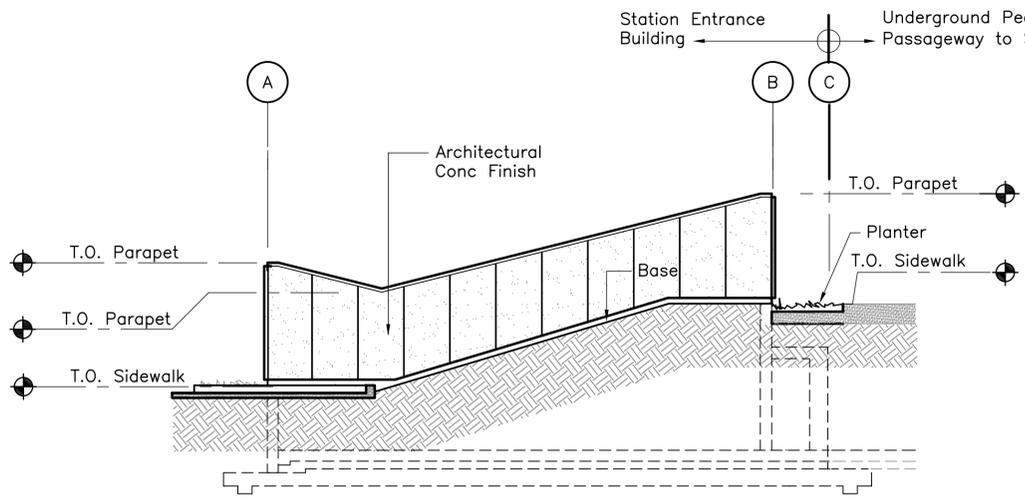
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**LEEWARD COMMUNITY COLLEGE
BUILDING SECTION**

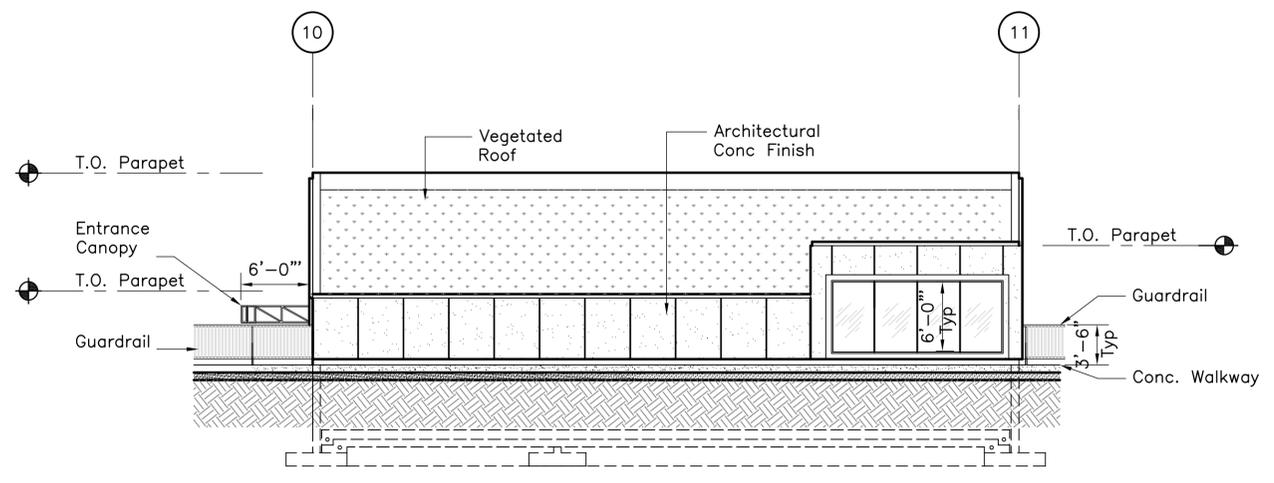
SHEET 3 OF 3

Contract No.:	SV-240
CADD File:	SC3-H05-AR006
Drawing No:	AR006
Scale:	1/8"=1'-0"
Page No.	40 of 52

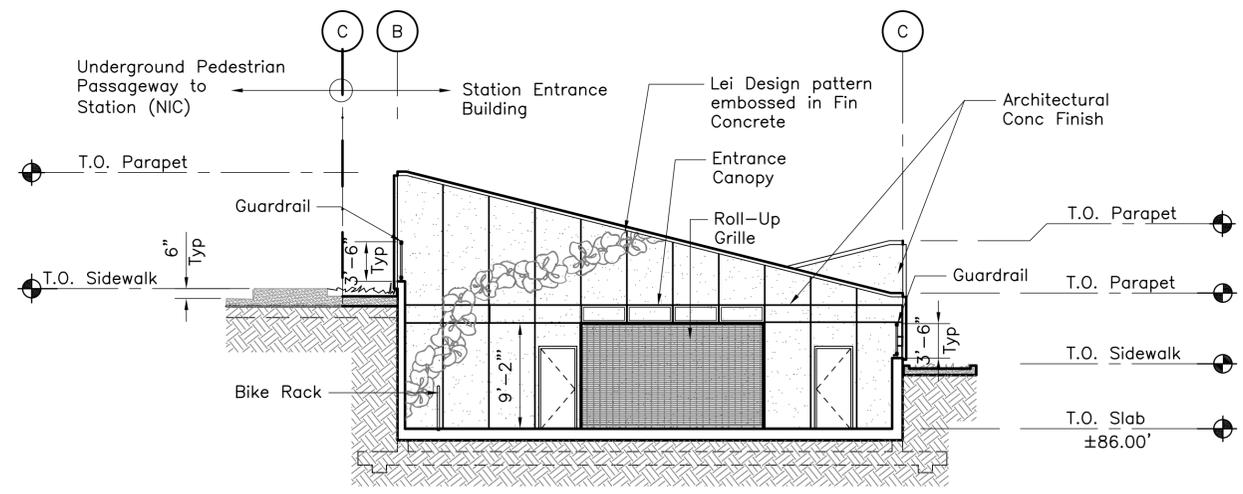
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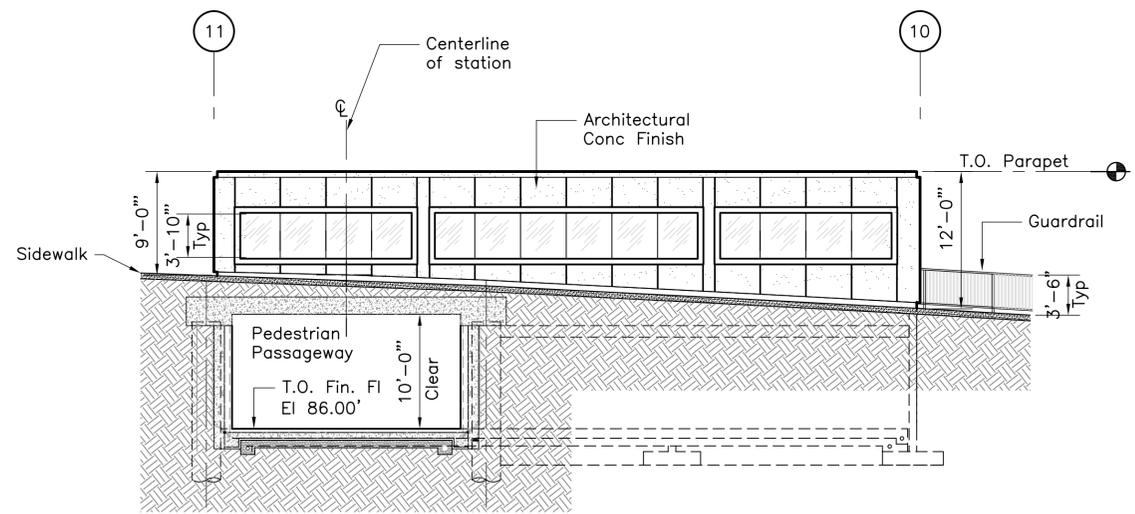
EAST ELEVATION (A)
1/8"=1'-0"
AR007 AR002 AR003



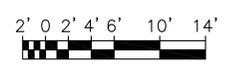
SOUTH ELEVATION (B)
1/8"=1'-0"
AR007 AR002 AR003



WEST ELEVATION (C)
1/8"=1'-0"
AR007 AR002 AR003



NORTH ELEVATION (D)
1/8"=1'-0"
AR007 AR002 AR003



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

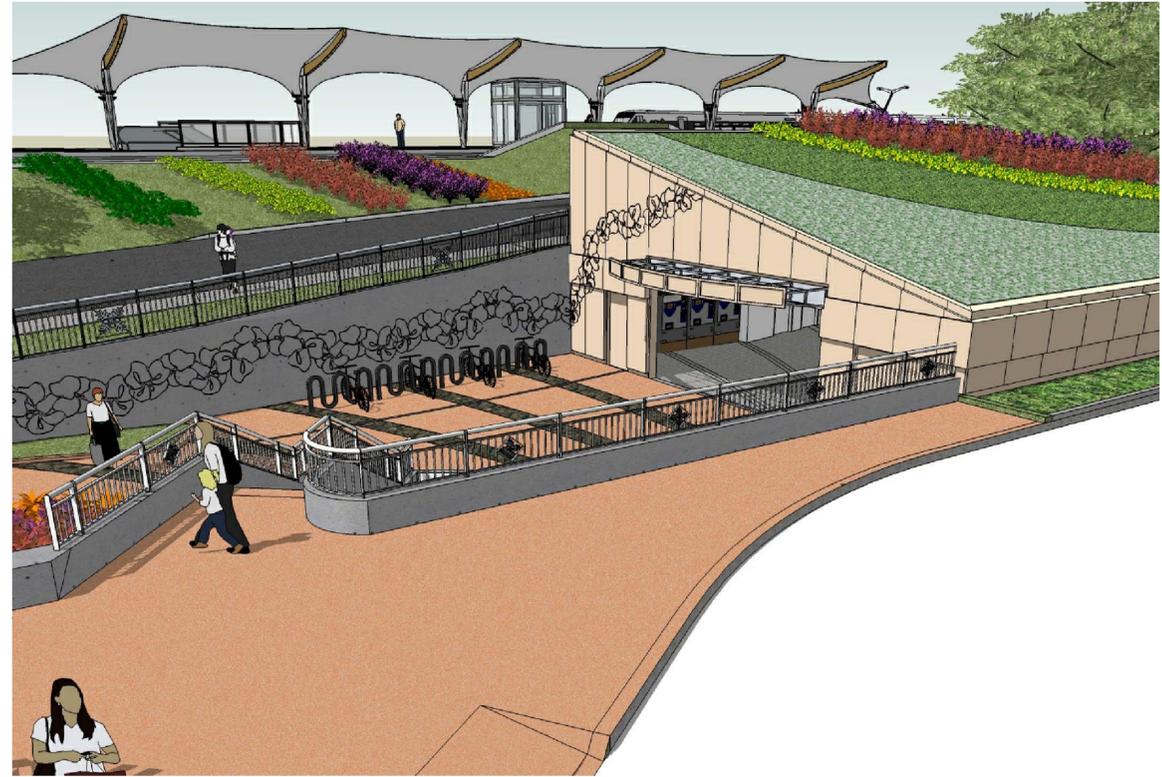
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Subconsultant:

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**LEEWARD COMMUNITY COLLEGE
STATION ENTRANCE
BUILDING ELEVATIONS**

Contract No.: SV-240	
CADD File: SC3-H06-AR007	
Drawing No: AR007	Rev.:
Scale: 1/8"=1'-0"	
Page No. 41	of 52



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3
2
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HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION
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1003 Bishop Street, Suite 2250 - Honolulu, HI 96813
Subconsultant:

**LEEWARD COMMUNITY COLLEGE
3D VIEWS**

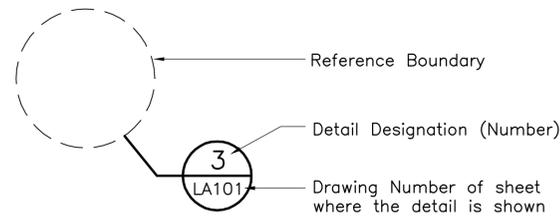
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SV-240
CADD File:
SC3-H07-AR008
Drawing No:
AR008
Scale:
NTS
Page No.
42 of 52

GENERAL NOTES

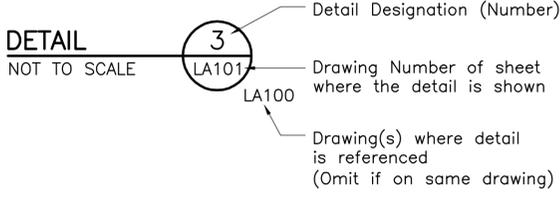
- "EB Track" denotes the centerline of the Eastbound Track. "WB Track" denotes the centerline of the Westbound Track.
- Origin of Coordinates: Hawaii State Plane Coordinate Grid System, Zone III with the North American Datum of 83 High Accuracy Reference Network (NAD83 HARN).
- The proposed WB Track 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

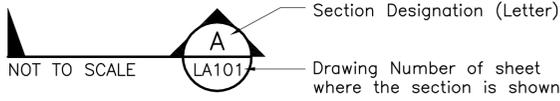
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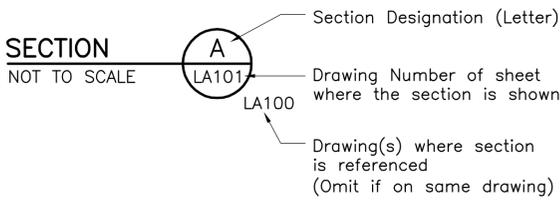
DETAIL



SECTIONS



SECTION



HATCH



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

LANDSCAPE SYMBOLS

- Existing Palm
 - Existing Tree
 - Existing Vegetation
 - Large Tree**
 - True Kamani Calophyllum inophyllum
 - Monkeypod Samanea saman
 - Medium Tree**
 - Rainbow Shower Cassia javanica x C. fistula
 - Kou Cordia subcordata
 - Groundcover-1**
 - Allamanda Allamanda cathartica
 - Lantana Lantana montevidensis 'Gold'
 - Ilima Sida fallax
 - Prickly pear* Opuntia spp.
 - Groundcover-2**
 - Bromeliad Aechema blanchetiana
 - Hibiscus Hibiscus waimeae
 - Ixora Ixora chinensis
 - Kalanchoe* Kalanchoe thyrsifolia
 - Groundcover-3**
 - Hemigraphis Hemigraphis colorata
 - Ohai Sesbania tomentosa
 - Akia Wikstroemia uva-ursi
 - Lantana Lantana montevidensis 'Purple'
 - Ice plant* Delosperma spp.
 - Groundcover-4**
 - Alula Brighamia insignis
 - Rhoeo Rhoeo discolor
 - Pili Carex oahuensis
 - Echeveria* Echeveria agavoides
 - Groundcover-5**
 - Akulikuli Sesuvium portulacastrum
 - Turf**
 - Zoysia Zoysia 'El Toro'
- *Green roof plants

ABBREVIATIONS

- BWS 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:
A Akau
Drawn:
L Keliia
Checked:
D Easterday
Approved:
A Kutsunai
Date:
09-18-09

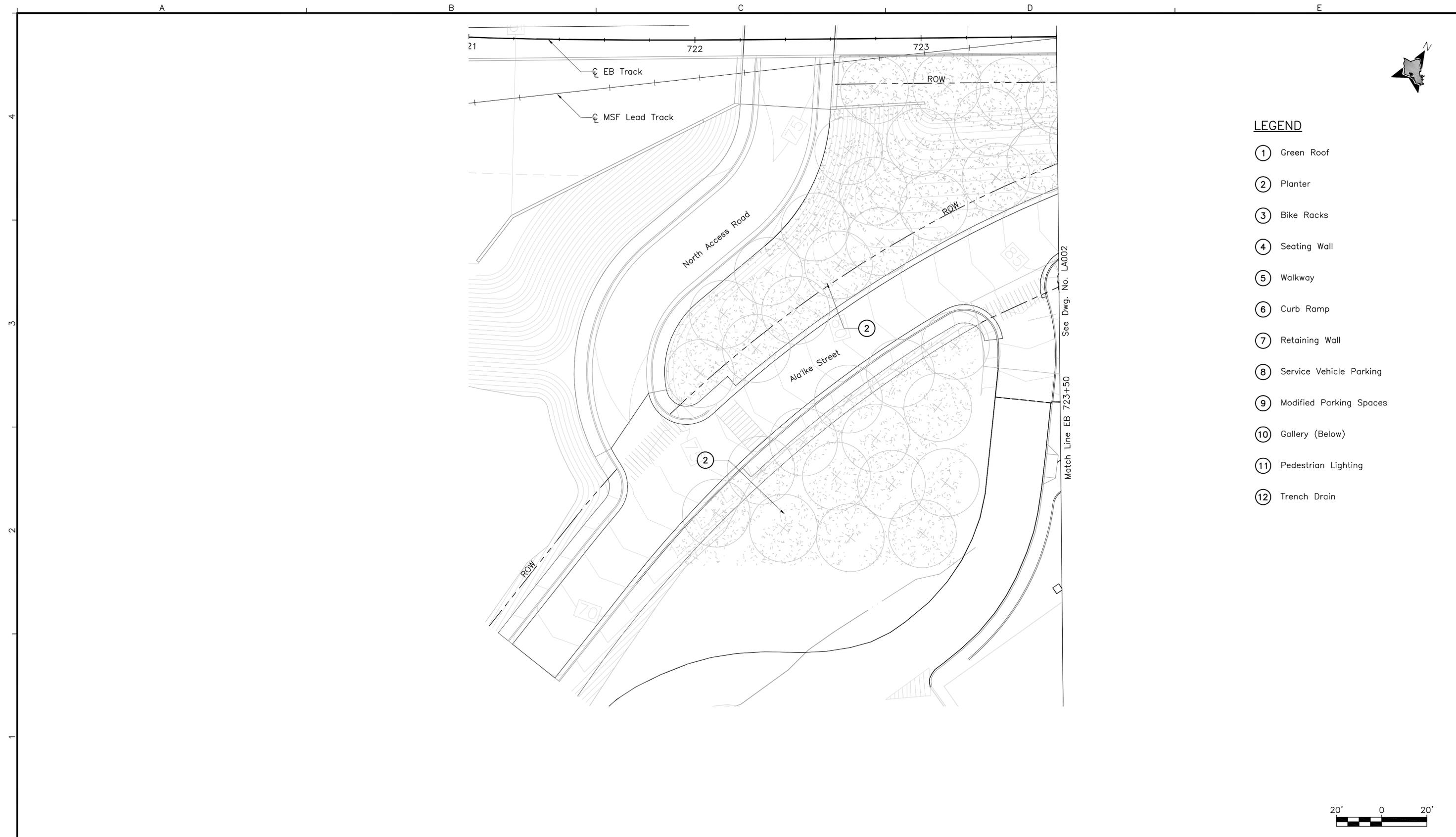
HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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

Subconsultant: **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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**LEEWARD COMMUNITY COLLEGE STATION
GENERAL LANDSCAPE NOTES,
SYMBOLS, AND ABBREVIATIONS**

Contract No.: SV-240
CADD File: SC3-J01-LG001
Drawing No: LG001 Rev.
Scale: NONE
Page No. 43 of 52



LEGEND

- ① Green Roof
- ② Planter
- ③ Bike Racks
- ④ Seating Wall
- ⑤ Walkway
- ⑥ Curb Ramp
- ⑦ Retaining Wall
- ⑧ Service Vehicle Parking
- ⑨ Modified Parking Spaces
- ⑩ Gallery (Below)
- ⑪ Pedestrian Lighting
- ⑫ Trench Drain



Rev	By	Date	Description

**PRELIMINARY
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SUBJECT TO REVISION**

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A Akau
Drawn:
B Wolf
Checked:
D Easterday
Approved:
A Kutsunai
Date:
09-18-09

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

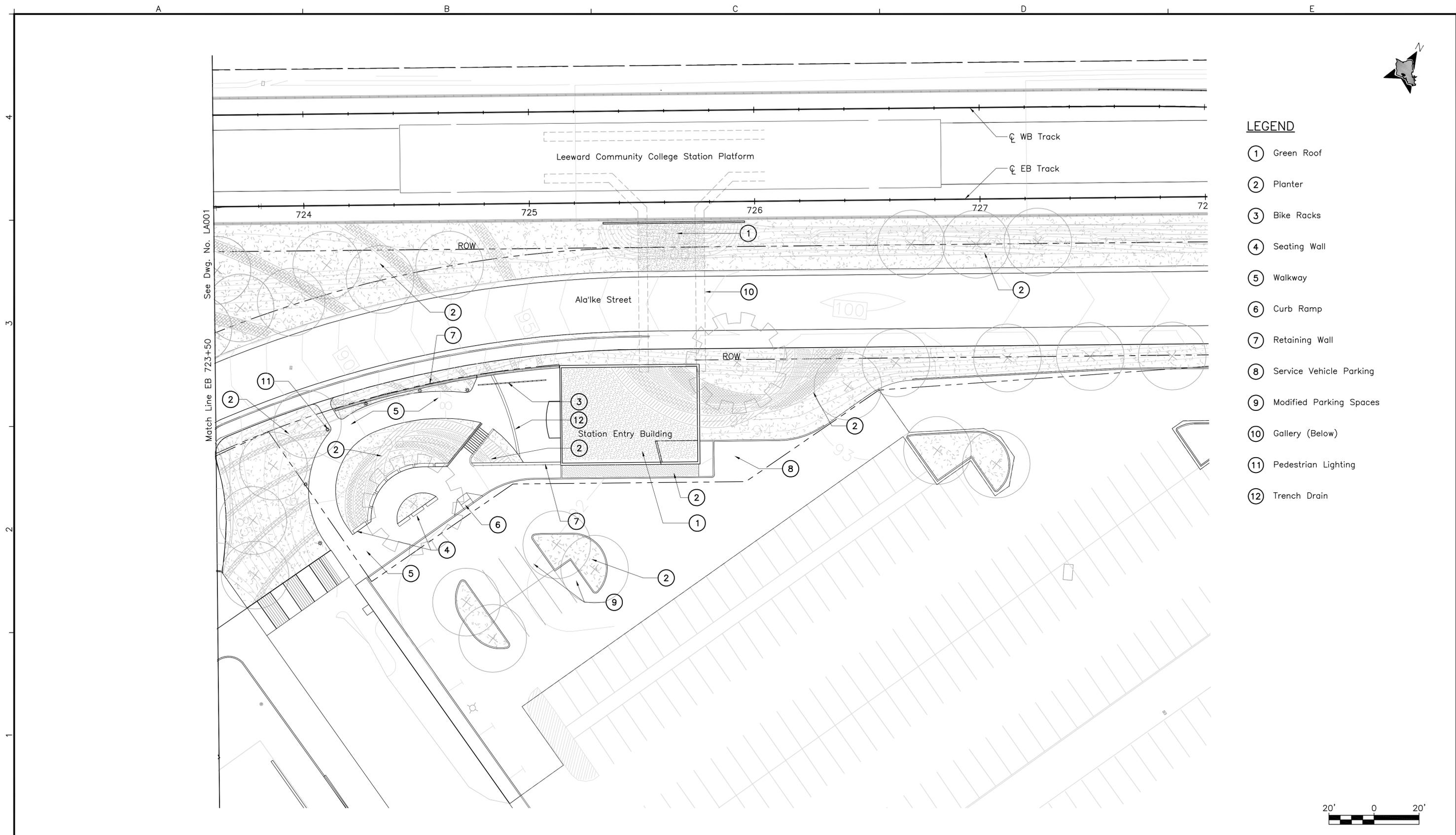
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**LEEWARD COMMUNITY COLLEGE STATION
LANDSCAPE SITE PLAN**

SHEET 1 OF 2

Contract No.: SV-240	
CADD File: SC3-J02-LA001	
Drawing No: LA001	Rev.
Scale: 1"=20'	
Page No. 44	of 52



- LEGEND**
- ① Green Roof
 - ② Planter
 - ③ Bike Racks
 - ④ Seating Wall
 - ⑤ Walkway
 - ⑥ Curb Ramp
 - ⑦ Retaining Wall
 - ⑧ Service Vehicle Parking
 - ⑨ Modified Parking Spaces
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B Wolf
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Approved:
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CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

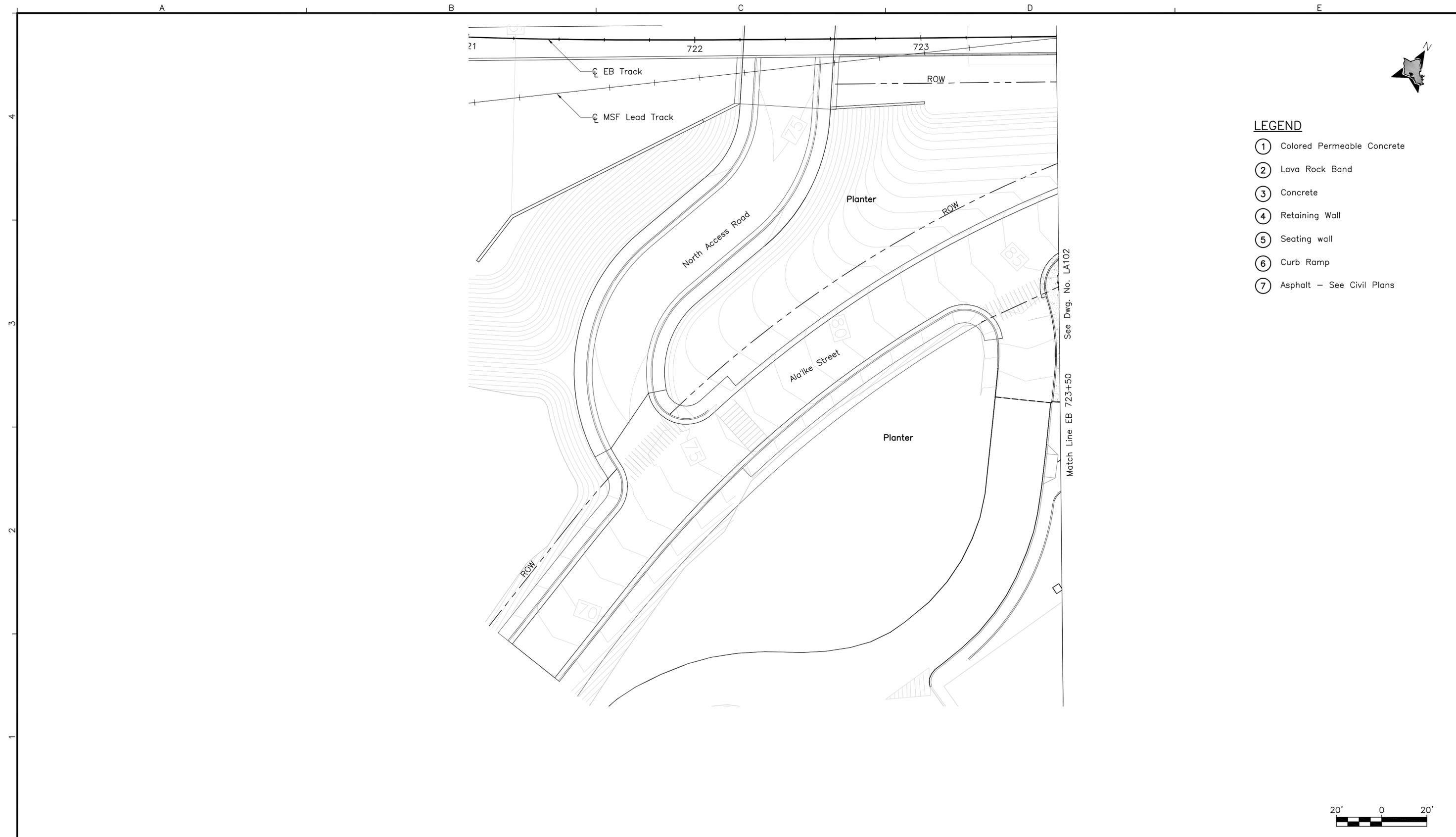
Prime Consultant: **PARSONS BRINCKERHOFF**
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**LEEWARD COMMUNITY COLLEGE STATION
LANDSCAPE SITE PLAN**

SHEET 2 OF 2

Contract No.: SV-240	
CADD File: SC3-J02-LA002	
Drawing No: LA002	Rev.
Scale: 1"=20'	
Page No. 45	of 52



Rev	By	Date	Description

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

Prime Consultant:  1003 Bishop Street, Suite 2250 - Honolulu, HI 96813	Subconsultant:  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
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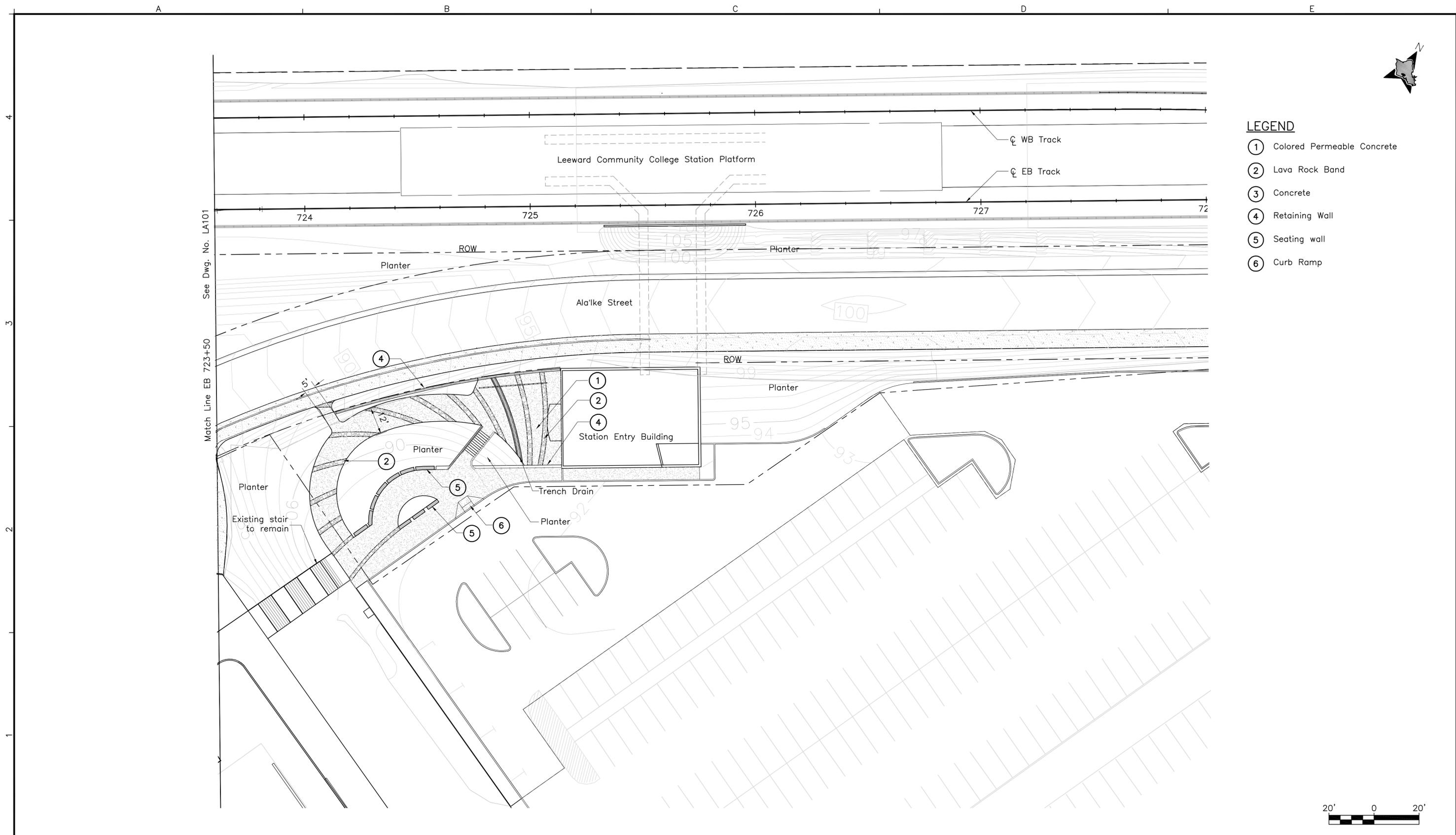
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LEEWARD COMMUNITY COLLEGE STATION

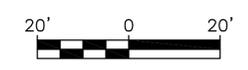
PAVING PLAN

SHEET 1 OF 2

Contract No.: SV-240	
CADD File: SC3-J03-LA101	
Drawing No: LA101	Rev.
Scale: 1"=20'	
Page No. 46	of 52



- LEGEND**
- ① Colored Permeable Concrete
 - ② Lava Rock Band
 - ③ Concrete
 - ④ Retaining Wall
 - ⑤ Seating wall
 - ⑥ Curb Ramp



Rev	By	Date	Description

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Approved:
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**LEEWARD COMMUNITY COLLEGE STATION
PAVING PLAN
SHEET 2 OF 2**

Contract No.: SV-240	
CADD File: SC3-J03-LA102	
Drawing No: LA102	Rev.
Scale: 1"=20'	Page No. 47 of 52



- LEGEND**
- Large Tree**
True Kamani
Monkeypod
 - Medium Tree**
Rainbow Shower
Kou
 - Groundcover-1**
Allamanda
Lantana
Ilima
Prickly pear*
 - Groundcover-2**
Bromeliad
Hibiscus
Ixora
Kalanchoe*
 - Groundcover-3**
Hemigraphis
Ohai
Akia
Lantana
Ice plant*
 - Groundcover-4**
Alula
Rhoeo
Pili
Echeveria*
 - Groundcover-5**
Akulikuli
 - Turf**
Zoysia
- *Green roof plants



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
A Akau

Drawn:
B Wolf

Checked:
D Easterday

Approved:
A Kutsunai

Date:
09-18-09

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

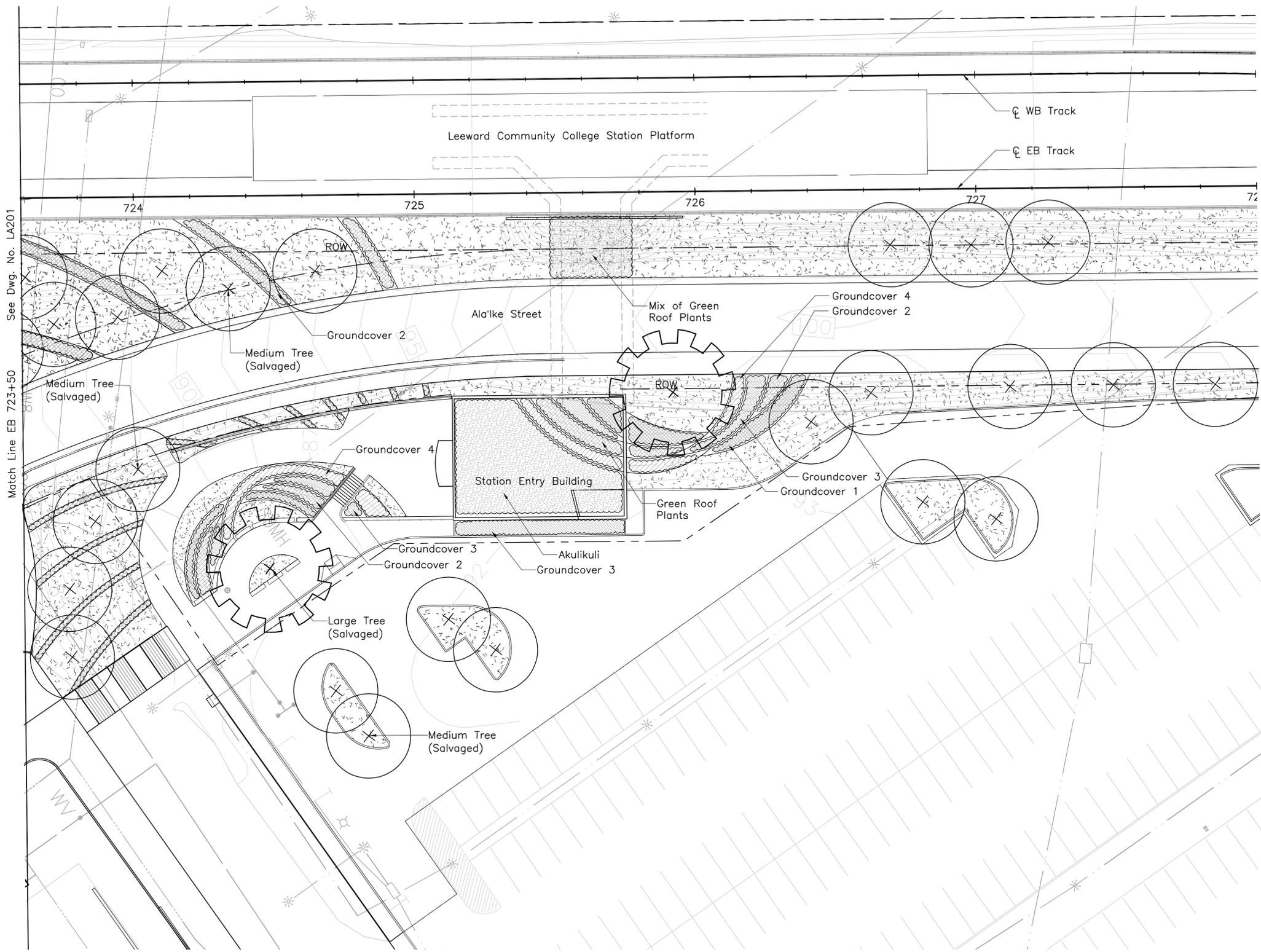
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **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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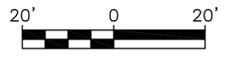
**LEEWARD COMMUNITY COLLEGE STATION
PLANTING PLAN**

SHEET 1 OF 2

Contract No.: SV-240	
CADD File: SC3-J04-LA201	
Drawing No: LA201	Rev.
Scale: 1"=20'	
Page No. 48	of 52



- LEGEND**
- Large Tree
True Kamani
Monkeypod
 - Medium Tree
Rainbow Shower
Kou
 - Groundcover-1
Allamanda
Lantana
Ilima
Prickly pear*
 - Groundcover-2
Bromeliad
Hibiscus
Ixora
Kalanchoe*
 - Groundcover-3
Hemigraphis
Ohai
Akia
Lantana
Ice plant*
 - Groundcover-4
Alula
Rhoeo
Pili
Echeveria*
 - Groundcover-5
Akulikuli
 - Turf
Zoysia
- *Green roof plants



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
A Akau
Drawn:
B Wolf
Checked:
D Easterday
Approved:
A Kutsunai
Date:
09-18-09

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

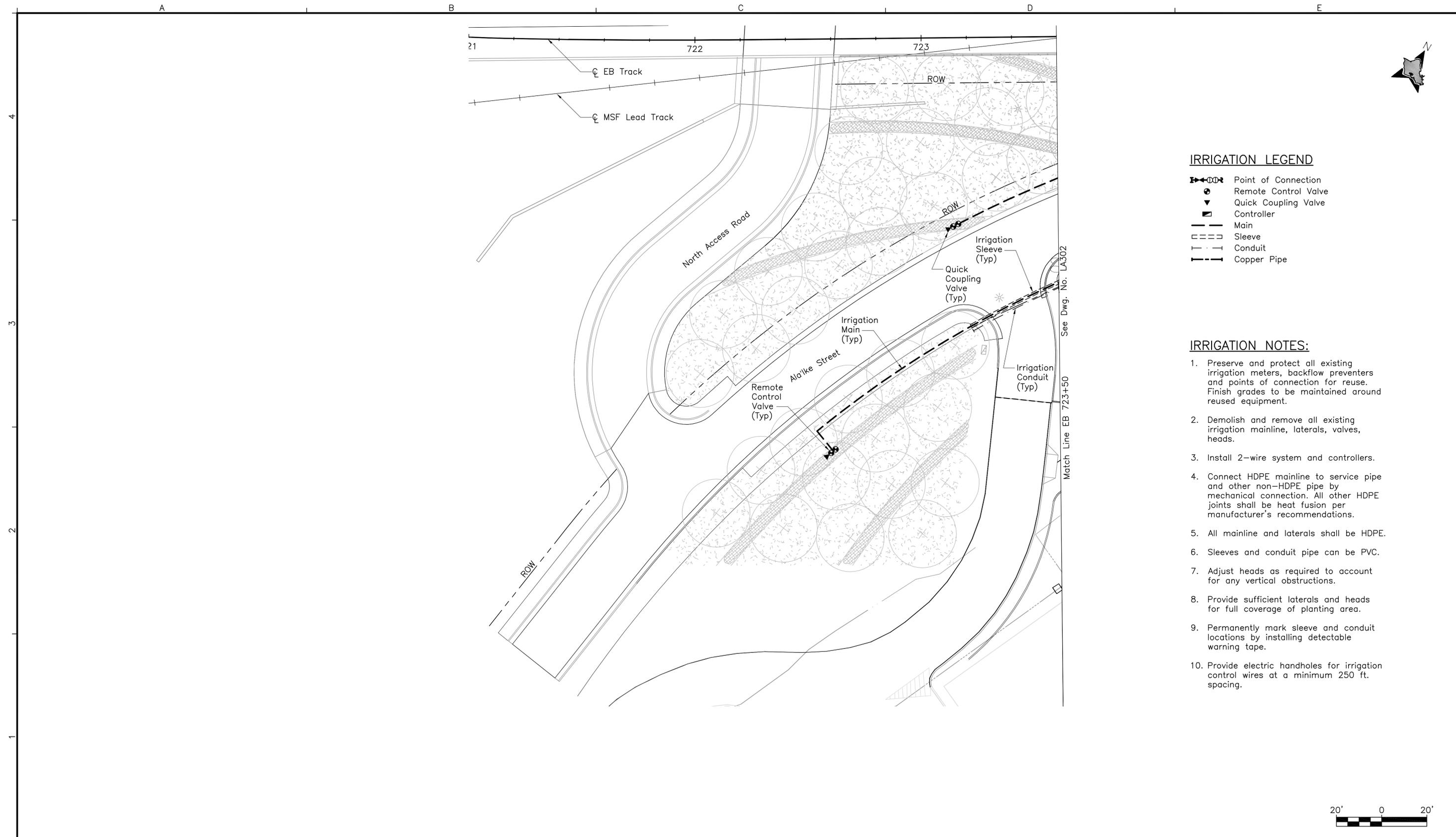
Prime Consultant: **PARSONS BRINCKERHOFF**
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Subconsultant: **BELT COLLINS**
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**LEEWARD COMMUNITY COLLEGE STATION
PLANTING PLAN**

SHEET 2 OF 2

Contract No.: SV-240	
CADD File: SC3-J04-LA202	
Drawing No: LA202	Rev.
Scale: 1"=20'	Page No. 49 of 52



IRRIGATION LEGEND

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

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.



