HSRT Business Plan Summary

David Chow, P.E., AICP

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REGIONAL CHALLENGES

Southern California's three major transportation challenges (2008-2030):

REGIONAL MOBILITY
- Increasing traffic congestion from 2.2m to 5.4m hours of delay
- Unreliability of the roadway system
- Significant environmental and social impacts

AVIATION DEMAND
- Regional demand increase from 80 MAP to 170 MAP
- Growth at LAX and urban airports constrained
- Travel markets of L.A. and O.C. distant from outlying airports with capacity

GOODS MOVEMENT
- San Pedro Ports traffic will more than triple by 2030
- Ports currently handle 43% of all containers entering U.S.
- Shortage of space in the ports to keep up with demand
- Significant environmental and health challenges related to current operations

POTENTIAL REGIONAL SOLUTION

Challenges can be addressed by a High-Speed Regional Transport system, a high performance and environmentally sensitive transportation concept.

REGIONAL MOBILITY
- Ability to link the urban centers, serving the needs of commuters
- Reduce the number of private vehicles on the road
- Enable intensification of land uses in conjunction with transit accessibility, encouraging more effective land use patterns (2% Strategy)

AVIATION DEMAND
- Create a link between urban centers and airports
- Enable a higher level of service for airport access and connecting passengers
- Improve airport operations and optimize investment of aviation infrastructure

GOODS MOVEMENT
- Link the San Pedro Ports with potential inland port facilities
- Provide capacity to handle and move containers with little or no impacts

THE HSRT SYSTEM

Development of a High-Speed Regional Transport system builds on the years of technical work completed by SCAG and the Maglev Task Force.

- Fully elevated system over existing transportation corridors
- High-speed, high-capacity trains traveling at speeds up to 250 mph
- 170+ mile system linking L.A. core with strategic locations outside of the basin
- Ability to link the capacity in the region together and leverage infrastructure investments
- Environmentally friendly and sustainable mode of transport
- HSRT Study focused on the feasibility of the concept

HSRT NETWORK

HSRT COMPONENTS

Three core businesses of the HSRT proposal:

PASSSENGER TRANSPORT
- Revenue derived from the transport of passengers and associated businesses
- Commuters fares, station parking, station concessions, etc.

AVIATION SYSTEM
- Revenue from airport access and connecting passengers
- Reduction in airport infrastructure needs and costs
- FAA participation opportunities

GOODS MOVEMENT
- Revenue generated from goods movement fees
- Enhancement of capacity to handle goods in the region
- Substitute for significant environmental mitigation requirements in the region

Fourth component is the RELATED DEVELOPMENT POTENTIAL

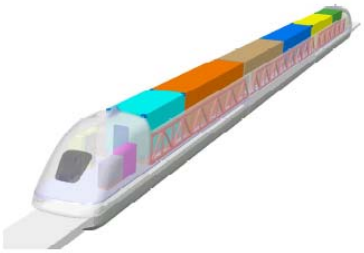
GOODS MOVEMENT PERFORMANCE

A high-capacity, fast and environmentally friendly method of expanding port capacity and goods movement in the region.

The HSRT system is capable of moving over 18,700 container trips per day, over 6.9 million container trips (13.7 million TEU) annually.

Cargo trains and passenger trains with the ability to share the same elevated guideway.

Ability to interlace the passenger and freight service together to fully utilize available capacity in the system.



GOODS MOVEMENT CAPACITY

SBD CAPACITY SHARED GUIDEWAY WITH PASSENGER SERVICE - 9.2M TEU

Operating Period	Hr/Day	Trains/Hr/Direction		Trains/Day/Direction		Potential Capacity Per Day and Direction				Per Year and Direction (24/7 Operation)
		Passenger	Freight	Passenger	Freight	Passenger	Freight			
							20 ft	40 ft	TEU	TEU
Peak	8	6	6	48	48	42,528	96	1,824	3,744	1,366,560
Off-Peak	10	3	9	30	90	26,580	180	3,420	7,020	2,562,300
Night	2	0	12	0	24	-	48	912	1,872	683,280
Maintenance	4	0	0	0	0	-	-	-	-	-
Total	24	9	27	78	162	69,108	324	6,156	12,636	4,612,140
Total Passengers/Freight in Both Directions						138,216	648	12,312	25,272	9,224,280

