

USING VALUE ANALYSIS TO DEVELOP A METHOD OF PRIORITIZING HIGHWAY EXPANSION PROJECTS

CSVA 2011 Conference
Toronto, Ontario
Nov 14 -16, 2011

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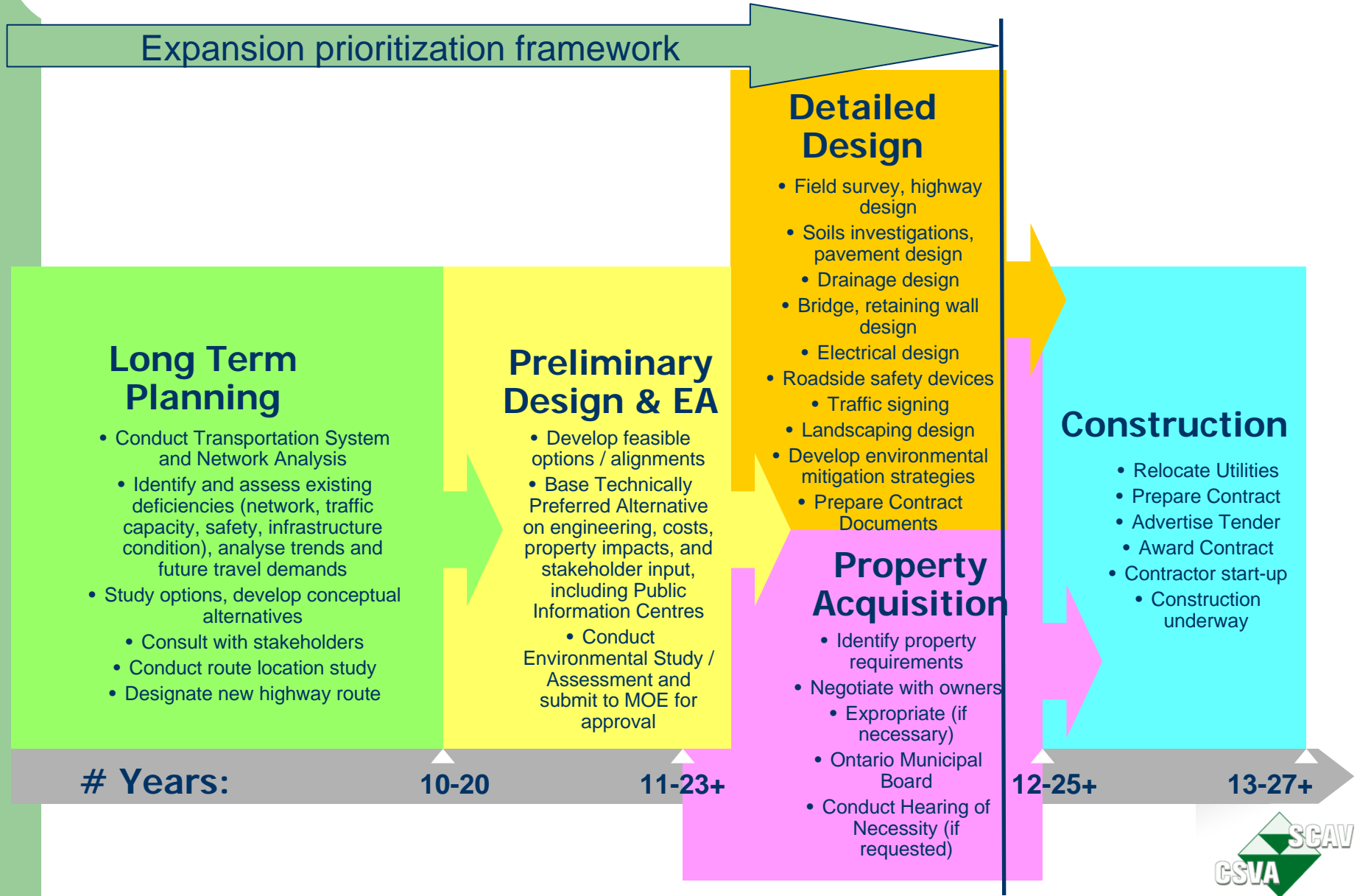
Outline

- *Overview of the situation*
- *Key Objectives*
- *Set-up of the study*
- *Workshop*
- *Functional Diagram*
- *Post-Workshop Work*
- *Overview of New Prioritization Tool*

Overview of the situation

- Tough Decisions
 - ❑ All desirable system expansion projects cannot be designed or constructed
 - ❑ Currently have well over 200 locations across the Province that require resources to be applied either now or in the future
- Traditionally
 - ❑ Rely heavily on traffic volumes alone – “congestion based analysis”
 - ❑ Some projects advanced for “ad hoc” reasons
- No Single List
 - ❑ Multiple expansion lists – “apples to oranges”

Expansion Project Timeline – New Hwy



Key Objectives

- Develop a universally acceptable and transparent set of evaluation criteria to support the development of a prioritized list of projects
- Create a dependable prioritized expansion list of needs that can be communicated to government and stakeholders
- Provide the ability to focus resources on priorities

