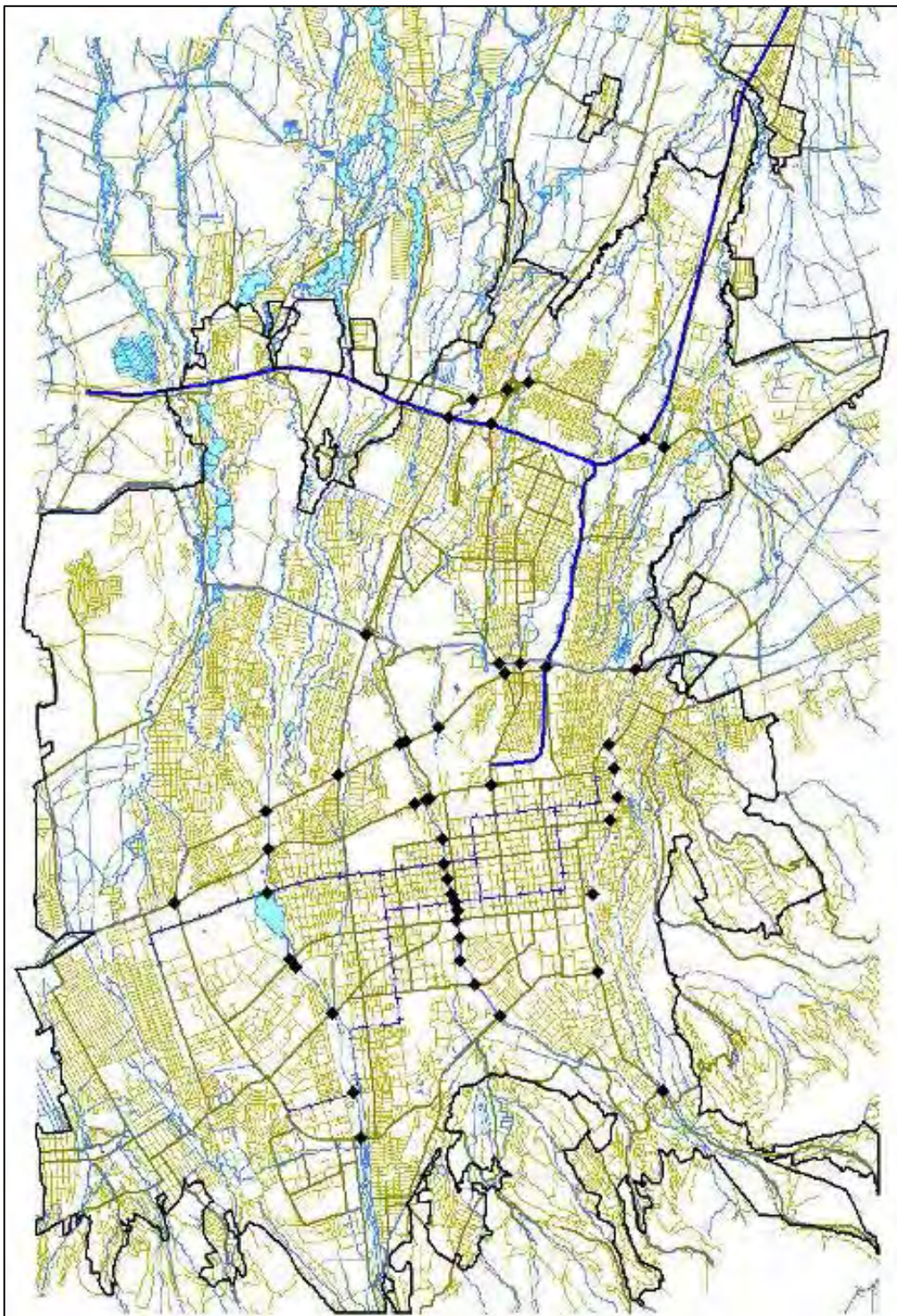
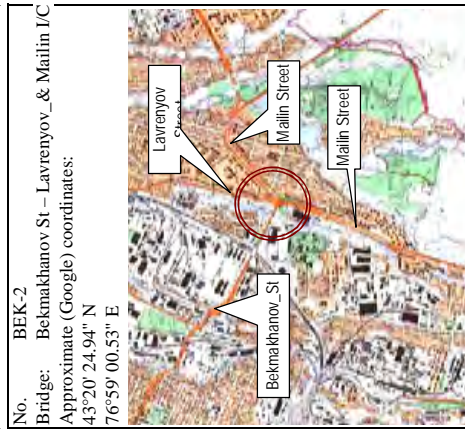
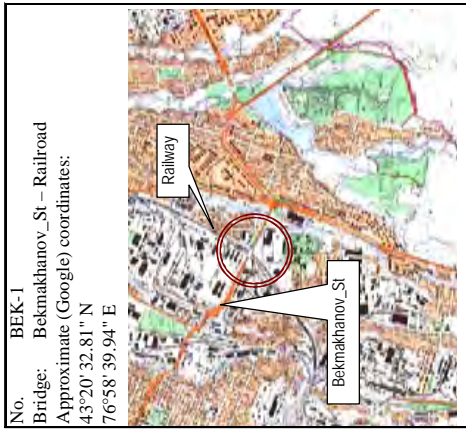
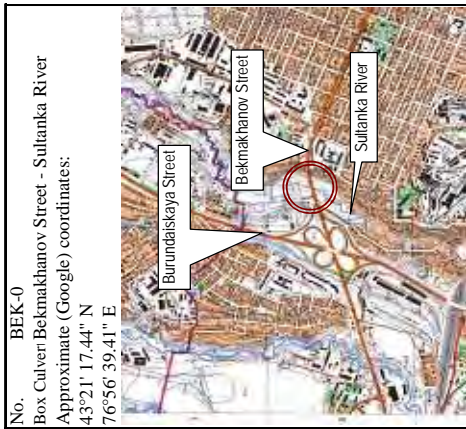


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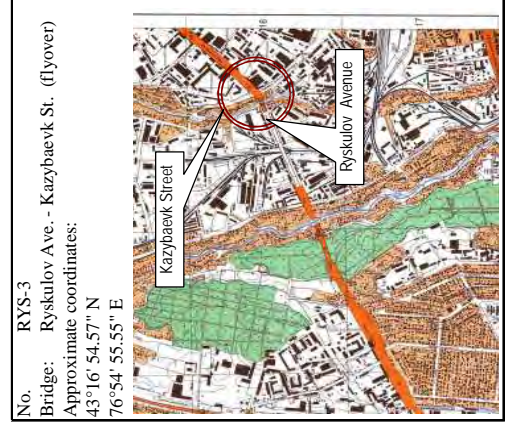
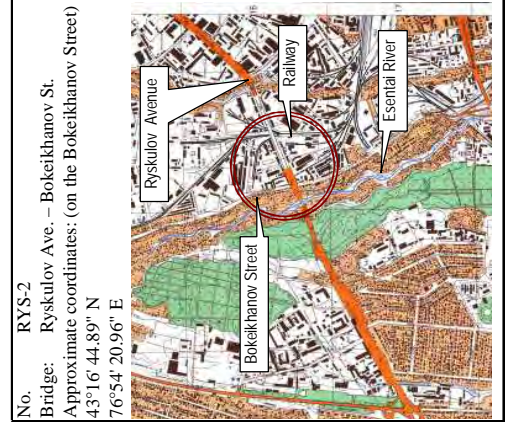
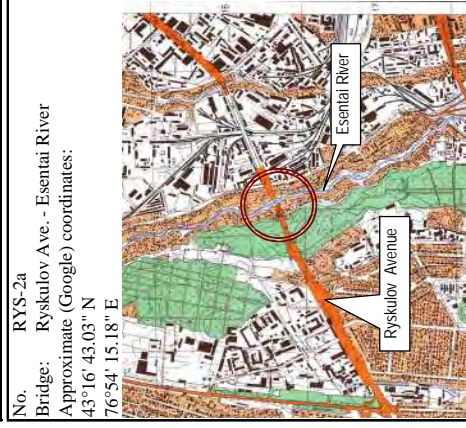
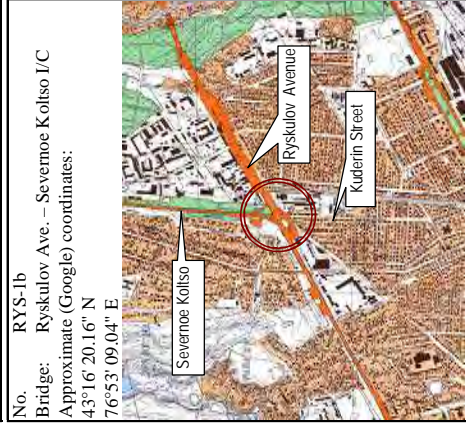
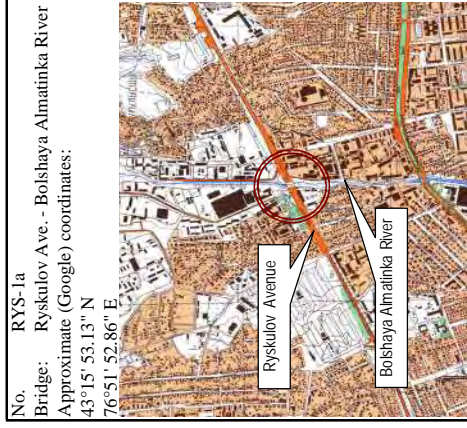
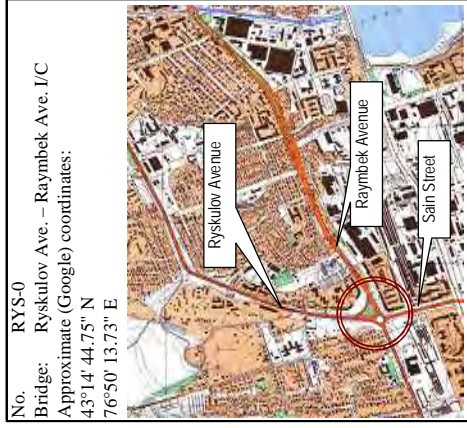


Overall location map

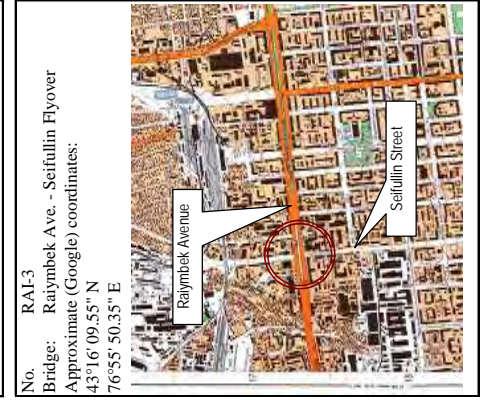
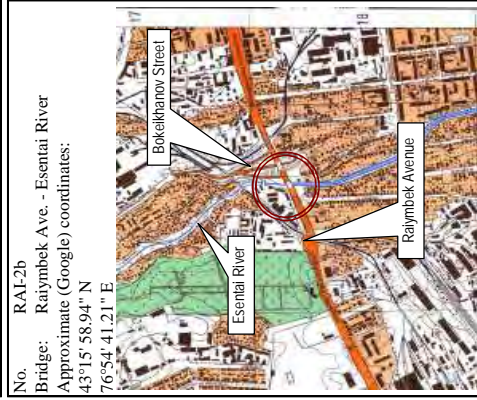
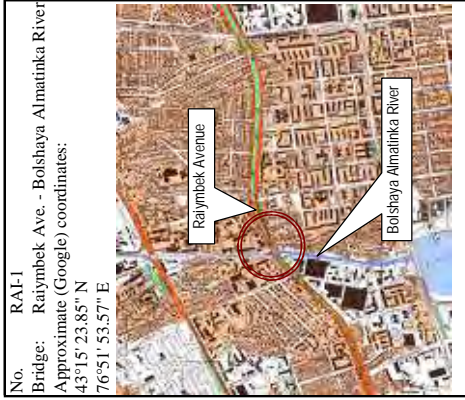
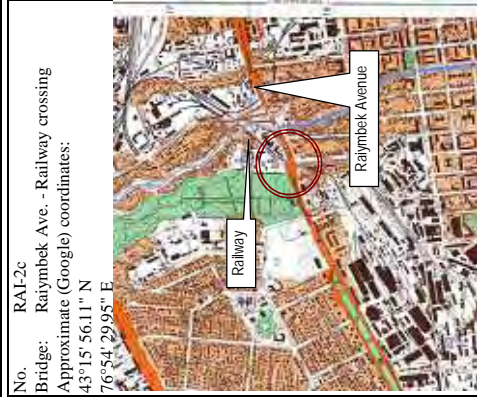
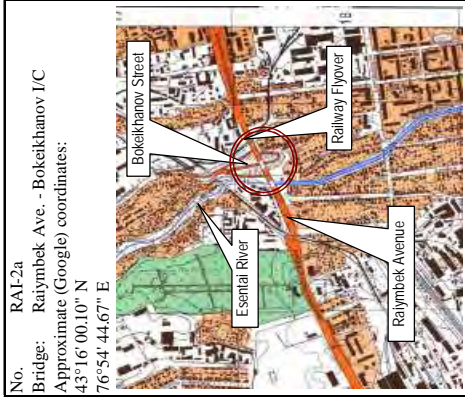
Bekmakanov (1/1)



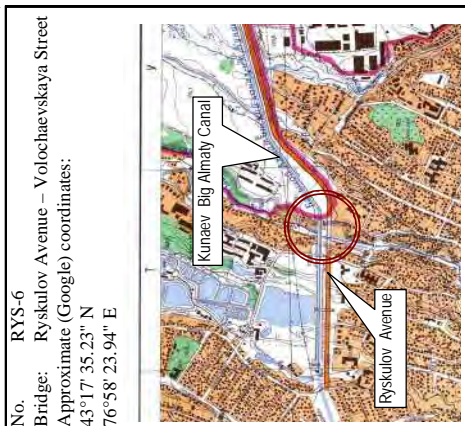
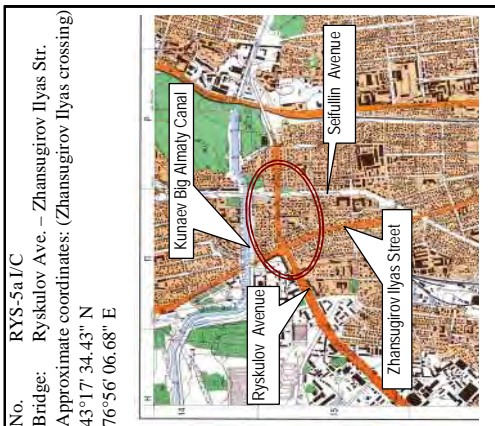
Ryskulov (1/2)



Raiymbek (1/1)



Ryskulov (2/2)



Severnoe_Koltso(1/1)

No. SEV-1
 Bridge: Severnoe Koltso Ave.-Railroad at Zhetysay&Turksib D
 Approximate (Google) coordinates:
 43°20' 52.02" N
 76°55' 13.62" E

No. SEV-0
 Bridge: Severnoe Koltso Ave. - Esental River
 Approximate (Google) coordinates:
 43°21' 05.37" N
 76°55' 39.07" E

No. SEV-2
 Bridge: Severnoe Koltso Ave.-Kunaev Big Almaty Canal
 Approximate (Google) coordinates:
 43° 18' 07.29" N
 76°53' 42.32" E

Zhansugirov (1/1)


No. ZHA-2
 Bridge: Burundaiskaya Flyover on National Railway
 Approximate (Google) coordinates:
 43°20' 46.31" N
 76°55' 58.83" E

No. ZHA-1
 Bridge: Burundaiskaya - Severnoe Interchange
 Approximate (Google) coordinates:
 43°21' 12.60" N
 76°56' 17.37" E

No. ZHA-3
 Bridge: Zhansugirov Ilya Ave.-Kunaev Big Almaty Canal
 Approximate (Google) coordinates:
 43°17' 42.61" N
 76°56' 00.78" E

Seifullin (1/1)

No. SEI-1
 Bridge: Seifullin Avenue - Kunaev Big Almaty Canal
 Approximate coordinates:
 43°17' 42.79" N
 76°56' 23.90" E



Esentai (1/2)


No. ESE-1
 Bridge: Esentai River - Al Farabi Avenue
 Approximate (Google) coordinates:
 43°13' 11.82" N
 76°55' 54.08" E




No. ESE-2
 Bridge: Esentai River - Timiryazev Street
 Approximate (Google) coordinates:
 43°13' 36.38" N
 76°55' 27.90" E




No. ESE-3
 Bridge: Esentai River - Bukhar Zhyrau Boulevard
 Approximate (Google) coordinates:
 43°13' 54.67" N
 76°55' 13.27" E



No. ESE-4
 Bridge: Esentai River - Sarpaev Akademik Street
 Approximate (Google) coordinates:
 43°14' 11.96" N
 76°55' 14.03" E



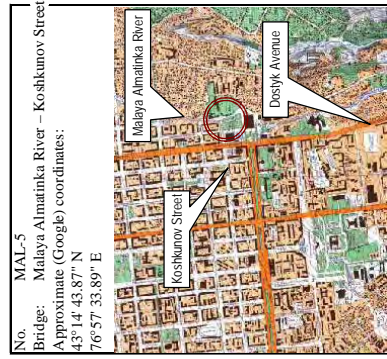
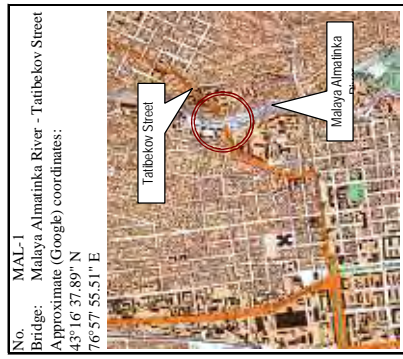
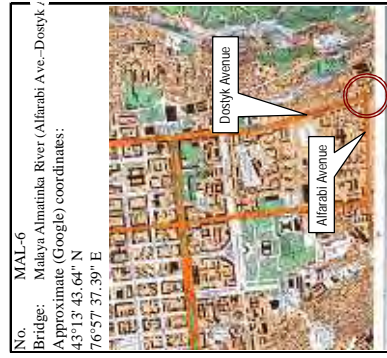
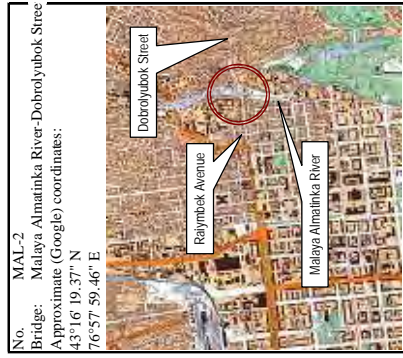
No. ESE-5
 Bridge: Esentai River - Abai Avenue
 Approximate (Google) coordinates:
 43°14' 25.57" N
 76°55' 09.29" E



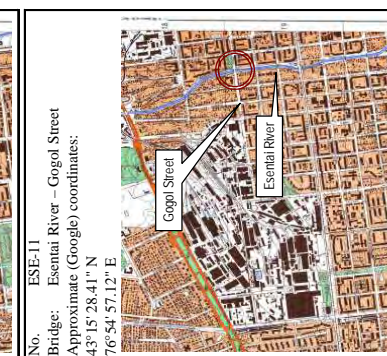
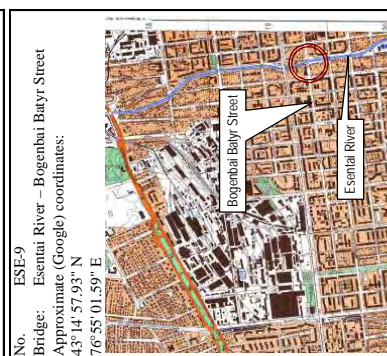
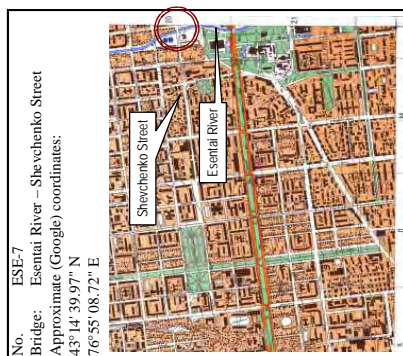
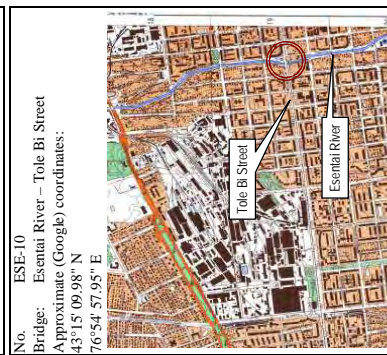
No. ESE-6
 Bridge: Esentai River - Kurmangazy Street
 Approximate (Google) coordinates:
 43°14' 34.04" N
 76°55' 10.88" E



Malaya_Almatinka (1/2)




Esentai (2/2)




Malaya_Almatinka (2/2)

No. MAL-7
 Bridge: Malaya Almatinka River – Dostyk Avenue
 Approximate (Google) coordinates:
 43°12'11.55" N
 76°58'43.08" E




Bolshaya_Almatinka (1/1)


No. BOL-1
 Bridge: Bolshaya Almatinka River - Al Farabi Avenue
 Approximate (Google) coordinates:
 43°11'40.56" N
 76°53'24.68" E




No. BOL-3
 Bridge: Bolshaya Almatinka River – Zhandosov Street
 Approximate (Google) coordinates:
 43°13'16.94" N
 76°52'56.84" E




No. BOL-5
 Bridge: Bolshaya Almatinka River – Abat Avenue
 Approximate (Google) coordinates:
 43°13'59.13" N
 76°52'14.22" E



No. BOL-2
 Bridge: Bolshaya Almatinka River – Toratgyrov Street
 Approximate (Google) coordinates:
 43°12'15.68" N
 76°53'18.26" E



No. BOL-4
 Bridge: Bolshaya Almatinka River – Shalyapin Street
 Approximate (Google) coordinates:
 43°13'53.58" N
 76°52'20.84" E



No. BOL-6
 Box Culvert Bolshaya Almatinka River – Tole Bi Street
 Approximate (Google) coordinates:
 43°14'50.65" N
 76°51'51.01" E



BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/28

| | |
|---|---|
| (1) GENERAL: | |
| Culvert Name: | Bekmakanov Street - Sullanka River |
| Location: | 43.35484444 N 76.9442806 E |
| Year Built: | |
| Seismically Retrofitted or Rehabilitated: Yes No Description/Date: | |
| Latest previous inspection by: Ministry of Transport and Communication "KAZDORU" OJCS Date: _____ | |
| Road Type: | Number of Lanes: 6 lanes City Street (single lane) 2m to 6m City Avenue (2 or 4 lanes) 7m to 15m Major Motorways (>4 lanes) >16m |
| Traffic Volume: (pcu/day) | ADT: _____ veh/day Low Traffic <5,000 Medium Traffic 5,000 to 12,000 Heavy Traffic >12,000 |
| Bridge Type: | 1 River Bridge 2 Road Flyover 3 Viaduct or Interchange 4 Railroad Bridge or Flyover on Railroad |
| Total Bridge's Length: | 1 Short <20m 2 Middle 21m to 75m 3 Long >76m |
| Bridge Width: | 1 <10m 2 10m to 15m 3 >16m or twin |
| Bridge Alignment: | 1 Straight 2 Skewed 3 Curved |

| | |
|-------------------------------|--|
| (2) SUPERSTRUCTURE: | |
| Spans Distribution | 1 single span 2 >2 3 Arch or Rigid Frame |
| Girder Type: | 1 Continuous 2 Normal 3 M-M |
| Bearing Type: | 1 Falling Prevention Device 2 Normal 3 M-M |
| Minimum Width of Bridge Seat: | 1 Wide (WS>=1) 2 Narrow (WS<1) 3 Gerber Bearing (D>=1) 4 Gerber Bearing (D<1) |

| | |
|------------------------------|--|
| (3) SUBSTRUCTURE: | |
| Max. Height of Abutment/Pier | 1 less than 5m 2 5 to 10m 3 more than 10m |
| Foundation Type | 1 Except Pile Bent 2 Pile Bent 3 Brick or plane 4 other |
| Material of Abutment | 1 Rock 2 Medium Stiff 3 Soft 4 very Soft |
| Ground Classification | 1 None 2 Probably 3 Yes |

| | |
|-----------------------------------|--|
| (4) SEISMICAL INFORMATION: | |
| Seismic Intensity | 1 5.00 2 5.50 3 6.00 4 6.50 5 7.00 |

| | |
|------------------------------------|--|
| (5) CONDITION OF STRUCTURE: | |
| Condition of structure | 1 Good 2 Fair 3 Not good 4 Condition Code: _____ 5 2 |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/17

| | |
|---|---|
| (1) GENERAL: | |
| Bridge Name: | Bekmakanov_S1 - Railroad |
| Location: | 43.34244722 N 76.9777611 E |
| Year Built: | 1961 |
| Seismically Retrofitted or Rehabilitated: Yes No Description/Date: | |
| Latest previous inspection by: Ministry of Transport and Communication "KAZDORU" OJCS Date: May, 2002 | |
| Road Type: | Number of Lanes: 4 lanes City Street (single lane) 2m to 6m City Avenue (2 or 4 lanes) 7m to 15m Major Motorways (>4 lanes) >16m |
| Traffic Volume: (pcu/day) | ADT: _____ veh/day Low Traffic <5,000 Medium Traffic 5,000 to 12,000 Heavy Traffic >12,000 |
| Bridge Type: | 1 River Bridge 2 Road Flyover 3 Viaduct or Interchange 4 Railroad Bridge or Flyover on Railroad |
| Total Bridge's Length: | 1 Short <20m 2 Middle 21m to 75m 3 Long >76m |
| Bridge Width: | 1 <10m 2 10m to 15m 3 >16m or twin |
| Bridge Alignment: | 1 Straight 2 Skewed 3 Curved |

| | |
|-------------------------------|--|
| (2) SUPERSTRUCTURE: | |
| Spans Distribution | 1 single span 2 >2 3 Arch or Rigid Frame |
| Girder Type: | 1 Continuous 2 Single or Gerber Girder 3 M-M |
| Bearing Type: | 1 Falling Prevention Device 2 Normal 3 M-M |
| Minimum Width of Bridge Seat: | 1 Wide (WS>=1) 2 Narrow (WS<1) 3 Gerber Bearing (D>=1) 4 Gerber Bearing (D<1) |

| | |
|------------------------------|--|
| (3) SUBSTRUCTURE: | |
| Max. Height of Abutment/Pier | 1 less than 5m 2 5 to 10m 3 more than 10m |
| Foundation Type | 1 Except Pile Bent 2 Pile Bent 3 Brick or plane 4 other |
| Material of Abutment | 1 Rock 2 Medium Stiff 3 Soft 4 very Soft |
| Ground Classification | 1 None 2 Probably 3 Yes |

| | |
|-----------------------------------|--|
| (4) SEISMICAL INFORMATION: | |
| Seismic Intensity | 1 5.00 2 5.50 3 6.00 4 6.50 5 7.00 |

| | |
|------------------------------------|--|
| (5) CONDITION OF STRUCTURE: | |
| Condition of structure | 1 Good 2 Fair 3 Not good 4 Condition Code: _____ 5 3 |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/17

| | | | |
|---|--|-------------------------|-------------------|
| (1) GENERAL: | | Name Code: <u>BEK-2</u> | |
| Bridge Name: | Bekmakhonov St - Lavrenyov_ & Mallin I/C | | |
| Location: | 43.34026111 N 76.9834806 E | | |
| Year Built: | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | No | Description/Date: |
| Latest previous inspection by: | | | |
| Road Type: | Number of Lanes: 2 lanes | 1 | 2 |
| | City Street (single lane) 2m to 6m | 2 | 3 |
| | City Avenue (2 or 4 lanes) 7m to 15m | 3 | 2 |
| | Major Motorways (>4 lanes) >16m | 3 | 2 |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 |
| | Low Traffic <5,000 | 2 | 3 |
| | Medium Traffic 5,000 to 12,000 | 3 | 3 |
| | Heavy Traffic >12,000 | 3 | 3 |
| Bridge Type: | River Bridge | 1 | 2 |
| | Road Flyover | 2 | 3 |
| | Viaduct or Interchange | 3 | 4 |
| Total Bridge's Length: | Length 12.00m | 1 | 2 |
| | Short <20m | 2 | 3 |
| | Middle 21m to 75m | 3 | 1 |
| Bridge Width: | Width 20.00m | 1 | 2 |
| | <10m | 2 | 3 |
| | 10m to 15m | 3 | 3 |
| Bridge Alignment: | Skewness | 1 | 2 |
| | Straight | 2 | 3 |
| | Skewed | 3 | 4 |
| | Curved | 4 | 3 |

| | | | |
|-------------------------------|---------------------------|---|---|
| (2) SUPERSTRUCTURE: | | | |
| Spans Distribution | Spans Number | 1 | 2 |
| | 1 span(s) | 2 | 3 |
| | single span | 3 | 1 |
| Girder Type: | Arch or Rigid Frame | 1 | 2 |
| | Continuous | 2 | 3 |
| | Single or Gerber Girder | 3 | 1 |
| Bearing Type: | Falling Prevention Device | 1 | 2 |
| | Normal | 2 | 3 |
| | M-M | 3 | 1 |
| Minimum Width of Bridge Seat: | Wide (WS>=1) | 1 | 2 |
| | Narrow (WS<1) | 2 | 3 |
| | Gerber Bearing (D<=1) | 3 | 4 |
| | Gerber Bearing (D<=1) | 4 | 1 |

| | | | |
|------------------------------|--------------------|---|---|
| (3) SUBSTRUCTURE: | | | |
| Max. Height of Abutment/Pier | Max. Height | 1 | 2 |
| | 5.00m | 2 | 3 |
| | less than 5m | 3 | 4 |
| Foundation Type | Foundation Code: | 1 | 2 |
| | Except Pile Bent | 2 | 3 |
| | Pile Bent | 3 | 4 |
| Material of Abutment | Abutment Code: | 1 | 2 |
| | Brick or plane | 2 | 3 |
| | other | 3 | 4 |
| Ground Classification | Ground Code: | 1 | 2 |
| | Rock | 2 | 3 |
| | Medium Stiff | 3 | 4 |
| | Soft | 4 | 1 |
| Sensibility to Liquefaction | Liquefaction Code: | 1 | 2 |
| | Probably | 2 | 3 |
| | Yes | 3 | 4 |