PMD EXCESS CAPACITY OF PORT SEGMENT - 4.4M TEU

Operating Period	Hr/Day	Trains/Hr/Direction		Trains/Day/Direction		Potential Capacity Per Day and Direction				Per Year and Direction (24/7 Operation)
		Passenger	Freight	Passenger	Freight	Passenger	Freight			
							20 ft	40 ft	TEU	TEU
Peak	8	0	6	0	48	-	96	1,824	3,744	1,366,560
Off-Peak	10	0	3	0	30	-	60	1,140	2,340	854,100
Night	2	0	0	0	0	-	0	-	-	-
Maintenance	4	0	0	0	0	-	-	-	-	-
Total	24	0	0	0	78	-	156	2,964	6,084	2,220,660
Total Passengers/Freight in Both Directions						-	312	5,928	12,168	4,441,320

FINANCIAL PERFORMANCE

HSRT financial performance based on different internal rates of return (IRR) on investment.

26 Year Horizon: IOS+LAX+SBD(4.6M)+PMD(2.2M)+Ports Fees for Various IRR

IRR	CPV	Average Passenger Fare	Freight Fee	
			PMD	SBD
5%	$35,334 M	$18.92	$264.10	$234.54
7%	$34,031 M	$22.90	$297.00	$263.76
9%	$33,062 M	$27.16	$331.42	$294.32
11%	$32,325 M	$31.64	$366.74	$325.68

40 Year Horizon: IOS+LAX+SBD(4.6M)+PMD(2.2M)+Ports Fees for Various IRR

IRR	CPV	Average Passenger Fare	Freight Fee	
			PMD	SBD
5%	$36,757 M	$15.52	$238.80	$212.10
7%	$34,801 M	$19.96	$276.16	$245.26
9%	$33,485 M	$24.75	$314.96	$279.70
11%	$32,562 M	$29.72	$354.24	$314.60

60 Year Horizon: IOS+LAX+SBD(4.6M)+PMD(2.2M)+Ports Fees for Various IRR

IRR	CPV	Average Passenger Fare	Freight Fee	
			PMD	SBD
5%	$37,661 M	$13.96	$226.32	$201.00
7%	$35,162 M	$18.84	$267.86	$237.88
9%	$33,634 M	$24.00	$309.76	$275.10
11%	$32,625 M	$29.25	$351.18	$311.88

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FINANCIAL PERFORMANCE

Comparison to current cost to travel on the corridor and move goods. Does not include future costs needed to mitigate congestion and environmental impacts.

THE COST TO DRIVE

Alignment	Freeway Driving Distance (miles)	Peak Period Driving Travel Time (minutes)	HSRT Travel Time (minutes)	Average Driving Cost To Own and Operate a Vehicle (in Southern California) ($0.562/mile)	Average Driving Cost To Own and Operate a Vehicle (in the United States) ($0.522/mile)	Average Driving Cost To Operate a Vehicle (in the United States) ($0.151/mile)
West L.A. to Ontario Airport	57	93	32	$32.04	$29.76	$16.62
LAX to Ontario Airport (via Union Station)	67	117	40	$37.66	$34.98	$20.40
LAX to Palmdale Airport (via Union Station)	137	187	82	$77.00	$71.52	$29.46
LAX to San Bernardino Airport (via Union Station)	90	148	52	$50.59	$46.99	$27.20

Costs based on AAA's "Your Driving Costs 2006" report.

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FINANCIAL PERFORMANCE

Comparison to current cost to travel on the corridor and move goods. Does not include future costs needed to mitigate congestion and environmental impacts.