Study Set-up

- In May 2010, the Provincial Highways Management Team (PHMT) introduced seven Strategic Directions for the Division, including
 - **“A provincial expansion prioritization plan developed in collaboration with Policy & Planning Division.”**
- Develop the philosophy, criteria and mechanics for the new prioritization process
- Gather the base data and test the process
- Prioritize all proposed expansion needs across the Province using the new process

The Main Workshop

- **Internal Resources Only -18 participants**
 - ❑ PHM – Engineering, Program Planning and Investment Strategies Branch
 - ❑ P&P – Transportation Planning Branch, Systems Analysis & Forecasting Office, Strategic Policy & Economics Office and the Transit Office
 - ❑ MNDMF – Strategic Development Branch
 - ❑ MOI - Infrastructure Policy and Investments Branch
- **3-day initial workshop for FPS only**
- **Agreed on key functions to characterize (21)**
- **Sub-committees struck for development of function characterizations**

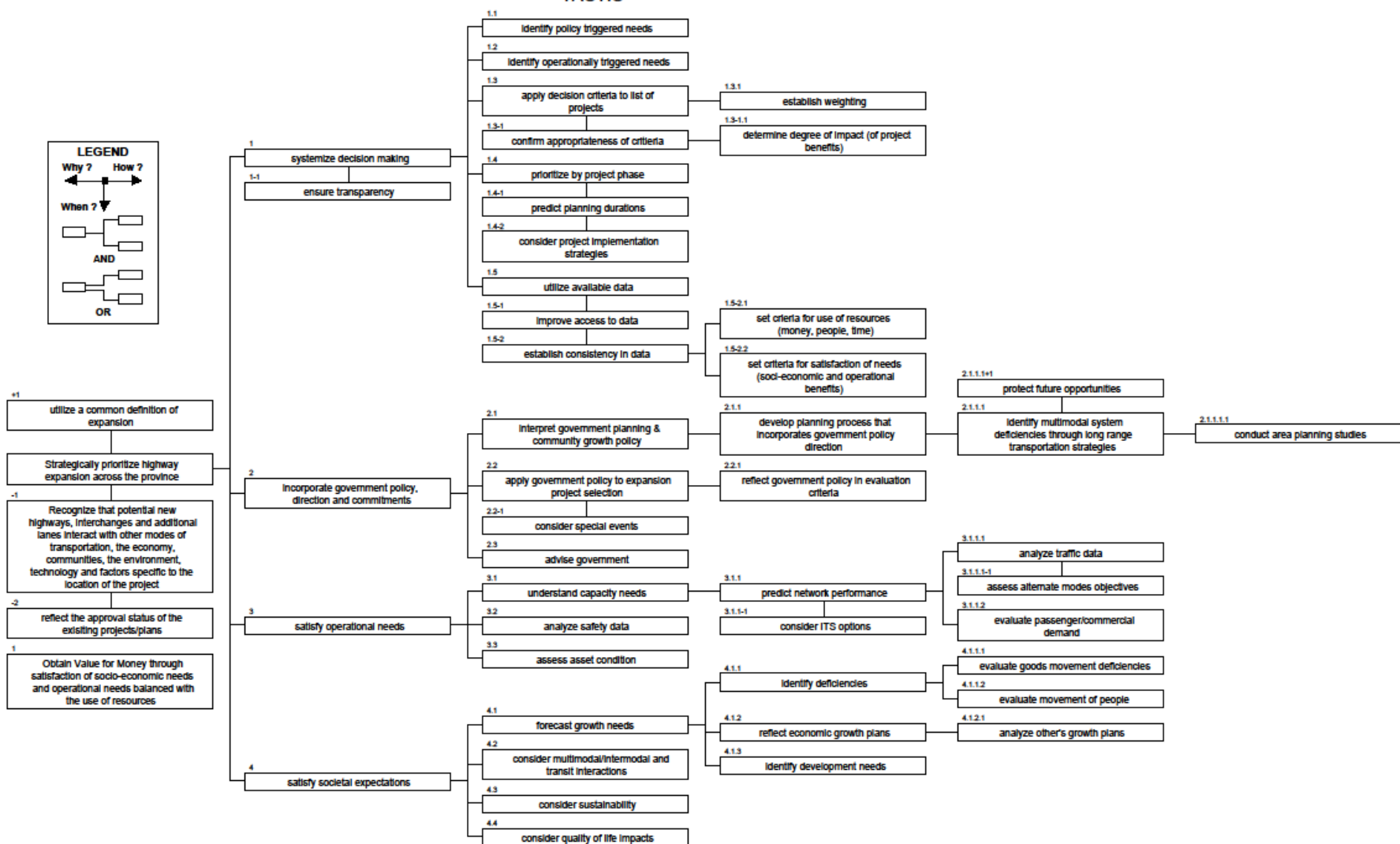
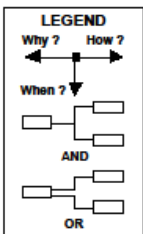
Provincial Highway Expansion Prioritization Project – Functional Diagram