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
C Hironaka
Drawn:
B Wolf
Checked:
D Easterday
Approved:
A Kutsunai
Date:
09-18-09

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

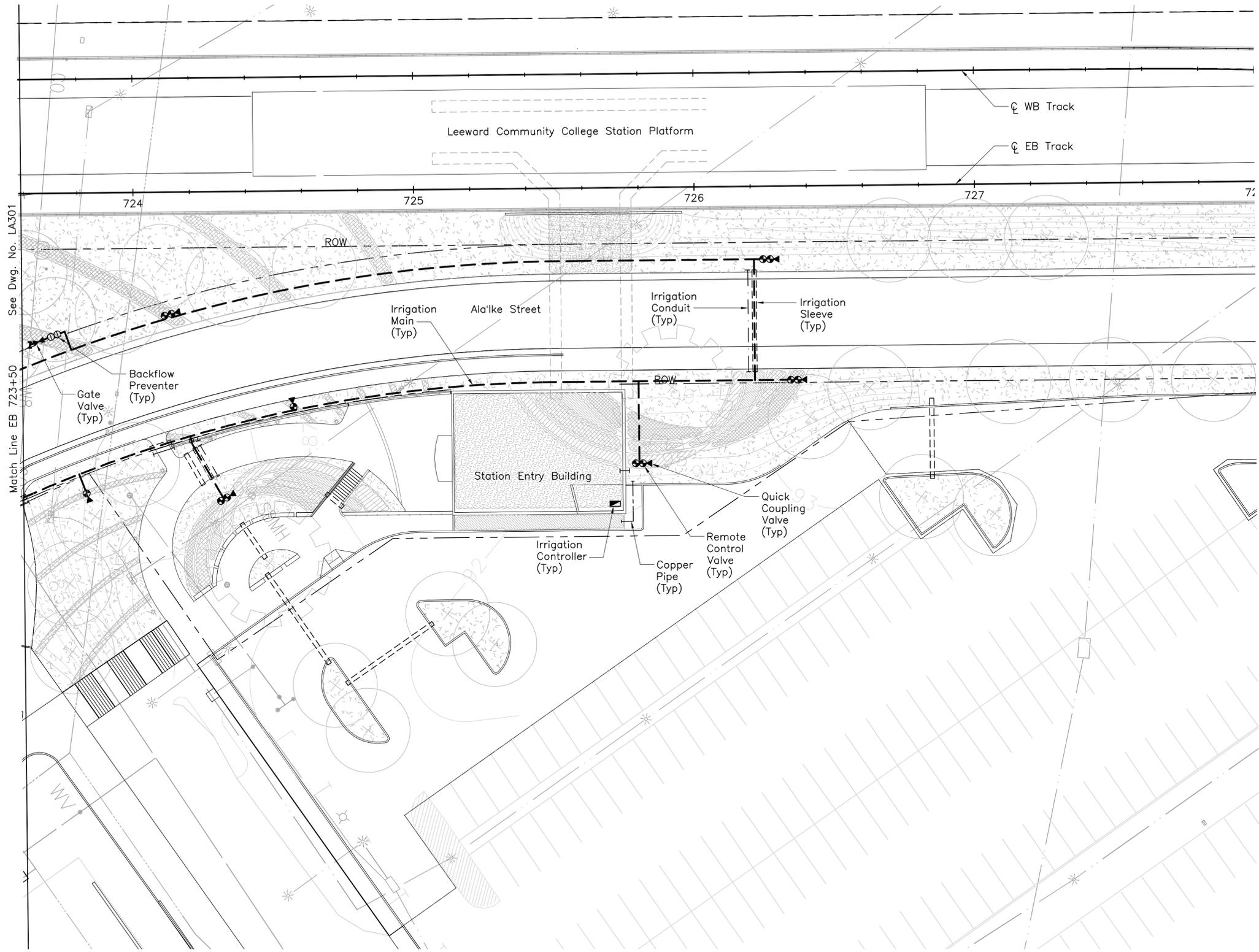
Subconsultant:
BELT COLLINS
PLANNING • CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL CONSULTING
Belt Collins Hawaii Ltd.
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LEEWARD COMMUNITY COLLEGE STATION

IRRIGATION PLAN

SHEET 1 OF 2

Contract No.: SV-240	
CADD File: SC3-J05-LA301	
Drawing No: LA301	Rev.
Scale: 1"=20'	
Page No. 50	of 52

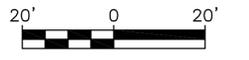


IRRIGATION LEGEND

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

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.
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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.



Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed: C Hironaka
 Drawn: B Wolf
 Checked: D Easterday
 Approved: A Kutsunai
 Date: 09-18-09

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

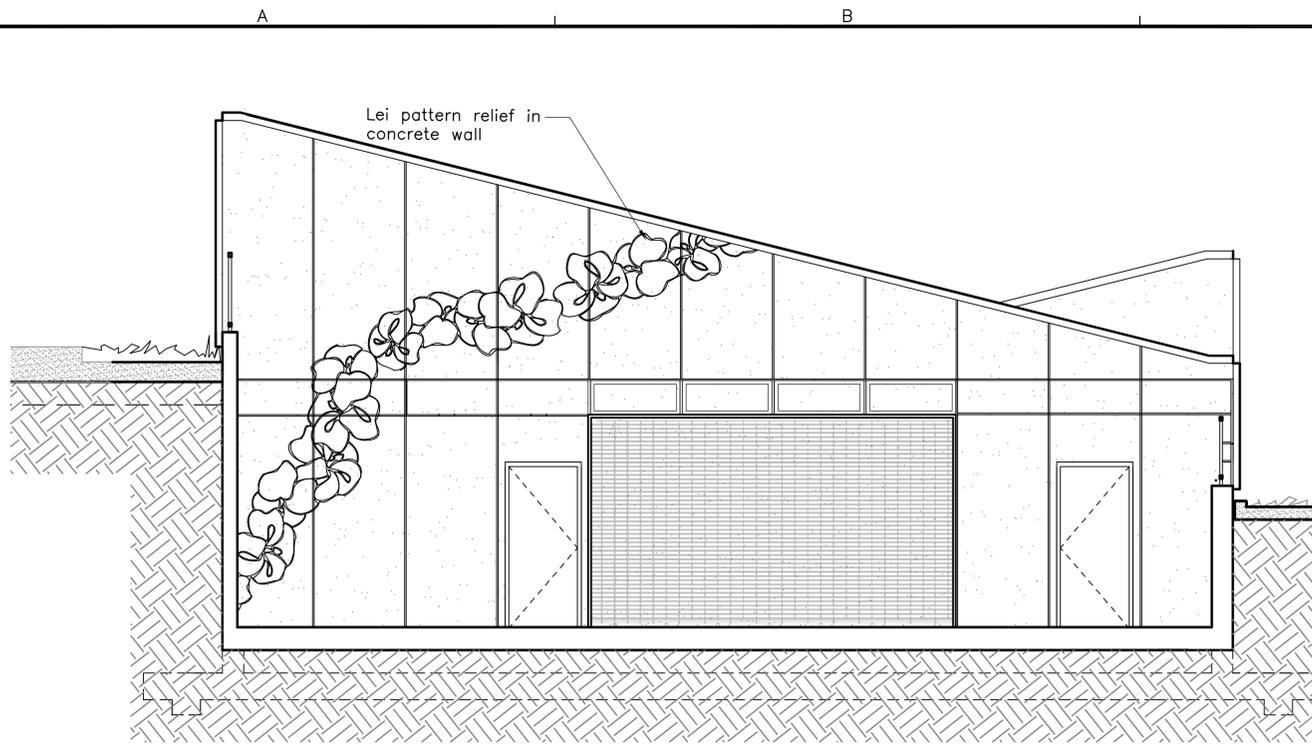
Prime Consultant: **PARSONS BRINCKERHOFF**
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **BELT COLLINS**
 PLANNING • CIVIL ENGINEERING
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**LEEWARD COMMUNITY COLLEGE STATION
IRRIGATION PLAN**

SHEET 2 OF 2

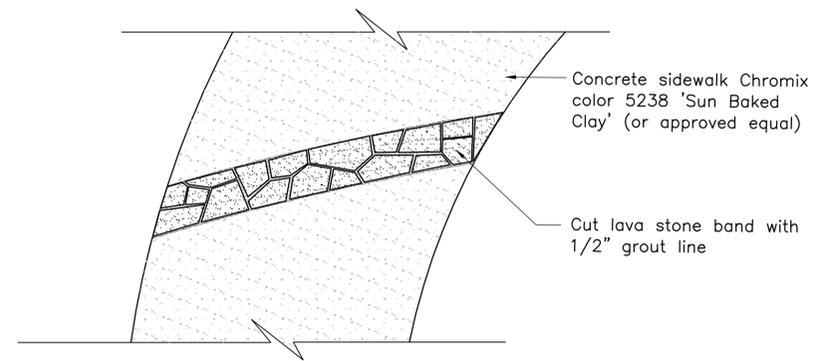
Contract No.: SV-240	
CADD File: SC3-J05-LA302	
Drawing No: LA302	Rev.
Scale: 1"=20'	Page No. 51 of 52



LEI PATTERN EAST ELEVATION

SCALE: 1/4"=1'

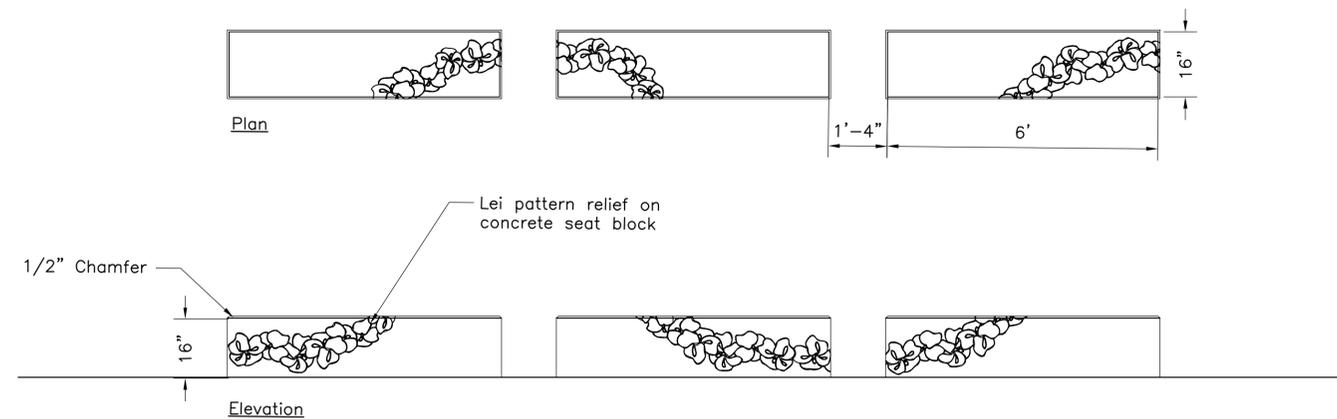
1
LA401



LAVA STONE PAVER BAND

SCALE: 1/4"=1'

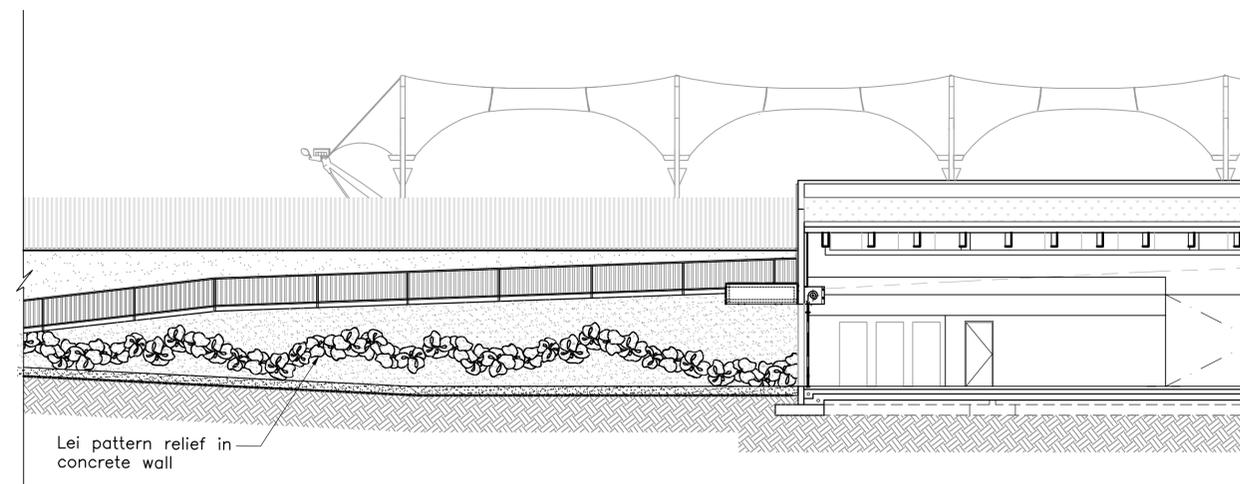
2
LA401



LEI PATTERN ON SEAT BLOCK

SCALE: 1/2"=1'

3
LA401



LEI PATTERN NORTH ELEVATION

SCALE: 1"=10'

4
LA401

Rev	By	Date	Description

**PRELIMINARY
ENGINEERING
SUBJECT TO REVISION**

Designed:
A Akau
Drawn:
B Tanimura
Checked:
D Easterday
Approved:
A Kutsunai
Date:
09-18-09

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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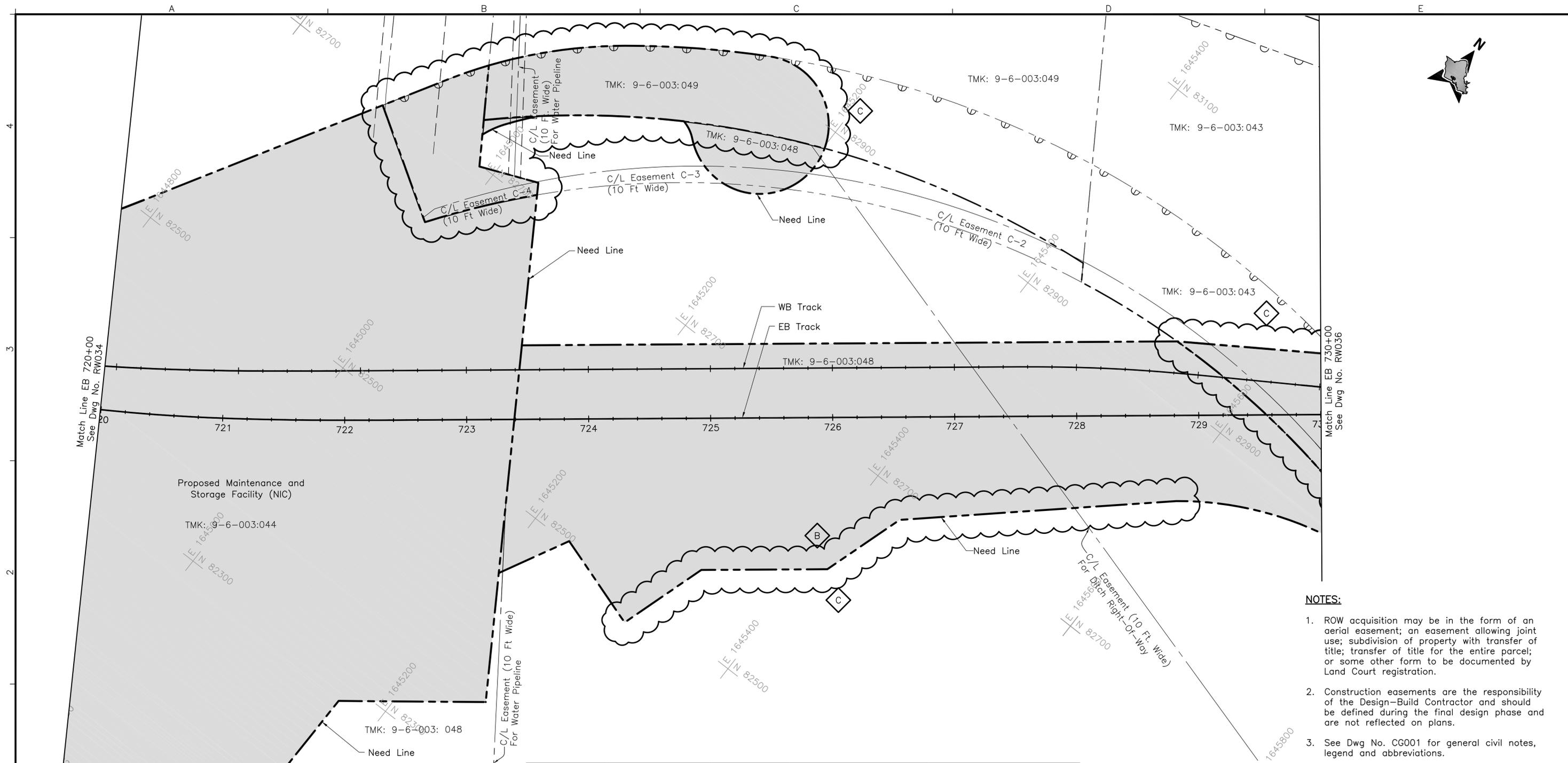
Subconsultant:
BELT COLLINS
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Belt Collins Hawaii Ltd.
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LEEWARD COMMUNITY COLLEGE STATION
MISC. LANDSCAPE DETAILS

Contract No.:
SV-240
CADD File:
SC3-J06-LA401
Drawing No: LA401 Rev.
Scale:
AS NOTED
Page No.
52 of 52

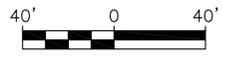
LEEWARD COMMUNITY COLLEGE STATION

APPENDIX A - INFORMATIVE DRAWINGS



- 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 are the responsibility of the Design-Build Contractor and should be defined during the final design phase and are not reflected on plans.
 3. See Dwg No. CG001 for general civil notes, legend and abbreviations.
 4. See Dwg No. RW001 for Right-of-Way notes and legend.

Tax Map Key Number	Parcel Acquisitions	House Number	Street Name	Land Use
9-6-003:043	Access Easement	-	-	Public
9-6-003:044	Partial	-	-	Public
9-6-003:048	Partial	96-43, 96-45 96-129	Ala Ike	Public
9-6-003:048	Partial	96-50	Farrington Hwy	Public
9-6-003:049	Access Easement	-	-	Public



Rev	By	Date	Description
C	AB	08-05-09	Revised And Added Need Areas
B	AB	05-22-09	Revised Need Area And Land Use Labels
A	AB	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
L Karamatsu
Drawn:
A Viterbo
Checked:
K Wong
Approved:
A Borst
Date:
04-03-09

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

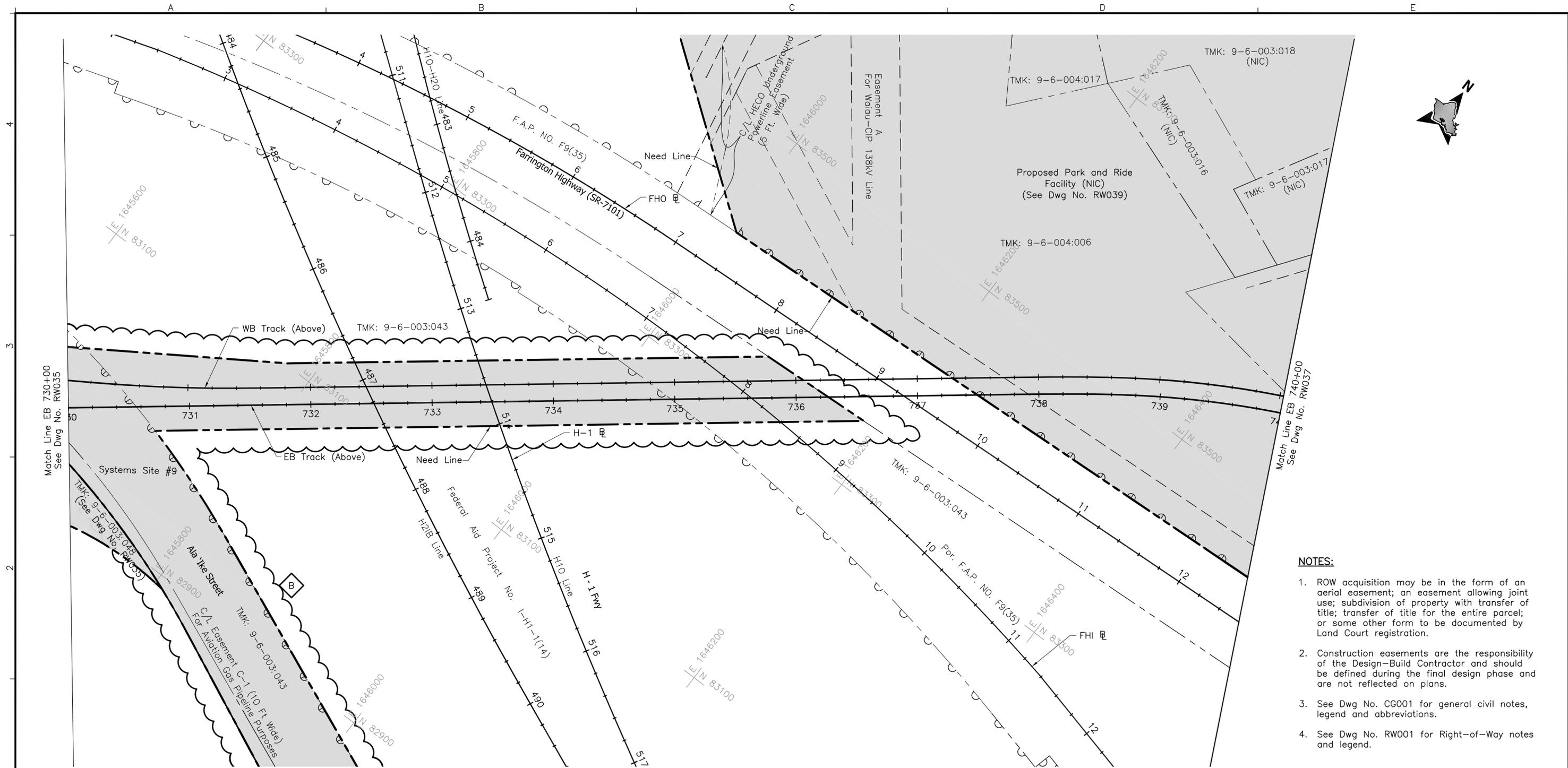
Prime Consultant:
PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:

**WEST O'AHU / FARRINGTON DESIGN-BUILD
EXISTING RIGHT-OF-WAY &
PROPOSED ACQUISITION TABULATIONS**

EB 720+00 TO EB 730+00

Contract No.:
DB-1200
CADD File:
WF-B04-RW035
Drawing No: RW035
Scale: 1"=40'
Page No. 59 of 312



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 are the responsibility of the Design-Build Contractor and should be defined during the final design phase and are not reflected on plans.
3. See Dwg No. CG001 for general civil notes, legend and abbreviations.
4. See Dwg No. RW001 for Right-of-Way notes and legend.

Tax Map Key Number	Parcel Acquisitions	House Number	Street Name	Land Use
9-6-003:043	Access Easement	-	-	Public



Rev	By	Date	Description
B	AB	08-05-09	Added Need Areas & Table
A	AB	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
L Karamatsu
Drawn:
A Viterbo
Checked:
K Wong
Approved:
A Borst
Date:
04-03-09

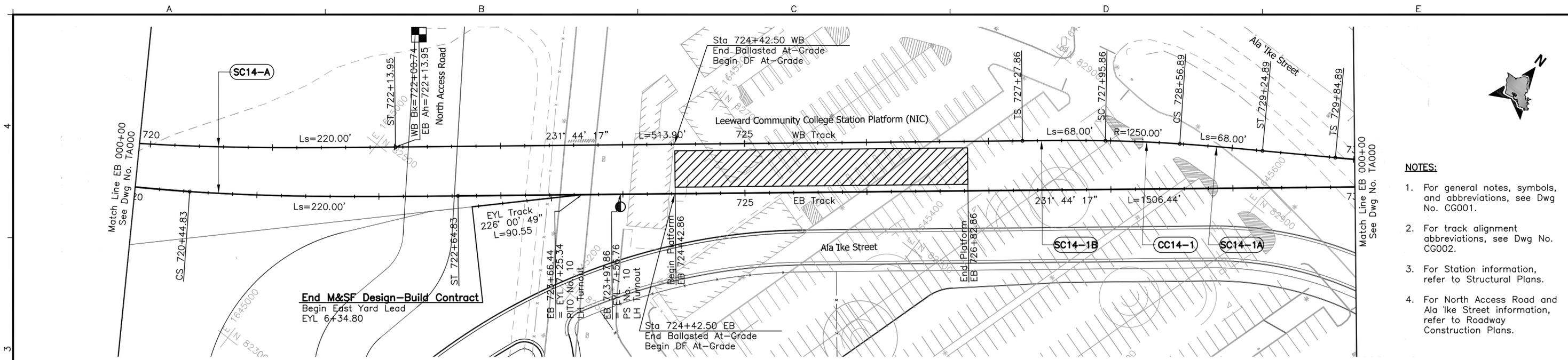
HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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

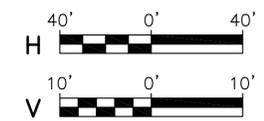
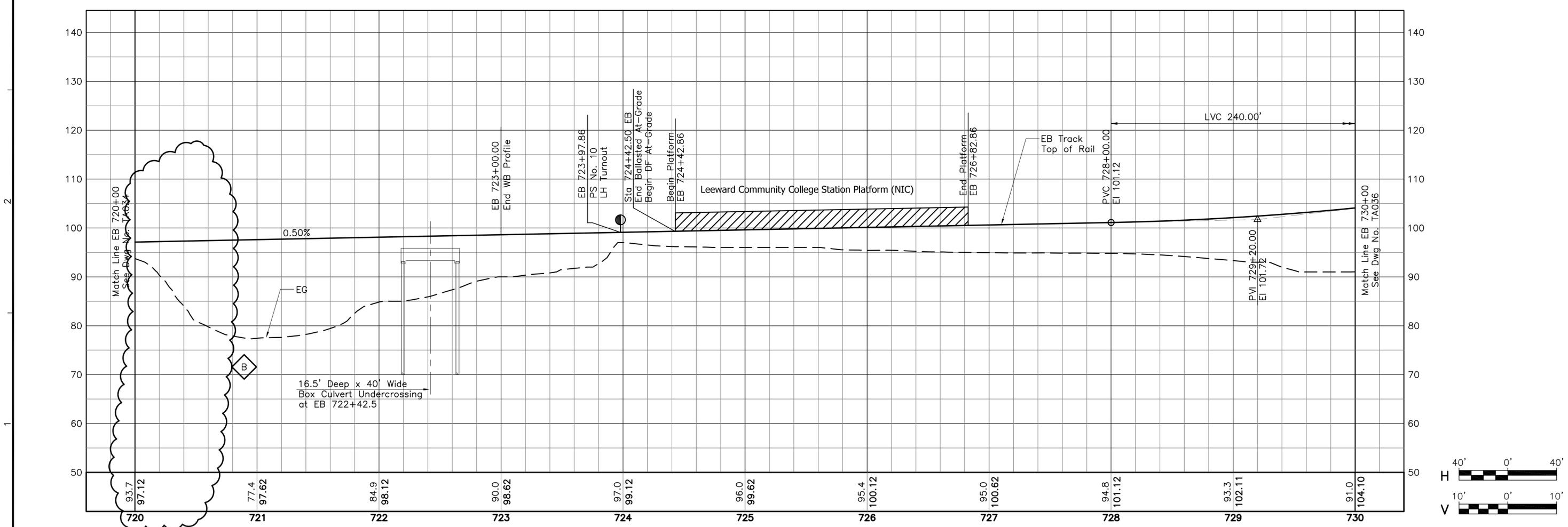
**WEST O'AHU / FARRINGTON DESIGN-BUILD
EXISTING RIGHT-OF-WAY &
PROPOSED ACQUISITION TABULATIONS**

EB 730+00 TO EB 740+00

Contract No.:	DB-1200
CADD File:	WF-B04-RW036
Drawing No.:	RW036
Scale:	1"=40'
Page No.:	60 of 312



- NOTES:**
1. For general 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 North Access Road and Ala Ika Street information, refer to Roadway Construction Plans.



Rev	By	Date	Description
B	EL	05-22-09	Revised Vertical Alignment
A	AB	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: M Hall
 Drawn: R Nacion
 Checked: E Liberman
 Approved: A Borst
 Date: 04-03-09

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

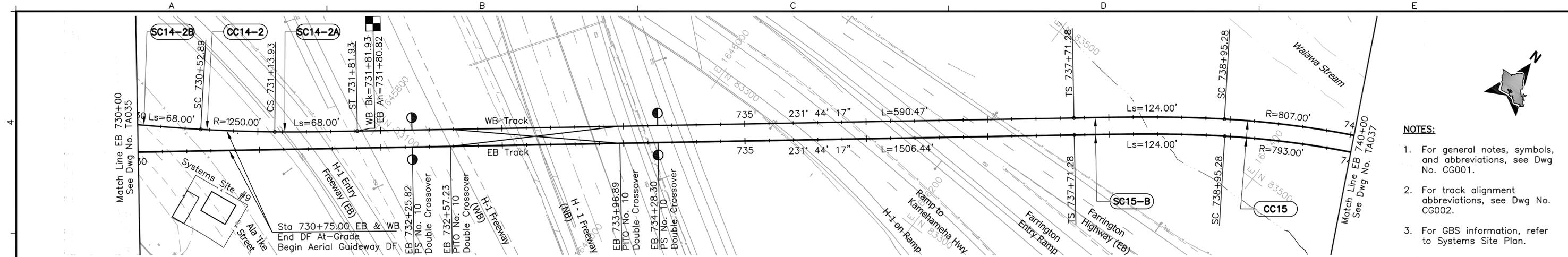
Subconsultant:

WEST O'AHU/FARRINGTON DESIGN-BUILD

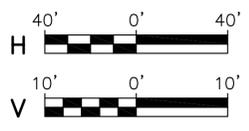
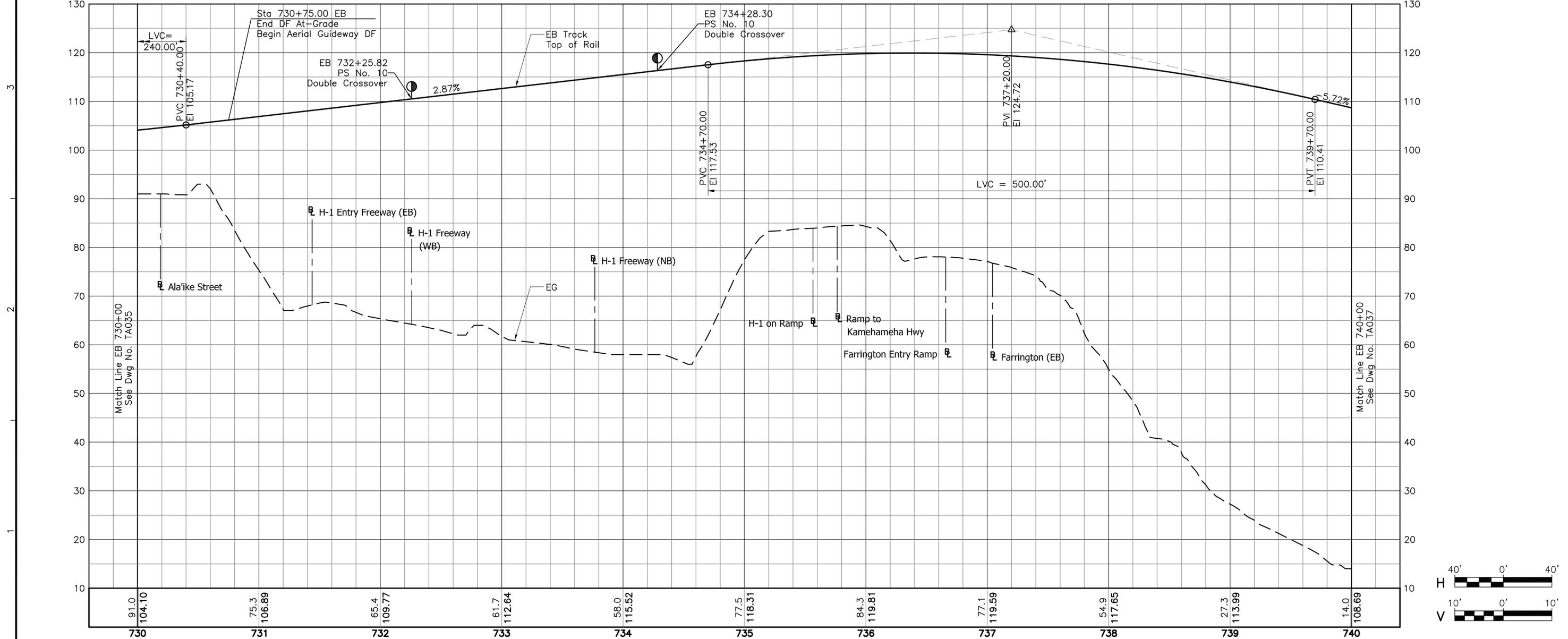
**TRACK ALIGNMENT
PLAN & PROFILE**

EB 720+00 TO EB 730+00

Contract No.: DB-1200
 CADD File: WF-B05-TA035
 Drawing No: TA035 Rev. B
 Scale: 1"=40' H, 1"=10' V
 Page No. 98 of 312



- NOTES:**
1. For general notes, symbols, and abbreviations, see Dwg No. CG001.
 2. For track alignment abbreviations, see Dwg No. CG002.
 3. For GBS information, refer to Systems Site Plan.



Rev	By	Date	Description
A	AB	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: M Hall
 Drawn: R Nacion
 Checked: E Liberman
 Approved: A Borst
 Date: 04-03-09

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:

WEST O'AHU/FARRINGTON DESIGN-BUILD

**TRACK ALIGNMENT
PLAN & PROFILE**

EB 730+00 TO EB 740+00

Contract No.: DB-1200	Rev. A
CADD File: WF-B05-TA036	
Drawing No: TA036	
Scale: 1"=40' H, 1"=10' V	
Page No. 99	of 312

ALIGNMENT: SEG C – EB Track							
Curve No	Curve Element	Type	Station	Northing	Easting	Data	
CC14	SC14-B	TS:	713+69.27	82140.783	1644274.534	Ls = 220.00' Ts = 454.75' Os = 04' 28' 45.89"	
		SC:	715+89.27	82187.429	1644489.471	I = 27' 30' 36.56"	
		V=50 mph				R = 1407.00'	
	SC14-A	Ea=3.50"	PI:	-	82225.617	1644721.302	Lc = 455.56' Δ = 18' 33' 04.78"
		Eu=3.54"					
		CS:	720+44.83	82375.571	1644902.183	Dc = 04' 04' 19.90"	
		ST:	722+64.83	82507.225	1645078.368		
						L = 1506.44' Di = 231' 44' 17.50"	
No. 10 Turnout		PITO	723+66.44	82570.145	1645158.147	EYL	
		PS	723+97.86	82589.600	1645182.816	EYL	
Leeward CC Station			724+42.86	-	-		
			726+82.86	-	-		

ALIGNMENT: SEG C – WB Track							
Curve No	Curve Element	Type	Station	Northing	Easting	Data	
CC14	SC14-B	TS:	713+11.90	82143.833	1644215.555	Ls = 220.00' Ts = 451.33' Os = 04' 31' 27.96"	
		SC:	715+31.90	82190.536	1644430.478	I = 27' 30' 36.57"	
		V=50 mph				R = 1393.00'	
	SC14-A	Ea=3.50"	PI:	-	82228.030	1644658.959	Lc = 448.84' Δ = 18' 27' 40.65"
		Eu=3.61"					
		CS:	719+80.74	82375.910	1644837.118	Dc = 04' 06' 47.24"	
		ST:	722+00.74	82507.517	1645013.337		
						L = 513.90' Di = 231' 44' 17.49"	
Leeward CC Station			724+42.86	-	-		
			726+82.86	-	-		
CC14-1	SC14-1B	TS:	727+27.86	82825.755	1645416.848	Ls = 68.00' Ts = 98.58' Os = 01' 33' 30.40"	
		SC:	727+95.86	82867.377	1645470.619	I = 05' 54' 52.88"	
		V=30 mph				R = 1250.00'	
	SC14-1A	Ea=1.00"	PI:	-	82886.803	1645494.255	Lc = 61.04' Δ = 02' 47' 52.08"
		Eu=1.85"					
		CS:	728+56.89	82902.649	1645520.427	Dc = 04' 35' 01.18"	
		ST:	729+24.89	82939.550	1645577.541		
						L = 60.00' Di = 237' 39' 10.37"	
CC14-2	SC14-2B	TS:	729+84.89	82971.651	1645628.227	Ls = 68.00' Ts = 98.58' Os = 01' 33' 30.40"	
		SC:	730+52.89	83008.552	1645685.341	I = 05' 54' 52.87"	
		V=30 mph				R = 1250.00'	
	SC14-2A	Ea=1.00"	PI:	-	83024.398	1645711.513	Lc = 61.04' Δ = 02' 47' 52.07"
		Eu=1.85"					
		CS:	731+13.93	83043.824	1645735.149	Dc = 04' 35' 01.18"	
		ST:	731+80.82	83085.446	1645788.920		

A	AB	04-03-09	Issued For Bid
Rev	By	Date	Description

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: M Hall
 Drawn: R Nacion
 Checked: E Liberman
 Approved: A Borst
 Date: 04-03-09

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

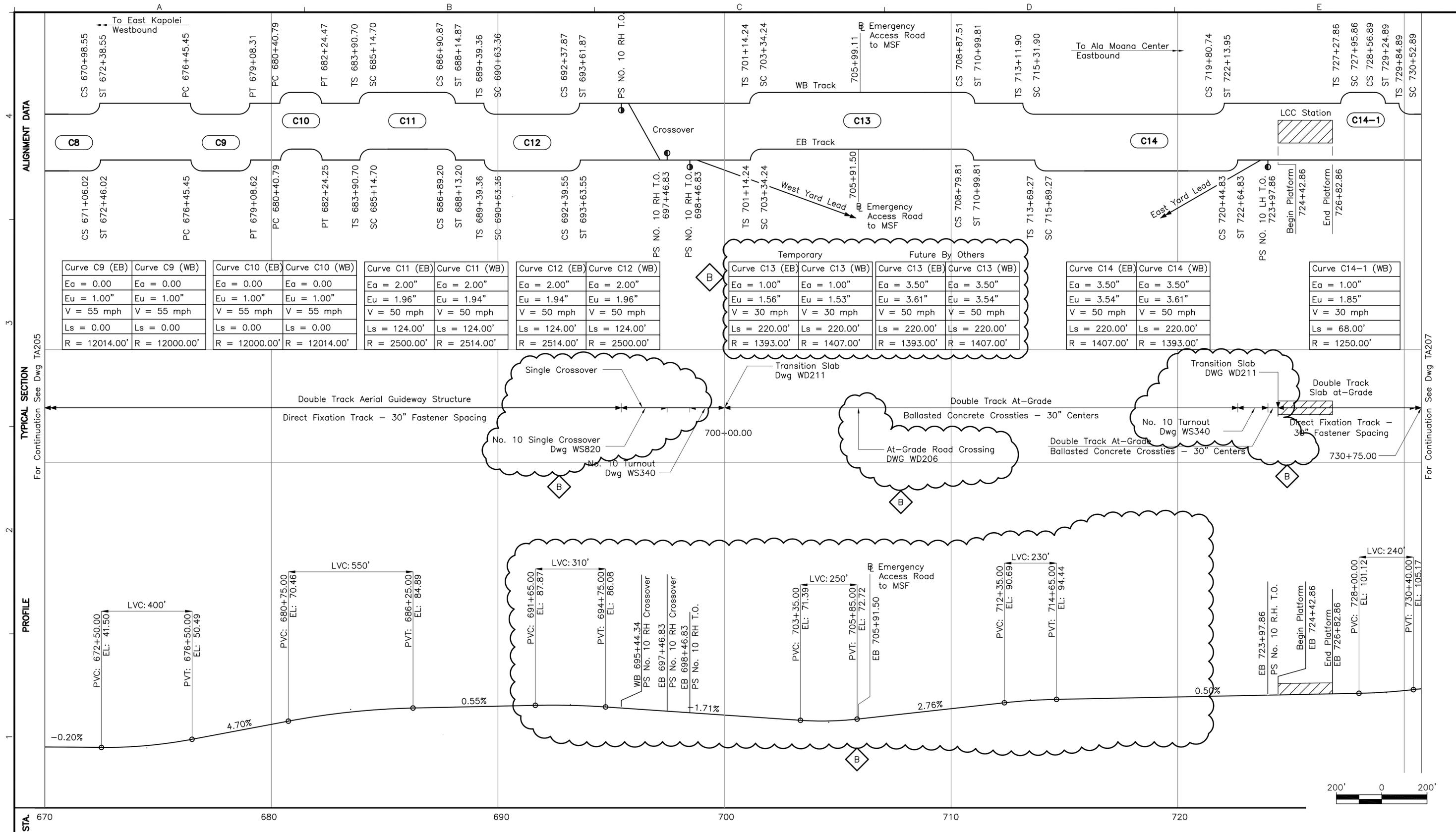
Subconsultant:

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WEST O'AHU/FARRINGTON DESIGN-BUILD
TRACK ALIGNMENT DATA

SHEET 7 OF 8

Contract No.: DB-1200
 CADD File: WF-B06-TA107
 Drawing No: TA107 Rev. A
 Scale: N/A
 Page No. 109 of 312



Rev	By	Date	Description
B	EL	05-22-09	Added Temp and Future Ea, Rev Vert Align.&Spec. Trackwork Refs.
A	MH	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
E Liberman
Drawn:
J Derosier
Checked:
B Wardell
Approved:
M Hall
Date:
04-03-09

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

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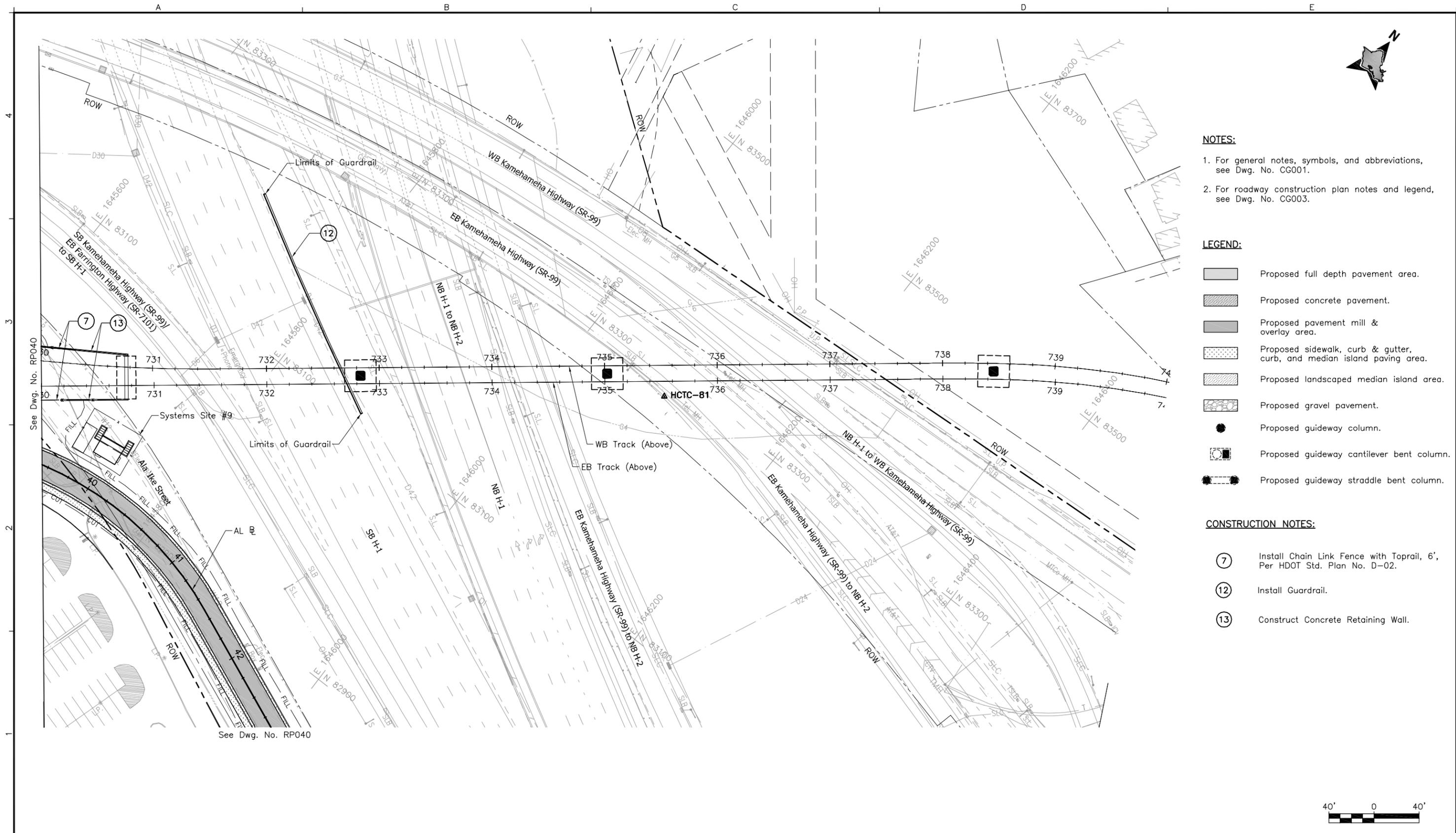
Subconsultant:

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

**WEST O'AHU/FARRINGTON DESIGN-BUILD
TRACK CHARTS**

Contract No.:
DB-1200
CADD File:
WF-B07-TA206
Drawing No.:
TA206
Rev.
B
Scale:
1"=200'
Page No.
116 of 312

SHEET 6 OF 7



NOTES:

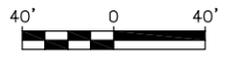
1. For general notes, symbols, and abbreviations, see Dwg. No. CG001.
2. For roadway construction plan notes and legend, see Dwg. No. CG003.

