



NAPA VALLEY TRANSPORTATION AUTHORITY Board Agenda Letter

TO: Board of Directors
FROM: Kate Miller, Executive Director
REPORT BY: Antonio Onorato, Director-Administration, Finance, and Policy
(707) 259-8779 / Email: anonorato@nvta.ca.gov
SUBJECT: Authorization to Purchase Five (5) Zero-Emission, Battery-Electric Buses from Build Your Dreams (BYD) Coach & Bus LLC

RECOMMENDATION

That the Napa Valley Transportation Authority (NVTA) Board authorize the Executive Director to execute Purchase Order 19-1022 (Attachment 1) to acquire five (5) zero-emission battery-electric low-floor thirty (30) foot buses from Build Your Dreams (BYD) Coach and Bus LLC in an amount not to exceed \$3,278,182 pending receipt of the Federal Transit Administration (FTA) requirements for Altoona testing from the Transit Resource Center (TRC).

OTHER OPTIONS FOR CONSIDERATION

Option 1: Defer the purchase until the completion of Altoona testing from the TRC which would further delay delivery of the vehicles for up to two years.

Option 2: Attempt to modify the federal grant awards and request the purchase of different zero-emission buses that have been Altoona tested. However, successful appeals to FTA are rarely granted since the award specifically called out the vehicle type and model.

Option 3: Forego purchasing the vehicles and return the FTA grant funds.

COMMITTEE RECOMMENDATION

None

EXECUTIVE SUMMARY

The Federal Transit Administration awarded NVRTA \$1,092,500 in 2017 for the purchase of five (5) Build Your Dream 30' zero emission battery electric buses specifically called in the grant application. To take advantage of various incentive programs, NVRTA must execute a Purchase Agreement (Attachment 1) before the end of the calendar year and prior to pending federal legislation that may curtail the Agency's ability to purchase buses from a Chinese subsidized manufacturer.

PROCEDURAL REQUIREMENTS

1. Staff Report
2. Public Comments
3. Motion, Second, Discussion and Vote

FISCAL IMPACT

Is there a Fiscal Impact? Yes, the purchase for the buses with contingency is expected to be \$3,278,182. The capital purchase and budget will be recognized in the year of delivery. Table 1 and Table 2 present the expenditure and financing plan respectively.

Table 1: Expenditure Plan

BYD Motors	Total
5 Zero Emission Battery Electric Buses	\$3,148,182
Contingency for extra equipment (if needed)	130,000
TOTAL	\$3,278,182

Table 2: Financing Plan

BYD Motors	Total
TDA	\$1,690,388
FTA	1,227,794
LCTOP	360,000
TOTAL	\$3,278,182

STRATEGIC GOALS MET BY THIS PROPOSAL

Goal 2: Improve system safety in order to support all modes and serve all users. The addition of five buses to the Vine fleet will alleviate the bus shortage the agency is experiencing.

Goal 3: Use taxpayer dollars efficiently. Using federal grants in-lieu of local funds will allow NVRTA to prioritize other transportation projects.

CEQA REQUIREMENTS

ENVIRONMENTAL DETERMINATION: The proposed action is not a project as defined by 14 California Code of Regulations 15378 (California Environmental Quality Act (CEQA) Guidelines) and therefore CEQA is not applicable

BACKGROUND AND DISCUSSION

Since the grant award in 2017, NVRTA staff has been working with the Center for Technology and Environment (CTE) to design the propulsion system for the local and up valley routes that these buses will service. The design and bus specifications are nearly complete.

NVRTA staff considered deferring Board authorization to purchase the vehicles until the vehicle design phase was complete, however, there is a higher sense of urgency due to pending federal legislation that could prohibit contracting with manufacturers subsidized by China using federal funds. The House passed its version of the annual defense-policy bill in July 2019 with language blocking transit agencies from using federal money to buy railcars made by Chinese state-owned, controlled or subsidized companies. The Senate bill imposes harsher restrictions, and includes bus manufacturers. As a company subsidized by the Chinese government, BYD would be impacted by the legislation and would inhibit NVRTA's ability to purchase the buses specifically called out in the grant application. With the approval of the proposed Purchase Order, the contract would be "grandfathered in" before the pending legislation goes into effect.

Production of the new electric bus takes approximately 15 to 18 months, with delivery slated in 2021. BYD Motors is the only manufacturer to produce a 30-foot pure electric bus in United States. Two other bus manufacturing companies, Proterra and New Flyer Industries, are beginning to diversify their product offering lines beyond the traditional 40-foot bus. However, neither manufacturer has an Altoona tested 30-foot product on the market. Furthermore, both of these manufacturers do not have a plug-in charging option, and instead rely on the fast-charge protocol, which is more expensive and would require redesigning the proposed maintenance facility electric charging configuration. In addition to the flexible charging capabilities offered by BYD, they are the only Zero Emission Bus (ZEB) manufacturer to offer a 12-year battery warrantee and a five-year warrantee on the remaining components.

SUPPORTING DOCUMENTS

Attachment: (1) Purchase Order 19-1022



Napa Valley
Transportation
Authority
625 Burnell Street
Napa, CA 94559

Phone: 707-259-8631
Fax: 707-259-8638
www.nvta.ca.gov

Purchase Order

VENDOR

BYD COACH & BUS LLC
1800 S. FIGUEROA STREET
LOS ANGELES, CA 90015
POC: Justin Scalzi, Director Business
& Development, West Coast
E Justin.scalzi@byd.com
T 949.220.6491

Purchase Order #: 19-1022
Date: 10/25/2019
Vendor ID:
CA STATE: 201308810203

Bill To:

Napa Valley Transportation
Authority (NVTA)
ATTN: Accounts Payable
625 Burnell Street
Napa, CA 94559-2912

Ship To:

NVTA-Vine Transit Yard
720 Jackson Street
Napa, CA 94559
POC: Antonio Onorato, CCFM
T 707.259.8779 E aonorato@nvta.ca.gov

Requested By	Ship Date	Ship Via	FOB	Buyer	Terms	Tax ID
ONORATO		GROUND	ORIGIN	KULICK	NET 30	68-0471080

QTY	Item #	Units	Description			Unit Price	Total
5		EA	BYD - K7M-ER, Electric Transit Bus, 30'			\$580,000.00	\$2,900,000.00
5		EA	Options, various ,per bus			\$134,160.80	\$670,804.00
5		EA	ADA Equipment Options			\$33,391.00	\$166,955.00
SUBTOTAL						\$747,551.80	\$3,737,759.00
HVIP REBATE						(\$120,000.00)	(\$600,000.00)
SUBTOTAL							\$3,137,759.00
SHIP							\$10,422. 50
TOTAL							\$3,148,181.50

