

# Bridge Inspection Report

**B5447**  
**I-55SB-02-LM 15.93**  
**over**  
**SAND SLOUGH**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

Inspector:

Structure Number: B5447

Inspection Date:

Facility Carried: I-55SB-02-LM 15.93

## Bridge Inspection Report

## National Bridge Inventory

| IDENTIFICATION                                    |                                    |                                    |                       | INSPECTIONS   |               |                                   |      |
|---|------------------------------------|------------------------------------|-----------------------|---|---------------|-----------------------------------|------|
| (1) STATE CODE                                    | 056 - Arkansas                     |                                    |                       | (90) INSPECTION DATE  | 11/18/2015    |                                   |      |
| (8) STRUCTURE NUMBER                              | B5447                              |                                    |                       | (91) DESIGNATED INSPECTION FREQUENCY                        | 24            |                                   |      |
| (5) INV. ROUTE (ON/UNDER)                         | 1                                  | 1                                  | 1                     | (92) CRITICAL FEATURE INSPECTION                            | (93) CFI DATE |                                   |      |
| (2) HIGHWAY AGENCY                                | 10                                 | (3) COUNTY CODE                    | 111                   | A. FRACTURE CRITICAL DETAIL                                 | N             |                                   |      |
| (4) PLACE CODE                                    | 00000                              |                                    |                       | B. UNDERWATER INSPECTION                                    | N             |                                   |      |
| (6) FEATURES INTERSECTED                          | SAND SLOUGH                        |                                    |                       | C. OTHER SPECIAL  | N             |                                   |      |
| (7) FACILITY CARRIED                              | I-55SB-02-LM 15.93                 |                                    |                       | CONDITION   |               |                                   |      |
| (9) LOCATION                                      | 1.8 MI E JCT SH 14 & 63            |                                    |                       | (58) DECK   | 5             |                                   |      |
| (11) MILEPOINT 15.93                              | (12) BASE HIGHWAY NETWORK 1        |                                    |                       | (59) SUPERSTRUCTURE   | 6             | (60) SUBSTRUCTURE                 | 6    |
| (13A) LRS INVENTORY ROUTE                         | 0000063080                         |                                    | (13B) SUBROUTE NUMBER | 00  |               | (61) CHANNEL & CHANNEL PROTECTION | 7    |
| (16) LATITUDE                                     | 35.53269                           | (17) LONGITUDE                     | -90.46851             |   |               |                                   |      |
| (98A) BORDER BRIDGE CODE                          |                                    |                                    |                       | (62) CULVERT  | N             |                                   |      |
| PERCENT RESPONSIBILITY                            | (99) BORDER BRIDGE STRUCT          |                                    |                       | LOAD RATING AND POSTING                                     |               |                                   |      |
| STRUCTURE TYPE AND MATERIAL                       |                                    |                                    |                       | (31) DESIGN LOAD  | 5             |                                   |      |
| (43) STRUCTURE TYPE, MAIN                         |                                    |                                    |                       | (63) METHOD USED TO DETERMINE OPERATING RATING              | 1             |                                   |      |
| A) KIND OF MATERIAL/DESIGN:                       | 3 - Steel                          |                                    |                       | (64) OPERATING RATING                                       | 60.0          |                                   |      |
| B) TYPE OF DESIGN/CONSTR:                         | 02 - Stringer/Multi-beam or Girder |                                    |                       | (65) METHOD USED TO DETERMINE INVENTORY RATING              | 1             |                                   |      |
| (44) STRUCTURE TYPE, APPROACH SPANS               |                                    |                                    |                       | (66) INVENTORY RATING                                       | 36.0          |                                   |      |
| A) KIND OF MATERIAL/DESIGN:                       | 0 - Other                          |                                    |                       | (70) BRIDGE POSTING   | 5             |                                   |      |
| B) TYPE OF DESIGN/CONSTR:                         | 00 - Other                         |                                    |                       | (41) STRUCTURE OPEN/POSTED/CLOSED                           | A             |                                   |      |
| (45) NUMBER OF SPANS IN MAIN                      | 25                                 | (46) NUMBER OF APPROACH            | 0                     | APPRAISAL   |               |                                   |      |
| (107) DECK STRUCTURE TYPE                         | 1                                  | (108A) WEARING SURFACE             | 1                     | (67) STRUCTURAL EVALUATION                                  | 6             |                                   |      |
| (108B) DECK MEMBRANE                              | 0                                  | (108C) DECK PROTECTION             | 0                     | (68) DECK GEOMETRY  | 5             |                                   |      |
| AGE OF SERVICE                                    |                                    |                                    |                       | (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL                 | N             |                                   |      |
| (27) YEAR BUILT                                   | 1973                               | (106) YEAR RECONSTRUCTED           | 0000                  | (71) WATERWAY ADEQUACY                                      | 9             |                                   |      |