LEGEND:

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

CONSTRUCTION NOTES:

- Install Chain Link Fence with Toprail, 6', Per HDOT Std. Plan No. D-02.
- Install Guardrail.
- Construct Concrete Retaining Wall.



Rev	By	Date	Description
A	MH	05-22-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: M Jewell
 Drawn: M Santos
 Checked: E Liberman
 Approved: M Hall
 Date: 05-22-09

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

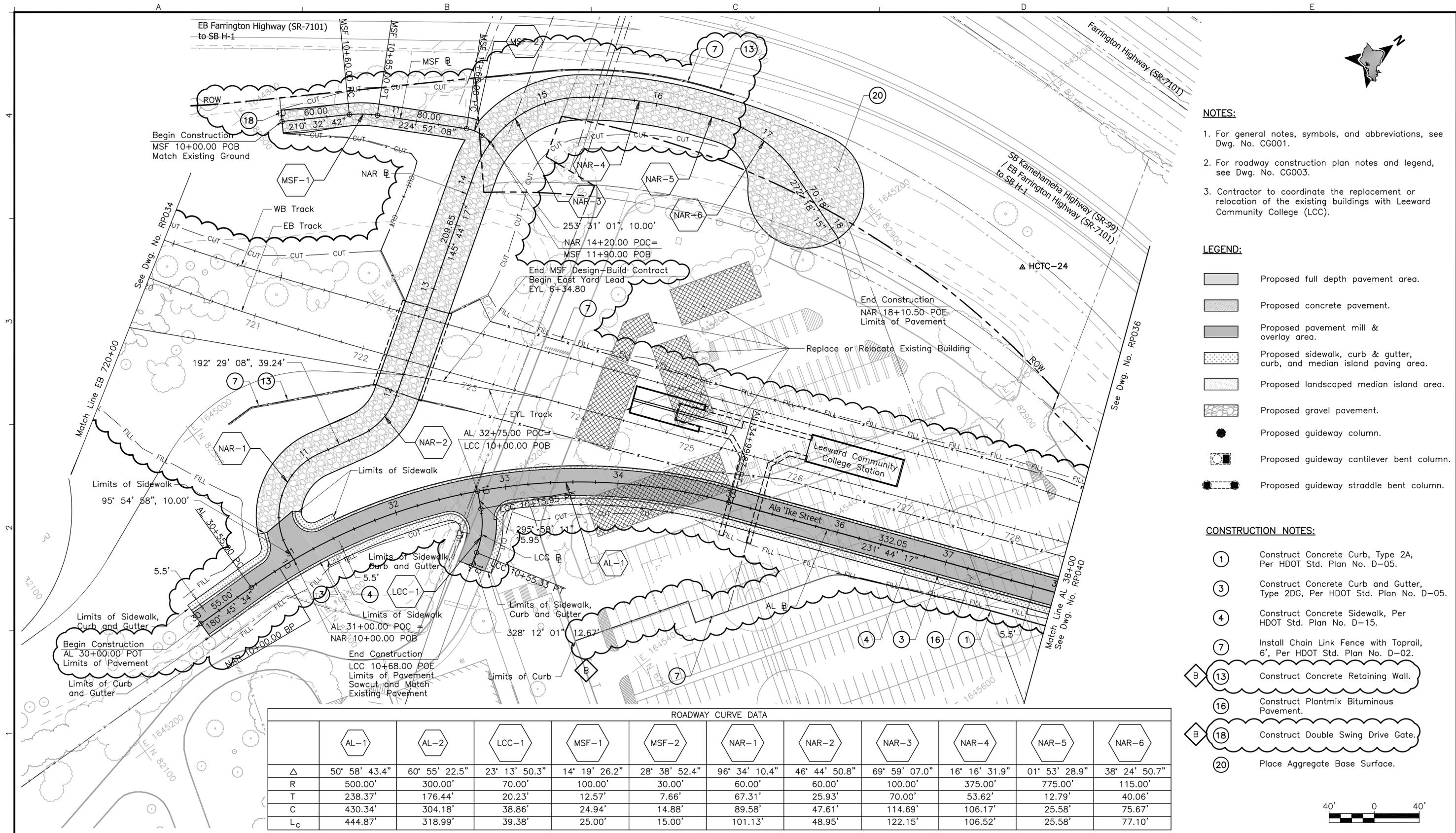
Prime Consultant: **PARSONS BRINCKERHOFF**
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:

**WEST O'AHU/FARRINGTON DESIGN-BUILD
ROADWAY CONSTRUCTION PLAN**

EB 730+00 TO EB 740+00

Contract No.: DB-1200	
CADD File: WF-B09-RP036	
Drawing No: RP036	Rev. A
Scale: 1"=40'	
Page No. 140A of 312	



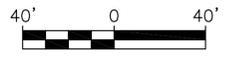
- NOTES:**
- For general notes, symbols, and abbreviations, see Dwg. No. CG001.
 - For roadway construction plan notes and legend, see Dwg. No. CG003.
 - Contractor to coordinate the replacement or relocation of the existing buildings with Leeward Community College (LCC).

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

- CONSTRUCTION NOTES:**
- 1 Construct Concrete Curb, Type 2A, Per HDOT Std. Plan No. D-05.
 - 3 Construct Concrete Curb and Gutter, Type 2DG, Per HDOT Std. Plan No. D-05.
 - 4 Construct Concrete Sidewalk, Per HDOT Std. Plan No. D-15.
 - 7 Install Chain Link Fence with Toprail, 6', Per HDOT Std. Plan No. D-02.
 - 13 Construct Concrete Retaining Wall.
 - 16 Construct Plantmix Bituminous Pavement.
 - 18 Construct Double Swing Drive Gate.
 - 20 Place Aggregate Base Surface.

ROADWAY CURVE DATA

	AL-1	AL-2	LCC-1	MSF-1	MSF-2	NAR-1	NAR-2	NAR-3	NAR-4	NAR-5	NAR-6
Δ	50° 58' 43.4"	60° 55' 22.5"	23° 13' 50.3"	14° 19' 26.2"	28° 38' 52.4"	96° 34' 10.4"	46° 44' 50.8"	69° 59' 07.0"	16° 16' 31.9"	01° 53' 28.9"	38° 24' 50.7"
R	500.00'	300.00'	70.00'	100.00'	30.00'	60.00'	60.00'	100.00'	375.00'	775.00'	115.00'
T	238.37'	176.44'	20.23'	12.57'	7.66'	67.31'	25.93'	70.00'	53.62'	12.79'	40.06'
C	430.34'	304.18'	38.86'	24.94'	14.88'	89.58'	47.61'	114.69'	106.17'	25.58'	75.67'
L _c	444.87'	318.99'	39.38'	25.00'	15.00'	101.13'	48.95'	122.15'	106.52'	25.58'	77.10'



Rev	By	Date	Description
B	MH	05-22-09	Revised Station and Grading Design
A	MH	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: M Jewell
 Drawn: M Santos
 Checked: E Liberman
 Approved: M Hall
 Date: 04-03-09

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

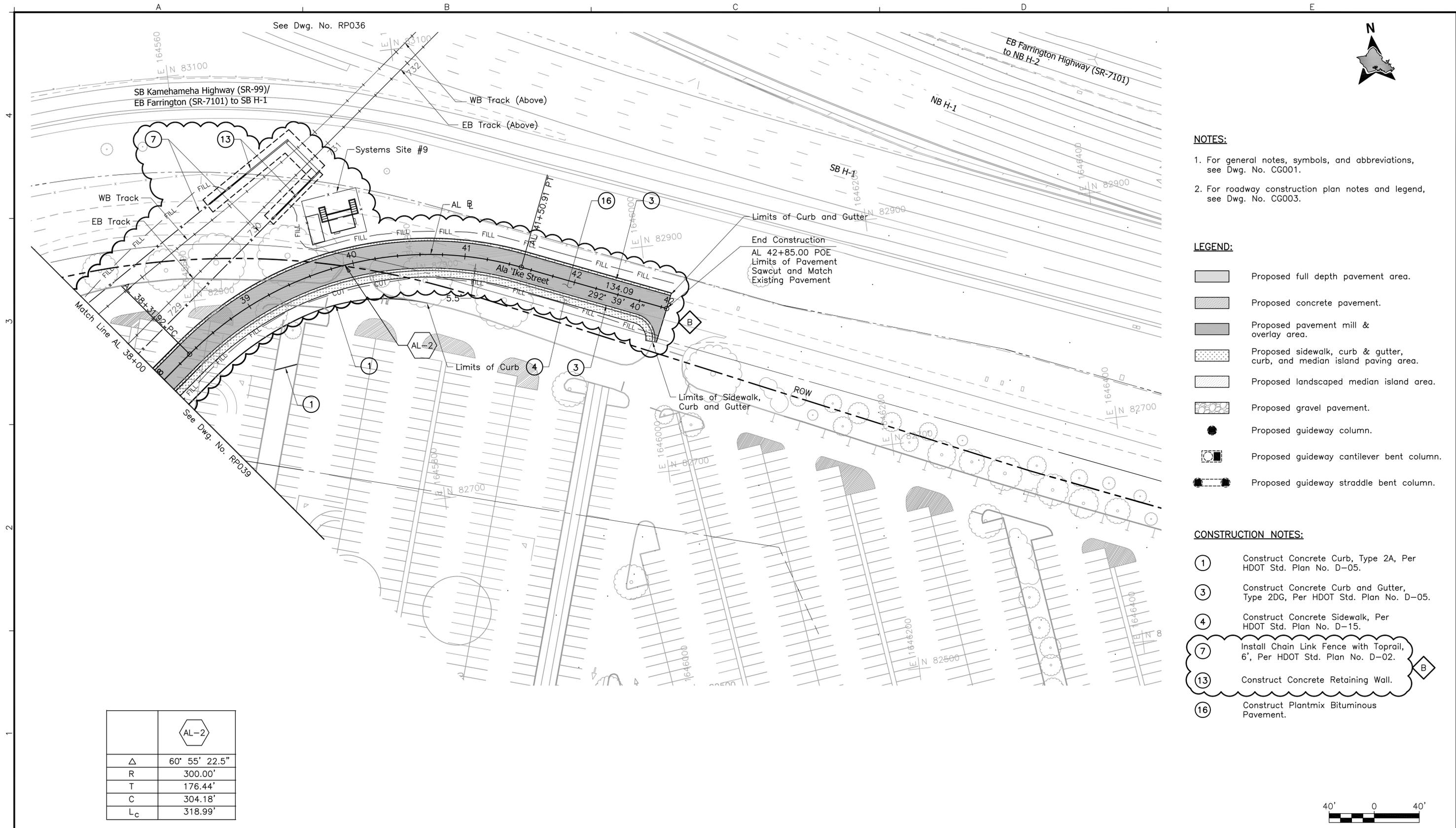
Prime Consultant: **PARSONS BRINCKERHOFF**
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:

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

**WEST O'AHU/FARRINGTON DESIGN-BUILD
ROADWAY CONSTRUCTION PLAN
ALA 'IKE STREET
AL 30+00 TO AL 38+00**

Contract No.: DB-1200	Rev. B
CADD File: WF-B09-RP039	
Drawing No: RP039	
Scale: 1"=40'	
Page No. 141 of 312	



NOTES:

- For general notes, symbols, and abbreviations, see Dwg. No. CG001.
- For roadway construction plan notes and legend, see Dwg. No. CG003.

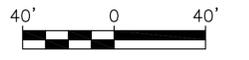
LEGEND:

- 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.
- Proposed gravel pavement.
- Proposed guideway column.
- Proposed guideway cantilever bent column.
- Proposed guideway straddle bent column.

CONSTRUCTION NOTES:

- ① Construct Concrete Curb, Type 2A, Per HDOT Std. Plan No. D-05.
- ③ Construct Concrete Curb and Gutter, Type 2DG, Per HDOT Std. Plan No. D-05.
- ④ Construct Concrete Sidewalk, Per HDOT Std. Plan No. D-15.
- ⑦ Install Chain Link Fence with Toprail, 6', Per HDOT Std. Plan No. D-02.
- ⑬ Construct Concrete Retaining Wall.
- ⑯ Construct Plantmix Bituminous Pavement.

	AL-2
Δ	60° 55' 22.5"
R	300.00'
T	176.44'
C	304.18'
L _c	318.99'



Rev	By	Date	Description
B	MH	05-22-09	Revised Retaining Wall & Grading Design
A	MH	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

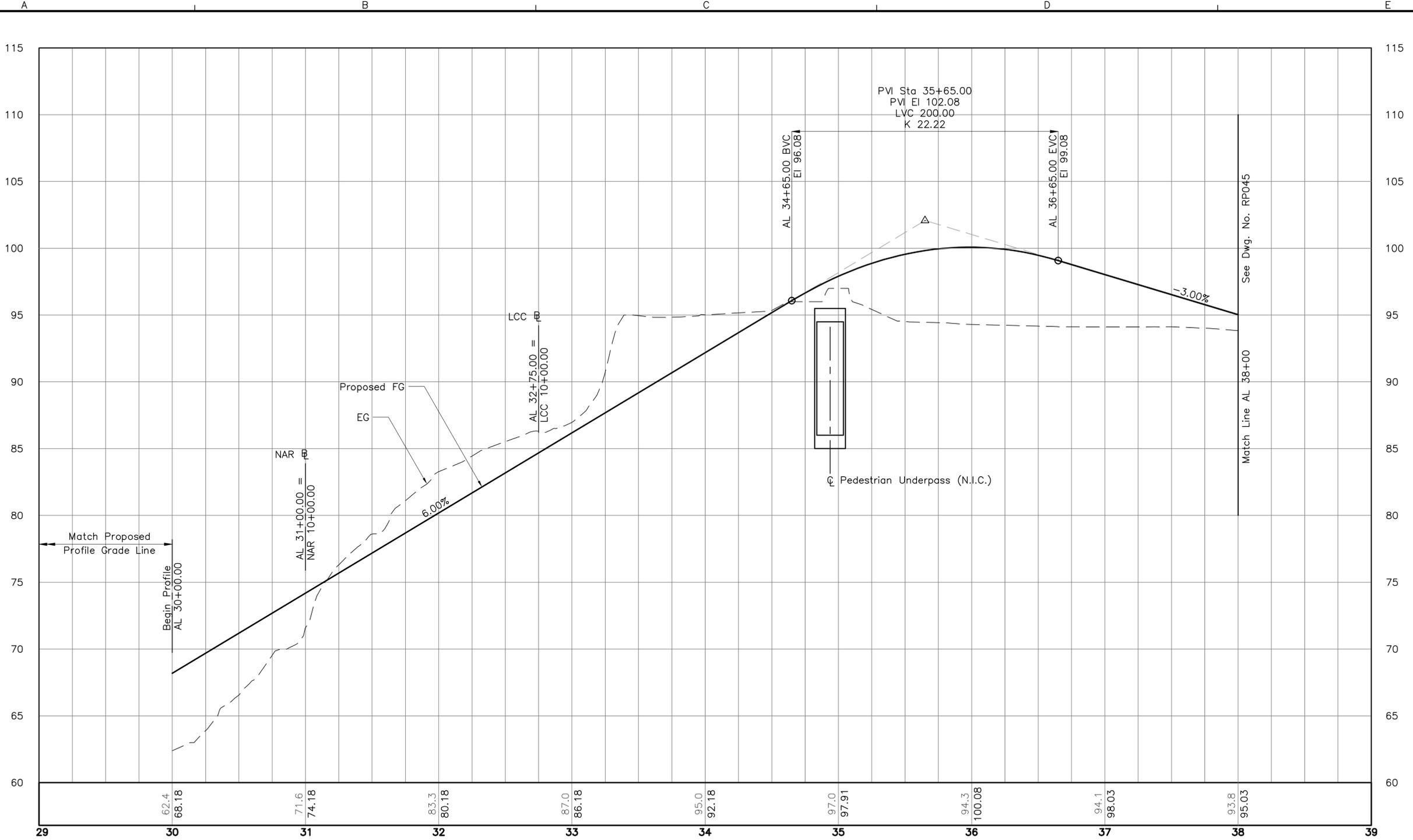
Designed: M Jewell
 Drawn: M Santos
 Checked: E Liberman
 Approved: M Hall
 Date: 04-03-09

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

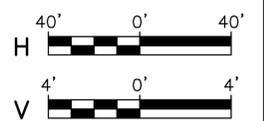
**WEST O'AHU/FARRINGTON DESIGN-BUILD
ROADWAY CONSTRUCTION PLAN
ALA 'IKE STREET
AL 38+00 TO AL 42+85**

Contract No.: DB-1200
 CADD File: WF-B09-RP040
 Drawing No: RP040 Rev. B
 Scale: 1"=40'
 Page No. 142 of 312



ALA 'IKE STREET - AL

NOTES:
For Plans, see drawing numbers RP039 thru RP040.



Rev	By	Date	Description
A	MH	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:	L Karamatsu
Drawn:	J Derosier
Checked:	M Jewell
Approved:	M Hall
Date:	04-03-09

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

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

Subconsultant:

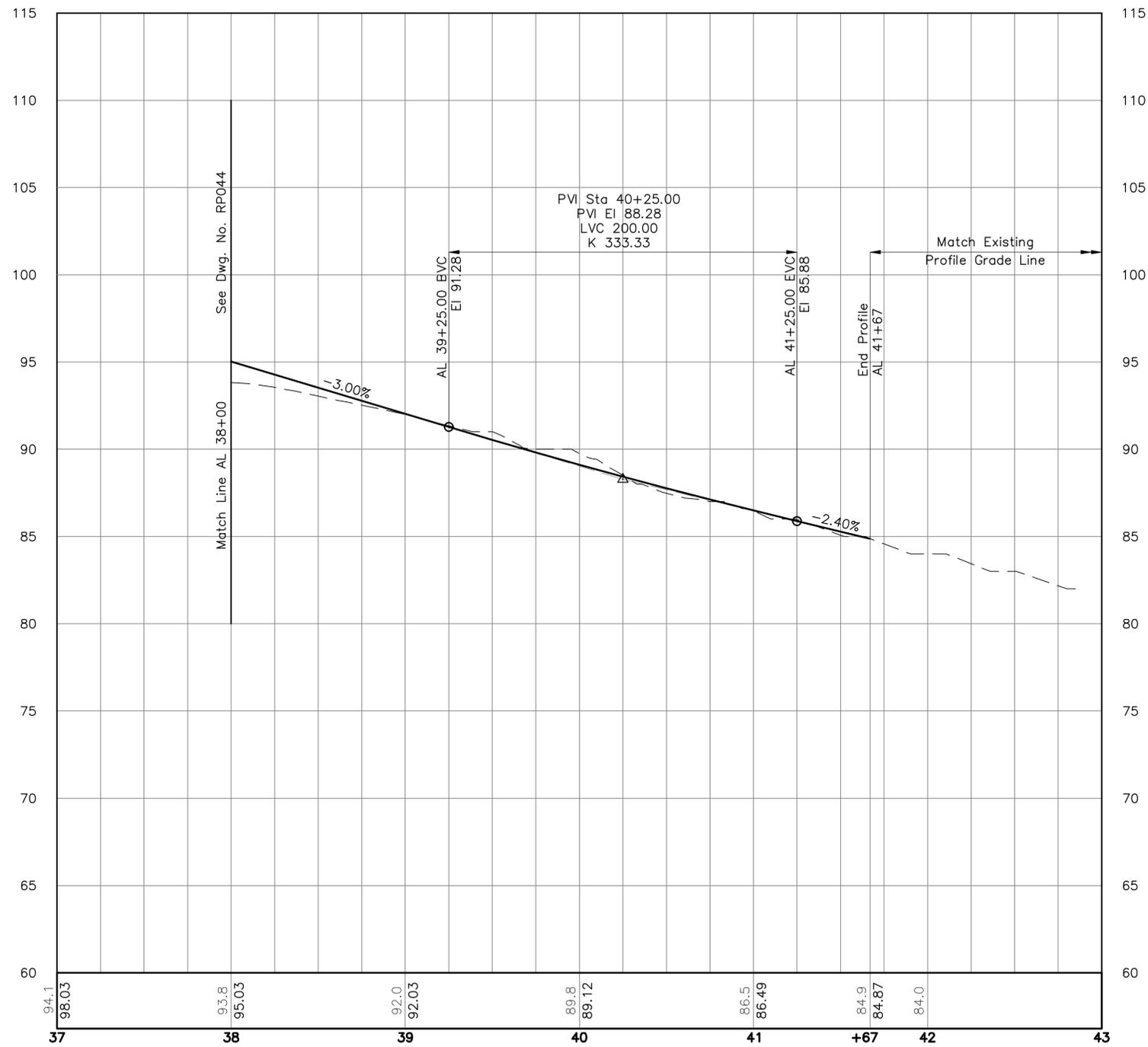
For reduced prints, original page size in inches: 0 1 2 3 4

WEST O'AHU/FARRINGTON DESIGN-BUILD

**ROADWAY PROFILE
ALA 'IKE STREET**

SHEET 1 OF 2

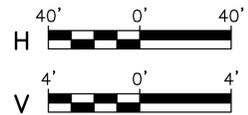
Contract No.: DB-1200	
CADD File: WF-B09-RP044	
Drawing No: RP044	Rev: A
Scale: 1"=40' H, 1"=4' V	
Page No. 146 of 312	



ALA 'IKE STREET - AL

NOTES:

For Plans, see drawing numbers RP039 thru RP040.



Rev	By	Date	Description
A	MH	04-03-09	Issued For Bid

**BID DOCUMENT
 NOT FOR CONSTRUCTION**

Designed: L Karamatsu
Drawn: J Derosier
Checked: M Jewell
Approved: M Hall
Date: 04-03-09

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

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

Subconsultant:

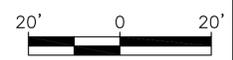
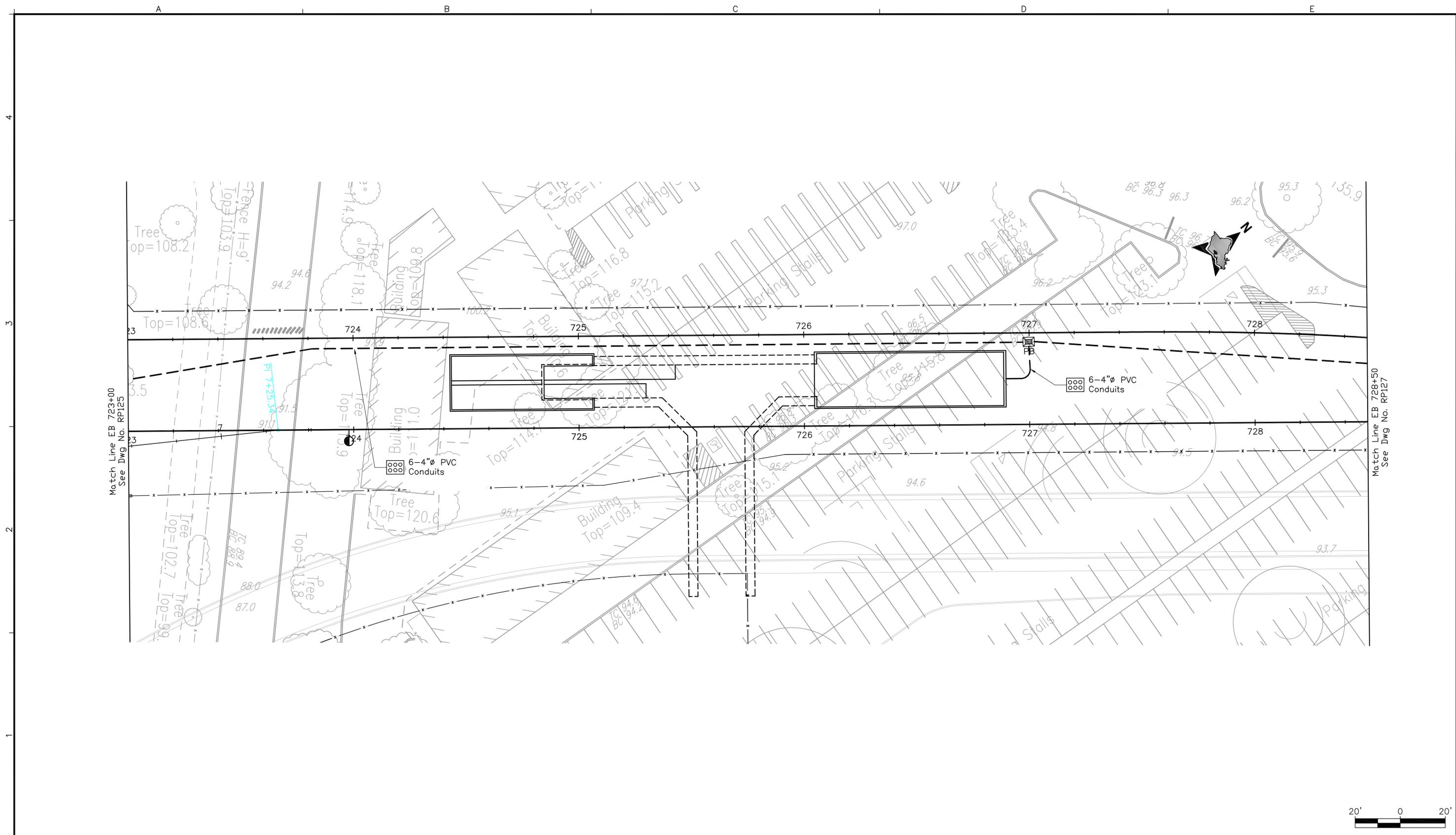
For reduced prints, original page size in inches: 0 1 2 3 4

WEST O'AHU/FARRINGTON DESIGN-BUILD

**ROADWAY PROFILE
 ALA 'IKE STREET**

SHEET 2 OF 2

Contract No.: DB-1200	
CADD File: WF-B09-RP045	
Drawing No: RP045	Rev. A
Scale: 1"=40' H, 1"=4' V	
Page No. 147 of 312	



Rev	By	Date	Description
A	DG	05-22-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
D Gobelle
Drawn:
C Jamison
Checked:
R Leslie
Approved:
M Hall
Date:
05-22-09

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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WEST O`AHU/FARRINGTON DESIGN-BUILD

SYSTEMWIDE DUCT BANK

EB 723+00 TO 728+50

Contract No.: DB-1200	
CADD File: WF-B10-RP126	
Drawing No: RP126	Rev. A
Scale: 1"=20'	
Page No. 159F of 312	

ROADWAY HORIZONTAL CONTROL DATA – ALA IKE BASELINE – AL

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
AL	POB	30+00.00	82206.98	1645138.40	180° 45' 34"	55.00	-	-	-	-	-
	PC	30+55.00	82261.98	1645139.13	-	-	50°58'43"	500.00	238.37	444.87	AL-1
	PT	34+99.87	82647.94	1645329.46	231° 44' 17"	332.05	-	-	-	-	-
	PC	38+31.92	82853.57	1645590.18	-	-	60°55'23"	300.00	176.44	318.99	AL-2
	PT	41+50.91	82894.85	1645891.54	292° 39' 40"	134.09	-	-	-	-	-
	PT/POE	42+85.00	82843.19	1646015.28	-	-	-	-	-	-	-

ROADWAY HORIZONTAL CONTROL DATA – WAIPAHU HIGH SCHOOL BASELINE – WHS

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
WHS	POB	10+00.00	81069.67	1642554.91	211° 11' 46"	87.77	-	-	-	-	-
	PC	10+87.77	81144.74	1642600.37	-	-	16°33'48"	60.00	8.73	17.34	WHS-1
	PT	11+05.11	81158.08	1642611.36	227° 45' 34"	352.34	-	-	-	-	-
	PC	14+57.45	81394.94	1642872.21	-	-	43°10'58"	60.00	23.75	45.22	WHS-2
	PT	15+02.67	81410.51	1642913.53	270° 56' 32"	146.64	-	-	-	-	-
	POE	16+49.31	81408.10	1643060.15	-	-	-	-	-	-	-

ROADWAY HORIZONTAL CONTROL DATA – NORTH ACCESS ROAD BASELINE – NAR

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
NAR	POB	10+00.00	82306.89	1645141.75	95° 54' 58"	10.00	-	-	-	-	-
	PC	10+10.00	82307.92	1645131.81	-	-	96°34'10"	60.00	67.31	101.13	NAR-1
	PT	11+11.13	82380.57	1645079.41	192° 29' 08"	39.24	-	-	-	-	-
	PC	11+50.37	82418.88	1645087.89	-	-	46°44'51"	60.00	25.93	48.95	NAR-2
	PT	11+99.32	82465.63	1645078.90	145° 44' 17"	209.65	-	-	-	-	-
	PC	14+08.97	82638.90	1644960.87	-	-	69°59'07"	100.00	70.00	122.15	NAR-3
	PCC	15+31.12	82753.59	1644962.34	-	-	16°16'32"	375.00	53.62	106.52	NAR-4
	PCC	16+37.64	82830.13	1645035.90	-	-	1°53'29"	775.00	12.79	25.58	NAR-5
	PCC	16+63.22	82845.55	1645056.32	-	-	38°24'51"	115.00	40.06	77.10	NAR-6
	PT	17+40.33	82867.55	1645128.71	272° 18' 15"	70.18	-	-	-	-	-
POE	18+10.51	82864.73	1645198.84	-	-	-	-	-	-	-	

ROADWAY HORIZONTAL CONTROL DATA – MAINTENANCE ACCESS ROAD – MSF

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
MSF	POB	10+00.00	82690.22	1644943.65	87° 08' 48"	10.30	-	-	-	-	-
	PC	10+10.30	82689.71	1644933.36	-	-	56°38'52"	30.00	16.17	29.66	MSF-1
	PT	10+39.96	82674.97	1644909.00	30° 29' 56"	209.34	-	-	-	-	-
	POE	12+49.30	82494.60	1644802.76	-	-	-	-	-	-	-

ROADWAY HORIZONTAL CONTROL DATA – EMERGENCY ACCESS ROAD – EAR

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
EAR	POB/PC	21+97.17	81862.32	1643565.92	-	-	63°17'17"	75.00	46.22	82.84	EAR-1
	PCC	22+80.01	81930.64	1643526.86	-	-	39°14'58"	70.00	24.96	47.95	EAR-2
	PT	23+27.96	81975.42	1643512.54	142° 38' 12"	22.04	-	-	-	-	-
	POE	23+50.00	81992.94	1643499.16	-	-	-	-	-	-	-

ROADWAY HORIZONTAL CONTROL DATA – LEEWARD COMMUNITY COLLEGE BASELINE – LCC

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
LCC	POB	10+00.00	82474.30	1645189.58	295° 58' 11"	15.95	-	-	-	-	-
	PC	10+15.95	82467.31	1645203.92	-	-	32°13'50"	70.00	20.23	39.38	LCC-1
	PT	10+55.33	82441.27	1645232.76	328° 12' 01"	12.67	-	-	-	-	-
	POE	10+68.00	82430.50	1645239.43	-	-	-	-	-	-	-

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Rev	By	Date	Description
B	AB	05-22-09	Revised Roadway Name
A	AB	04-03-09	Issued For Bid

Designed:
L Karamatsu
Drawn:
R Angkaw
Checked:
M Jewell
Approved:
A Borst
Date:
04-03-09

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

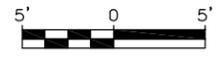
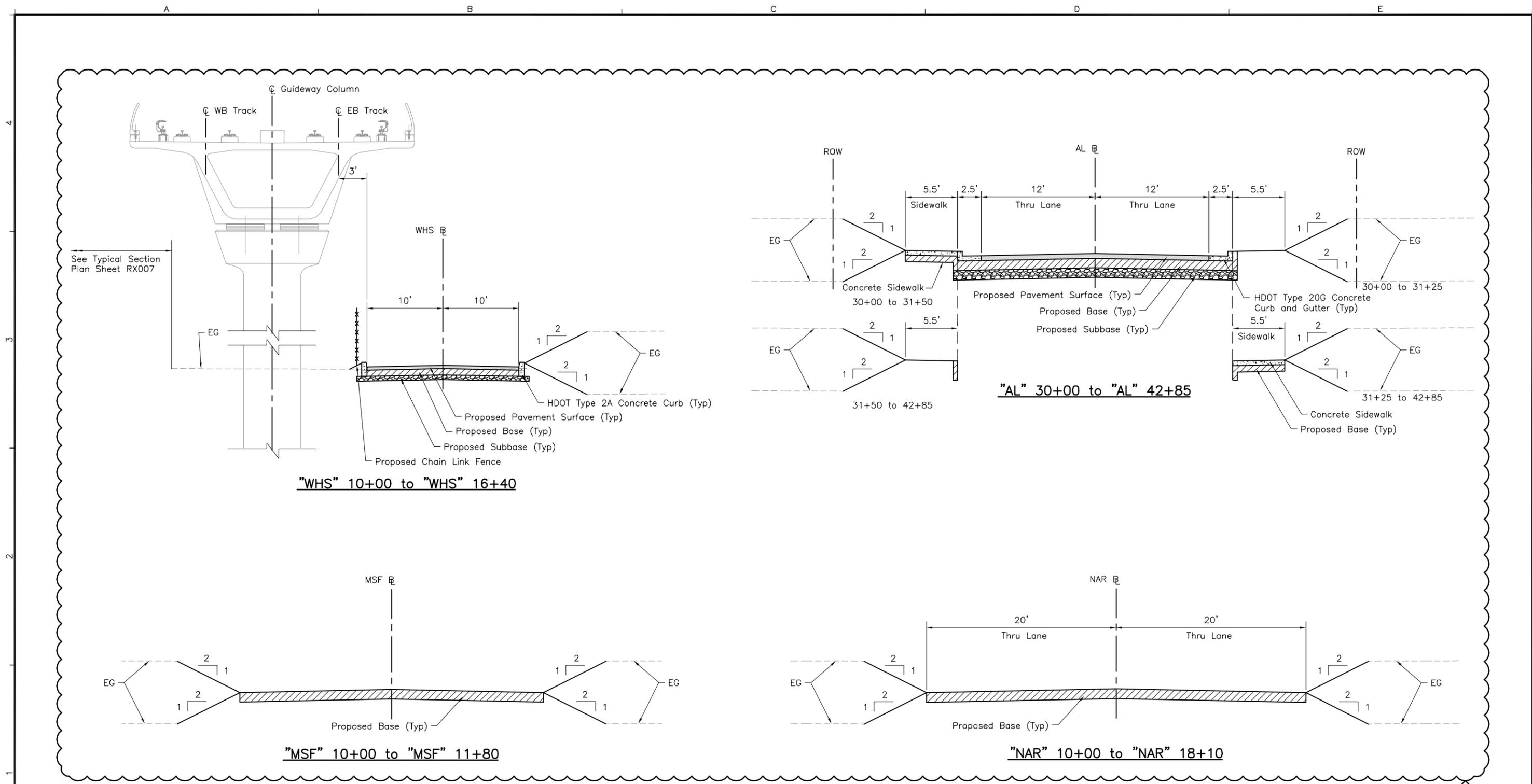
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:

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

WEST O'AHU/FARRINGTON DESIGN BUILD
**ROADWAY HORIZONTAL
CONTROL DATA**
SHEET 2 OF 2

Contract No.:
DB-1200
CADD File:
WF-B12-RP202
Drawing No: RP202 Rev. B
Scale:
NTS
Page No. 161 of 312



Rev	By	Date	Description
B	MH	05-22-09	Revised Typical Sections
A	MH	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
B. Wardell
Drawn:
T Cochran
Checked:
E Liberman
Approved:
M Hall
Date:
04-03-09

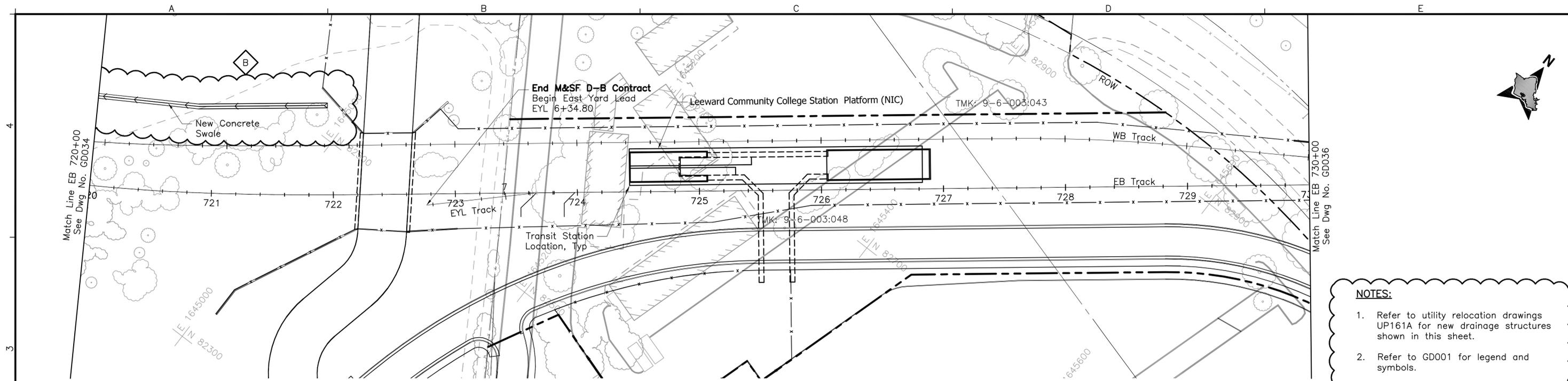
HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**
Subconsultant:

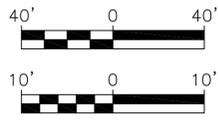
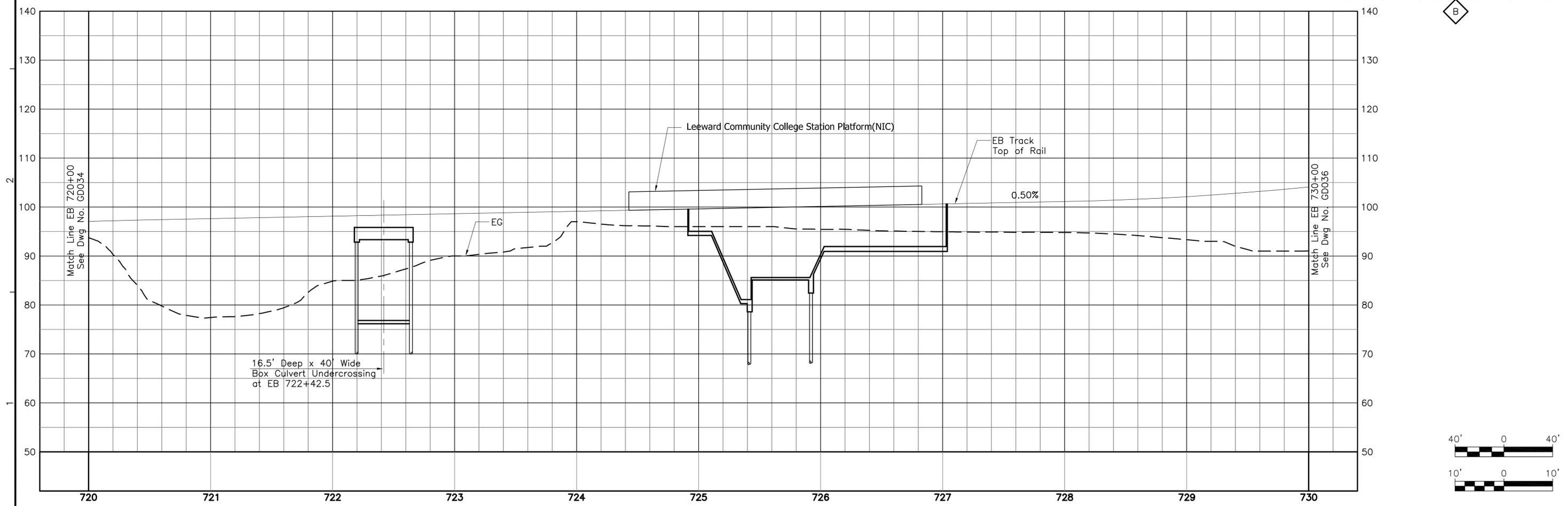
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813
For reduced prints, original page size in inches: 0 1 2 3 4

**WEST O'AHU/FARRINGTON DESIGN-BUILD
TYPICAL SECTIONS
ALA IKE STREET &
WAIPAHU HIGH SCHOOL ACCESS ROAD
SHEET 8 OF 8**

Contract No.:	DB-1200
CADD File:	WF-B13-RX008
Drawing No:	RX008
Rev.:	B
Scale:	1"=5'
Page No.:	169 of 312



- NOTES:**
1. Refer to utility relocation drawings UP161A for new drainage structures shown in this sheet.
 2. Refer to GD001 for legend and symbols.



