Southland District Council
Introduction to the Safety Management Plan

Presented to SDC Maintenance Contractors
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What is the Safety Management Plan?

It is a comprehensive systematic approach to improve road safety.

Safety Management Strategy + Safety Management System + Operations = SAFETY MANAGEMENT PLAN
The Safety Management Strategy

Aim:

• To utilise the appropriate best practice to provide a safe road network.
• It fits well with Southland’s guiding principle of “People First Serving Communities together”.

Initial Target:

• A trending down of crash numbers better than the national trend within 5 years.
Involvement of Factors of Crashes

- Human factors: 95%
- Road factors: 24%
- Vehicles: 4%
Safety Management Strategy Goals
Relate to:

1. Road Environment
2. Road Projects
3. Deficiencies
4. Special User Groups
5. Safety Culture
6. Information Management System

For each goal objectives, methods, deliverables and outcomes have been developed.
Goal 1: To Ensure Road Users have a Consistent Road Environment

- Provide roads with geometry consistent with terrain, traffic volume, mix and road group.
- Provide carriageway widths and shoulders appropriate to the road group.
Goal 1: To Ensure Road Users have a Consistent Road Environment cont’d

- Maintain clear zones along roads.
- Develop SDC Clear Zone Principles.
- Develop Safety Intervention Plan.
Goal 1: To Ensure Road Users have a Consistent Road Environment cont’d

- Manage vegetation within the road reserve appropriately.
- Use SDC policy for Roadside Planting.
Goal 1: To Ensure Road Users have a Consistent Road Environment cont’d

- **Signs.**
  - maintain a set standard of signs for each road according to road group
  - sign all curves or groups of curves which are 15km/hr below design speed
  - chevron boards and chevron curve indicators at curves and tee intersections that are deceptive.
Goal 1: To Ensure Road Users have a Consistent Road Environment cont’d

- **Road Markings.**
  - maintain a set standard of markings for each road according to group of road
  - ensure correct application and location of no passing lines
Goal 1: To Ensure Road Users have a Consistent Road Environment cont’d

- **Hazard Marking.**
  - remove or mark isolated hazards within the clear zone
  - highlight location of bridges
Goal 1: To Ensure Road Users have a Consistent Road Environment cont’d

- **Surface Conditions.**
  - maintain unsealed roads with no soft spots, consistent camber, no potholes or corrugations
  - maintain sealed roads so they have safe skid resistance values
  - no potholes, loose chips and gravel, etc

- **Minimise effects of adverse weather.**
  - reduce icing by removing vegetation shading roads
  - warning signs
  - gritting snow clearance and consider use of CMA
Goal 1: To Ensure Road Users have a Consistent Road Environment cont’d

- **Intersections.**
  - ensure intersections operate safely
  - is the sight distance adequate
  - priority signs
Goal 1: To Ensure Road Users have a Consistent Road Environment cont’d

- **Delineation Devices.**
  - maintain a set level of delineation for each road according to Level of Service
Goal 1: To Ensure Road Users have a Consistent Road Environment cont’d

- Delineation Devices cont’d
  - EMP’s must delineate horizontal and vertical curves at night
Goal 1: To Ensure Road Users have a Consistent Road Environment cont’d

- **Delineation Devices** cont’d
  - RRPM’s must delineate horizontal and vertical curves at night
Goal 1: To Ensure Road Users have a Consistent Road Environment cont’d

- **Adjacent Development.**
  - avoid, remedy or mitigate the effects of adjacent development on road users
Goal 1: To Ensure Road Users have a Consistent Road Environment cont’d

- Maintain consistent speed limits throughout the district.
- Identify road environment deficiencies during safety inspections.
Goal 1: To Ensure Road Users have a Consistent Road Environment cont’d

- One post to coincide with the extended centreline of the approach lane straight.
- A minimum of 3 EMP’s to be visible at all times
Goal 1: To Ensure Road Users have a Consistent Road Environment cont’d

- One post to coincide with the extended centreline of the approach lane straight.
- A minimum of 3 EMP’s to be visible at all times
Goal 2: To Consider Safety at all Stages of Roading Projects cont’d

- **Maintenance Programme.**
  - maintenance Contractors are required to intervene before routine maintenance items become significant safety hazards
  - Contractors are to be assisted to prepare their own Safety Intervention Plans
Goal 2: To Consider Safety at all Stages of Roading Projects cont’d