MISSION

STRATEGY

TACTIC

DEPLOYMENT



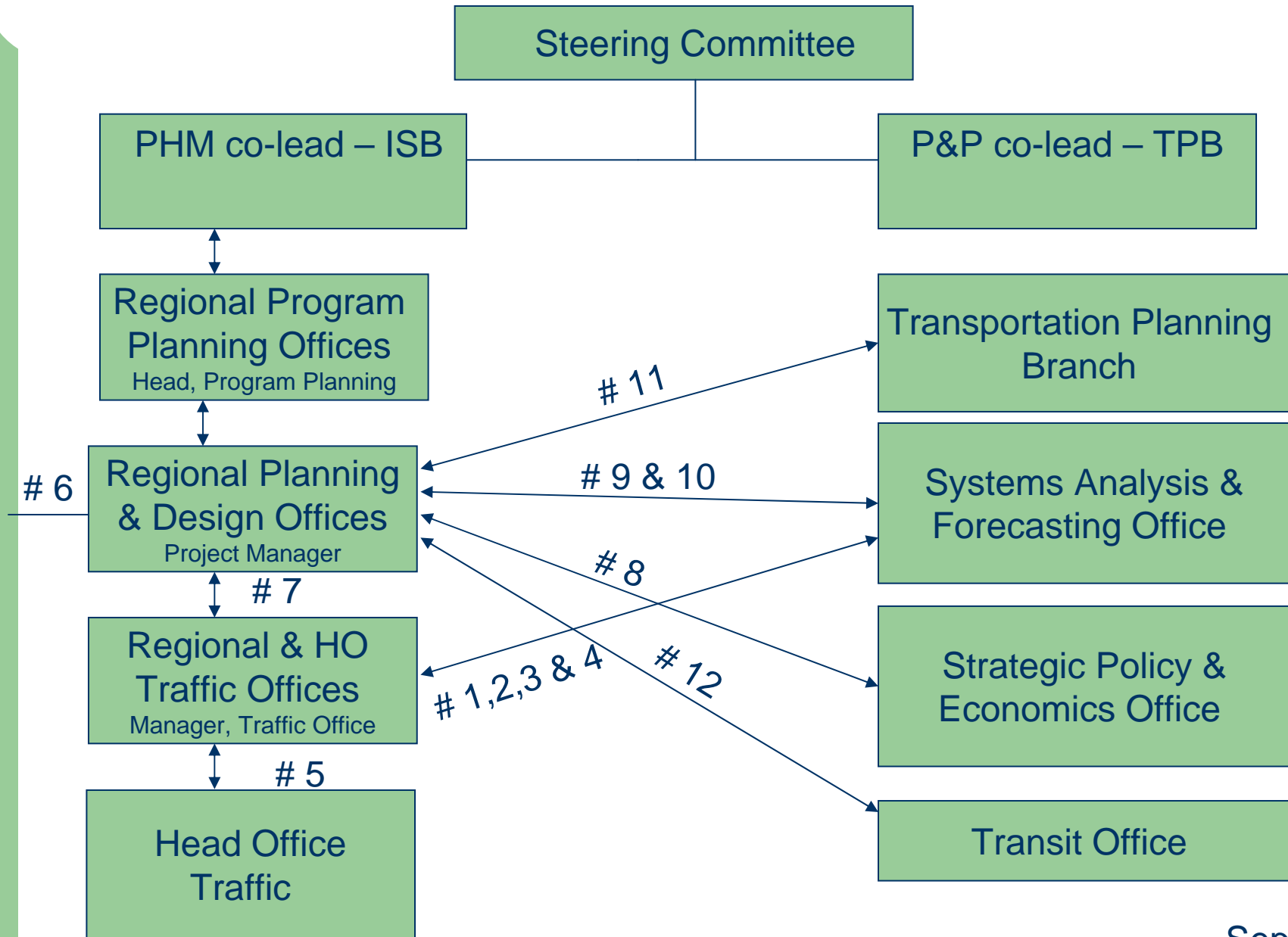
Post-Workshop Work

- Sub-committees developed function characterizations
 - 110 indicators
 - Too many to be practical
- 1-day workshop to rate and select Key Indicators
- Levels translated to scoring guide

Overview of Prioritization Tool

- 12 key indicators were selected for testing in the pilot phase.
- Most, if not all of the key indicators chosen are basically new to our Expansion prioritization processes and will require a learning curve.
 - Process will prioritize existing facilities, extensions and green field projects with “Sustainability” in mind being the environment, the community and the economy.
 - Process will allow both PHM and P&P to not only communicate our relative priorities, but as an organization to be a resource in making informed decisions regarding carrying out route planning, EA work and delivery of contracts for construction.
- Adjustments will take place after the pilot prior to full implementation.

Divisional inter-relationships



Last Slide

- The value methodology used in this context not only helped develop the prioritization method, but also aided in achieving buy-in for the new method
 - PHMT has made it a priority through this initiative to be able to assess the relative priority of all expansion needs across the Province to ensure that our internal and consultant resources are applied at the right time.
 - P&P Division through the Transportation Planning Branch has committed to conduct area planning studies across the Province on an ongoing and rolling basis. This requires an assessment of resources as well.