Rev	By	Date	Description
B	MY	05-22-09	Miscellaneous Updates
A	MY	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
E Leung
Drawn:
D Chua
Checked:
N Orense
Approved:
M Yonamine
Date:
04-03-09

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

Subconsultant:
LYON ASSOCIATES
841 Bishop Street, Suite 2006
Honolulu, HI 96813 USA
Voice: (808) 536-6621
Fax: (808) 523-1738
E-mail: admin@lyonassociates.com
www.lyonassociates.com

**WEST O'AHU/FARRINGTON DESIGN-BUILD
GUIDEWAY DRAINAGE LAYOUT PLAN**

EB 720+00 TO EB 730+00

Contract No.: DB-1200	
CADD File: WF-B16-GD035	
Drawing No: GD035	Rev. B
Scale: 1"=40' H, 1"=10' V	
Page No. 204 of 312	

DOWNSPOUT SCHEDULE

COLUMN LOCATION APPROX STATION	DS LOCATION	DS DISCHARGE CONDITION PER GD103	REMARKS
392+00	Left	2	Splash Block, No Underground Connection
394+41	Left	2	Splash Block, No Underground Connection
396+48	Left	2	Splash Block, No Underground Connection
398+82	Back	3	Provide Underground Connection with Cleanout and Daylight to Existing Rip-Rap
401+04	Left	2	Splash Block, No Underground Connection
403+45	Left	2	Splash Block, No Underground Connection
407+38	Left	2	Splash Block, No Underground Connection
408+88	Back	2	Splash Block, No Underground Connection
410+38	Back	2	Splash Block, No Underground Connection
411+88	Back	2	Splash Block, No Underground Connection
413+38	Back	2	Splash Block, No Underground Connection
414+88	Back	2	Splash Block, No Underground Connection
416+39	Back	2	Splash Block, No Underground Connection
417+89	Back	2	Splash Block, No Underground Connection
420+90	Back	2	Splash Block, No Underground Connection
423+90	Back	2	Splash Block, No Underground Connection
426+91	Back	2	Splash Block, No Underground Connection
429+91	Back	2	Splash Block, No Underground Connection
432+71	Back	2	Splash Block, No Underground Connection
435+71	Back	2	Splash Block, No Underground Connection
438+73	Back	2	Splash Block, No Underground Connection
441+73	Back	2	Splash Block, No Underground Connection
444+74	Back	2	Splash Block, No Underground Connection
447+39	Right	2	Splash Block, No Underground Connection
449+44	Forward	3	Provide Underground Connection to Existing 72" Drainline with Cleanout
450+36	Back	2	Splash Block, No Underground Connection
452+91	Forward	-	No Splash Block
456+20	Back	2	Splash Block, No Underground Connection
459+16	Back	2	Splash Block, No Underground Connection
462+15	Forward	5	Splash Block, No Underground Connection
465+15	Forward	5	Splash Block, No Underground Connection
468+10	Forward	5	Splash Block, No Underground Connection

COLUMN LOCATION APPROX STATION	DS LOCATION	DS DISCHARGE CONDITION PER GD103	REMARKS
471+10	Back	5	Splash Block, No Underground Connection
474+10	Back	5	Splash Block, No Underground Connection
477+10	Back	5	Splash Block, No Underground Connection
480+10	Back	5	Splash Block, No Underground Connection
483+10	Back	5	Splash Block, No Underground Connection
486+10	Back	5	Splash Block, No Underground Connection
489+10	Back	5	Splash Block, No Underground Connection
492+10	Forward	5	Splash Block, No Underground Connection
495+10	Forward	5	Splash Block, No Underground Connection
498+10	Back	4	Splash Block, No Underground Connection
499+58	Back	4	Splash Block, No Underground Connection
501+61	Back	4	Splash Block, No Underground Connection
504+51	Back	5	Splash Block, No Underground Connection
507+51	Forward	5	Splash Block, No Underground Connection
510+53	Forward	2	Splash Block, No Underground Connection
513+53	Forward	2	Splash Block, No Underground Connection
516+53	Back	2	Splash Block, No Underground Connection
519+52	Forward	2	Splash Block, No Underground Connection
522+51	Back	2	Splash Block, No Underground Connection
525+51	Forward	2	Splash Block, No Underground Connection
528+47	Forward	2	Splash Block, No Underground Connection
532+95	Forward	2	Splash Block, No Underground Connection
535+95	Forward	2	Splash Block, No Underground Connection
538+95	Forward	2	Splash Block, No Underground Connection
541+95	Forward	2	Splash Block, No Underground Connection
545+15	Back	2	Splash Block, No Underground Connection
548+15	Forward	2	Splash Block, No Underground Connection
551+36	Forward	2	Splash Block, No Underground Connection
554+06	Forward	2	Splash Block, No Underground Connection
555+56	Forward	2	Splash Block, No Underground Connection
557+06	Forward	2	Splash Block, No Underground Connection
560+08	Forward	2	Splash Block, No Underground Connection

COLUMN LOCATION APPROX STATION	DS LOCATION	DS DISCHARGE CONDITION PER GD103	REMARKS
563+08	Forward	2	Splash Block, No Underground Connection
567+28	Forward	2	Splash Block, No Underground Connection
570+59	Forward	2	Splash Block, No Underground Connection
573+59	Back	1	Splash Block w/ Channel Connection to Existing DI
576+59	Forward	2	Splash Block, No Underground Connection
579+29	Back	1	Splash Block, w/ Channel Connection to New DI
580+39	Forward	3	Provide Underground Connection to New DI with Cleanout
582+61	Forward	3	Provide Underground Connection to New DI with Cleanout
584+66	Forward	3	Provide Underground Connection to New DI with Cleanout
588+01	Forward	2	Splash Block, No Underground Connection
589+51	Forward	2	Splash Block, No Underground Connection
591+01	Forward	2	Splash Block, No Underground Connection
593+81	Back	2	Splash Block, No Underground Connection
597+11	Back	1	Splash Block w/ Channel Connection to Existing DI
600+11	Back	2	Splash Block, No Underground Connection
603+11	Back	2	Splash Block, No Underground Connection
604+91	Back	3	Provide Underground Connection to New CB with Cleanout
607+91	Back	2	Splash Block, No Underground Connection
610+90	Back	2	Splash Block, No Underground Connection
612+70	Forward	2	Splash Block, No Underground Connection
615+70	Forward	2	Splash Block, No Underground Connection
618+70	Forward	2	Splash Block, No Underground Connection
621+50	Forward	1	Splash Block w/ Channel Connection to Existing DI
624+50	Forward	3	Provide Underground Connection to New SDMH with Cleanout
627+20	Right	3	Provide Underground Connection to New SDMH with Cleanout
628+80	Right	3	Provide Underground Connection to Waikale Stream with Cleanout
631+50	Forward	3	Provide Underground Connection to Existing CB with Cleanout
634+50	Forward	3	Provide Underground Connection to Existing SDMH with Cleanout
637+50	Forward	3	Provide Underground Connection to Existing SDMH with Cleanout
640+50	Forward	2	Splash Block, No Underground Connection
642+00	Forward	3	Provide Underground Connection to Existing Box Culvert
643+60	Forward	2	Splash Block, No Underground Connection

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
E Leung
Drawn:
M Lauriaga
Checked:
N Orense
Approved:
M Yonamine
Date:
04-03-09

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
For reduced prints, original page size in inches:

Subconsultant:
LYON ASSOCIATES
841 Bishop Street, Suite 2006
Honolulu, HI 96813 USA
Voice: (808) 536-6621
Fax: (808) 523-1738
E-mail: admin@lyonassociates.com
www.lyonassociates.com

WEST O'AHU/FARRINGTON DESIGN-BUILD

**GUIDEWAY DRAINAGE
DOWNSPOUT SCHEDULE**

SHEET 1 OF 2

Contract No.:
DB-1200
CADD File:
WF-B16-GD039
Drawing No: GD039 Rev. B
Scale: NTS
Page No. 208 of 312

Rev	By	Date	Description
B	MY	05-22-09	Miscellaneous Updates
A	MY	04-03-09	Issued For Bid

DOWNSPOUT SCHEDULE

COLUMN LOCATION APPROX STATION	DS LOCATION	DS DISCHARGE CONDITION PER GD103	REMARKS
645+10	Back	3	Provide Underground Connection to New DI with Cleanout
646+60	Forward	2	Splash Block, No Underground Connection
649+60	Forward	2	Splash Block, No Underground Connection
652+85	Back	3	Provide Underground Connection to New DI with Cleanout
654+40	Back	2	Splash Block, No Underground Connection
657+10	Back	2	Splash Block, No Underground Connection
658+60	Back	2	Splash Block, No Underground Connection
661+61	Back	2	Splash Block, No Underground Connection
663+11	Forward	2	Splash Block, No Underground Connection
665+81	Back	2	Splash Block, No Underground Connection
668+81	Back	2	Splash Block, No Underground Connection
671+83	Back	2	Splash Block, No Underground Connection
673+33	Back	2	Splash Block, No Underground Connection
675+08	Forward	3	Provide Underground Connection to Existing DI with Cleanout
678+08	Back	2	Splash Block, No Underground Connection
681+09	Back	2	Splash Block, No Underground Connection
684+09	Back	2	Splash Block, No Underground Connection
687+09	Back	3	Provide Underground Connection to New SDMH with Cleanout
689+88	Back	2	Splash Block, No Underground Connection
694+34	Back	2	Splash Block, No Underground Connection
695+84	Back	2	Splash Block, No Underground Connection
698+84	Forward	2	Splash Block, No Underground Connection
730+76	Forward	3	Provide Underground Connection to Existing Swale/ Ditch with Cleanout
732+83	Back	3	Provide Underground Connection to New SDMH with Cleanout
738+45	Forward	2	Splash Block, No Underground Connection
741+85	Forward	2	Splash Block, No Underground Connection
744+06	Back	2	Splash Block, No Underground Connection
747+04	Back	2	Splash Block, No Underground Connection
749+49	Back	2	Splash Block, No Underground Connection
751+66	Forward	2	Splash Block, No Underground Connection
754+30	Back	2	Splash Block, No Underground Connection

4
3
2
1

Rev	By	Date	Description
B	MY	05-22-09	Miscellaneous Updates
A	MY	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:	E Leung
Drawn:	M Lauriaga
Checked:	N Orense
Approved:	M Yonamine
Date:	04-03-09

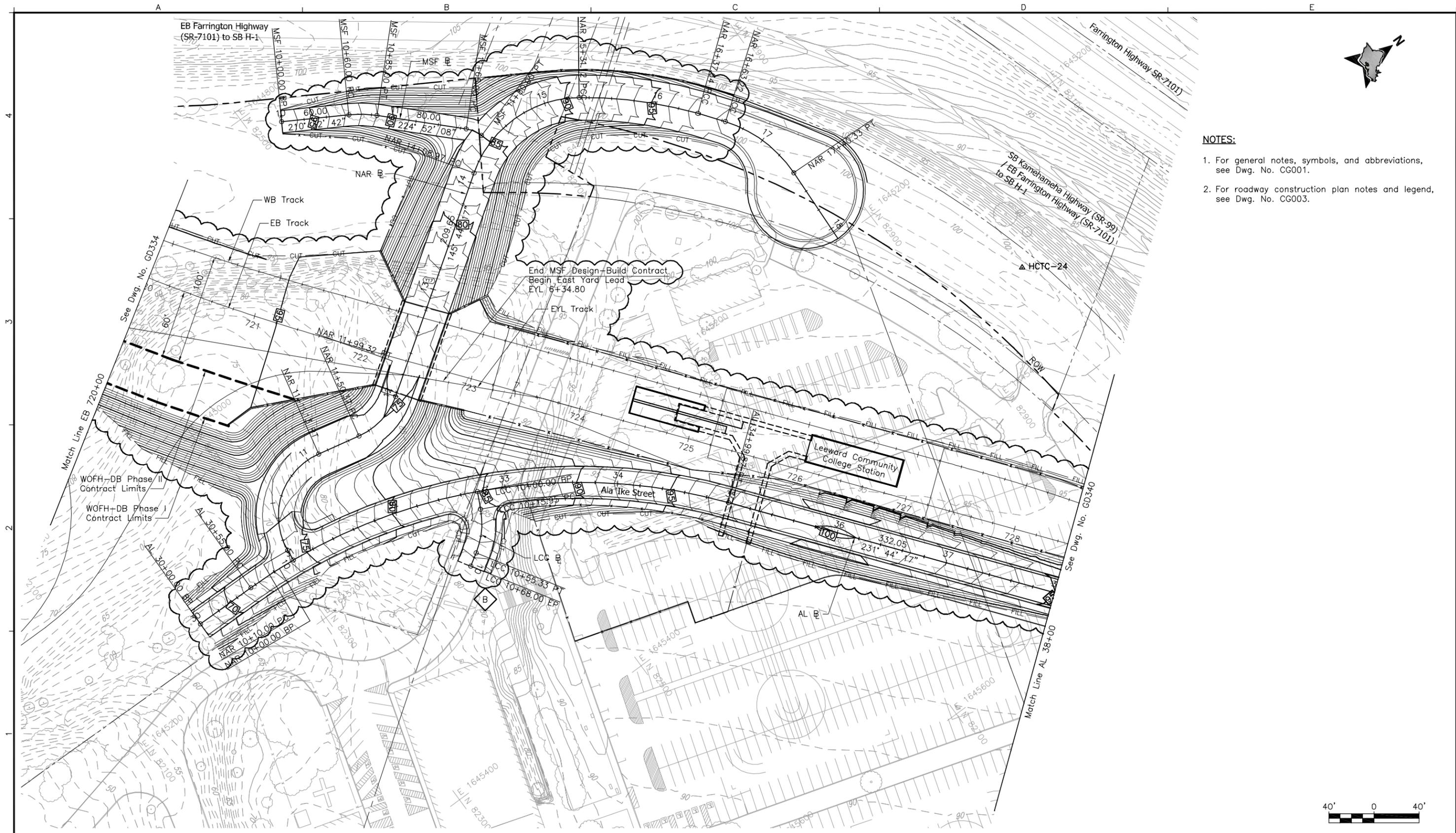
HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant:  1003 Bishop Street, Suite 2250 - Honolulu, HI 96813	Subconsultant:  841 Bishop Street, Suite 2006 Honolulu, HI 96813 USA Voice: (808) 536-6621 Fax: (808) 523-1738 E-mail: admin@lyonassociates.com www.lyonassociates.com
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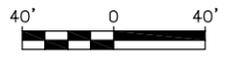
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WEST O'AHU/FARRINGTON DESIGN-BUILD
**GUIDEWAY DRAINAGE
DOWNSPOUT SCHEDULE**
SHEET 2 OF 2

Contract No.:	DB-1200
CADD File:	WF-B16-GD040
Drawing No:	GD040
Rev.	B
Scale:	NTS
Page No.	209 of 312



- NOTES:**
1. For general notes, symbols, and abbreviations, see Dwg. No. CG001.
 2. For roadway construction plan notes and legend, see Dwg. No. CG003.



Rev	By	Date	Description
B	MH	05-22-09	Revised Grading Design
A	MH	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: R Nacion
 Drawn: M Santos
 Checked: M Jewell
 Approved: M Hall
 Date: 04-03-09

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:

WEST O'AHU/FARRINGTON DESIGN-BUILD

**GRADING PLAN
ALA 'IKE STREET**

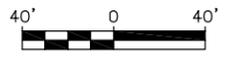
AL 30+00 TO AL 38+00

Contract No.: DB-1200	
CADD File: WF-B17-GD339	
Drawing No: GD339	Rev. B
Scale: 1"=40'	
Page No. 219 of 312	



NOTES:

1. For general notes, symbols, and abbreviations, see Dwg. No. CG001.
2. For roadway construction plan notes and legend, see Dwg. No. CG003.



Rev	By	Date	Description
B	MH	05-22-09	Revised Grading Design
A	MH	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
R Nacion

Drawn:
M Santos

Checked:
M Jewell

Approved:
M Hall

Date:
04-03-09

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

Prime Consultant:
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Subconsultant:

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WEST O'AHU/FARRINGTON DESIGN-BUILD

**GRADING PLAN
ALA'IKE STREET**

AL 38+00 TO AL 42+85

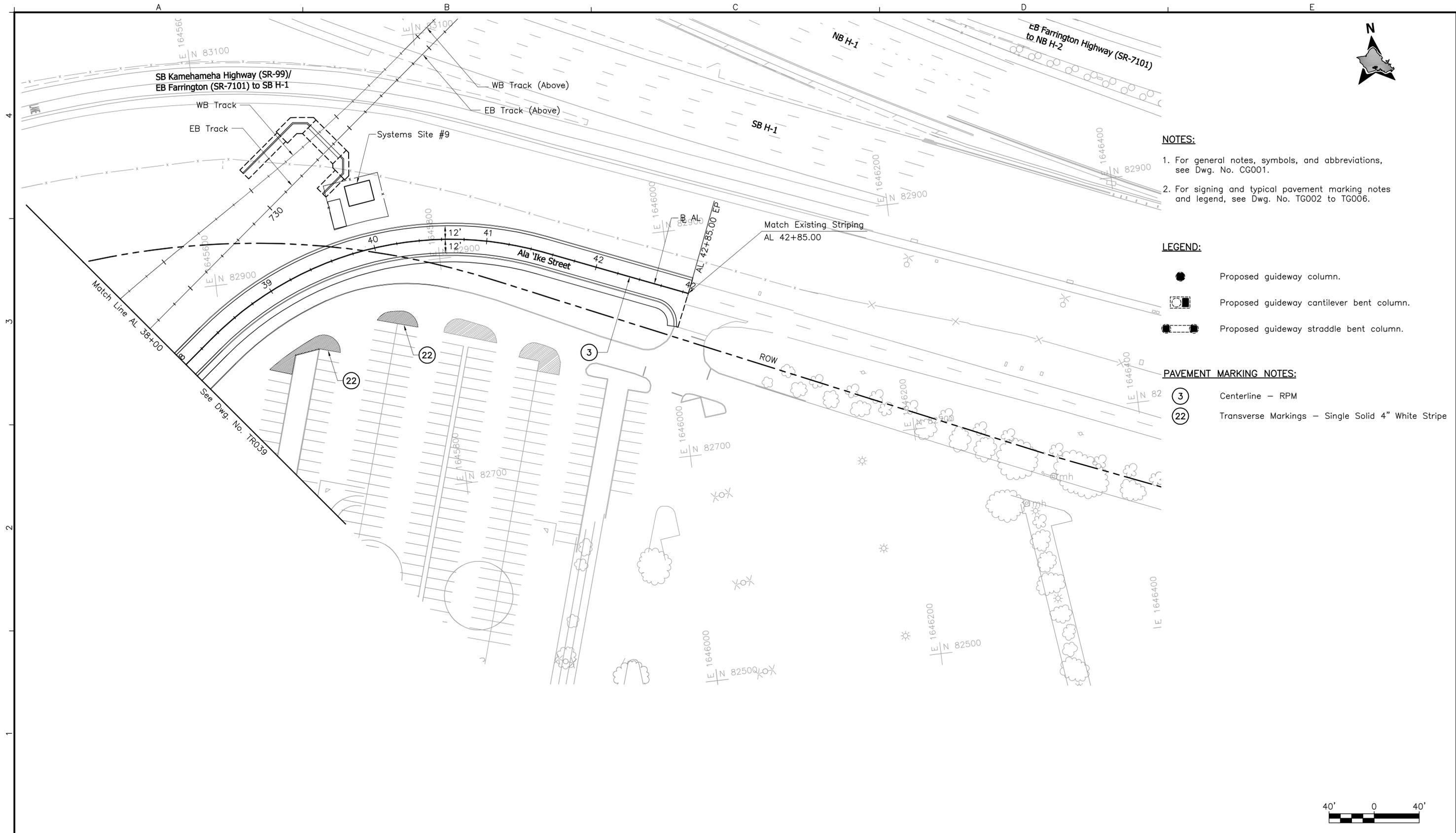
Contract No.:
DB-1200

CADD File:
WF-B17-GD340

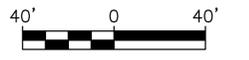
Drawing No: Rev. B
GD340

Scale:
1"=40'

Page No. 220 of 312



- NOTES:**
1. For general notes, symbols, and abbreviations, see Dwg. No. CG001.
 2. For signing and typical pavement marking notes and legend, see Dwg. No. TG002 to TG006.
- LEGEND:**
- Proposed guideway column.
 - ◻ Proposed guideway cantilever bent column.
 - ◻ Proposed guideway straddle bent column.
- PAVEMENT MARKING NOTES:**
- ③ Centerline - RPM
 - ②② Transverse Markings - Single Solid 4" White Stripe



Rev	By	Date	Description
A	MH	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
L Karamatsu

Drawn:
J Derosier

Checked:
E Liberman

Approved:
M Hall

Date:
04-03-09

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:

**WEST O'AHU/FARRINGTON DESIGN-BUILD
SIGNING AND STRIPING PLAN
ALA 'IKE STREET
AL 38+00 TO AL 42+85**

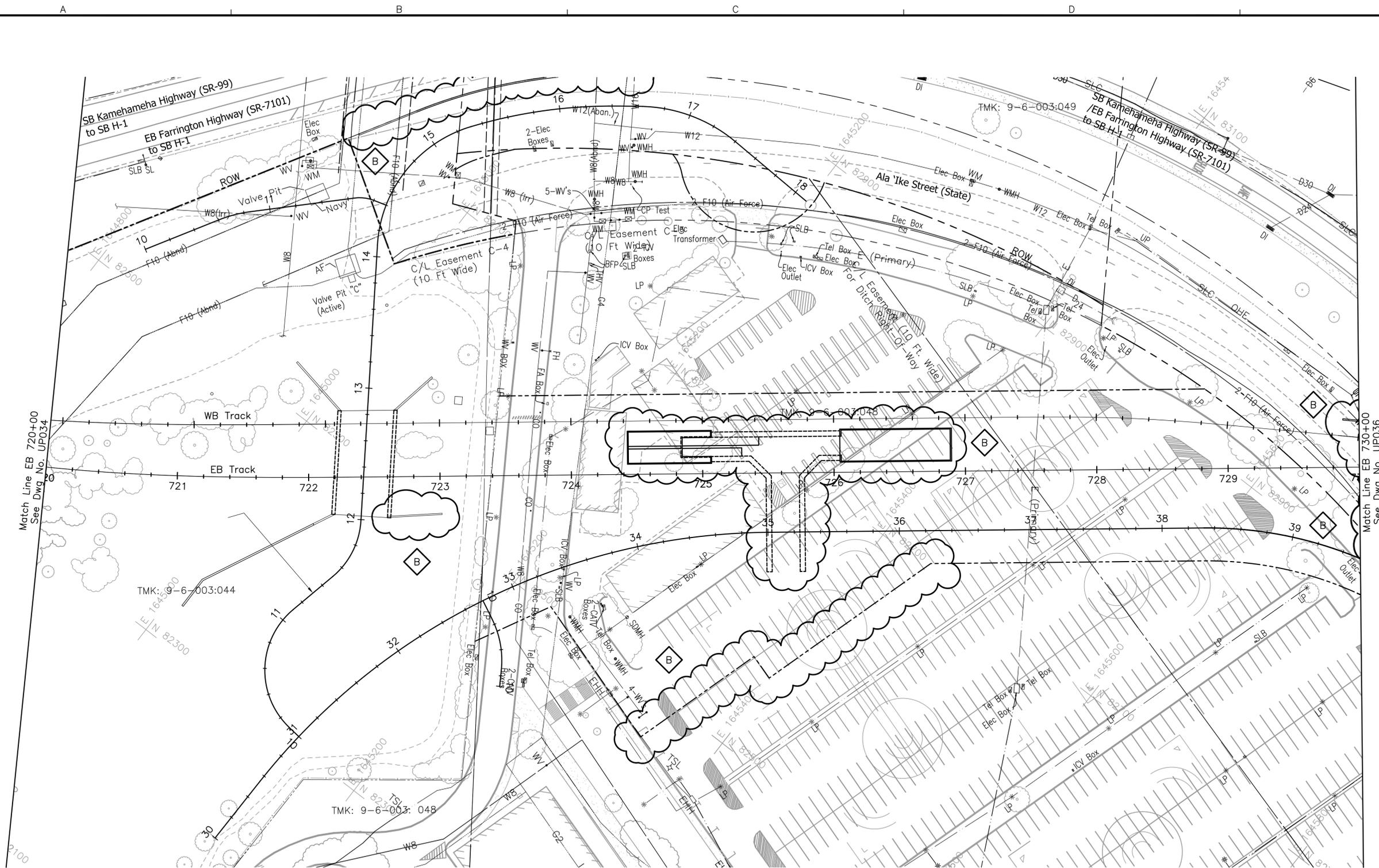
Contract No.:
DB-1200

CADD File:
WF-C02-TR040

Drawing No: TR040 Rev. A

Scale:
1"=40'

Page No. 249 of 312



Rev	By	Date	Description
B	JY	05-22-09	Misc. Revisions
A	JY	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: N/A
 Drawn: D Toba
 Checked: H Andrews
 Approved: J Yamamoto
 Date: 04-03-09

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

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

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

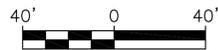
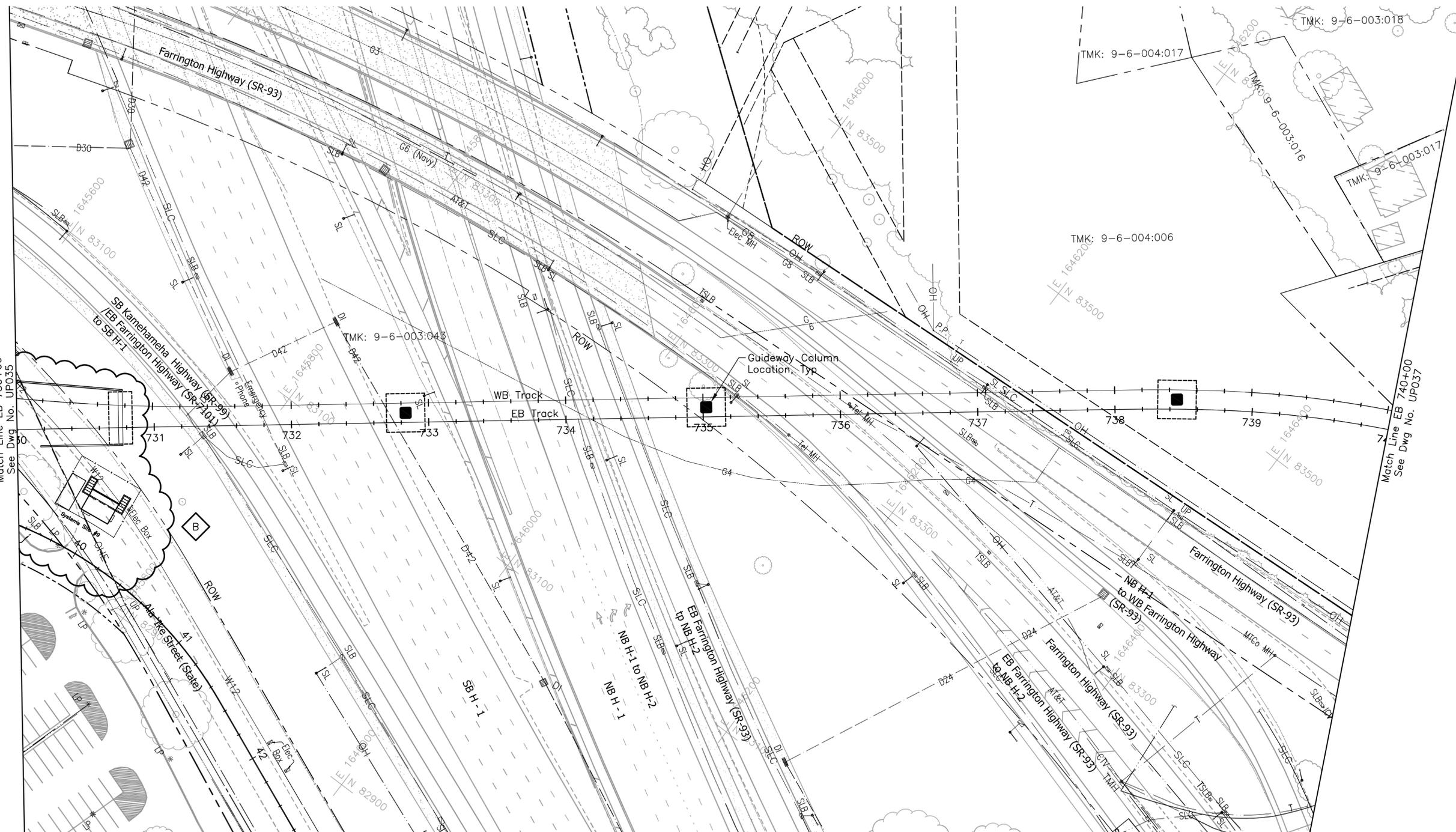
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WEST O'AHU/FARRINGTON DESIGN-BUILD

**COMPOSITE PLAN
EXISTING UTILITIES**

EB 720+00 TO EB 730+00

Contract No.:	DB-1200
CADD File:	WF-D02-UP035
Drawing No:	UP035
Rev.:	B
Scale:	1"=40'
Page No.:	65 of 314



Rev	By	Date	Description
B	JY	05-22-09	Misc. Revisions
A	JY	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: N/A
 Drawn: D Toba
 Checked: H Andrews
 Approved: J Yamamoto
 Date: 04-03-09

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

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

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

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WEST O'AHU/FARRINGTON DESIGN-BUILD

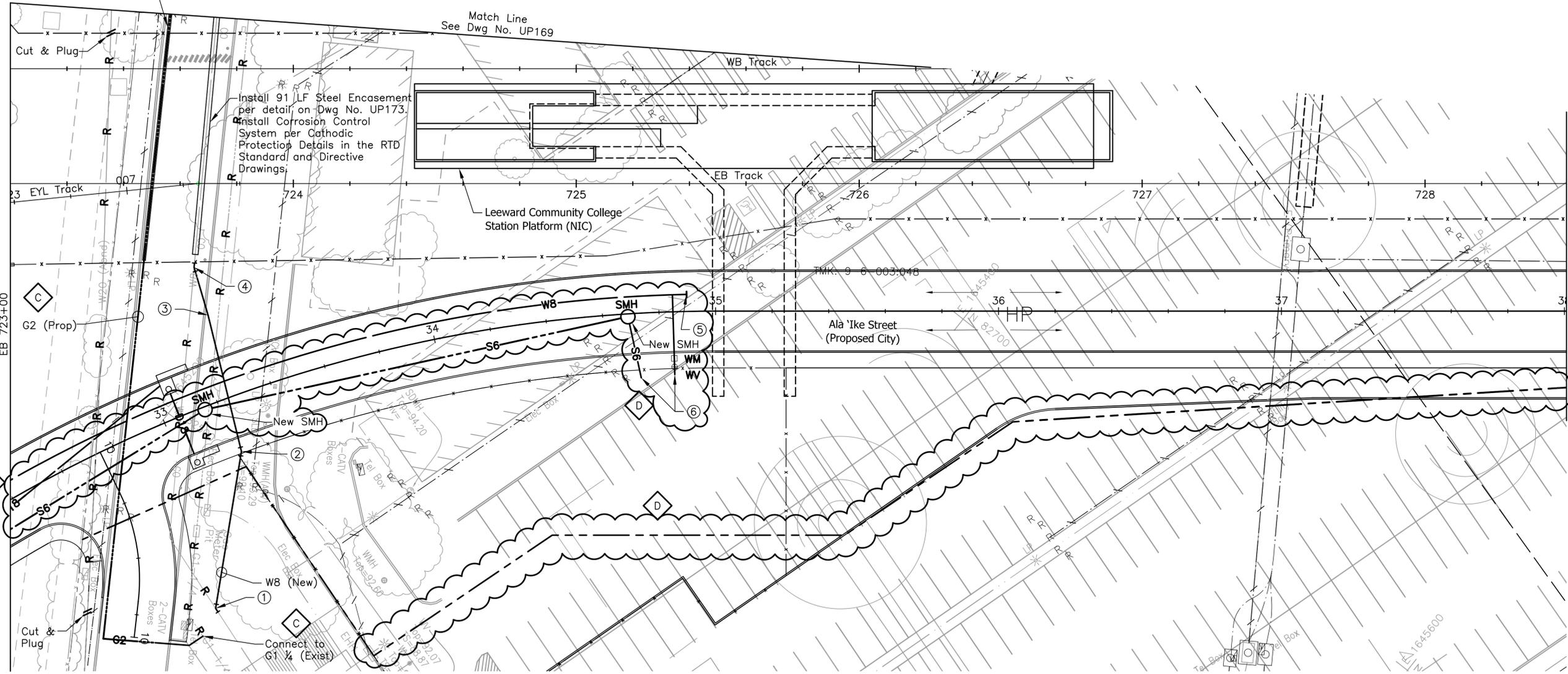
**COMPOSITE PLAN
EXISTING UTILITIES**

EB 730+00 TO EB 740+00

Contract No.: DB-1200	Rev. B
CADD File: WF-D02-UP036	
Drawing No: UP036	
Scale: 1"=40'	
Page No. 66 of 314	



Install 93 LF Steel Encasement per detail on Dwg No. UP173. Install Corrosion Control System per Cathodic Protection Details in the RTD Standard and Directive Drawings.



- ① Connect to W8 (Exist)
1-8" 1/8 Bend (H), D.I.
1-Conc Blk. w/ Structural Struts
1-8" Sleeve, 15" Long
8± LF 8" D.I. Pipe, CL. 52
- ② 1-8" 1/8 Bend (H), D.I.
1-Conc Blk.
- ③ Deflect W8 2.5'
- ④ Connect to W8 (Exist)
1-8" 1/8 Bend (H), D.I.
1-Conc Blk. w/ Structural Struts
1-8" Sleeve, 15" Long
8± LF 8" D.I. Pipe, CL. 52

- ⑤ 1-8" Cap, D.I.
w/ 2-1/2" Cleanout
1-Conc Blk.
- ⑥ Design-Build to coordinate with LCC Station Designer to determine the size of sewer and water laterals and have them installed to and terminated at the LCC Station ROW line.



Rev	By	Date	Description
D	JY	08-05-09	Added water and sewer lines for Station
C	JY	06-16-09	Revised Gas Line
B	JY	05-22-09	Misc. Revisions
A	JY	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: D Toba
Drawn: D Toba
Checked: H Andrews
Approved: J Yamamoto
Date: 04-03-09

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

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

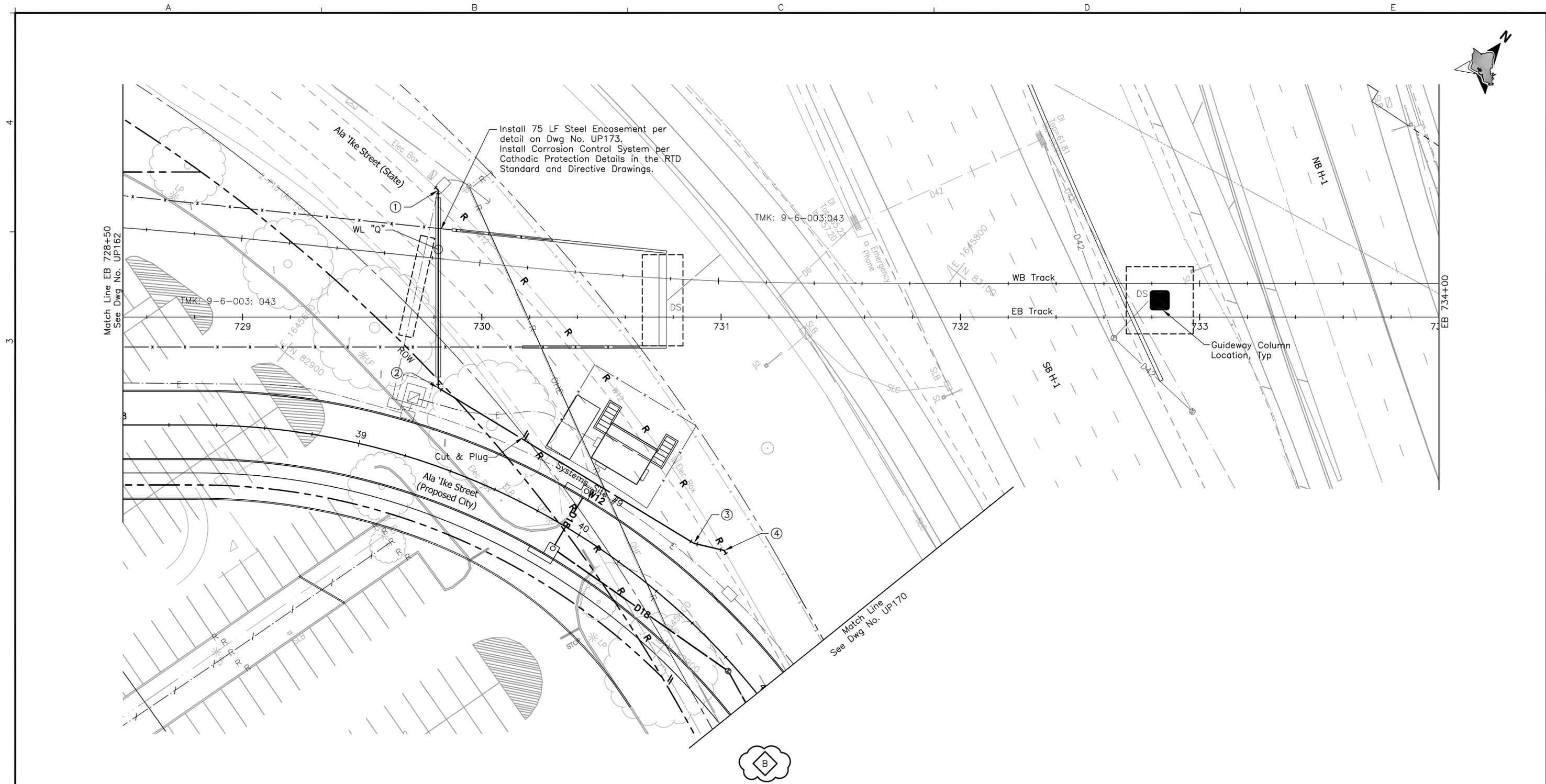
Subconsultant: **R. M. TOWILL CORPORATION**
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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

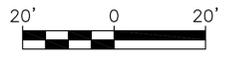
**WEST O'AHU/FARRINGTON DESIGN-BUILD
UTILITY RELOCATION PLAN
WATER, SEWER, DRAINAGE, PETROLEUM, & GAS**

EB 723+00 TO EB 728+50 SHEET 1 OF 1

Contract No.: DB-1200	
CADD File: WF-D03-UP162	
Drawing No: UP162	Rev. D
Scale: 1"=20'	
Page No. 133 of 314	



- ① Connect to W12 (Exist)
1-12" 1/8 Bend (H), D.I.
1-Conc Blk. w/ Structural Struts
1-12" Sleeve, 15" Long
8± LF 12" D.I. Pipe, CL. 52
- ② 1-12" 1/8 Bend (H), D.I.
1-12" 1/32 Bend (H), D.I.
1-Conc Blk.
- ③ 1-12" 1/8 Bend (H), D.I.
1-Conc Blk.
- ④ Connect to W12 (Exist)
1-12" 1/8 Bend (H), D.I.
1-Conc Blk. w/ Structural Struts
1-12" Sleeve, 15" Long
8± LF 12" D.I. Pipe, CL. 52



Rev	By	Date	Description
B	JY	05-22-09	Misc. Revisions
A	JY	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
D Toba

Drawn:
D Toba

Checked:
H Andrews

Approved:
J Yamamoto

Date:
04-03-09

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

Prime Consultant:
PARSONS BRINCKERHOFF

Subconsultant:
R. M. TOWILL CORPORATION

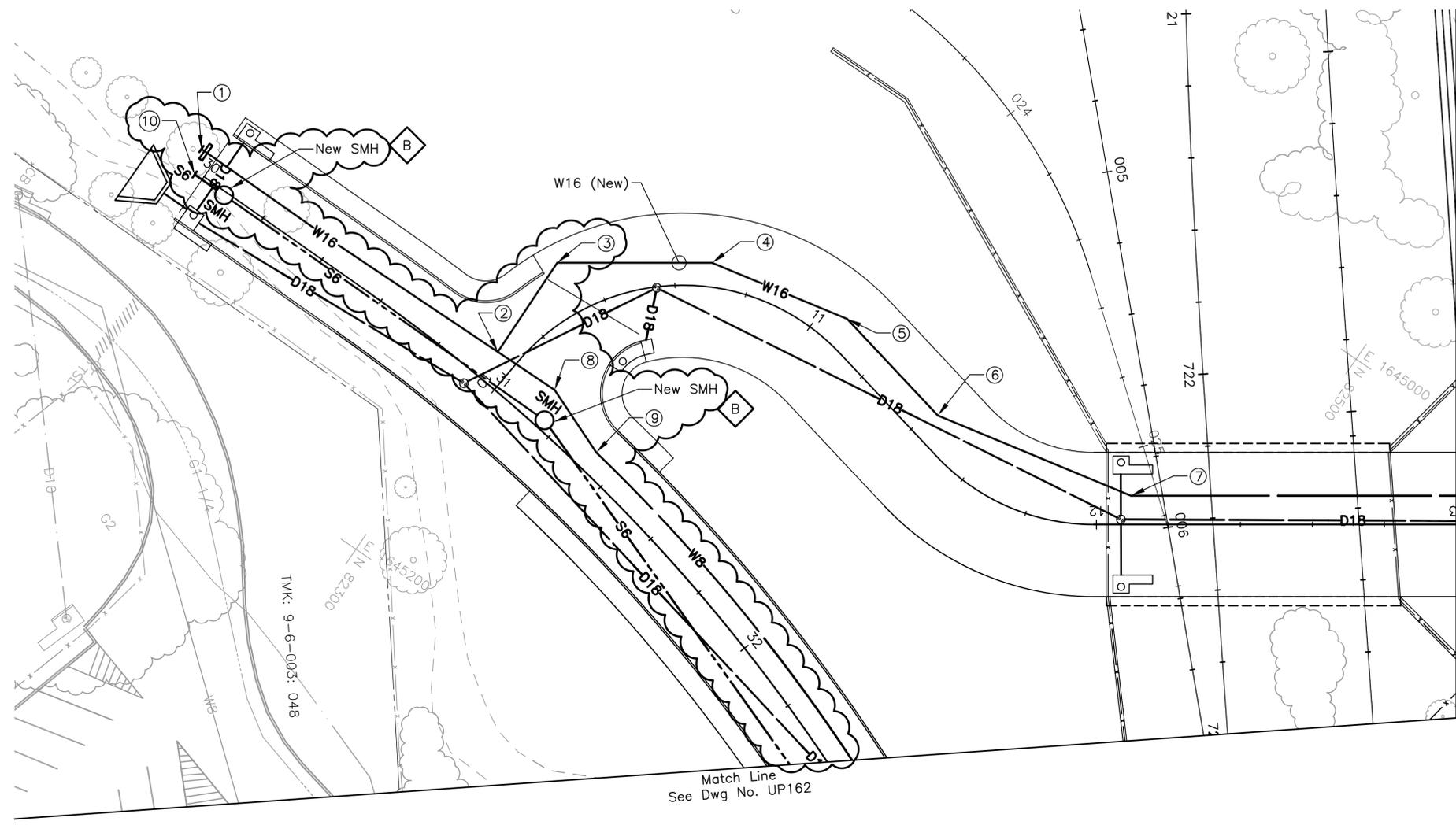
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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

**WEST O'AHU/FARRINGTON DESIGN-BUILD
UTILITY RELOCATION PLAN
WATER, SEWER, DRAINAGE, PETROLEUM, & GAS**

EB 728+50 TO EB 734+00 SHEET 1 OF 1

Contract No.:	DB-1200
CADD File:	WF-D03-UP163
Drawing No:	UP163
Rev:	B
Scale:	1"=20'
Page No.	134 of 314



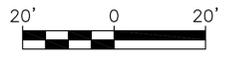
- ① 1-16" Cap, D.I. w/ 4" C.O.
1-Conc Beam w/ Reverse Bell Pipe
1-Conc Blk.
- ② 1-16"x16" Tee, D.I.
1-16"x8" Reducer, D.I.
1-Conc Blk.
- ③ 1-16" 1/8 Bend (H), D.I.
1-16" 1/2 Bend (H), D.I.
1-Conc Blk.
- ④ 1-16" 1/8 Bend (H), D.I.
1-Conc Blk.
- ⑤ 1-16" 1/8 Bend (H), D.I.
1-Conc Blk.
- ⑥ 1-16" 1/8 Bend (H), D.I.
1-Conc Blk.
- ⑦ 1-16" 1/8 Bend (H), D.I.
1-Conc Blk.
- ⑧ 1-8" 1/8 Bend (H), D.I.
1-Conc Blk.
- ⑨ 1-8" 1/2 Bend (H), D.I.
1-Conc Blk.
- ⑩ Provide stubout for future connection.
(Note: The MSF Contractor shall continue new S6 from this stubout location.)

