



Useful Guide

Tunnel entrance = a portal

※The only portion of the tunnel building which goes underground. Every possible decoration and ornamentation goes to prove the hardship incurred.

Nameplate

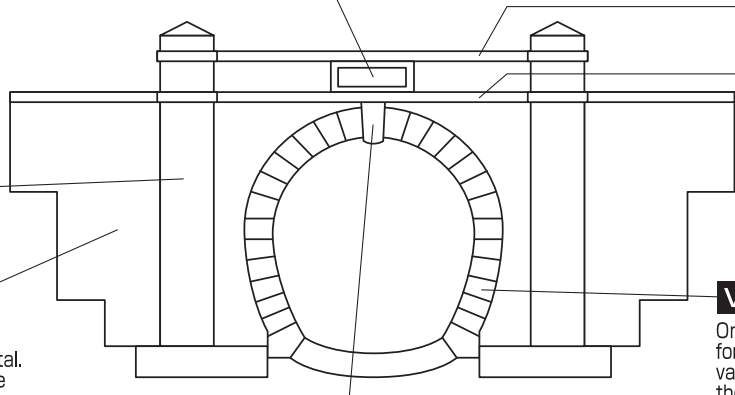
Nameplate or name frame of the tunnel which is located on the top portion of a tunnel. Unfortunately, the tunnels in this tunnel group might not have the nameplate extant.

Pilasters

A decorative column used to improve the reinforcement of a portal.

Wing

Mainly used as a support for a portal. The design and industrial art of the wing is profound. Tunnel No. 14 on the Tajimi side is thought to be the largest wing in this tunnel group.



Keystone

It is a wedge shaped main stone of an arch. The keystone is the final stone to be installed in the arch, completing the portal work. The keystone is usually beautifully ornamented with characters and/or figures.

Coping stone

Obi-ishi

Coping stone decorates the top part of the portal. Obi-ishi is a strap-like stone situated between a coping stone and an arch. Obi-ishi has a decorative function as well as functioning as a drainer.

Voussoir

One of the wedge-shaped stones forming the curved parts of an arch or vaulted ceiling. In order to strengthen the reinforcement, it may have multiple layers. One tunnel has a seven-fold voussoir, but others in this tunnel group (13 tunnels) have no voussoir.

Types and Construction of the Tunnels.

The tunnels in this group are mountain tunnels having a horseshoe-shaped brick layered structure (Other tunnel types include a circular and a box shaped tunnel). Although there is a tunnel where only the portal is made of brick and the inside thereof is a rock wall, the tunnels in this tunnel group are constructed of a brick layer in the portal as well as internally. This exemplifies the excellent craftsmanship at the time of construction.

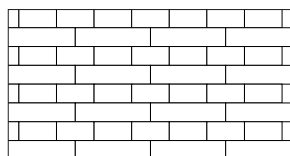
Tunnel No. 6 is unique in Japan?

Usually 4 to 5 folds of Voussoir are built in order to strengthen the reinforcement of the portal. Surprisingly, tunnel No.6 has 7 folds of voussoir to compensate for the weak geology, water leakage and collapsing bricks. From this we can imagine the hardships suffered by the craftsmen at the time. It is said that a 7-fold voussoir can be seen only in this tunnel group. The brick remnants due to repeated collapsing have been dumped on the riverside nearby Tunnel No. 6 on the Kasugai side.

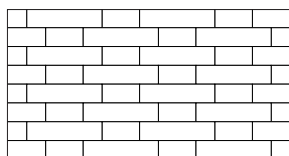
English bond brickwork is firm!

British engineer, Edmund Morel who is recognized as the father of Japanese railways visited Japan in the early stage of the Meiji era, and instructed the Japanese Engineers on the technique of "English bond brickwork". The Atami, the Kanmon and the Tanna tunnels were built based on the rock-drilling technique taught by Morel.

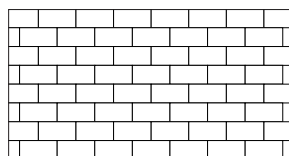
Types of Brickwork



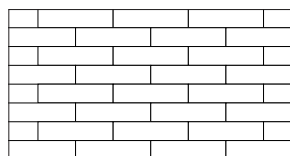
English bond:
Excellent reinforcement.



Flemish bond:
Excellent Appearance, but very rare.



Header:
Mostly used on the exposed surface of a building.



Running bond:
Not used for a building.

※For more details or inquiries, please contact the organization.

No.1 in the prefecture or Tokai area?

There are three large maple trees near tunnel No. 4 on the Tajimi side. They are estimated to be around 100 years old and are the greatest maple trees in the prefecture. These maple trees have grown from buds on the tree stumps, therefore, we expect them to live much longer. These maples have been adopted as a symbol of the committee, and have been printed on the members uniforms.