SEE ATTACHED SPECIFICATIONS ON PAGE 2 OF 18

NOTICE OF INCLUDED TERMS AND CONDITIONS
This purchase order is a federally funded contract and as such, certain mandatory terms and conditions apply to this purchase order. These provisions include, but are not limited to the

NOTICE OF INCLUDED TERMS AND CONDITIONS

This purchase order is a federally funded contract and as such, certain mandatory terms and conditions apply to this purchase order. These provisions include, **but are not limited to** the provisions of Buy America 49 U.S.C. §5323(j), 49 C.F.R. Part 661; Cargo Preference 46 U.S.C. § 55305, 46 C.F.R. Part 381; Fly America 49 U.S.C. § 40118, 41 C.F.R. §§ 301-10.131 through 301-10.143; Bus Testing 49 C.F.R. Part 665; U.S. DOT Third Party Procurement Regulations 49 C.F.R. §18.36 or 40 C.F.R. §§19.40 through 19.48, FTA Circular 4220.1F (including all mandated terms and conditions contained in Appendix D-4) and FTA Master Agreement FTA MA(17).

THIS ORDER WILL BECOME VALID UPON RECEIPT OF VENDOR ACCEPTANCE.

VENDOR ACCEPTANCE

Vendor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) contract/ purchase order, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. *(Attachments are listed herein.)*

ORDER AWARDED AND ISSUED BY

Individual listed below is hereby authorized to award ordered material/ services as specified, or incorporated by reference herein, on behalf of the Napa County Transportation and Planning Agency.

NAME AND TITLE
(Signature of person authorized to sign)

DATE _____

KATE MILLER, Executive Director DATE _____

DATE _____

FOR INTERNAL USE ONLY

FUND APPROPRIATION: CMA/FTA 5310 8300 8302002 PUB.TRANSIT VINE PROJ 13834

CONTINUATION SHEET

VEHICLE DESCRIPTION - per Bus

Line #	Heading	Configuration	Description
1	Weight	Curb Weight	27,000LB
2		GVWR (Total)	35,274LB
3		GAWR (Front axle)	11,684LB
4		GAWR (Rear axle)	23,590LB
5	Capacity	Total Number of Passenger Seating	22
6		Total number of standing passengers (1 per 1.5 sq. ft.)	20
7	Service Life	Service Life	12 years/500,000 miles
8	Interchangeability	Interchangeability	Standard
9	Training	Customer Training	Full Training
10	Interior Noise	DBA @ Interior (80 dBA Outside)	≤ 65 dBA
11		DBA @ Interior (Bus Generated Noise)	≤ 80 dBA at passenger ≤ 75 dBA at driver
12	Exterior Noise	DBA: Under full power acceleration when operated at 0 to 35 mph at curb weight	≤ 80dBA
13		dBa: Maximum noise level generated by the bus pulling away from a stop at full power	≤ 83 dBA
14		dBa: Bus-generated Noise at Curb Idle	≤ 65 dBA
15	Fire Safety Materials	Requirements	FMVSS 302
16	Fire Suppression	Fire Suppression System Vendor	Amerex
17		Agent	ABC
18		Sensor Type	Linear sensor
19		Model	SafetyNet VH25
20		Fire Extinguisher Type	5lb ABC Standard
21		Fire Extinguisher Quantity	1
22		Fire Extinguisher Mounting Location	Behind Driver Seat, Next to Side Wall
23	Bus Length	Bus Length	29.9ft
24	Bus Width	Bus Width	101.5 in.
25	Bus Height	Bus Height	134in.
26	Step Height	Doorway Height	15.3" /15.1" F/R
27		Kneeling Height	12.65" / 12.25" F/R
28		Interior Step Height	8.8 in.
29	Ramp Clearance	Approach Angle (°)	≥8.6
30		Departure Angle (°)	≥8.6
31		Breakover Angle (°)	≥8.6
32	Minimum Ground Clearance	Inside Axle Zones	≥5.4 in.
33		Outside Axle Zones	≥9 in.
34		Wheel Area Zones	≥ 8 in.
35	Floor Height	Floor Height	16 in.
36		Inside The Bus: Number of steps	2
37	Interior Headroom	@Center Line of Aisle Seats (Forward half no less than 78 in.)	≥ 78 in.
38		@Center Line of Aisle Seats (In front of the rear settee no less than 74 in.)	≥ 74 in.

CONTINUATION SHEET

VEHICLE DESCRIPTION - per Bus

Line #	Heading	Configuration	Description
39	Interior Headroom	Lower Deck @ Centerline of the Window Seats (No lower than 65 in.)	≥ 65 in.
40		Upper Deck	≥ 74 in.
41		@ The Rear Bench Seat (No less than 56 in.)	≥ 56 in.
42	Top Speed	Top Speed	62.5 MPH
43	Acceleration	0-10 MPH	≤ 5 s
44		0-20 MPH	≤ 10 s
45		0-30 MPH	≤ 18 s
46		0-40 MPH	≤ 30 s
47		0-50 MPH	≤ 60 s
48	Gradability	Maximum Gradability	≥18%
49		2.5 % Grade	≥ 40 mph
50		10 % Grade	≥ 15 mph
51	Operating Range	Range per Single Charge	180Miles +
52	Traction Motor	Motor Power	150kW x 2
53		Gear Speed Ratio	17.7
54		Max Motor Speed (rpm)	10000
55		Type	In-Wheel Drive
56		Cooling	Oil Cooled
57	Propulsion System	Battery capacity (Kwh)	266 kWh
58		Number of battery packs	2
59	Energy Storage and Controller	Energy Storage and Controller	Battery Management System (BMS)
60	Cooling System	Manufacturer	BYD
61		Type	Liquid-cooling
62		Material	Silicon
63		Coolant	Dex-cool
64		Pump	2 pcs
65	Radiator	Manufacturer	BYD
66		Radiator Piping	Aluminum
67		Clamp Type	Breeze Constant Torque All Stainless Steel Std.
68	General	Structure Material - Body	Aluminum Alloy
69		Structure Material - Chassis	Steel
70	Corrosion	Chassis Corrosion	BYD Chassis Anti-Corrosion Protection Process
71	Towing	Towing Connector	1 pcs, front, towards the street side
72		Towing Method	Lifted (Supported) Front Axle
73		Towing Method	Flat Towing
74		Front Shop Air Connector	BYD Standard: Fastenal, 430020, 1pc
75		Front Shop Air Connector Location	Under the bumper, front, near the street side
76	Towing	Rear Shop Air Connector	BYD Standard: Fastenal, 430020
77		Rear Shop Air Connector Location	Inside the rear compartment. In the center
78		Electric Tow Connector	BYD Standard: Cole Hersee #12063 7-way plug connector.
79		Electric Tow Connector Location	In Front Cabin
80	Jacking	Jacking Pad Quantity	4
81		Jacking Pad Color	Safety Yellow

