## RESOLUTION NO. 14-060

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, AUTHORIZING THE PURCHASE OF UP TO THREE (3) CLEAN DIESEL (LOW SULFUR) GILLIG 30' LOW FLOOR BRT BUSES AND ONE (1) HYBRID CLEAN DIESEL (LOW SULFUR) ELECTRIC GILLIG 30' LOW FLOOR BRT BUS IN A TOTAL AMOUNT NOT TO EXCEED \$1,990,393.00 PURSUANT TO STATE CONTRACT, PURSUANT SECTIONS 2-797(1)(3) AND 2-844(A) OF THE CODE OF ORDINANCES; CONDITIONING PURCHASE AUTHORITY UPON THE AWARD AND ACCEPTANCE BY THE CITY COMMISSION OF FUNDING THROUGH FDOT GRANT FEDERAL TRANSIT ADMINISTRATION AND (FTA) TOLL REVENUE CREDITS; PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, the City has an allocated grant funding authorization in the amount of \$1,225,600, with additional funding pending in the amount of \$846,932 from the Florida Department of Transportation in for the purchase of buses; and

WHEREAS, City staff recommends the purchase of up to three clean diesel Gillig buses, and one hybrid Gillig bus, to improve and expand the City's current fleet of Gillig buses.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, AS FOLLOWS:

Section 1: That the purchase of up to three (3) clean diesel Gillig 30' Low Floor BRT Buses, and one Hybrid Clean Diesel Electric Gillig 30' Low Floor BRT Bus in a total amount not to exceed \$1,990,393.00 is hereby approved, pursuant to sections 2-797(1)(3) and 2-844(A) of the Code of Ordinances.

That purchase authority is conditioned upon Section 2: the award and acceptance by the City Commission of funding through FDOT grant and FTA toll revenue credits. That this Resolution shall go into effect Section 3: immediately upon its passage and adoption and authentication by the signature of the Presiding Officer and the Clerk of the

Commission.	
Passed and adopted by the City Commis	sion at a meeting held
this, day of, 2014.	
Authenticated by the Presiding Offic	cer and Clerk of the
Commission on 5 day of March	_, 2014.
Filed with the Clerk on	, 2014.
Mayor Craig Cates	Yes
Vice Mayor Mark Rossi	Yes
Commissioner Teri Johnston	Yes
Commissioner Clayton Lopez	Yes
Commissioner Billy Wardlow	Yes
Commissioner Jimmy Weekley	Yes
Commissioner Tony Yaniz	Yes

CATES, MAYOR

CITY CHERYL SMITH,

STATE OF FLORIDA COUNTY OF MONROE CITY OF KEY WEST

This copy is a true copy of the Original on file in this office. Witness my hand and official sea this day of\_

Deputy City Clerk

## **EXECUTIVE SUMMARY**

To: Bob Vitas, City Manager

From: Norman Whitaker, Director / KWDoT

**Date:** January 24, 2014

**Subject:** Procurement of New Bus Fleet for Key West Transit (KWT)

## **Action Statement:**

Respectfully request approval to purchase pursuant to City of Key West Code of Ordinances Section 2-797.3(a)(b)(c), Purchases and Acquisitions Under Contracts of Federal Government and the State or its Political Subdivisions, the following buses, to include associated options, training, spares, delivery and administrative fees, from Gillig LLC (through the Florida Public Transportation Association (FPTA)) at a total cost of \$1,990,393.

• Three (3) Clean Diesel (Low Sulfur) Gillig 30' Low Floor BRT Buses

Base Price, Options & Delivery
 Training and Spares
 \$421,650 Bus
 \$1,264,950 Total
 \$63,248 Total

• One (1) Hybrid Clean Diesel (Low Sulfur) Electric Gillig 30' Low Floor BRT Bus

Base Price, Options & Delivery
 Training and Spares
 \$638,210 Bus
 \$638,210 Total
 \$21,985 Total

Administrative Fee Assessed by FPTA \$ 500 Bus \$ 2,000 Total

\$ 1,990,393 Total

Subject buses would be procured through the Central Florida Regional Transportation Authority, Contract No. 14-C09 for Heavy Duty Transit Coaches, in which the City of Key West is a named entity authorized to purchase pursuant to, and Gillig LLC.

The purchase authority granted herein by the City Commission will be contingent upon Florida Department of Transportation (FDOT) and Federal Transit Administration (FTA) grant funding awarded and accepted by the City Commission, as further described in the Fiscal Impact section of this Executive Summary.

## **Project History:**

From 1989 to 1998, Key West Transit (KWT) operated EI Dorado LPG Squire lightweight buses that carried sixteen (16) passengers plus two (2) wheelchair passengers or twenty (20) passengers without wheelchair passengers. The downfalls were the wheelchair lifts, fuel, and the body – they were on a lightweight TRUCK chassis and had fiberglass body. The LPG Squire operated for about 10 to 12 years, yet they were only tested by FDOT / FTA to operate for seven (7) years.

Executive Summary Procurement of New Bus Fleet 1/24/14 Page 2 of 3

Around 1999 – 2000, Key West Transit was successful in obtaining grant funds to purchase additional buses. In 2001, KWT received seven (7) 30' Gillig Low Floor Heavy Duty buses and in 2003, received eight (8) 30' Gillig Low Floor Heavy Duty buses. The 30' Gillig Low Floor Heavy Duty buses can transport up to 33 passengers.

In 2005, the City contracted with Monroe County and the City of Marathon, creating a Five (5) Year Inter-local agreement, to extend transportation services up the keys to the City of Marathon, MM50, and has extended up to MM52.5. With this agreement in place, in 2008 KWT again was successful in obtaining grant funds to purchase two (2) 35' Gillig Low Floor Heavy Duty buses for the Lower Keys Route. The 35' Gillig Low Floor Heavy Duty buses can transport up to 45 passengers. The additional two (2) buses bring the bus fleet inventory to seventeen (17) buses.

Currently, Key West Transit's bus fleet consists of fourteen (14) buses. We lost one (1) to fire, and two (2) had unrepairable engine and transmission problems.

Depending on funding availability, Key West Transit's Five (5) Year *Tentative Plan* will be to increase the bus fleet inventory from seventeen (17) to twenty (20) buses. This will include the following: twenty-five percent (25%) of the bus fleet will be Hybrid Clean Diesel (Low Sulfur) Electric buses and seventy-five percent (75%) will be Clean Diesel (Low Sulfur) buses.

