Customer Driven Design
- Pavement Design and Construction in Auckland

Yang hee An, Beca Infrastructure Ltd

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Outline

- What’s Auckland Transport’s main concern?
- What are the design considerations?
- What we did at Greenlane East?
Customer Driven Design Factors

- Road type – major or minor road
- Site location – surrounding residents and stakeholders
  - eg. Hospital, school and fire services etc
  - proximity to motorway on/offramps
- Land use – residential, commercial and industrial zones
- Utility services – type, location and depth
  - critical outage
Case Study – Greenlane East

- Remuera Intermediate School
- Residential Zone
- Motels
- Private Clinics and Hotel
- SH1 Greenlane East Interchange on/offramps
- Business Zone
- Mercy Ascot Hospital
- Ellerslie Racecourse

AT’s concern = effects on road users and key stakeholders
Case Study – Greenlane East

Suggested Option
1. Intersection
   - Structural asphalt with concrete base
   - Structural asphalt with pre-mixed stabilised base
2. Eastbound direction
   - Structural asphalt
   - Foamed bitumen stabilised base

AT’s concern = effects on road users and key stakeholders

Section 1 - Intersection
- Thin pavement over weak subgrade
- Shallow underground services at 400-500mm depth

Section 2 – Eastbound direction
- Medium depth of aggregate layer
- Suitable quality of aggregate for in-situ stabilisation
Case Study – Greenlane East

Programming Consideration
- Lowest traffic no.
- Maintain a two-way traffic flow
- No event scheduled at Ellerslie racecourse
- School holidays
- Retain access to Mercy Hospital
- Advanced notices to public – VMS boards
- Regular communication with key stakeholders

Stage 1
- First weekend in January

Stage 2
- First weekend in February
Conclusion

Customer Focused Design and Construction

Satisfied Customers

Stakeholder and Road User Needs

Existing Road Conditions and Design Options
Acknowledgement

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  - Questions