| | | | |
|------------------------------------|------|------|----------|
| (4) SEISMICAL INFORMATION: | | | |
| Seismic Intensity | 1 | 2 | 3 |
| | 5.00 | 5.50 | 6.00 |
| | 6.00 | 6.50 | 7.00 |
| | 7.00 | 7.50 | 8.00 |
| (5) CONDITION OF STRUCTURE: | | | |
| Condition of structure | 1 | 2 | 3 |
| | Good | Fair | Not good |
| | 2 | 3 | 4 |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/14

| | | | |
|---|--------------------------------------|-------------------------|-------------------|
| (1) GENERAL: | | Name Code: <u>RYS-0</u> | |
| Bridge Name: | Ryskulov Ave. - Raymbek Ave. I/C | | |
| Location: | 43.24576389 N 76.8371472 E | | |
| Year Built: | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | No | Description/Date: |
| Latest previous inspection by: | | | |
| Road Type: | Number of Lanes: 6 lanes | 1 | 2 |
| | City Street (single lane) 2m to 6m | 2 | 3 |
| | City Avenue (2 or 4 lanes) 7m to 15m | 3 | 2 |
| | Major Motorways (>4 lanes) >16m | 2 | 3 |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 |
| | Low Traffic <5,000 | 2 | 3 |
| | Medium Traffic 5,000 to 12,000 | 3 | 3 |
| | Heavy Traffic >12,000 | 3 | 3 |
| Bridge Type: | River Bridge | 1 | 2 |
| | Road Flyover | 2 | 3 |
| | Viaduct or Interchange | 3 | 4 |
| Total Bridge's Length: | Length 655.00m | 1 | 2 |
| | Short <20m | 2 | 3 |
| | Middle 21m to 75m | 3 | 1 |
| Bridge Width: | Width 29.50m | 1 | 2 |
| | <10m | 2 | 3 |
| | 10m to 15m | 3 | 3 |
| Bridge Alignment: | Skewness | 1 | 2 |
| | Straight | 2 | 3 |
| | Skewed | 3 | 4 |
| | Curved | 4 | 1 |

| | | | |
|-------------------------------|---------------------------|---|---|
| (2) SUPERSTRUCTURE: | | | |
| Spans Distribution | Spans Number | 1 | 2 |
| | Multiple | 2 | 3 |
| | single span | 3 | 2 |
| Girder Type: | Arch or Rigid Frame | 1 | 2 |
| | Continuous | 2 | 3 |
| | Single or Gerber Girder | 3 | 1 |
| Bearing Type: | Falling Prevention Device | 1 | 2 |
| | Normal | 2 | 3 |
| | M-M | 3 | 1 |
| Minimum Width of Bridge Seat: | Wide (WS>=1) | 1 | 2 |
| | Narrow (WS<1) | 2 | 3 |
| | Gerber Bearing (D<=1) | 3 | 4 |
| | Gerber Bearing (D<=1) | 4 | 1 |

| | | | |
|------------------------------|--------------------|---|---|
| (3) SUBSTRUCTURE: | | | |
| Max. Height of Abutment/Pier | Max. Height | 1 | 2 |
| | 4.50m | 2 | 3 |
| | less than 5m | 3 | 4 |
| Foundation Type | Foundation Code: | 1 | 2 |
| | Except Pile Bent | 2 | 3 |
| | Pile Bent | 3 | 4 |
| Material of Abutment | Abutment Code: | 1 | 2 |
| | Brick or plane | 2 | 3 |
| | other | 3 | 4 |
| Ground Classification | Ground Code: | 1 | 2 |
| | Rock | 2 | 3 |
| | Medium Stiff | 3 | 4 |
| | Soft | 4 | 1 |
| Sensibility to Liquefaction | Liquefaction Code: | 1 | 2 |
| | Probably | 2 | 3 |
| | Yes | 3 | 4 |

| | | | |
|------------------------------------|------|------|----------|
| (4) SEISMICAL INFORMATION: | | | |
| Seismic Intensity | 1 | 2 | 3 |
| | 5.00 | 5.50 | 6.00 |
| | 6.00 | 6.50 | 7.00 |
| | 7.00 | 7.50 | 8.00 |
| (5) CONDITION OF STRUCTURE: | | | |
| Condition of structure | 1 | 2 | 3 |
| | Good | Fair | Not good |
| | 2 | 3 | 4 |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/14

| | | | | |
|--------------------------------|---|---|--------------------------------|-----------------------|
| (1) GENERAL: | | Ryskulov Ave. - Bolshaya Almatinka River | | Name Code: RYS-1a |
| Bridge Name: | 43.26475833 N 76.8646833 E | | | |
| Location: | 1960 | | | |
| Year Built: | Seismically Retrofitted or Rehabilitated: | | | Yes No |
| Latest previous Inspection by: | | Ministry of Transport and Communication, KAZDORR UJCS | | Date: May, 2002 |
| Road Type: | Number of Lanes | 1 | 2 | 3 |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 |
| | _____ veh/day | Low Traffic <5,000 | Medium Traffic 5,000 to 12,000 | Heavy Traffic >12,000 |
| Bridge Type: | River Bridge | 2 | 3 | 4 |
| Total Bridge's Length: | Length | 1 | 2 | 3 |
| | _____ m | Short <20m | Middle 21m to 75m | Long >76m |
| Bridge Width: | Width | 1 | 2 | 3 |
| | _____ m | <10m | 10m to 15m | >16m or twin |
| Bridge Alignment: | Skewness | 1 | 2 | 3 |
| | | Straight | Skewed | Curved |

| | | | | | | | | |
|-------------------------------|---------------------------|--------------------|-------------------------|--------------|---|---|---------------|---|
| (2) SUPERSTRUCTURE: | | Spans Distribution | | Spans Number | 1 | 2 | Span Code: | 2 |
| Girder Type: | Multiple | single span | >2 | 1 | 2 | 3 | Girder Code: | 3 |
| | Arch or Rigid Frame | Continuous | Single or Gerber Girder | 1 | 2 | 3 | Bearing Code: | 3 |
| Minimum Width of Bridge Seat: | Falling Prevention Deckse | Normal | M-M | 1 | 2 | 3 | Seal Code: | 2 |
| | Wide (AS>=1) | Narrow (AS<1) | Gerber Bearing (Ds=1) | 1 | 2 | 3 | | |

| | | | | | | | | | |
|------------------------------|------------------|------------------------------|-----------|-------------|---|---|---------------------|--------------|---|
| (3) SUBSTRUCTURE: | | Max. Height of Abutment/Pier | | Max. Height | 1 | 2 | 3 | Height Code: | 1 |
| Foundation Type | 5.00m | less than 5m | 5 to 10m | 1 | 2 | 3 | Foundation Code: | 2 | |
| | Except Pile Bent | Pile Bent | other | 1 | 2 | 3 | Abutment Code: | 2 | |
| Ground Classification | Brick or plane | other | Soft | 1 | 2 | 3 | Ground Code: | 2 | |
| | Rock | Medium Stiff | very Soft | 1 | 2 | 3 | Liquification Code: | 1 | |
| Sensibility to Liquification | None | Probably | Yes | 1 | 2 | 3 | | | |
| | | | | | | | | | |

| | | | | | | | | | |
|------------------------------------|--|------------------------|------|----------|------|------|-----------------|---|---------------|
| (4) SEISMICAL INFORMATION: | | Seismic Intensity | | 1 | 2 | 3 | 4 | 5 | Seismic Code: |
| | | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | | | 3 |
| (5) CONDITION OF STRUCTURE: | | Condition of structure | | 1 | 2 | 3 | Condition Code: | 3 | |
| | | Good | Fair | Not good | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/14

| | | | | |
|---|----------------------------|--------------------------------------|--------------------------------|-----------------------|
| (1) GENERAL: | | Ryskulov Ave. - Severnoe Kolliso I/C | | Name Code: RYS-1b |
| Bridge Name: | 43.27226667 N 76.8858444 E | | | |
| Location: | Year Built: | | | |
| Seismically Retrofitted or Rehabilitated: | Yes No | | | |
| Latest previous Inspection by: | | Description/Date | | Date: |
| Road Type: | Number of Lanes | 1 | 2 | 3 |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 |
| | _____ veh/day | Low Traffic <5,000 | Medium Traffic 5,000 to 12,000 | Heavy Traffic >12,000 |
| Bridge Type: | River Bridge | 2 | 3 | 4 |
| Total Bridge's Length: | Length | 1 | 2 | 3 |
| | _____ m | Short <20m | Middle 21m to 75m | Long >76m |
| Bridge Width: | Width | 1 | 2 | 3 |
| | _____ m | <10m | 10m to 15m | >16m or twin |
| Bridge Alignment: | Skewness | 1 | 2 | 3 |
| | | Straight | Skewed | Curved |

| | | | | | | | | |
|-------------------------------|---------------------------|--------------------|-------------------------|--------------|---|---|---------------|---|
| (2) SUPERSTRUCTURE: | | Spans Distribution | | Spans Number | 1 | 2 | Span Code: | 2 |
| Girder Type: | Multiple | single span | >2 | 1 | 2 | 3 | Girder Code: | 2 |
| | Arch or Rigid Frame | Continuous | Single or Gerber Girder | 1 | 2 | 3 | Bearing Code: | 1 |
| Minimum Width of Bridge Seat: | Falling Prevention Deckse | Normal | M-M | 1 | 2 | 3 | Seal Code: | 1 |
| | Wide (AS>=1) | Narrow (AS<1) | Gerber Bearing (Ds=1) | 1 | 2 | 3 | | |

| | | | | | | | | | |
|------------------------------|------------------|------------------------------|-----------|-------------|---|---|---------------------|--------------|---|
| (3) SUBSTRUCTURE: | | Max. Height of Abutment/Pier | | Max. Height | 1 | 2 | 3 | Height Code: | 2 |
| Foundation Type | 5.00m | less than 5m | 5 to 10m | 1 | 2 | 3 | Foundation Code: | 2 | |
| | Except Pile Bent | Pile Bent | other | 1 | 2 | 3 | Abutment Code: | 2 | |
| Ground Classification | Brick or plane | other | Soft | 1 | 2 | 3 | Ground Code: | 2 | |
| | Rock | Medium Stiff | very Soft | 1 | 2 | 3 | Liquification Code: | 1 | |
| Sensibility to Liquification | None | Probably | Yes | 1 | 2 | 3 | | | |
| | | | | | | | | | |

| | | | | | | | | | |
|------------------------------------|--|------------------------|------|----------|------|------|-----------------|---|---------------|
| (4) SEISMICAL INFORMATION: | | Seismic Intensity | | 1 | 2 | 3 | 4 | 5 | Seismic Code: |
| | | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | | | 3 |
| (5) CONDITION OF STRUCTURE: | | Condition of structure | | 1 | 2 | 3 | Condition Code: | 2 | |
| | | Good | Fair | Not good | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/14

| | | | |
|---|--|------------|------------------|
| (1) GENERAL: | | | |
| Bridge Name: | Ryskulov Ave. – Bokekhanov St. | Name Code: | RYS-2 |
| Location: | 43.27913611 N 76.9058222 E | | |
| Year Built: | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | No | Description/Date |
| Latest previous Inspection by: | | | Date: |
| Road Type: | Number of Lanes: 6 lanes | 1 | 2 |
| | City Street (single lane) 2m to 4m | 2 | 3 |
| | City Avenue (2 or 4 lanes) 7m to 15m | 3 | 3 |
| | Major Motorways (>4 lanes) >15m | 3 | 3 |
| Traffic Volume: (pcu/day) | ADT | 1 | 3 |
| | Low Traffic <5,000 | 2 | 3 |
| | Medium Traffic 5,000 to 12,000 | 3 | 3 |
| | Heavy Traffic >12,000 | 3 | 3 |
| Bridge Type: | River Bridge | 1 | 3 |
| | Road Flyover | 2 | 4 |
| | Viaduct or Interchange | 3 | 4 |
| | Railroad Bridge or Flyover on Railroad | 4 | 3 |
| Total Bridge's Length: | Length: 250.00 m | 1 | 3 |
| | Short <20m | 2 | 3 |
| | Middle 21m to 75m | 3 | 3 |
| Bridge Width: | Width: 29.50 m | 1 | 3 |
| | <10m | 2 | 3 |
| | 10m to 15m | 3 | 3 |
| Bridge Alignment: | Skewness | 1 | 3 |
| | Straight | 2 | 3 |
| | Skewed | 3 | 3 |
| | Curved | 4 | 3 |

| | | | |
|-------------------------------|-------------------------|----|---|
| (2) SUPERSTRUCTURE: | | | |
| Spans Distribution | Spans Number | 1 | 2 |
| | Multiple | 2 | 2 |
| | single span | >2 | 2 |
| Girder Type: | Arch or Rigid Frame | 1 | 2 |
| | Continuous | 2 | 2 |
| | Single or Girder | 3 | 2 |
| Bearing Type: | Falling Prevention Deck | 1 | 1 |
| | Normal | 2 | 1 |
| | M-M | 3 | 1 |
| Minimum Width of Bridge Seat: | Wide (A/S>=1) | 1 | 1 |
| | Narrow (A/S<1) | 2 | 1 |
| | Girder Bearing (D<=1) | 3 | 1 |
| | Gerber Bearing (D<=1) | 4 | 1 |

| | | | |
|------------------------------|--------------------|---|---|
| (3) SUBSTRUCTURE: | | | |
| Max. Height of Abutment/Pier | Max. Height | 1 | 2 |
| | 7.00 m | 2 | 2 |
| | less than 5m | 3 | 2 |
| Foundation Type | Foundation Code: | 1 | 2 |
| | Except Pile Bent | 2 | 2 |
| | Pile Bent | 3 | 2 |
| Material of Abutment | Abutment Code: | 1 | 2 |
| | Brick or plane | 2 | 2 |
| | other | 3 | 2 |
| Ground Classification | Ground Code: | 1 | 2 |
| | Rock | 2 | 2 |
| | Medium Stiff | 3 | 2 |
| | Soft | 4 | 2 |
| | very Soft | 5 | 2 |
| Sensibility to Liquefaction | Liquefaction Code: | 1 | 1 |
| | None | 2 | 1 |
| | Probably | 3 | 1 |
| | Yes | 4 | 1 |

| | | | |
|------------------------------------|------|------|----------|
| (4) SEISMICAL INFORMATION: | | | |
| Seismic Intensity | 1 | 2 | 3 |
| | 5.00 | 5.50 | 6.00 |
| | 6.00 | 6.50 | 7.00 |
| | 7.00 | 7.50 | 8.00 |
| (5) CONDITION OF STRUCTURE: | | | |
| Condition of structure | 1 | 2 | 3 |
| | Good | Fair | Not good |
| | 2 | 3 | 4 |
| | 4 | 5 | 6 |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/14

| | | | |
|---|---|------------|------------------|
| (1) GENERAL: | | | |
| Bridge Name: | Ryskulov Ave. – Esental River. | Name Code: | RYS-2a |
| Location: | 43.27861944 N 76.9042167 E | | |
| Year Built: | 1967 | | |
| Seismically Retrofitted or Rehabilitated: | Yes | No | Description/Date |
| Latest previous Inspection by: | Ministry of Transport and Communication: KAZDORBIT-OJCS | | Date: May, 2002 |
| Road Type: | Number of Lanes: 6 lanes | 1 | 2 |
| | City Street (single lane) 2m to 4m | 2 | 3 |
| | City Avenue (2 or 4 lanes) 7m to 15m | 3 | 3 |
| | Major Motorways (>4 lanes) >15m | 3 | 3 |
| Traffic Volume: (pcu/day) | ADT | 1 | 3 |
| | Low Traffic <5,000 | 2 | 3 |
| | Medium Traffic 5,000 to 12,000 | 3 | 3 |
| | Heavy Traffic >12,000 | 3 | 3 |
| Bridge Type: | River Bridge | 1 | 4 |
| | Road Flyover | 2 | 4 |
| | Viaduct or Interchange | 3 | 4 |
| | Railroad Bridge or Flyover on Railroad | 4 | 4 |
| Total Bridge's Length: | Length: 49.80 m | 1 | 3 |
| | Short <20m | 2 | 3 |
| | Middle 21m to 75m | 3 | 3 |
| Bridge Width: | Width: 21.00 m | 1 | 3 |
| | <10m | 2 | 3 |
| | 10m to 15m | 3 | 3 |
| Bridge Alignment: | Skewness | 1 | 2 |
| | Straight | 2 | 2 |
| | Skewed | 3 | 2 |
| | Curved | 4 | 2 |

| | | | |
|-------------------------------|-------------------------|----|---|
| (2) SUPERSTRUCTURE: | | | |
| Spans Distribution | Spans Number | 1 | 2 |
| | 2 span(s) | >2 | 2 |
| Girder Type: | Arch or Rigid Frame | 1 | 3 |
| | Continuous | 2 | 3 |
| | Single or Girder | 3 | 3 |
| Bearing Type: | Falling Prevention Deck | 1 | 3 |
| | Normal | 2 | 3 |
| | M-M | 3 | 3 |
| Minimum Width of Bridge Seat: | Wide (A/S>=1) | 1 | 2 |
| | Narrow (A/S<1) | 2 | 2 |
| | Girder Bearing (D<=1) | 3 | 2 |
| | Gerber Bearing (D<=1) | 4 | 2 |

| | | | |
|------------------------------|--------------------|---|---|
| (3) SUBSTRUCTURE: | | | |
| Max. Height of Abutment/Pier | Max. Height | 1 | 3 |
| | 4.00 m | 2 | 3 |
| | less than 5m | 3 | 3 |
| Foundation Type | Foundation Code: | 1 | 2 |
| | Except Pile Bent | 2 | 2 |
| | Pile Bent | 3 | 2 |
| Material of Abutment | Abutment Code: | 1 | 2 |
| | Brick or plane | 2 | 2 |
| | other | 3 | 2 |
| Ground Classification | Ground Code: | 1 | 2 |
| | Rock | 2 | 2 |
| | Medium Stiff | 3 | 2 |
| | Soft | 4 | 2 |
| | very Soft | 5 | 2 |
| Sensibility to Liquefaction | Liquefaction Code: | 1 | 1 |
| | None | 2 | 1 |
| | Probably | 3 | 1 |
| | Yes | 4 | 1 |

| | | | |
|------------------------------------|------|------|----------|
| (4) SEISMICAL INFORMATION: | | | |
| Seismic Intensity | 1 | 2 | 3 |
| | 5.00 | 5.50 | 6.00 |
| | 6.00 | 6.50 | 7.00 |
| | 7.00 | 7.50 | 8.00 |
| (5) CONDITION OF STRUCTURE: | | | |
| Condition of structure | 1 | 2 | 3 |
| | Good | Fair | Not good |
| | 2 | 3 | 4 |
| | 4 | 5 | 6 |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/14

| | | | | | | | | | |
|---|--|------------------------------------|--------------------------------------|--|--------------------|-------------------|---|--|--|
| (1) GENERAL: | | | | | | | | | |
| Bridge Name: | Ryskulov Ave. - Kazymbaevk St. (flyover) | | | | Name Code: | RYS-3 | | | |
| Location: | 43.281825 N 76.9154306 E | | | | | | | | |
| Year Built: | | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | | | | No | Description/Date: | | | |
| Latest previous inspection by: | | | | | | | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 2 | | | |
| Traffic Volume: (pcu/day) | ADT | City Street (single lane) 2m to 6m | City Avenue (2 or 4 lanes) 7m to 15m | Major Motorways (>4 lanes) >16m | | | | | |
| | | Low Traffic <5,000 | Medium Traffic 5,000 to 12,000 | Heavy Traffic >12,000 | | | | | |
| Bridge Type: | River Bridge | Road Flyover | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad | | | | | |
| | | Length 190.00m | Short <20m | Middle 21m to 75m | Long >76m | | | | |
| Total Bridge's Length: | Width | 12.00m | <10m | 10m to 15m | >16m or twin | | | | |
| | | Skewness | 1 | 2 | 3 | Alignment Code: | 1 | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | |
| Spans Distribution | Spans Number | Multiple | 1 | 2 | Span Code: | 2 | | | |
| Girder Type: | Arch or Rigid Frame | Single or Gerber Girder | 1 | 2 | Girder Code: | 2 | | | |
| | | Bearing Type: | 1 | 2 | 3 | Bearing Code: | 1 | | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | Normal | M-M | | | | | | |
| | | 1 | 2 | 3 | 4 | Seat Code: | 1 | | |
| (3) SUBSTRUCTURE: | | | | | | | | | |
| Max. Height of Abutment/Pier | Foundation Type | 8.00m | 1 | 2 | Height Code: | 2 | | | |
| | | 5 to 10m | 2 | 3 | Foundation Code: | 2 | | | |
| Material of Abutment | Ground Classification | Except Pile Bent | 1 | 2 | Abutment Code: | 2 | | | |
| | | Brick or plane | 1 | 2 | 3 | Ground Code: | 2 | | |
| Sensibility to Liquefaction | None | Probably | 1 | 2 | Liquefaction Code: | 1 | | | |
| | | Yes | 3 | 4 | | | | | |
| (4) SEISMICAL INFORMATION: | | | | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | 3 | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | Condition Code: | 2 | | | | |
| | Good | Fair | Not good | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/14

| | | | | | | | | | |
|---|---|------------------------------------|--------------------------------------|--|--------------------|-------------------|---|--|--|
| (1) GENERAL: | | | | | | | | | |
| Bridge Name: | Ryskulov Ave. - Zhansugitov Ilyas Str. and Seifullin Ave. | | | | Name Code: | RYS-5a/C | | | |
| Location: | 43.29289722 N 76.9351889 E | | | | | | | | |
| Year Built: | 2006 (design report was available) | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | | | | No | Description/Date: | | | |
| Latest previous inspection by: | | | | | | | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 2 | | | |
| Traffic Volume: (pcu/day) | ADT | City Street (single lane) 2m to 6m | City Avenue (2 or 4 lanes) 7m to 15m | Major Motorways (>4 lanes) >16m | | | | | |
| | | Low Traffic <5,000 | Medium Traffic 5,000 to 12,000 | Heavy Traffic >12,000 | | | | | |
| Bridge Type: | River Bridge | Road Flyover | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad | | | | | |
| | | Length 750.00m | Short <20m | Middle 21m to 75m | Long >76m | | | | |
| Total Bridge's Length: | Width | 29.50m | <10m | 10m to 15m | >16m or twin | | | | |
| | | Skewness | 1 | 2 | 3 | Alignment Code: | 1 | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | |
| Spans Distribution | Spans Number | 27 span(s) | 1 | 2 | Span Code: | 2 | | | |
| Girder Type: | Arch or Rigid Frame | Single or Gerber Girder | 1 | 2 | Girder Code: | 2 | | | |
| | | Bearing Type: | 1 | 2 | 3 | Bearing Code: | 1 | | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | Normal | M-M | | | | | | |
| | | 1 | 2 | 3 | 4 | Seat Code: | 1 | | |
| (3) SUBSTRUCTURE: | | | | | | | | | |
| Max. Height of Abutment/Pier | Foundation Type | 5.00m | 1 | 2 | Height Code: | 2 | | | |
| | | less than 5m | 2 | 3 | Foundation Code: | 2 | | | |
| Material of Abutment | Ground Classification | Except Pile Bent | 1 | 2 | Abutment Code: | 2 | | | |
| | | Brick or plane | 1 | 2 | 3 | Ground Code: | 2 | | |
| Sensibility to Liquefaction | None | Probably | 1 | 2 | Liquefaction Code: | 1 | | | |
| | | Yes | 3 | 4 | | | | | |
| (4) SEISMICAL INFORMATION: | | | | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | 4 | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | Condition Code: | 2 | | | | |
| | Good | Fair | Not good | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/14

| | |
|---|---|
| (1) GENERAL: | |
| Bridge Name: | Ryskulov Ave. - Flyover on Suyumbal Ave. |
| Location: | 43.29406944 N 76.947575 E |
| Year Built: | 1973 |
| Seismically Retrofitted or Rehabilitated: | Yes No |
| Latest previous inspection by: Ministry of Transport and Communication, KAZDORANI, O.J.S. B-38 Date: May, 2002 | |
| Road Type: | Number of Lanes: 6 lanes City Street (single lane) 2m to 6m City Avenue (2 or 4 lanes) 7m to 15m Major Motorways (>4 lanes) >16m Road Code: 3 |
| Traffic Volume: (pcu/day) | ADT: _____ veh/day Low Traffic <5,000 Medium Traffic 5,000 to 12,000 Heavy Traffic >12,000 Traffic Code: 3 |
| Bridge Type: | 1 2 3 4 River Bridge Road Flyover Viaduct or Interchange Railroad Bridge or Flyover on Railroad Bridge Code: 3 |
| Total Bridge's Length: | Length: 420.00 m Short <20m Middle 21m to 75m Long >76m Length Code: 3 |
| Bridge Width: | Width: 29.50 m <10m 10m to 15m >16m or twin Width Code: 3 |
| Bridge Alignment: | Skewness: 1 2 3 Straight Skewed Curved Alignment Code: 1 |

| | |
|-------------------------------|---|
| (2) SUPERSTRUCTURE: | |
| Spans Distribution | Spans Number: Multiple single span >2 Span Code: 2 |
| Girder Type: | 1 2 3 Arch or Rigid Frame Continuous Single or Gerber Girder Girder Code: 2 |
| Bearing Type: | 1 2 3 Falling Prevention Device Normal M-M Bearing Code: 1 |
| Minimum Width of Bridge Seat: | 1 2 3 4 Wide (AS>=1) Narrow (AS<1) Gerber Bearing (D<=1) Seat Code: 1 |

| | |
|------------------------------|--|
| (3) SUBSTRUCTURE: | |
| Max. Height of Abutment/Pier | 1 2 3 8.00 m less than 5m 5 to 10m more than 10m Height Code: 2 |
| Foundation Type | 1 2 Except Pile Bent Pile Bent Foundation Code: 2 |
| Material of Abutment | 1 2 Brick or plane other Abutment Code: 2 |
| Ground Classification | 1 2 3 4 Rock Medium Stiff Soft very Soft Ground Code: 2 |
| Sensibility to Liquefaction | 1 2 3 None Probably Yes Liquefaction Code: 1 |

| | |
|-----------------------------------|--|
| (4) SEISMICAL INFORMATION: | |
| Seismic Intensity | 1 2 3 4 5 5.00 5.50 6.00 6.50 7.00 Seismic Code: 4 |

| | |
|------------------------------------|--|
| (5) CONDITION OF STRUCTURE: | |
| Condition of structure | 1 2 3 Good Fair Not good Condition Code: 2 |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/14

| | |
|--|---|
| (1) GENERAL: | |
| Bridge Name: | Ryskulov Avenue - Volochaevskaya Street |
| Location: | 43.29311944 N 76.9733167 E |
| Year Built: | |
| Seismically Retrofitted or Rehabilitated: | Yes No |
| Latest previous inspection by: _____ Date: _____ | |
| Road Type: | Number of Lanes: 6 lanes City Street (single lane) 2m to 6m City Avenue (2 or 4 lanes) 7m to 15m Major Motorways (>4 lanes) >16m Road Code: 3 |
| Traffic Volume: (pcu/day) | ADT: _____ veh/day Low Traffic <5,000 Medium Traffic 5,000 to 12,000 Heavy Traffic >12,000 Traffic Code: 3 |
| Bridge Type: | 1 2 3 4 River Bridge Road Flyover Viaduct or Interchange Railroad Bridge or Flyover on Railroad Bridge Code: 3 |
| Total Bridge's Length: | Length: 90.00 m Short <20m Middle 21m to 75m Long >76m Length Code: 3 |
| Bridge Width: | Width: 29.50 m <10m 10m to 15m >16m or twin Width Code: 3 |
| Bridge Alignment: | Skewness: 1 2 3 Straight Skewed Curved Alignment Code: 1 |

| | |
|-------------------------------|---|
| (2) SUPERSTRUCTURE: | |
| Spans Distribution | Spans Number: Multiple single span >2 Span Code: 2 |
| Girder Type: | 1 2 3 Arch or Rigid Frame Continuous Single or Gerber Girder Girder Code: 2 |
| Bearing Type: | 1 2 3 Falling Prevention Device Normal M-M Bearing Code: 1 |
| Minimum Width of Bridge Seat: | 1 2 3 4 Wide (AS>=1) Narrow (AS<1) Gerber Bearing (D<=1) Seat Code: 1 |

| | |
|------------------------------|--|
| (3) SUBSTRUCTURE: | |
| Max. Height of Abutment/Pier | 1 2 3 5.50 m less than 5m 5 to 10m more than 10m Height Code: 2 |
| Foundation Type | 1 2 Except Pile Bent Pile Bent Foundation Code: 2 |
| Material of Abutment | 1 2 Brick or plane other Abutment Code: 2 |
| Ground Classification | 1 2 3 4 Rock Medium Stiff Soft very Soft Ground Code: 2 |
| Sensibility to Liquefaction | 1 2 3 None Probably Yes Liquefaction Code: 1 |

| | |
|-----------------------------------|--|
| (4) SEISMICAL INFORMATION: | |
| Seismic Intensity | 1 2 3 4 5 5.00 5.50 6.00 6.50 7.00 Seismic Code: 4 |

| | |
|------------------------------------|--|
| (5) CONDITION OF STRUCTURE: | |
| Condition of structure | 1 2 3 Good Fair Not good Condition Code: 2 |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/13