Fiscal Year & Amount	Number & Type of Buses – Gillig BRT Low Floor
FY 2014	Three (3) Clean Diesel & one (1) Hybrid Diesel Electric
FY 2015	Three (3) Clean Diesel
FY 2016	One (1) Hybrid Diesel Electric
FY 2017	One (1) Hybrid Diesel Electric
FY 2018	One (1) Hybrid Diesel Electric

Depending on available yearly funding and the dependability of the Hybrid Diesel Electric buses, bus purchases may be subject to change.

## **Option #1: Advantages / Disadvantages**

Option #1 would approve the staff's intention to purchase three (3) Clean Diesel (Low Sulfur) Gillig 30' Low Floor BRT Buses and one (1) Hybrid Clean Diesel (Low Sulfur) Electric Gillig 30' Low Floor BRT Bus.

There are several advantages for approving this agreement and they are as follows:

- KWT will be able to continue providing an efficient public transit system
- New and improved models added to our fleet, thus decreasing current maintenance costs
- New buses will provide for an improved visual effect in the community
- New warranted vehicles with minimal initial support costs
- Stainless Steel Body (Gillig) vs. Carbon Steel Body (El Dorado)
- KWT will meet Strategic Goals Environment # 4 & 5, Infrastructure # 1, 2, & 4.
- KWT will meet or exceed the goal of reducing emissions by 15% as noted in the Climate Action Plan.
- Purchases are completely funded by FDOT with no City match required, so no fiscal impact to the City.

There are no disadvantages to approving this agreement.

Executive Summary
Procurement of New Bus Fleet
1/24/14
Page 3 of 3

## Option #2: Advantages / Disadvantages

Option #2 would not approve staff recommendations to purchase buses.

There are no advantages that can be identified.

There are several disadvantages to this option and they are as follows:

- Extremely high cost of maintenance on current vehicles
- Carbon Steel Body (El Dorado) vs Stainless Steel Body (Gillig)
- Lost revenue opportunity
- KWT will not fully meet the Strategic Goals and the Climate Action Plan
- Current bus fleet maintenance is at a critical point with no foreseeable relief
- City may have to cancel routes due to inadequate bus fleet
- Citizens and tourists may not be able to access public transportation
- Loss of opportunity for new vehicles that will support current services being offered

## Fiscal Impact:

Option #1, recommended by staff will result in no capital financial outlay by City of Key West.

A total of \$1,225,600 is currently in the Florida Department of Transportation (FDOT) Five Year Transportation Plan with an additional amount of \$846,932 to be obligated to the City of Key West by the Florida Department of Transportation (FDOT) through reallocation. The entire \$2,072,532 grant award will come before the Commission for acceptance before the issuance of a City of Key West Purchase Order for the buses and associated costs referenced above. Unused grant proceeds will "roll forward" to be added to future FDOT grant allocations to be used for fulfillment of the City's five year bus fleet replacement plan.

The new vehicles will be delivered with extended coverage warranties for issues that might arise during the warranty period as the vehicles age. This will also alleviate some of the operational costs of the vehicles.

# CITY MANAGER'S OFFICE MEMORANDUM

**TO:** Bob Vitas, City Manager

**FROM:** Norman Whitaker, Transit Director

**SUBJECT:** Bus Fleet Replacement FY 2013-2014



## **Purpose of the Report**

The Key West City Commissioners have tasked Key West Transit (KWT) staff to research the following before purchasing New Bus Fleet:

- "Green" Fleet for sustainability goals
- Smaller buses for downtown routes

## Approach and Methodology

Transit staff held discussions to set up a Five (5) Year *Tentative Plan*. They are as follows:

- 100% of all new bus purchases will exceed our Climate Action Plan
- 25% of new bus fleet will be Hybrid Clean Diesel Electric
- New buses will be appropriately sized for our city streets
- New bus purchase shall maintain or increase levels of ridership
- New bus purchase shall maintain or increase levels of service

Fiscal Year & Amount	Number & Type of Buses – Gillig BRT Low Floor
FY 2014	Three (3) Clean Diesel & one (1) Hybrid Diesel Electric
(\$1,225,600 w/ additional funds pending)	Trifee (b) Olean Dieser & One (1) Trybha Dieser Electric
FY 2015 (\$1,570,400)	Three (3) Clean Diesel
FY 2016 (\$742,400)	One (1) Hybrid Diesel Electric
FY 2017 (\$739,200)	One (1) Hybrid Diesel Electric
FY 2018 (\$813,600)	One (1) Hybrid Diesel Electric

Note: Depending on available yearly funding and the dependability of the Hybrid Diesel Electric buses, bus purchases may be subject to change.





## City of Key West Transportation Coordination Team

## Approval of 25% Hybrid Bus Purchase

**Authors:** Alison Higgins, Sustainability Coordinator

**Reviewers:** City's Transportation Coordination Team: Donny Barrios, Doug Bradshaw, Don Craig, Rod Delostrinos, Peter Horton, Greg Veliz, Marilyn Wilbarger, John Wilkins, Norman Whitaker, Jim Young, David Fernandez

## **Executive Summary**

The recommendation in this memo was vetted by the City's internal Transportation Coordination Team (named above), whose mission is to proactively and efficiently coordinate transportation related plans, projects, policies and funding in order to reduce congestion in our roadways, improve safety and quality of life for our residents and tourists, reduce greenhouse gas emissions, save taxpayer money, and ensure smarter use of our right of ways.

In light of the City's growing green initiatives and resolution to reduce greenhouse gasses (ghg) by 15% by 2015, the City Commission requested that staff green both the City's own fleet and the community's transportation footprint.

For Fiscal Year 2013-2014, Staff reviewed many manufacturers and options and pursuant to the City of Key West Ordinance, Section 2-844, brand name specifications, recommends the purchase of three (3) 30'Gillig Clean Diesel Low Floor BRT buses and one (1) 30' Gillig Hybrid Low Floor BRT bus from the LYNX Contract No. 14-C09.

The Team agreed on this 25% hybrid arrangement for a number of reasons. Of greatest concern was increasing the reliability of the fleet by adding as many new busses as the budget would allow. A hybrid only purchase would almost halve the number of reliable buses the City would be able to put on the road, jeopardizing service and therefore ridership.