CONTINUATION SHEET

VEHICLE DESCRIPTION - per Bus

Line #	Heading	Configuration	Description
82	Jacking	Jacking Pad Decals	Required
83	Floor	Material	Fiberglass Composite
84		Material	PVC
85		Slope @ Entrance / Exit	≤ 2°
86		Slope - front to rear	≤ 3.5°
87	Driver's Area	Driver's Platform	Yellow nosing along top edges of platforms
88	Farebox	Area Light	Required
89	Wheel Housing	Interior Finish	Floor Covering
90		Construction	Steel
91	Aisle Width @ Wheel Well	Front	35 in.
92		Rear	23.8 in.
93	Suspension	Suspension	Mechanical Suspension
94		Front Axle Air Bags	2
95		Rear Axle Air Bags	4
96		Shock Absorber Manufacturer	ZF SACHS
97		Front Shock Absorbers per Axle	2
98		Rear Shock Absorbers per Axle	4
99	Kneeling	Kneeling Position	Front Kneeling
100		Kneeling Position	Curbside Kneeling
101		Switch	Kneel Switch on Dash
102		Kneeling Alarm	Required
103		Kneeling Light	Required
104	Wheels	Manufacturer	ALCOA
105		Type	Aluminum Alloy
106		Size	22.5" x 8.25"
107		Mounting Type	Hub piloted
108		Protective Coating	Dura-Brite
109		Quantity	6
110	Tires	Manufacturer	Michelin
111		Manufacturer	Goodyear
112		Supply	Customer
113		Supply	BYD
114		Type	Radial
115		Size	305/70R22.5
116		Quantity	6
117	Steering	Steering Axle	ZF,RL75A
118		Steering Wheel	VIP
119		Steering Column	Douglas tilt/telescoping
120		Steering Gear	BOSCH
121		Steering System	EHPS,BYD
122	Drive Axle	Manufacturer	BYD,150KWX2
123	Turning Radius	TR0	31.8ft
124	Brake System	Disc	Knorr
125		Brake Lines	TECTRAN
126		ABS ECU	Knorr
127		ABS Valve	Bendix
128	Interlocks	Type	Charging
129		Type	Kneeling

CONTINUATION SHEET

VEHICLE DESCRIPTION - per Bus

Line #	Heading	Configuration	Description
130	Interlocks	Type	Ramp
131		Type	Front and rear door interlock
132	Pneumatic system	Air Compressor	Knorr
133		Air Dryer	Bendix
134		Parking Brake Handle	Pull to Apply; Push to Release
135		Air Tank	JWP
136	Low-Voltage Batteries (24V)	Model	Two Group Jiang Sen Batteries, 80D26L
137		Battery Tray Location	Rear Compartment
138	Multiplex System	Multiplex System	I/O Controls G4
139	Data Communications	Vehicles Data Logger	I/O Controls
140	Driver's Area Control	DashBoard	DashBoard Layout
141		Floor Controls	Floor Switch
142		Visor, Sunshade	Front Pull Shade, mesh on top, solid on bottom
143		Visor, Sunshade	Side Pull Shade, all mesh.
144	Brake Pedals	Manufacturer	Knorr
145		Adjustable	Non-Adjustable
146	Accelerator Pedals	Manufacturer	Williams
147	Driver's Amenities	Coat Hanger	1 PCS
148		Drink/Cup Holder	Required
149		Storage Box	Min. APTA Standard Size 2750 Cubic in.
150	Design and Construction	Road Triangles	1 set
151	Windshield wiper and washer	Wiper	Doga
152		Wiper Style	Vertical Center Parked
153		Wiper Controls	Control on Dashboard
154		Washer	Doga
155	Driver's Seat	Manufacturer/Model	Recaro 800.00.721.CC11
156		Slide length	11 inch
157		ArmRest	No Armrest
158		HeadRest	No Headrest
159		Seat Back Lumbar Support	Required
160		Seat Belt	3 points
161		Belt Alarm	Required
162		Pedestal	Powder Coated Steel
163		Seat Alarm	Required
164	Exterior Mirrors	Manufacturer	Hadley
165		Feature	Remote adjustment
166		Feature	Two piece
167		Feature	Turn Signal-On Housing
168		Feature	Heating Function
169	Exterior Mirrors	+	High mounted for curb side/ High mounted for street side
170		Feature	High mounted for curb side/ Low mounted for street side
171	Interior Mirrors	Rear View Mirror	8" x 16" Flat

CONTINUATION SHEET

VEHICLE DESCRIPTION - per Bus

Line #	Heading	Configuration	Description
172	Interior Mirrors	Rear Door Mirror	12" Convex
173		Rear Door Mirror Mounting Location	Stanchion
174		Bike Rack Viewing Mirror	6" convex
175	Windshield	Feature	Two Piece Design
176		Feature	Rubber Seal
177		Feature	Shaded Band both Side
178	Driver's Side Window	Manufacturer	Ricon with lock open
179		Slider	Full Slide
180		Egress	Non-egress
181		Type	Laminated
182		Thickness	1/4"
183		Light Transmittance	73%
184	Side Windows	Manufacturer	Ricon
185		Feature	Egress
186		Type	Hidden Frame
187		Feature	Tip-in transom
188		Type	Tempered
189		Materials	3/16"
190		Light Transmittance	50%
191	HVAC / A/C	Manufacturer	byd
192		A/C Refrigerant	R134a
193	Auxiliary Heater	Auxiliary Heater	Required
194	Air Flow	Heat/ Defrost	Electric
195		Driver's Booster Blower	Required
196	Roof Ventilators	Quantity	1
197		Operation	Manual
198		Manufacturer	SMI
199		Passenger Emergency Instruction language	English-Spanish
200	Exterior Design	Side Skin Material	Aluminum
201	Repair and Replacement	Side Body Panels	Replaceable lower side panels
202	Rain Gutter	Rain Gutter	Required
203		Feature	Gutter Over Door Frames
204		Feature	Gutter along the top of windows
205	License Plate Provisions	Front License Plate/Provision	Provision Required
206		Rear License Plate/Provision	Provision Required
207	Fender Skirt	Fender Skirt	Rubber
208	Splash Aprons	Splash Aprons	Required
209	Service Compartments and Access Doors	Lock Type	Standard Square Locks
210	Bumper	Manufacturer	Romeo Rim
211		Bike Rack	Required
212		Bike Rack	Sportworks
213	Finish and Color	Bus Finish and Color	BYD Default White
214		Paint Scheme	Customer Input

