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Roadway Safety 2021 Great Plains Tribal Transportation Training Workshop

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# How do we define this?

• Arriving at your destination safely





# Who's responsible?

• We all are – the owner and user!



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# How do we determine what to do?

• Data

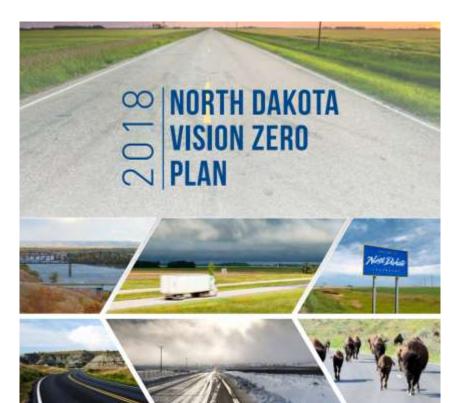
• Data

And more data





2018 Vision Zero-Strategic Highway Safety Plan (SHSP) • Plan looks at the data and determines emphasis areas.







# • Emphasis areas provide the direction for safety improvements

## How do we use this data?





## ND Emphasis areas

- Lane Departures
- Intersections
- Alcohol and/or Drug Related
- Unbelted Occupants
- Speeding/Aggressive Driving
- Young Drivers
  - SHSP Priority Emphasis Areas
  - \* Lane Departure.
  - \* Intersections.
  - \* Alcohol and/or Drug Related.
  - \* Unbelted Vehicle Occupants.
  - \* Speeding/Aggressive Driving.
  - \* Young Drivers.



## Lane Departure Strategies

#### • Will vary based on surface type

- Pavement
  - Rumble strips, chevrons, pavement markings, shoulders, guardrail, and others
- Gravel
  - Chevrons, tighter surface (reduction of loose gravel), remove gravel pile at edge, dust suppression, guardrail, and others



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#### Light(s), Intersection type or configuration, sight distance or lines, signs (LED or stop controlled), dust suppression, and others







# Intersection Improvements



How do we know which strategy to use?

- Crash Data (contains a lot of information) and Traffic numbers will guide you
- Funding
- Surfacing type





# Gravel Surfacing

- Concerns
  - Dust/Visibility
  - Loose surface
  - Lane separation



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# Gravel Surfacing – Dust/Visibility

- Dust/Visibility
  - Not always a bad thing
  - Poor visibility
  - Dust Suppression
    - Pavement or other hard surfacing
    - Better aggregate
    - Chemicals
    - water





### Gravel Surfacing – Loose Surface

- Loose Surface
  - Better aggregate
  - Chemicals
  - Proper maintenance
  - Add a hard surface





# Gravel Surfacing – Lane Separation

- Lane Separation
  - Signs
  - Driver education
  - Chevrons
  - Widen roadway





# Vehicle & Pedestrians Interactions

#### • Concerns

- Lack of separation
  - No sidewalks or paths
- Crossing locations
- Visibility





# Vehicle & Pedestrians – Separation

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- Lack of Separation
  - Provide sometime of delineation
    - Separate path
    - Tubular markers
    - Ped/Bike Lanes









Vehicle & Pedestrians – Crossing Location



- Crossing Location
  - Reduce the number of them
  - Provide signs or other traffic control devices such as Rapid Rectangular Flashing Beacons (RRFB) to bring attention to the crossing
  - What are you crossing (lanes and speed)
    - May need a refuge island
    - May require a crossing underneath or overhead





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# Vehicle & Pedestrians – Visibility



- Visibility
  - Locate crossing in highly visible locations
    - Don't allow parking or other obstructions to be placed close to a crossing
  - Provide traffic calming features that lead up to the crossing
    - This usually slows traffic down
  - Leading pedestrian intervals
    - Allows pedestrians to walk a couple seconds before lights turn so drivers can see pedestrians crossing
  - Reflective clothing should be worn





# Questions?