Nature Revival

According to "first tree survey" conducted by the committee, over 500 trees comprising 50 varieties have been grown alongside the railway track bed over the last half century, and many rare species have been observed. An environment where the abandoned railway track tunnel group and the natural trees can be found living together is rare in Japan. After thinning out the dense bush, such as bamboo grass, alongside the abandoned railway track bed, many wild flowers are beginning to grow in these areas with the benefit of direct sunlight. We look forward to seeing the result of the "second flower vegetation survey."

1. Surveys on the Number of Trees and Species Name

Number of trees (with number)	621
Number of trees having species name	605
Number of trees with unknown species name	16
Number of Variation	50 kinds

2. 種名別本数

種名	本数	種名	本数
1 アオキ	58	26 シロダモ	18
2 アカモシバ	11	27 センニシツ	1
3 アケビ	1	28 タニウツギ	3
4 アブラチャン	12	29 タイカサスラ	2
5 アベマキ	12	30 ナンタン	1
6 アラカシ	34	31 ニワウルシ	1
7 イヌガヤ	1	32 キズミササ	4
8 イヌシダ	57	33 キムノキ	6
9 ウツギ	11	34 ノダフジ	17
10 ウルシ	2	35 ノボドウ	1
11 エニシダ	1	36 ノリウギ	1
12 エノキ	11	37 ヒイタギ	10
13 カシノキ	1	38 ヤスミ	2
14 カマツカ	1	39 ムクノキ	3
15 カヤ	1	40 モチヅナ	1
16 クサギ	16	41 モミヅナ	1
17 クマノエズキ	5	42 モミジ	122
18 クス	1	43 ヤブツバキ	132
19 コナジ	4	44 ヤブツバキ	1
20 コナラ	4	45 ヤブツバキ	3
21 コシユイ	1	46 ヤマブキ	1
22 サクラ	14	47 ヤマナシ	1
23 サンショウ	4	48 ヤマハゼ	2
24 シキモ	1	49 ヤマアザミ	1
25 シラカシ	1	50 シラカシ	4

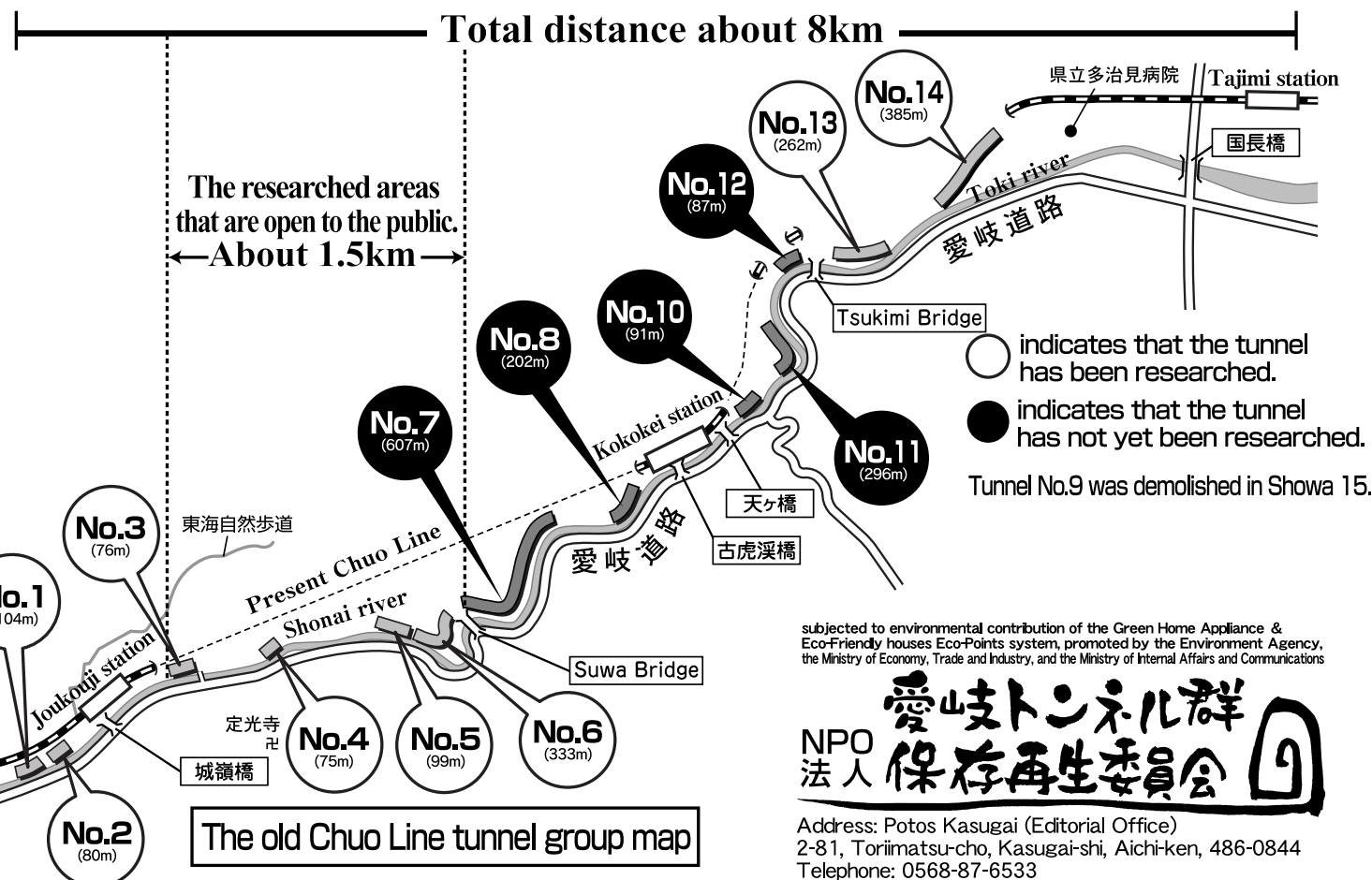
Former JNR Chuo(West) abandoned railway and tunnel group preservation and revival project