Match Line
See Dwg No. UP169

Match Line
See Dwg No. UP162

NOTE:

For drainage relocations, see Drawing No. UP168A.



Rev	By	Date	Description
B	JY	08-05-09	Added water and sewer lines for Station
A	JY	05-22-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
D Toba
Drawn:
D Toba
Checked:
H Andrews
Approved:
J Yamamoto
Date:
05-22-09

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

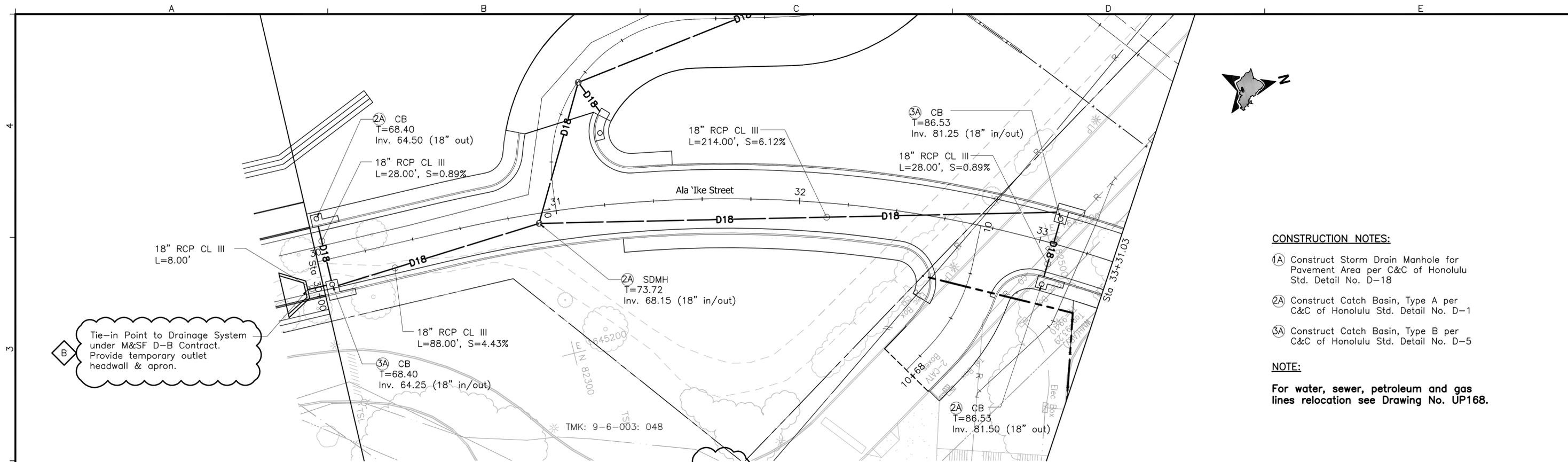
Prime Consultant:
PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

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

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

WEST O'AHU/FARRINGTON DESIGN-BUILD
UTILITY RELOCATION PLAN
WATER, SEWER, DRAINAGE, PETROLEUM, & GAS
ALA `IKE ST STA 30+00 TO STA 33+31.03 SHEET 1 OF 2

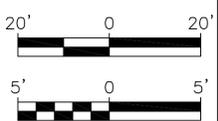
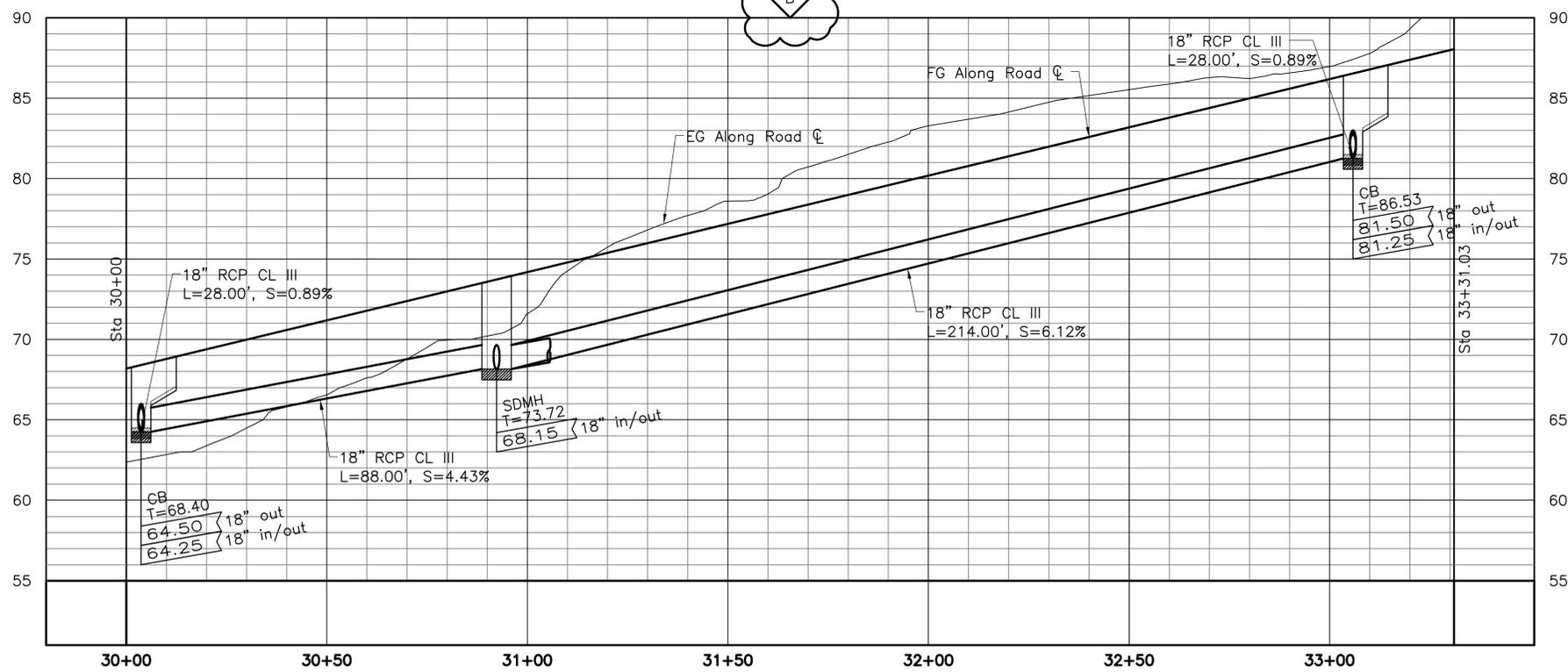
Contract No.: DB-1200	
CADD File: WF-D03-UP168	
Drawing No: UP168	Rev. B
Scale: 1"=20'	
Page No. 138 of 314	



- CONSTRUCTION NOTES:**
- ①A Construct Storm Drain Manhole for Pavement Area per C&C of Honolulu Std. Detail No. D-18
 - ②A Construct Catch Basin, Type A per C&C of Honolulu Std. Detail No. D-1
 - ③A Construct Catch Basin, Type B per C&C of Honolulu Std. Detail No. D-5

NOTE:
For water, sewer, petroleum and gas lines relocation see Drawing No. UP168.

Tie-in Point to Drainage System under M&SF D-B Contract. Provide temporary outlet headwall & apron.



Rev	By	Date	Description
B	MY	05-22-09	Added Profile & Misc. Update
A	MY	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: E Leung
 Drawn: D Chua
 Checked: N Orense
 Approved: M Yonamine
 Date: 04-03-09

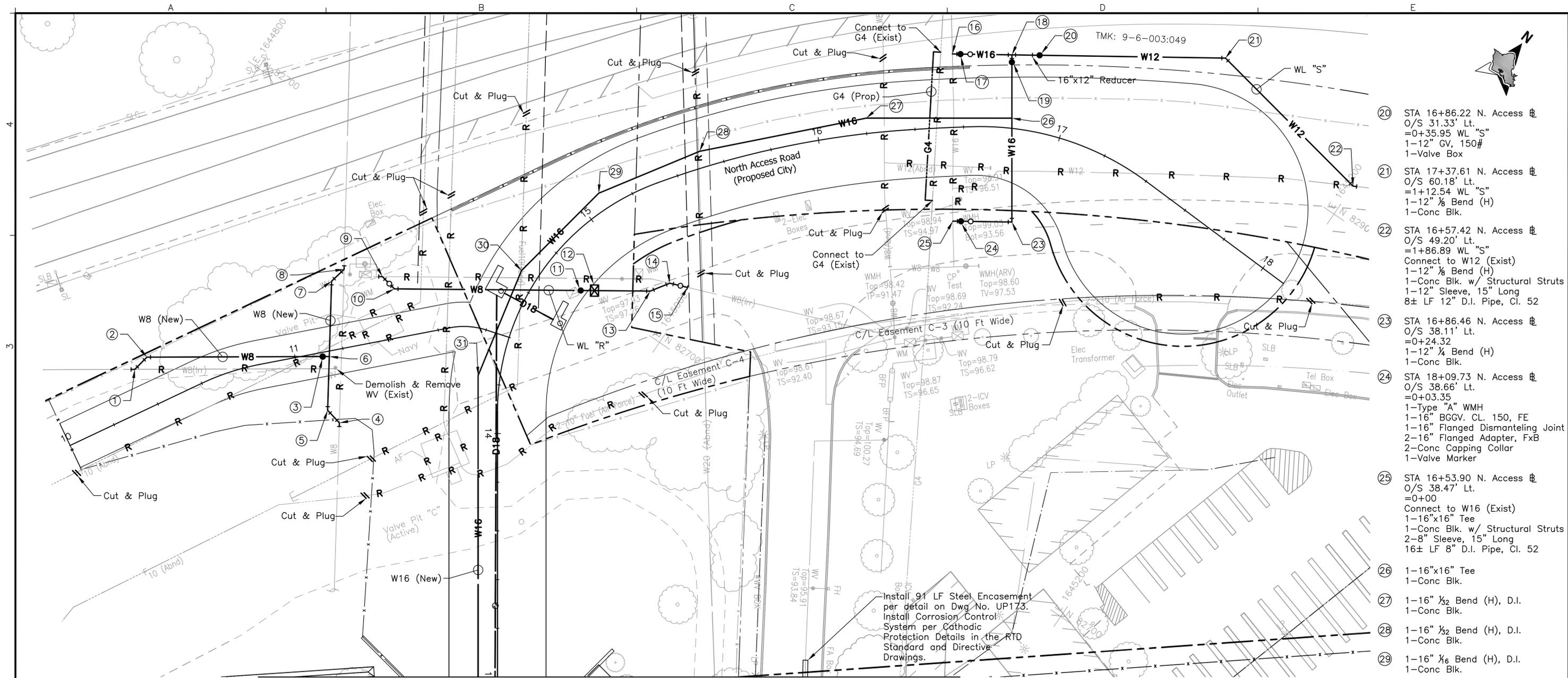
HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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

Subconsultant: **LYON ASSOCIATES**
 841 Bishop Street, Suite 2006
 Honolulu, HI 96813 USA
 Voice: (808) 536-6621
 Fax: (808) 523-1738
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WEST O'AHU/FARRINGTON DESIGN-BUILD
UTILITY RELOCATION PLAN
WATER, SEWER, DRAINAGE, PETROLEUM, & GAS
 ALA 'IKE ST STA 30+00 TO STA 33+31.03 SHEET 2 OF 2

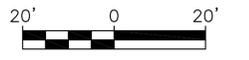
Contract No.: DB-1200	
CADD File: WF-D03-UP168A	
Drawing No: UP168A	Rev. B
Scale: 1"=20' H, 1"=5' V	
Page No. 139 of 314	



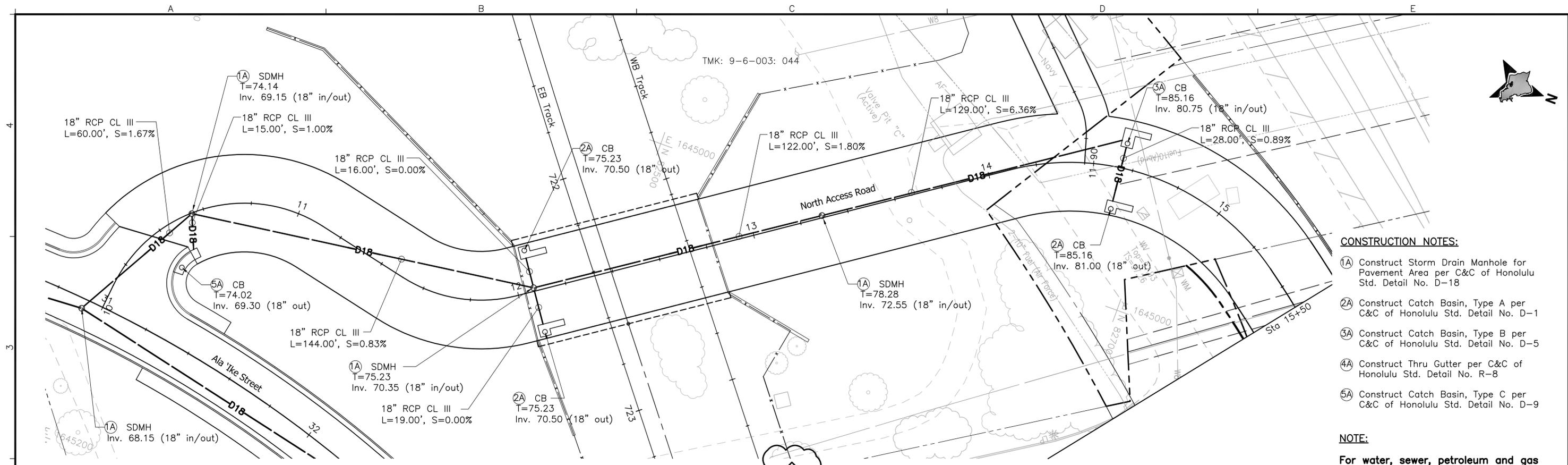
- ① Connect to W8 (Exist)
1-8" 1/2 Bend (H)
1-Conc Blk. w/ Structural Struts
1-8" Sleeve, 15" Long
8± LF 8" D.I. Pipe, Cl. 52
- ② 1-8" 1/2 Bend (H)
1-Conc Blk.
- ③ 1-WV
1-Valve Box
- ④ Connect to W8 (Exist)
1-8" 1/2 Bend (H)
1-Conc Blk. w/ Structural Struts
1-8" Sleeve, 15" Long
8± LF 8" D.I. Pipe, Cl. 52
- ⑤ 1-8" 1/2 Bend (H)
1-Conc Blk.
- ⑥ 1-8" Tee
1-Conc Blk.
- ⑦ 1-8" 1/2 Bend (H)
1-Conc Blk.
- ⑧ Connect to W8 (Exist)
1-8" 1/2 Bend (H)
1-Conc Blk. w/ Structural Struts
1-8" Sleeve, 15" Long
8± LF 8" D.I. Pipe, Cl. 52
- ⑨ STA 14+44.96 N. Access 0/S 57.56' Lt.
=0+00 WL "R"
Connect to W8 (Exist)
1-8" 1/2 Bend (H)
1-Conc Blk. w/ Structural Struts
1-8" Sleeve, 15" Long
8± LF 8" D.I. Pipe, Cl. 52
- ⑩ STA 14+42.99 N. Access 0/S 51.17' Lt.
=0+07.07 WL "R"
1-8" 1/2 Bend (H)
1-Conc Blk.
- ⑪ STA 14+73.80 N. Access 0/S 17.55' Rt.
=0+83.86 WL "R"
1-WV
1-Valve Box
- ⑫ STA 14+78.14 N. Access 0/S 22.03' Rt.
=0+89.53 WL "R"
Relocate WM
- ⑬ STA 15+01.82 N. Access 0/S 38.14' Rt.
=1+12.53 WL "R"
1-8" 1/2 Bend (H)
1-Conc Blk.
- ⑭ STA 15+15.75 N. Access 0/S 39.76' Rt.
=1+21.18 WL "R"
1-8" 1/2 Bend (H)
1-Conc Blk.
- ⑮ STA 15+25.79 N. Access 0/S 44.52' Lt.
=1+28.67 WL "R"
Connect to W8 (Exist)
1-8" Sleeve, 15" Long
8± LF 8" D.I. Pipe, Cl. 52
- ⑯ STA 16+56.64 N. Access 0/S 30.14' Lt.
=0+00 WL "S"
Connect to W8 (Exist)
1-16"x16" Tee
1-Conc Blk. w/ Structural Struts
2-8" Sleeve, 15" Long
16± LF 8" D.I. Pipe, Cl. 52
- ⑰ STA 16+59.86 N. Access 0/S 29.96' Lt.
=0+03.35 WL "S"
1-Type "A" WMH
1-16" BGGV. CL. 150, FE
1-16" Flanged Dismantling Joint
2-16" Flanged Adapter, FxB
2-Conc Capping Collar
1-Valve Marker
- ⑱ STA 16+77.47 N. Access 0/S 27.04' Lt.
=0+24.53 WL "S"
1-Type "A" WMH
1-16" BGGV. CL. 150, FE
1-16" Flanged Dismantling Joint
2-16" Flanged Adapter, FxB
2-Conc Capping Collar
1-Valve Marker
- ⑲ STA 16+77.27 N. Access 0/S 30.03' Lt.
=0+24.53 WL "S"
1-16"x16" Tee
1-Conc Blk.
- ⑳ STA 16+86.22 N. Access 0/S 31.33' Lt.
=0+35.95 WL "S"
1-12" GV, 150#
1-Valve Box
- ㉑ STA 17+37.61 N. Access 0/S 60.18' Lt.
=1+12.54 WL "S"
1-12" 1/2 Bend (H)
1-Conc Blk.
- ㉒ STA 16+57.42 N. Access 0/S 49.20' Lt.
=1+86.89 WL "S"
Connect to W12 (Exist)
1-12" 1/2 Bend (H)
1-Conc Blk. w/ Structural Struts
1-12" Sleeve, 15" Long
8± LF 12" D.I. Pipe, Cl. 52
- ㉓ STA 16+86.46 N. Access 0/S 38.11' Lt.
=0+24.32
1-12" 1/4 Bend (H)
1-Conc Blk.
- ㉔ STA 18+09.73 N. Access 0/S 38.66' Lt.
=0+03.35
1-Type "A" WMH
1-16" BGGV. CL. 150, FE
1-16" Flanged Dismantling Joint
2-16" Flanged Adapter, FxB
2-Conc Capping Collar
1-Valve Marker
- ㉕ STA 16+53.90 N. Access 0/S 38.47' Lt.
=0+00
Connect to W16 (Exist)
1-16"x16" Tee
1-Conc Blk. w/ Structural Struts
2-8" Sleeve, 15" Long
16± LF 8" D.I. Pipe, Cl. 52
- ㉖ 1-16"x16" Tee
1-Conc Blk.
- ㉗ 1-16" 1/2 Bend (H), D.I.
1-Conc Blk.
- ㉘ 1-16" 1/2 Bend (H), D.I.
1-Conc Blk.
- ㉙ 1-16" 1/6 Bend (H), D.I.
1-Conc Blk.
- ㉚ 1-16" 1/6 Bend (H), D.I.
1-Conc Blk.
- ㉛ 1-16" 1/6 Bend (H), D.I.
1-Conc Blk.
- ㉜ 1-16" 1/6 Bend (H), D.I.
1-Conc Blk.



NOTE:
For drainage relocations, see Drawing No. UP169A.

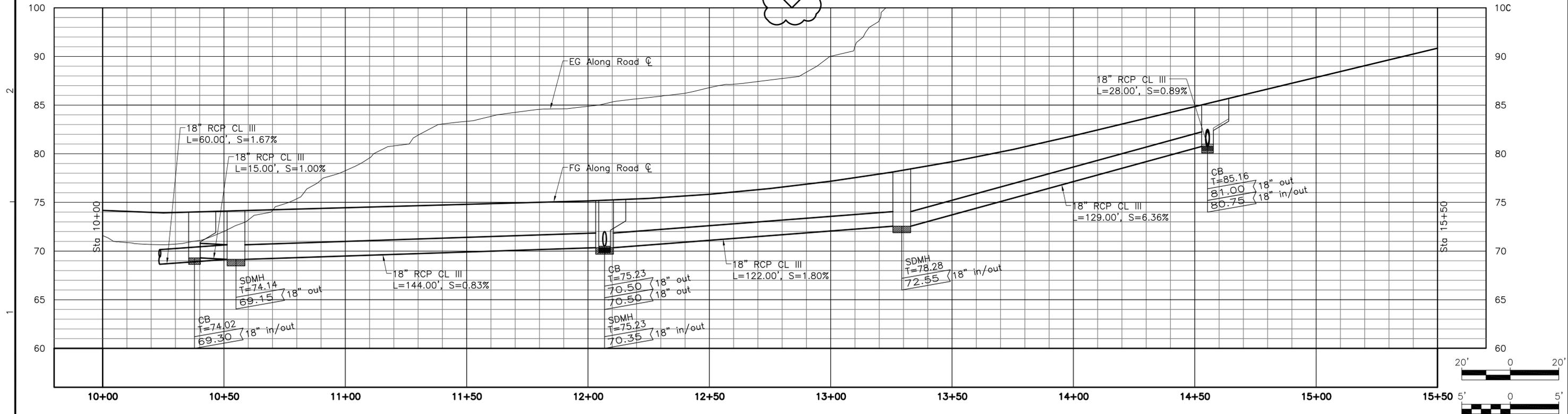


BID DOCUMENT NOT FOR CONSTRUCTION				Designed: D Toba Drawn: D Toba Checked: H Andrews Approved: J Yamamoto Date: 04-03-09		HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION		WEST O'AHU/FARRINGTON DESIGN-BUILD UTILITY RELOCATION PLAN WATER, SEWER, DRAINAGE, PETROLEUM, & GAS		Contract No.: DB-1200 CADD File: WF-D03-UP169 Drawing No: UP169 Rev. B Scale: 1"=20' Page No. 140 of 314	
				PRIME CONSULTANT: 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813 For reduced prints, original page size in inches: 0 1 2 3 4		SUBCONSULTANT: 808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470		NORTH ACCESS RD STA 13+00 TO STA 18+10.51 SHEET 1 OF 2			



- CONSTRUCTION NOTES:**
- ①A Construct Storm Drain Manhole for Pavement Area per C&C of Honolulu Std. Detail No. D-18
 - ②A Construct Catch Basin, Type A per C&C of Honolulu Std. Detail No. D-1
 - ③A Construct Catch Basin, Type B per C&C of Honolulu Std. Detail No. D-5
 - ④A Construct Thru Gutter per C&C of Honolulu Std. Detail No. R-8
 - ⑤A Construct Catch Basin, Type C per C&C of Honolulu Std. Detail No. D-9

NOTE:
For water, sewer, petroleum and gas lines relocation see Drawing No. UP169.



Rev	By	Date	Description
B	MY	05-22-09	Added Profile & Misc. Update
A	MY	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: E Leung
 Drawn: D Chua
 Checked: N Orense
 Approved: M Yonamine
 Date: 04-03-09

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

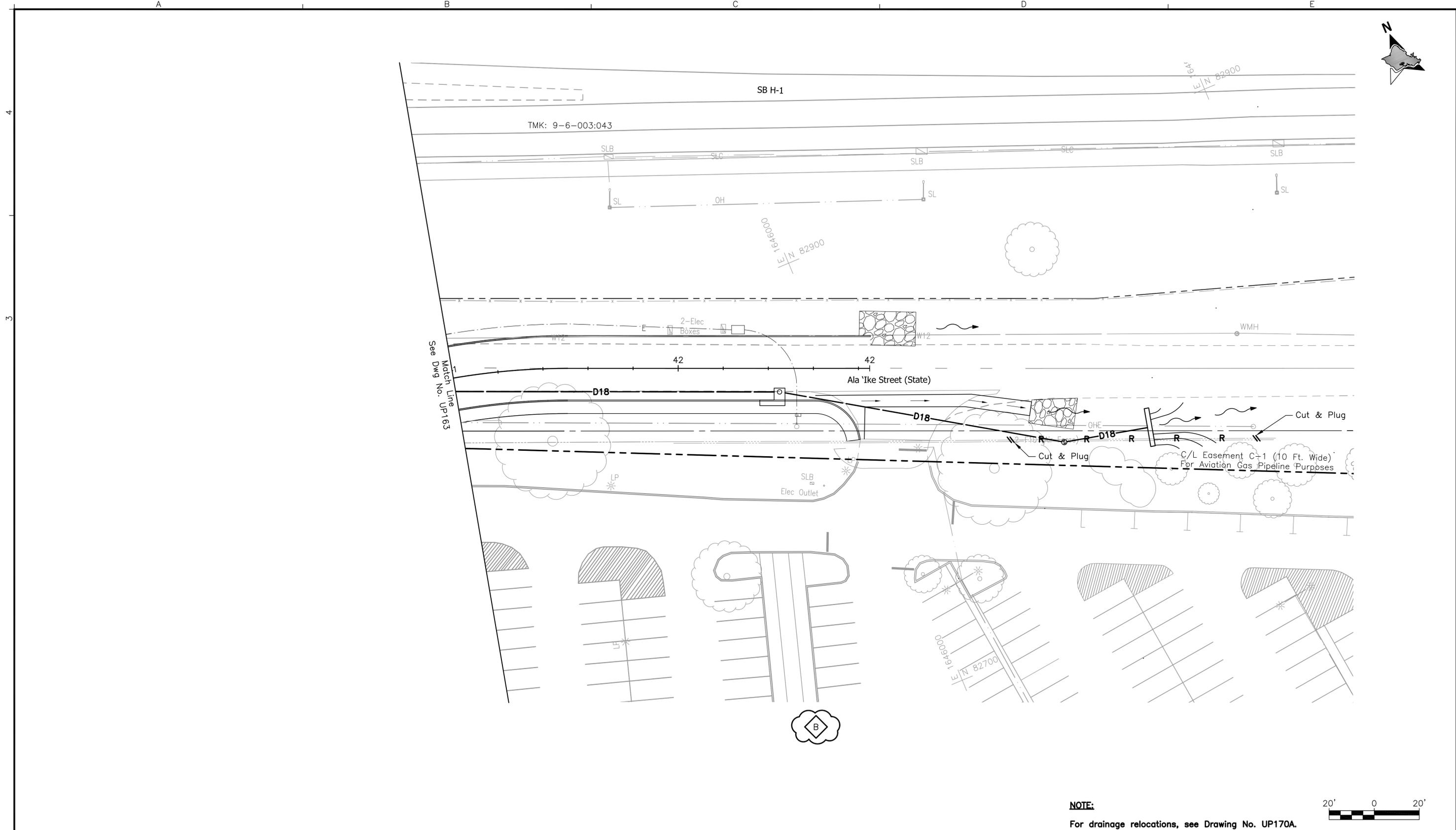
Prime Consultant: **PARSONS BRINCKERHOFF**
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **LYON ASSOCIATES**
 841 Bishop Street, Suite 2006
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WEST O'AHU/FARRINGTON DESIGN-BUILD
UTILITY RELOCATION PLAN
 WATER, SEWER, DRAINAGE, PETROLEUM, & GAS

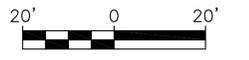
NORTH ACCESS RD STA 10+00 TO STA 15+50 SHEET 2 OF 2

Contract No.:	DB-1200
CADD File:	WF-D03-UP169A
Drawing No.:	UP169A
Rev.:	B
Scale:	1"=20' H, 1"=5' V
Page No.:	141 of 314



Match Line
See DWG No. UP163

NOTE:
For drainage relocations, see Drawing No. UP170A.



Rev	By	Date	Description
B	JY	05-22-09	Misc. Revisions
A	JY	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
D Toba

Drawn:
D Toba

Checked:
H Andrews

Approved:
J Yamamoto

Date:
04-03-09

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

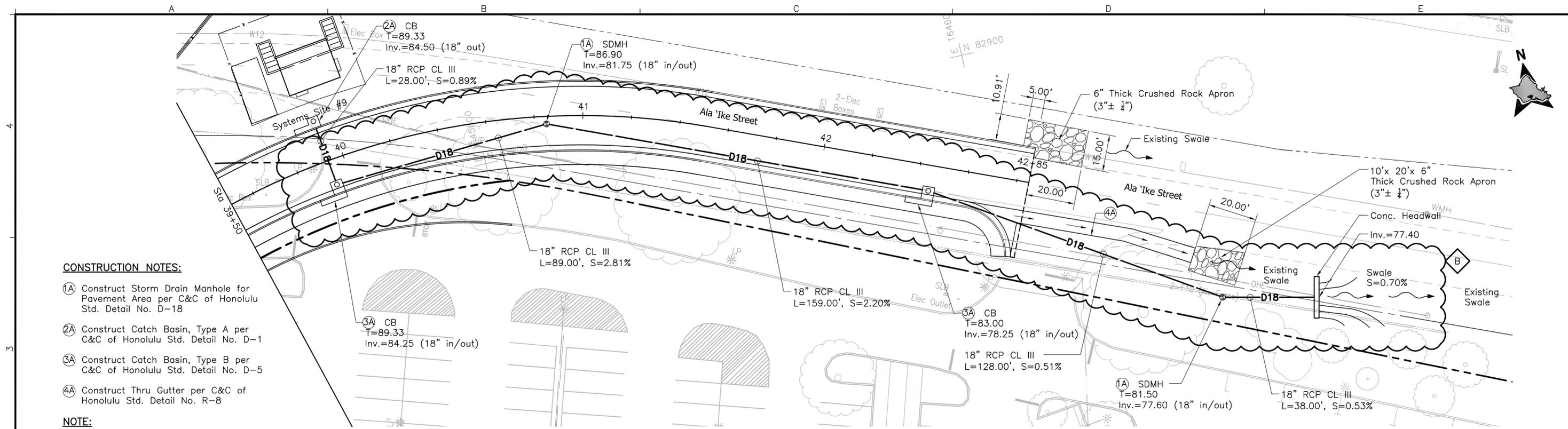
Prime Consultant:
PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

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

WEST O'AHU/FARRINGTON DESIGN-BUILD
UTILITY RELOCATION PLAN
WATER, SEWER, DRAINAGE, PETROLEUM, & GAS

ALA 'IKE ST STA 41+00 TO STA 42+85.00 SHEET 1 OF 2

Contract No.: DB-1200	
CADD File: WF-D03-UP170	
Drawing No: UP170	Rev. B
Scale: 1"=20'	
Page No. 142 of 314	

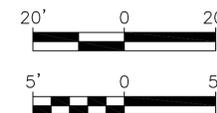
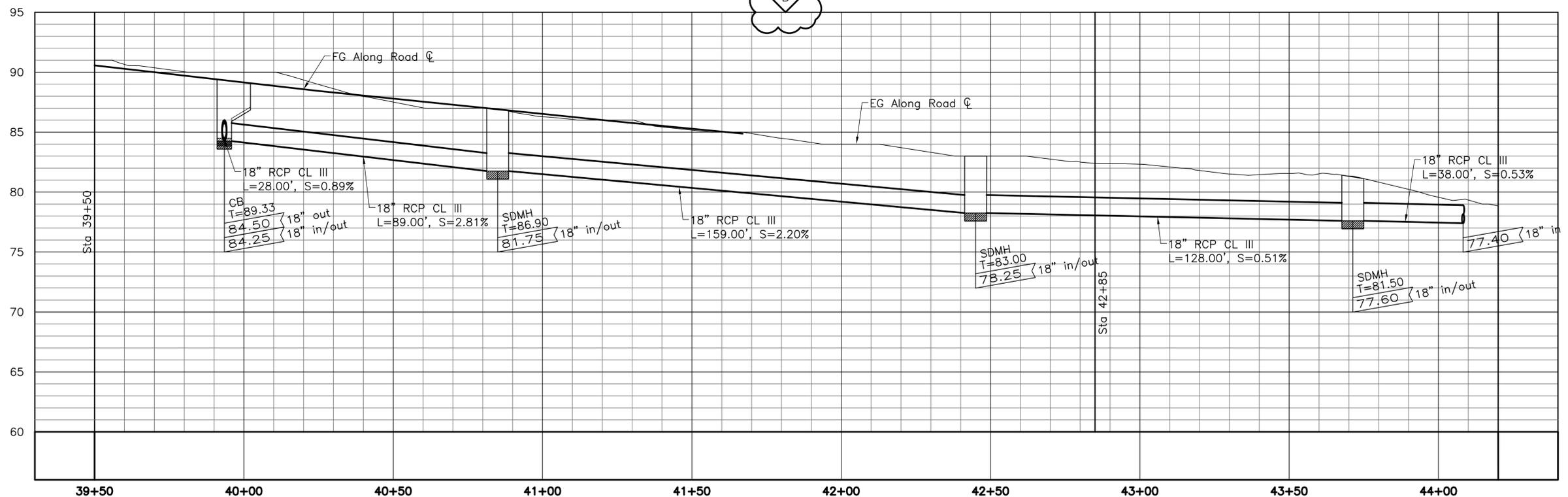


CONSTRUCTION NOTES:

- ①A Construct Storm Drain Manhole for Pavement Area per C&C of Honolulu Std. Detail No. D-18
- ②A Construct Catch Basin, Type A per C&C of Honolulu Std. Detail No. D-1
- ③A Construct Catch Basin, Type B per C&C of Honolulu Std. Detail No. D-5
- ④A Construct Thru Gutter per C&C of Honolulu Std. Detail No. R-8

NOTE:

For water, sewer, petroleum and gas lines relocation see Drawing No. UP170.



Rev	By	Date	Description
B	MY	05-22-09	Added Profile & Revised Drain Line
A	MY	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:	E Leung
Drawn:	D Chua
Checked:	N Orense
Approved:	M Yonamine
Date:	04-03-09

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
For reduced prints, original page size in inches:

Subconsultant:

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WEST O'AHU/FARRINGTON DESIGN-BUILD
UTILITY RELOCATION PLAN
WATER, SEWER, DRAINAGE, PETROLEUM, & GAS
ALA 'IKE ST STA 39+50 TO STA 42+85 SHEET 2 OF 2

Contract No.:	DB-1200
CADD File:	WF-D03-UP170A
Drawing No.:	UP170A
Rev.:	B
Scale:	1"=20' H, 1"=5' V
Page No.:	143 of 314



Match Line
See Dwg No. UP262

Match Line EB 728+50
See Dwg No. UP263A

- NOTES:**
- 19 Replace existing handhole or pullbox with traffic rated manhole under utility company supervision. Preserve all cables and existing conduits that remain.
 - 23 Remove parking lot lighting poles only within the acquired transit right-of-way. Reconnect and maintain service to remaining State-owned parking lot lighting poles.



Rev	By	Date	Description
B	FKH	08-05-09	Add note 23; retain parking lot lt pole & conduit; delete CATV ducts & manole
A	RCK	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
R Katahara
Drawn:
D Saito
Checked:
P Uyeda
Approved:
P Uyeda
Date:
04-03-09

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

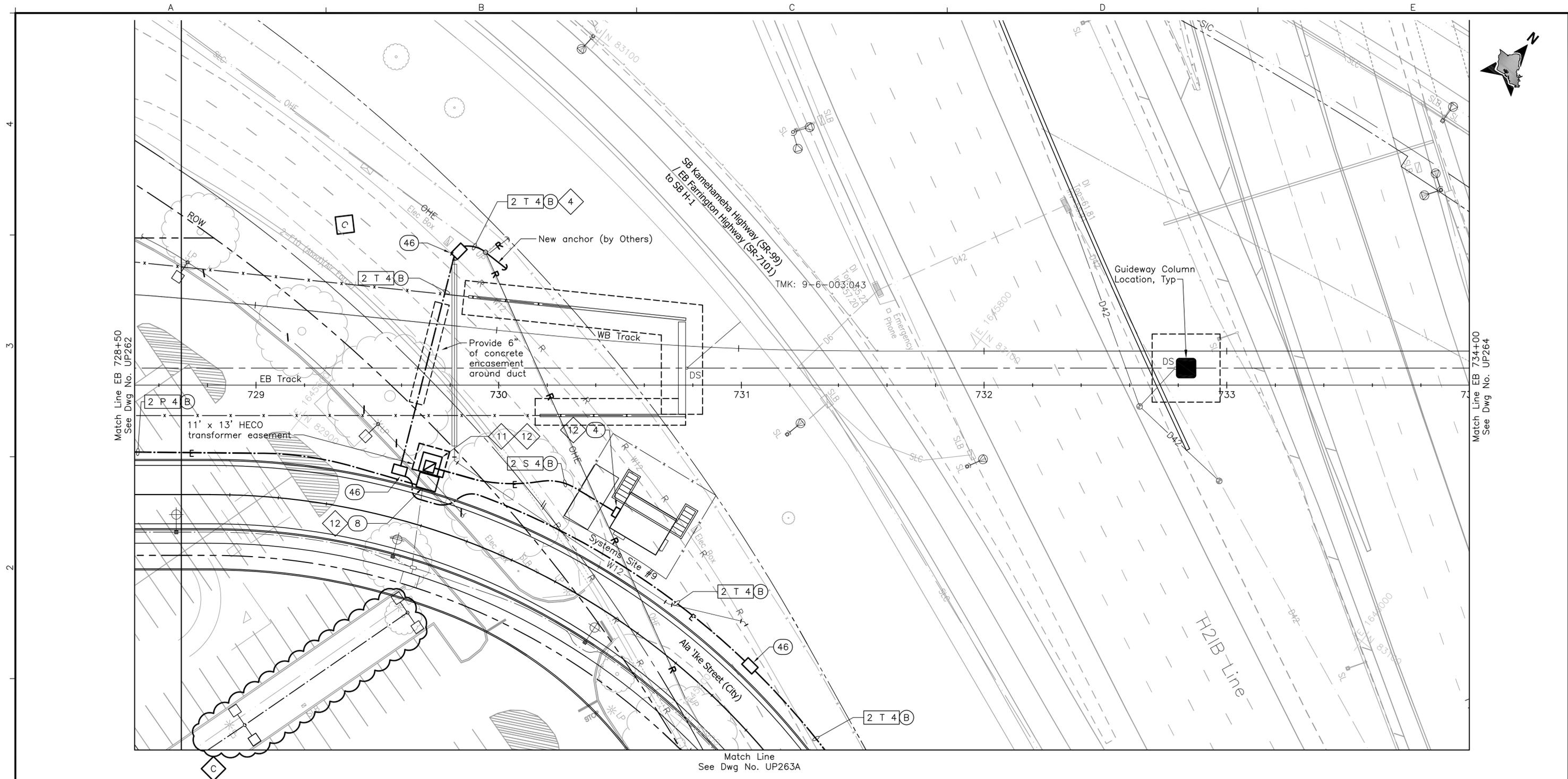
Subconsultant: **mKengineers**
286 Kalia Street
Honolulu, Hawaii 96819
Phone: (808) 848-8622
Fax: (808) 848-5574
E-Mail: info@mkhawaii.com

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

**WEST O`AHU/FARRINGTON DESIGN-BUILD
UTILITY RELOCATION PLAN
ELECTRICAL & COMMUNICATIONS**

EB 723+00 TO EB 728+50 SHEET 2 OF 2

Contract No.:	DB-1200
CADD File:	WF-D03-UP262A
Drawing No.:	UP262A
Scale:	1"=20'
Page No.:	235 of 314



Match Line EB 728+50
See Dwg No. UP262

Match Line EB 734+00
See Dwg No. UP264

Match Line
See Dwg No. UP263A

NOTE:

Sandwich Isles Communications (SIC) line is a proposed future communication utility project by others and shown for informational purposes only. The symbols for SIC line are carried from the project design and have not been modified to match standard HHCTCP symbols.

