

## Assessment of Impact on World Heritage from Construction Work Near the Mietsu Naval Dock

### Summary

This document is a Heritage Impact Assessment (HIA) prepared by Saga City regarding construction work to be carried out by the city on a visitor facility (hereinafter, “Guidance Facility”) in the buffer zone of the Mietsu Naval Dock (component part 5-1), which is a component part of the World Heritage “Sites of Japan’s Meiji Industrial Revolution: Iron and Steel, Shipbuilding, and Coal Mining.”

The elements (attributes) representing the Outstanding Universal Value(OUV) of the Mietsu Naval Dock are the underground archaeological remains and the natural terrain in which they are buried. There is no direct impact from the construction work, which is to take place outside the scope of the component part.

### 1. Introduction

- (1) The subject of this HIA is the component part Mietsu Naval Dock (5-1) of the “Sites of Japan’s Meiji Industrial Revolution: Iron and Steel, Shipbuilding, and Coal Mining” which were inscribed on the World Heritage List in July 2015.
- (2) In carrying out the HIA, reference is made to the items stipulated in the World Heritage Conservation Management Plan (CMP) and to the views of experts in and outside Japan.
- (3) Preparation of the heritage impact assessment is the responsibility of Saga City.

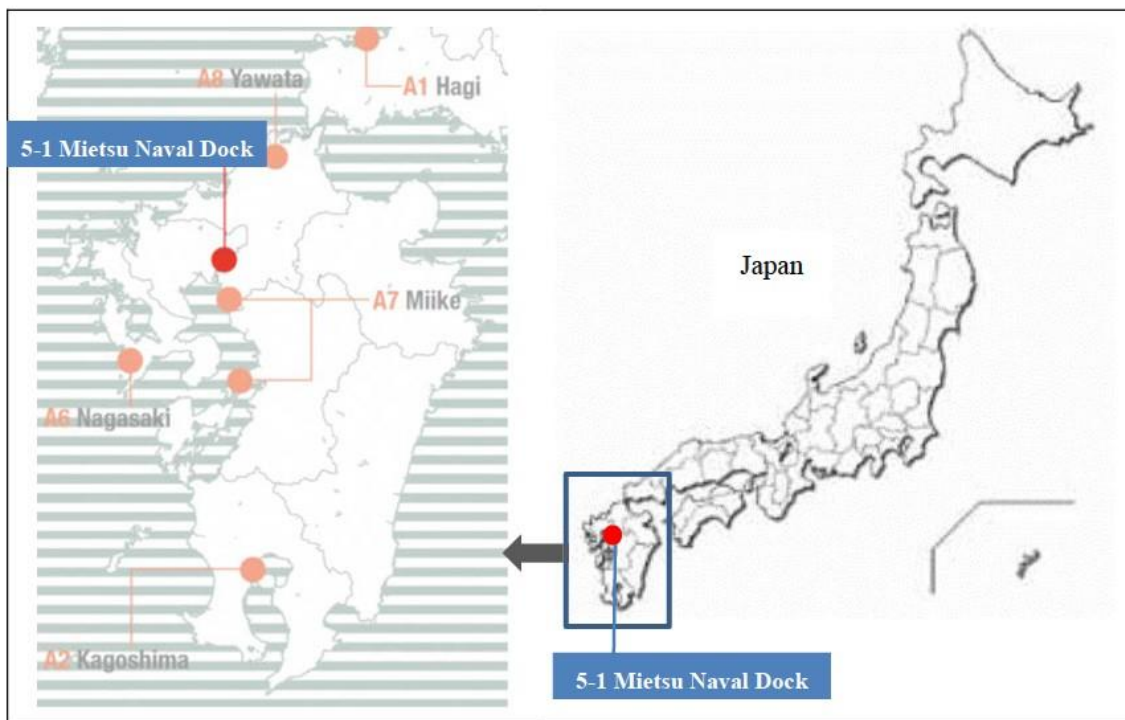


Figure 1. Location of the Saga Area

## Appendix 8

### 2. Overview of the construction work near the Mietsu Naval Dock

This work, to be carried out by Saga City inside the boundary of the buffer zone of the Mietsu Naval Dock, consists of two subprojects, each of which is outlined in Table 1.