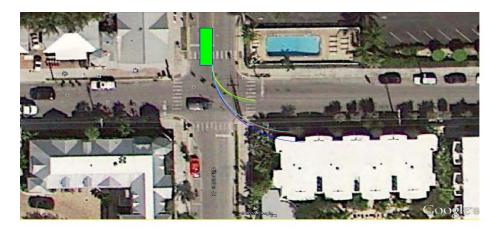
Because of great strides in government mandated diesel efficiency, the Team was impressed with the fuel efficiency of the non-hybrid "Clean Diesel" busses, which have a 75% reduction on emissions in comparison to the busses they are replacing. When combined with the biodiesel blends the City is already using and intends to increase next fiscal year, the bus fleet is expected to hit its' 15% ghg reduction goal.

Lastly, the Team feels that the commitment to a 25% hybrid balance on this and all future bus fleet purchases is the most fiscally responsible approach to going green for the fleet, due to the steady improvement of hybrid technology over time.

# Bus Comparison Table

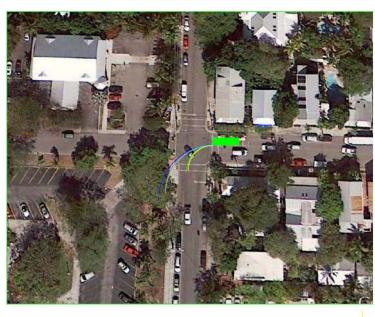
				ъ 1	Stowage	Cap	pacity	ADA		
Bus Model	Climate Goals	Turning Radius	Useful Life	Body Type	Stowage Space	Seating	Standing	Easy Boarding	Seats Displaced	
Gillig Hybrid Clean Diesel, 30ft.	<b>~</b>	30'	12 year/ 500,000	Stainless steel	<b>√</b>	32	15	<b>√</b>	4	
Gillig BRT Low Floor, 30ft.	<b>✓</b>	30'	12 year/ 500,000	Stainless steel	<b>√</b>	32	15	<b>√</b>	4	
El Dorado Hybrid  Electric	<b>✓</b>	30'	12 year/ 500,000	Carbon Steel	✓	32	15	<b>√</b>	4	
El Dorado BRT  Low Floor, 30ft	<b>✓</b>	30'	12 year/ 500,000	Carbon Steel	<b>√</b>	32	15	<b>√</b>	4	
Molly Trolley	N/A	50' - 60'	3 year/ 36,000	Aluminum	N/A	30	0	Optional	4	
Cutaway	<b>✓</b>	50' - 60'	7 year/ 200,000	Chevy Express	N/A	23	0	Optional	8	

## **Turning Radius**



Bus Turning Radii overlayed at the intersection of Simonton and South Street





Bus Turning Radii overlayed at the intersection of Eaton and Whitehead Streets



Stowage area for suitcases, groceries, pet carriers, etc.





Aisle area - 30' Bus vs. Cutaways





8/29/13 Bus 804 12:06 PM (Orange Route at Fogarty & 4th)

## Full Bus Photos presented are peak times

12/3/13 Bus 807 6:04 PM (Blue Route at White & Truman)





12/8/13 Bus 809 11:34 AM (Green Route at Senior Center)

12/8/13 Bus 807 4:36 PM (Blue Route at Key Plaza Shopping Center)

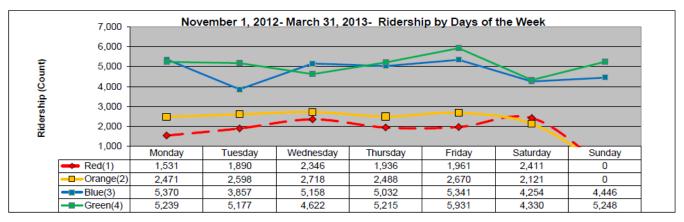


## Automatic Passenger Count (APC) Ridership Report - Peak (November 1, 2012 to March 31, 2013)

Ridership Report - CITY

November 1, 2012 - March 31, 2013 Peak

	Мо	nday	Tue	esday	Wedr	nesday	Thu	rsday	Fri	day	Sati	urday	Su	nday
	Total	Average Per Dav												
	Total	r ti Day	Total	r er Day	TOtal	r ei Day	TOtal	rei Day	TOtal	r er Day	Total	r er Day	Total	r er Day
Red(1)	1,531	72.9	1,890	99.5	2,346	111.7	1,936	92.1	1,961	89.1	2,411	109.6	0	0.0
Orange(2)	2,471	117.6	2,598	136.7	2,718	129.4	2,488	118.4	2,670	121.4	2,121	96.4	0	0.0
Blue(3)	5,370	255.7	3,857	203.0	5,158	245.6	5,032	239.6	5,341	242.8	4,254	193.4	4,446	202.1
Green(4)	5,239	249.4	5,177	272.4	4,622	220	5,215	248.3	5,931	269.6	4,330	196.8	5,248	238.5

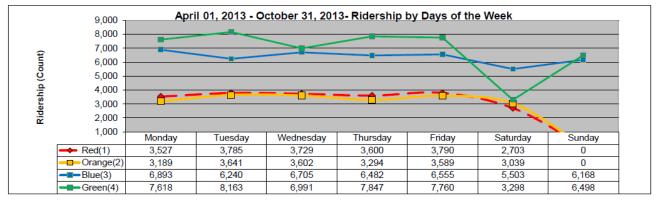


## Automatic Passenger Count (APC) Ridership Report - Non Peak (April 1, 2013 to October 31, 2013)

Ridership Report - CITY

April 01, 2013 - October 31, 2013 Non-Peak

	Monday		Monday Tuesday		Wednesday		Thu	Thursday		Friday		Saturday		Sunday	
	Total	Average Per Day	Total	Average Per Day	Total	Average Per Day	Total	Average Per Day	Total	Average Per Day	Total	Average Per Day	Total	Average Per Day	
Red(1)	3,527	121.6	3,785	122.0	3,729	120.2	3,600	120.0	3,790	126.3	2,703	90.1	0	0.0	
Orange(2)	3,189	109.9	3,641	117.5	3,602	116.2	3,294	109.8	3,589	119.6	3,039	101.3	0	0.0	
Blue(3)	6,893	222.4	6,240	201.3	6,705	216.3	6,482	209.1	6,555	211.5	5,503	177.5	6,168	199.0	
Green(4)	7,618	245.7	8,163	263.3	6,991	225.5	7,847	253.1	7,760	250.3	3,298	106.4	6,498	209.6	



Key West Transit with the assistance from Florida Department of Transportation (FDOT) was successful in allocating funds for Bus Fleet Replacement in the Five (5) Year Transportation Plan - FY2014 to FY2018. The funding is as follows:

Fiscal Years: Amount:		(Pending) Additional Funding:		
		• \$412,398 (Additional funding)		
FY 2014	\$1,225,600 / \$2,072,532	<ul> <li>\$434,534 (reallocated from transit facility to bus fleet)</li> </ul>		
	\$1,225,600 (City – 2001 Fleet)	\$0		
FY 2015	\$344,800 (City / LKS – 2003 Fleet)	(Please note that FDOT is aware that KWT is in need of additional funding)		
		\$0		
FY2016	\$742,400 (City / LKS 2003 Fleet)	KWT will request for additional funding if needed and if funding is available.		
		\$0		
FY 2017	\$739,200 (City / LKS 2003 Fleet)	KWT will request for additional funding if needed and if funding is available.		
	•	\$0		
FY 2018	\$813,600 (City / LKS – 2003 Fleet)	KWT will request for additional funding if needed and if funding is available.		

LYNX, Central Florida Regional Transportation Authority had published a Request for Proposal (RFP) - Purchase of Heavy Duty Transit Coaches. After the RFP process, Gillig was awarded the contract. Key West Transit was included in the RFP, therefore, gives us permission to purchase off of Contract No. 14-C09. The contract is attached for your review.

Purchasing the 30' Gillig Low Floor BRT buses is urgently needed given the following reasons and research:

- Reduce the cost of maintenance and inventory
- Able to continue providing an efficient public transit system
- New warranted vehicles with minimal initial support costs
- Twelve (12) Year Life Cycle / 500,000 miles
- Construction of the bus has stainless steel chassis for strength and corrosion resistance
- Patented aluminum body for weight reduction
- Turning Radius 30' and Approach / Departure Angle 9 degrees
- Seating max 32 passengers, but can transport up to 47 passengers, reducing traffic by up to 24 vehicles
- According to a study conducted by the Northeast Advanced Vehicle Coalition (NAVC), nitrogen oxides (NOx) emissions for diesel hybrids were 30 to 40 percent lower than a conventional diesel vehicle.
- 75% reduction on emissions compared to a conventional diesel bus

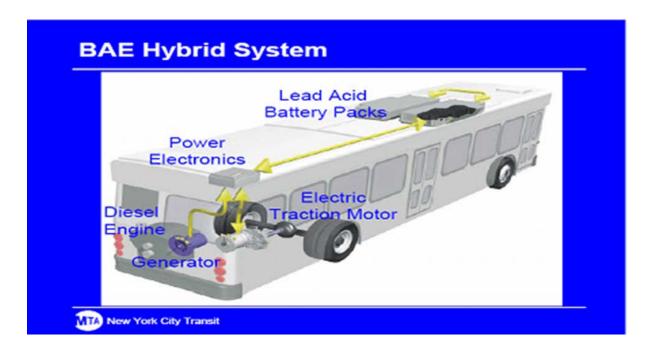
Gillig Low Floor BRT





Gillig Hybrid Electric Clean Diesel (Low Sulfur) Bus





## **Bus Wrap Options:**



In the Gillig cost proposal, the basic paint color selections are part of the base price.

Please note, these tentative bus wraps for your review, are not included in the cost proposal from Gillig. The bus wrap cost is estimated at \$6,000 per bus and will require going out for bid.

## Staff researched other options and they are as follows:

- > El Dorado E-Z Rider II BRT Low Floor Clean Diesel and Hybrid Clean Diesel Electric
- Molly Trolley
- Cutaway Buses

## El Dorado E-Z Rider II BRT Low Floor Bus





The El Dorado E-Z Rider has some of the same similarities as the Gillig Buses have – operational wise. The only differences are:

- Brand Name
- Body style
- > Carbon steel vs stainless steel (Gillig)
- > \$324,328 (El Dorado) & \$421,650 (Gillig)

## El Dorado Hybrid Electric





# Molly Trolley













Key Wet Transit does not recommend the use of Molly Trolleys for the following reasons:

- Unable to use for the Lower Keys Shuttle route
- No standing and stowage room
- Not able to lower / kneel the bus
- Rear lift which would require the driver to exit out of his seat to operate.
- Warranty too short 3 years / 36,000 miles
- Base price cost depending on the options \$135,000 to \$150,000

On 2/10/2014 the Key West, Fl. Transportation Director Norman Whitaker contacted

Jamie Bradish Molly Corporation 60 Willie Hill Road P.O Box 1799 Wells, ME 04090 Tel. (207) 646-5908

Fax. (207) 646-5908

jbradish@mollytrolley.com

to obtain information relating to the curb to curb turning radius of a Molly Trolley.

Jamie Bradish, indicated that the Molly Corporation builds on a variety of Ford and Freightliner chassis. Mr. Brandish also indicatied they could correct fit for application.

Depending on engine location, chassis, and wheelbase the turning radius can range up to 54 feet.

On 2/11/2014, the Key West, Fl. Transportation Director Norman Whitaker spoke by telephone to

Joe Moyer Historic Tours of America® 201 Front Street Key West, Florida 33040 Phone (305) 296-3609

to obtain information relating to the curb to curb turning radius of a Molly Trolley.

Joe Moyer provided the following information and gave permission to include it in the documents being used as a bus purchase back-up:

Joe Moyer indicated that he assisted with the design and building of twenty five (25) trolleys used by Historic Tours in Key West, Florida. Joe Moyer stated Molly Trolleys are used as well. Joe Moyer also stated that depending on the engine location, chassis, and wheelbase length, the curb to curb turning radius could range from twenty four (24) to fifty four (54) feet.

When the Transportation Director Norman Whitaker spoke to Joe Moyer about the use of trolleys on actual fixed transit routes, Joe Moyer agreed that trolleys are mainly used for tourism, beach, and downtown open air shuttle type service routes, and would not be the best vehicle to use in transit due to weaker air conditioners and because the chassis were always being changed.