- **When developing safety programmes.**
  - maintain a database to track reports of safety deficiencies
  - consider wide range of safety information
  - identify and construct minor safety and construction projects
  - consider network safety in Forward Works Programme
Goal 2: To Consider Safety at all Stages of Roading Projects cont’d

- Safe operation on the road.
- Require Contractors, Consultants and SDC to prepare Health and Safety Plans and Traffic Management Plans for all construction and maintenance projects, professional services contracts and investigations on roads.
- Other operators to obtain permits before working on the road.
Goal 2: To Consider Safety at all Stages of Roading Projects cont’d

• Safety Audits.
  – participate in Transfund “Safety Audit of Existing Roads” programme
  – undertake additional regular safety audits of existing roads
  – undertake pre-design safety audits on all seal extension projects
  – random safety audits of projects at all stages of project development
  – safety audits at all stages of all safety projects
Goal 2: To Consider Safety at all Stages of Roading Projects cont’d

- Undertake before and after studies.
Goal 3: To Identify and Investigate Deficiencies

- Undertake detailed systematic safety inspections.
- Measure is SDC Policies, Standards, Guidelines, Species, etc. for each road level (under development).
- Five year cycle.
Goal 3: To Identify and Investigate Deficiencies: cont’d

- Safety Inspection Items include:
  - geometry
  - carriageway and shoulder widths
  - clear zones
  - roadside planting
  - signs
  - marking
  - hazard marking
  - surface conditions
  - intersections
  - delineation
  - adjacent development
  - temporary traffic control
Goal 3: To Identify and Investigate Deficiencies cont’d

- **Take a Proactive Approach to Safety.**
  - Develop a Crash Reporters Network to capture unreported crashes
  - Maintain a Hazardous Sites Database
  - Operate a Safety Deficiency Database
  - Use LTSA Crash Database, Road Safety Report
  - Identify grey spots
  - Undertake Crash Reduction Studies
Goal 3: To Identify and Investigate Deficiencies cont’d

- Undertake Mass Actions.
  - Overview all available information
  - Identify district wide deficiencies
  - Take mass action to remedy
Goal 4: To Ensure that the Safety Requirements of Special User Groups is Considered in all Projects

- Consider the different modes of transport
- Provide all for Disabled Road Users
- Consider the needs of young and elderly road users
Goal 5: Develop A Safety Culture Among all Road Users and Organisations

- Develop, adopt and promote a safety culture within Council, Consultants and Contractors.
- Utilise education initiatives and targeted enforcement in the wider community.
Goal 6: Maintain an Effective Information Management System

- Databases need to be developed, maintained, updated and interrogated.
Where to from Here?

• The SMP will improve road safety over time.
• Community buy in is important for its success.
• Work on the Operations section of the SMP has started:
  – communication plan in progress
  – trial safety inspections undertaken
  – crash reporter network being established
  – safety intervention plan about to start
MEETING THE CHALLENGE

How Can You Help Implement the SMP and Improve Road Safety?

- Promote the SMP to the Community.
- Promote a safety culture by your own life style choices and networking.
- Use your own networks to help establish the crash reporters network.
- Participate in development of the Operations section of the SMP, particularly the Safety Intervention Plan.
Safety Intervention Plans (SIP’s)

- Relatively new.
- Early SIP’s prepared by consultant.
- Most now a joint effort by contractors and consultants.
- Information / education / guidance tool.
- Usually a mix of words, photos, diagrams and plans.
Southland’s Safety Intervention Plan (SIP)

- SIP is to be developed in conjunction with contractors.
- Purpose: Yet to be defined, ideas are:
  - To provide guidance to maintenance staff on how to ensure road users have a consistent road environment
  - To provide guidance to maintenance staff on how to ensure road users have a no surprises road environment
  - To provide guidance to maintenance staff when maintenance intervention is required
  - Your ideas welcomed
Southland’s Safety Intervention Plan (SIP) cont’d

- **Who will use the SIP?**
- **Who are “Maintenance Staff”?**
  - Contractors Field Staff?
  - Foremen?
  - Contractor Management?
  - Consultants?
  - SDC Staff?
- **Who is the main audience?**
How Many SIP’s Should There Be For Southland Roads?

- There are 3 contract areas.
- Each contract area has a:
  - Maintenance contract
  - Pavement Marking contract, and a
  - Signs contract
- **Maximum scenario**  9
- **Medium scenario**  3
  - Maintenance
  - Pavement Mark
  - Signs
- **Minimum scenario**  1
- There are pros and cons for each option
Where to From Here?

- How can we best develop an SIP / or SIP’s for Southland?
- What are you willing to contribute?