- 1) Upgrade of the Mietsu Naval Dock Guidance Facility
- 2) Mietsu Naval Dock parking area relocation (including construction of the Nakakawasoe Community Centre on adjoining property)

Recommendation h) (Decision 39COM 8B.14) issued at the time the Sites of Japan's Meiji Industrial Revolution: Iron and Steel, Shipbuilding, and Coal Mining were inscribed on the World Heritage List asks for submission of proposals for upgrade or development of visitor facilities, in accordance with Paragraph No. 172 of the "Operational Guidelines for the Implementation of the World Heritage Convention".

As for the parking space currently located on the world heritage property, the World Heritage Conservation and Management Plan indicated that relocation outside the property would be considered from the standpoint of enhancing protection of the property (CMP page 75). Thereafter, Saga City in the Conservation, Restoration, Presentation and Public Utilization Plan for Mietsu Naval Dock adopted in 2017 a plan to provide a new parking area off the property to replace the existing space.

The project for parking area relocation, along with the aspect of strengthening protection of the component part, has the aspect of improving access and tour routes to the Guidance Facility and the component part, and is therefore closely related to Guidance Facility upgrade.

Accordingly, the result of the HIA performed for the construction work near the Mietsu Naval Dock is submitted in accordance with Paragraph No. 172 of the "Operational Guidelines for the Implementation of the World Heritage Convention".

Table 1. Overview of each subproject of the construction work near the Mietsu Naval Dock

	Project name	Description
1)	Upgrade of the Mietsu Naval Dock Guidance Facility	<ul style="list-style-type: none"> <li>• The project for upgrade of the Guidance Facility is to be carried out for the purpose of providing a centre for clear and accurate communication, including an overview of the entire Sites of Japan's Meiji Industrial Revolution: Iron and Steel, Shipbuilding, and Coal Mining, the Outstanding Universal Value (OUV), the role of the Mietsu Naval Dock, and the results of investigative studies carried out to date. The upgrade project will be carried out along the lines of the Interpretation Strategy submitted to UNESCO by the Cabinet Secretariat.</li> <li>• The Guidance Facility will be provided by expanding and renovating the Tsunetami Sano Memorial Museum, a facility owned by Saga City and located adjacent to the component part. [Figure 2] <ul style="list-style-type: none"> <li>➤ Site layout of the Tsunetami Sano Memorial Museum in its current state [Fig. 3]</li> <li>➤ External appearance of the Tsunetami Sano Memorial Museum (current state as viewed from the component part) [Fig. 4]</li> </ul> </li> <li>• The policy of Saga City is not to show exposed remains, so as to preserve the</li> </ul>

		<p>archaeological remains of the Mietsu Naval Dock. The city therefore plans to provide exhibits in the Guidance Facility explaining the most distinctive aspects, by installing an actual-size model of the revetment remains, and creating videos showing how the dry dock utilized the extreme tidal range of the Hayatsue River, and showing western-style ship repair and shipbuilding operations.</p> <ul style="list-style-type: none"> <li>• To study the specific details of Guidance Facility provision, starting in fiscal 2018, Saga City set up a committee made up of scholars in such fields as early modern history, archaeology, and shipbuilding history along with members from related agencies including the Cabinet Secretariat and Agency for Cultural Affairs, and received their guidance and advice.</li> <li>• An overview of the Guidance Facility provision is as follows. <ul style="list-style-type: none"> <li>➤ Three-story steel construction building</li> <li>➤ Site area: approx. 4,980m<sup>2</sup> (the adjoining city-owned land will be included in the project)</li> <li>➤ Building area: approx. 1,520 m<sup>2</sup> (including expansion by approx. 150m<sup>2</sup> of the ground floor on the southwest side)</li> <li>➤ Total floor space: approx. 2,520m<sup>2</sup></li> <li>➤ Building height: approx. 15m</li> <li>➤ Start of work (construction work and preparation of exhibits): March 2020</li> <li>➤ Opening date: September 2021 (planned)</li> <li>➤ Exhibit zoning plan for each floor [Fig. 5]</li> </ul> </li> </ul>
2)	Mietsu Naval Dock parking area relocation	<ul style="list-style-type: none"> <li>• The parking space currently located inside the component part will be replaced by a new parking area outside the property, for the purpose of enhancing protection of the component part.</li> <li>• The land where the new parking area will be provided is north of the component part. [Fig. 2]</li> <li>• Saga City purchased the land in fiscal 2017, and in fiscal 2018, land formation and provisional paving were carried out.</li> <li>• An overview of the parking area provision is as follows. <ul style="list-style-type: none"> <li>➤ Site area: approx. 3,600m<sup>2</sup></li> <li>➤ Capacity: 5 large buses, approximately 90 passenger cars</li> <li>➤ Start of construction work (landscaping): January 2020 (planned)</li> <li>➤ Start of use: July 2020 (planned; provisional use is planned for October 2019 and after)</li> <li>➤ Photo of current state of parking area [Fig. 6]</li> <li>➤ Plan drawing [Fig. 7]</li> <li>➤ Artist rendition of completed facility [Fig. 8]</li> </ul> </li> </ul>