NOTES:

- 4 Provide pole riser conduits in complement indicated up to applicable location on pole.
- 11 Provide transformer concrete pad (transformer by HECO). See detail 1/UP306.
- 12 Preliminary new HECO service design only; to be finalized by Design Build Contractor.



Rev	By	Date	Description
C	FKH	08-05-09	Retain parking lot light poles & conduits
B	FKH	05-22-09	Update Drawing
A	RCK	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
R Katahara
Drawn:
D Saito
Checked:
P Uyeda
Approved:
P Uyeda
Date:
04-03-09

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

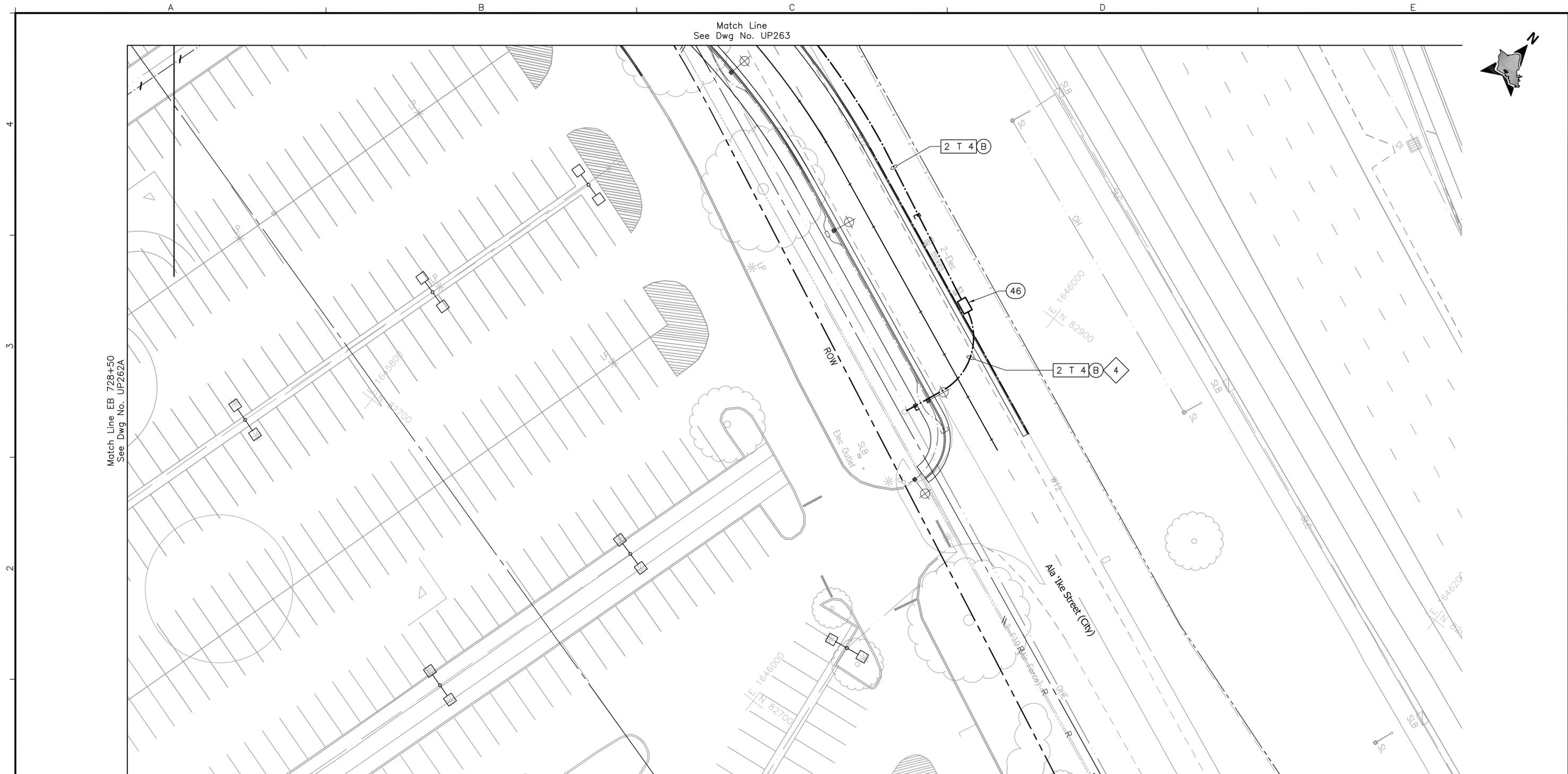
Subconsultant: **mKengineers**
286 Kalia Street
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Phone: (808) 848-8622
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E-Mail: info@mkhawaii.com

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

**WEST O`AHU/FARRINGTON DESIGN-BUILD
UTILITY RELOCATION PLAN
ELECTRICAL & COMMUNICATIONS**

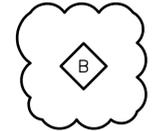
EB 728+50 TO EB 734+00 SHEET 1 OF 2

Contract No.:	DB-1200
CADD File:	WF-D03-UP263
Drawing No.:	UP263
Scale:	1"=20'
Page No.:	236 of 314



NOTES:

- 4 Provide pole riser conduits in complement indicated up to applicable location on pole.



Rev	By	Date	Description
B	FKH	05-22-09	Update Drawing
A	RCK	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
R Katahara
Drawn:
D Saito
Checked:
P Uyeda
Approved:
P Uyeda
Date:
04-03-09

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

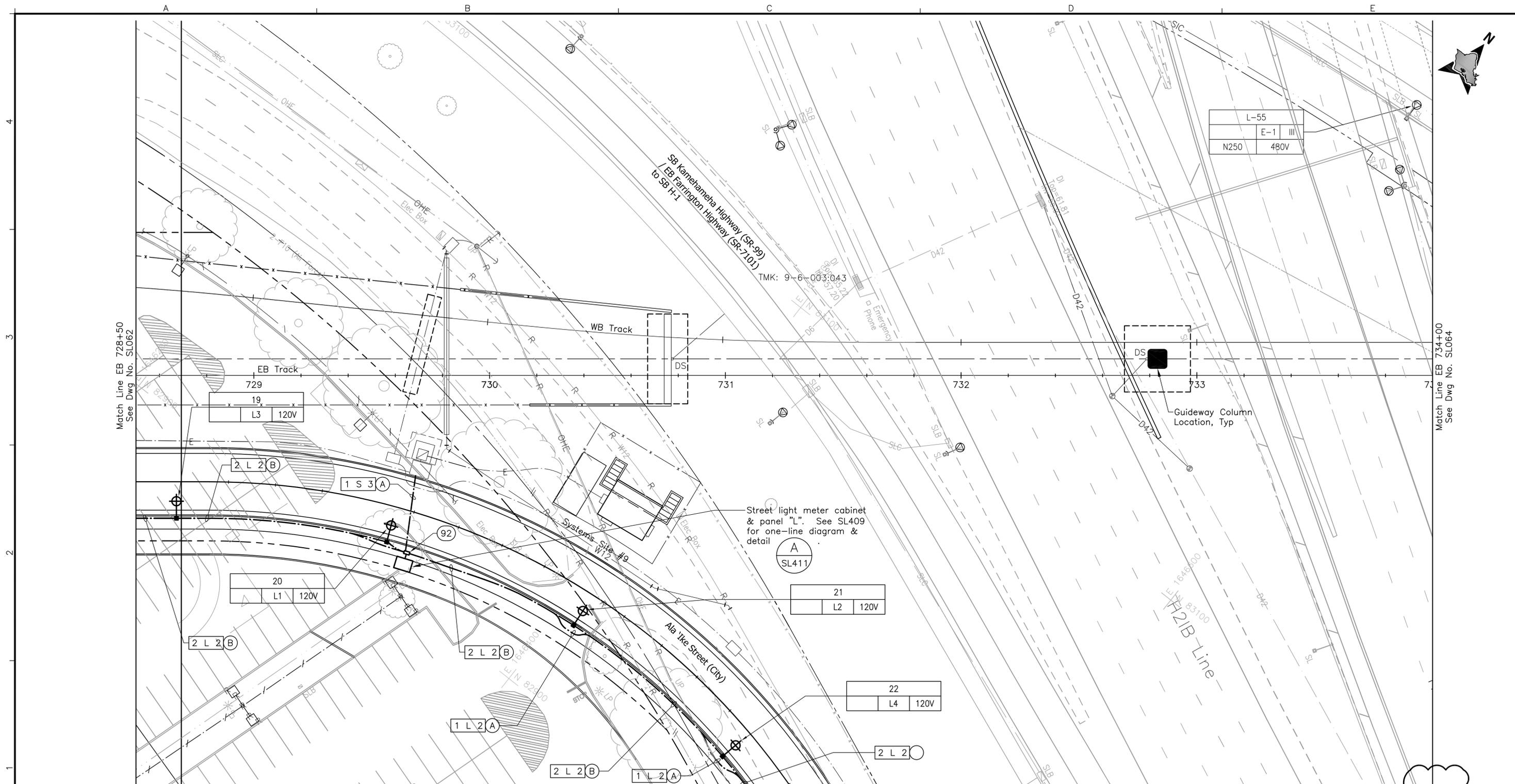
Subconsultant: **mKengineers**
286 Kalia Street
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Phone: (808) 848-8622
Fax: (808) 848-5574
E-Mail: info@mkhawaii.com

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

**WEST O`AHU/FARRINGTON DESIGN-BUILD
UTILITY RELOCATION PLAN
ELECTRICAL & COMMUNICATIONS**

EB 728+50 TO EB 734+00 SHEET 2 OF 2

Contract No.:	DB-1200
CADD File:	WF-D03-UP263A
Drawing No:	UP263A
Rev.	B
Scale:	1"=20'
Page No.	237 of 314



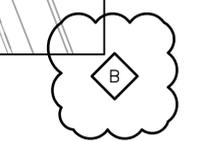
Match Line EB 728+50
See Dwg No. SL062

Match Line EB 734+00
See Dwg No. SL064

Match Line
See Dwg No. SL070

NOTE:

Sandwich Isles Communications (SIC) line is a proposed future communication utility project by others and shown for informational purposes only. The symbols for SIC line are carried from the project design and have not been modified to match standard HHCTCP symbols.



Rev	By	Date	Description
B	FKH	05-22-09	Update Drawing
A	RCK	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
R Katahara
Drawn:
D Saito
Checked:
P Uyeda
Approved:
P Uyeda
Date:
04-03-09

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

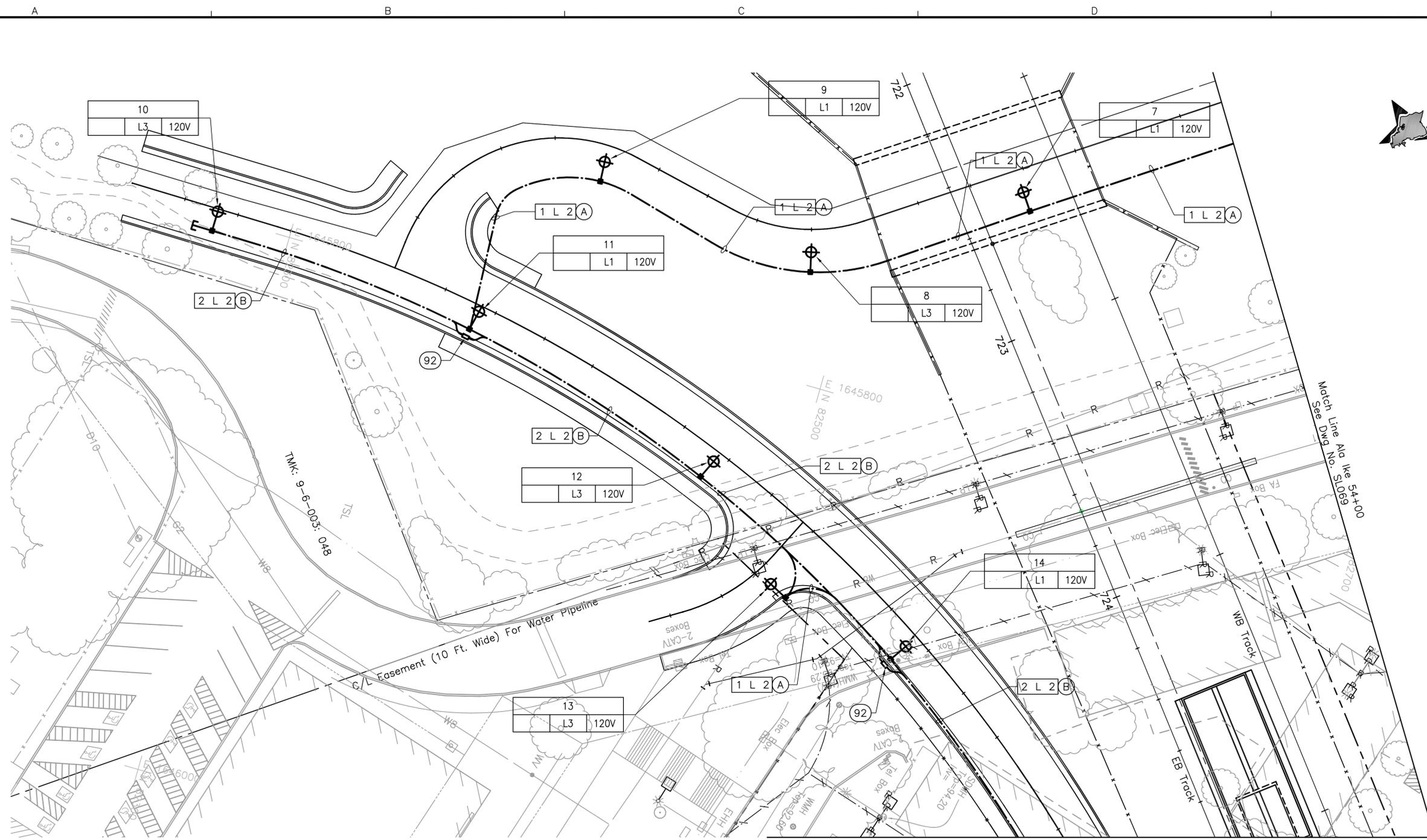
Prime Consultant:
PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

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

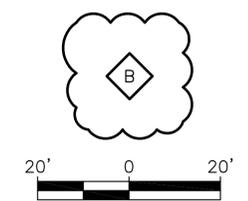
For reduced prints, original page size in inches: 0 1 2 3 4

**WEST O`AHU/FARRINGTON DESIGN-BUILD
UTILITY RELOCATION PLAN
STREET LIGHTING**
EB 728+50 TO EB 734+00

Contract No.: DB-1200	
CADD File: WF-D04-SL063	
Drawing No: SL063	Rev. B
Scale: 1"=20'	
Page No. 297 of 314	



Match Line
See Dwg No. SL062



Rev	By	Date	Description
B	FKH	05-22-09	Update Drawing
A	RCK	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
R Katahara
Drawn:
D Saito
Checked:
P Uyeda
Approved:
P Uyeda
Date:
04-03-09

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

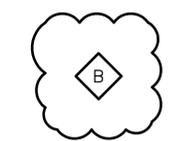
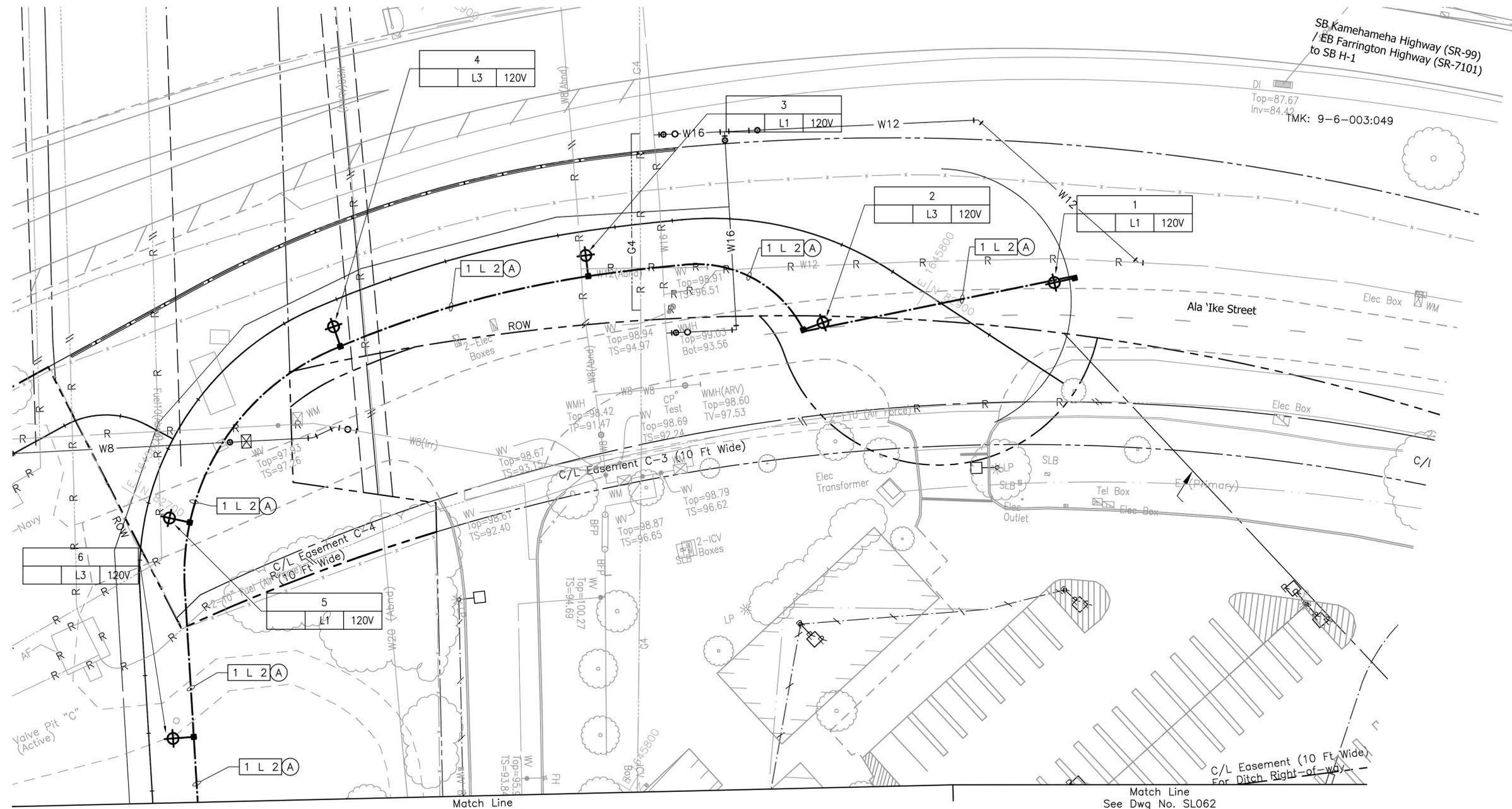
Subconsultant:
mKengineers
286 Kalia Street
Honolulu, Hawaii 96819
Phone: (808) 848-8622
Fax: (808) 848-5574
E-Mail: info@mkhawaii.com

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

**WEST O`AHU/FARRINGTON DESIGN-BUILD
UTILITY RELOCATION PLAN
STREET LIGHTING**

ALA `IKE STREET SHEET 1 OF 3

Contract No.: DB-1200	
CADD File: WF-D03-SL068	
Drawing No: SL068	Rev. B
Scale: 1"=20'	
Page No. 299 of 314	



Rev	By	Date	Description
B	FKH	05-22-09	Update Drawing
A	RCK	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
R Katahara
Drawn:
D Saito
Checked:
P Uyeda
Approved:
P Uyeda
Date:
04-03-09

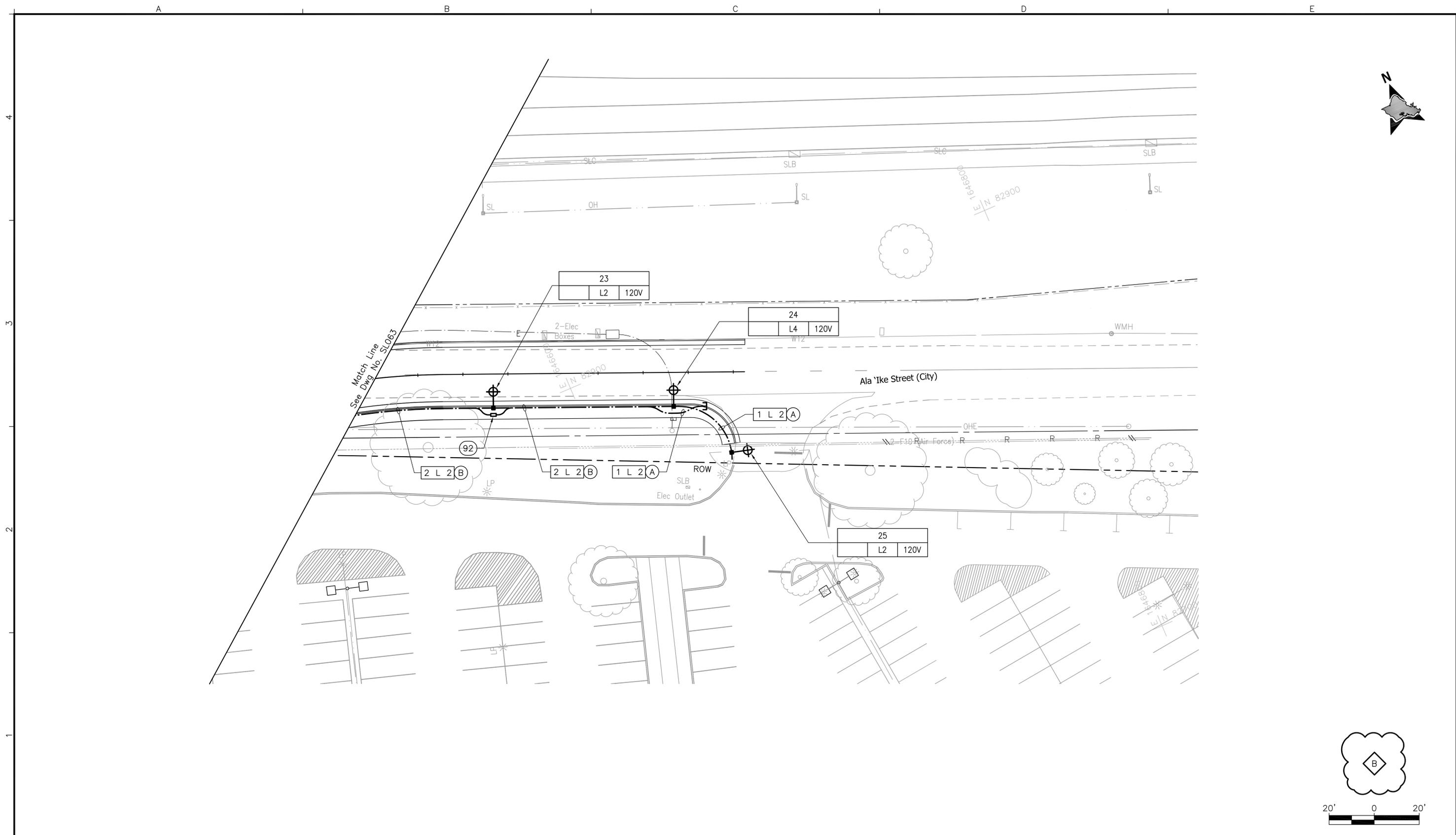
HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant:
PARSONS BRINCKERHOFF
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813
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Subconsultant:
mKengineers
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Phone: (808) 848-8622
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E-Mail: info@mkhawaii.com

**WEST O`AHU/FARRINGTON DESIGN-BUILD
UTILITY RELOCATION PLAN
STREET LIGHTING
ALA `IKE STREET SHEET 2 OF 3**

Contract No.:
DB-1200
CADD File:
WF-D03-SL069
Drawing No: SL069 Rev. B
Scale:
1"=20'
Page No. 300 of 314



Rev	By	Date	Description
B	FKH	05-22-09	Update Drawing
A	RCK	04-03-09	Issued For Bid

**BID DOCUMENT
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Designed:
R Katahara
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D Saito
Checked:
P Uyeda
Approved:
P Uyeda
Date:
04-03-09

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

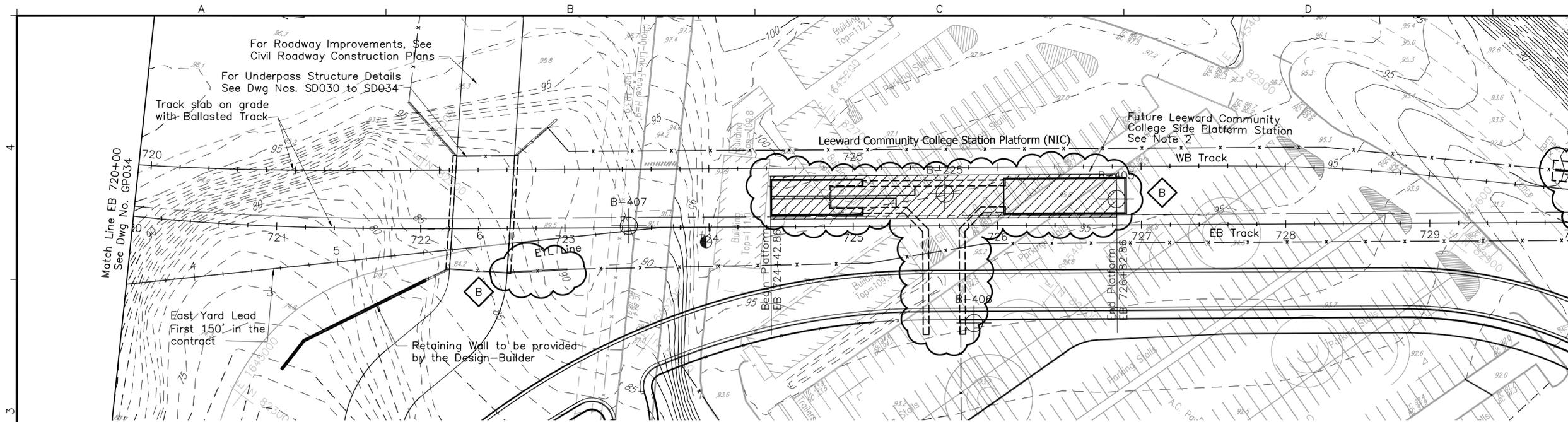
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **mKengineers**
286 Kalia Street
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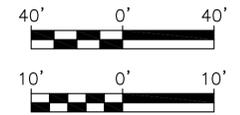
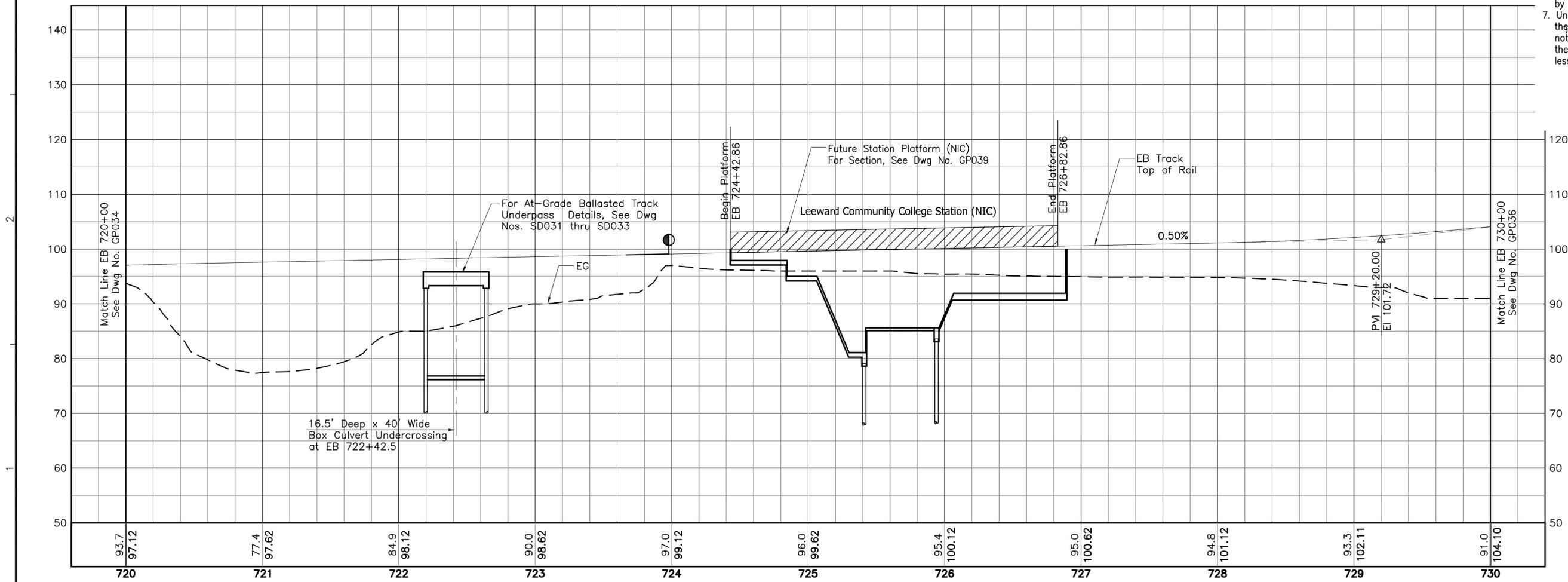
**WEST O`AHU/FARRINGTON DESIGN-BUILD
UTILITY RELOCATION PLAN
STREET LIGHTING
ALA `IKE STREET SHEET 3 OF 3**

Contract No.: DB-1200	
CADD File: WF-D03-SL070	
Drawing No: SL070	Rev. B
Scale: 1"=20'	
Page No. 301 of 314	



NOTE:

1. See Dwg Nos. SG001 and SG002 for Structural General Notes, Symbols and Abbreviations.
2. For Station Details, See Dwg Nos. EP021 through EP024.
3. The configuration shown relative to NIC work and site condition is under development and subject to change.
4. The depiction of retaining walls is for approximate location only. The type of wall and its foundation required to protect structural facilities against ground movement and settlement is to be determined by the Design-Builder. The Design-Builder shall also provide retaining walls that may not be shown, but are dependant on his approved grading plans.
5. Complete Structural and Geotechnical calculations and drawings must be provided for all newly constructed structures and for all facilities within the zone of construction influence.
6. Drilled shaft foundations are shown for reference only. The actual type and size of the pier foundations shall be determined by the Design-Builder.
7. 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
B	AB	05-22-09	Rev Structure; Rev Wingwall; Rev Notes
A	AB	04-03-09	Issued for Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
D Yavorsky
Drawn:
T Cochran
Checked:
T Kimura
Approved:
A Borst
Date:
04-03-09

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

Prime Consultant:
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Subconsultant:

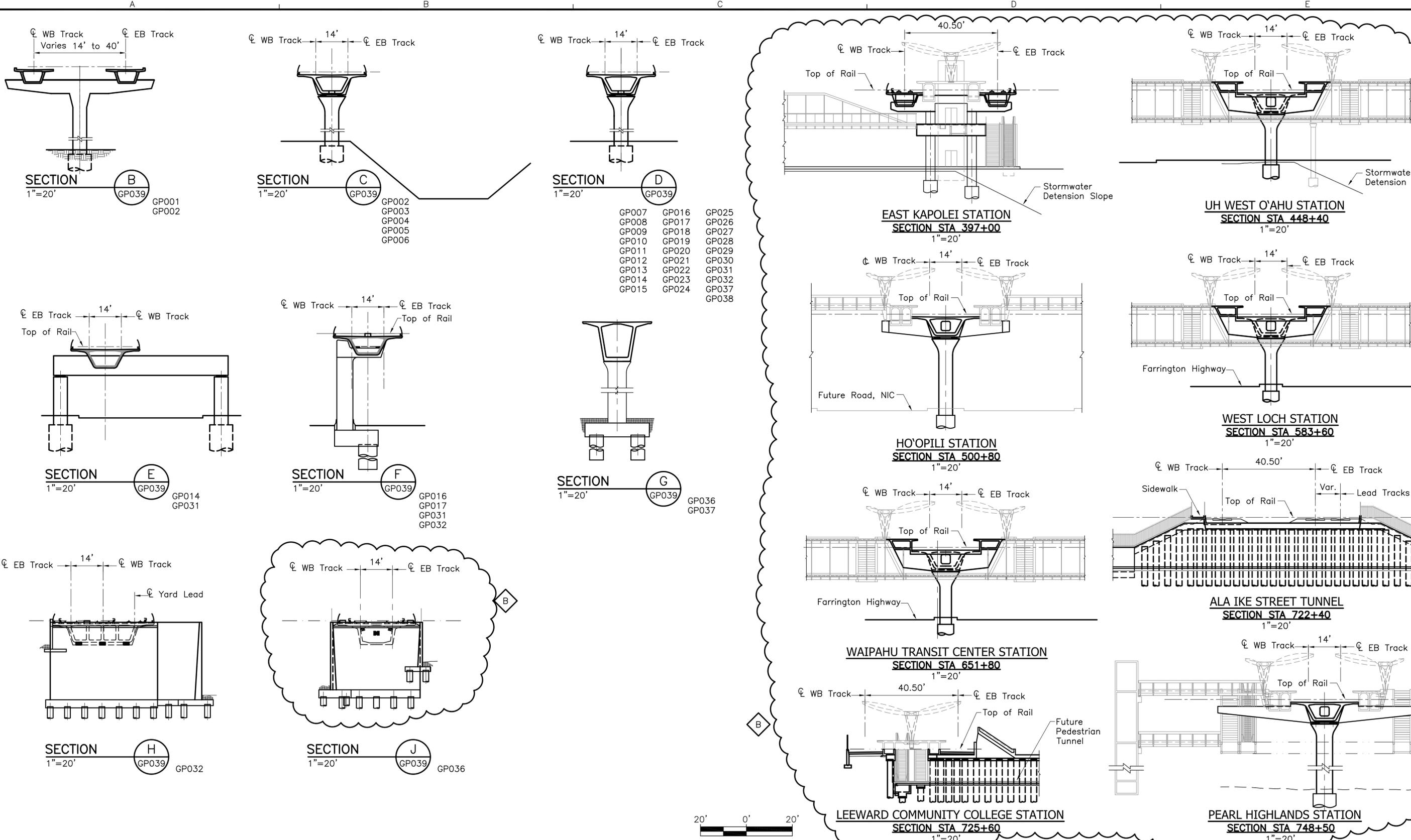
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WEST O'AHU/FARRINGTON DESIGN-BUILD

**STRUCTURAL
PLAN & PROFILE**

EB 720+00 TO EB 730+00

Contract No.:
DB-1200
CADD File:
WF-G04-GP035
Drawing No: GP035 Rev. B
Scale:
1"=40' H, 1"=10' V
Page No. 56 of 209



- GP007
- GP008
- GP009
- GP010
- GP011
- GP012
- GP013
- GP014
- GP015
- GP016
- GP017
- GP018
- GP019
- GP020
- GP021
- GP022
- GP023
- GP024
- GP025
- GP026
- GP027
- GP028
- GP029
- GP030
- GP031
- GP032
- GP037
- GP038

Rev	By	Date	Description
B	AB	05-22-09	Revised Sections
A	AB	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
D Yavorsky

Drawn:
T Cochran

Checked:
T Kimura

Approved:
A Borst

Date:
04-03-09

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

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Subconsultant:

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WEST O'AHU/FARRINGTON DESIGN-BUILD

**STRUCTURAL
PLAN & PROFILE SECTIONS**

Contract No.:
DB-1200

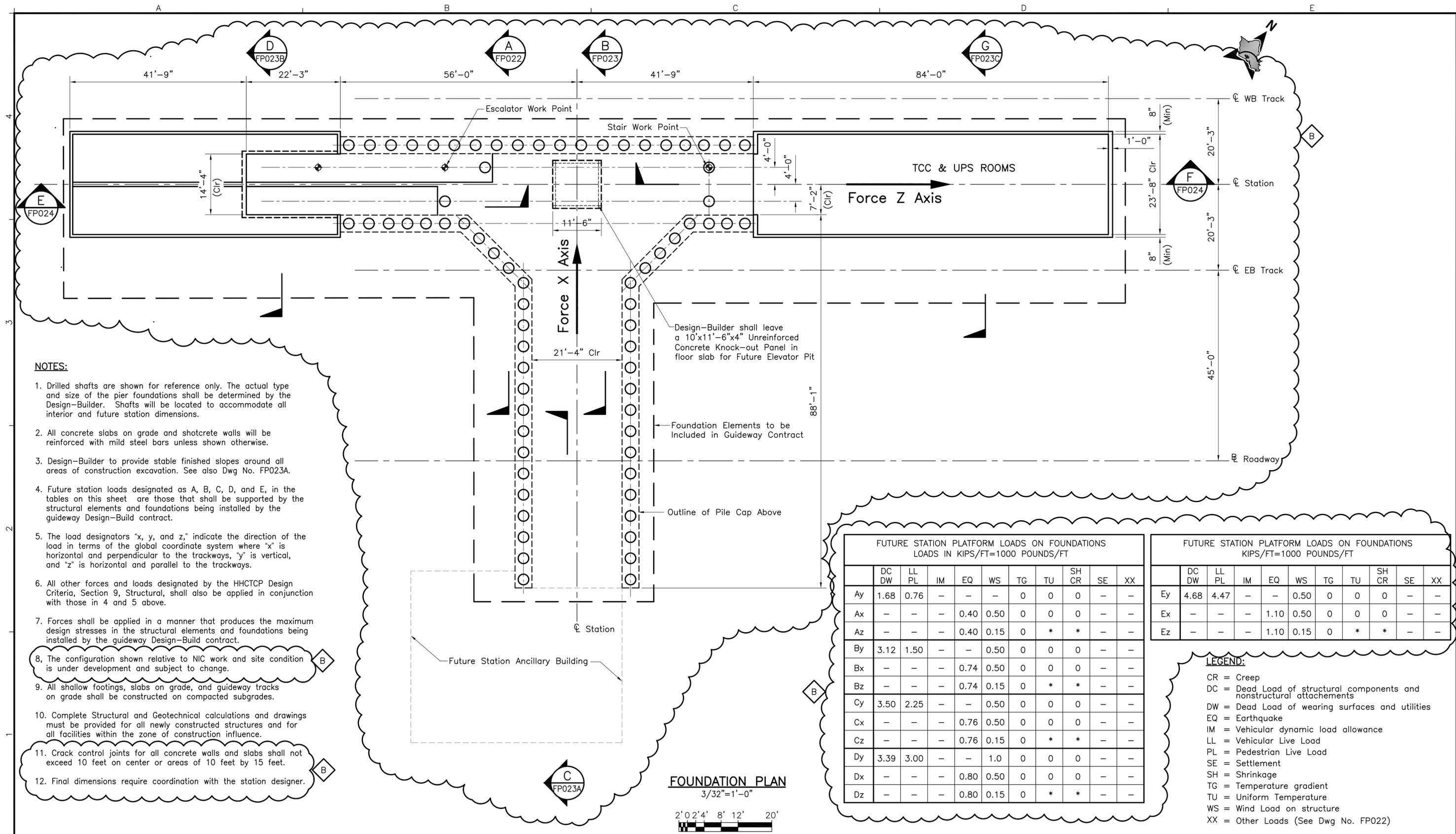
CADD File:
WF-G04-GP039

Drawing No:
GP039

Rev:
B

Scale:
1"=20'

Page No.
60 of 209



- NOTES:**
1. Drilled shafts are shown for reference only. The actual type and size of the pier foundations shall be determined by the Design-Builder. Shafts will be located to accommodate all interior and future station dimensions.
 2. All concrete slabs on grade and shotcrete walls will be reinforced with mild steel bars unless shown otherwise.
 3. Design-Builder to provide stable finished slopes around all areas of construction excavation. See also Dwg No. FP023A.
 4. Future station loads designated as A, B, C, D, and E, in the tables on this sheet are those that shall be supported by the structural elements and foundations being installed by the guideway Design-Build contract.
 5. The load designators "x, y, and z," indicate the direction of the load in terms of the global coordinate system where "x" is horizontal and perpendicular to the trackways, "y" is vertical, and "z" is horizontal and parallel to the trackways.
 6. All other forces and loads designated by the HHCTCP Design Criteria, Section 9, Structural, shall also be applied in conjunction with those in 4 and 5 above.
 7. Forces shall be applied in a manner that produces the maximum design stresses in the structural elements and foundations being installed by the guideway Design-Build contract.
 8. The configuration shown relative to NIC work and site condition is under development and subject to change.
 9. All shallow footings, slabs on grade, and guideway tracks on grade shall be constructed on compacted subgrades.
 10. Complete Structural and Geotechnical calculations and drawings must be provided for all newly constructed structures and for all facilities within the zone of construction influence.
 11. Crack control joints for all concrete walls and slabs shall not exceed 10 feet on center or areas of 10 feet by 15 feet.
 12. Final dimensions require coordination with the station designer.