# F53 Super Duty Motorhome Chassis

# Technical Specifications cont'd

Cool	ling	Sys	tems	
------	------	-----	------	--

COOLING SYSTEM SPECIFICATIONS

_					
	-	~	13	to	

			Radiato	1									
				Core Size (in.)					Cooling		Fan Specifications		
Engine	Cooling	Trans. Usage	Frontal Area (sq. in.)		Width	Thick.	Rows of Tubes	Per	System Capacity qts. (liters)	In-Tank Trans Cooler		No. of Blades	Blade Dia. (in.)
6.8L (415) 3V SEFLV10	Standard	All	857	28.4	30.19	1.42	1	17.8		Standard	Plastic	8	20.0

## AUXILIARY AUTOMATIC TRANSMISSION OIL COOLER APPLICATIONS

Engine	Transmission	Cooler — No. of Plates
6.8L (415) 3V SEFI V10	5-speed Automatic Overdrive	33

## Fuel System

## FUEL SYSTEM DATA

OLL STSTEIN DATA		
Electronic Fuel Injection	Sequential Multiport Fuel Injection	
Fuel Pump	Single Electric-in-tank High Pressure	
Fuel Filter	In-tank Large Capacity (One)	
Air Cleaner	Dry Element, Replaceable	

## Steering

## STEERING SPECIFICATIONS

	Power Steering(1)		Turning Diameter (ft.)			
Wheelbase (in.)	Gear Ratio	Curb-to-Curb				
		16,000-22,000-lb. GVWR w/19.5" wheels	22,000-lb. GVWR w/22.5" wheels	24,000-26,000-lb. GVWR w/22.5" wheels		
158.0	18.4:1	45.4	_	_		
178.0	18.4:1	49.7	_			
190.0	18.4:1	52.2	_	-		
208.0	18,4:1	56.1	63.7	_		
228.0	18.4:1	60.3	68.6	60.6		
242.0	18.4:1	63.3	72.0	66.8		
252.0	18.4:1	_		69.5		

<sup>(1)</sup> Power steering fluid cooler is standard.

## Suspensions

## FRAME SPECIFICATIONS

Wheelbase (in.)	No. of Crossmembers	Maximum Side Rail Section (Height x Width x Thickness) (in.)(1)	Section Modulus (cu. in.)	16K-22K Yield Strength (psi)	24K-26K Yield Strength (psi)
158.0	7	9.16 x 3.00 x .025	9.46	36,000	-
178.0	7	9.16 x 3.00 x .025	9.46	36,000	((—))
190.0	7	9.16 x 3.00 x .025	9.46	36,000	_
208.0	8	9.16 x 3.00 x .025	9.46	36,000	
228.0	9	9.16 x 3.00 x .025	9.46	36,000	50,000
242.0	9	9.16 x 3.00 x .025	9.46	36,000	50,000
252.0	9	9.16 x 3.00 x .025	9.46	_	50,000

<sup>(1)</sup> Measured to inside of metal.

## SHOCK ARSORRER SPECIFICATIONS

Type	Usage		Front			Rear	
		No. Used	Piston Dia. (in.)	Type	No. Used	Piston Dia. (in.)	Type
Bilstein	Std.	2	1.63	Gas-pressurized	2	1.63	Gas-pressurized

## Cutaway Buses (Paratransit vehicles)



Base price: \$90,000 to \$100,000 For Hybrid option: additional \$60,000





Key West Transit does not recommend the use of Cutaways buses on the fixed route services. The Cutaways are used more for Para-transit services (door to door), Hotel Shuttle services, Vehicle Rental Pick-up / Drop-off service, and the cutaways can also be rented for personal use such as special events for weddings, birthdays, prom, etc.

Life cycle is seven (7) years / 200,000 miles. Seating capacity for a 30-ft cutaway is twenty-three (23); this includes the driver and the 2 wheelchair passengers.

The cutaway buses are not low floor – meaning that the driver cannot lower / kneel the cutaway bus for the passengers and the cutaway is equipped with a lift instead of a ramp.

The differences with the wheelchair lift and wheelchair ramp are as follows:

- The driver will have to park the cutaway bus, get out of his seat, go to the back to drop the lift, secure the wheelchair passenger on the lift, raise the lift, secure the wheelchair passenger in the wheelchair seating area, secure and lock the lift, get back into the cutaway, make sure everyone is seated and then he will proceed to continue on his route. If this was a "ramp", the driver releases the ramp, the wheelchair passenger will roll themselves onto the ramp and into the bus, and the driver will then lift up the seats to secure the wheelchair passenger, and then proceed on route.
- Once the wheelchair passenger reaches their destination, the driver will have to repeat the above steps for the lift compared to the driver having to unsecure the wheelchair passenger and releasing the ramp for the wheelchair passenger to exit the bus.



Transit bus with wheelchair passengers



Cutaway bus with wheelchair passengers



The Director of Key West Transportation Department, Norman Whitaker had a phone conversation with Ms. Anna Haskins, the Special Needs Coordinator for Monroe County and had asked if she could provide information relating to the larger cutaways in Key West. Below is the response received from Ms. Haskins.

City of Key West Mail - RE: Buses - Revision



Carolyn Haia <chaia@keywestcity.com>

RE: Buses - Revision

1 message

Haskins-Anna <Haskins-Anna@monroecounty-fl.gov>
To: Norman Whitaker <nwhitaker@keywestcity.com>
Cc: "chaia@keywestcity.com" <chaia@keywestcity.com>

Fri, Jan 17, 2014 at 8:46 AM

Monroe County Transit (Transportation) acquired a vehicle several years back which was larger in size than what we normally order. (I have referenced the vehicle in the second paragraph) We did this so that we could accommodate more clients. In the process, we found that this bus was unmanageable on the smaller City of Key West Streets. Our Key West drivers stated that it was difficult to maneuver and because we are a door to door service, many of our clients had to wait for a different bus which could make it down their small streets and lanes. Given our recent history with this type of bus we made the decision to move it up to our Upper Keys area where most of the driving is on the main roads. I am unable to speak of the actual turning radius but this was apparently part of the problem. The drivers that operated this bus in the Key West area complained that it was difficult to maneuver citing the turning radius as well as other factors as their concern. In recent purchases, we considered these reasons as factors in going with the much smaller more easily maneuvered vehicles.

Our Vehicle that I speak of is a 2007 GM/GLAVAL TITAN 25' CAW. It has a W/C LIFT holds up to 16 amb — if only ambulatory — or up to 6 wheelchairs if all spaces are utilized leaving room for only 2 ambulatory. The current (Upper Keys) driver states that to him this bus is great with turning in the areas that he has to operate. In fact, he would prefer to drive this bus over the smaller cutaways as it has a better turning radius than the much older vehicles in their area. He did cite that the bus is larger(in footprint) and is set up higher than the other buses. He sees this as a bit of a disadvantage in the Keys.