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	<p>Nakakawasoe Community Centre construction project</p>	<ul style="list-style-type: none"> <li>• The Nakakawasoe Community Centre, built in March 1972 as a facility for the local residents of the area where the Mietsu Naval Dock is situated, has deteriorated and will be replaced with a new building.</li> <li>• A community centre plays a central role in bringing local residents together and promoting lifelong learning. Until provision of the Tsunetami Sano Memorial Museum in 2004, the current Nakakawasoe Community Centre functioned to honor the memory of Tsunetami Sano. The two facilities thus have an inseparable relationship. Accordingly, land next to the site of the new parking area of the Mietsu Naval Dock was obtained for building the new community centre. [Figure 2]</li> <li>• Saga City purchased the building site in fiscal 2017, and in fiscal 2018, land formation was carried out.</li> <li>• An overview of the new community centre provision is as follows.             <ul style="list-style-type: none"> <li>➤ One-story wooden structure</li> <li>➤ Site area: approx. 3,000m<sup>2</sup></li> <li>➤ Building area: Approx. 780m<sup>2</sup> (community centre), approx. 65m<sup>2</sup> (outside storage facility)</li> <li>➤ Total floor space: Approx. 670m<sup>2</sup> (community centre), approx. 65m<sup>2</sup> (outside storage facility)</li> <li>➤ Building height (at highest point): Approx. 9.2m (community centre), approx. 4.3m (outside storage facility)</li> <li>➤ Start of construction work: October 2019</li> <li>➤ Start of use: July 2020 (planned)</li> <li>➤ Plan drawing [Fig. 7]</li> <li>➤ Artist rendition of completed facility [Fig. 8]</li> <li>➤ Elevation [Fig. 9]</li> </ul> </li> </ul>
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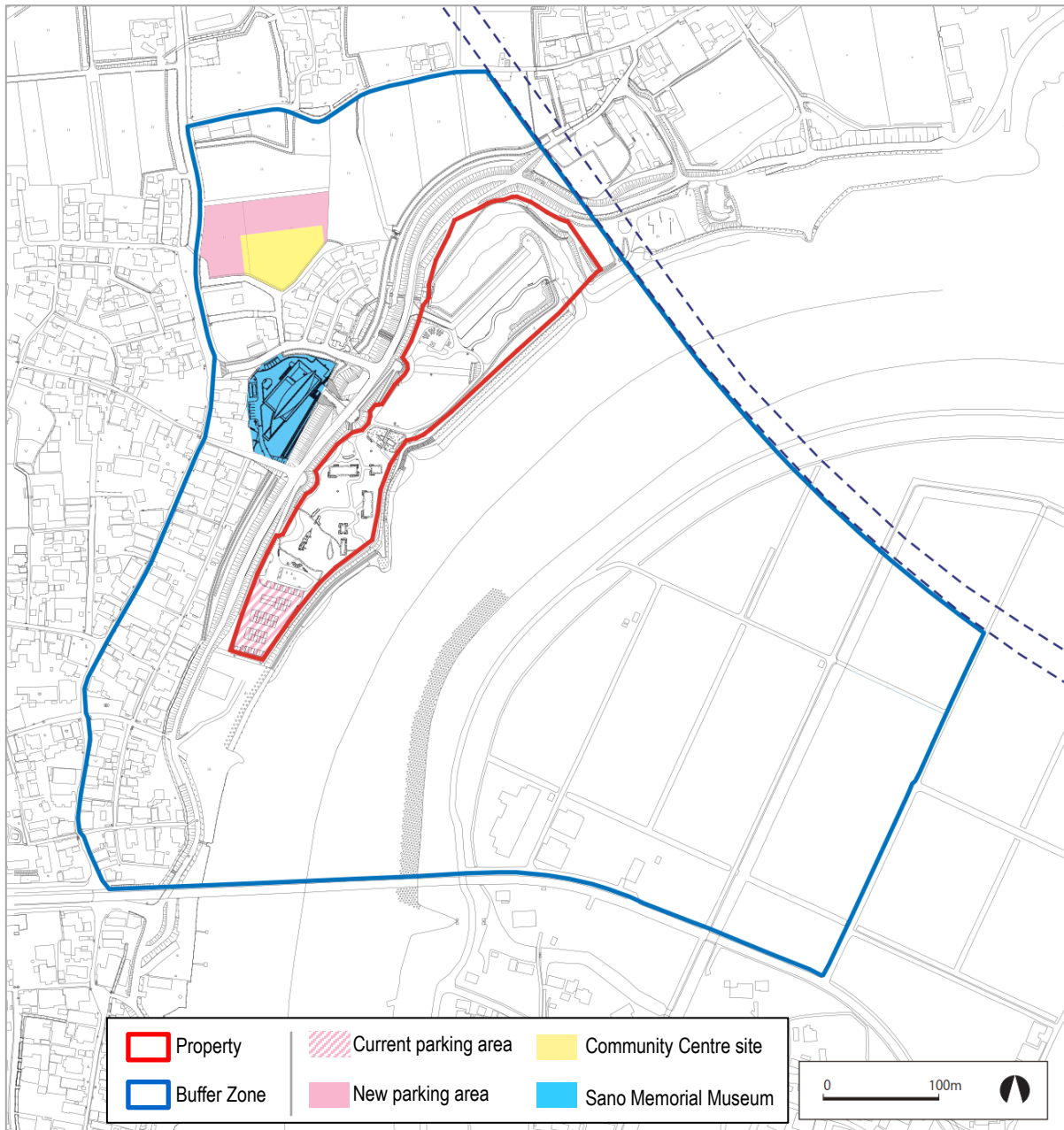