FUTURE STATION PLATFORM LOADS ON FOUNDATIONS LOADS IN KIPS/FT=1000 POUNDS/FT										
	DC DW	LL PL	IM	EQ	WS	TG	TU	SH CR	SE	XX
Ay	1.68	0.76	-	-	-	0	0	0	-	-
Ax	-	-	-	0.40	0.50	0	0	0	-	-
Az	-	-	-	0.40	0.15	0	*	*	-	-
By	3.12	1.50	-	-	0.50	0	0	0	-	-
Bx	-	-	-	0.74	0.50	0	0	0	-	-
Bz	-	-	-	0.74	0.15	0	*	*	-	-
Cy	3.50	2.25	-	-	0.50	0	0	0	-	-
Cx	-	-	-	0.76	0.50	0	0	0	-	-
Cz	-	-	-	0.76	0.15	0	*	*	-	-
Dy	3.39	3.00	-	-	1.0	0	0	0	-	-
Dx	-	-	-	0.80	0.50	0	0	0	-	-
Dz	-	-	-	0.80	0.15	0	*	*	-	-

FUTURE STATION PLATFORM LOADS ON FOUNDATIONS KIPS/FT=1000 POUNDS/FT										
	DC DW	LL PL	IM	EQ	WS	TG	TU	SH CR	SE	XX
Ey	4.68	4.47	-	-	0.50	0	0	0	-	-
Ex	-	-	-	1.10	0.50	0	0	0	-	-
Ez	-	-	-	1.10	0.15	0	*	*	-	-

- LEGEND:**
- CR = Creep
 - DC = Dead Load of structural components and nonstructural attachments
 - DW = Dead Load of wearing surfaces and utilities
 - EQ = Earthquake
 - IM = Vehicular dynamic load allowance
 - LL = Vehicular Live Load
 - PL = Pedestrian Live Load
 - SE = Settlement
 - SH = Shrinkage
 - TG = Temperature gradient
 - TU = Uniform Temperature
 - WS = Wind Load on structure
 - XX = Other Loads (See Dwg No. FP022)

FOUNDATION PLAN
3/32"=1'-0"
2' 0' 2' 4' 8' 12' 20'

Rev	By	Date	Description
B	AB	05-22-09	Rev Structure; Rev Loads; Revised Notes
A	AB	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: D Yavorsky
Drawn: T Cochran
Checked: T Kimura
Approved: A Borst
Date: 04-03-09

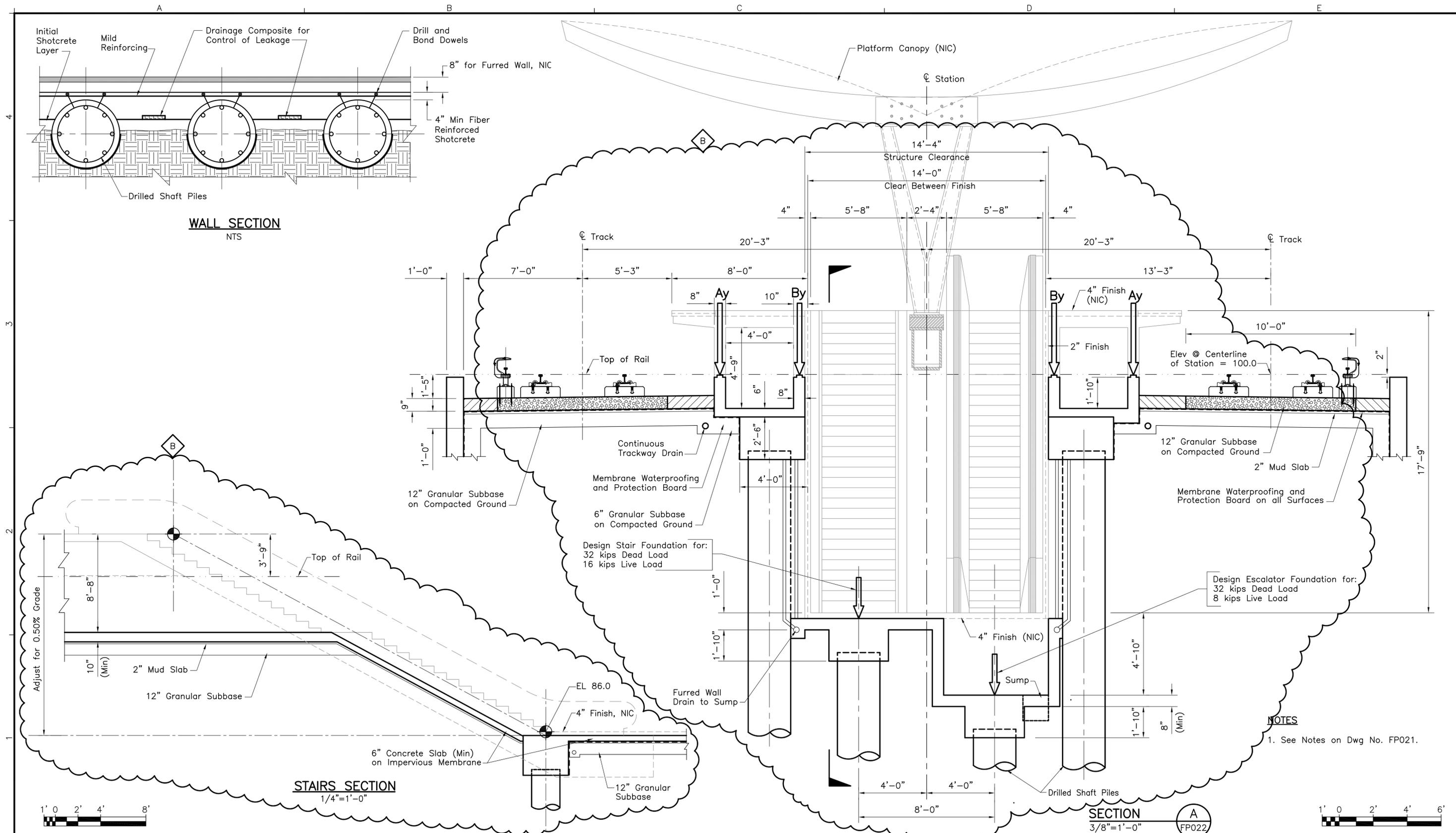
HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**
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Subconsultant:

WEST O'AHU/FARRINGTON DESIGN-BUILD
LEEWARD COMMUNITY COLLEGE STATION
SHEET 1 OF 8
FOUNDATION PLAN AND GUIDEWAY FORCES

Contract No.: DB-1200
CADD File: WF-G05-FP021
Drawing No: FP021 Rev. B
Scale: 3/32"=1'-0"
Page No. 94 of 209



NOTES
 1. See Notes on Dwg No. FP021.



Rev	By	Date	Description
B	AB	05-22-09	Revised Structure; Revised Stair Section
A	AB	04-03-09	Issued For Bid

**BID DOCUMENT
 NOT FOR CONSTRUCTION**

Designed: D Yavorsky
 Drawn: T Cochran
 Checked: T Kimura
 Approved: A Borst
 Date: 04-03-09

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

Prime Consultant: **PARSONS BRINCKERHOFF**
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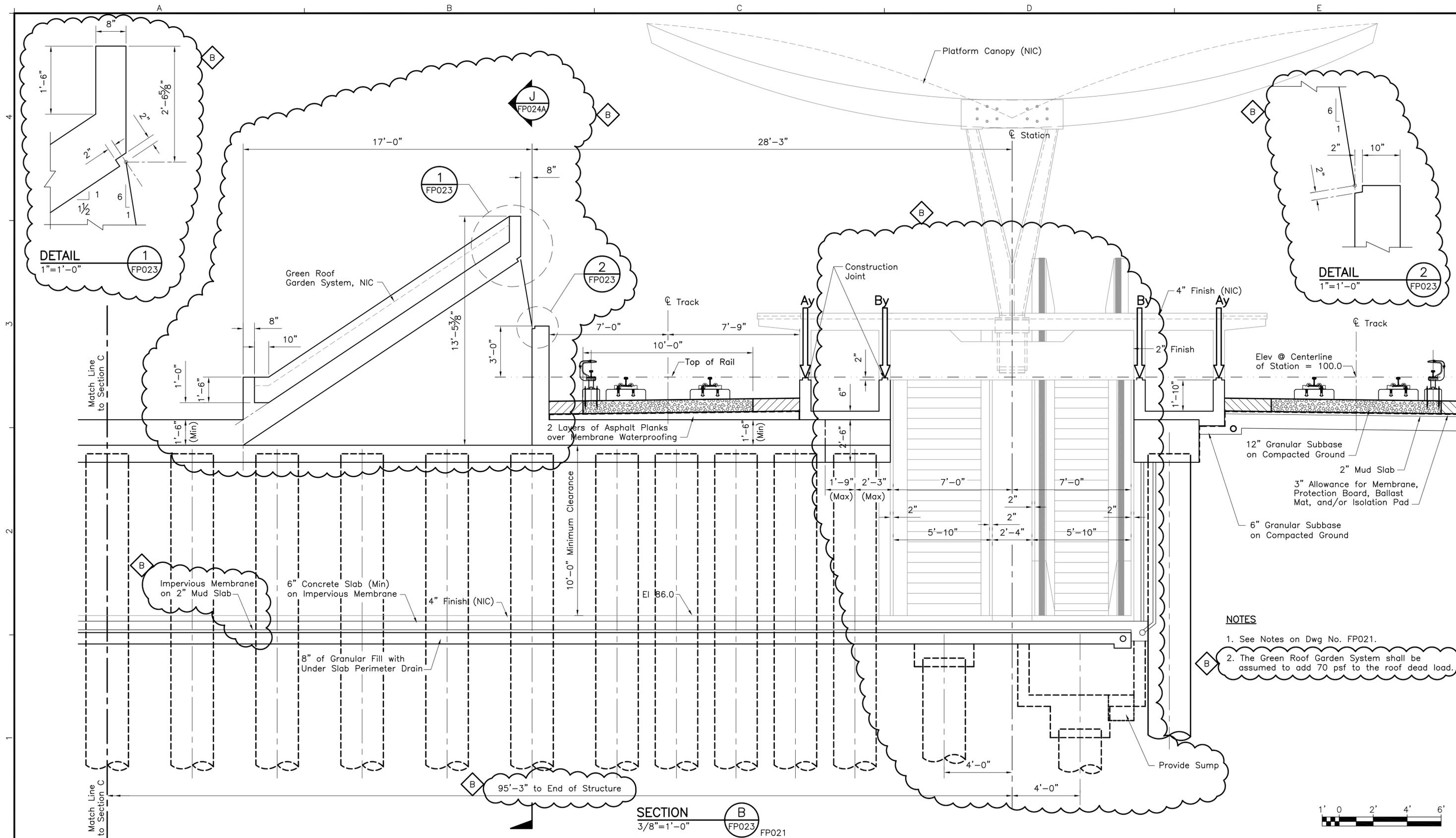
Subconsultant:

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**WEST O'AHU/FARRINGTON DESIGN-BUILD
 LEEWARD COMMUNITY COLLEGE STATION
 SHEET 2 OF 8**

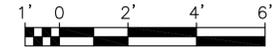
SECTION A

Contract No.: DB-1200
 CADD File: WF-G05-FP022
 Drawing No: FP022 Rev. B
 Scale: As Noted
 Page No. 95 of 209



- NOTES**
- See Notes on Dwg No. FP021.
 - The Green Roof Garden System shall be assumed to add 70 psf to the roof dead load.

SECTION B
 3/8"=1'-0"
 FP023 FP021



Rev	By	Date	Description
B	AB	05-22-09	Revised Structure; Added Details; Added Notes
A	AB	04-03-09	Issued For Bid

**BID DOCUMENT
 NOT FOR CONSTRUCTION**

Designed: D Yavorsky
 Drawn: T Cochran
 Checked: T Kimura
 Approved: A Borst
 Date: 04-03-09

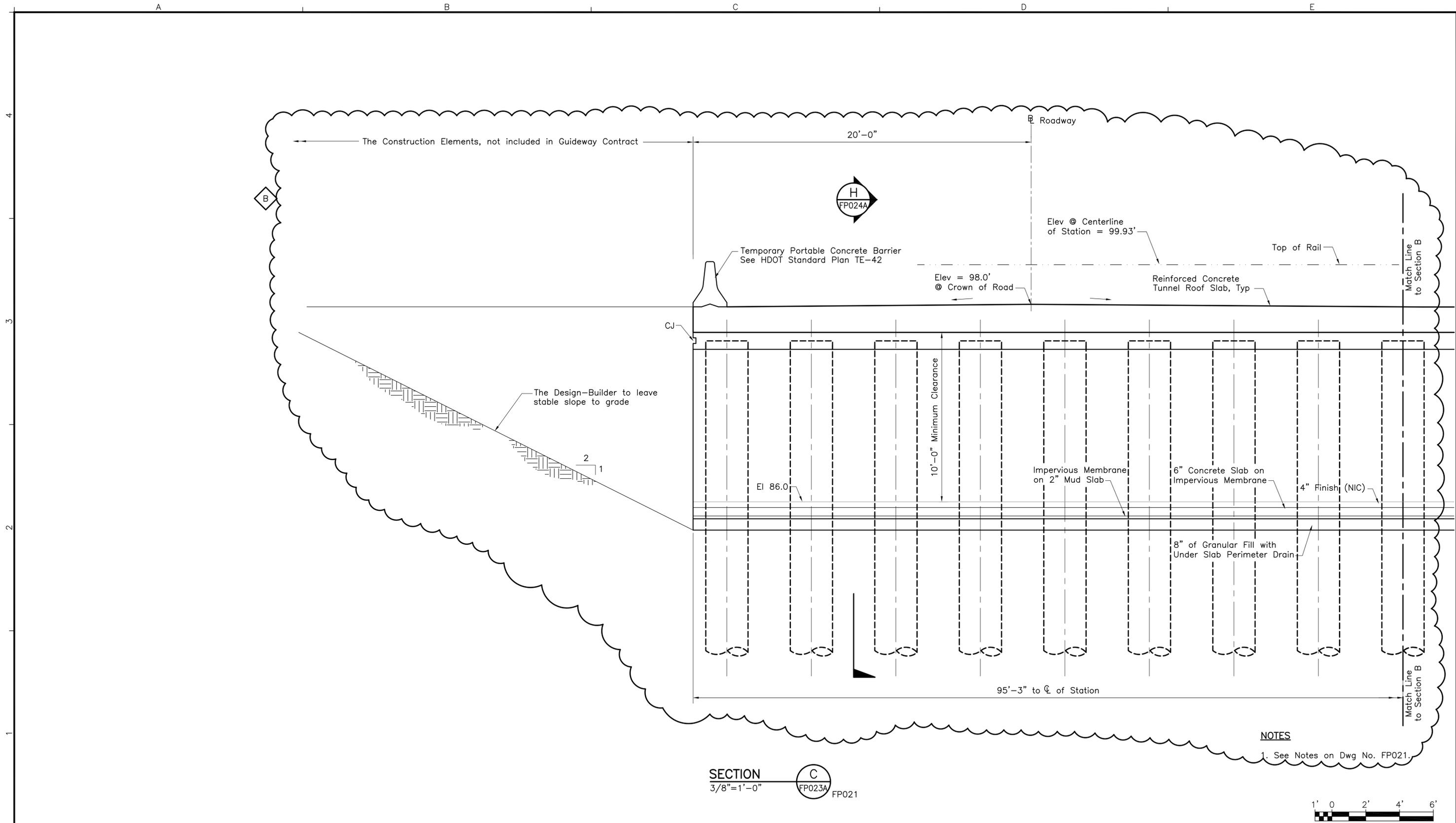
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 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**
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Subconsultant:

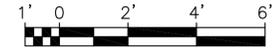
**WEST O'AHU/FARRINGTON DESIGN-BUILD
 LEEWARD COMMUNITY COLLEGE STATION
 SHEET 3 OF 8**

Contract No.: DB-1200
 CADD File: WF-G05-FP023
 Drawing No: FP023 Rev. B
 Scale: 3/8"=1'-0"
 Page No. 96 of 209



SECTION C
3/8"=1'-0" FP023A FP021

NOTES
1. See Notes on Dwg No. FP021.



Rev	By	Date	Description
B	AB	05-22-09	Revised Structure
A	AB	04-03-09	Issued For Bid

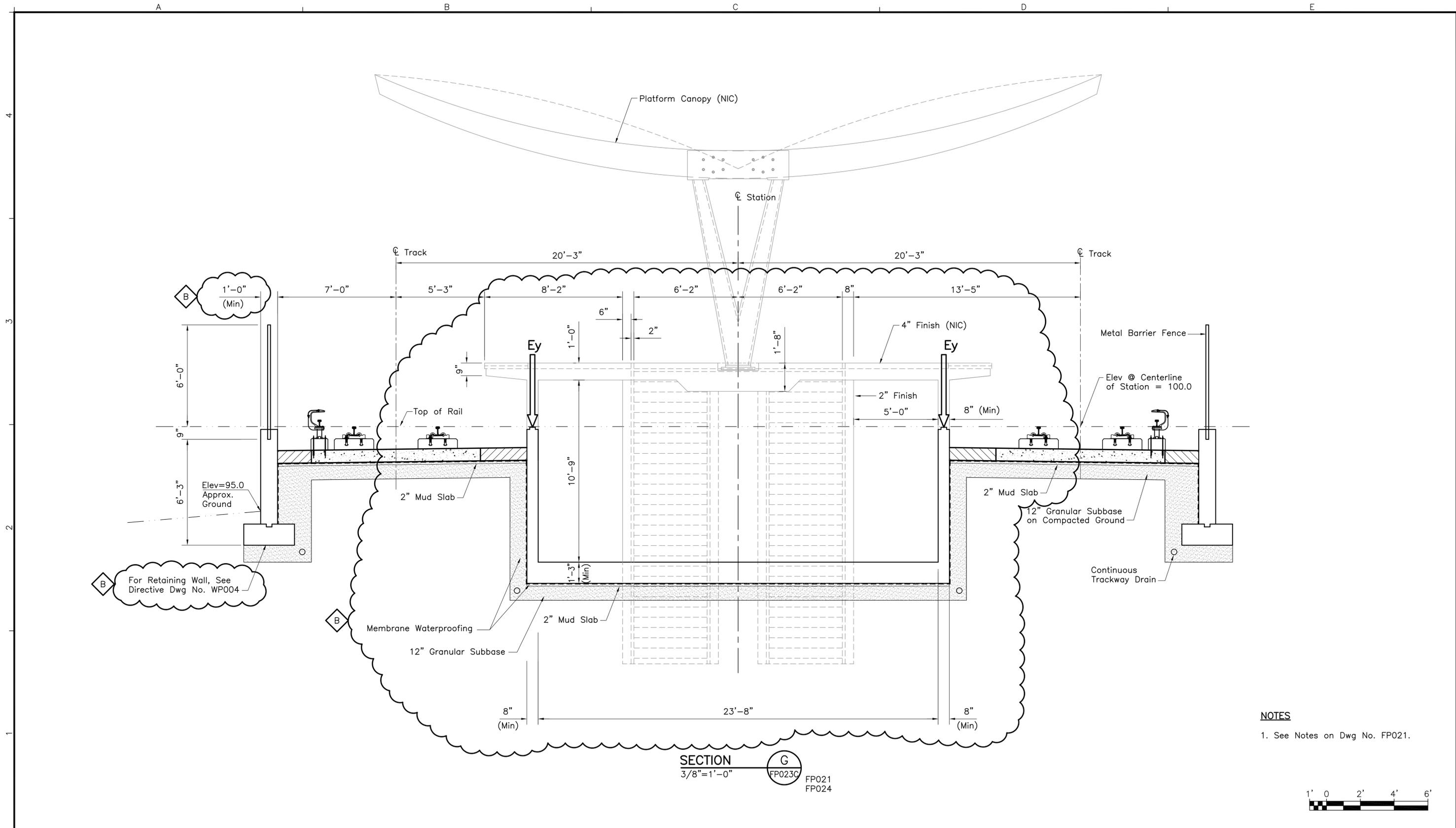
**BID DOCUMENT
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Designed:
D Yavorsky
Drawn:
T Cochran
Checked:
T Kimura
Approved:
A Borst
Date:
04-03-09

HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION
Prime Consultant:
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**WEST O'AHU/FARRINGTON DESIGN-BUILD
LEEWARD COMMUNITY COLLEGE STATION
SHEET 4 OF 8
SECTION C**

Contract No.:
DB-1200
CADD File:
WF-G05-FP023A
Drawing No:
FP023A
Rev:
B
Scale:
3/8"=1'-0"
Page No.
97 of 209



NOTES
 1. See Notes on Dwg No. FP021.



SECTION G
 3/8"=1'-0"
 FP021
 FP024

Rev	By	Date	Description
B	AB	05-22-09	Revised Structure; Revised Dimensions
A	AB	04-03-09	Issued For Bid

**BID DOCUMENT
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Designed:
D Yavorsky
 Drawn:
T Cochran
 Checked:
T Kimura
 Approved:
A Borst
 Date:
04-03-09

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

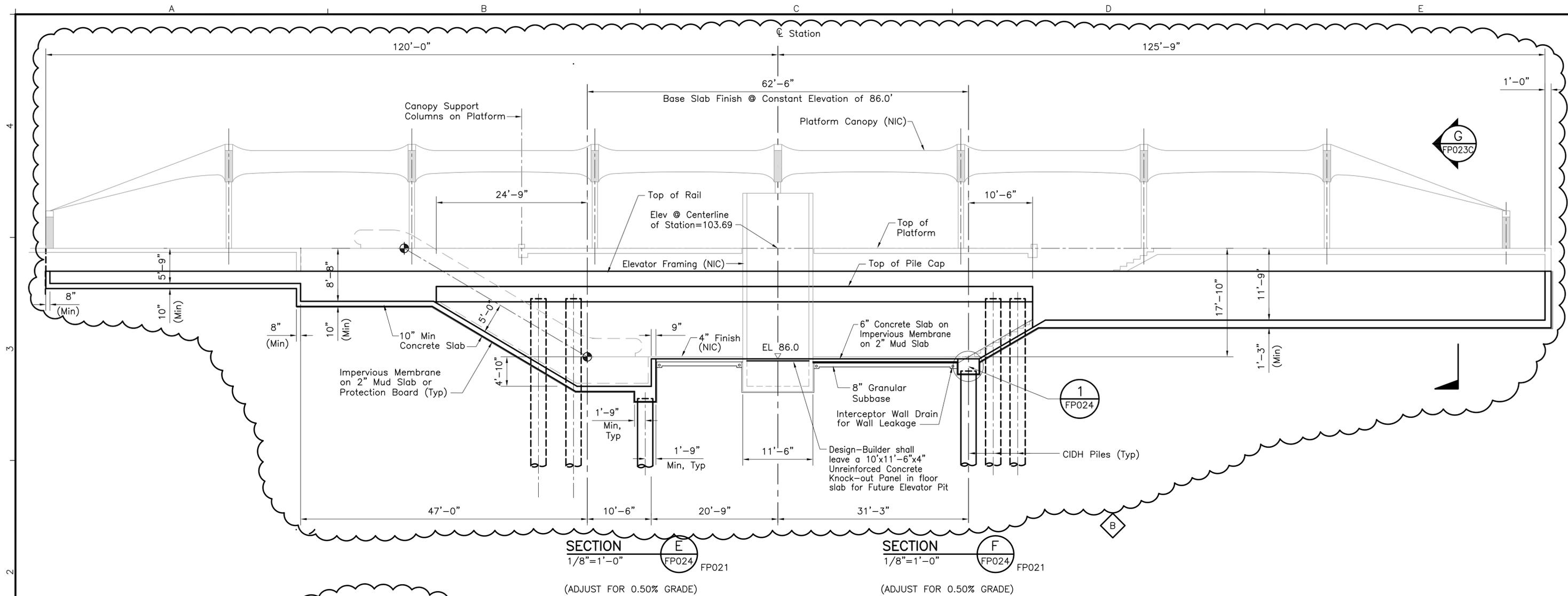
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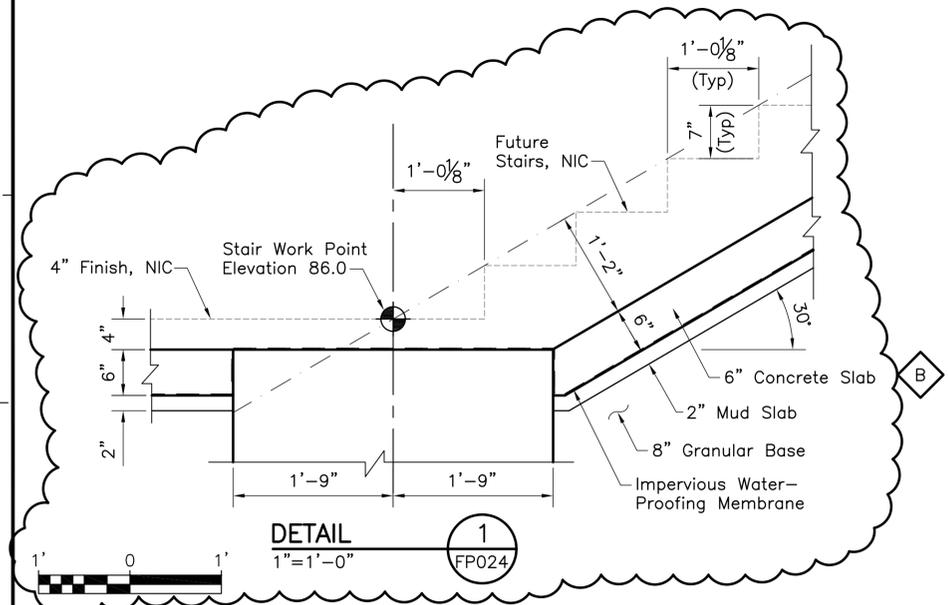
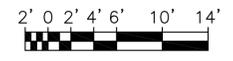
**WEST O'AHU/FARRINGTON DESIGN-BUILD
 LEEWARD COMMUNITY COLLEGE STATION
 SHEET 6 OF 8
 SECTION G**

Contract No.: DB-1200	
CADD File: WF-G05-FP023C	
Drawing No: FP023C	Rev. B
Scale: 3/8"=1'-0"	
Page No. 99 of 209	



SECTION E
 1/8"=1'-0" FP024 FP021
 (ADJUST FOR 0.50% GRADE)

SECTION F
 1/8"=1'-0" FP024 FP021
 (ADJUST FOR 0.50% GRADE)



NOTES
 1. See Notes on Dwg No. FP021.

Rev	By	Date	Description
B	AB	05-22-09	Structure Reconfiguration; Revised Detail
A	AB	04-03-09	Issued For Bid

**BID DOCUMENT
 NOT FOR CONSTRUCTION**

Designed:
D Yavorsky
 Drawn:
T Cochran
 Checked:
T Kimura
 Approved:
A Borst
 Date:
04-03-09

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

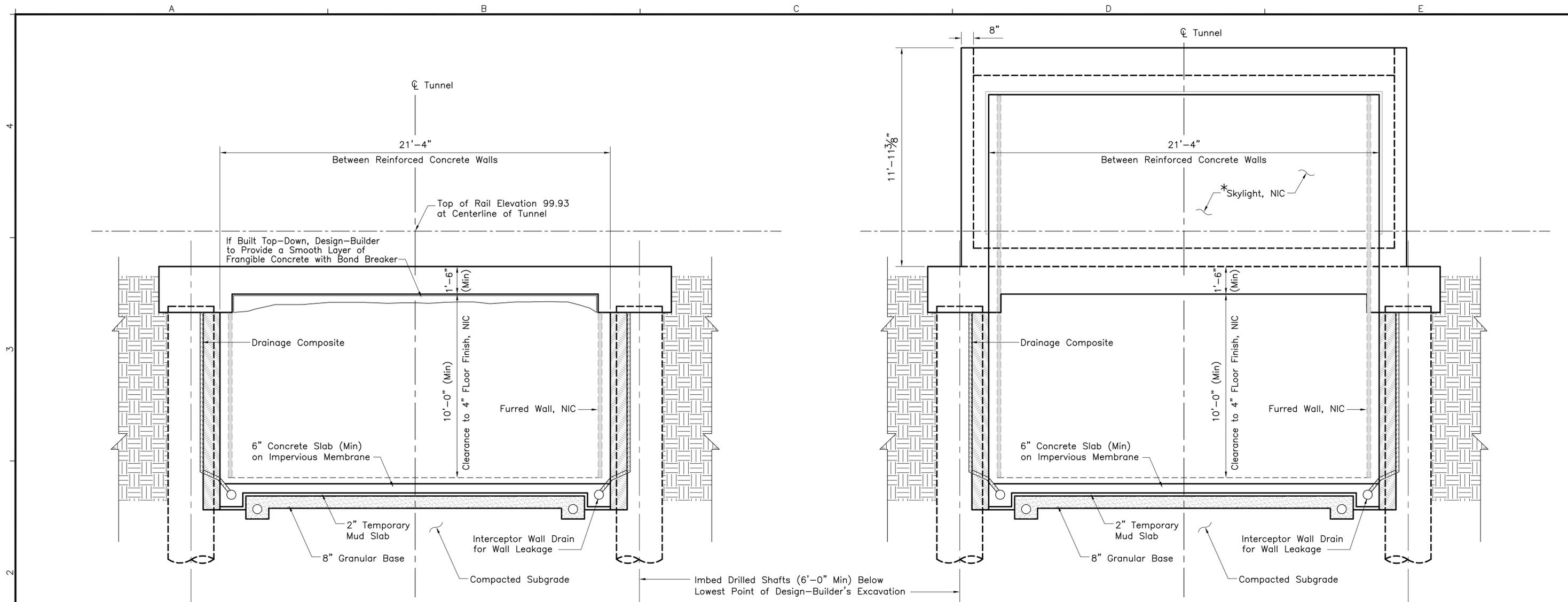
Prime Consultant: **PARSONS BRINCKERHOFF**
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:

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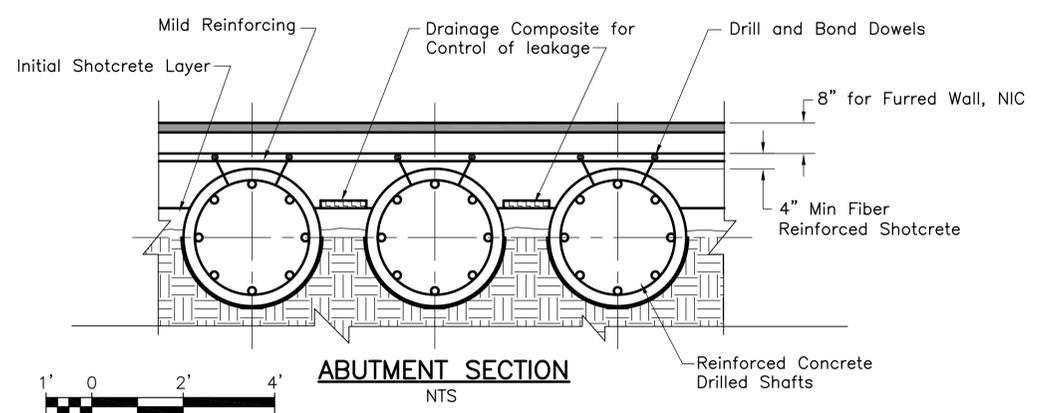
**WEST O'AHU/FARRINGTON DESIGN-BUILD
 LEEWARD COMMUNITY COLLEGE STATION
 SHEET 7 OF 8
 SECTION E AND SECTION F**

Contract No.: DB-1200	
CADD File: WF-G05-FP024	
Drawing No: FP024	Rev. B
Scale: As Noted	
Page No. 100 of 211	



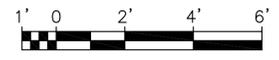
SECTION H
3/8"=1'-0"
FP024A
FP023A

SECTION J
3/8"=1'-0"
FP024A
FP023



ABUTMENT SECTION
NTS

NOTES
* 1. Skylight requires coordination with the station designers.



Rev	By	Date	Description
A	AB	05-22-09	Issued For Bid

**BID DOCUMENT
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Designed: D. Yavorsky
Drawn: T Cochran
Checked: T Kimura
Approved: A Borst
Date: 05-22-09

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

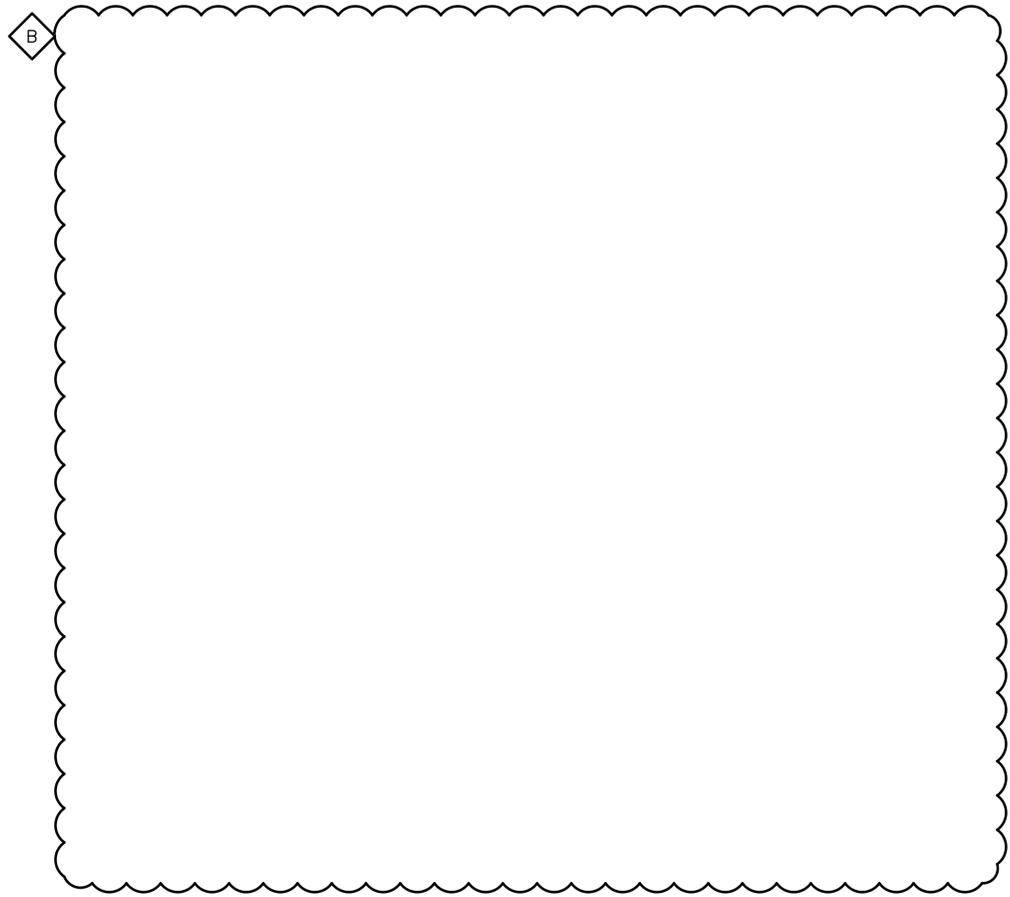
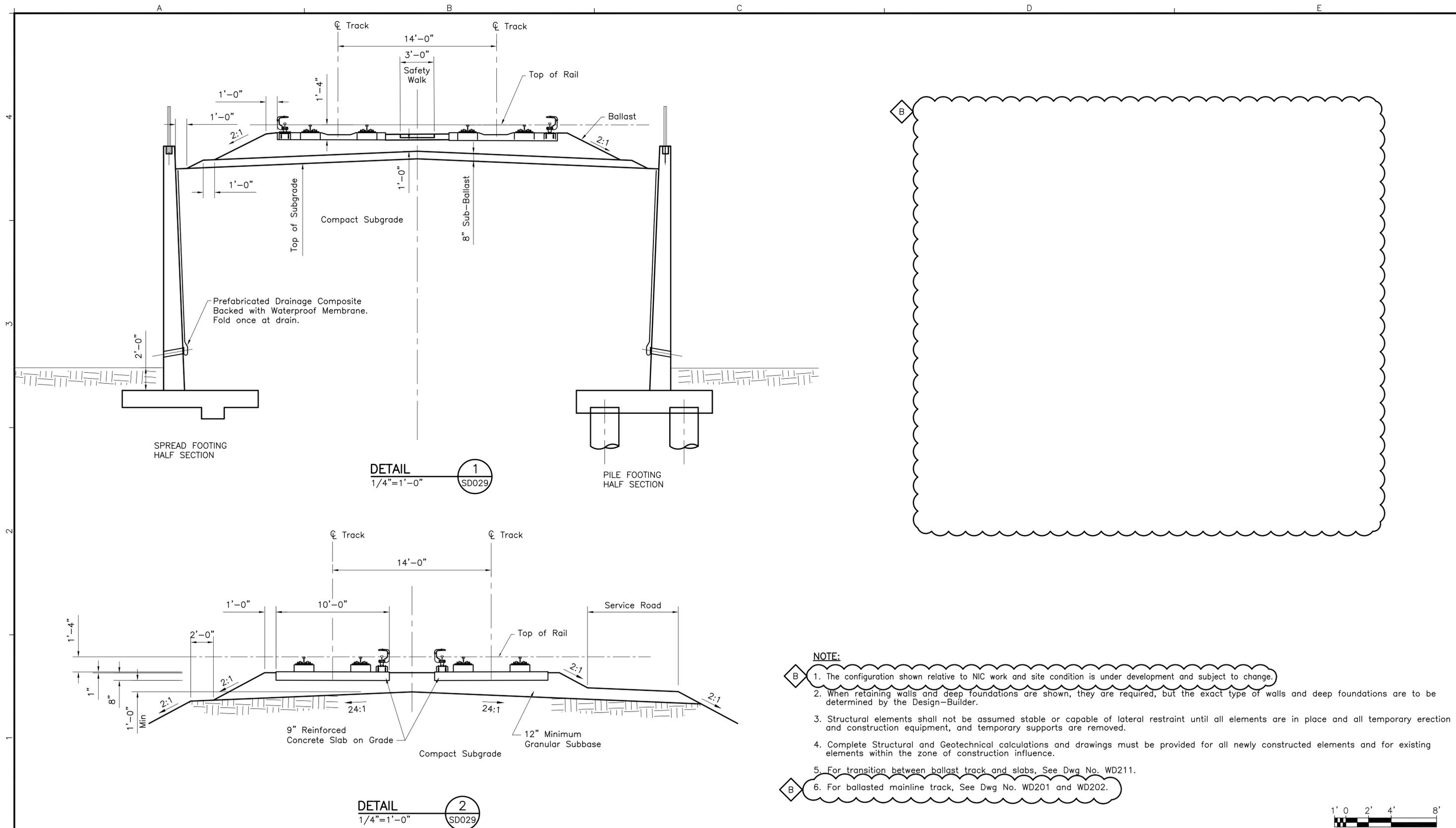
Prime Consultant: **PARSONS BRINCKERHOFF**
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:

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**WEST O'AHU/FARRINGTON DESIGN-BUILD
LEEWARD COMMUNITY COLLEGE STATION
SHEET 8 OF 8
SECTION H AND SECTION J**

Contract No.: DB-1200	Rev. A
CADD File: WF-G05-FP024A	Drawing No: FP024A
Scale: As Noted	Page No. 100A of 211



- NOTE:**
- 1. The configuration shown relative to NIC work and site condition is under development and subject to change.
 - 2. When retaining walls and deep foundations are shown, they are required, but the exact type of walls and deep foundations are to be determined by the Design-Builder.
 - 3. Structural elements shall not be assumed stable or capable of lateral restraint until all elements are in place and all temporary erection and construction equipment, and temporary supports are removed.
 - 4. Complete Structural and Geotechnical calculations and drawings must be provided for all newly constructed elements and for existing elements within the zone of construction influence.
 - 5. For transition between ballast track and slabs, See Dwg No. WD211.
 - 6. For ballasted mainline track, See Dwg No. WD201 and WD202.