| | | | | | | | | | |
|---|--|------------------------------------|--------------------------------------|--|-----------------|-------------------|---|--|--|
| (1) GENERAL: | | | | | | | | | |
| Bridge Name: | Rayymbek Ave. - Bolshaya Almainka River | | | | Name Code: | RAL-1 | | | |
| Location: | 43.256625 N 76.8648806 E | | | | | | | | |
| Year Built: | 1960 | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | | | | No | Description/Date: | | | |
| Latest previous inspection by: | Ministry of Transport and Communication "KAZDORNIJ" OJCS | | | | A-8 | | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 2 | | | |
| | 4 lanes | City Street (single lane) 2m to 6m | City Avenue (2 or 4 lanes) 7m to 15m | Major Motorways (>4 lanes) >16m | | | | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: | 3 | | | |
| | veh/day | Low Traffic <5,000 | Medium Traffic 5,000 to 12,000 | Heavy Traffic >12,000 | | | | | |
| Bridge Type: | 1 | 2 | 3 | 4 | Bridge Code: | 1 | | | |
| | River Bridge | Road Flyover | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad | | | | | |
| Total Bridge's Length: | Length | 1 | 2 | 3 | Length Code: | 2 | | | |
| | 39.53 m | Short <20m | Middle 21m to 25m | Long >26m | | | | | |
| Bridge Width: | Width | 1 | 2 | 3 | Width Code: | 3 | | | |
| | 2x14.5 | <10m | 10m to 15m | >16m or twin | | | | | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 1 | | | |
| | | Straight | Skewed | Curved | | | | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | Span Code: | | 2 | | | |
| | Multiple | single span | >2 | | | | | | |
| Girder Type: | 1 | 2 | 3 | Girder Code: | 3 | | | | |
| | Arch or Rigid Frame | Continuous | Single or Girder Girder | | | | | | |
| Bearing Type: | 1 | 2 | 3 | Bearing Code: | 2 | | | | |
| | Falling Prevention Device | Normal | M-M | | | | | | |
| Minimum Width of Bridge Seat: | 1 | 2 | 3 | 4 | Seat Code: | 2 | | | |
| | Wide (AS>=1) | Narrow (AS<1) | Gerber Bearing (D<=1) | | | | | | |
| (3) SUBSTRUCTURE: | | | | | | | | | |
| Max. Height of Abutment/Pier | 1 | 2 | 3 | Height Code: | 1 | | | | |
| | 2.00 m | less than 5m | 5 to 10m | more than 10m | | | | | |
| Foundation Type | 1 | 2 | Foundation Code: | | 1 | | | | |
| | Except Pile Bent | Pile Bent | | | | | | | |
| Material of Abutment | 1 | 2 | Abutment Code: | | 2 | | | | |
| | Brick or plane | other | | | | | | | |
| Ground Classification | 1 | 2 | 3 | 4 | Ground Code: | 2 | | | |
| | Rock | Medium Stiff | Soft | very Soft | | | | | |
| Sensibility to Liquefaction | 1 | 2 | 3 | Liquefaction Code: | 1 | | | | |
| | None | Probably | Yes | | | | | | |
| (4) SEISMICAL INFORMATION: | | | | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | 3 | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | Condition Code: | | 3 | | | |
| | Good | Fair | Not good | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/13

| | | | | | | | | | |
|---|--|------------------------------------|--------------------------------------|--|-----------------|-------------------|---|--|--|
| (1) GENERAL: | | | | | | | | | |
| Bridge Name: | Rayymbek Ave. - Bokaikhanov I/C | | | | Name Code: | RAL-2a | | | |
| Location: | 43.26669444 N 76.9124083 E | | | | | | | | |
| Year Built: | 1982 | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | | | | No | Description/Date: | | | |
| Latest previous inspection by: | Ministry of Transport and Communication "KAZDORNIJ" OJCS | | | | B-37 | | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 3 | | | |
| | 8 lanes | City Street (single lane) 2m to 6m | City Avenue (2 or 4 lanes) 7m to 15m | Major Motorways (>4 lanes) >16m | | | | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: | 3 | | | |
| | veh/day | Low Traffic <5,000 | Medium Traffic 5,000 to 12,000 | Heavy Traffic >12,000 | | | | | |
| Bridge Type: | 1 | 2 | 3 | 4 | Bridge Code: | 2 | | | |
| | River Bridge | Road Flyover | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad | | | | | |
| Total Bridge's Length: | Length | 1 | 2 | 3 | Length Code: | 2 | | | |
| | 21.00 m | Short <20m | Middle 21m to 25m | Long >26m | | | | | |
| Bridge Width: | Width | 1 | 2 | 3 | Width Code: | 3 | | | |
| | 37.50 m | <10m | 10m to 15m | >16m or twin | | | | | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 2 | | | |
| | 20 degrees | Straight | Skewed | Curved | | | | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | Span Code: | | 1 | | | |
| | 1 span(s) | single span | >2 | | | | | | |
| Girder Type: | 1 | 2 | 3 | Girder Code: | 1 | | | | |
| | Arch or Rigid Frame | Continuous | Single or Girder Girder | | | | | | |
| Bearing Type: | 1 | 2 | 3 | Bearing Code: | 3 | | | | |
| | Falling Prevention Device | Normal | M-M | | | | | | |
| Minimum Width of Bridge Seat: | 1 | 2 | 3 | 4 | Seat Code: | 1 | | | |
| | Wide (AS>=1) | Narrow (AS<1) | Gerber Bearing (D<=1) | | | | | | |
| (3) SUBSTRUCTURE: | | | | | | | | | |
| Max. Height of Abutment/Pier | 1 | 2 | 3 | Height Code: | 2 | | | | |
| | 5.00 m | less than 5m | 5 to 10m | more than 10m | | | | | |
| Foundation Type | 1 | 2 | Foundation Code: | | 2 | | | | |
| | Except Pile Bent | Pile Bent | | | | | | | |
| Material of Abutment | 1 | 2 | Abutment Code: | | 2 | | | | |
| | Brick or plane | other | | | | | | | |
| Ground Classification | 1 | 2 | 3 | 4 | Ground Code: | 2 | | | |
| | Rock | Medium Stiff | Soft | very Soft | | | | | |
| Sensibility to Liquefaction | 1 | 2 | 3 | Liquefaction Code: | 1 | | | | |
| | None | Probably | Yes | | | | | | |
| (4) SEISMICAL INFORMATION: | | | | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | 4 | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | Condition Code: | | 3 | | | |
| | Good | Fair | Not good | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/13

| | | | | | | |
|---|--|----------------------------|-------------------|----------------------------------|--------------------------|---------------|
| (1) GENERAL: | | Inspection Date: 2007/10/1 | | | | |
| Bridge Name: | Rayimbek Ave. - Esental River | Name Code: | RAI2b | | | |
| Location: | 43.26637222 N 76.9114472 E | | | | | |
| Year Built: | 1975 | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | No | Description/Date: | | | |
| Latest previous inspection by: | Ministry of Transport and Communication, KAZDORANI, O.J.S. | B-26 | Date: May, 2002 | | | |
| Road Type: | Number of Lanes: 8 lanes | 1 | 2 | 3 | Road Code: | 3 |
| | City Street (single lane) 2m to 6m | 2 | 3 | Major Motorways (>4 lanes) > 16m | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: | 3 |
| | Low Traffic <5,000 | 1 | 2 | 3 | Heavy Traffic >12,000 | |
| Bridge Type: | River Bridge | 2 | 3 | 4 | Bridge Code: | 1 |
| | Road Flyover | 1 | 2 | 3 | Viaduct or Interchange | |
| Total Bridge's Length: | Length | 1 | 2 | 3 | Length Code: | 2 |
| | 35.00m | 1 | 2 | 3 | Long > 76m | |
| Bridge Width: | Width | 1 | 2 | 3 | Width Code: | 3 |
| | 37.50m | 1 | 2 | 3 | 10m to 15m > 16m or twin | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 2 |
| | 20 degrees | 1 | 2 | 3 | Straight | Curved |
| (2) SUPERSTRUCTURE: | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | | Span Code: | 1 |
| | 1 span(s) | 1 | 2 | | >2 | |
| Girder Type: | Arch or Rigid Frame | 2 | 3 | | Girder Code: | 3 |
| | Continuous | 1 | 2 | 3 | Single or Gerber Girder | |
| Bearing Type: | Falling Prevention Device | 1 | 2 | 3 | Bearing Code: | 2 |
| | Normal | 1 | 2 | 3 | M-M | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | 2 | 3 | 4 | Seat Code: | 1 |
| | Narrow (AS<1) | 1 | 2 | 3 | Gerber Bearing (D<=1) | |
| (3) SUBSTRUCTURE: | | | | | | |
| Max. Height of Abutment/Pier | Max. Height | 1 | 2 | 3 | Height Code: | 1 |
| | 2.36m | 1 | 2 | 3 | less than 5m | more than 10m |
| Foundation Type | Foundation Type | 1 | 2 | | Foundation Code: | 1 |
| | Except Pile Bent | 1 | 2 | | Pile Bent | |
| Material of Abutment | Material of Abutment | 1 | 2 | | Abutment Code: | 2 |
| | Brick or plane | 1 | 2 | | other | |
| Ground Classification | Ground Classification | 1 | 2 | 3 | Ground Code: | 2 |
| | Rock | 1 | 2 | 3 | Soft | very Soft |
| Sensibility to Liquefaction | Sensibility to Liquefaction | 1 | 2 | 3 | Liquefaction Code: | 1 |
| | None | 1 | 2 | 3 | Probably | Yes |
| (4) SEISMICAL INFORMATION: | | | | | | |
| Seismic Intensity | Seismic Intensity | 1 | 2 | 3 | 4 | 5 |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | 7.00 |
| (5) CONDITION OF STRUCTURE: | | | | | | |
| Condition of structure | Condition of structure | 1 | 2 | 3 | Condition Code: | 2 |
| | Good | 1 | 2 | 3 | Fair | Not good |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/10/1

| | | | | | | |
|---|--|----------------------------|-------------------|------|--------------------------------------|--|
| (1) GENERAL: | | Inspection Date: 2007/10/1 | | | | |
| Bridge Name: | Rayimbek Ave. - Railway crossing before Bokekhanov St. | Name Code: | RAI2c | | | |
| Location: | 43.26558611 N 76.908125 E | | | | | |
| Year Built: | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | No | Description/Date: | | | |
| Latest previous inspection by: | | | | | | |
| Road Type: | Number of Lanes: 8 lanes | 1 | 2 | 3 | Road Code: | 3 |
| | City Street (single lane) 2m to 6m | 1 | 2 | 3 | City Avenue (2 or 4 lanes) 7m to 15m | Major Motorways (>4 lanes) > 16m |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: | 3 |
| | Low Traffic <5,000 | 1 | 2 | 3 | Medium Traffic 5,000 to 12,000 | Heavy Traffic >12,000 |
| Bridge Type: | River Bridge | 2 | 3 | 4 | Bridge Code: | 4 |
| | Road Flyover | 1 | 2 | 3 | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad |
| Total Bridge's Length: | Length | 1 | 2 | 3 | Length Code: | 2 |
| | 55.00m | 1 | 2 | 3 | Short <20m | Middle 21m to 75m |
| Bridge Width: | Width | 1 | 2 | 3 | Width Code: | 1 |
| | 5.00m | 1 | 2 | 3 | <10m | 10m to 15m > 16m or twin |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 2 |
| | 30 degrees | 1 | 2 | 3 | Straight | Skewed |
| (2) SUPERSTRUCTURE: | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | | Span Code: | 2 |
| | 4 span(s) | 1 | 2 | | single span | >2 |
| Girder Type: | Arch or Rigid Frame | 2 | 3 | | Girder Code: | 2 |
| | Continuous | 1 | 2 | 3 | Single or Gerber Girder | |
| Bearing Type: | Falling Prevention Device | 1 | 2 | 3 | Bearing Code: | 2 |
| | Normal | 1 | 2 | 3 | M-M | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | 2 | 3 | 4 | Seat Code: | 1 |
| | Narrow (AS<1) | 1 | 2 | 3 | Gerber Bearing (D<=1) | |
| (3) SUBSTRUCTURE: | | | | | | |
| Max. Height of Abutment/Pier | Max. Height | 1 | 2 | 3 | Height Code: | 2 |
| | 7.00m | 1 | 2 | 3 | less than 5m | more than 10m |
| Foundation Type | Foundation Type | 1 | 2 | | Foundation Code: | 1 |
| | Except Pile Bent | 1 | 2 | | Pile Bent | |
| Material of Abutment | Material of Abutment | 1 | 2 | | Abutment Code: | 2 |
| | Brick or plane | 1 | 2 | | other | |
| Ground Classification | Ground Classification | 1 | 2 | 3 | Ground Code: | 2 |
| | Rock | 1 | 2 | 3 | Soft | very Soft |
| Sensibility to Liquefaction | Sensibility to Liquefaction | 1 | 2 | 3 | Liquefaction Code: | 1 |
| | None | 1 | 2 | 3 | Probably | Yes |
| (4) SEISMICAL INFORMATION: | | | | | | |
| Seismic Intensity | Seismic Intensity | 1 | 2 | 3 | 4 | 5 |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | 7.00 |
| (5) CONDITION OF STRUCTURE: | | | | | | |
| Condition of structure | Condition of structure | 1 | 2 | 3 | Condition Code: | 3 |
| | Good | 1 | 2 | 3 | Fair | Not good |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/13

| | | | | | | | |
|------------------------------------|----------------------------|---|----------|------------------|---|-----------------------|---|
| (1) GENERAL: | | Burundaiskaya - Severnoe Interchange | | Name Code: ZHA-1 | | | |
| Bridge Name: | 43.35338889 N 76.9381583 E | | | | Location: | | |
| Year Built: | 1964 | | | | Seismically Retrofitted or Rehabilitated: | | |
| Latest previous inspection by: | | Ministry of Transport and Communication, KAZDORANI, OJCS. | | Date: Oct. 2001 | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 3 | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: | 3 | |
| | veh/day | Low Traffic <5,000 | | | | Heavy Traffic >12,000 | |
| Bridge Type: | River Bridge | 1 | 2 | 3 | 4 | Bridge Code: | 2 |
| Total Bridge's Length: | Length | 1 | 2 | 3 | Length Code: | 3 | |
| | Width | 1 | 2 | 3 | Width Code: | 2 | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 1 | |
| (2) SUPERSTRUCTURE: | | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | 3 | Span Code: | 2 | |
| Girder Type: | Arch or Rigid Frame | 1 | 2 | 3 | Girder Code: | 1 | |
| | Falling Prevention Device | 1 | 2 | 3 | Bearing Code: | 2 | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | 1 | 2 | 3 | 4 | Seat Code: | 1 |
| (3) SUBSTRUCTURE: | | | | | | | |
| Max. Height of Abutment/Pier | Max. Height | 1 | 2 | 3 | Height Code: | 2 | |
| | Foundation Type | 1 | 2 | 3 | Foundation Code: | 2 | |
| Material of Abutment | Brick or plane | 1 | 2 | 3 | Abutment Code: | 2 | |
| | Rock | 1 | 2 | 3 | Ground Code: | 2 | |
| Sensibility to Liquefaction | None | 1 | 2 | 3 | Liquefaction Code: | 1 | |
| (4) SEISMICAL INFORMATION: | | | | | | | |
| Seismic Intensity | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | Seismic Code: | 4 |
| | | | | | | Seismic Code: | 4 |
| (5) CONDITION OF STRUCTURE: | | | | | | | |
| Condition of structure | 1 | 2 | 3 | 3 | Condition Code: | 3 | |
| | Good | Fair | Not good | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/14

| | | | | | | | |
|------------------------------------|----------------------------|---|----------|------------------|---|-----------------------|---|
| (1) GENERAL: | | Burundaiskaya - Severnoe Interchange | | Name Code: ZHA-1 | | | |
| Bridge Name: | 43.35338889 N 76.9381583 E | | | | Location: | | |
| Year Built: | 1964 | | | | Seismically Retrofitted or Rehabilitated: | | |
| Latest previous inspection by: | | Ministry of Transport and Communication, KAZDORANI, OJCS. | | Date: Oct. 2001 | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 3 | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: | 3 | |
| | veh/day | Low Traffic <5,000 | | | | Heavy Traffic >12,000 | |
| Bridge Type: | River Bridge | 1 | 2 | 3 | 4 | Bridge Code: | 3 |
| Total Bridge's Length: | Length | 1 | 2 | 3 | Length Code: | 3 | |
| | Width | 1 | 2 | 3 | Width Code: | 3 | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 2 | |
| (2) SUPERSTRUCTURE: | | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | 3 | Span Code: | 2 | |
| Girder Type: | Arch or Rigid Frame | 1 | 2 | 3 | Girder Code: | 3 | |
| | Falling Prevention Device | 1 | 2 | 3 | Bearing Code: | 3 | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | 1 | 2 | 3 | 4 | Seat Code: | 2 |
| (3) SUBSTRUCTURE: | | | | | | | |
| Max. Height of Abutment/Pier | Max. Height | 1 | 2 | 3 | Height Code: | 2 | |
| | Foundation Type | 1 | 2 | 3 | Foundation Code: | 1 | |
| Material of Abutment | Brick or plane | 1 | 2 | 3 | Abutment Code: | 2 | |
| | Rock | 1 | 2 | 3 | Ground Code: | 2 | |
| Sensibility to Liquefaction | None | 1 | 2 | 3 | Liquefaction Code: | 1 | |
| (4) SEISMICAL INFORMATION: | | | | | | | |
| Seismic Intensity | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | Seismic Code: | 4 |
| | | | | | | Seismic Code: | 4 |
| (5) CONDITION OF STRUCTURE: | | | | | | | |
| Condition of structure | 1 | 2 | 3 | 3 | Condition Code: | 3 | |
| | Good | Fair | Not good | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/14

| | | | | | | | | | |
|---|---|--------------------------------|-------------------------|--|----------------------------|-------------------|-----------------|--|--|
| (1) GENERAL: | | | | | | | | | |
| Bridge Name: | Burdudalskaya Flyover on the national Railway | | | | Name Code: | ZHA-2 | | | |
| Location: | 43.34619722 N 76.9330083 E | | | | | | | | |
| Year Built: | 1970 | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | | | | No | Description/Date: | | | |
| Latest previous Inspection by: | Ministry of Transport and Communication "KAZDORNI" OJCS | | | | B-48 | | Date: May, 2002 | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 3 | | | |
| | City Street (single lane) | 2m to 6m | 7m to 15m | > 16m | Major Motorways (>4 lanes) | | | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: | 3 | | | |
| | Low Traffic <5,000 | Medium Traffic 5,000 to 12,000 | | Heavy Traffic >12,000 | | | | | |
| Bridge Type: | 1 | 2 | 3 | 4 | Bridge Code: | 4 | | | |
| | River Bridge | Road Flyover | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad | | | | | |
| Total Bridge's Length: | Length | 1 | 2 | 3 | Length Code: | 3 | | | |
| | Short <20m | Middle 21m to 25m | Long > 26m | | | | | | |
| Bridge Width: | Width | 1 | 2 | 3 | Width Code: | 3 | | | |
| | 29.50m | <10m | 10m to 15m | >16m or twin | | | | | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 3 | | | |
| | Straight | Skewed | Curved | | | | | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | 3 | Span Code: | 2 | | | |
| | multiple | single span | >2 | | | | | | |
| Girder Type: | 1 | 2 | 3 | Girder Code: | 1 | | | | |
| | Arch or Rigid Frame | Continuous | Single or Girder Girder | | | | | | |
| Bearing Type: | 1 | 2 | 3 | Bearing Code: | 1 | | | | |
| | Falling Prevention Device | Normal | M-M | | | | | | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | 2 | 3 | 4 | Seat Code: | 2 | | | |
| | Narrow (AS<1) | Girder Bearing (D<=1) | Girder Bearing (D>=1) | | | | | | |
| (3) SUBSTRUCTURE: | | | | | | | | | |
| Max. Height of Abutment/Pier | 1 | 2 | 3 | Height Code: | 2 | | | | |
| | 6.80m | less than 5m | 5 to 10m | more than 10m | | | | | |
| Foundation Type | 1 | 2 | 3 | Foundation Code: | 2 | | | | |
| | Except Pile Bent | Pile Bent | | | | | | | |
| Material of Abutment | 1 | 2 | 3 | Abutment Code: | 2 | | | | |
| | Brick or plane | other | | | | | | | |
| Ground Classification | 1 | 2 | 3 | 4 | Ground Code: | 2 | | | |
| | Rock | Medium Stiff | Soft | very Soft | | | | | |
| Sensibility to Liquefaction | 1 | 2 | 3 | Liquefaction Code: | 1 | | | | |
| | None | Probably | Yes | | | | | | |
| (4) SEISMICAL INFORMATION: | | | | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | 4 | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | Condition Code: | 3 | | | | |
| | Good | Fair | Not good | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/14

| | | | | | | | | | |
|---|---|--------------------------------|-------------------------|--|----------------------------|-------------------|-----------------|--|--|
| (1) GENERAL: | | | | | | | | | |
| Bridge Name: | Zhansugijov Ilya Ave. - Kunaev Big Almaty Canal | | | | Name Code: | ZHA-3 | | | |
| Location: | 43.29516944 N 76.93355 E | | | | | | | | |
| Year Built: | 1985 | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | | | | No | Description/Date: | | | |
| Latest previous Inspection by: | Ministry of Transport and Communication "KAZDORNI" OJCS | | | | B-35 | | Date: May, 2002 | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 3 | | | |
| | City Street (single lane) | 2m to 6m | 7m to 15m | > 16m | Major Motorways (>4 lanes) | | | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: | 3 | | | |
| | Low Traffic <5,000 | Medium Traffic 5,000 to 12,000 | | Heavy Traffic >12,000 | | | | | |
| Bridge Type: | 1 | 2 | 3 | 4 | Bridge Code: | 1 | | | |
| | River Bridge | Road Flyover | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad | | | | | |
| Total Bridge's Length: | Length | 1 | 2 | 3 | Length Code: | 2 | | | |
| | Short <20m | Middle 21m to 25m | Long > 26m | | | | | | |
| Bridge Width: | Width | 1 | 2 | 3 | Width Code: | 3 | | | |
| | 21.50m | <10m | 10m to 15m | >16m or twin | | | | | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 3 | | | |
| | 30 degrees | Straight | Skewed | Curved | | | | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | 3 | Span Code: | 1 | | | |
| | 1 span(s) | single span | >2 | | | | | | |
| Girder Type: | 1 | 2 | 3 | Girder Code: | 1 | | | | |
| | Arch or Rigid Frame | Continuous | Single or Girder Girder | | | | | | |
| Bearing Type: | 1 | 2 | 3 | Bearing Code: | 2 | | | | |
| | Falling Prevention Device | Normal | M-M | | | | | | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | 2 | 3 | 4 | Seat Code: | 1 | | | |
| | Narrow (AS<1) | Girder Bearing (D<=1) | Girder Bearing (D>=1) | | | | | | |
| (3) SUBSTRUCTURE: | | | | | | | | | |
| Max. Height of Abutment/Pier | 1 | 2 | 3 | Height Code: | 1 | | | | |
| | 4.00m | less than 5m | 5 to 10m | more than 10m | | | | | |
| Foundation Type | 1 | 2 | 3 | Foundation Code: | 2 | | | | |
| | Except Pile Bent | Pile Bent | | | | | | | |
| Material of Abutment | 1 | 2 | 3 | Abutment Code: | 2 | | | | |
| | Brick or plane | other | | | | | | | |
| Ground Classification | 1 | 2 | 3 | 4 | Ground Code: | 2 | | | |
| | Rock | Medium Stiff | Soft | very Soft | | | | | |
| Sensibility to Liquefaction | 1 | 2 | 3 | Liquefaction Code: | 1 | | | | |
| | None | Probably | Yes | | | | | | |
| (4) SEISMICAL INFORMATION: | | | | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | 4 | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | Condition Code: | 2 | | | | |
| | Good | Fair | Not good | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/10/1

| | | | | | |
|---|--|---|--|-------------------------|--|
| (1) GENERAL: | | Severnok Kollso Ave. - Esentai River | | Name Code: <u>SEV-0</u> | |
| Bridge Name: | | 43.35149167 N 76.9275194 E | | Location: | |
| Year Built: | | 1961 | | Date: May, 2002 | |
| Seismically Retrofitted or Rehabilitated: | | Yes | | Description/Date: | |
| Latest previous Inspection by: | | Ministry of Transport and Communication "KAZDORUM" OJSC | | B-46 | |
| Road Type: | | Number of Lanes: 6 Lanes | | Road Code: 3 | |
| Traffic Volume: (pcu/day) | | ADT: _____ veh/day | | Traffic Code: 3 | |
| Bridge Type: | | River Bridge | | Bridge Code: 1 | |
| Total Bridge's Length: | | 34.00 m | | Length Code: 2 | |
| Bridge Width: | | 25.00 m | | Width Code: 3 | |
| Bridge Alignment: | | Straight | | Alignment Code: 1 | |
| (2) SUPERSTRUCTURE: | | Spans Distribution | | Span Code: 2 | |
| Girder Type: | | Arch or Rigid Frame | | Girder Code: 3 | |
| Bearing Type: | | Falling Prevention Device | | Bearing Code: 2 | |
| Minimum Width of Bridge Seat: | | Wide (AS>=1) | | Seat Code: 2 | |
| (3) SUBSTRUCTURE: | | Max. Height of Abutment/Pier | | Height Code: 1 | |
| Foundation Type: | | Except Pile Bent | | Foundation Code: 2 | |
| Material of Abutment: | | Brick or plane | | Abutment Code: 2 | |
| Ground Classification: | | Rock | | Ground Code: 2 | |
| Sensibility to Liquefaction: | | None | | Liquefaction Code: 1 | |
| (4) SEISMICAL INFORMATION: | | Seismic Intensity | | Seismic Code: 4 | |
| Condition of structure: | | Good | | Condition Code: 3 | |
| (5) CONDITION OF STRUCTURE: | | Seismic Intensity | | Seismic Code: 4 | |
| Condition of structure: | | Good | | Condition Code: 3 | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/14

| | | | | | |
|---|--|---|--|-------------------------|--|
| (1) GENERAL: | | Severnok Kollso Ave. - Railroad at Zhetysay & Turksib Districts | | Name Code: <u>SEV-1</u> | |
| Bridge Name: | | 43.34778333 N 76.92045 E | | Location: | |
| Year Built: | | 1961 | | Date: May, 2002 | |
| Seismically Retrofitted or Rehabilitated: | | Yes | | Description/Date: | |
| Latest previous Inspection by: | | Ministry of Transport and Communication "KAZDORUM" OJSC | | B-45 | |
| Road Type: | | Number of Lanes: 6 Lanes | | Road Code: 3 | |
| Traffic Volume: (pcu/day) | | ADT: _____ veh/day | | Traffic Code: 3 | |
| Bridge Type: | | River Bridge | | Bridge Code: 2 | |
| Total Bridge's Length: | | 85.00 m | | Length Code: 3 | |
| Bridge Width: | | 15.00 m | | Width Code: 2 | |
| Bridge Alignment: | | Straight | | Alignment Code: 1 | |
| (2) SUPERSTRUCTURE: | | Spans Distribution | | Span Code: 2 | |
| Girder Type: | | Arch or Rigid Frame | | Girder Code: 3 | |
| Bearing Type: | | Falling Prevention Device | | Bearing Code: 3 | |
| Minimum Width of Bridge Seat: | | Wide (AS>=1) | | Seat Code: 2 | |
| (3) SUBSTRUCTURE: | | Max. Height of Abutment/Pier | | Height Code: 2 | |
| Foundation Type: | | Except Pile Bent | | Foundation Code: 1 | |
| Material of Abutment: | | Brick or plane | | Abutment Code: 2 | |
| Ground Classification: | | Rock | | Ground Code: 2 | |
| Sensibility to Liquefaction: | | None | | Liquefaction Code: 1 | |
| (4) SEISMICAL INFORMATION: | | Seismic Intensity | | Seismic Code: 3 | |
| Condition of structure: | | Good | | Condition Code: 3 | |
| (5) CONDITION OF STRUCTURE: | | Seismic Intensity | | Seismic Code: 3 | |
| Condition of structure: | | Good | | Condition Code: 3 | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/14

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|---|--|--|--|-------------------------|--|
| (1) GENERAL: | | Severnovo Kolliso Ave. - Kunaev Big Almaty Canal | | Name Code: <u>SEV-2</u> | |
| Bridge Name: | | 43.302025 N 76.8950889 E | | Location: | |
| Year Built: | | 1984 | | Date: May, 2002 | |
| Seismically Retrofitted or Rehabilitated: | | Yes <u>No</u> | | Description/Date: | |
| Latest previous Inspection by: | | Ministry of Transport and Communication "KAZDORNIJ" OJCS | | B-44 | |
| Road Type: | | Number of Lanes: 6 lanes | | Road Code: 3 | |
| Traffic Volume: (pcu/day) | | ADT: _____ veh/day | | Traffic Code: 3 | |
| Bridge Type: | | River Bridge | | Bridge Code: 1 | |
| Total Bridge's Length: | | 20.00 m | | Length Code: 3 | |
| Bridge Width: | | 28.00 m | | Width Code: 3 | |
| Bridge Alignment: | | Straight | | Alignment Code: 1 | |
| (2) SUPERSTRUCTURE: | | | | | |
| Spans Distribution | | Spans Number: 1 span(s) | | Span Code: 1 | |
| Girder Type: | | Arch or Rigid Frame | | Girder Code: 3 | |
| Bearing Type: | | Falling Prevention Device: Normal | | Bearing Code: 2 | |
| Minimum Width of Bridge Seat: | | Wide (AS>=1) | | Seat Code: 2 | |
| (3) SUBSTRUCTURE: | | | | | |
| Max. Height of Abutment/Pier | | 2.90 m | | Height Code: 1 | |
| Foundation Type | | Except Pile Bent | | Foundation Code: 1 | |
| Material of Abutment | | Brick or plane | | Abutment Code: 2 | |
| Ground Classification | | Rock | | Ground Code: 2 | |
| Sensibility to Liquefaction | | None | | Liquefaction Code: 1 | |
| (4) SEISMICAL INFORMATION: | | | | | |
| Seismic Intensity | | 5.00 | | Seismic Code: 4 | |
| Condition of structure | | Good | | Condition Code: 3 | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/10/1