CONTINUATION SHEET

VEHICLE DESCRIPTION - per Bus

Line #	Heading	Configuration	Description
215	Decals, Numbering and Signing	Numbers	Customer Input
216		Instruction Decal Language	English-Spanish
217		BYD Logo	One each for Front and Rear
218	Exterior Lighting	Exterior Lighting	Dialight, Except Headlights
219		Headlights	I/O Controls
220		Light Guards	Required
221	Interior Panels	Electronics Box Behind the Driver	Required
222		Electronics Box Lock	Square Locks
223		Driver's barrier	Required
224		Barrier Color	Black
225		Barrier Material	Fiberglass
226		Modesty Panel	There are two modesty panels on upper floor area. One is on curb side, another is on street side.
227	Interior Panels	Modesty Panel Color	S-406 CA Silver Grey
228		Modesty Panel Color	Aluminum color
229		AS4 Polycarbonate	There is only one PC panel in rear door area. PC panel is behind the last Curbside seat on the lower floor
230		Aluminum panels	There is only one Aluminum panel in rear door area. Aluminum panel is behind the last Curbside seat on the lower floor
231		Side wall	Melamine
232		Side wall	Aluminium plastic panel
233		Side wall color	Higher: S-431 CA Willow Grey, Lower: S-406 CA Silver Grey
234		Side wall color	Higher: RS812 Rhine white Lower: RS802 Silver grey
235		Ceiling	Melamine
236		Ceiling	Aluminium plastic panel
237		Ceiling color	S-431 CA Willow Grey
238		Ceiling color	RS812 Rhine white
239		Rear Bulkhead	Melamine
240		Rear Bulkhead	Aluminium plastic panel
241		Rear Bulkhead color	S-431 CA Willow Grey
242		Rear Bulkhead color	RS812 Rhine white
243	Floor Covering	Manufacturer	Gerflor
244		Floor Covering Color	Black in front of standee line. Dark grey (Tarabus 8805 Palladium NT) after standee line.
245	Interior Lighting	Interior Lighting	Required
246		Passenger Lighting	Integrated to air duct
247	Interior Lighting	Passenger Lighting Lens Color	White
248		Passenger Lighting Manufacturer	I/O Controls
249		Interior Passenger Lighting Logic	BYD Default
250	Fare Collection	FareBox Model / Spec	Not Required
251		FareBox Model / Spec	If Required: GFI Odyssey post-delivery
252		FareBox Model / Spec	Ignition or constant
253	Passenger Seating	Model	Freedman-4 One Gemini
254		Model	Americanseating - Insight

CONTINUATION SHEET

VEHICLE DESCRIPTION - per Bus

Line #	Heading	Configuration	Description
255	Passenger Seating	Seating Layout	See Drawing Package
256		Seat Frame Color	Stainless Steel
257		seat shell/ module	Grey RAL 7012 ,GEMINI STANDARD/ 980 gray, insight standard. Unless customer specify, grab rail, hip support will use standard color.
258		Fabric Details	Majestic blue fabric
259		onsert padding	standard: no padding; gemini option: back---0.5/1.0in, cushion--- 0.5/1.0in. insight option: back---0.5in, cushion--- 0.5/1.25in.
260		Seat Style	Cantilever Mount
261		Back Panel	R _p e _a q _u e _i r _e d
262		Grabrail	Required
263		Docket 90 Certification	Required
264		Flip seat armrest	Required
265		Back Insert	1/2 inch poly
266		Seat Insert	1/2 inch poly
267		Fabric Details	Majestic Blue
268		Barrier	Required
269		Flip seat lock	Lock up and down
270	Passenger Assist	Stanchions / Assists Material	Stainless Steel
271		Stanchions / Assists Finish Color	Powder Coated Yellow at the entrance area, behind driver area (vertical) and rear door area
272		Stanchions / Assists Grab Strap	Required
273		Stanchions / Assists Grab Strap Material	Rubber Strap
274	Doors	Manufacturer	Vapor
275		Type	Electric
276		Class system	Not Required
277		Door Control	5 position door control handle
278		Door Open and Close Time	≤ 3.5 seconds
279		Standee Line	Yellow
280		Glass Type	Tempered
281		Glass Thickness	1/4"
282	Front Door	Style	Inward Slide Glide
283		Door Panels	Double door leaf
284		Door height (in)	77 in.
285		Opening width	38 in.
286		Clearance width	33.7 in.
287		Emergency Valve	Required
288		Dump Valve Location	Left of Driver
289		Frangible Panels	Required
290		Front Door Overhead Lights	LED strip light
291	Rear Door	Rear Door Style	Inward Slide Glide
292		Door height (in)	76.6 in.
293		Opening width	36.5 in.
294		Clearance width	33 in.
295		Grab Handle Mounting	Mounted on the door

CONTINUATION SHEET

VEHICLE DESCRIPTION - per Bus

Line #	Heading	Configuration	Description
296	Emergency Operation	Passenger Emergency Instruction	English & Spanish
297	Accessibility Provisions, Wheelchair ramp	Manufacturer	Ricon, SSR-0M27291Y00
298	Accessibility Provisions, Wheelchair ramp	Location	Front door
299		Ratio	1 to 6
300		Ramp Floor Covering	Yellow
301	Wheelchair Area	Supplier	Q'Straint 4 positions
302		Securement Area	60" diameter circle requirement
303	Destination signs	Manufacturer	I/O controls
304		Front Sign	Required
305		Curb Side Sign	Required
306		Rear Sign	Required
307		LED Color	Amber
308	Passenger Stop Request/Exit Signal	Style	Pull Cord
309		ADA Stop Request	Touch Pad
310		Rear Door Stanchion Push Button	Required
311	Passenger Stop Request/Exit Signal	Signal Chime	A single "stop requested" chime shall sound when the system is first activated. A double chime shall sound anytime the system is activated from wheelchair passenger areas.
312	Multimedia	Camera Surveillance System	Required
313		Camera Quantity & Layout	See Drawing Package
314		Surveillance video quality	Required
315		HAMS	Required
316		HAMS&ELMS	Required
317		Intelligent Transportation Systems Equipment(ITS)	Required
318		(ITS) Interior sign	Required
319		(ITS) Voice Radio	Required
320		(ITS) Data Radio	Required
321		(ITS) Wifi router	Required
322		(ITS) APC	Required
323		(ITS) P.A. System	If no ITS, Vendor: REI Goosemic, Footswitch (4 switch foot pedel) required
324		(ITS) P. A. Speakers Quantity	5+1
325	Depot Charging Stations	Model Number	EVA080KS/01-AM
326		Quantity	1 per bus
327		Charging Equipment Description	AC Charging
328		Power Efficiency	No less than 94%
329		Peak Power (kW)	80kW