The 110th Anniversary of the Opening of Chuo Line



Revive! Aigi Tunnel Group



This program is grant-funded by the "Grant Program for Community Activities" of the Toyota Foundation

Tunnel Group and Abandoned railway track bed

The forcible beat of the steam locomotive used to echo along the Shonai riverside over 40 years ago. The abandoned railway track bed of the JNR Chuo West Line (from Shiojiri to Tokyo is Chuo East Line) alongside the Shonai River running through Kouzouji in Kasugai-shi, Aichi to Tajimi-shi, Gifu still remains.

This abandoned railway track was opened in 1900 and was in use until Showa 41 (1966) when an electric train was introduced following a new route with double-tracked electrification. Since then, this abandoned railway track has been forgotten by people and left under the steep cliff and the deep ravine of the Shonai river covered in thick brush.

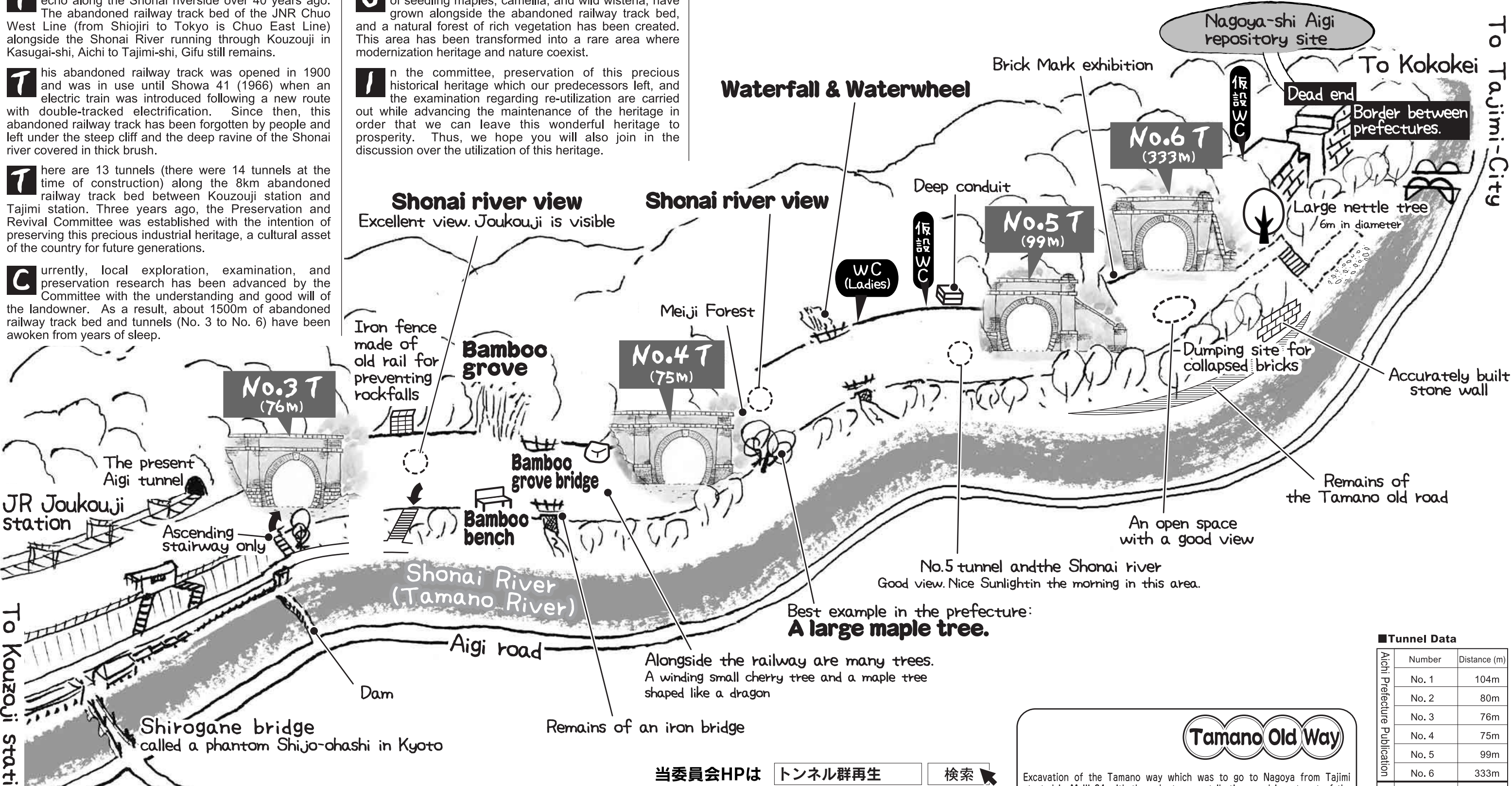
There are 13 tunnels (there were 14 tunnels at the time of construction) along the 8km abandoned railway track bed between Kouzouji station and Tajimi station. Three years ago, the Preservation and Revival Committee was established with the intention of preserving this precious industrial heritage, a cultural asset of the country for future generations.