Rev	By	Date	Description
B	AB	05-22-09	Removed Sections; Revised Notes
A	AB	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
F. Fortunato

Drawn:
T Cochran

Checked:
T Kimura

Approved:
D. Yavorsky

Date:
04-03-09

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:

**WEST O'AHU/FARRINGTON DESIGN-BUILD
AT-GRADE CONCRETE TIES
BALLAST AND SLAB ON GRADE**

DETAILS

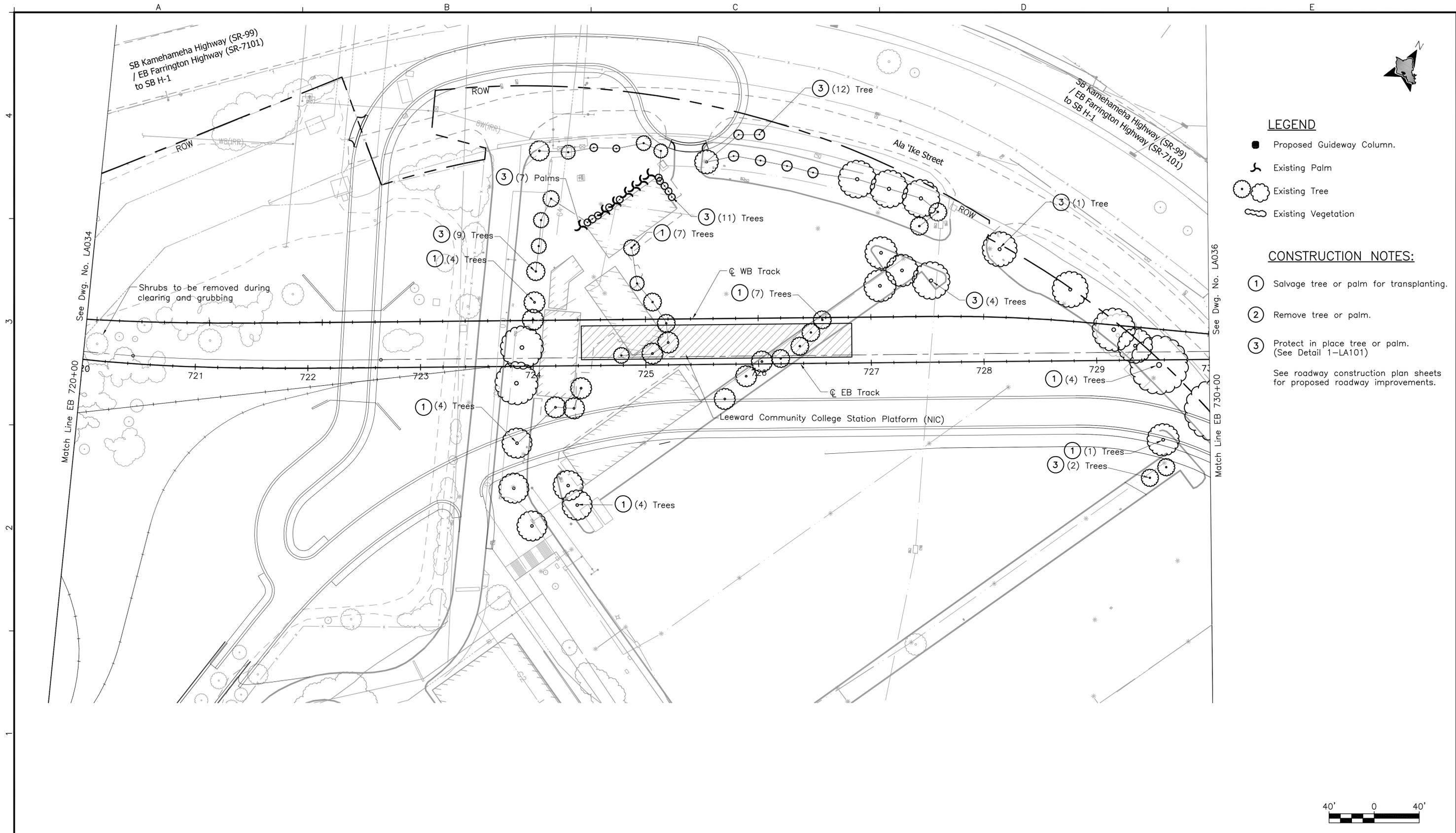
Contract No.:
DB-1200

CADD File:
WF-G07-SD029

Drawing No: SD029 Rev. B

Scale:
1/4"=1'-0"

Page No. 146 of 209

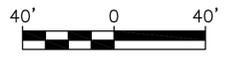


LEGEND

- Proposed Guideway Column.
- ☞ Existing Palm
- Existing Tree
- ☁ Existing Vegetation

CONSTRUCTION NOTES:

- ① Salvage tree or palm for transplanting.
 - ② Remove tree or palm.
 - ③ Protect in place tree or palm. (See Detail 1-LA101)
- See roadway construction plan sheets for proposed roadway improvements.



Rev	By	Date	Description
A	AK	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: D Easterday
 Drawn: M Weiss
 Checked: D Easterday
 Approved: A Kutsunai
 Date: 04-03-09

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

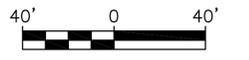
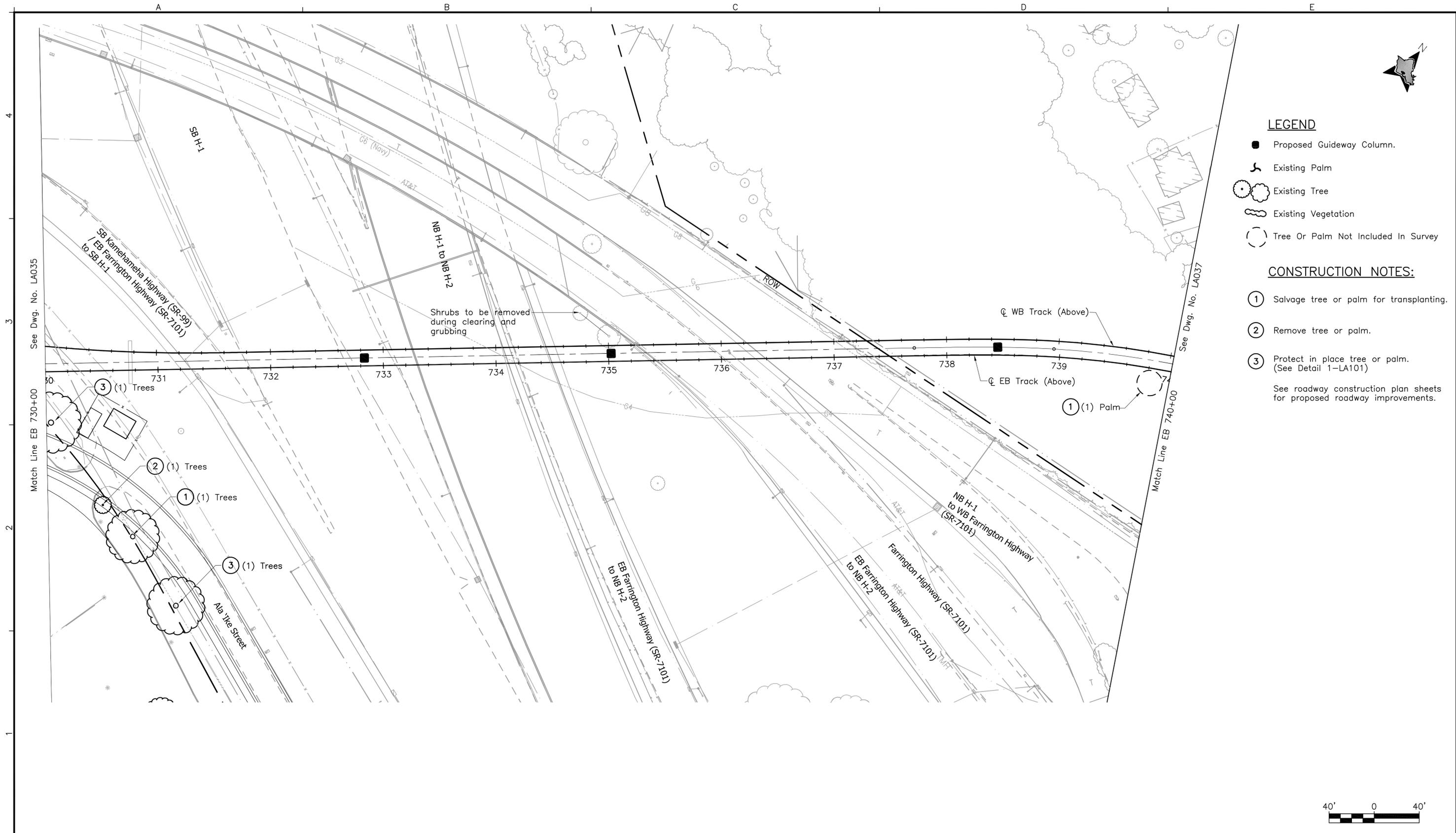
Prime Consultant: **PARSONS BRINCKERHOFF**
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **BELT COLLINS**
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**WEST O'AHU/FARRINGTON DESIGN-BUILD
LANDSCAPE DEMOLITION PLAN**

EB 720+00 TO EB 730+00

Contract No.: DB-1200	
CADD File: WF-J02-LA035	
Drawing No: LA035	Rev. A
Scale: 1"=40'	
Page No. 173	of 209



Rev	By	Date	Description
A	AK	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: D Easterday
 Drawn: M Weiss
 Checked: D Easterday
 Approved: A Kutsunai
 Date: 04-03-09

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

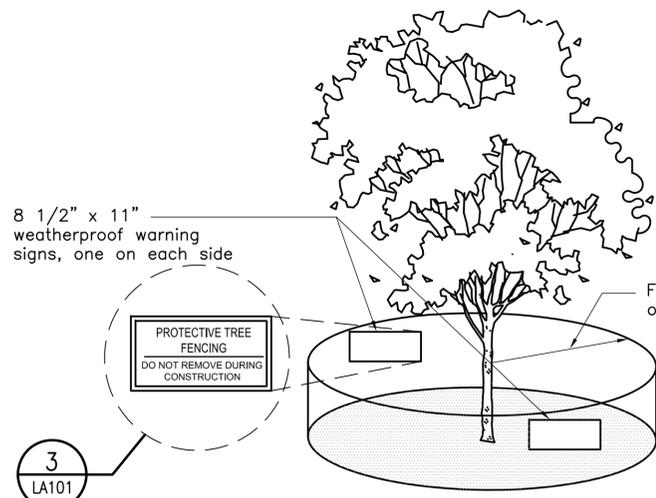
Prime Consultant: **PARSONS BRINCKERHOFF**
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **BELT COLLINS**
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**WEST O'AHU/FARRINGTON DESIGN-BUILD
LANDSCAPE DEMOLITION PLAN**

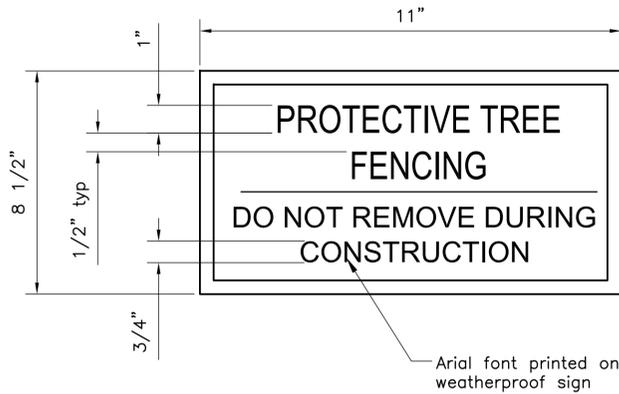
EB 730+00 TO EB 740+00

Contract No.: DB-1200	
CADD File: WF-J02-LA036	
Drawing No: LA036	Rev. A
Scale: 1"=40'	
Page No. 174	of 209



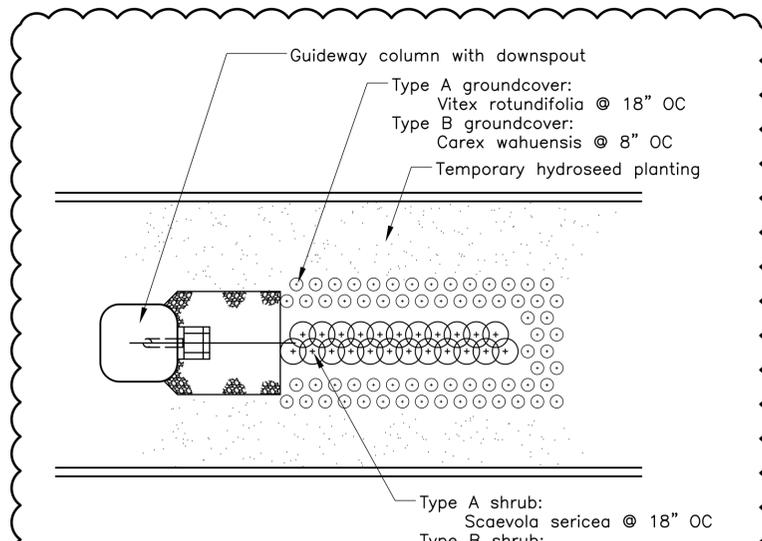
TREE/PALM PROTECTION
NOT TO SCALE

1
LA101



SIGN
NOT TO SCALE

3
LA101

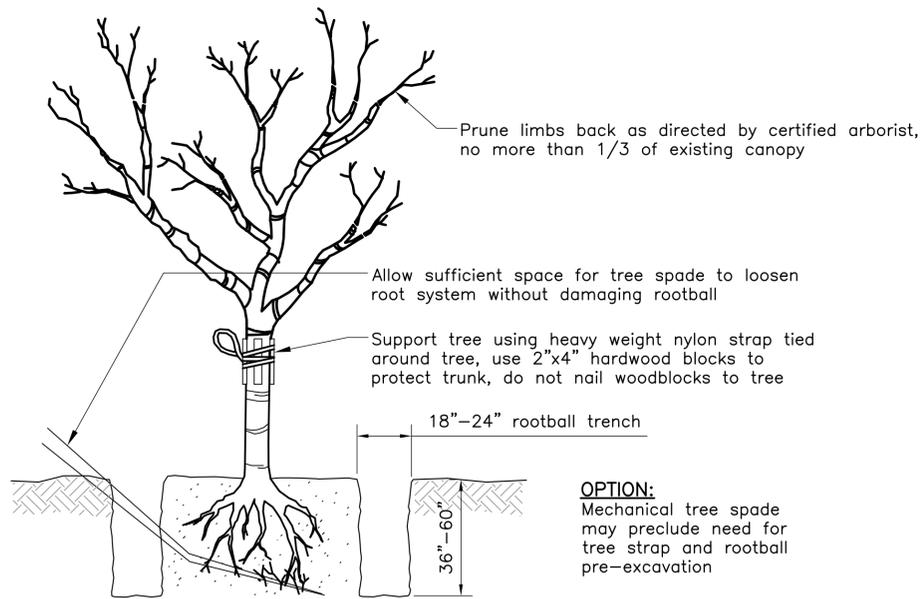


BIO-INFILTRATION PLAN
NOT TO SCALE

5
LA101

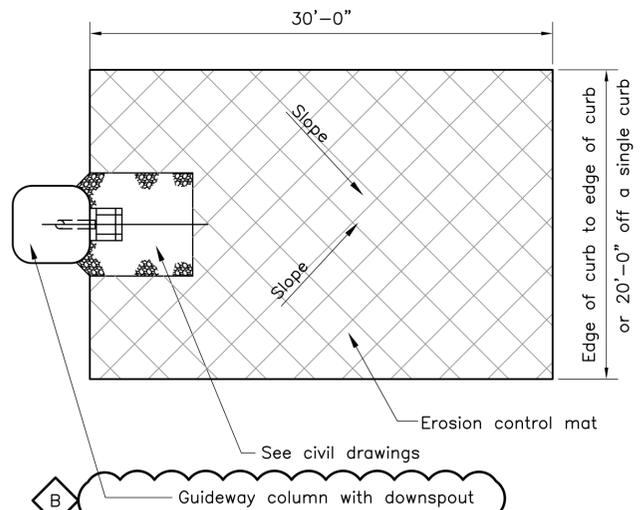
NOTES:

- Mulch the root zone within dripline of all trees designated to remain in place with a minimum of 4" cover to protect against soil compaction.
- Install tree protection fencing.
- Minimize root pruning of structural roots. Any root pruning shall be clean cuts by proper equipment with no ripping or tearing.
- If roots are pruned, prune canopy by similar amount to reduce shock to the tree.
- Provide irrigation to all trees designated to be protected in place.
- No stockpiling, storage or transport of materials, vehicles, or equipment within the dripline of trees designated to be protected in place.
- Tree and palm demolition shall include demolition, removal and disposal, including rootball. Rootball excavation shall be backfilled and compacted with approved backfill material.
- Planting areas shall be rough graded for temporary landscape condition. A 2% slope to median center shall be maintained to collect stormwater from guideway drains.



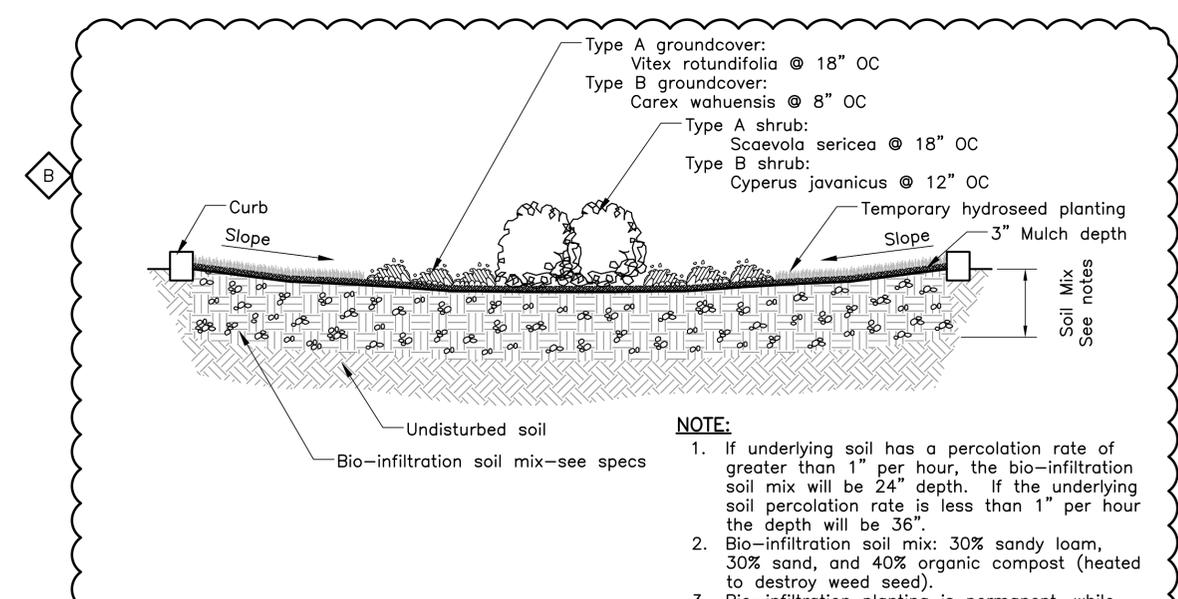
TREE SALVAGE
NOT TO SCALE

2
LA101



EROSION CONTROL MAT
NOT TO SCALE

4
LA101



BIO-INFILTRATION SECTION
NOT TO SCALE

6
LA101

NOTE:

- If underlying soil has a percolation rate of greater than 1" per hour, the bio-infiltration soil mix will be 24" depth. If the underlying soil percolation rate is less than 1" per hour the depth will be 36".
- Bio-infiltration soil mix: 30% sandy loam, 30% sand, and 40% organic compost (heated to destroy weed seed).
- Bio-infiltration planting is permanent, while hydroseed is temporary.
- Bio-infiltration areas are located adjacent only to streams (see civil plans for locations). Planting at each site should alternate between Type A and Type B.

Rev	By	Date	Description
B	AK	05-22-09	Bio-Infiltration Details
A	AK	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:
D Easterday
Drawn:
M Weiss
Checked:
D Easterday
Approved:
A Kutsunai
Date:
04-03-09

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

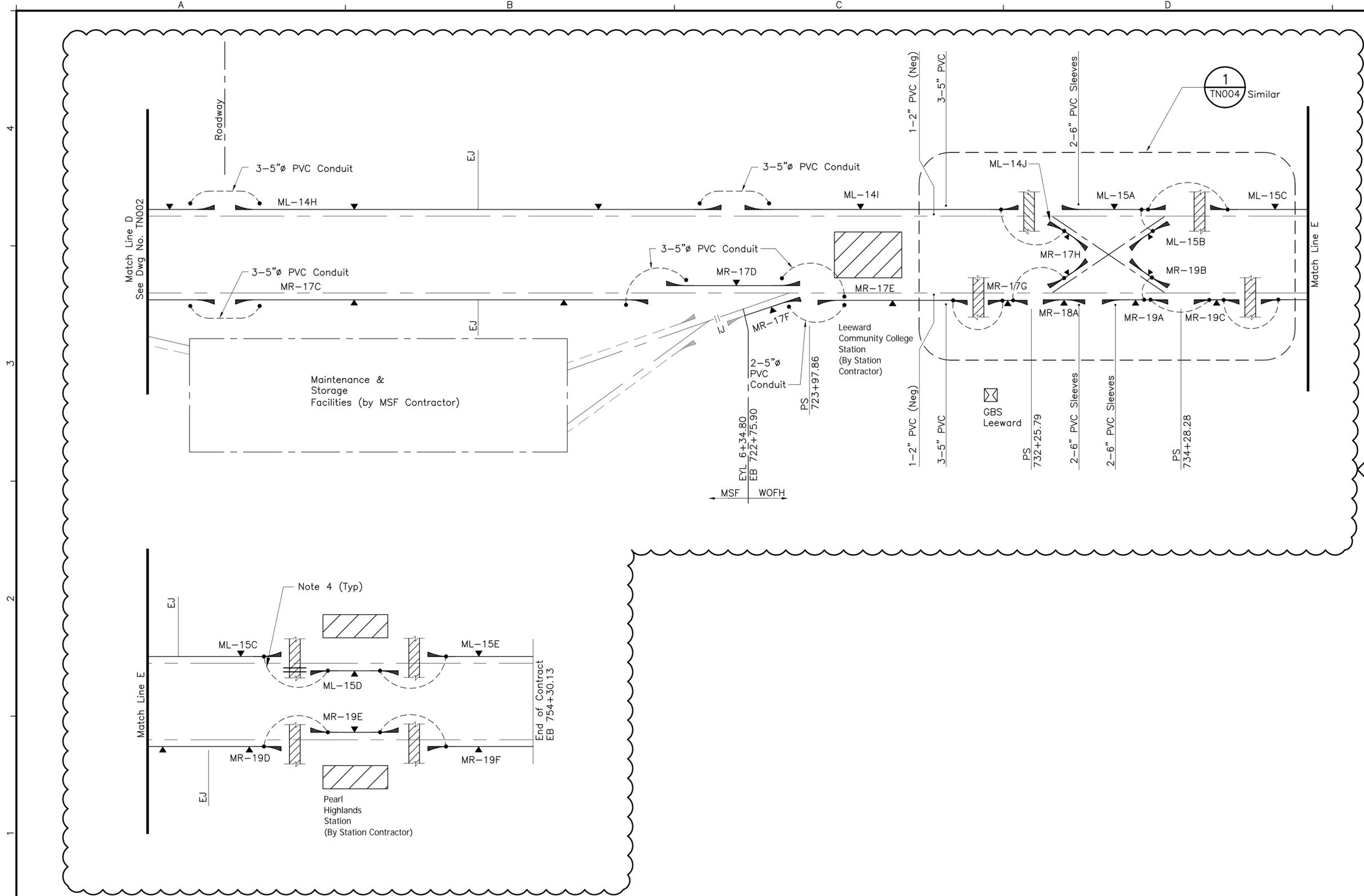
Prime Consultant:
PARSONS BRINCKERHOFF
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Subconsultant:
BELT COLLINS
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**WEST O'AHU/FARRINGTON DESIGN BUILD
LANDSCAPE PLANTING DETAILS**

Contract No.:	DB-1200
CADD File:	WF-J06-LA101
Drawing No.:	LA101
Scale:	AS NOTED
Page No.:	177 of 209

NOTES
 1. For notes see dwg TN001.



Rev	By	Date	Description
B	SDS	08-05-09	Updated PS, EJ's & anchors
A	SDS	04-03-09	Issued For Bid

**BID DOCUMENT
 NOT FOR CONSTRUCTION**

Designed:
L Mayola
 Drawn:
O Kurnovskaya
 Checked:
A Patel
 Approved:
S Stoilov
 Date:
04-03-09

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
 For reduced prints, original page size in inches:

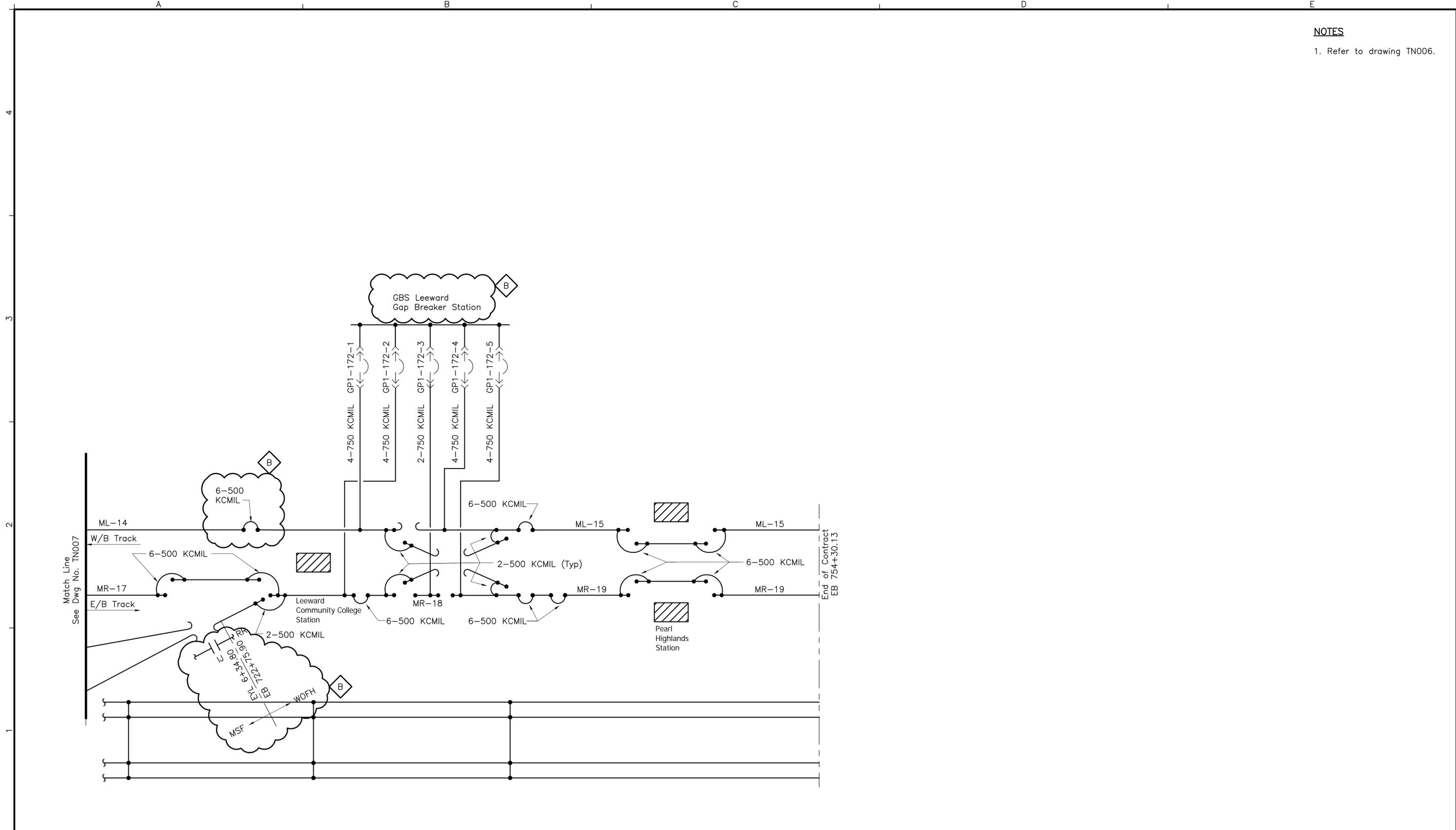
WEST O'AHU/FARRINGTON DESIGN-BUILD

**CONTACT RAIL INSTALLATION
 CONTACT RAIL SCHEMATIC LAYOUT**

SHEET 3 OF 3

Contract No.: DB-1200	
CADD File: WF-N06-TN003	
Drawing No: TN003	Rev. B
Scale: As Noted	
Page No. 186 of 209	

NOTES
1. Refer to drawing TN006.



Rev	By	Date	Description
B	SDS	08-05-09	Updated Master Single Line Diagram
A	SDS	04-03-09	Issued For Bid

**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed:	L Mayola
Drawn:	O Kurnovskaya
Checked:	A Patel
Approved:	S Stoilov
Date:	04-03-09

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:

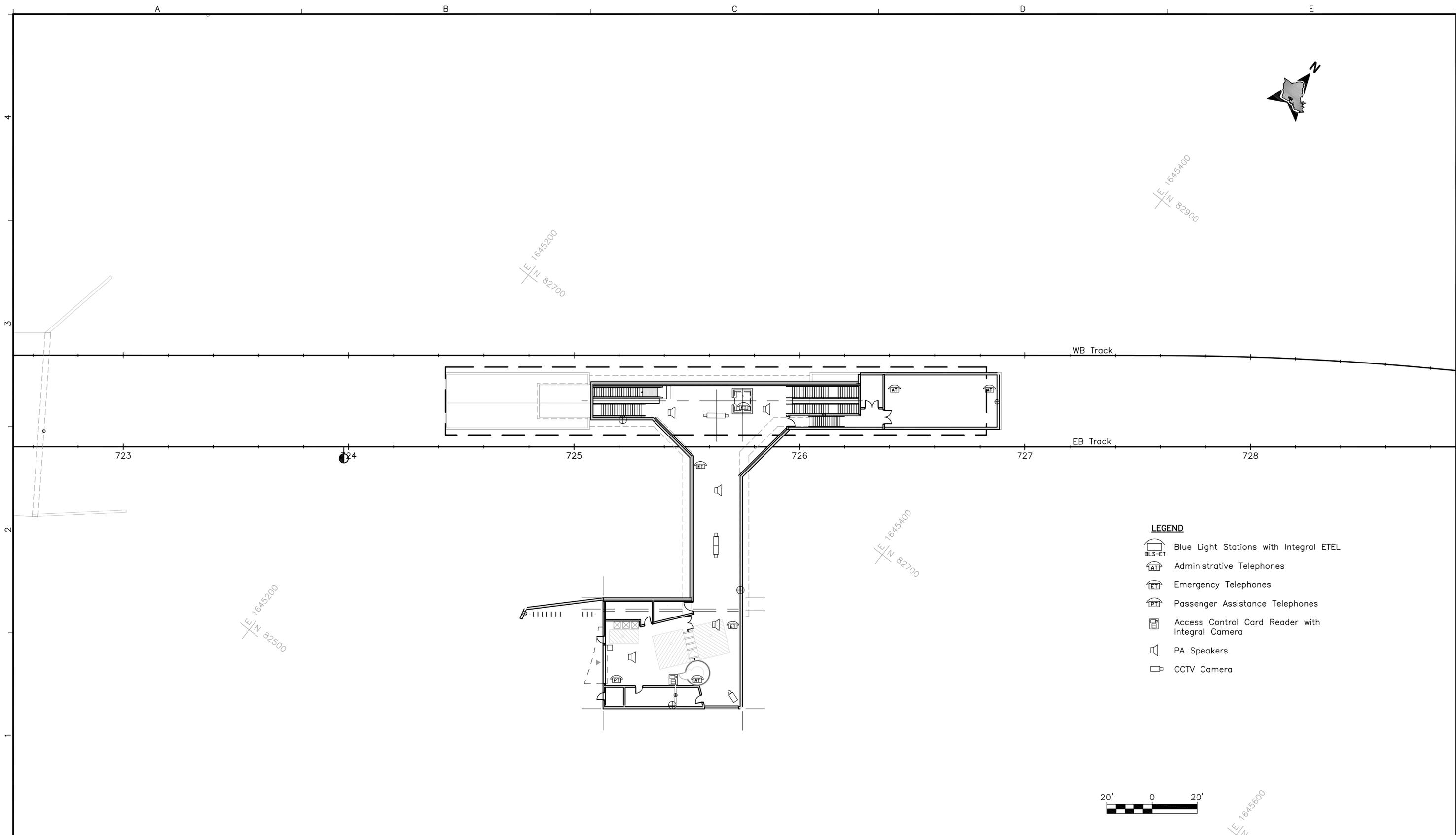
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WEST O'AHU/FARRINGTON DESIGN-BUILD

MASTER SINGLE LINE DIAGRAM

SHEET 3 OF 3

Contract No.: DB-1200	
CADD File: WF-N06-TN008	
Drawing No: TN008	Rev. B
Scale: As Noted	
Page No. 191 of 209	



LEGEND

-  Blue Light Stations with Integral ETEL
-  Administrative Telephones
-  Emergency Telephones
-  Passenger Assistance Telephones
-  Access Control Card Reader with Integral Camera
-  PA Speakers
-  CCTV Camera



Rev	By	Date	Description
A	HB	08-17-09	Issued For Proposal

**RFP DRAWING
NOT FOR CONSTRUCTION**

Designed:
H Bowie

Drawn:
C Jamison

Checked:
B Russo

Approved:
H Bowie

Date:
07-31-09

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:

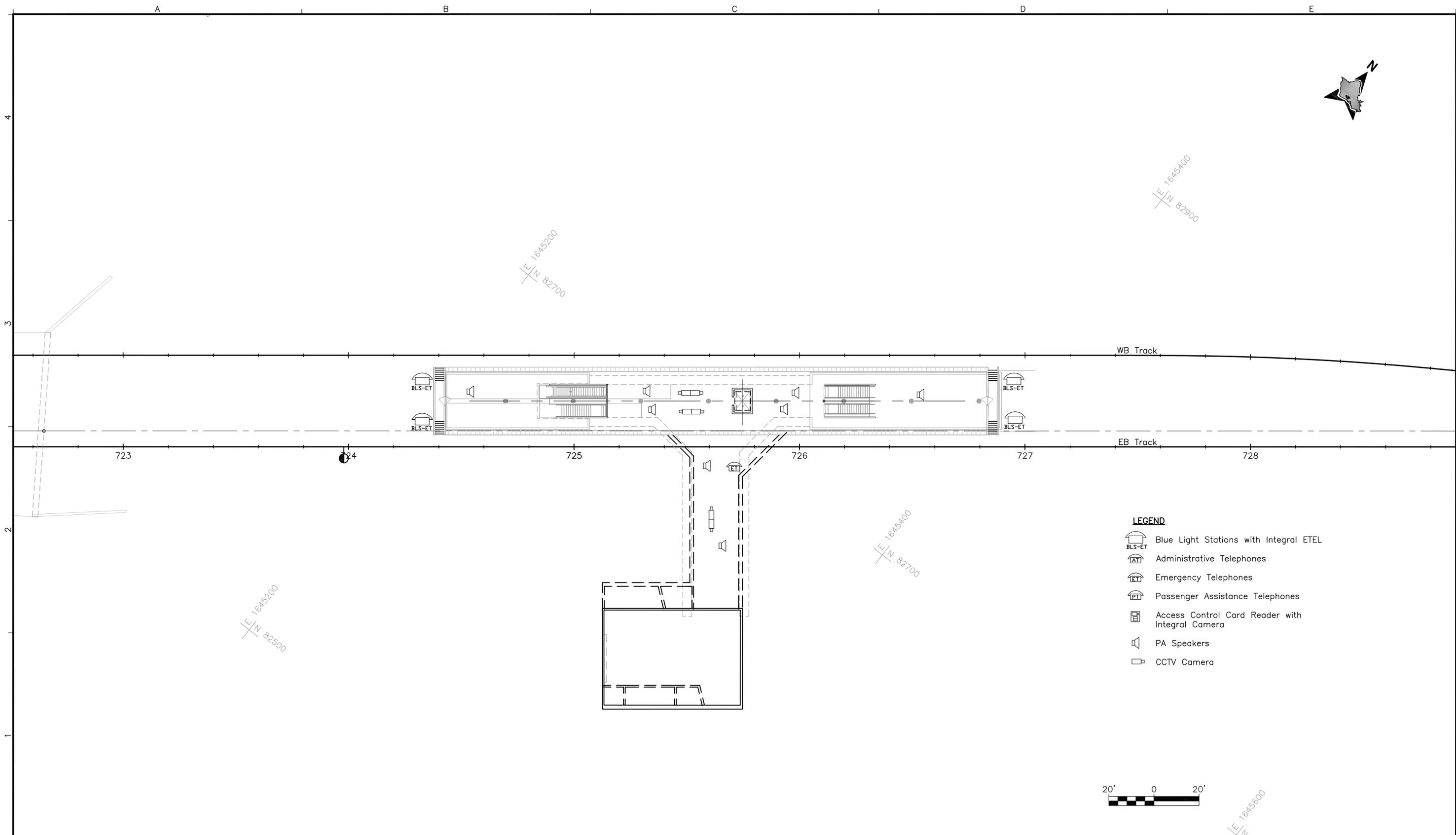
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CORE SYSTEMS

LEEWARD COMMUNITY COLLEGE STATION
COMMUNICATIONS PLAN

CONCOURSE LEVEL

Contract No.: MI-920	
CADD File: CS-R06-CM207	
Drawing No: CM207	Rev. A
Scale: 1" = 20'	
Page No. 139	of 195



- LEGEND**
-  Blue Light Stations with Integral ETEL
 -  Administrative Telephones
 -  Emergency Telephones
 -  Passenger Assistance Telephones
 -  Access Control Card Reader with Integral Camera
 -  PA Speakers
 -  CCTV Camera



Rev	By	Date	Description
A	HB	08-17-09	Issued For Proposal

**RFP DRAWING
NOT FOR CONSTRUCTION**

Designed:
H Bowie

Drawn:
C Jamison

Checked:
B Russo

Approved:
H Bowie

Date:
07-31-09

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:

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

CORE SYSTEMS

LEEWARD COMMUNITY COLLEGE STATION

COMMUNICATIONS PLAN

PLATFORM LEVEL

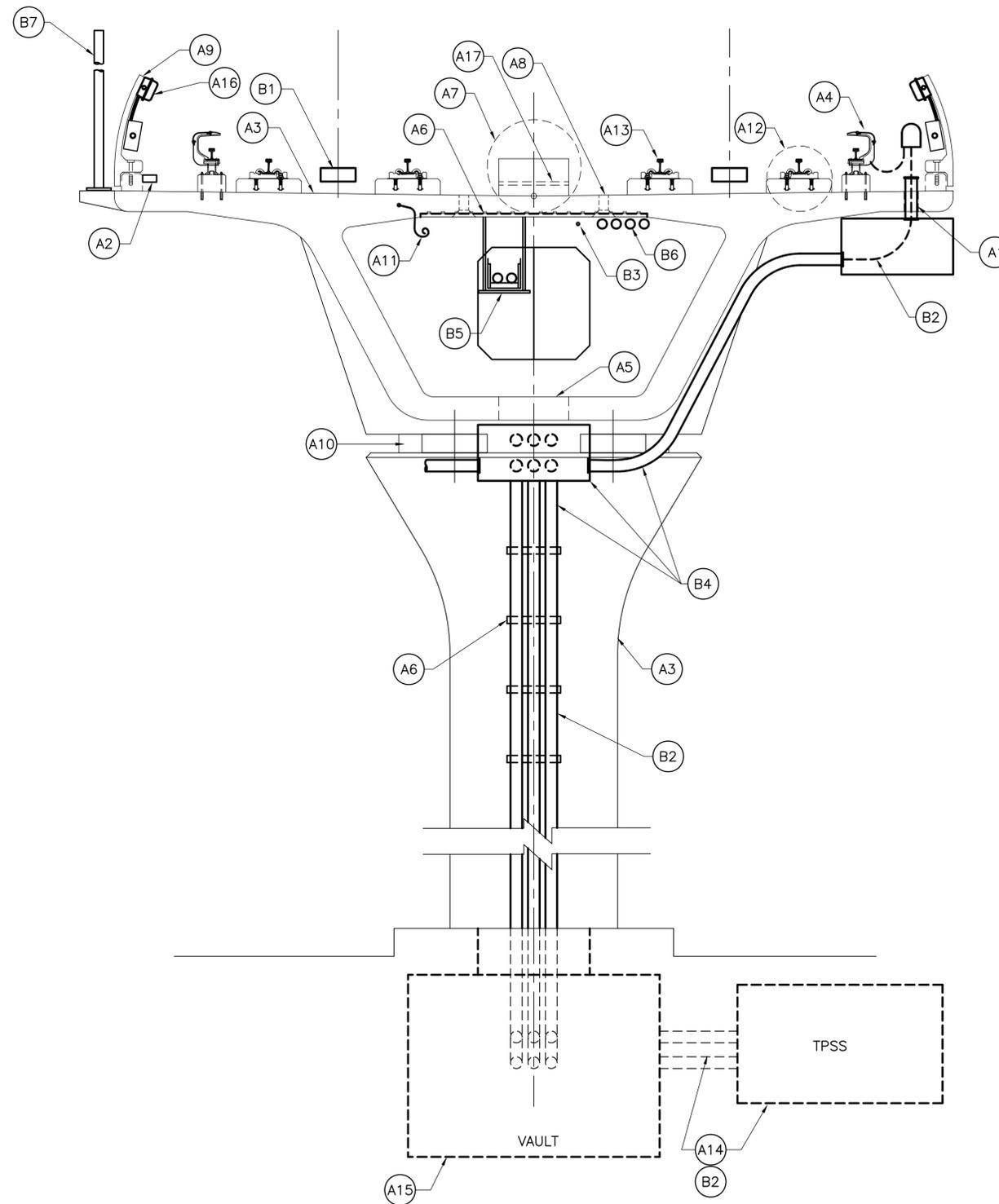
Contract No.: MI-920	
CADD File: CS-R06-CM208	
Drawing No: CM208	Rev. A
Scale: 1" = 20'	
Page No. 140	of 195

GUIDEWAY CONTRACTOR

- (A1) Sleeves in Box Girder for Traction Power Cabling
- (A2) Stray Current Test Station
- (A3) Precast Segmental Box Girder Guideway Foundations, Substructure, Columns, Bents, Superstructure and all Associated Permanent and Temporary Works
- (A4) Contact Rail Layout and Installation
- (A5) Access Hatch
- (A6) Unistrut for Support of Cable Trays and Conduits
- (A7) Emergency Walkway
- (A8) Knock Outs
- (A9) Acoustic Barrier
- (A10) Bearings, Tie-downs/Restrainers/Shock Transmissions Units, Expansion Joints, and all other associated Guideway appurtenances.
- (A11) Stray Current and Grounding Cables
- (A12) Cast-in-Place Rail Plinths, DF Fasteners, Inserts and all related appurtenances.
- (A13) Continuously welded rail, and all related appurtenances.
- (A14) TPSS Foundation and Conduits to Guideway and to HECO Feeder
- (A15) Traction Electrification Vault
- (A16) Guideway Lighting (See Directive Drawings ES001, ES002 and ES003)
- (A17) Sleeves for Crossbonds

CORE SYSTEMS CONTRACTOR

- (B1) Impedance Bonds
- (B2) Feeder Cabling
- (B3) Longitudinal Grounding
- (B4) Conduits and Pull Box for Traction Power Feeders
- (B5) Cable Tray, Cable Tray Supports and Conduits
- (B6) Conduits
- (B7) 15' pole for Wireless Mesh Access Point



**BID DOCUMENT
NOT FOR CONSTRUCTION**

Designed: D Gobelle
 Drawn: C Jamison
 Checked: M Becher
 Approved: M Hall
 Date: 05-22-09

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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**WEST O'AHU/FARRINGTON DESIGN-BUILD
 SYSTEM INTEGRATION
 CONTRACT WORK DELINEATION**

AERIAL GUIDEWAY

Contract No.: DB-1200
 CADD File: WF-V111-SY001
 Drawing No: SY001 Rev. A
 Scale: NTS
 Page No. 209A of 209