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|---|--|--|--|-------------------------|--|
| (1) GENERAL: | | Seitullin Avenue - Kunaev Big Almaty Canal | | Name Code: <u>SEL-1</u> | |
| Bridge Name: | | 43.29508056 N 76.9399722 E | | Location: | |
| Year Built: | | 1983 | | Date: May, 2002 | |
| Seismically Retrofitted or Rehabilitated: | | Yes <u>No</u> | | Description/Date: | |
| Latest previous Inspection by: | | Ministry of Transport and Communication "KAZDORNIJ" OJCS | | B-33 | |
| Road Type: | | Number of Lanes: 4 lanes | | Road Code: 3 | |
| Traffic Volume: (pcu/day) | | ADT: _____ veh/day | | Traffic Code: 3 | |
| Bridge Type: | | River Bridge | | Bridge Code: 1 | |
| Total Bridge's Length: | | 26.00 m | | Length Code: 2 | |
| Bridge Width: | | 20.00 m | | Width Code: 3 | |
| Bridge Alignment: | | Straight | | Alignment Code: 1 | |
| (2) SUPERSTRUCTURE: | | | | | |
| Spans Distribution | | Spans Number: 1 span(s) | | Span Code: 1 | |
| Girder Type: | | Arch or Rigid Frame | | Girder Code: 1 | |
| Bearing Type: | | Falling Prevention Device: Normal | | Bearing Code: 2 | |
| Minimum Width of Bridge Seat: | | Wide (AS>=1) | | Seat Code: 1 | |
| (3) SUBSTRUCTURE: | | | | | |
| Max. Height of Abutment/Pier | | 4.50 m | | Height Code: 1 | |
| Foundation Type | | Except Pile Bent | | Foundation Code: 1 | |
| Material of Abutment | | Brick or plane | | Abutment Code: 2 | |
| Ground Classification | | Rock | | Ground Code: 2 | |
| Sensibility to Liquefaction | | None | | Liquefaction Code: 1 | |
| (4) SEISMICAL INFORMATION: | | | | | |
| Seismic Intensity | | 5.00 | | Seismic Code: 4 | |
| Condition of structure | | Good | | Condition Code: 2 | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/17

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|---|---|------------------------------------|--------------------------------------|--|----------------------|-----------------|
| (1) GENERAL: | | Essential River - Al Farabi Avenue | | Name Code: <u>ESE-1</u> | | |
| Bridge Name: | 43.21995 N 76.9316889 E | | | | | |
| Location: | 1975 | | | | | |
| Year Built: | Yes | | Description/Date: | | | |
| Seismically Retrofitted or Rehabilitated: | No | | B-17 | | | |
| Latest previous Inspection by: | Ministry of Transport and Communication "KAZDORUM" OJCS | | Date: May, 2002 | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: 3 | |
| | City Street (single lane) | 2m to 6m | City Avenue (2 or 4 lanes) 7m to 15m | Major Motorways (>4 lanes) >16m | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: 3 | |
| | veh/day | <5,000 | Medium Traffic 5,000 to 12,000 | Heavy Traffic >12,000 | | |
| Bridge Type: | 1 | 2 | 3 | 4 | Bridge Code: 1 | |
| | River Bridge | Road Flyover | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad | | |
| Total Bridge's Length: | Length | 41.00m | Short <20m | Middle 21m to 25m | Long >26m | |
| Bridge Width: | Width | 20.60m | <10m | 10m to 15m | >16m or twin | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: 1 | |
| | | Straight | Skewed | Curved | | |
| (2) SUPERSTRUCTURE: | | | | | | |
| Spans Distribution | Spans Number | 3 span(s) | 1 | 2 | Span Code: 2 | |
| | single span | >2 | | | | |
| Girder Type: | Arch or Rigid Frame | Continuous | Single or Girder | Girder | Girder Code: 2 | |
| Bearing Type: | Falling Prevention Device | 1 | 2 | 3 | Bearing Code: 2 | |
| | Normal | M-M | | | | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | Narrow (AS<1) | Gerber Bearing (D<=1) | Seat Code: 1 | | |
| (3) SUBSTRUCTURE: | | | | | | |
| Max. Height of Abutment/Pier | Max. Height | 2.50m | 1 | 2 | 3 | Height Code: 1 |
| | less than 5m | 5 to 10m | more than 10m | | | |
| Foundation Type | Except Pile Bent | Pile Bent | | | Foundation Code: 1 | |
| Material of Abutment | Brick or plane | other | | | Abutment Code: 2 | |
| Ground Classification | Rock | Medium Stiff | Soft | very Soft | Ground Code: 2 | |
| Sensibility to Liquefaction | None | Probably | Yes | | Liquefaction Code: 1 | |
| (4) SEISMICAL INFORMATION: | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: 4 |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | |
| (5) CONDITION OF STRUCTURE: | | | | | | |
| Condition of structure | 1 | 2 | 3 | | Condition Code: 3 | |
| | Good | Fair | Not good | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/27

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|---|---|------------------------------------|--------------------------------------|--|----------------------|-----------------|
| (1) GENERAL: | | Essential River - Timiyazev Street | | Name Code: <u>ESE-2</u> | | |
| Bridge Name: | 43.22677222 N 76.9244167 E | | | | | |
| Location: | 1970 | | | | | |
| Year Built: | Yes | | Description/Date: | | | |
| Seismically Retrofitted or Rehabilitated: | No | | B-18 | | | |
| Latest previous Inspection by: | Ministry of Transport and Communication "KAZDORUM" OJCS | | Date: May, 2002 | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: 2 | |
| | City Street (single lane) | 2m to 6m | City Avenue (2 or 4 lanes) 7m to 15m | Major Motorways (>4 lanes) >16m | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: 2 | |
| | veh/day | <5,000 | Medium Traffic 5,000 to 12,000 | Heavy Traffic >12,000 | | |
| Bridge Type: | 1 | 2 | 3 | 4 | Bridge Code: 1 | |
| | River Bridge | Road Flyover | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad | | |
| Total Bridge's Length: | Length | 31.00m | Short <20m | Middle 21m to 25m | Long >26m | |
| Bridge Width: | Width | 22.50m | <10m | 10m to 15m | >16m or twin | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: 2 | |
| | | Straight | Skewed | Curved | | |
| (2) SUPERSTRUCTURE: | | | | | | |
| Spans Distribution | Spans Number | 1 span(s) | 1 | 2 | Span Code: 1 | |
| | single span | >2 | | | | |
| Girder Type: | Arch or Rigid Frame | Continuous | Single or Girder | Girder | Girder Code: 3 | |
| Bearing Type: | Falling Prevention Device | 1 | 2 | 3 | Bearing Code: 2 | |
| | Normal | M-M | | | | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | Narrow (AS<1) | Gerber Bearing (D<=1) | Seat Code: 1 | | |
| (3) SUBSTRUCTURE: | | | | | | |
| Max. Height of Abutment/Pier | Max. Height | 3.00m | 1 | 2 | 3 | Height Code: 1 |
| | less than 5m | 5 to 10m | more than 10m | | | |
| Foundation Type | Except Pile Bent | Pile Bent | | | Foundation Code: 1 | |
| Material of Abutment | Brick or plane | other | | | Abutment Code: 2 | |
| Ground Classification | Rock | Medium Stiff | Soft | very Soft | Ground Code: 2 | |
| Sensibility to Liquefaction | None | Probably | Yes | | Liquefaction Code: 1 | |
| (4) SEISMICAL INFORMATION: | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: 4 |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | |
| (5) CONDITION OF STRUCTURE: | | | | | | |
| Condition of structure | 1 | 2 | 3 | | Condition Code: 2 | |
| | Good | Fair | Not good | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/27

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|--|--|--|--|--|--|
| (1) GENERAL: | | Bridge Name: Esental River – Bukhar Zhyrau Boulevard | | Name Code: <u>ESE-3</u> | |
| Location: 43.23185278 N 76.9203528 E | | Year Built: 1970 | | Seismically Retrofitted or Rehabilitated: Yes No Description/Date: B-20 Date: May, 2002 | |
| Latest previous inspection by: Ministry of Transport and Communication "KAZDORUM" OJCS | | Number of Lanes: 4 Lanes | | Road Code: 2 | |
| Road Type: City Street (single lane) 2m to 6m | | City Avenue (2 or 4 lanes) 7m to 15m | | Major Motorways (>4 lanes) > 16m | |
| Traffic Volume: (pcu/day) ADT _____ veh/day | | Low Traffic <5,000 | | Medium Traffic 5,000 to 12,000 | |
| Bridge Type: River Bridge | | Road Flyover | | Viaduct or Interchange | |
| Total Bridge's Length: 28.00m | | Short <20m | | Middle 21m to 25m | |
| Bridge Width: 18.00m | | 1 <10m | | 3 >16m or twin | |
| Bridge Alignment: Skewed | | 1 Straight | | 2 Skewed | |
| (2) SUPERSTRUCTURE: | | Spans Distribution | | Span Code: 1 | |
| Girder Type: Arch or Rigid Frame | | 1 single span | | >2 | |
| Bearing Type: Falling Prevention Device | | 1 Normal | | 3 M-M | |
| Minimum Width of Bridge Seat: Wide (AS>=1) | | 2 Narrow (AS<1) | | 3 Gerber Bearing (D<=1) | |
| (3) SUBSTRUCTURE: | | Max. Height of Abutment/Pier | | Height Code: 1 | |
| Foundation Type: Except Pile Bent | | 1 less than 5m | | 2 5 to 10m | |
| Material of Abutment: Brick or plane | | 2 Pile Bent | | 3 more than 10m | |
| Ground Classification: Rock | | 1 Medium Stiff | | 2 Soft | |
| Sensibility to Liquefaction: None | | 2 Probably | | 3 Yes | |
| (4) SEISMICAL INFORMATION: | | Seismic Intensity | | Seismic Code: 4 | |
| Condition of structure: Good | | 1 Fair | | 2 Not good | |
| (5) CONDITION OF STRUCTURE: | | 1 Good | | 2 Fair | |
| Condition of structure: Good | | 1 Fair | | 2 Not good | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/27

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| (1) GENERAL: | | Bridge Name: Esental River – Satpaev Akademik Street | | Name Code: <u>ESE-4</u> | |
| Location: 43.23665556 N 76.9205639 E | | Year Built: 1970 | | Seismically Retrofitted or Rehabilitated: Yes No Description/Date: B-19 Date: May, 2002 | |
| Latest previous inspection by: Ministry of Transport and Communication "KAZDORUM" OJCS | | Number of Lanes: 4 Lanes | | Road Code: 2 | |
| Road Type: City Street (single lane) 2m to 6m | | City Avenue (2 or 4 lanes) 7m to 15m | | Major Motorways (>4 lanes) > 16m | |
| Traffic Volume: (pcu/day) ADT _____ veh/day | | Low Traffic <5,000 | | Medium Traffic 5,000 to 12,000 | |
| Bridge Type: River Bridge | | Road Flyover | | Viaduct or Interchange | |
| Total Bridge's Length: 31.00m | | Short <20m | | Middle 21m to 25m | |
| Bridge Width: 19.50m | | 1 <10m | | 3 >16m or twin | |
| Bridge Alignment: Skewed | | 1 Straight | | 2 Skewed | |
| (2) SUPERSTRUCTURE: | | Spans Distribution | | Span Code: 1 | |
| Girder Type: Arch or Rigid Frame | | 1 single span | | >2 | |
| Bearing Type: Falling Prevention Device | | 1 Normal | | 3 M-M | |
| Minimum Width of Bridge Seat: Wide (AS>=1) | | 2 Narrow (AS<1) | | 3 Gerber Bearing (D<=1) | |
| (3) SUBSTRUCTURE: | | Max. Height of Abutment/Pier | | Height Code: 1 | |
| Foundation Type: Except Pile Bent | | 1 less than 5m | | 2 5 to 10m | |
| Material of Abutment: Brick or plane | | 2 Pile Bent | | 3 more than 10m | |
| Ground Classification: Rock | | 1 Medium Stiff | | 2 Soft | |
| Sensibility to Liquefaction: None | | 2 Probably | | 3 Yes | |
| (4) SEISMICAL INFORMATION: | | Seismic Intensity | | Seismic Code: 4 | |
| Condition of structure: Good | | 1 Fair | | 2 Not good | |
| (5) CONDITION OF STRUCTURE: | | 1 Good | | 2 Fair | |
| Condition of structure: Good | | 1 Fair | | 2 Not good | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/27

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| (1) GENERAL: | | Essential River – Abal Avenue | | Name Code: <u>ESE-5</u> | |
| Location: | | 43.24043611 N 76.9192472 E | | | |
| Year Built: | | 1964 | | | |
| Seismically Retrofitted or Rehabilitated: | | Yes | | No | |
| Latest previous Inspection by: | | Ministry of Transport and Communication "KAZDORNI" OJCS | | Date: Oct., 2001 | |
| Road Type: | | Number of Lanes: 6 Lanes | | Road Code: 3 | |
| | | City Street (single lane) 2m to 6m | | City Avenue (2 or 4 lanes) 7m to 15m | |
| | | Low Traffic <5,000 veh/day | | Medium Traffic 5,000 to 12,000 | |
| | | ADT | | Heavy Traffic >12,000 | |
| Traffic Volume: (pcu/day) | | River Bridge | | Road Flyover | |
| Bridge Type: | | 1 | | 2 | |
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| | | 3 | | 4 | |
| Total Bridge's Length: | | 1 | | 2 | |
| | | Short <20m | | Middle 21m to 25m | |
| | | 1 | | 2 | |
| Bridge Width: | | 22.00m | | 10m to 15m | |
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| Bridge Alignment: | | 1 | | 2 | |
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| | | 281 | | 282 | |
| | | 282 | | 283 | |
| | | 283 | | 284 | |
| | | 284 | | 285 | |
| | | 285 | | 286 | |
| | | 286 | | 287 | |
| | | 287 | | 288 | |
| | | 288 | | 289 | |
| | | 289 | | 290 | |
| | | 290 | | 291 | |
| | | 291 | | 292 | |
| | | 292 | | 293 | |
| | | 293 | | 294 | |
| | | 294 | | 295 | |
| | | 295 | | 296 | |
| | | 296 | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/27

| | | | | | |
|---|--|--|--|-------------------------|--|
| (1) GENERAL: | | Bridge Name: Esental River – Shevchenko Street | | Name Code: <u>ESE-7</u> | |
| Location: 43.24443611 N 76.9190889 E | | Year Built: 1989 | | Date: May, 2002 | |
| Seismically Retrofitted or Rehabilitated: Yes | | No | | Description/Date: B-22 | |
| Latest previous inspection by: Ministry of Transport and Communication "KAZDORNIJ" OJCS | | 1 | | 2 | |
| Road Type: | | Number of Lanes: 4 lanes | | Road Code: 3 | |
| Traffic Volume: (pcu/day) | | ADT: _____ veh/day | | Traffic Code: 3 | |
| Bridge Type: | | River Bridge | | Bridge Code: 1 | |
| Total Bridge's Length: | | 34.00 m | | Length Code: 2 | |
| Bridge Width: | | 24.00 m | | Width Code: 3 | |
| Bridge Alignment: | | 20 degrees | | Alignment Code: 2 | |
| (2) SUPERSTRUCTURE: | | | | | |
| Spans Distribution | | 1 span(s) | | Span Code: 1 | |
| Girder Type: | | Arch or Rigid Frame | | Girder Code: 3 | |
| Bearing Type: | | Normal | | Bearing Code: 1 | |
| Minimum Width of Bridge Seat: | | Wide (AS>=1) | | Seat Code: 1 | |
| (3) SUBSTRUCTURE: | | | | | |
| Max. Height of Abutment/Pier | | 3.90 m | | Height Code: 1 | |
| Foundation Type | | Except Pile Bent | | Foundation Code: 1 | |
| Material of Abutment | | Brick or plane | | Abutment Code: 1 | |
| Ground Classification | | Rock | | Ground Code: 2 | |
| Sensibility to Liquefaction | | None | | Liquefaction Code: 1 | |
| (4) SEISMICAL INFORMATION: | | | | | |
| Seismic Intensity | | 5.00 | | Seismic Code: 4 | |
| Condition of structure | | Good | | Condition Code: 3 | |
| (5) CONDITION OF STRUCTURE: | | | | | |
| Seismic Intensity | | 5.00 | | Seismic Code: 4 | |
| Condition of structure | | Good | | Condition Code: 3 | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/27

| | | | | | |
|---|--|---|--|-------------------------|--|
| (1) GENERAL: | | Bridge Name: Esental River – Zhambyl Street | | Name Code: <u>ESE-8</u> | |
| Location: 43.24607222 N 76.9182333 E | | Year Built: 1989 | | Date: May, 2002 | |
| Seismically Retrofitted or Rehabilitated: Yes | | No | | Description/Date: B-21 | |
| Latest previous inspection by: Ministry of Transport and Communication "KAZDORNIJ" OJCS | | 1 | | 2 | |
| Road Type: | | Number of Lanes: 2 lanes | | Road Code: 3 | |
| Traffic Volume: (pcu/day) | | ADT: _____ veh/day | | Traffic Code: 1 | |
| Bridge Type: | | River Bridge | | Bridge Code: 1 | |
| Total Bridge's Length: | | 31.00 m | | Length Code: 2 | |
| Bridge Width: | | 12.00 m | | Width Code: 2 | |
| Bridge Alignment: | | 30 degrees | | Alignment Code: 2 | |
| (2) SUPERSTRUCTURE: | | | | | |
| Spans Distribution | | 1 span(s) | | Span Code: 1 | |
| Girder Type: | | Arch or Rigid Frame | | Girder Code: 3 | |
| Bearing Type: | | Normal | | Bearing Code: 1 | |
| Minimum Width of Bridge Seat: | | Wide (AS>=1) | | Seat Code: 1 | |
| (3) SUBSTRUCTURE: | | | | | |
| Max. Height of Abutment/Pier | | 3.67 m | | Height Code: 1 | |
| Foundation Type | | Except Pile Bent | | Foundation Code: 1 | |
| Material of Abutment | | Brick or plane | | Abutment Code: 1 | |
| Ground Classification | | Rock | | Ground Code: 2 | |
| Sensibility to Liquefaction | | None | | Liquefaction Code: 1 | |
| (4) SEISMICAL INFORMATION: | | | | | |
| Seismic Intensity | | 5.00 | | Seismic Code: 4 | |
| Condition of structure | | Good | | Condition Code: 2 | |
| (5) CONDITION OF STRUCTURE: | | | | | |
| Seismic Intensity | | 5.00 | | Seismic Code: 4 | |
| Condition of structure | | Good | | Condition Code: 2 | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/27

| | | | | | | | | | |
|---|---|---------------------------|--------------------------------|--|----------------------------|-------------------|---|--|--|
| (1) GENERAL: | | | | | | | | | |
| Bridge Name: | Essential River – Bogenbai Batyr Street | | | | Name Code: | ESE-9 | | | |
| Location: | 43.249425 N 76.9171083 E | | | | | | | | |
| Year Built: | 1989 | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | | | | No | Description/Date: | | | |
| Latest previous inspection by: | Ministry of Transport and Communication, KAZDORNIJ OJCS | | | | B-23 | Date: May, 2002 | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 2 | | | |
| | 4 lanes | City Street (single lane) | 2m to 6m | 7m to 15m | Major Motorways (>4 lanes) | > 16m | | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: | 2 | | | |
| | veh/day | Low Traffic <5,000 | Medium Traffic 5,000 to 12,000 | Heavy Traffic >12,000 | | | | | |
| Bridge Type: | 1 | 2 | 3 | 4 | Bridge Code: | 1 | | | |
| | River Bridge | Road Flyover | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad | | | | | |
| Total Bridge's Length: | Length | 1 | 2 | 3 | Length Code: | 2 | | | |
| | 29.00m | Short <20m | Middle 21m to 25m | Long > 26m | | | | | |
| Bridge Width: | Width | 1 | 2 | 3 | Width Code: | 2 | | | |
| | 18.00m | <10m | 10m to 15m | >16m or twin | | | | | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 1 | | | |
| | | Straight | Skewed | Curved | | | | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | | Span Code: | 1 | | | |
| | 1 span(s) | single span | >2 | | | | | | |
| Girder Type: | 1 | 2 | 3 | | Girder Code: | 3 | | | |
| | Arch or Rigid Frame | Continuous | Single or Gerber Girder | | | | | | |
| Bearing Type: | 1 | 2 | 3 | | Bearing Code: | 1 | | | |
| | Falling Prevention Device | Normal | M-M | | | | | | |
| Minimum Width of Bridge Seat: | 1 | 2 | 3 | 4 | Seat Code: | 1 | | | |
| | Wide (AS>=1) | Narrow (AS<1) | Gerber Bearing (D<=1) | | | | | | |
| (3) SUBSTRUCTURE: | | | | | | | | | |
| Max. Height of Abutment/Pier | Max. Height | 1 | 2 | 3 | Height Code: | 1 | | | |
| | 2.86 m | less than 5m | 5 to 10m | more than 10m | | | | | |
| Foundation Type | 1 | 2 | | | Foundation Code: | 1 | | | |
| | Except Pile Bent | Pile Bent | | | | | | | |
| Material of Abutment | 1 | 2 | | | Abutment Code: | 1 | | | |
| | Brick or plane | other | | | | | | | |
| Ground Classification | 1 | 2 | 3 | 4 | Ground Code: | 2 | | | |
| | Rock | Medium Stiff | Soft | very Soft | | | | | |
| Sensibility to Liquefaction | 1 | 2 | 3 | | Liquefaction Code: | 1 | | | |
| | None | Probably | Yes | | | | | | |
| (4) SEISMICAL INFORMATION: | | | | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | 4 | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | | Condition Code: | 2 | | | |
| | Good | Fair | Not good | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/27

| | | | | | | | | | |
|---|---|---------------------------|--------------------------------|--|----------------------------|-------------------|---|--|--|
| (1) GENERAL: | | | | | | | | | |
| Bridge Name: | Essential River – Tole Bi Street | | | | Name Code: | ESE-10 | | | |
| Location: | 43.25277222 N 76.9169972 E | | | | | | | | |
| Year Built: | 1975 | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | | | | No | Description/Date: | | | |
| Latest previous inspection by: | Ministry of Transport and Communication, KAZDORNIJ OJCS | | | | B-24 | Date: May, 2002 | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 3 | | | |
| | 6 lanes | City Street (single lane) | 2m to 6m | 7m to 15m | Major Motorways (>4 lanes) | > 16m | | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: | 3 | | | |
| | veh/day | Low Traffic <5,000 | Medium Traffic 5,000 to 12,000 | Heavy Traffic >12,000 | | | | | |
| Bridge Type: | 1 | 2 | 3 | 4 | Bridge Code: | 1 | | | |
| | River Bridge | Road Flyover | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad | | | | | |
| Total Bridge's Length: | Length | 1 | 2 | 3 | Length Code: | 2 | | | |
| | 38.00m | Short <20m | Middle 21m to 25m | Long > 26m | | | | | |
| Bridge Width: | Width | 1 | 2 | 3 | Width Code: | 2 | | | |
| | 32.50m | <10m | 10m to 15m | >16m or twin | | | | | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 1 | | | |
| | | Straight | Skewed | Curved | | | | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | | Span Code: | 2 | | | |
| | 2 span(s) | single span | >2 | | | | | | |
| Girder Type: | 1 | 2 | 3 | | Girder Code: | 2 | | | |
| | Arch or Rigid Frame | Continuous | Single or Gerber Girder | | | | | | |
| Bearing Type: | 1 | 2 | 3 | | Bearing Code: | 1 | | | |
| | Falling Prevention Device | Normal | M-M | | | | | | |
| Minimum Width of Bridge Seat: | 1 | 2 | 3 | 4 | Seat Code: | 1 | | | |
| | Wide (AS>=1) | Narrow (AS<1) | Gerber Bearing (D<=1) | | | | | | |
| (3) SUBSTRUCTURE: | | | | | | | | | |
| Max. Height of Abutment/Pier | Max. Height | 1 | 2 | 3 | Height Code: | 1 | | | |
| | 3.00m | less than 5m | 5 to 10m | more than 10m | | | | | |
| Foundation Type | 1 | 2 | | | Foundation Code: | 1 | | | |
| | Except Pile Bent | Pile Bent | | | | | | | |
| Material of Abutment | 1 | 2 | | | Abutment Code: | 2 | | | |
| | Brick or plane | other | | | | | | | |
| Ground Classification | 1 | 2 | 3 | 4 | Ground Code: | 2 | | | |
| | Rock | Medium Stiff | Soft | very Soft | | | | | |
| Sensibility to Liquefaction | 1 | 2 | 3 | | Liquefaction Code: | 1 | | | |
| | None | Probably | Yes | | | | | | |
| (4) SEISMICAL INFORMATION: | | | | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | 4 | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | | Condition Code: | 3 | | | |
| | Good | Fair | Not good | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/27

| | | | | | |
|---|--|---|--|---|--|
| (1) GENERAL: | | Bridge Name: Esental River – Gogol Street | | Name Code: <u>ESE-11</u> | |
| Location: 43.25789167 N 76.9158667 E | | Year Built: 1984 | | Seismically Retrofitted or Rehabilitated: Yes | |
| Latest previous inspection by: Ministry of Transport and Communication "KAZDORUMI" OJCS | | Yes | | No | |
| Road Type: 6 Lanes | | City Street (single lane) 2m to 6m | | City Avenue (2 or 4 lanes) 7m to 15m | |
| Traffic Volume: (pcu/day) | | ADT | | Low Traffic <5,000 | |
| Bridge Type: River Bridge | | Road Flyover | | Viaduct or Interchange | |
| Total Bridge's Length: 35.00m | | Short <20m | | Middle 21m to 25m | |
| Bridge Width: 14.00m | | <10m | | 10m to 15m | |
| Bridge Alignment: Straight | | Skewed | | Curved | |
| (2) SUPERSTRUCTURE: | | | | | |
| Spans Distribution | | 1 span(s) | | 2 | |
| Girder Type: Arch or Rigid Frame | | Continuous | | Single or Girder Girder | |
| Bearing Type: Falling Prevention Device | | Normal | | M-M | |
| Minimum Width of Bridge Seat: Wide (AS>=1) | | Narrow (AS<1) | | Girder Bearing (D<=1) | |
| (3) SUBSTRUCTURE: | | | | | |
| Max. Height of Abutment/Pier | | 2.00m | | 5 to 10m | |
| Foundation Type | | Except Pile Bent | | Pile Bent | |
| Material of Abutment | | Brick or plane | | other | |
| Ground Classification | | Rock | | Medium Stiff | |
| Sensibility to Liquefaction | | None | | Probably | |
| (4) SEISMICAL INFORMATION: | | | | | |
| Seismic Intensity | | 5.00 | | 5.50 | |
| Seismic Code: | | 7.00 | | 6.50 | |
| (5) CONDITION OF STRUCTURE: | | | | | |
| Condition of structure | | Good | | Fair | |
| Condition Code: | | 2 | | Not good | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/17

| | | | | | |
|---|--|--|--|---|--|
| (1) GENERAL: | | Bridge Name: Bolshaya Almalinka River - Al Farabi Avenue | | Name Code: <u>BOE-1</u> | |
| Location: 43.1946 N 76.8901889 E | | Year Built: 1984 | | Seismically Retrofitted or Rehabilitated: Yes | |
| Latest previous inspection by: Ministry of Transport and Communication "KAZDORUMI" OJCS | | Yes | | No | |
| Road Type: 6 Lanes | | City Street (single lane) 2m to 6m | | City Avenue (2 or 4 lanes) 7m to 15m | |
| Traffic Volume: (pcu/day) | | ADT | | Low Traffic <5,000 | |
| Bridge Type: River Bridge | | Road Flyover | | Viaduct or Interchange | |
| Total Bridge's Length: 75.00m | | Short <20m | | Middle 21m to 25m | |
| Bridge Width: 21.70m | | <10m | | 10m to 15m | |
| Bridge Alignment: Straight | | Skewed | | Curved | |
| (2) SUPERSTRUCTURE: | | | | | |
| Spans Distribution | | 1 span(s) | | 2 | |
| Girder Type: Arch or Rigid Frame | | Continuous | | Single or Girder Girder | |
| Bearing Type: Falling Prevention Device | | Normal | | M-M | |
| Minimum Width of Bridge Seat: Wide (AS>=1) | | Narrow (AS<1) | | Girder Bearing (D<=1) | |
| (3) SUBSTRUCTURE: | | | | | |
| Max. Height of Abutment/Pier | | 4.67m | | 5 to 10m | |
| Foundation Type | | Except Pile Bent | | Pile Bent | |
| Material of Abutment | | Brick or plane | | other | |
| Ground Classification | | Rock | | Medium Stiff | |
| Sensibility to Liquefaction | | None | | Probably | |
| (4) SEISMICAL INFORMATION: | | | | | |
| Seismic Intensity | | 5.00 | | 5.50 | |
| Seismic Code: | | 7.00 | | 6.50 | |
| (5) CONDITION OF STRUCTURE: | | | | | |
| Condition of structure | | Good | | Fair | |
| Condition Code: | | 2 | | Not good | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/28