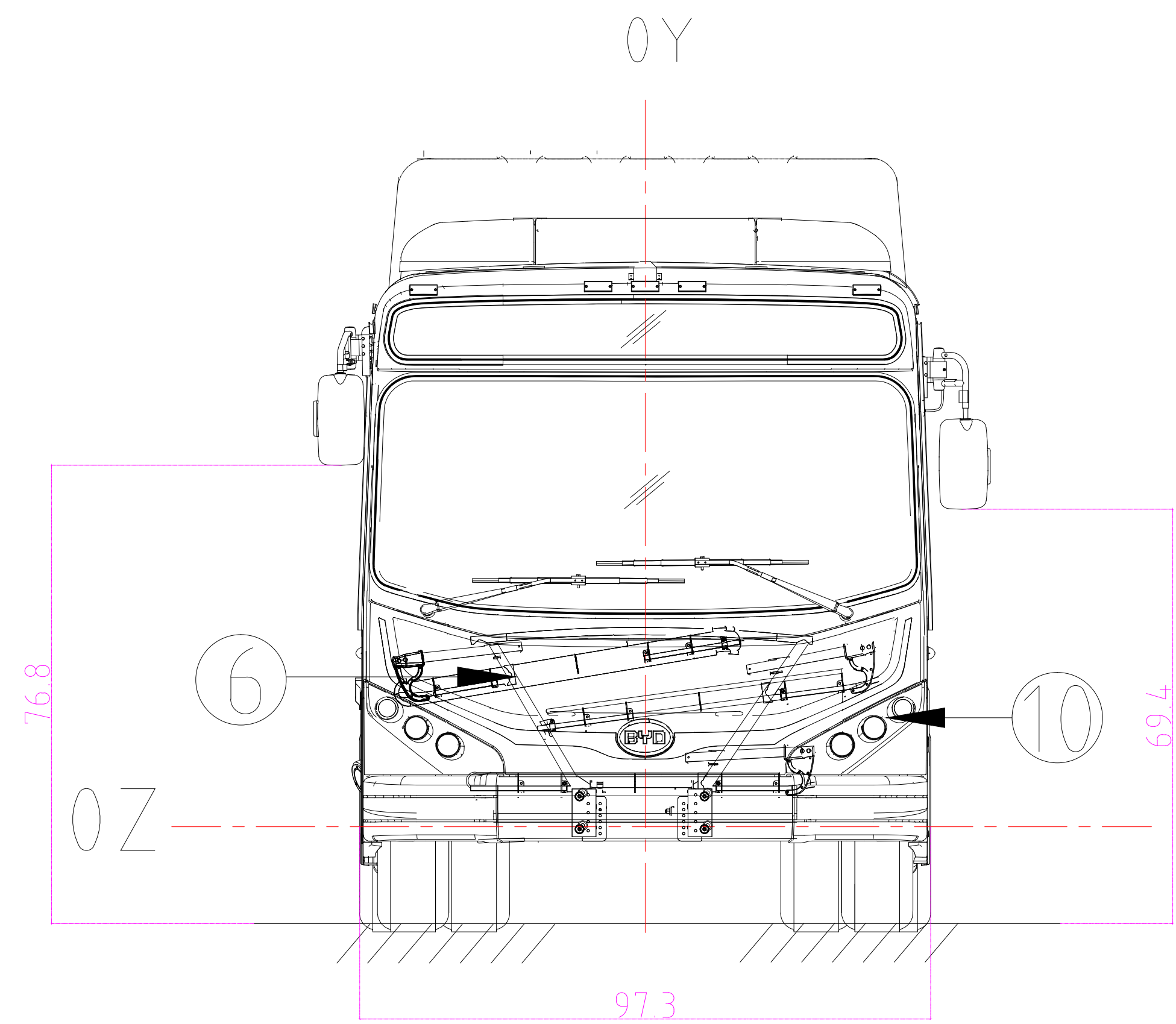
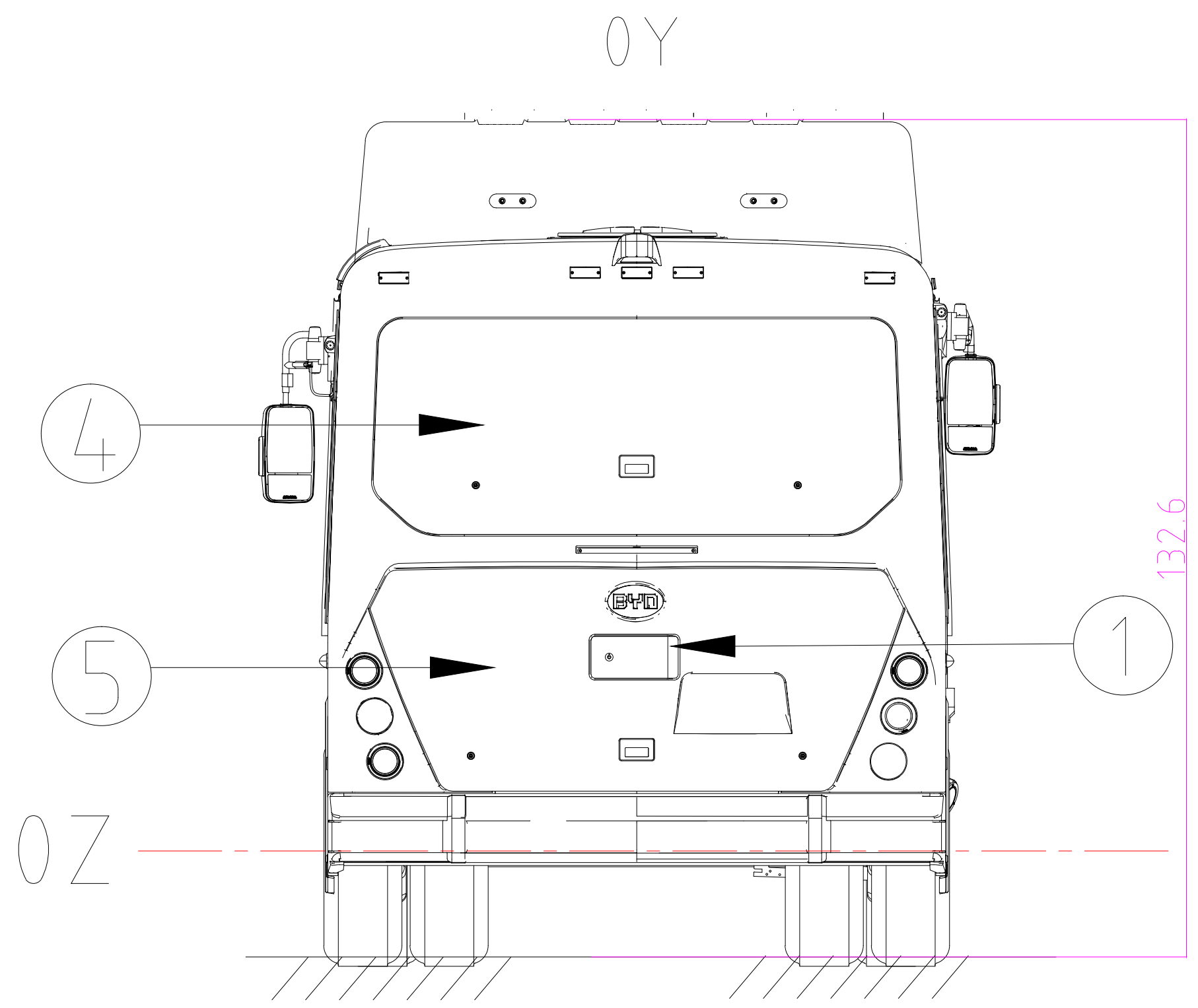
CONTINUATION SHEET

