

10<sup>th</sup> September, 2015  
1 – Day Seminar On Performance Based Contracting For Asset & Facility Management  
*What Everyone Needs To Know*  
Hotel Seri Pacific, KL

# “PERFORMANCE BASED CONTRACTING IN JKR”

Y.Bhg. Dato’ Ir. Haji Abdullah Bin Abdul Rahman  
Director of Roads Facility Maintenance Branch,  
PWD Malaysia



# CONTENT

1. Introduction
2. Present Status
3. Challenges
4. Conclusion



# INTRODUCTION



# INTRODUCTION

1. Since the 1980's countries all over the world have been procuring infrastructure development and asset management projects using Performance-based Contracts (PBC), as promoted by the World Bank and the OECD (Organisation for Economic Cooperation and Development).
2. In Malaysia, some form of performance-based contracting has been undertaken over the years since the 1990's, under the Government's PFI (Private Finance Initiative) and PPP (Public-Private Partnership) projects.

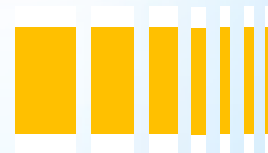


# PRESENT STATUS



3. Initially, in the maintenance sector of Malaysia, some elements of PBC were incorporated into the asset management contracts of certain Government Building and Healthcare facilities.

4. In the Public Works Department (PWD) Malaysia, elements of PBC were first introduced in 2008 in the Facility Management Contract of the PWD's Headquarters at Jalan Sultan Salahuddin, Kuala Lumpur.



# PWD Headquarters (Block F)



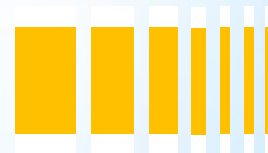
**JABATAN KERJA RAYA MALAYSIA**  
PERFORMANCE BASED CONTRACTING FOR ASSET & FACILITY MANAGEMENT





5. Ever since then, PWD has implemented 47 Facility Management Contracts containing some elements of PBC for various Government buildings under its care with a total value of about RM2 billion.

6. Among these are the following notable Government buildings :





## i. Istana Negara, Jalan Duta, Kuala Lumpur



ii. JB Sentral (Transportation Complex), Bukit Chagar, Johor Bahru



### iii. Bangunan Sultan Iskandar (Customs, Immigration and Quarantine Complex), Bkt. Chagar, Johor Bahru





#### iv. Terminal Bersepadu Selatan (Integrated Transport Complex), Bandar Tasik Selatan, Kuala Lumpur



v. Tower 1, Police Headquarters, Bkt. Aman, Kuala Lumpur





## vi. Prime Minister's Office Complex, Parcel A, Putrajaya



## vii. 27 other Government building complexes in Putrajaya





## viii. Selangor State Road Transport Department's IT Centre, Cyberjaya



## ix. Pahang State Court Complex, Kuantan, Pahang





x. Ministry of Urban Well-being, Housing and Local Government's Training Institute, Bkt. Tinggi, Pahang



7. For road maintenance, under the Privatization Agreement of Federal Roads in Peninsular Malaysia, the scope of work was divided among 3 concessionaires in 3 different zones:

- Northern Zone - 3,059 Km
- Central/Eastern Zone - 7,401 Km
- Southern Zone – 4,064 Km

The total length of Federal Roads in Peninsular Malaysia is 14,524 Km



# Zoning According To Road Privatisation Agreement



**Northern Zone (4 States) :**  
Perlis, Kedah, Pulau Pinang and Perak  
(Total Length = 3,059 km)  
**BELATI WANGSA SDN. BHD.**

**Central/Eastern Zone (4 States) :**  
Selangor, Pahang, Terengganu and Kelantan  
(Total Length = 7,041 km)  
**ROADCARE SDN. BHD.**

**Southern Zone (3 States) :**  
Negeri Sembilan, Melaka dan Johor  
(Total Length = 4,064 km)  
**SELIA SELENGGARA SELATAN SDN. BHD.**





8. This agreement started in February 2001 and extends for a period of 15 years, expiring on **15 February 2016.**

9. It is Unit-Priced and Cycle-Based in nature for Routine Maintenance works.



# Examples of Routine Maintenance Works



Pothole patching



Cleaning of drains



Routine inspection



Cleaning of road furniture



10. In this agreement, periodic maintenance works is planned and carried out as and when the annual budget is made available only (based on agreed rates).