| | | | | | |
|---|--|--|--|--------------------------------------|--|
| (1) GENERAL: | | Bolshaya Almatinka River - Toraygyrov Street | | Name Code: <u>BOL-2</u> | |
| Bridge Name: | | 43.20435556 N 76.8884056 E | | | |
| Location: | | 1976 | | | |
| Year Built: | | Yes | | No | |
| Seismically Retrofitted or Rehabilitated: | | Yes | | No | |
| Latest previous Inspection by: | | Ministry of Transport and Communication "KAZDORNIJ" OJCS | | B-32 | |
| Road Type: | | Number of Lanes: 4 Lanes | | Road Code: 2 | |
| | | City Street (single lane) 2m to 6m | | City Avenue (2 or 4 lanes) 7m to 15m | |
| | | Low Traffic <5,000 veh/day | | Medium Traffic 5,000 to 12,000 | |
| | | ADT | | Heavy Traffic >12,000 | |
| Traffic Volume: (pcu/day) | | River Bridge | | Viaduct or Interchange | |
| Bridge Type: | | 1 | | 2 | |
| | | 2 | | 3 | |
| | | 3 | | 4 | |
| Total Bridge's Length: | | Length 69.50m | | Length Code: 2 | |
| | | Short <20m | | Middle 21m to 25m | |
| | | 1 | | 2 | |
| Bridge Width: | | Width 28.50m | | Width Code: 3 | |
| | | <10m | | 10m to 15m | |
| | | 1 | | 2 | |
| Bridge Alignment: | | Skewness | | Alignment Code: 1 | |
| | | Straight | | Skewed | |
| | | 1 | | 2 | |
| | | 2 | | 3 | |
| | | 3 | | 4 | |
| (2) SUPERSTRUCTURE: | | Spans Distribution | | Span Code: 2 | |
| | | 3 span(s) | | >2 | |
| Girder Type: | | 1 | | 2 | |
| | | Arch or Rigid Frame | | Single or Girder Girder | |
| | | 1 | | 2 | |
| Bearing Type: | | Falling Prevention Device | | Bearing Code: 3 | |
| | | Normal | | M-M | |
| | | 1 | | 2 | |
| Minimum Width of Bridge Seat: | | Wide (AS>=1) | | Seal Code: 2 | |
| | | Narrow (AS<1) | | Gerber Bearing (D<=1) | |
| | | 1 | | 2 | |
| (3) SUBSTRUCTURE: | | Max. Height of Abutment/Pier | | Height Code: 1 | |
| | | 5.80m | | more than 10m | |
| Foundation Type | | 1 | | Foundation Code: 1 | |
| | | Except Pile Bent | | | |
| | | 1 | | 2 | |
| Material of Abutment | | Brick or plane | | Abutment Code: 2 | |
| | | 1 | | 2 | |
| Ground Classification | | Rock | | Ground Code: 2 | |
| | | Medium Stiff | | Soft | |
| | | 1 | | 2 | |
| Sensibility to Liquefaction | | None | | Liquefaction Code: 1 | |
| | | Probably | | Yes | |
| | | 1 | | 2 | |
| (4) SEISMICAL INFORMATION: | | Seismic Intensity | | Seismic Code: 4 | |
| | | 5.00 | | 6.00 | |
| | | 2 | | 3 | |
| | | 3 | | 4 | |
| | | 4 | | 5 | |
| (5) CONDITION OF STRUCTURE: | | Condition of structure | | Condition Code: 3 | |
| | | Good | | Fair | |
| | | 1 | | 2 | |
| | | 2 | | 3 | |
| | | 3 | | 4 | |
| | | 4 | | 5 | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/28

| | | | | | |
|---|--|--|--|--------------------------------------|--|
| (1) GENERAL: | | Bolshaya Almatinka River - Zhandosov Street | | Name Code: <u>BOL-3</u> | |
| Bridge Name: | | 43.22137222 N 76.8824556 E | | | |
| Location: | | 1965 | | | |
| Year Built: | | Yes | | No | |
| Seismically Retrofitted or Rehabilitated: | | Yes | | No | |
| Latest previous Inspection by: | | Ministry of Transport and Communication "KAZDORNIJ" OJCS | | B-30 | |
| Road Type: | | Number of Lanes: 4 Lanes | | Road Code: 2 | |
| | | City Street (single lane) 2m to 6m | | City Avenue (2 or 4 lanes) 7m to 15m | |
| | | Low Traffic <5,000 veh/day | | Medium Traffic 5,000 to 12,000 | |
| | | ADT | | Heavy Traffic >12,000 | |
| Traffic Volume: (pcu/day) | | River Bridge | | Viaduct or Interchange | |
| Bridge Type: | | 1 | | 2 | |
| | | 2 | | 3 | |
| | | 3 | | 4 | |
| Total Bridge's Length: | | Length 40.00m | | Length Code: 2 | |
| | | Short <20m | | Middle 21m to 25m | |
| | | 1 | | 2 | |
| Bridge Width: | | Width 24.50m | | Width Code: 3 | |
| | | <10m | | 10m to 15m | |
| | | 1 | | 2 | |
| Bridge Alignment: | | Skewness | | Alignment Code: 1 | |
| | | Straight | | Skewed | |
| | | 1 | | 2 | |
| | | 2 | | 3 | |
| | | 3 | | 4 | |
| (2) SUPERSTRUCTURE: | | Spans Distribution | | Span Code: 1 | |
| | | 1 span(s) | | >2 | |
| Girder Type: | | 1 | | 2 | |
| | | Arch or Rigid Frame | | Single or Girder Girder | |
| | | 1 | | 2 | |
| Bearing Type: | | Falling Prevention Device | | Bearing Code: 2 | |
| | | Normal | | M-M | |
| | | 1 | | 2 | |
| Minimum Width of Bridge Seat: | | Wide (AS>=1) | | Seal Code: 1 | |
| | | Narrow (AS<1) | | Gerber Bearing (D<=1) | |
| | | 1 | | 2 | |
| (3) SUBSTRUCTURE: | | Max. Height of Abutment/Pier | | Height Code: 1 | |
| | | 3.60m | | more than 10m | |
| Foundation Type | | 1 | | Foundation Code: 1 | |
| | | Except Pile Bent | | | |
| | | 1 | | 2 | |
| Material of Abutment | | Brick or plane | | Abutment Code: 2 | |
| | | 1 | | 2 | |
| Ground Classification | | Rock | | Ground Code: 2 | |
| | | Medium Stiff | | Soft | |
| | | 1 | | 2 | |
| Sensibility to Liquefaction | | None | | Liquefaction Code: 1 | |
| | | Probably | | Yes | |
| | | 1 | | 2 | |
| (4) SEISMICAL INFORMATION: | | Seismic Intensity | | Seismic Code: 4 | |
| | | 5.00 | | 6.00 | |
| | | 2 | | 3 | |
| | | 3 | | 4 | |
| | | 4 | | 5 | |
| (5) CONDITION OF STRUCTURE: | | Condition of structure | | Condition Code: 3 | |
| | | Good | | Fair | |
| | | 1 | | 2 | |
| | | 2 | | 3 | |
| | | 3 | | 4 | |
| | | 4 | | 5 | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/28

| | | | | | | | | | | |
|---|---|------|----------|-----------------|-----------------------------------|--|--|--|--|---|
| (1) GENERAL: | | | | | | | | | | |
| Bridge Name: | Bolshaya Almatinka River – Shalyapin Street | | | | Name Code: | BOL-4 | | | | |
| Location: | 43.23155 N 76.8724556 E | | | | | | | | | |
| Year Built: | | | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | | | | No | Description/Date: | | | | |
| Latest previous inspection by: | | | | | Date: | | | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 2 | | | | |
| Traffic Volume: (pcu/day) | City Street (single lane) 2m to 6m | 1 | 2 | 3 | Major Motorways (>4 lanes) > 16m | | | | | |
| | Low Traffic <5,000 | 1 | 2 | 3 | Heavy Traffic >12,000 | | | | | |
| Bridge Type: | ADT _____ veh/day | 1 | 2 | 3 | Traffic Code: | 2 | | | | |
| | River Bridge | 2 | 3 | 4 | Bridge Code: | 1 | | | | |
| Total Bridge's Length: | Road Flyover | 1 | 2 | 3 | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad | | | | |
| | Length 35.00m | 1 | 2 | 3 | Length Code: | 2 | | | | |
| Bridge Width: | Short <20m | 1 | 2 | 3 | Middle 21m to 25m | Long > 26m | | | | |
| | Width 26.00m | 1 | 2 | 3 | Width Code: | 3 | | | | |
| Bridge Alignment: | <10m | 1 | 2 | 3 | 10m to 15m | >16m or twin | | | | |
| | Skewness | 1 | 2 | 3 | Alignment Code: | 1 | | | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | | |
| Spans Distribution | Spans Number 1 span(s) | 1 | 2 | 3 | Span Code: | 1 | | | | |
| Girder Type: | single span | 1 | 2 | 3 | Girder Code: | 3 | | | | |
| | Arch or Rigid Frame | 1 | 2 | 3 | Bearing Code: | 2 | | | | |
| Bearing Type: | Continuous | 1 | 2 | 3 | Falling Prevention Device | M-M | | | | |
| | Normal | 1 | 2 | 3 | Wide (AS>=1) | Gerber Bearing (D<=1) | | | | |
| Minimum Width of Bridge Seat: | Narrow (AS<1) | 1 | 2 | 3 | Seat Code: | 2 | | | | |
| (3) SUBSTRUCTURE: | | | | | | | | | | |
| Max. Height of Abutment/Pier | Max. Height 3.50m | 1 | 2 | 3 | Height Code: | 1 | | | | |
| | less than 5m | 1 | 2 | 3 | Foundation Code: | 1 | | | | |
| Foundation Type | Pile Bent | 1 | 2 | 3 | Abutment Code: | 2 | | | | |
| | Brick or plane | 1 | 2 | 3 | Ground Code: | 2 | | | | |
| Classification | Soft | 1 | 2 | 3 | Liquification Code: | 1 | | | | |
| | Probably | 1 | 2 | 3 | (4) SEISMICAL INFORMATION: | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | | | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | 4 | | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | Condition Code: | | | | | | 3 |
| | Good | Fair | Not good | | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/28

| | | | | | | | | | | |
|---|--|------|----------|-----------------|-----------------------------------|--|--|--|--|---|
| (1) GENERAL: | | | | | | | | | | |
| Bridge Name: | Bolshaya Almatinka River – Abai Avenue | | | | Name Code: | BOL-5 | | | | |
| Location: | 43.23309167 N 76.8706167 E | | | | | | | | | |
| Year Built: | 1964 | | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | | | | No | Description/Date: | | | | |
| Latest previous inspection by: | Ministry of Transport and Communication "KAZDORUMI" OJCS | | | | Date: Oct., 2001 | | | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 3 | | | | |
| Traffic Volume: (pcu/day) | City Street (single lane) 2m to 6m | 1 | 2 | 3 | Major Motorways (>4 lanes) > 16m | | | | | |
| | Low Traffic <5,000 | 1 | 2 | 3 | Heavy Traffic >12,000 | | | | | |
| Bridge Type: | ADT _____ veh/day | 1 | 2 | 3 | Bridge Code: | 1 | | | | |
| | River Bridge | 2 | 3 | 4 | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad | | | | |
| Total Bridge's Length: | Road Flyover | 1 | 2 | 3 | Length Code: | 2 | | | | |
| | Length 41.00m | 1 | 2 | 3 | Width Code: | 3 | | | | |
| Bridge Width: | Short <20m | 1 | 2 | 3 | Middle 21m to 25m | Long > 26m | | | | |
| | Width 28.50m | 1 | 2 | 3 | Width Code: | 3 | | | | |
| Bridge Alignment: | <10m | 1 | 2 | 3 | 10m to 15m | >16m or twin | | | | |
| | Skewness | 1 | 2 | 3 | Alignment Code: | 1 | | | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | | |
| Spans Distribution | Spans Number 1 span(s) | 1 | 2 | 3 | Span Code: | 1 | | | | |
| Girder Type: | single span | 1 | 2 | 3 | Girder Code: | 3 | | | | |
| | Arch or Rigid Frame | 1 | 2 | 3 | Bearing Code: | 2 | | | | |
| Bearing Type: | Continuous | 1 | 2 | 3 | Falling Prevention Device | M-M | | | | |
| | Normal | 1 | 2 | 3 | Wide (AS>=1) | Gerber Bearing (D<=1) | | | | |
| Minimum Width of Bridge Seat: | Narrow (AS<1) | 1 | 2 | 3 | Seat Code: | 1 | | | | |
| (3) SUBSTRUCTURE: | | | | | | | | | | |
| Max. Height of Abutment/Pier | Max. Height 3.20m | 1 | 2 | 3 | Height Code: | 1 | | | | |
| | less than 5m | 1 | 2 | 3 | Foundation Code: | 1 | | | | |
| Foundation Type | Pile Bent | 1 | 2 | 3 | Abutment Code: | 2 | | | | |
| | Brick or plane | 1 | 2 | 3 | Ground Code: | 2 | | | | |
| Classification | Soft | 1 | 2 | 3 | Liquification Code: | 1 | | | | |
| | Probably | 1 | 2 | 3 | (4) SEISMICAL INFORMATION: | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | | | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | 4 | | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | Condition Code: | | | | | | 2 |
| | Good | Fair | Not good | | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/28

| | | | | | | | | | |
|---|--|------|----------|-----------------|----------------------------------|---------------|-------------------|--|--|
| (1) GENERAL: | | | | | | | | | |
| Culvert Name: | Bolshaya Almatinka River – Kurmangazy Street | | | | Name Code: | | CUL-BOL-6 | | |
| Location: | 43.24740278 N 76.8641694 E | | | | | | | | |
| Year Built: | | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | | | | No | | Description/Date: | | |
| Latest previous inspection by: | | | | | | | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 3 | | | |
| Traffic Volume: (pcu/day) | City Street (single lane) 2m to 6m | 1 | 2 | 3 | Major Motorways (>4 lanes) > 16m | 3 | | | |
| | Low Traffic <5,000 veh/day | 1 | 2 | 3 | Heavy Traffic >12,000 | 3 | | | |
| Bridge Type: | River Bridge | 1 | 2 | 3 | 4 | Bridge Code: | 1 | | |
| | Road Flyover | 1 | 2 | 3 | 4 | | | | |
| Total Bridge's Length: | Length | 1 | 2 | 3 | Length Code: | 1 | | | |
| | Width | 1 | 2 | 3 | Width Code: | 1 | | | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 1 | | | |
| | | 1 | 2 | 3 | | | | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | 3 | Span Code: | 1 | | | |
| Girder Type: | Arch or Rigid Frame | 1 | 2 | 3 | Girder Code: | 1 | | | |
| | Falling Prevention Device | 1 | 2 | 3 | Bearing Code: | 2 | | | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | 1 | 2 | 3 | Seat Code: | 2 | | | |
| | Narrow (AS<1) | 1 | 2 | 3 | | | | | |
| (3) SUBSTRUCTURE: | | | | | | | | | |
| Max. Height of Abutment/Pier | Max. Height | 1 | 2 | 3 | Height Code: | 1 | | | |
| | Foundation Type | 1 | 2 | 3 | Foundation Code: | 1 | | | |
| Material of Abutment | Brick or plane | 1 | 2 | 3 | Abutment Code: | 2 | | | |
| | Rock | 1 | 2 | 3 | Ground Code: | 2 | | | |
| Sensibility to Liquefaction | Probably | 1 | 2 | 3 | Liquefaction Code: | 1 | | | |
| | Yes | 1 | 2 | 3 | | | | | |
| (4) SEISMICAL INFORMATION: | | | | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | 3 | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | Condition Code: | 2 | | | | |
| | Good | Fair | Not good | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/13

| | | | | | | | | | |
|---|--|------|----------|-----------------|----------------------------------|---------------|-------------------|--|--|
| (1) GENERAL: | | | | | | | | | |
| Bridge Name: | Maaya Almatinka River - Tatibekov Street | | | | Name Code: | | MAL-1 | | |
| Location: | 43.27719167 N 76.9654194 E | | | | | | | | |
| Year Built: | 1970 | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | | | | No | | Description/Date: | | |
| Latest previous inspection by: | | | | | | | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 2 | | | |
| Traffic Volume: (pcu/day) | City Street (single lane) 2m to 6m | 1 | 2 | 3 | Major Motorways (>4 lanes) > 16m | 3 | | | |
| | Low Traffic <5,000 veh/day | 1 | 2 | 3 | Heavy Traffic >12,000 | 3 | | | |
| Bridge Type: | River Bridge | 1 | 2 | 3 | 4 | Bridge Code: | 1 | | |
| | Road Flyover | 1 | 2 | 3 | 4 | | | | |
| Total Bridge's Length: | Length | 1 | 2 | 3 | Length Code: | 2 | | | |
| | Width | 1 | 2 | 3 | Width Code: | 2 | | | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 1 | | | |
| | | 1 | 2 | 3 | | | | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | 3 | Span Code: | 1 | | | |
| Girder Type: | Arch or Rigid Frame | 1 | 2 | 3 | Girder Code: | 3 | | | |
| | Falling Prevention Device | 1 | 2 | 3 | Bearing Code: | 2 | | | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | 1 | 2 | 3 | Seat Code: | 2 | | | |
| | Narrow (AS<1) | 1 | 2 | 3 | | | | | |
| (3) SUBSTRUCTURE: | | | | | | | | | |
| Max. Height of Abutment/Pier | Max. Height | 1 | 2 | 3 | Height Code: | 1 | | | |
| | Foundation Type | 1 | 2 | 3 | Foundation Code: | 1 | | | |
| Material of Abutment | Brick or plane | 1 | 2 | 3 | Abutment Code: | 1 | | | |
| | Rock | 1 | 2 | 3 | Ground Code: | 2 | | | |
| Sensibility to Liquefaction | Probably | 1 | 2 | 3 | Liquefaction Code: | 1 | | | |
| | Yes | 1 | 2 | 3 | | | | | |
| (4) SEISMICAL INFORMATION: | | | | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | 4 | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | Condition Code: | 3 | | | | |
| | Good | Fair | Not good | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/28

| | | | | | | | |
|---|--|---|-------------------|-------------------------|----------------------------------|------|-----------------|
| (1) GENERAL: | | Malaya Almatinka River - Dobrolyubok Street | | Name Code: <u>MAL-2</u> | | | |
| Bridge Name: | Malaya Almatinka River - Dobrolyubok Street | | | | | | |
| Location: | 43.27204722 N 76.9665167 E | | | | | | |
| Year Built: | 1970 | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | No | Description/Date: | | | | |
| Latest previous inspection by: | Ministry of Transport and Communication, KAZDORANI, O.J.S. | B-2 | Date: May, 2002 | | | | |
| Road Type: | Number of Lanes: 2 | 1 | 2 | 3 | Road Code: 2 | | |
| | City Street (single lane) 2m to 6m | 1 | 2 | 3 | Major Motorways (>4 lanes) > 16m | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: 1 | | |
| | Low Traffic <5,000 | 1 | 2 | 3 | Heavy Traffic >12,000 | | |
| | Medium Traffic 5,000 to 12,000 | 2 | 3 | 4 | Bridge Code: 1 | | |
| Bridge Type: | River Bridge | 1 | 2 | 3 | 4 | | |
| | Road Flyover | 1 | 2 | 3 | 4 | | |
| | Viaduct or Interchange | 1 | 2 | 3 | 4 | | |
| Total Bridge's Length: | Length 20.00m | 1 | 2 | 3 | Length Code: 1 | | |
| | Short <20m | 1 | 2 | 3 | Long >76m | | |
| Bridge Width: | Width 10.00m | 1 | 2 | 3 | Width Code: 1 | | |
| | <10m | 1 | 2 | 3 | >16m or twin | | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: 1 | | |
| | Straight | 1 | 2 | 3 | Curved | | |
| (2) SUPERSTRUCTURE: | | | | | | | |
| Spans Distribution | Spans Number 1 span(s) | 1 | 2 | 3 | Span Code: 1 | | |
| | single span | 1 | 2 | 3 | | | |
| Girder Type: | Arch or Rigid Frame | 1 | 2 | 3 | Girder Code: 3 | | |
| | Continuous | 1 | 2 | 3 | | | |
| Bearing Type: | Falling Prevention Device | 1 | 2 | 3 | Bearing Code: 2 | | |
| | Normal | 1 | 2 | 3 | M-M | | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | 1 | 2 | 3 | Seat Code: 2 | | |
| | Narrow (AS<1) | 1 | 2 | 3 | Gerber Bearing (D<=1) | | |
| (3) SUBSTRUCTURE: | | | | | | | |
| Max. Height of Abutment/Pier | Max. Height 3.96m | 1 | 2 | 3 | Height Code: 1 | | |
| | less than 5m | 1 | 2 | 3 | more than 10m | | |
| Foundation Type | Foundation Type | 1 | 2 | 3 | Foundation Code: 1 | | |
| | Except Pile Bent | 1 | 2 | 3 | | | |
| Material of Abutment | Material of Abutment | 1 | 2 | 3 | Abutment Code: 2 | | |
| | Brick or plane | 1 | 2 | 3 | other | | |
| Ground Classification | Ground Classification | 1 | 2 | 3 | Ground Code: 2 | | |
| | Rock | 1 | 2 | 3 | Soft | | |
| Sensibility to Liquefaction | Sensibility to Liquefaction | 1 | 2 | 3 | very Soft | | |
| | None | 1 | 2 | 3 | Liquefaction Code: 1 | | |
| | Probably | 1 | 2 | 3 | Yes | | |
| (4) SEISMICAL INFORMATION: | | | | | | | |
| Seismic Intensity | Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: 4 |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | 7.00 | |
| (5) CONDITION OF STRUCTURE: | | | | | | | |
| Condition of structure | Condition of structure | 1 | 2 | 3 | Condition Code: 3 | | |
| | Good | 1 | 2 | 3 | Not good | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/28

| | | | | | | | |
|---|---|---|-------------------|-------------------------|----------------------------------|------|-----------------|
| (1) GENERAL: | | Malaya Almatinka River - Makalaev Mukagali Street | | Name Code: <u>MAL-3</u> | | | |
| Bridge Name: | Malaya Almatinka River - Makalaev Mukagali Street | | | | | | |
| Location: | 43.26587778 N 76.9674 E | | | | | | |
| Year Built: | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | No | Description/Date: | | | | |
| Latest previous inspection by: | | | | | | | |
| Road Type: | Number of Lanes: 2 | 1 | 2 | 3 | Road Code: 2 | | |
| | City Street (single lane) 2m to 6m | 1 | 2 | 3 | Major Motorways (>4 lanes) > 16m | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: 1 | | |
| | Low Traffic <5,000 | 1 | 2 | 3 | Heavy Traffic >12,000 | | |
| | Medium Traffic 5,000 to 12,000 | 2 | 3 | 4 | Bridge Code: 1 | | |
| Bridge Type: | River Bridge | 1 | 2 | 3 | 4 | | |
| | Road Flyover | 1 | 2 | 3 | 4 | | |
| | Viaduct or Interchange | 1 | 2 | 3 | 4 | | |
| Total Bridge's Length: | Length 11.00m | 1 | 2 | 3 | Length Code: 1 | | |
| | Short <20m | 1 | 2 | 3 | Long >76m | | |
| Bridge Width: | Width 10.00m | 1 | 2 | 3 | Width Code: 2 | | |
| | <10m | 1 | 2 | 3 | >16m or twin | | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: 1 | | |
| | Straight | 1 | 2 | 3 | Curved | | |
| (2) SUPERSTRUCTURE: | | | | | | | |
| Spans Distribution | Spans Number 1 span(s) | 1 | 2 | 3 | Span Code: 1 | | |
| | single span | 1 | 2 | 3 | | | |
| Girder Type: | Arch or Rigid Frame | 1 | 2 | 3 | Girder Code: 3 | | |
| | Continuous | 1 | 2 | 3 | | | |
| Bearing Type: | Falling Prevention Device | 1 | 2 | 3 | Bearing Code: 2 | | |
| | Normal | 1 | 2 | 3 | M-M | | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | 1 | 2 | 3 | Seat Code: 1 | | |
| | Narrow (AS<1) | 1 | 2 | 3 | Gerber Bearing (D<=1) | | |
| (3) SUBSTRUCTURE: | | | | | | | |
| Max. Height of Abutment/Pier | Max. Height 1.50m | 1 | 2 | 3 | Height Code: 1 | | |
| | less than 5m | 1 | 2 | 3 | more than 10m | | |
| Foundation Type | Foundation Type | 1 | 2 | 3 | Foundation Code: 1 | | |
| | Except Pile Bent | 1 | 2 | 3 | | | |
| Material of Abutment | Material of Abutment | 1 | 2 | 3 | Abutment Code: 1 | | |
| | Brick or plane | 1 | 2 | 3 | other | | |
| Ground Classification | Ground Classification | 1 | 2 | 3 | Ground Code: 2 | | |
| | Rock | 1 | 2 | 3 | Soft | | |
| Sensibility to Liquefaction | Sensibility to Liquefaction | 1 | 2 | 3 | very Soft | | |
| | None | 1 | 2 | 3 | Liquefaction Code: 1 | | |
| | Probably | 1 | 2 | 3 | Yes | | |
| (4) SEISMICAL INFORMATION: | | | | | | | |
| Seismic Intensity | Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: 4 |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | 7.00 | |
| (5) CONDITION OF STRUCTURE: | | | | | | | |
| Condition of structure | Condition of structure | 1 | 2 | 3 | Condition Code: 2 | | |
| | Good | 1 | 2 | 3 | Not good | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/28

| | | | | | | | | | |
|---|--|------------------------------------|--------------------------------------|--|--------------------|-------------------|--|--|--|
| (1) GENERAL: | | | | | | | | | |
| Bridge Name: | Malaya Almatinka River – Gogol Street | | | | Name Code: | MAL-4 | | | |
| Location: | 43.26121389 N 76.9650694 E | | | | | | | | |
| Year Built: | 1972 | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | | | | No | Description/Date: | | | |
| Latest previous inspection by: | Ministry of Transport and Communication, KAZDORANI, O.J.S. | | | | B-6 | Date: May, 2002 | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 2 | | | |
| | 4 Lanes | City Street (single lane) 2m to 6m | City Avenue (2 or 4 lanes) 7m to 15m | Major Motorways (>4 lanes) > 16m | | | | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: | 1 | | | |
| | veh/day | Low Traffic <5,000 | Medium Traffic 5,000 to 12,000 | Heavy Traffic >12,000 | | | | | |
| Bridge Type: | 1 | 2 | 3 | 4 | Bridge Code: | 1 | | | |
| | River Bridge | Road Flyover | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad | | | | | |
| Total Bridge's Length: | Length | 1 | 2 | 3 | Length Code: | 1 | | | |
| | 11.00m | Short <20m | Middle 21m to 25m | Long > 26m | | | | | |
| Bridge Width: | Width | 1 | 2 | 3 | Width Code: | 3 | | | |
| | 15.50m | <10m | 10m to 15m | >16m or twin | | | | | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 1 | | | |
| | | Straight | Skewed | Curved | | | | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | | Span Code: | 1 | | | |
| | 1 span(s) | single span | >2 | | | | | | |
| Girder Type: | Arch or Rigid Frame | 2 | 3 | | Girder Code: | 3 | | | |
| | Continuous | Single or Girder | Girder | | | | | | |
| Bearing Type: | 1 | 2 | 3 | | Bearing Code: | 2 | | | |
| | Falling Prevention Device | Normal | M-M | | | | | | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | 2 | 3 | 4 | Seat Code: | 2 | | | |
| | Narrow (AS<1) | Gerber Bearing (D<=1) | | | | | | | |
| (3) SUBSTRUCTURE: | | | | | | | | | |
| Max. Height of Abutment/Pier | Max. Height | 1 | 2 | 3 | Height Code: | 1 | | | |
| | 1.00m | less than 5m | 5 to 10m | more than 10m | | | | | |
| Foundation Type | 1 | 2 | | | Foundation Code: | 1 | | | |
| | Except Pile Bent | Pile Bent | | | | | | | |
| Material of Abutment | 1 | 2 | | | Abutment Code: | 2 | | | |
| | Brick or plane | other | | | | | | | |
| Ground Classification | 1 | 2 | 3 | 4 | Ground Code: | 2 | | | |
| | Rock | Medium Stiff | Soft | very Soft | | | | | |
| Sensibility to Liquefaction | 1 | 2 | 3 | | Liquefaction Code: | 1 | | | |
| | None | Probably | Yes | | | | | | |
| (4) SEISMICAL INFORMATION: | | | | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | 4 | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | | Condition Code: | 3 | | | |
| | Good | Fair | Not good | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/28

| | | | | | | | | | |
|---|---|------------------------------------|--------------------------------------|--|--------------------|-------------------|--|--|--|
| (1) GENERAL: | | | | | | | | | |
| Bridge Name: | Malaya Almatinka River – Koshkunov Street | | | | Name Code: | MAL-5 | | | |
| Location: | 43.24551944 N 76.9594139 E | | | | | | | | |
| Year Built: | | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | | | | No | Description/Date: | | | |
| Latest previous inspection by: | | | | | Date: | | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 2 | | | |
| | 4 Lanes | City Street (single lane) 2m to 6m | City Avenue (2 or 4 lanes) 7m to 15m | Major Motorways (>4 lanes) > 16m | | | | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: | 2 | | | |
| | veh/day | Low Traffic <5,000 | Medium Traffic 5,000 to 12,000 | Heavy Traffic >12,000 | | | | | |
| Bridge Type: | 1 | 2 | 3 | 4 | Bridge Code: | 1 | | | |
| | River Bridge | Road Flyover | Viaduct or Interchange | Railroad Bridge or Flyover on Railroad | | | | | |
| Total Bridge's Length: | Length | 1 | 2 | 3 | Length Code: | 1 | | | |
| | 15.00m | Short <20m | Middle 21m to 25m | Long > 26m | | | | | |
| Bridge Width: | Width | 1 | 2 | 3 | Width Code: | 1 | | | |
| | 10.00m | <10m | 10m to 15m | >16m or twin | | | | | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 1 | | | |
| | | Straight | Skewed | Curved | | | | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | | Span Code: | 1 | | | |
| | 1 span(s) | single span | >2 | | | | | | |
| Girder Type: | Arch or Rigid Frame | 2 | 3 | | Girder Code: | 3 | | | |
| | Continuous | Single or Girder | Girder | | | | | | |
| Bearing Type: | 1 | 2 | 3 | | Bearing Code: | 2 | | | |
| | Falling Prevention Device | Normal | M-M | | | | | | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | 2 | 3 | 4 | Seat Code: | 1 | | | |
| | Narrow (AS<1) | Gerber Bearing (D<=1) | | | | | | | |
| (3) SUBSTRUCTURE: | | | | | | | | | |
| Max. Height of Abutment/Pier | Max. Height | 1 | 2 | 3 | Height Code: | 1 | | | |
| | 1.50m | less than 5m | 5 to 10m | more than 10m | | | | | |
| Foundation Type | 1 | 2 | | | Foundation Code: | 1 | | | |
| | Except Pile Bent | Pile Bent | | | | | | | |
| Material of Abutment | 1 | 2 | | | Abutment Code: | 2 | | | |
| | Brick or plane | other | | | | | | | |
| Ground Classification | 1 | 2 | 3 | 4 | Ground Code: | 2 | | | |
| | Rock | Medium Stiff | Soft | very Soft | | | | | |
| Sensibility to Liquefaction | 1 | 2 | 3 | | Liquefaction Code: | 1 | | | |
| | None | Probably | Yes | | | | | | |
| (4) SEISMICAL INFORMATION: | | | | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | 5 | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | | Condition Code: | 3 | | | |
| | Good | Fair | Not good | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET

Inspection Date: 2007/9/28

| | | | | | | | | | | |
|---|--|-------------------------|----------------------------|-----------------|--|---------------|---|--|--|--|
| (1) GENERAL: | | | | | | | | | | |
| Culvert Name: | Malaya Almatinka River (Alfarabi Avenue – Dostyk Avenue) | | | | Name Code: | MAL-6 | | | | |
| Location: | 43.22878889 N 76.9603861 E | | | | | | | | | |
| Year Built: | | | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | No | Description/Date: | | | | | | | |
| Latest previous inspection by: | | | | | Date: | | | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 3 | | | | |
| | City Street (single lane) | 2m to 6m | City Avenue (2 or 4 lanes) | 7m to 15m | Major Motorways (>4 lanes) | > 16m | | | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: | 3 | | | | |
| | Low Traffic | <5,000 | Medium Traffic | 5,000 to 12,000 | Heavy Traffic | >12,000 | | | | |
| Bridge Type: | River Bridge | 1 | 2 | 3 | 4 | Bridge Code: | 3 | | | |
| | Road Flyover | Viaduct or Interchange | | | Railroad Bridge or Flyover on Railroad | | | | | |
| Total Bridge's Length: | Length | 27.00m | 1 | 2 | 3 | Length Code: | 3 | | | |
| | Short | <20m | Middle | 21m to 25m | Long | > 26m | | | | |
| Bridge Width: | Width | 38.00m | 1 | 2 | 3 | Width Code: | 3 | | | |
| | <10m | 10m to 15m | >16m or twin | | | | | | | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 1 | | | | |
| | Straight | Skewed | | | Curved | | | | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | 3 | Span Code: | 2 | | | | |
| | single span | >2 | | | | | | | | |
| Girder Type: | Arch or Rigid Frame | 1 | 2 | 3 | Girder Code: | 1 | | | | |
| | Continuous | Single or Girder Girder | | | | | | | | |
| Bearing Type: | Falling Prevention Device | 1 | 2 | 3 | Bearing Code: | 1 | | | | |
| | Normal | M-M | | | | | | | | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | 2 | 3 | 4 | Seat Code: | 1 | | | | |
| | Narrow (AS<1) | Gerber Bearing (D<=1) | | | | | | | | |
| (3) SUBSTRUCTURE: | | | | | | | | | | |
| Max. Height of Abutment/Pier | Max. Height | 5.00m | 1 | 2 | 3 | Height Code: | 2 | | | |
| | less than 5m | 5 to 10m | more than 10m | | | | | | | |
| Foundation Type | Foundation Type | 1 | 2 | 3 | Foundation Code: | 1 | | | | |
| | Except Pile Bent | Pile Bent | | | | | | | | |
| Material of Abutment | Material of Abutment | 1 | 2 | 3 | Abutment Code: | 2 | | | | |
| | Brick or plane | other | | | | | | | | |
| Ground Classification | Ground Classification | 1 | 2 | 3 | 4 | Ground Code: | 2 | | | |
| | Rock | Medium Stiff | Soft | very Soft | | | | | | |
| Sensibility to Liquefaction | Sensibility to Liquefaction | 1 | 2 | 3 | Liquefaction Code: | 1 | | | | |
| | None | Probably | Yes | | | | | | | |
| (4) SEISMICAL INFORMATION: | | | | | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | 5 | | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | | | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | Condition Code: | 2 | | | | | |
| | Good | Fair | Not good | | | | | | | |

BRIDGE & ROAD INSPECTION / INVENTORY SHEET


Inspection Date: 2007/9/28


| | | | | | | | | | | |
|---|--|-------------------------|----------------------------|-----------------|--|---------------|---|--|--|--|
| (1) GENERAL: | | | | | | | | | | |
| Culvert Name: | Malaya Almatinka River – Dostyk Avenue | | | | Name Code: | MAL-7 | | | | |
| Location: | 43.20320833 N 76.9786333 E | | | | | | | | | |
| Year Built: | | | | | | | | | | |
| Seismically Retrofitted or Rehabilitated: | Yes | No | Description/Date: | | | | | | | |
| Latest previous inspection by: | | | | | Date: | | | | | |
| Road Type: | Number of Lanes | 1 | 2 | 3 | Road Code: | 3 | | | | |
| | City Street (single lane) | 2m to 6m | City Avenue (2 or 4 lanes) | 7m to 15m | Major Motorways (>4 lanes) | > 16m | | | | |
| Traffic Volume: (pcu/day) | ADT | 1 | 2 | 3 | Traffic Code: | 1 | | | | |
| | Low Traffic | <5,000 | Medium Traffic | 5,000 to 12,000 | Heavy Traffic | >12,000 | | | | |
| Bridge Type: | River Bridge | 1 | 2 | 3 | 4 | Bridge Code: | 1 | | | |
| | Road Flyover | Viaduct or Interchange | | | Railroad Bridge or Flyover on Railroad | | | | | |
| Total Bridge's Length: | Length | 110.00m | 1 | 2 | 3 | Length Code: | 3 | | | |
| | Short | <20m | Middle | 21m to 25m | Long | > 26m | | | | |
| Bridge Width: | Width | 17.70m | 1 | 2 | 3 | Width Code: | 3 | | | |
| | <10m | 10m to 15m | >16m or twin | | | | | | | |
| Bridge Alignment: | Skewness | 1 | 2 | 3 | Alignment Code: | 2 | | | | |
| | Straight | Skewed | | | Curved | | | | | |
| (2) SUPERSTRUCTURE: | | | | | | | | | | |
| Spans Distribution | Spans Number | 1 | 2 | 3 | Span Code: | 2 | | | | |
| | single span | >2 | | | | | | | | |
| Girder Type: | Arch or Rigid Frame | 1 | 2 | 3 | Girder Code: | 3 | | | | |
| | Continuous | Single or Gerber Girder | | | | | | | | |
| Bearing Type: | Falling Prevention Device | 1 | 2 | 3 | Bearing Code: | 2 | | | | |
| | Normal | M-M | | | | | | | | |
| Minimum Width of Bridge Seat: | Wide (AS>=1) | 2 | 3 | 4 | Seat Code: | 2 | | | | |
| | Narrow (AS<1) | Gerber Bearing (D<=1) | | | | | | | | |
| (3) SUBSTRUCTURE: | | | | | | | | | | |
| Max. Height of Abutment/Pier | Max. Height | 5.00m | 1 | 2 | 3 | Height Code: | 1 | | | |
| | less than 5m | 5 to 10m | more than 10m | | | | | | | |
| Foundation Type | Foundation Type | 1 | 2 | 3 | Foundation Code: | 1 | | | | |
| | Except Pile Bent | Pile Bent | | | | | | | | |
| Material of Abutment | Material of Abutment | 1 | 2 | 3 | Abutment Code: | 1 | | | | |
| | Brick or plane | other | | | | | | | | |
| Ground Classification | Ground Classification | 1 | 2 | 3 | 4 | Ground Code: | 2 | | | |
| | Rock | Medium Stiff | Soft | very Soft | | | | | | |
| Sensibility to Liquefaction | Sensibility to Liquefaction | 1 | 2 | 3 | Liquefaction Code: | 1 | | | | |
| | None | Probably | Yes | | | | | | | |
| (4) SEISMICAL INFORMATION: | | | | | | | | | | |
| Seismic Intensity | 1 | 2 | 3 | 4 | 5 | Seismic Code: | 5 | | | |
| | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | | | | | |
| (5) CONDITION OF STRUCTURE: | | | | | | | | | | |
| Condition of structure | 1 | 2 | 3 | Condition Code: | 3 | | | | | |
| | Good | Fair | Not good | | | | | | | |


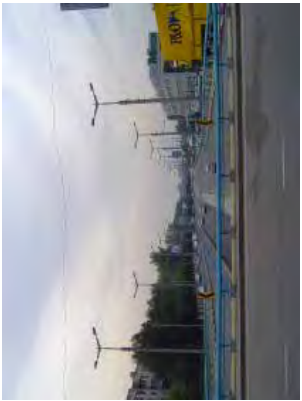


List of Bridges





| <u>Code</u> | <u>Location</u> |
|-------------|--|
| BEK-0 | Bekmakhanov Street – Sultanka River |
| BEK-1 | Bekmakhanov_St – Railroad |
| BEK-2 | Bekmakhanov St – Lavrenyov_& Mailin I/C |
| RYS-0 | Ryskulov Ave. – Raymbek Ave. I/C |
| RYS-1a | Ryskulov Ave. – Bolshaya Almatinka River |
| RYS-1b | Ryskulov Ave. – Severnoe Koltso I/C |
| RYS-2 | Ryskulov Ave. – Bokeikhanov St. |
| RYS-2a | Ryskulov Ave. – Esentai River. |
| RYS-3 | Ryskulov Ave. – Kazybaevk St. (flyover) |
| RYS-5a | Ryskulov Ave.–Zhansugirov St & Seifullin Ave. |
| RYS-5 | Ryskulov Ave. – Suyunbai Ave. |
| RYS-6 | Ryskulov Ave. – Volochaevskaya Street |
| RAI-1 | Raiymbek Ave. – Bolshaya Almatinka River |
| RAI-2a | Raiymbek Ave. – Esentai River |
| RAI-2b | Raiymbek Ave. – Esentai River |
| RAI-2c | Raiymbek Ave.–Railroad at Myrzoyan Street |
| RAI-3 | Raiymbek Ave. – Seifullin Ave. |
| ZHA-1 | Burundaiskaya – Severnoe Interchange |
| ZHA-2 | Burundaiskaya Street over Railway |
| ZHA-3 | Zhansugilov Ave. – Kunaev Big Almaty Canal |
| SEV-0 | Severnoe Ave- Esentai River – Railway |
| SEV-1 | Severnoe Koltso Ave. – Railroad |
| SEV-2 | Severnoe Koltso Ave. – Kunaev Big Almaty Canal |
| SEI-1 | Seifullin Avenue – Kunaev Big Almaty Canal |
| ESE-1 | Esentai River – Al Farabi Ave. |
| ESE-2 | Esentai River – Timiryazev Street |
| ESE-1 | Esentai River – Bukhar Zhyrau Boulevard |
| ESE-2 | Esentai River – Satpaev Akademik Street |
| ESE-3 | Esentai River – Abai Avenue |
| ESE-4 | Esentai River – Kurmangazy Street |
| ESE-5 | Esentai River – Shevchenko Street |
| ESE-6 | Esentai River – Zhambyl Street |
| ESE-7 | Esentai River – Bogenbai Batyr Street |
| ESE-8 | Esentai River – Tole Bi Street |
| ESE-9 | Esentai River – Gogol Street |
| MAL-1 | Malaya Almatinka River – Tatibekov Street |

| <u>Code</u> | <u>Location</u> |
|-------------|--|
| MAL-2 | Malaya Almatinka River – Dobrolyubok Street |
| MAL-3 | Malaya Almatinka River – Makataev Mukagali St. |
| MAL-4 | Malaya Almatinka River – Gogol Street |
| MAL-5 | Malaya Almatinka River – Koshkunov St. |
| MAL-6 | Alfarabi Avenue – Dostyk Avenue (Malaya Almatinka) |
| MAL-7 | Malaya Almatinka River – Dostyk Avenue |
| BOL-1 | Bolshaya Almatinka River – Al Farabi Ave. |
| BOL-2 | Bolshaya Almatinka River – Toraigyrov Street |
| BOL-3 | Bolshaya Almatinka River – Zhandosov St. |
| BOL-4 | Bolshaya Almatinka River – Shalyapin St. |
| BOL-5 | Bolshaya Almatinka River – Abai Avenue |
| BOL-6 | Bolshaya Almatinka River – Tole Bi Street |

| | | |
|--|--|---------------------------------|
| Location: Bekmakanov Street - Sultanka River | | District: TURKSIB |
| Code: BEK-0 | | Type: Double Cell - Box Culvert |
| Photo No. BEK-0(1) | | |
| <i>Description:</i> General view of Bekmakanov Street at the double-culvert location | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ 2x3 lanes carriageway including unpaved shoulders | | |
| Photo No. BEK-0(2) | | |
| <i>Description:</i> General view of the double-cell box culvert | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ 2 x 1.5 x 2.0 RC box culvert ✓ Embankment over the culvert has approximately 6.0m height ✓ Total length: 45m approximately | | |
| Photo No. BEK-0(3) | | |
| <i>Description:</i> View of the Sultanka River (up-stream). | | |
| <i>Remarks:</i> | | |
|  | | |



| | | |
|--|--|----------------------------------|
| Location: Bekmakanov_St - Railroad | | District: TURKSIB |
| Bridge Code: BEK-1 | | Bridge Type: Flyover on Railroad |
| Photo No. BEK-1 (1) | | |
| <i>Description:</i> General view of the bridge | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ 2x4 lanes carriageway. ✓ Old construction critically deteriorated ✓ Total length: 85.0m, 5 Spans: 11.36m + 22.16m + 11.36m + 22.16m + 11.36m = 79.0m ✓ Total width: 18.0m; Carriageway: 15.8m | | |
| Photo No. BEK-1 (2) | | |
| <i>Description:</i> General view of the bridge superstructure | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ All spans have a Gerber Type bearing arrangement ✓ The bearing seats seem to be too short ✓ Bearing plates are not visible for evaluation | | |
| Photo No. BEK-1 (3) | | |
| <i>Description:</i> View of the superstructure and pier arrangement | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ In general, the joints of transversal beams are deteriorated | | |
| Photo No. BEK-1 (4) | | |
| <i>Description:</i> View of bearing arrangement on a pier. | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ Stability of the girder and pier-head is not secured ✓ Anti-seismic devices were not identified. | | |
|  | | |



| Location: | | Bekmakanov St – Lavrenyov_& Mailin I/C | District: | TURKSIB |
|--|--|--|--------------|-------------------|
| Bridge Code: | | BEK-2 | Bridge Type: | Underpass for I/C |
|  | | Photo No. BEK-2 (1) | | |
| <i>Description:</i> General view of Bekmakanov St – Lavrenyov_& Mailin Interchange | | | | |
| <i>Remarks:</i> | | | | |
| <ul style="list-style-type: none"> ✓ The I/C consist of a 2-lanes carriageway Round-about and 4 bridge-underpasses ✓ Recently constructed and in good conditions | | | | |
|  | | Photo No. BEK-2 (2) | | |
| <i>Description:</i> General view of the I/C from the center point of the round-about (Mailin street - south) | | | | |
| <i>Remarks:</i> | | | | |
|  | | Photo No. BEK-2 (3) | | |
| <i>Description:</i> General view of the I/C from the center point of the round-about (Lavrenyov street - north) | | | | |
| <i>Remarks:</i> | | | | |
| <ul style="list-style-type: none"> ✓ PC rigid frame bridge. | | | | |
|  | | Photo No. BEK-2 (4) | | |
| <i>Description:</i> General view of the I/C from the center point of the round-about (Mailin street - north) | | | | |
| <i>Remarks:</i> | | | | |
| <ul style="list-style-type: none"> ✓ PC rigid frame bridge. | | | | |

| Location: | | Ryskulov Ave. – Raymbek Ave. I/C | District: | AUEZOV |
|---|--|----------------------------------|--------------|------------------|
| Bridge Code: | | RYS-0 | Bridge Type: | Road Flyover I/C |
|  | | Photo No. RYS-0(1) | | |
| <i>Description:</i> General view of Ryskulov-Raymbek interchange | | | | |
| <i>Remarks:</i> | | | | |
| <ul style="list-style-type: none"> ✓ New and recently constructed I/C. Main bridge is composed by steel I-girders ✓ Total length of the flyover (read by satellite view) = 655 m including approaches | | | | |
|  | | Photo No. RYS-0(2) | | |
| <i>Description:</i> General view of the flyover ramps of the I/C | | | | |
| <i>Remarks:</i> | | | | |
| <ul style="list-style-type: none"> ✓ Continuous PC slab ✓ Bearing on the abutments seems to be properly constructed. | | | | |
|  | | Photo No. RYS-0(3) | | |
| <i>Description:</i> General view of the underpass ramps of the I/C | | | | |
| <i>Remarks:</i> | | | | |
| <ul style="list-style-type: none"> ✓ Recently constructed looks to be in good conditions | | | | |
|  | | Photo No. RYS-0(4) | | |
| <i>Description:</i> General view of the main bridge's superstructure. | | | | |
| <i>Remarks:</i> | | | | |
| <ul style="list-style-type: none"> ✓ Bearing on the piers seems to be properly constructed. ✓ Anti-seismic devices are installed at each couple of I-girders on the pier heads. | | | | |

| | | | |
|--|--|--------------|------------------|
| Location: | Ryskulov Ave. – Bolshaya Almatinka River | District: | AUEZOV - ZHETYSU |
| Bridge Code: | RYS-1a | Bridge Type: | River Bridge |
| Photo No. RYS-1a(1) | | | |
| <i>Description:</i> General view of Ryskulov avenue nearby the bridge. | | | |
| <i>Remarks:</i> ✓ 2x3 lanes carriageway with wide shoulders | | | |
| Photo No. RYS-1a(2) | | | |
| <i>Description:</i> General view of the bridge over the Bolshaya Almatinka River | | | |
| <i>Remarks:</i> ✓ Widened section is of 2 spans, PC T-Girders frame. But old section is of 3 spans PC T-girders ✓ Total length of the flyover (read by satellite view) = 45 m including approaches | | | |
| Photo No. RYS-1a(3) | | | |
| <i>Description:</i> View of the superstructure and pier arrangement | | | |
| <i>Remarks:</i> ✓ The bridge has been widened at both sides by about one lane width. ✓ The existing conditions of the old bridge is in critical conditions of deterioration. ✓ Bearing devises' type can't be identified. | | | |
| Photo No. RYS-1a(4) | | | |
| <i>Description:</i> View of the bearing arrangement in the southern abutment | | | |
| <i>Remarks:</i> ✓ White marks caused by linking of water from the surface may cause the concrete deterioration. ✓ Bearing devises' type can't be identified. | | | |

| | | | |
|--|-------------------------------------|--------------|----------------------|
| Location: | Ryskulov Ave. – Severnoe Koltso I/C | District: | ALMAY - ZHETYSU |
| Bridge Code: | RYS-1b | Bridge Type: | Road Flyover for I/C |
| Photo No. RYS-2a(1) | | | |
| <i>Description:</i> General view of the Bridge surface | | | |
| <i>Remarks:</i> ✓ 2x2 lanes carriageway without pedestrians' sidewalks ✓ Total length of the flyover (read by satellite view) = 450 m including approaches | | | |
| Photo No. RYS-2a(2) | | | |
| <i>Description:</i> General view of the bridge | | | |
| <i>Remarks:</i> ✓ The I/C is under construction ✓ PC I-girders | | | |
| Photo No. RYS-2a(3) | | | |
| <i>Description:</i> View of the bearing arrangement on the piers | | | |
| <i>Remarks:</i> ✓ The diaphragm's width fit exactly with pier-head width without space or devises for seismic prevention. | | | |
| Photo No. RYS-2a(4) | | | |
| <i>Description:</i> View of the I/C's ramp underpass | | | |
| <i>Remarks:</i> ✓ Under construction. | | | |

| | | | |
|---|---------------------------------|--------------|--------------|
| Location: | Ryskulov Ave. – Bokeikhanov St. | District: | ZHETYSU |
| Bridge Code: | RYS-2 | Bridge Type: | Road Viaduct |
|  | | | |
| Photo No. RYS-2(1) | | | |
| <i>Description:</i> | | | |
| General view of the Bridge surface | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ 2x2 lanes carriageway with pedestrians sidewalks at both sides ✓ Traffic is of considerable volume, traffic congestion can be observed in the rush-hours. | | | |
| Photo No. RYS-2(2) | | | |
| <i>Description:</i> | | | |
| View of the superstructure | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Multiple span, twin PC Box Girder bridges separated by a joint. ✓ New and recently constructed. ✓ Approximate length is of about 750m including the section passing over the railroad. | | | |
| Photo No. RYS-2(3) | | | |
| <i>Description:</i> | | | |
| View of the superstructure and pier arrangement | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ The joint between the bridges is not been sealed and water can lick from the surface. ✓ Bearing supports seems been properly constructed, but Supports for seismic prevention can't be identified. | | | |
| Photo No. RYS-2(4) | | | |
| <i>Description:</i> | | | |
| View of the railroad from the bridge/viaduct | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ The viaduct includes a section passing over the railroad. | | | |
|  | | | |

| | | | |
|--|--------------------------------|--------------|------------------|
| Location: | Ryskulov Ave. – Esentai River. | District: | ZHETYSU - ALMALY |
| Bridge Code: | RYS-2a | Bridge Type: | River Bridge |
|  | | | |
| Photo No. RYS-3(1) | | | |
| <i>Description:</i> | | | |
| General view of the Bridge | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Traffic passing through Ryskulov Ave. over the Esentai bridge is severely congested. ✓ One span PC I girder bridge ✓ Total length of the bridge is 65 m including approaches | | | |
| Photo No. RYS-3(2) | | | |
| <i>Description:</i> | | | |
| View of the Esentai river from Ryskulov Ave. | | | |
| <i>Remarks:</i> | | | |
|  | | | |



| | | | |
|---|---|--------------|--------------|
| Location: | Ryskulov Ave. - Kazybaevk St. (flyover) | District: | ZHETYSU |
| Bridge Code: | RYS-3 | Bridge Type: | Road Flyover |
| Photo No. RYS-3(1) | | | |
| <i>Description:</i> General view of the Bridge (under construction) | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Bridge (flyover) passing over Ryskulov Avenue ✓ Main span PC-arch slab bridge. ✓ Other spans PC T-girders | | | |
| Photo No. RYS-3(2) | | | |
| <i>Description:</i> View of the superstructure | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Under construction. | | | |
| Photo No. RYS-3(3) | | | |
| <i>Description:</i> View of the superstructure and pier arrangement | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ The traffic through Ryskulov avenue is very high and congested continuously. | | | |


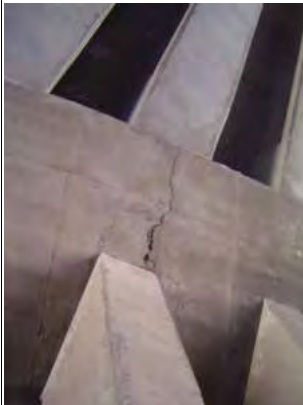
| | | | |
|---|--|--------------|----------------------|
| Location: | Ryskulov Ave.-Zhamsugirov St. & Seifullin Ave. | District: | ZHETYSU |
| Bridge Code: | RYS-5a I/C | Bridge Type: | Road Flyover for I/C |
| Photo No. RYS-5a(1) | | | |
| <i>Description:</i> General view of the Ryskulov Avenue flyover for a double Interchange on Zhamsugirov Street and Seifullin Avenue. | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ 2 x 3 lanes carriageway with a median, no shoulders and without pedestrian sidewalks. | | | |
| Photo No. RYS-5a (2) | | | |
| <i>Description:</i> General view of the bridge's approach | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Multi-spans PC I-girder bridge with approx. length of more than 600 m. | | | |
| Photo No. RYS-5a (3) | | | |
| <i>Description:</i> View of the superstructure arrangement. | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Bearing seems properly provided. ✓ Anti-seismic devices are not identified ✓ Unusual position for the joins of girders for continuity is applied (not on the pier-head) | | | |
| Photo No. RYS-5a (4) | | | |
| <i>Description:</i> View of one of the one span bridge for the ramps of the interchange passing over the underpass along Zhamsugirov street. | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ New and recently opened double I/C. ✓ The I/C has two roundabouts, one on the Zhamsugirov St. and other on Seifullin Ave. | | | |



| | | | |
|--|-------------------------------|--------------|------------------------|
| Location: | Ryskulov Ave. – Suyunbai Ave. | District: | ZHETYSU |
| Bridge Code: | RYS-5 | Bridge Type: | Road Flyover (Viaduct) |
| Photo No. RYS-5(1) | | | |
| <i>Description:</i> | | | |
| General view of the Ryskulov Avenue flyover-viaduct on Suyunbai Ave. | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ 2 x 3 lanes carriageway without median, no shoulders and without pedestrian sidewalks. | | | |
| Photo No. RYS-5(2) | | | |
| <i>Description:</i> | | | |
| General view of the bridge | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Multi-spans PC I-girder-frame bridge with approx. length of more than 450 m. | | | |
| Photo No. RYS-5(3) | | | |
| <i>Description:</i> | | | |
| View of the general arrangement of the superstructure. | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ It looks to be a new structure; however some sections show damages of concrete spalling to the depth of the reinforcing bars | | | |
| Photo No. RYS-5(4) | | | |
| <i>Description:</i> | | | |
| View of the span for the railway. | | | |
| <i>Remarks:</i> | | | |
| | | | |







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|---|---------------------------------------|--------------|-------------|
| Location: | Ryskulov Ave. – Volochoevskaya Street | District: | MEDEU |
| Bridge Code: | RYS-6 | Bridge Type: | Road Bridge |
| Photo No. RYS-6(1) | | | |
| <i>Description:</i> | | | |
| General view of the Ryskulov Avenue nearby the bridge. | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ 2 x 3 lanes carriageway without median, wide shoulders and without pedestrian sidewalks. | | | |
| Photo No. RYS-6(2) | | | |
| <i>Description:</i> | | | |
| General view of the bridge | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Multi-spans PC I-girder-frame. | | | |
| Photo No. RYS-6(3) | | | |
| <i>Description:</i> | | | |
| View of the general arrangement of the superstructure. | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Devices for seismic prevention are not provided. ✓ Steel plates of mobile bearings are corroded. | | | |
| Photo No. RYS-6(4) | | | |
| <i>Description:</i> | | | |
| View of the bearing system at the abutment. | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Devices for seismic prevention are not provided. ✓ Steel bearings are corroded. | | | |







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|---|--|---------------------------|
| Location: Raiymbek Ave. – Bolshaya Almatinka River | | District: AUEZOV-ALMaly |
| Bridge Code: RAI-1 | | Bridge Type: River Bridge |
|  | | |
| Photo No. RAI-1(1) | | |
| <i>Description:</i> | | |
| General view of Raiymbek avenue near to crossing intersection with Severnoe Koltiso | | |
| <i>Remarks:</i> | | |
| ✓ 2x3 lanes carriageway with a wide median and wide shoulders | | |
| Photo No. RAI-1(2) | | |
| <i>Description:</i> | | |
| General view of the bridge over the Bolshaya Almatinka River | | |
| <i>Remarks:</i> | | |
| ✓ Twin bridges of 2 spans with a frame composed by T-beams | | |
| Photo No. RAI-1(3) | | |
| <i>Description:</i> | | |
| View of the superstructure and pier arrangement | | |
| <i>Remarks:</i> | | |
| ✓ White marks caused by laking of water from the surface may cause the concrete deterioration | | |
| Photo No. RAI-1(4) | | |
| <i>Description:</i> | | |
| View of gas pipelines crossing the river in between the bridges | | |
| <i>Remarks:</i> | | |
|  | | |

| | | |
|--|--|-----------------------------------|
| Location: Raiymbek Ave. – Bokeikhanov I/C | | District: ALMaly |
| Bridge Code: RAI-2a | | Bridge Type: Road Flyover for I/C |
|  | | |
| Photo No. RAI-2a(1) | | |
| <i>Description:</i> | | |
| General view of the Bridge from Bokeikhanov Street | | |
| <i>Remarks:</i> | | |
| ✓ 2x3 lanes carriageway with wide shoulders | | |
| Photo No. RAI-2a(2) | | |
| <i>Description:</i> | | |
| View of the superstructure | | |
| <i>Remarks:</i> | | |
| ✓ One span PC frame deck bridge | | |
| ✓ Deterioration of the deck slab due to laking water from the surface is observed. There is a potential risk for concrete carbonation and steel corrosion. | | |
| Photo No. RAI-2a(3) | | |
| <i>Description:</i> | | |
| View of the superstructure and pier arrangement | | |
| <i>Remarks:</i> | | |
| ✓ Several sections with deterioration of the concrete is observed in important structural components | | |
| Photo No. RAI-2a(4) | | |
| <i>Description:</i> | | |
| View of the main diaphragm in the southern abutment | | |
| <i>Remarks:</i> | | |
| ✓ A crack is observed. Confirmation of the deepness of the crack and its origin is necessary. | | |
|  | | |

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|--|---------------------------|------------------------------------|
| Location: Raiymbek Ave. - Esentai River | | District: ALMALLY - ZHETYSU |
| Bridge Code: RAI-2b | Bridge Type: River Bridge | |
| Photo No. RAI-2b(1) | | |
| <i>Description:</i> General view of the Bridge surface | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ 2x4 lanes carriageway with wide shoulders ✓ Traffic is of considerable volume, traffic congestion can be observed in the rush-hours. | | |
| Photo No. RAI-2b(2) | | |
| <i>Description:</i> View of the superstructure | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ One span bridge PC-slab composed by square-holed beams. | | |
| Photo No. RAI-2b(3) | | |
| <i>Description:</i> View of the superstructure and pier arrangement | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ Bearing devises can not be identified. | | |
| Photo No. RAI-2b(4) | | |
| <i>Description:</i> Typical section of the Raiymbek Avenue nearby Esentai River | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ 2x4 lanes carriageway with a wide median and wide shoulders. ✓ A flyover bridge for the railroad and another for the gas-pipelines are crossing over the Raiymbek Avenue. | | |