VEHICLE DESCRIPTION - per Bus

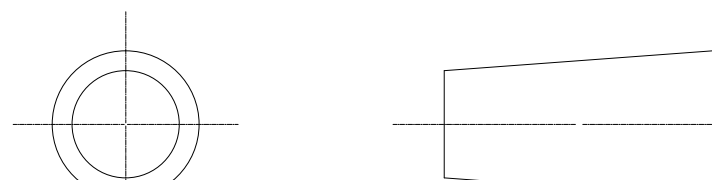
Line #	Heading	Configuration	Description
330		Charge Voltage (VDC)	3Φ480VAC
331		Charge Current (A)	96A
332	Depot Charging Stations	In-Coming Elec Utility, voltage/current	480vac, 3ph
333	Charging	Bus Depot Charging Location	Rear cabin Curb Side. 1 compartment with 2 charging ports

CONTINUED ON PAGE 11 OF 18

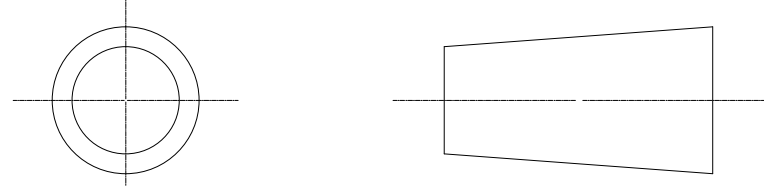
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11	BIKE RACK	
10	HEADLIGHT	
9	RADIATOR ACCESS DOOR	
8	MAIN SWITCH ACCESS DOOR	
7	LOW VOLTAGE BATTERY DOOR	
6	FRONT COMPARTMENT DOOR	
5	REAR COMPARTMENT DOOR 2	
4	REAR COMPARTMENT DOOR 1	
3	WINDOWS	
2	AIR TANK ACCESS DOOR	
1	CHARGING ACCESS DOOR	
ITEM	NAME	DESCRIPTION

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DESIGN	JACKY HAN		STD.			SHEET		1/1	DATA LEV. CONFIDENTIAL	
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UNLESS OTHERWISE SPECIFIED
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DESIGN	<i>JACKY HAN</i>		STD.		
CHECK	<i>Daniel Niu</i>		APP.	<i>J.K</i>	
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EXTERIOR DESIGN

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BYD AUTO INDUSTRY CO.,LTD AUTOMOTIVE ENGINEERING RESEARCH INSTITUTE				

Federal Required and Other Model Contract Clauses

	Rolling Stock	Operating	Construction	Consultant Services	Research	Goods	Prof Srvc
1. Fly America - Required for air transportation. 49USC40118; 41CFR301							
2. Buy America 49USC5232(J); 49CFR PART661	>\$100,000		>\$100,000			>\$100,000	
3. Charter Bus and School Bus 49USC5323 PART604		X					
4. Cargo Preference - Required for all contracts involving equipment, materials, or commodities which may be transported by ocean vessels. 46USC55305; 46CFR PART381							
5. Seismic Safety 49USC77041; 49CFR PART41			New Bldg				
6. Energy Conservation 42 USC 6321; 49 CFR 622 SUBPART C	X	X	X	X	X	X	X
7. Clean Water 49USC5223(C)(2); 33USC1251-1388; 23 USC139	>\$100,000	>\$100,000	>\$100,000	>\$100,000	>\$100,000	>\$100,000	>\$100,000
8. Bus Testing 49 USC 5318(C)	X	Turnkey					
9. Pre-Award and Post Delivery Audit 49USC5323(M)	X	Turnkey					
10. Lobbying 49CFR PART20; 31USC1352	>\$100,000	>\$100,000	>\$100,000	>\$100,000		>\$100,000	>\$100,000
11. Access to Records and Reports 49USC5323(G)		X	X	X			X
12. Federal Changes 49CFR30	X	X	X	X	X	X	X
13. Bonding 49USC53; 49CFR18.36, 19.48(C)(5)			>\$100,000				
14. Clean Air 42 USC7401-7671	>\$100,000	>\$100,000	>\$100,000	>\$100,000	>\$100,000	>\$100,000	>\$100,000
15. Recycled Products 40CFR247; 48CFR pART23; 49USC5333(A)	* >\$10,000	* >\$10,000	* >\$10,000	* >\$10,000	* >\$10,000	* >\$10,000	* >\$10,000
16. Davis-Bacon and Copeland Anti-Kickback Acts 40USC3141-3148			>\$2,000				
17. Contract Work Hours and Safety Standards Act 40USC3701-3708			>\$100,000				
19. No Government Obligation to Third Parties 49USC SEC11	X	X	X	X	X	X	X
20. Program Fraud and False or Fraudulent Statements and Related Acts 31USC3801; 49CFR PART31	X	X	X	X	X	X	X
21. Termination 49USC5323 SEC11	>\$10,000	>\$10,000	>\$10,000	>\$10,000	>\$10,000	>\$10,000	>\$10,000
22. Government-wide Debarment and Suspension (Nonprocurement) 2 CFR PART1200+1800	>\$25,000	>\$25,000	>\$25,000	>\$25,000	>\$25,000	>\$25,000	>\$25,000
23. Privacy Act 5 USC552A	X	X	X	X	X	X	X
24. Civil Rights 49USC5323 SEC12	X	X	X	X	X	X	X
25. Breaches and Dispute Resolution 49USC5323 SEC39	>\$100,000	>\$100,000	>\$100,000	>\$100,000	>\$100,000	>\$100,000	>\$100,000
26. Patent and Rights in Data 49USC5323 SEC17+18					X		
27. Transit Employee Protective Agreements 49USC5333(B); 29CFR215		X					
28. Disadvantaged Business Enterprise (DBE) 49CFR PART26	X	X	X	X	X	X	X
30. Incorporation of Federal Transit Administration Terms FTAC2201F	X	X	X	X	X	X	X
31. Drug and Alcohol Testing 49CFR655; 49CFR40		X					