| (42) TYPE OF SERVICE                              | ON 1                               | UNDER 5                            |                       | (72) APPROACH ROADWAY ALIGNMENT                             | 8             |                                   |      |
| (28) LANES  | ON 02                              | UNDER 00                           |                       | (36) TRAFFIC SAFETY FEATURE                                 |               |                                   |      |
| (29) AVERAGE DAILY TRAFFIC                        | 15375                              | (19) BYPASS DETOUR LENGTH          | 1                     | 36A) BRIDGE RAILINGS:                                       | 1             |                                   |      |
| (30) YEAR OF AVERAGE DAILY TRAFFIC                | 2014                               |                                    |                       | 36B) TRANSITIONS:   | 1             |                                   |      |
| (109) AVERAGE DAILY TRUCK TRAFFIC                 | 1                                  |                                    |                       | 36C) APPROACH GUARDRAIL:                                    | 1             |                                   |      |
| GEOMETRIC DATA                                    |                                    |                                    |                       | 36D) APPROACH GUARDRAIL ENDS:                               | 1             |                                   |      |
| (48) LENGTH OF MAX SPAN (ft.)                     | 40                                 | (49) STRUCTURE LENGTH (ft.)        | 1002                  | (113) SCOUR CRITICAL BRIDGES                                | 5             |                                   |      |
| (50) CURB/SIDEWALK WIDTHS (ft.)                   | LEFT 0                             | RIGHT 0                            |                       | SUFFICIENCY RATING  | 0             | STATUS                            | 94.5 |
| (51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)           | 37.1                               |                                    |                       | CLASSIFICATION  |               |                                   |      |
| (52) DECK WIDTH, OUT-TO-OUT (ft.)                 | 39.7                               |                                    |                       | (112) NBIS BRIDGE LENGTH                                    | Y             |                                   |      |
| (32) APPROACH ROADWAY WIDTH (ft.)                 | 38.1                               |                                    |                       | (104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE                 | 1             |                                   |      |
| (33) BRIDGE MEDIAN                                | 0                                  | (34) SKEW (DEG.)                   | 0                     | (26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE           | 01            |                                   |      |
| (35) STRUCTURE FLARED                             | 0                                  | (10) INV RTE, MIN VERT CLEAR (ft.) | 99.99                 | (100) STRAHNET HIGHWAY DESIGNATION                          | 1             |                                   |      |
| (47) TOTAL HORIZONTAL CLEARANCE (ft.)             | 38.1                               |                                    |                       | (101) PARALLEL STRUCTURE DESIGNATION                        | R             |                                   |      |
| (53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.) | 99.99                              |                                    |                       | (102) DIRECTION OF TRAFFIC                                  | 1             |                                   |      |
| (54) VERTICAL UNDER CLEARANCE (ft.)               | N                                  | 0                                  |                       | (103) TEMP STRUCTURE  |               |                                   |      |
| (55) LATERAL UNDER CLEARANCE RIGHT (ft.)          | N                                  | 99.9                               |                       | (105) FEDERAL LANDS HIGHWAYS                                | 0             |                                   |      |
| (56) MIN LATERAL UNDER CLEARANCE (ft.)            | 0                                  |                                    |                       | (110) DESIGNATED NATIONAL NETWORK                           | 1             |                                   |      |
| PROPOSED IMPROVEMENTS                             |                                    |                                    |                       | (20) TOLL   | 3             |                                   |      |
| (75A) TYPE OF WORK PROPOSED                       | (75B) WORK DONE BY                 |                                    |                       | (21) MAINTENANCE RESPONSIBILITY                             | 01            |                                   |      |
| (76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)        | 0                                  |                                    |                       | (22) OWNER  | 01            |                                   |      |
| (94) BRIDGE IMPROVEMENT COST (\$)                 | 0                                  |                                    |                       | (37) HISTORICAL   | 5             |                                   |      |
| (95) ROADWAY IMPROVEMENT COST (\$)                | 0                                  |                                    |                       | NAVIGATION DATA   |               |                                   |      |
| (96) TOTAL PROJECT COST                           | 0                                  |                                    |                       | (38) NAVIGATION CONTROL                                     | 0             |                                   |      |
| (97) YEAR OF IMPROVEMENT COST ESTIMATE            |                                    |                                    |                       | (111) PIER OR ABUTMENT PROTECTION                           | 5             |                                   |      |
| (114) FUTURE ADT                                  | 8692                               | (115) YEAR OF FUTURE ADT           | 2028                  | (39) NAV VERT CLEARANCE (ft.)                               | 0             |                                   |      |
|   |                                    |                                    |                       | (116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.) | 0             |                                   |      |
|   |                                    |                                    |                       | (40) NAV HORIZONTAL CLEARANCE (ft.)                         | 0             |                                   |      |