Figure 2. Boundary of component part and buffer zone; project location

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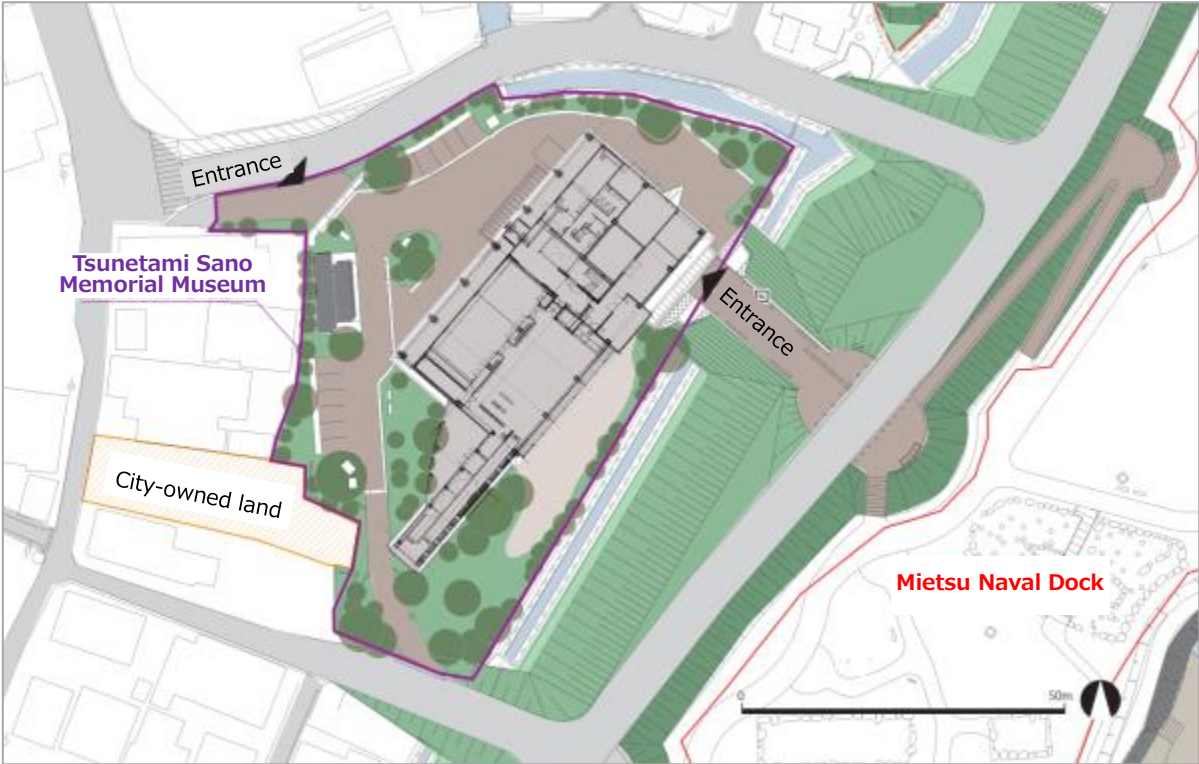