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|--|-------------------------------|--------------------------|
| Location: Raiymbek Ave.–Railroad at Myrzoian Street | | District: ALMALLY |
| Bridge Code: RAI-2c | Bridge Type: Railroad Flyover | |
| Photo No. RAI-2c(1) | | |
| <i>Description:</i> General view of the Bridge from the north-western side | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ Traffic running on Raiymbek Avenue is very intensive. ✓ Four spans PC box girder | | |
| Photo No. RAI-2c(2) | | |
| <i>Description:</i> View of the bearings on the northern abutment | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ Devises for seismic prevention are not visible | | |
| Photo No. RAI-2a(3) | | |
| <i>Description:</i> View of the pier head at the northern side | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ Bearings are roughly visible ✓ The corrosion on the bearing system, abutments and piers, is considerably notorious. | | |
| Photo No. RAI-2c(4) | | |
| <i>Description:</i> General view of the Bridge from the north-eastern side | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ A flyover for double pipe-line is passing over Raiymbek Avenue parallel to the eastern side of railroad bridge. | | |


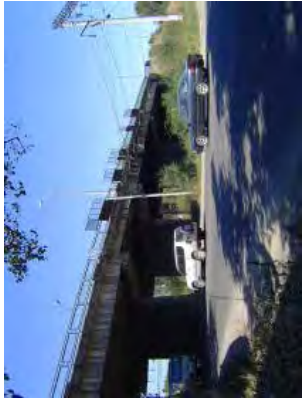


| Location: | | Burundaiskaya - Severmoe Interchange | | District: | TURKSIB |
|--|-------|--|-------|--|---------------|
| Bridge Code: | RAI-3 | Bridge Code: | ZHA-1 | Bridge Type: | Flyover (I/C) |
|  | |  | | <p>Photo No. RAI-3(1)</p> <p>Photo No. ZHA-1(1)</p> | |
| <p><i>Description:</i> General view of the Bridge</p> | | <p><i>Description:</i> General view from Severmoe Koltzo Avenue</p> | | <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ 4 spans PC precast I-girder bridge ✓ Alignment of Severmoe Koltso Ave. Cause a light skew on the bridge alignment ✓ Severmoe Koltso has 2x3 lanes carriageway | |
| <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Traffic passing through Seifullin Ave. is of considerable volume. | | <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ I-girders are not installed directly on bearing pats ✓ Left and right bearing devises are of different size and class. It seems to be shorter than the required standard width. ✓ Anti-seismic devices are not provided | | | |
| <p>Photo No. RAI-3(2)</p> <p><i>Description:</i> View of the superstructure</p> | | <p>Photo No. ZHA-1(2) and (3)</p> <p><i>Description:</i> View of pier-head</p> | | | |
| <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Piers are exposed to the traffic (there is not protection against vehicles crushing). ✓ Total length of the flyover 340m including approaches. Bridge length is of 49m | | <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ The structure is potentially sensitive to sharing forces of a strong earthquake | | | |
|  | |  | | | |
| <p>Photo No. RAI-3(3)</p> <p><i>Description:</i> View of the deck slab bottom</p> | | <p>Photo No. ZHA-1(4)</p> <p><i>Description:</i> View of the superstructure arrangement at the southern abutment</p> | | | |
| <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Deterioration of concrete surface can be observed. | | <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Transversal (stiffener) beams were precast too and linked by metallic plates. ✓ Location of transversal beams are not properly aligned. | | | |
|  | |  | | | |
| <p>Photo No. RAI-3(4)</p> <p><i>Description:</i> View of the deck slab bottom</p> | | <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ The structure is potentially sensitive to sharing forces of a strong earthquake | | | |
| <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Deterioration of concrete surface can be observed. | | | | | |


| Location: | | Burundaiskaya - Severmoe Interchange | | District: | TURKSIB |
|--|-------|--|-------|--|---------------|
| Bridge Code: | RAI-3 | Bridge Code: | ZHA-1 | Bridge Type: | Flyover (I/C) |
|  | |  | | <p>Photo No. RAI-3(1)</p> <p>Photo No. ZHA-1(1)</p> | |
| <p><i>Description:</i> General view of the Bridge</p> | | <p><i>Description:</i> General view from Severmoe Koltzo Avenue</p> | | <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ 4 spans PC precast I-girder bridge ✓ Alignment of Severmoe Koltso Ave. Cause a light skew on the bridge alignment ✓ Severmoe Koltso has 2x3 lanes carriageway | |
| <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Traffic passing through Seifullin Ave. is of considerable volume. | | <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ I-girders are not installed directly on bearing pats ✓ Left and right bearing devises are of different size and class. It seems to be shorter than the required standard width. ✓ Anti-seismic devices are not provided | | | |
| <p>Photo No. RAI-3(2)</p> <p><i>Description:</i> View of the superstructure</p> | | <p>Photo No. ZHA-1(2) and (3)</p> <p><i>Description:</i> View of pier-head</p> | | | |
| <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Piers are exposed to the traffic (there is not protection against vehicles crushing). ✓ Total length of the flyover 340m including approaches. Bridge length is of 49m | | <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ The structure is potentially sensitive to sharing forces of a strong earthquake | | | |
|  | |  | | | |
| <p>Photo No. RAI-3(3)</p> <p><i>Description:</i> View of the deck slab bottom</p> | | <p>Photo No. ZHA-1(4)</p> <p><i>Description:</i> View of the superstructure arrangement at the southern abutment</p> | | | |
| <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Deterioration of concrete surface can be observed. | | <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Transversal (stiffener) beams were precast too and linked by metallic plates. ✓ Location of transversal beams are not properly aligned. | | | |
|  | |  | | | |
| <p>Photo No. RAI-3(4)</p> <p><i>Description:</i> View of the deck slab bottom</p> | | <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ The structure is potentially sensitive to sharing forces of a strong earthquake | | | |
| <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Deterioration of concrete surface can be observed. | | | | | |





| Location: | Burundaiskaya Street over Railway | District: | TURKSIB |
|---|-----------------------------------|--------------|--------------------|
| Bridge Code: | ZHA-2 | Bridge Type: | Flyover on Railway |
| Photo No. ZHA-2 (1) | | | |
| <i>Description:</i> | | | |
| General view from Burundaiskaya Street | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Located on a horizontal curve of Burundaiskaya Street. ✓ Burundaiskaya street has 2x3 lanes carriageway. | | | |
| Photo No. ZHA-2 (2) and (3) | | | |
| <i>Description:</i> | | | |
| View of pier-head | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Multiple spans, PC precast T-girders bridge. ✓ T-girders are bearing on a cast-in-place PC (?) diaphragm. ✓ Anti-seismic can't be identified. ✓ The joints between girders and the deck are deteriorated and possible corrosion of the steel can be suspected. ✓ Total length: 190m, Spans: 6 x 22.7m ✓ Total width: 29.5m; Carriageway: 28.7m | | | |
| Photo No. ZHA-2 (4) | | | |
| <i>Description:</i> | | | |
| View of the superstructure arrangement at the northern abutment | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Deterioration by water lipping on the diaphragm and abutment-head is notorious. ✓ The abutment head is not bearing the outside T-girder of the superstructure deck. | | | |


| Location: | Zhansugilov Ave. - Kunaev Big Almaty Canal | District: | TURKSIB-ZHETYSU |
|---|--|--------------|-----------------|
| Bridge Code: | ZHA-3 | Bridge Type: | Canal Bridge |
| Photo No. ZHA-3(1) | | | |
| <i>Description:</i> | | | |
| General view of the Zhansugilov Ave | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ 2 x 3 lanes carriageway | | | |
| Photo No. ZHA-3 (2) | | | |
| <i>Description:</i> | | | |
| General view of the bridge surface | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ The traffic volume is of considerable importance. | | | |
| Photo No. ZHA-3 (3) | | | |
| <i>Description:</i> | | | |
| General view of the bridge and canal | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ 1 span arch PC arch deck composed by I-girders ✓ Total length: 40.0m; Span: 36.20m ✓ Total width: 21.5m; Carriageway: 17.0m | | | |
| Photo No. ZHA-3 (4) | | | |
| <i>Description:</i> | | | |
| Closer view of the superstructure | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Deterioration by water lipping on the bridge deck is notorious. | | | |


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|--|---------------------------------------|--------------|--------------|
| Location: | Severnoe Ave- Esentai River - Railway | District: | TURKSIB |
| Bridge Code: | SEV-0 | Bridge Type: | River Bridge |
|  | | | |
| <p>Photo No. SEV-0 (1)</p> <p><i>Description:</i> General view of Severnoe Avenue nearby the bridge</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Recently widened 2x3 lanes carriageway. ✓ The northern side two lanes have been recently constructed ✓ Total length: 34m, Span length: 2 x 15m | | | |
|  | | | |
| <p>Photo No. SEV-0 (2)</p> <p><i>Description:</i> General view of the bridge superstructure</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Northern Lanes: Two spans PC box beams' deck slab (new) ✓ Southern Lanes (right side photo): Two spans PC-T girders (old and in bad conditions of deterioration) | | | |
|  | | | |
| <p>Photo No. SEV-0 (3)</p> <p><i>Description:</i> View of the superstructure and pier arrangement</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Northern Lanes: The pier is composed by six RC columns (new) ✓ Southern Lanes (left side photo): Solid wall-type pier ✓ Bearings are not visible | | | |
|  | | | |
| <p>Photo No. SEV-0 (4)</p> <p><i>Description:</i> View of existing conditions of the Southern Lanes superstructure.</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Deterioration is critical. ✓ Anti-seismic devises were not identified. | | | |


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|---|---------------------------------|--------------|-------------------|
| Location: | Severnoe Koltso Ave. - Railroad | District: | ZHEYYSU - TURKSIB |
| Bridge Code: | SEV-1 | Bridge Type: | Road Flyover |
|  | | | |
| <p>Photo No. SEV-1(1)</p> <p><i>Description:</i> General view of Severnoe Koltso avenue nearby the bridge.</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Road nearby the bridge is of 2x3 lanes carriageway with wide shoulders ✓ Carriageway at the bridge has not shoulder but keep 2x3 lanes | | | |
|  | | | |
| <p>Photo No. SEV-1(2)</p> <p><i>Description:</i> General view of the bridge superstructure</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Four spans, PC T-Girders (22.16m + 11.36m + 2x22.16m). Total length: 85m ✓ Bridge composed by 2 types of superstructure. Two spans over a road, and the other two spans for the railroad (one of them is a Gerber span). | | | |
|  | | | |
| <p>Photo No. SEV-1(3)</p> <p><i>Description:</i> View of the superstructure and pier arrangement</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ The transversal beams (stiffeners) of all spans are deteriorated. ✓ Bearing devises' type can't be identified. | | | |
|  | | | |
| <p>Photo No. SEV-1(4)</p> <p><i>Description:</i> View of the bearing arrangement in the southern abutment</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ White marks caused by linking of water from the surface may cause the concrete deterioration. Devises to prevent seismic action can't be identified. | | | |



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|---|--|--------------|--------------|
| Location: | Severnoe Koltso Ave. - Kunaev Big Almaty Canal | District: | ZHETYSU |
| Bridge Code: | SEV-2 | Bridge Type: | River Bridge |
|  | | | |
| <p>Photo No. SEV-2 (1)</p> <p><i>Description:</i> General view of the Bridge</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ 2x3 lanes carriageway with shoulders and pedestrians' sidewalks ✓ Total length: 20m. Span length: 18.10m | | | |
|  | | | |
| <p>Photo No. SEV-2 (2)</p> <p><i>Description:</i> General view of the deck slab and abutment bearings</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ White marks are evidencing water licking from the bridge surface through cracks | | | |
|  | | | |
| <p>Photo No. SEV-2 (3)</p> <p><i>Description:</i> View of similar bridge on Bokeikhanov Street from Severnoe Koltso</p> <p><i>Remarks:</i></p> | | | |

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|--|--|--------------|-------------------|
| Location: | Seifullin Avenue - Kunaev Big Almaty Canal | District: | ZHETYSU – TURKSIB |
| Bridge Code: | SEI-1 | Bridge Type: | River Bridge |
|  | | | |
| <p>Photo No. SEI-1 (1)</p> <p><i>Description:</i> General view of the Raiymbek Avenue nearby its end point at Malaya Almatinka river</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ 2 x 4 lanes carriageway with urban shoulders and pedestrian sidewalks. | | | |
|  | | | |
| <p>Photo No. SEI-1 (2)</p> <p><i>Description:</i> General view of the bridge</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ One span PC Arch Slab composed by T-beams. ✓ Total Length: 56.0m; total width: 24.0m (including sidewalks) ✓ Span length: 36.20m; Carriageway: 17.0m | | | |
|  | | | |
| <p>Photo No. SEI-1 (3)</p> <p><i>Description:</i> View of the superstructure.</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Deterioration of the deck's concrete is in progress due to water licking from the road surface. | | | |
|  | | | |
| <p>Photo No. SEI-1 (4)</p> <p><i>Description:</i> View of the Interchange located in the crossing intersection of Seifullin Avenue and Ryskulov Avenue..</p> <p><i>Remarks:</i></p> | | | |





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|--|--------------------------------|--------------|------------------------|
| Location: | Esentai River - Al Farabi Ave. | District: | BOSTANDYK-MEDEU |
| Bridge Code: | ESE-1 | Bridge Type: | River Bridge |
|  | | | |
| Photo No. ESE-1(1) | | | |
| <i>Description:</i> | | | |
| General view of Al Farabi avenue near to Rozybakiev Street | | | |
| <i>Remarks:</i> | | | |
| ✓ 2x3 lanes carriageway with a wide median | | | |
| Photo No. ESE-1(2) | | | |
| <i>Description:</i> | | | |
| General view of the bridge | | | |
| <i>Remarks:</i> | | | |
| ✓ 3 spans precast PC slab composed by square box beams | | | |
| ✓ Total length=41m and total width=32.5m (including median) approximately | | | |
| ✓ Span lengths : 9.0m+18.0m+9.0m | | | |
| Photo No. ESE-1(3) | | | |
| <i>Description:</i> | | | |
| View of the superstructure arrangement. | | | |
| <i>Remarks:</i> | | | |
| ✓ Apparently the slab is been supported directly by the pier head without bearing devises. | | | |
| Photo No. ESE-1(4) | | | |
| <i>Description:</i> | | | |
| View of bearing seat on the abutment | | | |
| <i>Remarks:</i> | | | |
| ✓ Bearing devises can not be identified | | | |





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|--|-----------------------------------|--------------|------------------|
| Location: | Esentai River – Timiryazev Street | District: | BOSTANDYK |
| Bridge Code: | ESE-2 | Bridge Type: | River Bridge |
|  | | | |
| Photo No. ESE-2(1) | | | |
| <i>Description:</i> | | | |
| General view of the bridge | | | |
| <i>Remarks:</i> | | | |
| ✓ 2x2 lanes carriageway | | | |
| Photo No. ESE-2(2) | | | |
| <i>Description:</i> | | | |
| General view of the bridge | | | |
| <i>Remarks:</i> | | | |
| ✓ 1 span precast PC T-girders | | | |
| ✓ Total length=31m and total width=22.5m (including sidewalks) approximately | | | |
| ✓ Span length : 20.60m | | | |
| ✓ Carriageway width: 16.10m | | | |
| Photo No. ESE-2(3) | | | |
| <i>Description:</i> | | | |
| View of the superstructure arrangement. | | | |
| <i>Remarks:</i> | | | |
| ✓ Apparently the bridge has been widened at the southern section. | | | |
| Photo No. ESE-2(4) | | | |
| <i>Description:</i> | | | |
| View of Esentai river after been canalized | | | |
| <i>Remarks:</i> | | | |
| ✓ Recently constructed; some sections still been under construction | | | |





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|--|---|--------------|------------------|
| Location: | Esentai River – Bukhar Zhyrau Boulevard | District: | BOSTANDYK |
| Bridge Code: | ESE-3 | Bridge Type: | River Bridge |
|  | | | |
| Photo No. ESE-3(1) | | | |
| <i>Description:</i> | | | |
| General view of the Bukhar Zhyrau Boulevard at the bridge location | | | |
| <i>Remarks:</i> | | | |
| ✓ 2x2 lanes carriageway | | | |
| Photo No. ESE-3(2) | | | |
| <i>Description:</i> | | | |
| General view of the bridge | | | |
| <i>Remarks:</i> | | | |
| ✓ 1 span precast PC T-girders | | | |
| ✓ Total length=28m and total width=18m (including sidewalks) approximately | | | |
| ✓ Span length : 20.60m | | | |
| ✓ Carriageway width: 15.0m | | | |
| Photo No. ESE-3(3) | | | |
| <i>Description:</i> | | | |
| View of the superstructure arrangement. | | | |
| <i>Remarks:</i> | | | |
| ✓ Bearing are critically deteriorated, corrosion is in progress | | | |
| ✓ The concrete of the deck slab (between T-girders) is deteriorated and carbonated. | | | |
| Photo No. ESE-3(4) | | | |
| <i>Description:</i> | | | |
| View of bearing devises at the abutment | | | |
| <i>Remarks:</i> | | | |
| ✓ Deterioration of the entire bearings is critical | | | |
| ✓ Several girders have been damaged but mortared as per protection, but its integrity is doubtful. | | | |




| | | | |
|--|---|--------------|------------------|
| Location: | Esentai River – Satpaev Akademik Street | District: | BOSTANDYK |
| Bridge Code: | ESE-4 | Bridge Type: | River Bridge |
|  | | | |
| Photo No. ESE-4(1) | | | |
| <i>Description:</i> | | | |
| General view of the Satpaev Akademik Street at the bridge location | | | |
| <i>Remarks:</i> | | | |
| ✓ 2x2 lanes carriageway | | | |
| Photo No. ESE-4(2) | | | |
| <i>Description:</i> | | | |
| General view of the bridge | | | |
| <i>Remarks:</i> | | | |
| ✓ 1 span precast PC T-girders | | | |
| ✓ Total length=31m and total width=19m (including sidewalks) approximately | | | |
| ✓ Span length : 22.30m | | | |
| ✓ Carriageway width: 14.20m | | | |
| Photo No. ESE-4(3) | | | |
| <i>Description:</i> | | | |
| View of the superstructure arrangement. | | | |
| <i>Remarks:</i> | | | |
| ✓ Transversal beams are deteriorated. | | | |
| ✓ The concrete of the deck slab (between T-girders) is deteriorated and carbonated. | | | |
| Photo No. ESE-4(4) | | | |
| <i>Description:</i> | | | |
| View of bearing devises at the abutment | | | |
| <i>Remarks:</i> | | | |
|  | | | |





| | | |
|---|---------------------------|-------------------------------------|
| Location: Esentai River – Abai Avenue | | District: BOSTANDYK - ALMaly |
| Bridge Code: ESE-5 | Bridge Type: River Bridge | |
| Photo No. ESE-5(1) | | |
|  | | |
| <i>Description:</i> General view of the Abai Avenue at the bridge location | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ 2x3 lanes carriageway ✓ The traffic through Abai Avenue is considerable important, and it is including the network of trolleybuses | | |
| Photo No. ESE-5(2) | | |
|  | | |
| <i>Description:</i> General view of the bridge | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ 2 span Steel beam's with vaulted RC slab ✓ Total length=26m and total width=22m (including sidewalks) approximately ✓ Span length : 2x8. 7m ✓ Carriageway width: 18m | | |
| Photo No. ESE-5(3) | | |
|  | | |
| <i>Description:</i> View of the superstructure arrangement. | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ Steam of hot water draining through the river could affect to the bridge conditions (corrosion of the steel beams). | | |
| Photo No. ESE-5(4) | | |
|  | | |
| <i>Description:</i> View of bearing devises at the abutment | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ Corrosion of the steel beams is in progress | | |

| | | |
|---|---------------------------|-------------------------|
| Location: Esentai River – Kurmangazy Street | | District: ALMaly |
| Bridge Code: ESE-6 | Bridge Type: River Bridge | |
| Photo No. ESE-6(1) | | |
|  | | |
| <i>Description:</i> General view of the Kurmangazy Street at the bridge location | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ 2x3 lanes carriageway ✓ Recently re-constructed (old bridge was constructed in 1940) | | |
| Photo No. ESE-6(2) | | |
|  | | |
| <i>Description:</i> General view of the bridge | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ One single span, PC T-girders ✓ Total length=24m and total width=25m (including sidewalks) approximately ✓ Span length : 17.20m ✓ Carriageway width: 18m | | |
| Photo No. ESE-6(3) | | |
|  | | |
| <i>Description:</i> View of the superstructure arrangement. | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ Water licking from the surface could cause early deterioration of the bearing devises. | | |
| Photo No. ESE-6(4) | | |
|  | | |
| <i>Description:</i> View of bearing devises at the abutment | | |
| <i>Remarks:</i> | | |
| <ul style="list-style-type: none"> ✓ | | |





| Location: Esentai River – Shevchenko Street | | District: ALMALLY |
|---|--|---------------------------|
| Bridge Code: ESE-7 | | Bridge Type: River Bridge |
|  | | |
| <p>Photo No. ESE-7(1)</p> <p><i>Description:</i> General view of the Shevchenko Street at the bridge location</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ 2x2 lanes carriageway ✓ Recently widened by two additional lanes at its southern side | | |
|  | | |
| <p>Photo No. ESE-7(2)</p> <p><i>Description:</i> General view of the bridge</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ One span; Total length=34m and total width=24m (including sidewalks) approximately ✓ Span length : 26.9m ✓ Carriageway width: 20m | | |
|  | | |
| <p>Photo No. ESE-7(3)</p> <p><i>Description:</i> View of the superstructure arrangement (new section).</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ PC T-girders ✓ Bearings are not visible ✓ Antiseismic devices can't be identified. | | |
|  | | |
| <p>Photo No. ESE-7(4)</p> <p><i>Description:</i> View of the superstructure arrangement (old section constructed in 1989).</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ RC T-girders with transversal beams ✓ Bearings are not visible ✓ Antiseismic devices can't be identified. | | |

| Location: Esentai River – Zhambyl Street | | District: ALMALLY |
|---|--|---------------------------|
| Bridge Code: ESE-8 | | Bridge Type: River Bridge |
|  | | |
| <p>Photo No. ESE-8(1)</p> <p><i>Description:</i> General view of the Zhambyl Street at the bridge location</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ 2 lanes carriageway ✓ Recently re-constructed, pavement is being prepared for overlaying | | |
|  | | |
| <p>Photo No. ESE-8(2)</p> <p><i>Description:</i> General view of the bridge</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ One span; Total length=31m and total width=12m (including sidewalks) approximately ✓ Span length : 24.3m ✓ Carriageway width: 9m | | |
|  | | |
| <p>Photo No. ESE-8(3)</p> <p><i>Description:</i> View of the superstructure arrangement.</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ PC T-girders ✓ Bearings consist of steel plates | | |
|  | | |
| <p>Photo No. ESE-8(4)</p> <p><i>Description:</i> View of bearings at abutment</p> <p><i>Remarks:</i></p> | | |

| Location: Esentai River – Bogenbai Batyr Street | | District: ALMALLY |
|---|--|---------------------------|
| Bridge Code: ESE-9 | | Bridge Type: River Bridge |
|  | | |
| <p>Photo No. ESE-9(1)</p> <p><i>Description:</i> General view of the bridge</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ 2x2 lanes carriageway | | |
|  | | |
| <p>Photo No. ESE-9(2)</p> <p><i>Description:</i> View of the superstructure arrangement.</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ One span; Total length=30m and total width=18m (including sidewalks) approximately ✓ Span length : 24.15m ✓ Carriageway width: 12.40m | | |
|  | | |
| <p>Photo No. ESE-9(3)</p> <p><i>Description:</i> View of bearings at abutment.</p> <p><i>Remarks:</i></p> | | |

| Location: Esentai River – Tole Bi Street | | District: ALMALLY |
|---|--|---------------------------|
| Bridge Code: ESE-10 | | Bridge Type: River Bridge |
|  | | |
| <p>Photo No. ESE-10(1)</p> <p><i>Description:</i> General view of the Tole Bi Street at the bridge location</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ 2x3 lanes carriageway ✓ Recently re-constructed | | |
|  | | |
| <p>Photo No. ESE-10(2)</p> <p><i>Description:</i> General view of the bridge</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Two spans; Total length=38m and total width=32.5m (including sidewalks) approximately ✓ Span length : 22.3m ✓ Carriageway width: 28.5m (including railroad) | | |
|  | | |
| <p>Photo No. ESE-10(3)</p> <p><i>Description:</i> View of the superstructure arrangement.</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ PC T-girders ✓ Bearings consist of steel plates | | |
|  | | |
| <p>Photo No. ESE-10(4)</p> <p><i>Description:</i> View of bearings at abutment</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Bearing seat width is appropriate ✓ Antiseismic devises are provided | | |

| | | |
|---|--|---------------------------|
| Location: Esentai River – Gogol Street | | District: ALMALLY |
| Bridge Code: ESE-11 | | Bridge Type: River Bridge |
| Photo No. ESE-11(1) | | |
| <i>Description:</i> General view of the Gogol Street at the bridge location | | |
| <i>Remarks:</i> <ul style="list-style-type: none"> ✓ 2x2 lanes carriageway ✓ One span RC arch bridge | | |
| Photo No. ESE-11(2) | | |
| <i>Description:</i> General view of the bridge | | |
| <i>Remarks:</i> <ul style="list-style-type: none"> ✓ One span; Total length=35m and total width=14m (including sidewalks) approximately ✓ Span length : 27.5m ✓ Carriageway width: 12.1m (including railroad) | | |

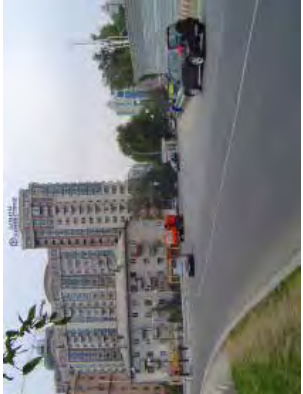

| | | |
|--|--|-----------------------------------|
| Location: Malaya Almatinka River - Taitbekov Street | | District: ZHETYYSU - MEDEU |
| Bridge Code: MAL-1 | | Bridge Type: River Bridge |
| Photo No. MAL-1(1) | | |
|  | | |
| <i>Description:</i> General view of the Raiymbek Avenue nearby its end point at Malaya Almatinka river | | |
| <i>Remarks:</i> <ul style="list-style-type: none"> ✓ 2 x 3 lanes carriageway with a wide median and wide shoulders and pedestrian sidewalks. ✓ Traffic passing through Raiymbek Ave. is of considerable volume. | | |
| Photo No. MAL-1(2) | | |
|  | | |
| <i>Description:</i> General view of the bridge | | |
| <i>Remarks:</i> <ul style="list-style-type: none"> ✓ One span PC T-beams frame deck bridge. | | |
| Photo No. MAL-1(3) | | |
|  | | |
| <i>Description:</i> View of the superstructure and western abutment. | | |
| <i>Remarks:</i> <ul style="list-style-type: none"> ✓ Bridge surface water drainage system is missed. | | |
| Photo No. MAL-1(4) | | |
|  | | |
| <i>Description:</i> View of bus station located near the intersection with Suyunbai Ave. | | |
| <i>Remarks:</i> | | |





| Location: | Malaya Almatinka River - Dobrolyubok Street | District: | MEDEU |
|--|---|--------------|--------------|
| Bridge Code: | MAL-2 | Bridge Type: | River Bridge |
| <p>Photo No. MAL-2(1)</p> <p><i>Description:</i> General view of Raiymbek avenue at the bridge location</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ 2x1 lanes carriageway with urban shoulders and sidewalks at both sides | | | |
| <p>Photo No. MAL-2(2)</p> <p><i>Description:</i> General view of the bridge</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Steel I-Girders with steel transversal beams ✓ Total length=20m and total width=10.0m (including sidewalks) approximately ✓ Span length : 1 x 14.0m ✓ Carriageway: 2x4.25m=8.5m (2 lanes) | | | |
| <p>Photo No. MAL-2(3)</p> <p><i>Description:</i> View of the superstructure arrangement.</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Apparently, steel girders were painted (comparing with data of 2002) ✓ Concrete of the deck slab in critical conditions of deterioration due to water licking ✓ Bearings are not visible for evaluation. | | | |
| <p>Photo No. MAL-2(4)</p> <p><i>Description:</i> View of bearing seat on the abutment</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Construction can be assumed as 1959. However, the records of the last inspection are reporting 1970 as the construction year. | | | |

| Location: | Malaya Almatinka River – Makataev Mukagali St. | District: | MEDEU |
|---|--|--------------|--------------|
| Bridge Code: | MAL-3 | Bridge Type: | River Bridge |
| <p>Photo No. MAL-3(1)</p> <p><i>Description:</i> General view of the Makataev Mukagali Street at the bridge location</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ 2x1 lanes carriageway with urban shoulders and sidewalks at both sides | | | |
| <p>Photo No. MAL-3(2)</p> <p><i>Description:</i> General view of the bridge</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Single span RC slab ✓ Total length=11m and total width=10.0m (including sidewalks) approximately ✓ Span length : 1 x 3.0m ✓ Carriageway: 2x4.25m=8.5m (2 lanes) | | | |
| <p>Photo No. MAL-3(3)</p> <p><i>Description:</i> View of the superstructure arrangement.</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ The bridge is composed by two sections. First: RC-Slab and RC-Abutment (newest); and Second: Steel beams with RC slab, and Abutments of Concrete Blocks. | | | |
| <p>Photo No. MAL-3(4)</p> <p><i>Description:</i> View of the Malaya Almatika River down stream viewed from the bridge</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ The river bed consist of stable rock material ✓ The discharge running down stream is of considerable intensity. | | | |

| | | | |
|---|---------------------------------------|--------------|--------------|
| Location: | Malaya Almatinka River – Gogol Street | District: | MEDEU |
| Bridge Code: | MAL-4 | Bridge Type: | River Bridge |
| Photo No. MAL-4(1) | | | |
| <i>Description:</i> | | | |
| General view of the Central Recreation Park located at the end of Gogol Street (after the bridge) | | | |
| <i>Remarks:</i> | | | |
| | | | |
| Photo No. MAL-4(2) | | | |
| <i>Description:</i> | | | |
| General view of the bridge | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ RC Slab deck ✓ Total length=11m and total width=15m (including railroad) approximately ✓ Span lengths : 1x 7.0m ✓ Carriageway: 14.0m (4 lanes) | | | |
| Photo No. MAL-4(3) | | | |
| <i>Description:</i> | | | |
| View of up-stream side. | | | |
| <i>Remarks:</i> | | | |
| | | | |
| Photo No. MAL-4(4) | | | |
| <i>Description:</i> | | | |
| View of bearing on abutment | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Bearings seem of doubtful stability under seismic action. ✓ Anti-seismic devises are not identified | | | |

| | | | |
|---|--|--------------|--------------|
| Location: | Malaya Almatinka River – Koshkunov St. | District: | MEDEU |
| Bridge Code: | MAL-5 | Bridge Type: | River Bridge |
| Photo No. MAL-5(1) | | | |
| <i>Description:</i> | | | |
| Traffic along Karmysov Street nearby Koshkunov Street at the bridge location | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ 2x2 lanes carriageway | | | |
| Photo No. MAL-5(2) | | | |
| <i>Description:</i> | | | |
| General view Koshkunov Street at the bridge location | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Traffic of vehicles is quite lower than on Karmysov Street | | | |
| Photo No. MAL-5(3) | | | |
| <i>Description:</i> | | | |
| View of the superstructure arrangement. | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ 1 span precast PC T-girders ✓ Total length=15m and total width=10m (including sidewalks) approximately ✓ Span length : 4m approximately ✓ Carriageway width: 8.3 m approximately | | | |

| | | | |
|---|---|--------------|-------------|
| Location: | Alfarabi Avenue – Dostyk Avenue (Malaya Almatinka) | District: | MEDEU |
| Bridge Code: | MAL-6 | Bridge Type: | Flyover I/C |
|  | | | |
| <p>Photo No. MAL-6(1)</p> <p><i>Description:</i> General view of the Abai Avenue at the bridge location</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ 2x3 lanes carriageway (twin bridges) ✓ The traffic through Abai Avenue is considerable important, and it is including the network of trolleybuses | | | |
| <p>Photo No. MAL-6(2) and (3)</p> <p><i>Description:</i> General view of the Interchange</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ A big interchange is under construction at the intersection of Alfarabi Avenue – Dostyk Avenue. It was not confirmed the area that will cover this I/C. | | | |
|  | | | |