Inspector:

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## Bridge Inspection Report

## Element Inspection

|  | Environment | Total Quantity | Units   | Condition State 1 | Condition State 2 | Condition State 3 | Condition State 4 |
|--|-------------|----------------|---------|-------------------|-------------------|-------------------|-------------------|
| <b>12 - Reinforced Concrete Deck</b>             | 1- Ben.     | 39779          | sq. ft. | 30639             | 2089              | 7051              | 0                 |
| 1080 - Delamination/Spall/Patched Area           |             | 1084           |         |                   |                   | 1084              |                   |
| 1090 - Exposed Rebar                             |             | 100            |         |                   | 100               |                   |                   |
| 1120 - Efflorescence/Rust Staining               |             | 1989           |         |                   | 1989              |                   |                   |
| 1130 - Cracking (RC and Other)                   |             | 5967           |         |                   |                   | 5967              |                   |
| <b>107 - Steel Open Girder/Beam</b>              | 1- Ben.     | 5000           | ft.     | 4250              |                   | 738               | 12                |
| 1000 - Corrosion                                 |             | 747            |         |                   |                   | 738               | 9                 |
| 1010 - Cracking                                  |             | 3              |         |                   |                   |                   | 3                 |
| 515 - Steel Protective Coating                   |             | 12175          | sq. ft. | 4111              |                   | 4065              | 3999              |
| 3440 - Effectiveness (Steel Protective Coatings) |             | 8064           |         |                   |                   | 4065              | 3999              |
| <b>215 - Reinforced Concrete Abutment</b>        | 1- Ben.     | 84             | ft.     | 84                |                   |                   |                   |
| <b>227 - Reinforced Concrete Pile</b>            | 1- Ben.     | 96             | each    | 90                | 6                 |                   | 0                 |
| 1130 - Cracking (RC and Other)                   |             | 6              |         |                   | 6                 |                   |                   |
| <b>234 - Reinforced Concrete Pier Cap</b>        | 1- Ben.     | 816            | ft.     | 788               | 13                | 15                | 0                 |
| 1090 - Exposed Rebar                             |             | 15             |         |                   |                   | 15                |                   |
| 1130 - Cracking (RC and Other)                   |             | 13             |         |                   | 13                |                   |                   |
| <b>302 - Compression Joint Seal</b>              | 1- Ben.     | 925            | ft.     | 803               |                   | 122               | 0                 |
| 2330 - Seal Damage                               |             | 122            |         |                   |                   | 122               |                   |
| <b>311 - Movable Bearing</b>                     | 1- Ben.     | 125            | each    | 0                 |                   | 125               | 0                 |
| 1000 - Corrosion                                 |             | 125            |         |                   |                   | 125               |                   |
| <b>313 - Fixed Bearing</b>                       | 1- Ben.     | 125            | each    | 0                 |                   | 125               | 0                 |
| 1000 - Corrosion                                 |             | 125            |         |                   |                   | 125               |                   |
| <b>331 - Reinforced Concrete Bridge Railing</b>  | 1- Ben.     | 2004           | ft.     | 2004              |                   |                   |                   |