Figure 3. Current site layout of Tsunetami Sano Memorial Museum



Figure 4. External appearance of the Tsunetami Sano Memorial Museum (current state as viewed from the component part)

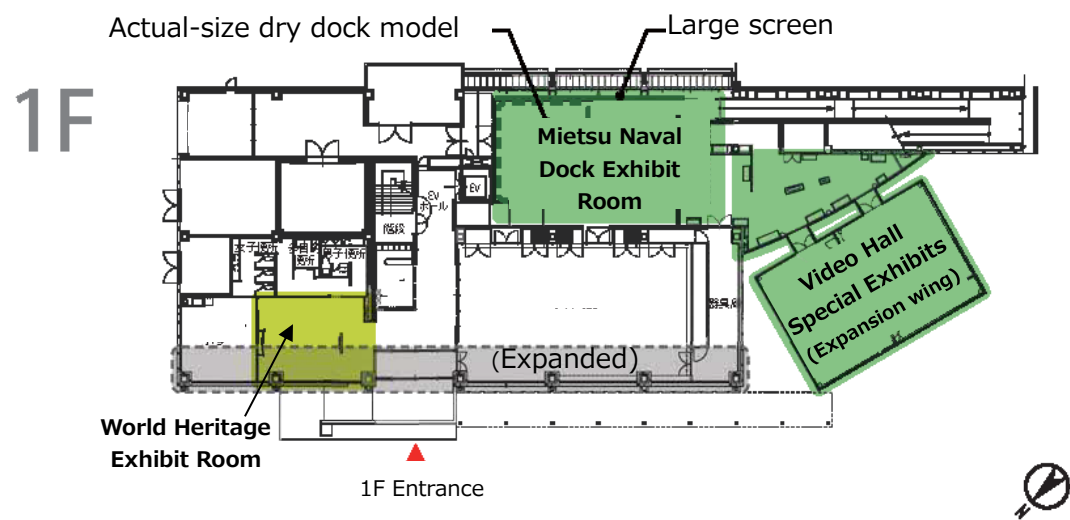
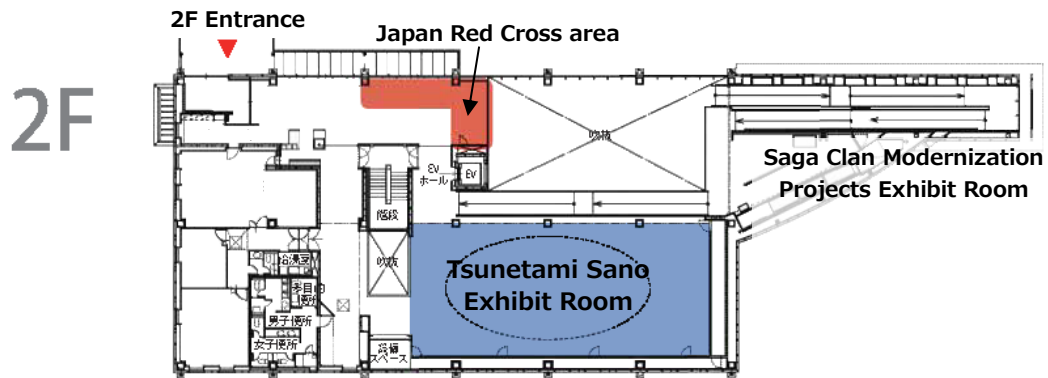
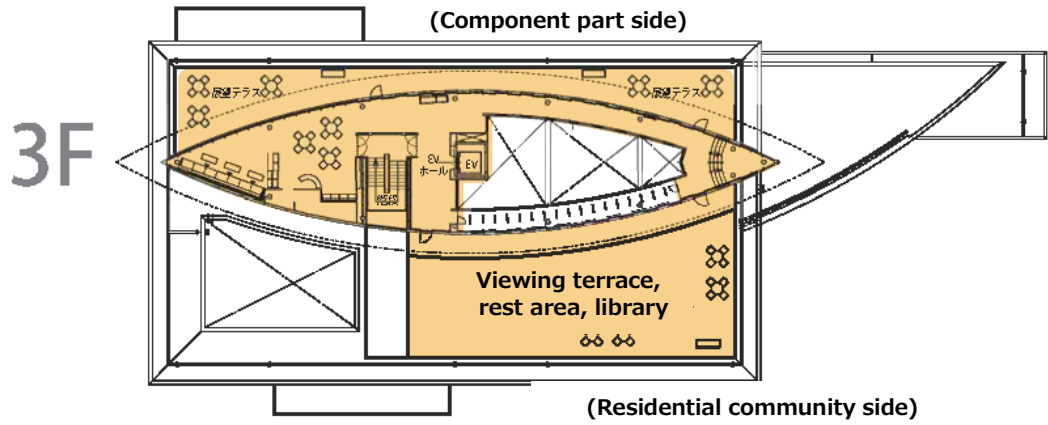