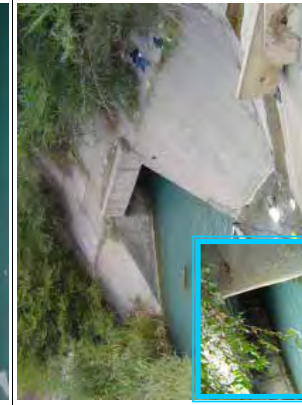
| | | | |
|--|--|--------------|--------------|
| Location: | Malaya Almatinka River – Dostyk Avenue | District: | MEDEU |
| Bridge Code: | MAL-7 | Bridge Type: | River Bridge |
|  | | | |
| <p>Photo No. MAL-7(1)</p> <p><i>Description:</i> General view of the Dostyk Avenue at the bridge location</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ 2x2 lanes carriageway including wide sidewalks at both sides | | | |
|  | | | |
| <p>Photo No. MAL-7(2)</p> <p><i>Description:</i> General view of the bridge</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ The piers have quite wide cantilever pier-head ✓ Horizontal alignment skewed in about 45%. ✓ 3 Spans, PC T-Girders. Total length: 110m; Total width: 17.70m approximately. | | | |
|  | | | |
| <p>Photo No. MAL-7(3)</p> <p><i>Description:</i> View of the eastern pier.</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ The steel plates of the bearings are critically corroded and concrete carbonation at the bearings is in progress ✓ The concrete of the whole deck slab is deteriorated and carbonated | | | |
|  | | | |
| <p>Photo No. MAL-7(4)</p> <p><i>Description:</i> View of the eastern abutment.</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ The steel plates of the bearings are critically corroded and concrete carbonation at the bearings is in progress | | | |



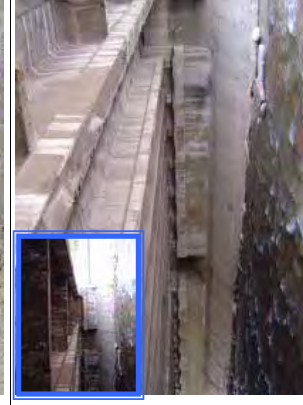

| | | | |
|--|---|--------------|------------------|
| Location: | Bolshaya Almatinka River - Al Farabi Ave. | District: | BOSTANDYK |
| Bridge Code: | BOL-1 | Bridge Type: | River Bridge |
| Photo No. BOL-1(1) | | | |
| <i>Description:</i> | | | |
| General view of Al Farabi avenue at the bridge location | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ 2x3 lanes carriageway with a median, urban shoulders and sidewalks at both sides | | | |
| Photo No. BOL-1(2) | | | |
| <i>Description:</i> | | | |
| General view of the bridge | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Precast PC T-Girders with transversal beams ✓ Total length=75m and total width=21.7m (including median) approximately ✓ Span lengths : 3 x 22.16m ✓ Carriageway: 2 x 9m (3 lanes) | | | |
| Photo No. BOL-1(3) | | | |
| <i>Description:</i> | | | |
| View of the superstructure arrangement. | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ The steel plates that connect the transversal beams are corroded, broken or damaged. ✓ Concrete is being affected by water licking from the surface. ✓ Bearings at piers seem of doubtful stability. | | | |
| Photo No. BOL-1(4) | | | |
| <i>Description:</i> | | | |
| View of bearing seat on the abutment | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Bearing plates are corroded and with sub-standard size ✓ Anti-seismic devises are not identified | | | |

| | | | |
|---|---|--------------|------------------|
| Location: | Bolshaya Almatinka River – Toraiyrov Street | District: | BOSTANDYK |
| Bridge Code: | BOL-2 | Bridge Type: | River Bridge |
| Photo No. BOL-2(1) | | | |
| <i>Description:</i> | | | |
| General view of Toraiyrov Street at the bridge location | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ 2x3 lanes carriageway with wide sidewalks ✓ Additional lanes for the railroad is provided at the northern side. | | | |
| Photo No. BOL-2(2) | | | |
| <i>Description:</i> | | | |
| General view of the bridge | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Precast PC T-Girders with transversal beams ✓ Total length=69.5m and total width=28.5m (including railroad) approximately ✓ Span lengths : 3 x 22.16m ✓ Carriageway: 15.90 (4 lanes) | | | |
| Photo No. BOL-2(3) | | | |
| <i>Description:</i> | | | |
| View of the superstructure arrangement. | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ The steel plates that connect the transversal beams are corroded, broken or damaged. ✓ Concrete is being affected by water licking from the surface. | | | |
| Photo No. BOL-2(4) | | | |
| <i>Description:</i> | | | |
| View of bearing on piers and abutment | | | |
| <i>Remarks:</i> | | | |
| <ul style="list-style-type: none"> ✓ Bearing plates are corroded and with sub-standard size ✓ Bearings seem of doubtful stability. ✓ Anti-seismic devises are not identified | | | |

| | | | |
|---|--|--------------|--------------------|
| Location: | Bolshaya Almatinka River – Zhandosov St. | District: | AUEZOV - BOSTANDYK |
| Bridge Code: | BOL-3 | Bridge Type: | River Bridge |
| Photo No. BOL-3(1) | | | |
| <i>Description:</i> | | | |
| General view of the Zhandosov Street at the bridge location | | | |
| <i>Remarks:</i> | | | |
| ✓ 2x4 lanes carriageway (twin-bridges) | | | |
| Photo No. BOL-3(2) | | | |
| <i>Description:</i> | | | |
| General view of the bridge | | | |
| <i>Remarks:</i> | | | |
| ✓ PC T-girders with transversal beams | | | |
| ✓ Total length=40.0m and total width=24.5m (including sidewalks) approximately | | | |
| ✓ Span length : 1 x 33.0m | | | |
| ✓ Carriageway width: 2 x 8.35m | | | |
| Photo No. BOL-3(3) | | | |
| <i>Description:</i> | | | |
| View of the superstructure arrangement. | | | |
| <i>Remarks:</i> | | | |
| ✓ The concrete of the deck slab (between T-girders) is deteriorated and carbonated. | | | |
| Photo No. BOL-3(4) | | | |
| <i>Description:</i> | | | |
| View of bearing devises at the abutment | | | |
| <i>Remarks:</i> | | | |
| ✓ Corrosion of bearings' steel plates is critical | | | |


| | | | |
|---|--|--------------|--------------------|
| Location: | Bolshaya Almatinka River – Shalyapin St. | District: | AUEZOV - BOSTANDYK |
| Bridge Code: | BOL-4 | Bridge Type: | River Bridge |
| Photo No. BOL-4(1) | | | |
| <i>Description:</i> | | | |
| General view of the Shalyapin Street at the bridge location | | | |
| <i>Remarks:</i> | | | |
| ✓ 2x2 lanes carriageway | | | |
| Photo No. BOL-4(2) | | | |
| <i>Description:</i> | | | |
| General view of the bridge | | | |
| <i>Remarks:</i> | | | |
| ✓ 1 span precast PC T-girders | | | |
| ✓ Total length=35m and total width=20m (including sidewalks) approximately | | | |
| ✓ Span length : 24m approximately | | | |
| ✓ Carriageway width: 16 m approximately | | | |
| Photo No. BOL-4(3) | | | |
| <i>Description:</i> | | | |
| View of the superstructure arrangement. | | | |
| <i>Remarks:</i> | | | |
| ✓ Transversal beams are deteriorated. | | | |
| ✓ Deterioration and carbonation of concrete, due to water licking from the surface, is in progress. | | | |
| Photo No. BOL-4(4) | | | |
| <i>Description:</i> | | | |
| View of bearing devises at the abutment | | | |
| <i>Remarks:</i> | | | |
| ✓ Corrosion of bearings' steel plates is critical | | | |

| | | | |
|---|---|-----------|--------------------|
| Location: | Bolshaya Almatinka River – Tole Bi Street | District: | AUEZOV - ALMALLY |
| Code: | CUL-BOL-6 | Type: | Double Box Culvert |
|  | | | |
| <p>Photo No. BOL-6(1)</p> <p><i>Description:</i> General view of the Tole Bi Street at the culverts location</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ 2x3 lanes carriageway including a median for the railroad | | | |
|  | | | |
| <p>Photo No. BOL-6(2)</p> <p><i>Description:</i> General view of the Tole Bi Street nearby the culverts location</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Traffic jams during rush hours are very common and difficult to solve | | | |
|  | | | |
| <p>Photo No. BOL-6(3)</p> <p><i>Description:</i> View of the eastern (western) inlet of the culverts.</p> <p><i>Remarks:</i></p> | | | |
|  | | | |
| <p>Photo No. BOL-6(4)</p> <p><i>Description:</i> View of the eastern (western) outlets of the culverts.</p> <p><i>Remarks:</i></p> | | | |

| | | | |
|--|--|--------------|---------------------|
| Location: | Bolshaya Almatinka River – Abai Avenue | District: | BOSTANDYK - ALMALLY |
| Bridge Code: | BOL-5 | Bridge Type: | River Bridge |
|  | | | |
| <p>Photo No. BOL-5(1)</p> <p><i>Description:</i> General view of the Abai Avenue at the bridge location</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ 2x3 lanes carriageway (twin bridges) ✓ The traffic through Abai Avenue is considerable important, and it is including the network of trolleybuses | | | |
|  | | | |
| <p>Photo No. BOL-5(2)</p> <p><i>Description:</i> General view of the bridge</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Precast PC T-Girders with transversal beams ✓ Total length=41m and total width=28.5 (including sidewalks) approximately ✓ Span length : 1x32m ✓ Carriageway width: 23.5m | | | |
|  | | | |
| <p>Photo No. BOL-5(3)</p> <p><i>Description:</i> View of the superstructure arrangement.</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Transversal beams are deteriorated. | | | |
|  | | | |
| <p>Photo No. BOL-5(4)</p> <p><i>Description:</i> View of bearing devises at the abutment</p> <p><i>Remarks:</i></p> <ul style="list-style-type: none"> ✓ Corrosion of bearings' steel plates is in progress | | | |


BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/21

| | | | | | | |
|---|---------------------------|---------------|---------------|---------------|---------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Bekmakhonov_St - Railroad | | | | | |
| Location: | 43.34244722 N | 76.97776111 E | Name Code: | BEK-1 | Year Built: | 1961 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 79.000 | | | | | |
| No. of Span: | 5 | | | | | |
| Span Length (m): | A1-P1 | P1-P2 | P2-P3 | P3-P4 | P4-A2 | --- |
| | 11.360 | 22.160 | 11.360 | 22.160 | 11.360 | |
| 0.7+0.005*Span (m) | 0.757 | 0.811 | 0.757 | 0.811 | 0.757 | |
| Bridge Width (m): | 18.000 | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-P1 | P1-P2 | P2-P3 | P3-P4 | P4-A2 | --- |
| | 0.400 / 0.400 | 0.600 / 0.600 | 0.400 / 0.400 | 0.600 / 0.600 | 0.400 / 0.400 | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | | | | | | |




BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/17

| | | | | | | |
|--|--|---------------|---------------|---------------|---------------|-------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Ryshulov Ave. - Bolshaya Almatinka River | | | | | |
| Location: | 43.26475833 N | 76.86468333 E | Name Code: | RYS-1a | Year Built: | 1960 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 42.000 | | | 42.000 | | |
| No. of Span: | 3 | | | 2 | | |
| Span Length (m): | A1-P1 | P1-P2 | P2-A2 | A1-P1 | P1-A2 | --- |
| | 14.000 | 14.000 | 14.000 | 21.000 | 21.000 | |
| 0.7+0.005*Span (m) | 0.770 | 0.770 | 0.770 | 0.805 | 0.805 | |
| Bridge Width (m): | --- | | | --- | | |
| Material: | PC | STEEL | | PC | STEEL | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-P1 | P1-P2 | P2-A2 | A1-P1 | P1-A2 | --- |
| | 0.500 / 0.550 | 0.550 / 0.550 | 0.550 / 0.500 | 0.900 / 0.600 | 0.600 / 0.900 | |
| Material: | RC | CONCRETE | BRICK | RC | CONCRETE | BRICK |
| (4) PHOTO of GIRDER END | | | | | | |
|  | | | | | | |




BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/17

| | | | | | | |
|--|--------------------------------|--|---------------|---|-------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Ryskulov Ave. – Esentai River. | | | | | |
| Location: | 43.27861944 N | 76.90421667 E | Name Code: | RYS-2a | Year Built: | 1967 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 46.400 | | | | | |
| No. of Span: | 4 | | | | | |
| Span Length (m): | A1-P1 | P1-P2 | P2-P3 | P3-A2 | --- | --- |
| | 9.300 | 13.600 | 13.600 | 9.300 | | |
| 0.7+0.005*Span (m) | 0.747 | 0.768 | 0.768 | 0.747 | | |
| Bridge Width (m): | --- | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-P1 | P1-P2 | P2-P3 | P3-A2 | --- | --- |
| | 0.800 / 0.300 | 0.300 / 0.500 | 0.500 / 0.300 | 0.300 / 0.800 | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | |  | |  | | |

BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/17

| | | | | | | |
|---|--|---|------------|--|-------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Raiymbek Ave. - Bolshaya Almatinka River | | | | | |
| Location: | 43.256625 N | 76.86488056 E | Name Code: | RAI-1 | Year Built: | 1960 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 27.600 | | | | | |
| No. of Span: | 2 | | | | | |
| Span Length (m): | A1-P1 | P1-A2 | --- | --- | --- | --- |
| | 13.800 | 13.800 | | | | |
| 0.7+0.005*Span (m) | 0.769 | 0.769 | | | | |
| Bridge Width (m): | --- | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-P1 | P1-A2 | --- | --- | --- | --- |
| | 0.600 / 0.600 | 0.600 / 0.600 | / | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | |  | |  | | |

BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/21

| | | | | | | |
|--------------------------------|-------------------------------|---------------|------------|--------|-------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Raiymbek Ave. - Esentai River | | | | | |
| Location: | 43.26637222 N | 76.91144722 E | Name Code: | RAI-2b | Year Built: | 1975 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 16.500 | | | | | |
| No. of Span: | 1 | | | | | |
| Span Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | 16.500 | | | | | |
| 0.7+0.005*Span (m) | 0.783 | | | | | |
| Bridge Width (m): | --- | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | 0.800 / 0.800 | / | / | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
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BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/21

| | | | | | | |
|--------------------------------|---|-------------|-------------|---------------|-------------|-----|
| (1) GENERAL | | | | | | |
| Bridge Name: | Raiymbek Ave. - Railway crossing before Bokeikhanov St. | | | | | |
| Location: | 43.26558611 N | 76.908125 E | Name Code: | RAI-2c | Year Built: | --- |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 54.400 | | | | | |
| No. of Span: | 4 | | | | | |
| Span Length (m): | A1-P1 | P1-P2 | P2-P3 | P3-A2 | --- | --- |
| | 12.600 | 14.600 | 14.600 | 12.600 | | |
| 0.7+0.005*Span (m) | 0.763 | 0.773 | 0.773 | 0.763 | | |
| Bridge Width (m): | --- | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-P1 | P1-P2 | P2-P3 | P3-A2 | --- | --- |
| | 0.850 / 1.000 | 0.800 / --- | --- / 0.800 | 1.000 / 0.850 | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
| | | | | | | |


BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/21

| | | | | | | |
|---|--------------------------------------|---------------|---------------|---------------|-------------|-----|
| (1) GENERAL | | | | | | |
| Bridge Name: | Burundaiskaya - Severnoe Interchange | | | | | |
| Location: | 43.35338889 N | 76.93815833 E | Name Code: | ZHA-1 | Year Built: | --- |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 86.800 | | | | | |
| No. of Span: | 4 | | | | | |
| Span Length (m): | A1-P1 | P1-P2 | P2-P3 | P3-A2 | --- | --- |
| | 21.700 | 21.700 | 21.700 | 21.700 | | |
| 0.7+0.005*Span (m) | 0.809 | 0.809 | 0.809 | 0.809 | | |
| Bridge Width (m): | --- | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-P1 | P1-P2 | P2-P3 | P3-A2 | --- | --- |
| | 1.000 / 0.600 | 0.600 / 0.600 | 0.600 / 0.600 | 0.600 / 1.000 | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | | | | | | |


BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/21

| | | | | | | |
|--|---|---------------|------------|-----------|-------------|-------------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Burundaiskaya Flyover on the national Railway | | | | | |
| Location: | 43.34619722 N | 76.93300833 E | Name Code: | ZHA-2 | Year Built: | 1970 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 136.200 | | | | | |
| No. of Span: | 6 (Continuous) | | | | | |
| Span Length (m): | A1-P1 | P1-P2 | P2-P3 | P3-P4 | P4-P5 | P5-A2 |
| | 22.700 | 22.700 | 22.700 | 22.700 | 22.700 | 22.700 |
| 0.7+0.005*Span (m) | 0.814 | 0.814 | 0.814 | 0.814 | 0.814 | 0.814 |
| Bridge Width (m): | 29.500 | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-P1 | P1-P2 | P2-P3 | P3-P4 | P4-P5 | P5-A2 |
| | 0.850 / --- | --- / --- | --- / --- | --- / --- | --- / --- | --- / 0.850 |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | | | | | | |


BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/21

| | | | | | | |
|---|--------------------------------------|---------------|------------|-------|-------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Severnoe Koltso Ave. - Esentai River | | | | | |
| Location: | 43.35149167 N | 76.92751944 E | Name Code: | SEV-0 | Year Built: | 1961 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 34.000 | | | | | |
| No. of Span: | 2 | | | | | |
| Span Length (m): | A1-P1 | P1-A2 | --- | --- | --- | --- |
| | 15.000 | 15.000 | | | | |
| 0.7+0.005*Span (m) | 0.775 | 0.775 | | | | |
| Bridge Width (m): | --- | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-P1 | P1-A2 | --- | --- | --- | --- |
| | 0.750 / 0.550 | 0.550 / 0.750 | / | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | | | | | | |


BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/21

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|--|--|---------------|---------------|---------------|-------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Severnoe Koltso Ave. - Railroad at Zhetysu&Turksib Districts | | | | | |
| Location: | 43.34778333 N | 76.92045 E | Name Code: | SEV-1 | Year Built: | 1961 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 85.000 | | | | | |
| No. of Span: | 4 | | | | | |
| Span Length (m): | A1-P1 | P1-P2 | P2-P3 | P3-A2 | --- | --- |
| | 22.160 | 11.360 | 22.160 | 22.160 | | |
| 0.7+0.005*Span (m) | 0.811 | 0.757 | 0.811 | 0.811 | | |
| Bridge Width (m): | --- | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-P1 | P1-P2 | P2-P3 | P3-A2 | --- | --- |
| | 0.600 / 0.600 | 0.400 / 0.400 | 0.600 / 0.600 | 0.600 / 0.600 | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | | | | | | |


BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/21

| | | | | | | |
|---|--|---------------|------------|-------|-------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Severnoe Koltso Ave. - Kunaev Big Almaty Canal | | | | | |
| Location: | 43.302025 N | 76.89508889 E | Name Code: | SEV-2 | Year Built: | 1984 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 20.000 | | | | | |
| No. of Span: | 1 | | | | | |
| Span Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | 18.100 | | | | | |
| 0.7+0.005*Span (m) | 0.791 | | | | | |
| Bridge Width (m): | --- | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | 0.500 / 0.500 | / | / | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | | | | | | |

BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/17

| | | | | | | |
|--|---|---------------|------------|-------|-------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Esentai River – Bukhar Zhyrau Boulevard | | | | | |
| Location: | 43.23185278 N | 76.92035278 E | Name Code: | ESE-3 | Year Built: | 1970 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 20.600 | | | | | |
| No. of Span: | 1 | | | | | |
| Span Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | 20.600 | | | | | |
| 0.7+0.005*Span (m) | 0.803 | | | | | |
| Bridge Width (m): | 18.000 | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | 0.750 / 0.750 | / | / | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | | | | | | |

BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/17

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|--------------------------------|-----------------------------|---------------|---------------|-------|-------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Esentai River - Abai Avenue | | | | | |
| Location: | 43.24043611 N | 76.91924722 E | Name Code: | ESE-5 | Year Built: | 1964 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 26.100 | | | | | |
| No. of Span: | 3 | | | | | |
| Span Length (m): | A1-P1 | P1-P2 | P2-A2 | --- | --- | --- |
| | 8.700 | 8.700 | 8.700 | | | |
| 0.7+0.005*Span (m) | 0.744 | 0.744 | 0.744 | | | |
| Bridge Width (m): | 18.000 | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-P1 | P1-P2 | P2-A2 | --- | --- | --- |
| | 0.400 / 0.400 | 0.400 / 0.400 | 0.400 / 0.400 | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
| | | | | | | |


BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/17

| | | | | | | |
|--------------------------------|---|---------------|---------------|-------|-------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Bolshaya Almatinka River - Al Farabi Avenue | | | | | |
| Location: | 43.1946 N | 76.89018889 E | Name Code: | BOL-1 | Year Built: | 1984 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 75.000 | | | | | |
| No. of Span: | 3 | | | | | |
| Span Length (m): | A1-P1 | P1-P2 | P2-A2 | --- | --- | --- |
| | 22.160 | 22.160 | 22.160 | | | |
| 0.7+0.005*Span (m) | 0.811 | 0.811 | 0.811 | | | |
| Bridge Width (m): | 21.700 | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-P1 | P1-P2 | P2-A2 | --- | --- | --- |
| | 0.900 / 0.700 | 0.700 / 0.700 | 0.700 / 0.900 | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
| | | | | | | |


BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/17

| | | | | | | |
|---|--|---------------|---------------|-------|-------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Bolshaya Almatinka River - Toraigyrov Street | | | | | |
| Location: | 43.20435556 N | 76.88840556 E | Name Code: | BOL-2 | Year Built: | 1976 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 69.500 | | | | | |
| No. of Span: | 3 | | | | | |
| Span Length (m): | A1-P1 | P1-P2 | P2-A2 | --- | --- | --- |
| | 22.160 | 22.160 | 22.160 | | | |
| 0.7+0.005*Span (m) | 0.811 | 0.811 | 0.811 | | | |
| Bridge Width (m): | 28.500 | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-P1 | P1-P2 | P2-A2 | --- | --- | --- |
| | 0.900 / 0.700 | 0.700 / 0.700 | 0.700 / 0.900 | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | | | | | | |




BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/17

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|--|---|---------------|------------|-------|-------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Bolshaya Almatinka River - Zhandosov Street | | | | | |
| Location: | 43.22137222 N | 76.88245556 E | Name Code: | BOL-3 | Year Built: | 1965 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 33.000 | | | | | |
| No. of Span: | 1 | | | | | |
| Span Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | 33.000 | | | | | |
| 0.7+0.005*Span (m) | 0.865 | | | | | |
| Bridge Width (m): | 24.500 | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | 0.950 / 0.950 | / | / | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | | | | | | |



BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/17

| | | | | | | |
|--|---|--|------------|---|-------------|-----|
| (1) GENERAL | | | | | | |
| Bridge Name: | Bolshaya Almatinka River – Shalyapin Street | | | | | |
| Location: | 43.23155 N | 76.87245556 E | Name Code: | BOL-4 | Year Built: | --- |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 24.000 | | | | | |
| No. of Span: | 1 | | | | | |
| Span Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | 24.000 | | | | | |
| 0.7+0.005*Span (m) | 0.820 | | | | | |
| Bridge Width (m): | 20.000 | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | 0.800 / 0.800 | / | / | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | |  | |  | | |


BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/17

| | | | | | | |
|---|---|---|------------|-------|-------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Malaya Almatinka River - Tatibekov Street | | | | | |
| Location: | 43.27719167 N | 76.96541944 E | Name Code: | MAL-1 | Year Built: | 1970 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 12.000 | | | | | |
| No. of Span: | 1 | | | | | |
| Span Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | 11.360 | | | | | |
| 0.7+0.005*Span (m) | 0.757 | | | | | |
| Bridge Width (m): | --- | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | 0.500 / 0.500 | / | / | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | |  | | | | |


BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/17

| | | | | | | |
|---|---|---------------|------------|-------|-------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Malaya Almatinka River - Dobrolyubok Street | | | | | |
| Location: | 43.27204722 N | 76.96651667 E | Name Code: | MAL-2 | Year Built: | 1970 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 20.000 | | | | | |
| No. of Span: | 1 | | | | | |
| Span Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | | 14.000 | | | | |
| 0.7+0.005*Span (m) | 0.770 | | | | | |
| Bridge Width (m): | 10.000 | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | | 0.500 / 0.500 | / | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | | | | | | |


BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/17

| | | | | | | |
|---|---------------------------------------|---------------|------------|-------|-------------|------|
| (1) GENERAL | | | | | | |
| Bridge Name: | Malaya Almatinka River - Gogol Street | | | | | |
| Location: | 43.26121389 N | 76.96506944 E | Name Code: | MAL-4 | Year Built: | 1972 |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 11.000 | | | | | |
| No. of Span: | 1 | | | | | |
| Span Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | | 7.000 | | | | |
| 0.7+0.005*Span (m) | 0.735 | | | | | |
| Bridge Width (m): | 15.000 | | | | | |
| Material: | RC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-A2 | --- | --- | --- | --- | --- |
| | | 0.450 / 0.450 | / | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | | | | | | |


BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/17

| | | | | | | |
|---|--|---------------|------------|-------|-------------|-----|
| (1) GENERAL | | | | | | |
| Bridge Name: | Malaya Almatinka River (Alfarabi Avenue – Dostyk Avenue) | | | | | |
| Location: | 43.22878889 N | 76.96038611 E | Name Code: | MAL-6 | Year Built: | --- |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 30.000 | (Box-culvert) | | | | |
| No. of Span: | 2 | | | | | |
| Span Length (m): | A1-P1 | P1-A2 | --- | --- | --- | --- |
| | 15.000 | 15.000 | | | | |
| 0.7+0.005*Span (m) | 0.775 | 0.775 | 0.700 | 0.700 | 0.700 | |
| Bridge Width (m): | --- | | | | | |
| Material: | RC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-P1 | P1-A2 | --- | --- | --- | --- |
| | --- / --- | --- / --- | / | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | | | | | | |

BRIDGE DETAILED INSPECTION SHEET

Inspection Date: 2008/11/17

| | | | | | | |
|--|--|---------------|---------------|-------|-------------|-----|
| (1) GENERAL | | | | | | |
| Bridge Name: | Malaya Almatinka River – Dostyk Avenue | | | | | |
| Location: | 43.20320833 N | 76.97863333 E | Name Code: | MAL-7 | Year Built: | --- |
| (2) SUPERSTRUCTURE | | | | | | |
| Bridge Length (m): | 43.700 | | | | | |
| No. of Span: | 3 | | | | | |
| Span Length (m): | A1-P1 | P1-P2 | P2-A2 | --- | --- | --- |
| | 14.250 | 15.200 | 14.250 | | | |
| 0.7+0.005*Span (m) | 0.771 | 0.776 | 0.771 | | | |
| Bridge Width (m): | 17.700 | | | | | |
| Material: | PC | STEEL | | | | |
| (3) SUBSTRUCTURE | | | | | | |
| Seating Length (m): | A1-P1 | P1-P2 | P2-A2 | --- | --- | --- |
| | 0.600 / 0.500 | 0.500 / 0.500 | 0.500 / 0.600 | / | / | / |
| Material: | RC | CONCRETE | BRICK | | | |
| (4) PHOTO of GIRDER END | | | | | | |
|  | | | | | | |