Currently, local exploration, examination, and preservation research has been advanced by the Committee with the understanding and good will of the landowner. As a result, about 1500m of abandoned railway track bed and tunnels (No. 3 to No. 6) have been awoken from years of sleep.

Over the past 40 years, many trees, such as hundreds of seedling maples, camellia, and wild wisteria, have grown alongside the abandoned railway track bed, and a natural forest of rich vegetation has been created. This area has been transformed into a rare area where modernization heritage and nature coexist.

In the committee, preservation of this precious historical heritage which our predecessors left, and the examination regarding re-utilization are carried out while advancing the maintenance of the heritage in order that we can leave this wonderful heritage to prosperity. Thus, we hope you will also join in the discussion over the utilization of this heritage.

Recovered Area Map



Working Groups in the Committee

(regular meetings and group meetings are held once a month, respectively)

- A: Tunnel Structure Working Group**
 - A survey on the quantity of used bricks, cracks and falling of masonry or the like. Subcommittee. Survey on brick marking
- B: Abandoned Railway Track Bed and its Surrounding Area Working Group**
 - Create a ledger of vegetation and the vegetation characteristics. Creation and installation of name plates of the main trees.
 - Mapping of the main trees
 - Mapping any special feature of the abandoned railway track bed
- C: Tamano old road Working Group**
 - Survey of Masonry-work. Survey of any special features on the road

- D: Public-relations and Planning Working Group**
 - Renewal of HP and event management / open-day management
 - Creation of a pamphlet (open-day and National Trust)
- E: Reference Collection Working Group**
 - Taking photographs of the present condition of the main tunnels, the abandoned railway track bed, and its surrounding area. Preservation of said photos.
 - Documenting and collating historical data
- F: General Affairs and Project Working Group**
 - The monthly committee management, the schedule management.
 - Research of "the sunlight lighting system in a tunnel"
- G: Line Maintenance Working Group(members of other groups may join this group)**
 - Maintenance of the abandoned railway track bed including the Tamano old road and foot-path maintenance, bridge formation or the like
 - Second and third excavation

当委員会HPは [トンネル群再生](#) [検索](#)

Tamano Old Way

Excavation of the Tamano way which was to go to Nagoya from Tajimi started in Meiji 24 with the voluntary contributions and investment of the citizens of Tajimi. People who desperately wanted for a flat road had great expectations regarding the Tamano way and named it the "Nagoya Shindo". In Meiji 28, the opening ceremony was held in Kokokei. However, the construction of the Chuo Line route began the following year, and the Nagoya Shindo was cut off at some locations. When the Chuo Line opened in Meiji 33, the Tamano way lay desolate. With the opening of the Tamano way, a road toll "道銭" was introduced in order to recoup on investment. Recently, the road toll fees list "萬札 (price list)" and the official stamps were discovered, and it came to light that this "phantom old road" had a short-life of little more than one year.

玉野街道民設事務所

Tunnel Data

Aichi Prefecture Publication	Number	Distance (m)
	No. 1	104m
	No. 2	80m
	No. 3	76m
	No. 4	75m
	No. 5	99m
Gifu Prefecture	No. 6	333m
	No. 7	607m
	No. 8	202m
	No. 9	20m
	No. 10	91m
	No. 11	296m
	No. 12	87m
	No. 13	262m
	No. 14	385m
Total Tunnel Distance:		2697m