Figure 5. Exhibit zoning plan for each floor [Guidance Facility]



Figure 6. Current state of parking area site  
(photographed from road on west side of component part) [taken August 31, 2019]

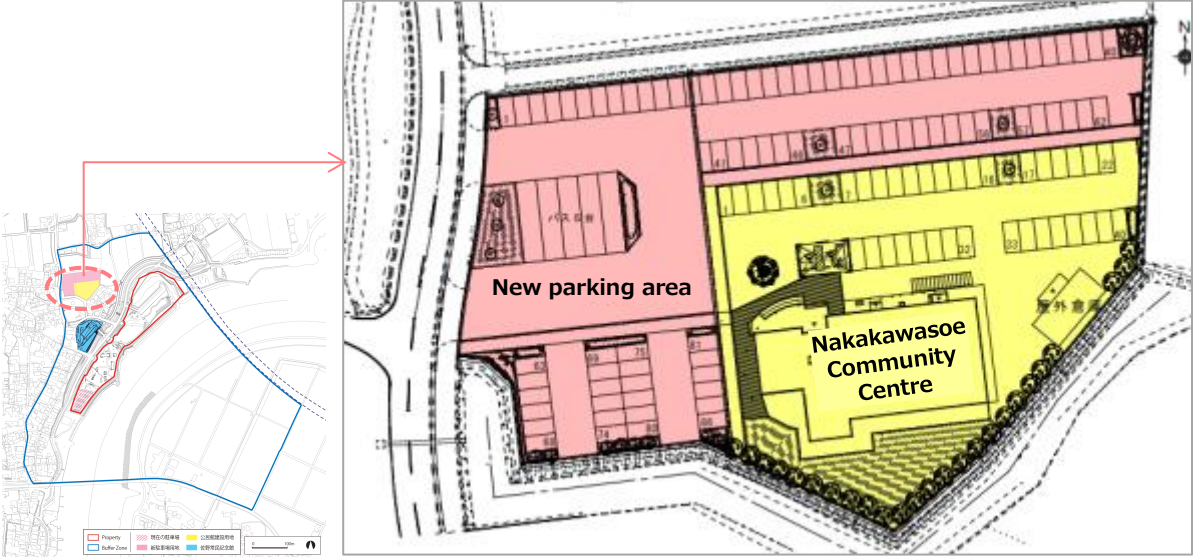


Figure 7. Plan drawing of new parking area (pink) and Nakakawasoe Community Centre (yellow)





Figure 8. Artist rendition of completed parking area and Nakakawasoe Community Centre (view to east from west side of site)