REQUIRED FEDERAL CLAUSES

1. AMENDMENTS

Any changes in the activities to be performed under this Agreement shall be incorporated in written amendments, which shall specify the changes in work performed and any adjustments in compensation and schedule. All amendments shall be executed by the NVTa Executive Director or a designated representative and CONTRACTOR. No claim for additional compensation or extension of time shall be recognized unless contained in a duly executed amendment.

2. TERMINATION

Contractor's failure to perform any term or condition of this Agreement as a result of conditions beyond its control such as, but not limited to, war, strikes, fires, floods, acts of God, governmental restrictions, power failures, or damage or destruction of any network facilities or servers, shall not be deemed a breach of this Agreement, and may be cause for termination of the Agreement.

3. RETENTION OF RECORDS

Contractor agrees to keep, in accordance with generally accepted accounting principles, all records pertaining to the project for audit purposes for a minimum of three (3) years following final payment to Contractor or four (4) years following the fiscal year of the last expenditure under this Agreement, whichever is longer, except in the event of litigation or settlement of claims arising from the performance of this contract, in which case Contractor agrees to maintain same until NVTa, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto.

4. AUDITS

Contractor agrees to grant NVTa or any agency that provides NVTa with funds for the Project, including but not limited to, the U.S. Department of Transportation, FTA, the Comptroller General of the United States, the State, and their authorized representatives access to Contractor's books and records for the purpose of verifying that funds are properly accounted for and proceeds are expended in accordance with the terms of the Agreement. All documents shall be available for inspection during normal business hours at any time while the Project is underway, and for the retention period specified herein. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

Contractor further agrees to include in all its third-party contracts hereunder a provision to the effect that the contractor agrees that NVTa, the U.S. Department of Transportation, FTA, the Comptroller General of the United States, the State, or any of their duly authorized representatives shall have access to and the right to examine any directly pertinent books, documents, papers, and records of such subcontractor, during normal business hours, for the term specified above. The term "contract" as used in this clause excludes agreements not exceeding \$25,000.

5. LICENSE TO WORK PRODUCTS (reserved)

6. EQUAL EMPLOYMENT OPPORTUNITY/ CIVIL RIGHTS

In accordance with Title VI of the Civil Rights Act, as amended (42 U.S.C. § 2000d); Section 303 of the Age Discrimination Act of 1975, as amended (42 U.S.C. § 6102); Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. § 12132; and 49 U.S.C. § 5332 for federally funded projects, Contractor agrees that it will not, on the grounds of race, religious creed, color, national

origin, age, physical disability, or sex, discriminate or permit discrimination against any employee or applicant for employment

7. DISADVANTAGED BUSINESS ENTERPRISES (DBE)

The requirements of 49 CFR Part 26, Regulations of the U.S. Department of Transportation, apply to this contract. It is the policy of the Napa Valley Transportation Authority to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. All firms qualifying under this solicitation are encouraged to submit bids/proposals. Award of this contract will be conditioned upon satisfying the requirements of this bid specification. These requirements apply to all bidders/offers, including those who qualify as a DBE. A DBE contract goal of ____ percent has been established for this contract. The bidder/offers shall make good faith efforts, as defined in Appendix A, 49 CFR Part 26 (Attachment 1), to meet the contract goal for DBE participation in the performance of this contract.

The bidder/offers will be required to submit the following information: (1) the names and addresses of DBE firms that will participate in the contract; (2) a description of the work that each DBE firm will perform; (3) the dollar amount of the participation of each DBE firm participating; (4) Written documentation of the bidder/offers's commitment to use a DBE subcontractor whose participation it submits to meet the contract goal; (5) Written confirmation from the DBE that it is participating in the contract as provided in the commitment made under (4); and (5) if the contract goal is not met, evidence of good faith efforts.

The contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 15 days from the receipt of each payment the prime contract receives from NVTa. The prime contractor agrees further to return retainage payments to each subcontractor within thirty days after the subcontractors work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the NVTa. This clause applies to both DBE and non-DBE subcontracts.

Failure to comply with the terms of this provision may result in any or all of the following actions including but not limited to:

1. A finding of material breach of contract
2. Suspension of payment of invoices
3. Bringing to the attention of the Department of

Transportation any false, fraudulent, or dishonest conduct in connection with the program, so that DOT can take the steps (e.g., referral to the Department of Justice for criminal prosecution, referral to the DOT Inspector General, action under suspension and debarment or Program Fraud and Civil Penalties result) provided in 26.109.

The obligation of the bidder/offers is to make good faith efforts. The bidder/offers can demonstrate that it has done so either by meeting the contract goal or documenting good faith efforts. Examples of good faith efforts are found in Appendix A to Part 26. Forms 1 and 2 should be provided as part of the solicitation documents.

8. INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS

In the event that this project is funded by FTA in whole or in part, all contractual provisions required by DOT, as set forth in

REQUIRED FEDERAL CLAUSES

FTA Circular 4220.1F are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any NVTAs requests which would cause NVTAs to be in violation of the FTA terms and conditions.

9. ACCESS REQUIREMENTS FOR INDIVIDUALS WITH DISABILITIES (Reserved)

10. STATE ENERGY CONSERVATION PLAN

Contractor shall comply with all mandatory standards and policies relating to energy efficiency that are contained in the State energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. § 6321)

11. DEBARMENT

Contractor certifies that neither it nor any of its participants, principals, or subcontractors is or has been debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions, as they are defined in 49 CFR Part 29, by any Federal agency or department. Contractor is required to comply with 49 CFR 29, Subpart C and must include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into.

By signing and submitting its bid or proposal, the bidder or proposer certifies as follows:

The certification in this clause is a material representation of fact relied upon by NVTAs. If it is later determined that the bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to NVTAs, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The bidder or proposer agrees to comply with the requirements of 49 CFR 29, Subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

12. CLEAN AIR AND WATER POLLUTION ACTS

Contractor agrees to comply with the applicable requirements of all standards, orders, or requirements issued under the Clean Air Act (42 U.S.C. § 7401 *et seq.*), the Clean Water Act (33 U.S.C. § 1251 *et seq.*), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15). The Contractor agrees to report each violation to NVTAs and understands and agrees that NVTAs will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office. (2) The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance.

13. LOBBYING

Contractor agrees to comply with the restrictions on the use of federal funds for lobbying activities set forth in 31 U.S.C. § 1352 and 49 CFR Part 20. In addition, in the event the Agreement exceeds \$100,000, Contractor agrees to comply with the Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352, as amended by the Lobbying Disclosure Act of 1995, P.L. 104-65 and shall file the certification required by 49 CFR Part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352.

Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures are forwarded from tier to tier up to the recipient. APPENDIX A, 49 CFR PART 20--CERTIFICATION REGARDING LOBBYING Certification for Contracts, Grants, Loans, and Cooperative Agreements (To be submitted with each proposal or offer exceeding \$100,000).

14. INDEMNIFICATION

To the fullest extent permitted by law, Contractor shall hold harmless, defend at its own expense, and indemnify NVTAs and the officers, agents, employees and volunteers of NVTAs from any and all liability, claims, losses, damages or expenses, including reasonable attorney's fees, for personal injury (including death) or damage to property, from claims that to the extent they arise out of, pertain to, or relate to the negligent acts or omissions of Contractor or its officers, agents, employees, volunteers, contractors and subcontractors in rendering professional services under this Agreement which constitute negligence, recklessness, or willful misconduct, excluding, however, such liability, claims, losses, damages or expenses arising from the negligence or willful acts of NVTAs or its officers, agents, employees or volunteers or any third parties. Notwithstanding the foregoing, the parties agree that Contractor's obligation to defend the NVTAs is solely limited to reimbursing NVTAs for its reasonable costs for defending a claim including reasonable attorney's fee, incurred by NVTAs which are ultimately determined to be due to Contractor's negligence, recklessness or willful misconduct. Each party shall notify the other party immediately in writing of any claim or damage related to activities performed under this Agreement.

15. COMPLIANCE WITH LAWS

Contractor shall comply with any and all laws, statutes, ordinances, rules, regulations, and requirements of the federal, state or local government, and any agency thereof, including, but not limited to NVTAs, the U.S. DOT and FTA, which relate to or in any manner affect the performance of this Agreement. Those law, statutes, ordinances, rules, regulations, and procedural requirements that are imposed on NVTAs as a Recipient of federal or state funds are hereby in turn imposed on Contractor (including, but not limited to, 49 CFR Part 18, "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments"), and are herein incorporated by this reference and made a part hereof.

16. BUY AMERICA REGULATIONS

Contractor agrees to comply with 49 U.S.C. 5323(j) and 49CFR Part 661 which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. An Offeror must submit to the FTA recipient the appropriate Buy America certification with all proposals on FTA-funded contracts, except those subject to a general waiver. The Buy America Certification may be found on file in the offices of NVTAs. Proposals or offers that are not accompanied by a completed Buy America certification must be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors.

17. COMPLIANCE WITH FTA REGULATIONS

Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between NVTAs and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

REQUIRED FEDERAL CLAUSES

18. DAVIS-BACON ACT

(a) Minimum wages

(i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) Except with respect to helpers as defined as 29 CFR 5.2(n)(4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) With respect to helpers as defined in 29 CFR 5.2(n)(4), such a classification prevails in the area in which the work is performed.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the

contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(v)(A) The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a

REQUIRED FEDERAL CLAUSES

determination with 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (1)(iv) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(b) Withholding

The NVTA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, Trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the NVTA may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(c) Payrolls and basic records

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or Trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and Trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the NVTA for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government printing office, Washington, DC 20402.

The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under 29 CFR part 5 and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(d) Apprentices and Trainees

(i) Apprentices - Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios

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and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractors or subcontractors registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division of the U.S. Department of Labor determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees - Except as provided in 29 CFR 5.16, Trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of Trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every Trainee must be paid at not less than the rate specified in the approved program for the Trainee level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the Trainee program. If the Trainee program does not mention fringe benefits, Trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a Trainee rate who is not registered and participating in a Training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any Trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a Training program, the contractor will no longer be permitted to utilize Trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity - The utilization of apprentices, Trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(e) Compliance with Copeland Act requirements: The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(f) Subcontracts: The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(g) Contract termination: debarment - A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(h) Compliance with Davis-Bacon and Related Act requirements: All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(i) Disputes concerning labor standards: Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(j) Certification of eligibility:

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

19 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

(a) Overtime requirements: No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(b) Violation; liability for unpaid wages; liquidated damages : In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

(c) Withholding for unpaid wages and liquidated damages : The (write in the name of the grantee) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such

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contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

(d) Subcontracts: The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

20. NO GOVERNMENT OBLIGATION TO THIRD PARTIES

(a) Contractor acknowledges and agrees that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to NVT, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

(b) The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

21. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACT

(a) The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

(b) The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under

the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate. (3) The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject

22. CARGO PREFERENCE-U.S.FLAG

(a) Agreement Clauses. "Use of United States-flag vessels:

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working

days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading).

(b) Contractor and Subcontractor Clauses. "Use of United States-flag vessels: The contractor agrees-

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading).

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.