TRUCK TRANSPORT COST

Itemized Charges	Roundtrip Cost Between the San Pedro Ports Complex and	
	Palmdale	San Bernardino
Drayage Fee per 40-foot Container	$400	$325
Fuel Surcharge (FSC)	20%	20%
Wait for Unloading (if needed)	$60/hour after 1 hour free	$60/hour after 1 hour free
Dropoff/Bobtail (if needed)	$200 + FSC	$100 + FSC
Chassis Rental (if needed)	$100/day	$100/day
Non-Business Hour Delivery (if needed)	$50	$50
Subtotal Cost per Container	**$480 - $870***	**$390 - $660***

*Note: Upper limit cost assumes drayage fee with fuel surcharge, dropoff charge, chassis rental and non-business hour delivery.

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A FREIGHT-ONLY PERSPECTIVE

2008

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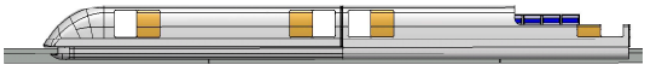
A FREIGHT-ONLY PERSPECTIVE

SBD CAPACITY: EXCLUSIVE GUIDEWAY

Operating Period	Hr/Day	Trains/Hr/Direction		Trains/Day/Direction		Potential Capacity Per Day and Direction				Per Year and Direction (24/7 Operation)
		Passenger	Freight	Passenger	Freight	Passenger	Freight			
							20 ft	40 ft	TEU	TEU
Peak	8	0	12	0	96	-	192	3,648	7,488	2,733,120
Off-Peak	10	0	12	0	120	-	240	4,560	9,360	3,416,400
Night	2	0	12	0	24	-	48	912	1,872	683,280
Maintenance	4	0	0	0	0	-	-	-	-	-
Total	24	0	36	0	240	-	480	9,120	18,720	6,832,800
Total Passengers/Freight in Both Directions						-	960	18,240	37,440	13,665,600

Cargo



Freight

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A FREIGHT-ONLY PERSPECTIVE

HSRT financial performance based on different internal rates of return (IRR) on investment.

26 Year Horizon: Financial Performance for a Freight-Only System - Ports to SBD for Various IRR

IRR	CPV	Freight Revenue (at $300/FEU)	Gap	Freight Fee per FEU for NPV = 0
5%	$16,252	$15,758 M	-$494 M	$309.40
7%	$15,627	$13,145 M	-$2,482 M	$356.65
9%	$15,163	$11,201 M	-$3,962 M	$406.10
11%	$14,811	$9,725 M	-$5,086 M	$456.89

40 Year Horizon: Financial Performance for a Freight-Only System - Ports to SBD for Various IRR

IRR		Freight Revenue (at $300/FEU)	Gap	Freight Fee per FEU for NPV = 0
5%	$16,934	$18,612 M	$1,678 M	$272.96
7%	$15,997	$14,689 M	-$1,308 M	$326.70
9%	$15,366	$12,050 M	-$3,316 M	$382.54
11%	$14,923	$10,199 M	-$4,724 M	$438.97

60 Year Horizon: Financial Performance for a Freight-Only System - Ports to SBD for Various IRR

IRR		Freight Revenue (at $300/FEU)	Gap	Freight Fee per FEU for NPV = 0
5%	$17,368	$20,426 M	$3,058 M	$255.08
7%	$16,170	$15,414 M	-$756 M	$314.71
9%	$15,437	$12,348 M	-$3,089 M	$375.04
11%	$14,954	$10,325 M	-$4,629 M	$434.50

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EMERGING TECHNOLOGIES (FREIGHT-ONLY)

Additional US technologies are in development that can further reduce the capital and operating costs.

- General Atomics

- American Maglev Technologies

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RESULTING CONCLUSIONS

1. Advanced technology holds promise for high-capacity, fast, efficient and environmentally-friendly transport of goods.
2. Financial analysis indicates cost-competitiveness of the system.
3. Important pieces remain to be developed to complete the system.
    - Location of Inland Port Facilities and their costs.
    - Infrastructure requirements/costs to keep up with HSRT system.
4. Despite the benefits and potential, the concept will not develop on it's own.
5. Public financial support & vision needed to shepherd the concept into a plan.

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