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### Bridge Inspection Report

#### Maintenance Needs

**Date Reported:** 10/10/2011 12:00:00 AM

**Priority:** G - General/ Preventive maintenance

**Work Code:**

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**Deficiency Description:**

Bottom of deck Span 4  
3 ft. x 1 ft. honeycomb area bottom of deck with rebar exposed.

**Work Description:**

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**Date Repairs Completed:**

**Maintenance Comments:**

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**Date Reported:** 10/10/2011 12:00:00 AM

**Priority:** C - Important

**Work Code:**

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**Deficiency Description:**

Road iron has been partially removed in right lane over Bent 1. (Approx. 15 feet) See 2013 photo

**Work Description:**

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**Date Repairs Completed:**

**Maintenance Comments:**

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**Date Reported:** 10/10/2011 12:00:00 AM

**Priority:** C - Important

**Work Code:**

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**Deficiency Description:**

Bent 21 Piles 2 & 4 has some open cracking at top of pile, a few shelled out areas with rebar exposed.

**Work Description:**

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**Date Repairs Completed:**

**Maintenance Comments:**

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### Bridge Inspection Report

#### Maintenance Needs

**Date Reported:** 10/10/2011 12:00:00 AM

**Priority:** C - Important

**Work Code:**

---

**Deficiency Description:**

Majority of bearings have some pack rust forming between masonry plates and bearing.  
Span 1 Girder 5 Bent 2 bearing has shifted 2 ½ in. and has 2 anchor bolts rusted off, see 2009 photo.

**Work Description:**

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**Date Repairs Completed:**

**Maintenance Comments:**

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**Date Reported:** 10/10/2011 12:00:00 AM

**Priority:** C - Important

**Work Code:**

---

**Deficiency Description:**

A few Girders are floating 1/16 in. typical:  
Span 1 Girder 2 Bent 2  
Span 4 Girder 4 Bent 4  
Span 9 Girder 3 Bent 9  
Span 9 Girder 3 Bent 10  
Span 14 Girder 3 Bent 14  
Span 24 Girder 3 Bent 24

**Work Description:**

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**Date Repairs Completed:**

**Maintenance Comments:**

---

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### Bridge Inspection Report

#### Maintenance Needs

**Date Reported:** 10/10/2011 12:00:00 AM

**Priority:** C - Important

**Work Code:**

---

**Deficiency Description:**

Steel Girders

Ends of majority of girders ( 1 ft. typical) are rusted with pitting and/or initial section loss.

All girders and diaphragms have rust with some pitting and/or initial section loss.

**Work Description:**

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**Date Repairs Completed:**

**Maintenance Comments:**

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**Date Reported:** 10/10/2011 12:00:00 AM

**Priority:** G - General/ Preventive maintenance

**Work Code:**

---

**Deficiency Description:**

Span 1 Girder 5 @ Bent 1 has 1 anchor bolt rusted off.