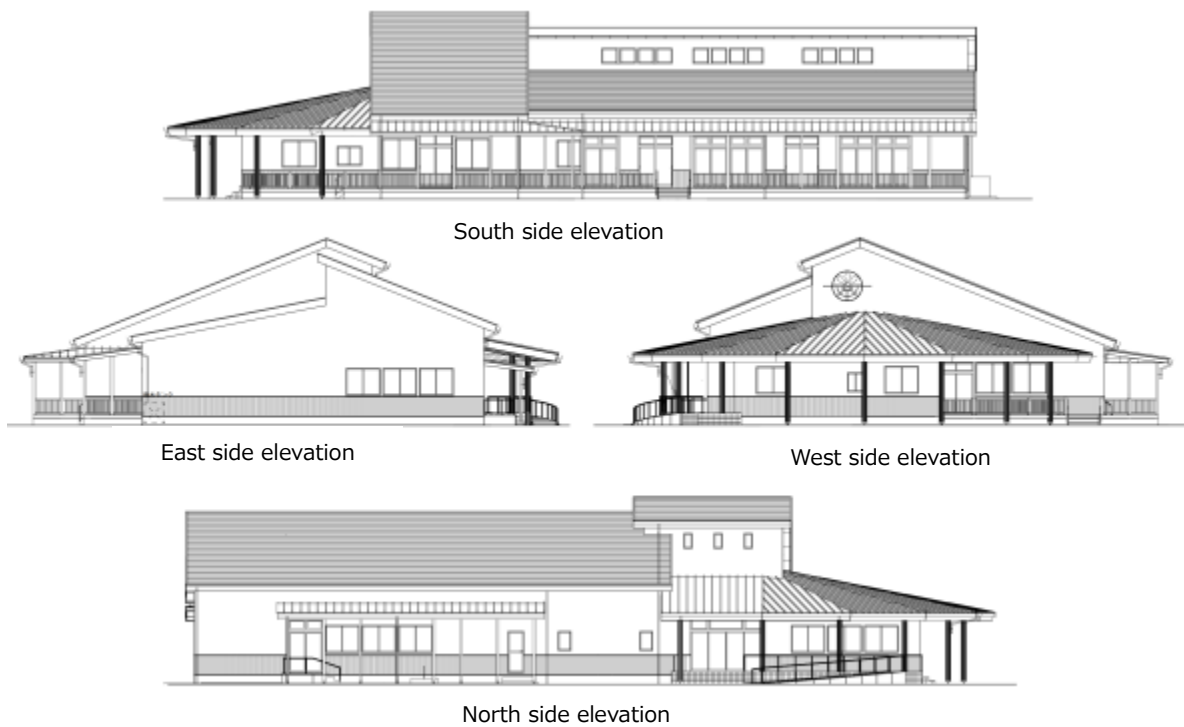


Figure 9. Elevation drawings of Nakakawasoe Community Centre

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3. Heritage Value

(1) The Outstanding Universal Value of the “Sites of Japan’s Meiji Industrial Revolution: Iron and Steel, Shipbuilding, and Coal Mining” is as follows (excerpted from the Statement of Outstanding Universal Value in the World Heritage Committee Decision).

A series of industrial heritage sites, focused mainly on the Kyushu-Yamaguchi region of south-west of Japan, represent the first successful transfer of industrialization from the West to a non-Western nation. The rapid industrialization that Japan achieved from the middle of the 19th century to the early 20th century was founded on iron and steel, shipbuilding and coal mining, particularly to meet defence needs. The sites in the series reflect the three phases of this rapid industrialisation achieved over a short space of just over fifty years between 1850s and 1910.

The first phase in the pre-Meiji Bakumatsu isolation period, at the end of Shogun era in the 1850s and early 1860s, was a period of experimentation in iron making and shipbuilding. Prompted by the need to improve the defences of the nation and particularly its sea-going defences in response to foreign threats, industrialisation was developed by local clans through second hand knowledge, based mostly on Western textbooks, and copying Western examples, combined with traditional craft skills. Ultimately most were unsuccessful. Nevertheless this approach marked a substantial move from the isolationism of the Edo period, and in part prompted the Meiji Restoration.

The second phase from the 1860s accelerated by the new Meiji Era, involved the importation of Western technology and the expertise to operate it; while the third and final phase in the late Meiji period (between 1890 to 1910), was full-blown local industrialization achieved with newly-acquired Japanese expertise and through the active adaptation of Western technology to best suit Japanese needs and social traditions, on Japan’s own terms. Western technology was adapted to local needs and local materials and organised by local engineers and supervisors.

(2) As a shipbuilding site in the first phase, the Mietsu Naval Dock consists of remains from the initial phase of industrialization, when repair and building of ships were being carried out through trial and error. They include Japan’s oldest dry dock, in operation from 1858 to 1871, and where used for training and repair of Western-style ships. The Mietsu Naval Dock was operated based on knowledge and technologies obtained by the Nagasaki Naval Training Institute established by the Tokugawa shogunate in 1855, responding to the opening up of Japan’s ports with the arrival of Commodore Matthew Perry. (The Nagasaki Naval Training Institute no longer exists today.)

(3) The elements (attributes) representing the OUV of the Mietsu Naval Dock are the underground archaeological remains of the dry dock (shipbuilding/repair docks and metal works section), training ground section, and small boat docks section, along with the natural terrain in which they are buried. The everyday maintenance of these is defined as follows in the Conservation and Management Plan.