# Examples of Periodic Maintenance Works



Resurfacing (Mill and Pave)



Guardrail Replacement



Repair of KM Post



Road Line Painting

11. Emergency works is carried out on a “need to” basis, according to agreed rates.





# Examples of Emergency Works



Removal of fallen trees



Clearing of landslide debris



Removal of animal carcasses



Road diversion due to flood

12. Currently, the Ministry of Works (MOW) Malaysia has appointed a consultant to develop and implement a Performance-based Contract for Road Asset Management of Federal Roads in Peninsular Malaysia which will take effect upon expiry of the present Privatisation Agreement.





# PBC Key Elements/Deliverables

1



**Asset Management Framework**

2



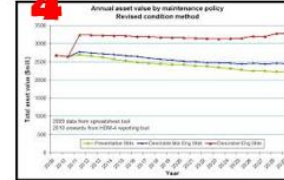
**Asset Inventory Condition Assessment**

3



**KPI Measure and Level of Service**

4



**Life Cycle Analysis and Forward Works Program**

5



**Costs and Payment Model**

6



**PBC Contract Form**

7



**Compliance and Monitoring Framework**

8



**Specs. for Asset Mgmt. System & Develop PBC Monitoring System**

9



**PBC Learning, Technical Tour**

10



**Knowledge Transfer**



# CHALLENGES IN IMPLEMENTING PBC

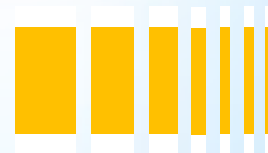




# CHALLENGES OF PBC IN BUILDING ASSET MANAGEMENT

13. The levels of service and performance standards in some Facility Management (FM) contracts for buildings are sometimes ambiguous.

14. A lack of understanding among FM practitioners (Client's Representatives and Contractors) in the local industry about FM.



15. A shortage of competent FM Contractors in the local industry for the proper implementation of FM.
16. A lack of competency among workers involved in FM.
17. Currently, record-keeping and data collection of Government building assets and their existing maintenance services are generally not well-managed.



# **CHALLENGES IN IMPLEMENTING PBC IN ROAD ASSET MANAGEMENT**

18. A lack of understanding among Asset Management practitioners (Client's Representatives and Contractors) in the local industry about Road Asset Management, and in particular about Performance-Based Contracting.

19. Data capture of the current road condition of the entire Federal road network (14,524 Km) as baseline data requires extensive resources in money, machinery, manpower and time.



20. The limited number of machinery and equipment available in the country, such as Road Surface Profilers (RSP) and Falling Weight Deflectometers (FWD), to carry out the data collection presents a logistical challenge.



# Machinery and Equipment for Data Collection



## Road Surface Profiler (RSP)

Roughness ~ Rutting ~ Texture ~ Road Geometry



# Machinery and Equipment for Data Collection

## *Falling Weight Deflectometer (FWD)*



**Central Deflection ~ Deflection Basin ~ Layer Stiffness ~ Structural Number**

21. Setting the optimum **Levels of Service (LOS)** for the different categories of roads (protocol, primary, secondary) is a difficult and tedious process as it varies according to the volume of traffic and the importance of a particular road. In the final analysis, the LOS has to be rationalised according to the budget available.

22. Presently, there is an urgent need to enhance the registration and regulation of Asset Management Service Providers.





# CONCLUSION



# CONCLUSION

23. The shift to performance-based contracting requires a shift in the culture and mindset of all the players involved in the country.

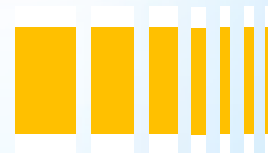
24. Understanding PBC will take time and effort. There is a need for capacity-building on PBC in the construction industry.

25. The PBC model in Malaysia is still evolving and improving with time.



26. The PBC model is flexible (and rightly so) and should be modified to suit the local circumstances.

27. With implementation of PBC for building and road asset management, the Government's aim is to get the **best value-for-money** and obtain **innovative solutions** in maintaining its public assets in order to **meet increasing expectations of the public**.



# THANK-YOU