**Work Description:**

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**Date Repairs Completed:**

**Maintenance Comments:**

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**Date Reported:** 10/10/2011 12:00:00 AM

**Priority:** G - General/ Preventive maintenance

**Work Code:**

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**Deficiency Description:**

Some Embankment erosion at Bents 1 & 26 due to roadway runoff. Some repairs have been made in the past to Bent 1.

**Work Description:**

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**Date Repairs Completed:**

**Maintenance Comments:**

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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 11/18/2015

Priority: D - Routine

Work Code:

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#### Deficiency Description:

Rt. end Bents 9,12,13 & 17  
Lt end caps Bents 13, 18 and 20  
Shelled out with exposed rebar

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Stage: Monitor



PHOTO 1 Description

Inspector:

Structure Number: B5447

Inspection Date:

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### Bridge Inspection Report

#### Maintenance Needs

**Date Reported:** 10/10/2011 12:00:00 AM

**Priority:** C - Important

**Work Code:**

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**Deficiency Description:**

Majority of compression seals are split, torn and losing adhesion.  
Some Compression Seals have dropped down or is missing:

Bent 1 = 28 ft

Bent 2 = 30 ft

Bent 15 = 20 ft

Bent 25 = 19

Bent 26 = 25

**Work Description:**

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**Date Repairs Completed:**

**Maintenance Comments:**

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**Date Reported:** 11/6/2013 12:00:00 AM

**Priority:** C - Important

**Work Code:**

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**Deficiency Description:**

Majority of deck Spans 2 thru 22 have several small spalled areas and a few minor delaminated areas, especially near road irons, with some rebar exposed.

See Span 6, 20, 22 Deck Photos fo 2013 for typical

**Work Description:**

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**Date Repairs Completed:**

**Maintenance Comments:**

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Structure Number: B5447

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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 11/18/2015

Priority: B - Pressing; 6 month completion goal

Work Code:

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#### Deficiency Description:

Left End of Cap Span 15 Bent 15 has a 2ft x 1ft x 9in deep spall with rebar and bolts exposed. 50% of bearing is floating. See 2015 Photo.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Stage: Assigned



PHOTO 1 Description

Inspector:

Structure Number: B5447

Inspection Date:

Facility Carried: I-55SB-02-LM 15.93

### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 11/6/2013 12:00:00 AM

Priority: D - Routine

Work Code:

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#### Deficiency Description:

Parapet walls have a few minor spalls with rebar exposed at random areas due to lack of coverage, especially along bottom of walls. See 2013 photo

Span 1 left Parapet Wall has a spalled and deteriorated area with rebar exposed near beginning of Span. See 2013 photo

Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Date Reported: 11/6/2013 12:00:00 AM

Priority: D - Routine

Work Code:

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#### Deficiency Description:

Some rebar exposed to Caps Bents 3, 4, 9, 10 thru 22, 24, & 25 due to concrete coverage.

Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Inspector:

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Inspection Date:

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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 11/18/2015

Priority: B - Pressing; 6 month completion goal

Work Code:

#### Deficiency Description:

Girder 2 Span 14 Bent 14 Hole rust thru bottom flange at bearing appears to cracked

#### Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description

Stage: Open



PHOTO 2 Description

Inspector:

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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 11/18/2015

Priority: C - Important

Work Code:

---

#### Deficiency Description:

Girder 2 Span 13 Bent 13 Hole nearly thru bottom flange at bearing

#### Work Description:

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#### Date Repairs Completed:

#### Maintenance Comments:

---

Stage: Open



PHOTO 1 Description



Inspector:

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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 11/18/2015

Priority: C - Important

Work Code:

---

#### Deficiency Description:

Spans 20,22,& 23 have Heavy transverse and map cracking with Delam. and spalls patched areas with some shelled out areas with rebar exposed.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Stage: Open



PHOTO 1 Description

Stage: Open



PHOTO 2 Description