It would seem that our smaller buses would not fit your purposes and the amount of people which you handle. However this slightly larger cutaway has a footprint which may not suit your needs either and the maneuverability(or lack thereof) on the small Key West Streets would be a challenge. I am not sure that this helped. I wanted to give you all of the information available to me so I asked the actual drivers and received mixed responses. If you have any questions or concerns regarding this information, please, do not hesitate to contact me.

Anna Marie Haskins

Special Needs Coordinator

Monroe County BOCC

Transportation

1100 Simonton St, Rm 1-198

Key West, FI 33040

305-292-4591



Post Office Box 3008 Hayward, CA 94540-3008 (510) 785-1500 FAX: (510) 785-6819

January 10, 2014

Mr. Norman Whitaker General Manager Transportation Services 627 Palm Ave Key West, FL 33040

Dear Norman,

I prepared the following price quote for your next bus order off the LYNX (FL Consortium) contract 14-C09 The specifications are based on the information you provided and our discussions. Please reference the attached price summary dated January 10, 2014 for complete details.

Gillig is pleased to quote the following:

Three (3) 29' LF BRT DIESEL

\$ 421,650.00 ea.

One (1) 29' LF BRT HYBRID

\$ 638,210.00 ea.

Pricing is valid until March 31, 2014 and is FOB Key West, FL. Prices exclude any taxes and license fees. Final production schedule will be determined upon receipt of purchase order.

We thank you very much for this opportunity and appreciate the further commitment to Gillig and our products. Should you have any questions, please do not hesitate to contact me.

Sincerely,

**Butch Sibley** 

Regional Sales Manager

Gillig LLC

510-589-9430

bsibley@gillig.com

# PRICE SUMMARY, 1-10-2014 KEY WEST, FL

(3) 29' LF BRT DIESEL, S/N: TBD

**ITEM** 

**COST** 

	I I EIVI	<u>CO31</u>
	LYNX (FLORIDA CONSORTIUM) CONTRACT 14-C-09 29' LF DIESEL BASE PRICE 12-8-2013	\$377,849.00
<u>ACTION</u>	<u>OPTIONS</u>	COST
ADD	2013 Cummins ISL 280 HP Diesel Engine	INCL
ADD	BRT Front Cap, Rear Cap and Engine Door Styling	\$13,250.00
ADD	BRT Roof Fariings (Front and Rear)	\$2,500.00
BASE	Donaldson (RBX00-2277) Air Intake Restriction Indicator	INCL
BASE	Cummins Computest Fitting	INCL
BASE	Spin On Filter Supplied by Engine Manufacturer	INCL
CHANGE	Delete Femco	(\$35.00)
CHANGE	Magnetic Engine Oil Drain Plug	\$0.00
BASE	Delco 42MT Electric	INCL
CHANGE	Modine Hydraulic Cooling Fan System	(\$2,450.00)
ADD	E-Coat on Radiator Assembly (Modine Hydraulic)	\$750.00
BASE	Oetiker Constant Tension Clamps	INCL
CHANGE	Niehoff C703 (330 AMP Option for Hydraulic Cooling System)	\$768.00
BASE	Allison B400R, GEN IV	INCL
BASE	Transynd (Synthetic Fluid)	INCL
BASE	Titan Probalizer II OD-1014 Extraction Port	INCL
CHANGE	Hub Piloted Wheels, Axles with Grease Seals	INCL
CHANGE	S-Cam Drum Brakes with Wabco ABS System	(\$3,650.00)
CHANGE	(7) Goodyear G152 (275/70/ 22.5) (524 ea x 7)	\$3,668.00
BASE	Agency Supplied Tires	INCL
BASE	Douglas Steering Column (Standard Steering Column)	INCL
BASE	Ross TS65 Steering Box	INCL
BASE	Protective Sleeves (High Pressure Steering Lines)	INCL
BASE	Standard 75 gal (30' LF) Net Useable Fuel Tank	INCL
CHANGE	Standard Gravity Fuel Fill	(\$263.00)
BASE	Spin-on Primary and Secondary Fuel Filters	INCL
BASE	Engine Run Control and Start Switch, Compartment Light Switch	INCL
ADD	Engine Hour Meter (Rear Run Box)	\$50.00
CHANGE	Mechanical Gauges - Oil Pressure and Coolant Temperature	\$120.00
BASE	Cummins 37.4 CFM Air Compressor	INCL
CHANGE	Haldex Consep Moisture Ejector, Heated, at Air Dryer	\$150.00
BASE	Shop Air Connection Milton S790	INCL
BASE	(2) DEKA 8D Side Lug or Top Post Connections	INCL
ADD	Vanner 80-Series Smart Battery Equalizer W/ CAN	\$157.00
BASE	(2) Anderson 350 Jump Start Connector	INCL
ADD	Marine Cabling for Charging System	\$893.00
BASE	Cole Hersee #12063 Electrical Tow Connector	INCL
BASE	Lift-U Ramp (LU-18), Front Door	INCL
BASE	TK T-14, 616 Screw Compressor, Brushless Evap. & Cond. Motors	INCL
BASE	Modified Houston Pulldown Package	INCL
CHANGE	MCC Drivers Heater - w/ Brush Motor, Left Foot Vent, 1/4 Turn Valves	(\$387.00)
BASE	34" Rear Door - Air Open / Spring Close (Full Driver's Control)	INCL
ADD	33H X 20D X 22.5W, Electrical Comp. W/ Key Lock and (2) 5/16' Square Key Locks	INCL
ADD	(1) Innocom Schedule Racks 3.75" X 7" X 1.5"	\$14.00
CHANGE	USSC 9100ALX w/ Fabric w/ 2-Point Belts (Lap & Shoulder)	(\$155.00)

## PRICE SUMMARY, 1-10-2014 **KEY WEST, FL**

(3) 29' LF BRT DIESEL S/N: TBD

ACTION	<u>OPTIONS</u>	COST
BASE	AMSECO 6468 w/ VR 50 Padded Fabric Inserts and Energy Absorbing Grab Handles	INCL
CHANGE	AMSECO - A.R.M. System w/ ORT Belts and Retractors	\$380.00
BASE	Pull Cords (Neutral or Yellow) with Touch Pad at Wheelchair Location	INCL
BASE	Flat Melamine, Two Piece w/ Stanchion Pole (30' Only)	INCL
BASE	SSTL Vertical Stanchions, Grabrails and Modesty Panel Tubes	INCL
CHANGE	Delete Farebox Guardrail	(\$50.00)
BASE	Horizontal Grabrail on C/S and S/S Wheelhousing	INCL
CHANGE	Delete All Grab Straps	(\$200.00)
BASE	Standard Melamine Panel Lower Section (Aft Rear Door)	INCL
BASE	Ricon Bonded Fixed Windows	\$557.00
BASE	I/O Controls LED Interior Lights	INCL
BASE	(4) Dialite LED Headlights (High & Low Beam)	INCL
BASE	4" DIAMETER - Turn, Tail , Brake, Reverse	INCL
BASE	(4) 4" Red LED Brake Lamps 2 @ Bottom of HVAC Door, 2 @ Top of HVAC Door	INCL
ADD	(3) 4" Red LED Brake Lights Mounted on Bottom Center of HVAC Grill	\$150.00
BASE	Power Circuit ( Route to RH Dash & Ele. Equip. Box ), Roof Mount RF/GPS/Cellular Antenna.	INCL
BASE	REI Model 750040 PA System w/ Handheld Mic w/ (6) Speakers 30'	INCL
BASE	Twin Vision 100% Amber LED Front, Curbside	INCL
CHANGE	Delete Twin Vision Amber Rear Run Sign	(\$700.00)
CHANGE	Delete Transign Mechanical with Four Characters (3 number, 1 letter) Display, Metal Housing	(\$258.00)
ADD	GFI 41" Tall Odyssey	\$15,881.00
CHANGE	Full Composite Subfloor W/ RCA Rubber flooring	\$2,500.00
ADD	Stainless Steel Trim on Risers and Wheelhousings	\$387.00
BASE	Manual Front and Rear Position	INCL
BASE	B&R 8 X 8, Remote Control (both sides), Stainless Steel Arms	INCL
BASE	8.5 X 16" Interior Mirror	INCL
BASE	I/O Controls, Dinex G3 System	INCL
CHANGE	Fog Maker Water Mist Fire Suppression	\$529.00
BASE	Protective Sleeves on High Pressure Lines	INCL
ADD	Sportworks DL2, 2-Position, Stainless Steel	\$1,471.00
ADD	Bike Rack Spot Mirror	\$20.00
BASE	Fire Extinguisher and Safety Triangle Kit	INCL
ADD	Twenty Four Unit First Aid Kit	\$69.00
ADD	Blood Born Pathogen Kit	\$35.00
ADD	Bio Hazard Disposal Kit	\$37.00
ADD	Wheel Chocks (per set)	\$35.00
BASE	Speedometer, Air Pressure Gauge, 12 /24 Volt Gauges (Dash Mounted)	INCL
ADD	Add Fuel Gauge on Dash - Diesel	\$171.00
ADD	Registration Card Holder	\$25.00
BASE	Roller Style with Pull String Release	INCL
BASE	Williams Controls 41 Degree Throttle Pedal (non adjustable)	INCL
BASE	One Color w/ Black Mask at Windows	INCL
CHANGE	Delete Roof Numbers	(\$65.00)
BASE	Driver's, Service, Parts, Electrical, (1) per 3 bus order & (1) CD, Vendor (1) per 3 bus order	INCL
BASE	Extended Warranties as Per Contract	INCL
	KEY WEST CHANGES	\$36,354.00
	LYNX (FL CONSORTIUM) 29' LF DIESEL BASE PRICE	\$377,849.00
	DELIVERY	\$7,447.00
	KEY WEST 29' LF DIESEL BASE PRICE 1-10-2014	\$421,650.00

## PRICE SUMMARY, 1-10-2014 KEY WEST, FL (3) 29' LF BRT DIESEL S/N: TBD

## **TRAINING AND SPARE PARTS**

ADD	Technical Training - 157 Hours at Customer Property	\$57,100.00
ADD	(1) Laptop Computer - Dell Pentium Processor	\$4,685.00
ADD	(1) Printer (J-38480-A)	\$1,022.00
ADD	Mertior Software (Tool Box), Serial Link / Interface Kit	\$441.00
	TOTAL TRAINING AND SPARE PARTS	\$63,248.00

## PRICE SUMMARY, 1-10-2014 KEY WEST, FL (1) 29' LF BRT HYBRID, S/N: TBD

**ITEM** 

	LYNX (FLORIDA CONSORTIUM) CONTRACT 14-C-09 29' LF BASE DIESEL PRICE 12-8-2013	\$377,849.00
<u>ACTION</u>	<u>OPTIONS</u>	COST
ADD	2013 Cummins ISB 260 HP W/ Alllison HP40EP Parallel Electric Drive System w/ Vanner HBA	\$197,823.00
ADD	BRT Front Cap, Rear Cap and Engine Door Styling	\$13,250.00
ADD	BRT Roof Fariings ( Front and Rear)	\$2,500.00
BASE	Donaldson (RBX00-2277) Air Intake Restriction Indicator	INCL
BASE	Cummins Computest Fitting	INCL
BASE	Spin On Filter Supplied by Engine Manufacturer	INCL
CHANGE	Delete Femco	(\$35.00)
CHANGE	Magnetic Engine Oil Drain Plug	\$0.00
BASE	Delco 42MT Electric	INCL
CHANGE	EMP Cooling Fan System	INCL
BASE	Oetiker Constant Tension Clamps	INCL
CHANGE	Neihoff C803 Alternator (500 amp for Electric Cooling System)	(\$100.00)
BASE	Titan Probalizer II OD-1014 Extraction Port	INCL
CHANGE	Hub Piloted Wheels, Axles with Grease Seals	INCL
CHANGE	S-Cam Drum Brakes with Wabco ABS System	(\$3,650.00)
CHANGE	(7) Alcoa Full Polish Wheels	\$1,955.00
CHANGE	(7) Goodyear G152 (275/70/ 22.5) (524 ea x 7)	\$3,668.00
BASE	Douglas Steering Column (Standard Steering Column)	INCL
BASE	Ross TS65 Steering Box	INCL
BASE	Protective Sleeves (High Pressure Steering Lines)	INCL
BASE	Standard 75gal (30' LF) Net Useable Fuel Tank	INCL
CHANGE	Standard Gravity Fuel Fill	(\$263.00)
BASE	Spin-on Primary and Secondary Fuel Filters	INCL
BASE	Engine Run Control and Start Switch, Compartment Light Switch	INCL
ADD	Engine Hour Meter (Rear Run Box)	\$50.00
CHANGE	Mechanical Gauges - Oil Pressure and Coolant Temperature	\$120.00
BASE	Cummins 37.4 CFM Air Compressor	INCL
CHANGE	Haldex Consep Moisture Ejector, Heated, at Air Dryer	\$150.00
BASE	Shop Air Connection Milton S790	INCL
BASE	(2) DEKA 8D Side Lug or Top Post Connections	INCL
ADD	Vanner 80-Series Smart Battery Equalizer W/ CAN	\$157.00
BASE	(2) Anderson 350 Jump Start Connector	INCL
ADD	Marine Cabling for Charging System	\$893.00
BASE	Cole Hersee #12063 Electrical Tow Connector	INCL
BASE	Lift-U Ramp (LU-18), Front Door	INCL
BASE	TK T-14, 616 Screw Compressor, Brushless Evap. & Cond. Motors	INCL
BASE	Modified Houston Pulldown Package	INCL
CHANGE	MCC Drivers Heater - w/ Brush Motor, Left Foot Vent, 1/4 Turn Valves	(\$387.00)
BASE	34" Rear Door - Air Open / Spring Close (Full Driver's Control)	INCL
ADD	33H X 20D X 22.5W, Electrical Comp. W/ Key Lock and (2) 5/16' Square Key Locks	INCL ¢14.00
ADD	(1) Innocom Schedule Racks 3.75" X 7" X 1.5"	\$14.00
CHANGE	USSC 9100ALX w/ Fabric w/ 2-Point Belts (Lap & Shoulder)	(\$155.00)
BASE	AMSECO 6468 w/ VR 50 Padded Fabric Inserts and Energy Absorbing Grab Handles	INCL
CHANGE	AMSECO - A.R.M. System w/ ORT Belts and Retractors	\$380.00
BASE	Pull Cords (Neutral or Yellow) with Touch Pad at Wheelchair Location	INCL

## PRICE SUMMARY, 1-10-2014 KEY WEST, FL

(1) 29' LF BRT HYBRID S/N: TBD

<u>ACTION</u>	<u>OPTIONS</u>	<u>COST</u>
BASE	Flat Melamine, Two Piece w/ Stanchion Pole (30' Only)	INCL
BASE	SSTL Vertical Stanchions, Grabrails and Modesty Panel Tubes	INCL
CHANGE	Delete Farebox Guardrail	(\$50.00)
BASE	Horizontal Grabrail on C/S and S/S Wheelhousing	INCL
CHANGE	Delete All Grab Straps	(\$200.00)
BASE	Standard Melamine Panel Lower Section (Aft Rear Door)	INCL
BASE	Ricon Bonded Fixed Windows	\$557.00
BASE	I/O Controls LED Interior Lights	INCL
BASE	(4) Dialite LED Headlights (High & Low Beam)	INCL
BASE	4" DIAMETER - Turn, Tail , Brake, Reverse	INCL
BASE	(4) 4" Red LED Brake Lamps 2 @ Bottom of HVAC Door, 2 @ Top of HVAC Door	INCL
ADD	(3) 4" Red LED Brake Lights Mounted on Bottom Center of HVAC Grill	\$150.00
BASE	Power Circuit ( Route to RH Dash & Ele. Equip. Box ), Roof Mount RF/GPS/Cellular Antenna.	INCL
BASE	REI Model 750040 PA System w/ Handheld Mic w/ (6) Speakers 30'	INCL
BASE	Twin Vision 100% Amber LED Front, Curbside	INCL
CHANGE	Delete Twin Vision Amber Rear Run Sign	(\$700.00)
CHANGE	Delete Transign Mechanical with Four Characters (3 number, 1 letter) Display, Metal Housing	(\$258.00)
ADD	GFI 41" Tall Odyssey	\$15,881.00
CHANGE	Full Composite Subfloor W/ RCA Rubber flooring	\$2,500.00
ADD	Stainless Steel Trim on Risers and Wheelhousings	\$387.00
BASE	Manual Front and Rear Position	INCL
BASE	B&R 8 X 8, Remote Control (both sides), Stainless Steel Arms	INCL
BASE	8.5 X 16" Interior Mirror	INCL
BASE	I/O Controls, Dinex G3 System	INCL
CHANGE	Fog Maker Water Mist Fire Suppression	\$529.00
BASE	Protective Sleeves on High Pressure Lines	INCL
ADD	Sportworks DL2, 2-Position, Stainless Steel	\$1,471.00
ADD	Bike Rack Spot Mirror	\$20.00
BASE	Fire Extinguisher and Safety Triangle Kit	INCL
ADD	Twenty Four Unit First Aid Kit	\$69.00
ADD	Blood Born Pathogen Kit	\$35.00
ADD	Bio Hazard Disposal Kit	\$37.00
ADD	Wheel Chocks (per set)	\$35.00
BASE	Speedometer, Air Pressure Gauge, 12 /24 Volt Gauges (Dash Mounted)	INCL
ADD	Add Fuel Gauge on Dash - Diesel	\$171.00
ADD	Registration Card Holder	\$25.00
BASE	Roller Style with Pull String Release	INCL
BASE	Williams Controls 41 Degree Throttle Pedal (non adjustable)	INCL
BASE	One Color w/ Black Mask at Windows	INCL
CHANGE	Delete Roof Numbers	(\$65.00)
BASE	Driver's, Service, Parts, Electrical, (1) per 3 bus order & (1) CD, Vendor (1) per 3 bus order	INCL
BASE	Extended Warranties as Per Contract	INCL
ADD	Hybrid Drive Extended Coverages	\$15,950.00
	KEY WEST CHANGES	\$252,914.00
	LYNX (FL CONSORTIUM) 29' LF DIESEL BASE PRICE	\$377,849.00
	DELIVERY	\$7,447.00
	KEY WEST 29' LF BRT HYBRID BASE PRICE 1-10-2014	\$638,210.00
	KLI WLJI 27 LF DKI HIDKID DAJE FKICE I-IU-ZUI4	<b>Φ</b> 030,∠10.00

## PRICE SUMMARY, 1-10-2014 KEY WEST, FL (1) 29' LF BRT HYBRID, S/N: TBD

## **TRAINING AND SPARE PARTS**

ADD	Operator Orientation Training	\$1,250.00
ADD	Hybrid Training - (16 hour class at Customer Property)	\$5,300.00
ADD	Special Purpose Hybrid Tool Kit	\$15,435.00
	TOTAL TRAINING AND SPARE PARTS	\$21,985.00