[Management by Saga City and Saga City Board of Education]

Elements of the component part that will be conserved and managed date to the period when Mietsu Naval Facility was in operation. These elements provide direct evidence of activities relating to shipbuilding and repair work as part of Saga Clan’s goal to modernize through its own independent

efforts. They consist of both buried remains and geographical features, each of which is to be maintained and managed as follows.

As the component part has been designated as a National Historic Site based on the Law for the Protection of Cultural Properties, all conservation and management work will comply with the Plan for the National Historic Site Mietsu Naval Facility Site Property Management Plan, which sets out guidelines on dealing with such things as changes to the component part's current state in areas where there are historic remains. In addition to this, all work will be implemented in liaison and coordination with Saga City Board of Education, the site's administrator.

○Buried remains

· Shipbuilding/repair docks and metal works section:

Stone remains, furnace remains (1.2), ditch remains, double-stranded furnace (crucible furnace), scrap pit revetment remains (main dock area), revetment remains (dock entrance area), river side revetment remains, construction soil

· Training ground section: Construction soil

· Small boat docks section: Construction soil, embankment

All buried remains have been secured with a sufficiently thick protective layer of 60 – 100 cm from the current ground surface, and are being maintained and managed so that nothing can harm them. Therefore, as they will continue to be preserved in this good buried state, measures will be taken for conservation and management which seek to maintain their current state. In regard to remains that are made of wood in particular, such as revetment remains, other than for the purpose of surveys, these remains will be left unexposed so as to prevent deterioration.

· Geographical features

· Small boat docks section: Geographical features of inlet

The geographical features of the inlet give insights into the nature of small boat docks in the past. Therefore, in order to preserve this landscape, measures will be taken for conservation and management which seek to maintain their current state on the assumption of the area's ongoing use as a fishing port.

(4) Restrictions in the buffer zones are defined as follows. (CMP, p. 87)

5.4.1 Conditions of the buffer zone that are to be maintained (benchmark of regulation and protection)

The buffer zone contains land use divisions and geographical formations that evoke the landscape when Mietsu Naval Facility was in operation. In order to protect the surrounding area as the appropriate setting as the appropriate setting as seen from the component part, restrictions will be placed on the establishment of structures that obstruct the visibility of this setting.

5.4.2 Regulation and protection policy and overall plan in the buffer zone

In order to maintain the conditions set out in 5.4.1, which aims to protect the component part, conservation measures will be taken along with the setting of appropriate boundaries for the buffer zone.

In order that development activities which take place within the buffer zone do not harm the component

part's value, appropriate regulations are to be put in place in accordance with the River Act, the City Planning Act, the Landscape Act, the Act Concerning Establishment of Agricultural Promotion Areas, and the Agricultural Land Act.

#### 4. Assessing Overall Impact of the Development

- (1) The construction work for this development project in the vicinity of the Mietsu Naval Dock is taking place outside the scope of the component part, and does not have any direct adverse impact on the integrity or authenticity of the elements (attributes) representing the OUV of the World Heritage “Sites of Japan’s Meiji Industrial Revolution: Iron and Steel, Shipbuilding, and Coal Mining,” namely, the underground archaeological remains and the natural terrain in which they are buried.
- (2) The equipment in the Guidance Facility will be renovated in line with the three stages of interpretation in the Interpretation Strategy, namely (1) OUV, (2) History of heavy industry, and (3) Interpretation for each of the component parts.

When the renovation is completed, the first place visitors will go to when they enter the building is the World Heritage Exhibit Room. Common exhibits will be installed here, which are planned as standard exhibits for all the component parts in line with the Interpretation Strategy, outlining and explaining the OUV of the Sites of Japan’s Meiji Industrial Revolution: Iron and Steel, Shipbuilding, and Coal Mining and the roles of the component parts.

This will greatly contribute to providing visitors with an overview of the Sites of Japan’s Meiji Industrial Revolution: Iron and Steel, Shipbuilding, and Coal Mining, and deepening their understanding of how the Mietsu Naval Dock contributes to the OUV, thereby promoting their understanding of the World Heritage value from viewing the exhibits about the site.

According to the results of the questionnaire surveys conducted periodically by Saga City, many visitors say they would like to see the actual Revetment remains (main doc area). However, from the standpoint of protecting the archaeological remains, it has been decided to maintain them in reburied state.

In this renovation project, there are thus plans for making the remains “visible” by displaying actual-size models of some of the remains in the Guidance Facility, as a means of raising visitor satisfaction.

- (3) The project for relocation of the Mietsu Naval Dock parking area outside the component part will enhance protection by restricting vehicle entry onto the property. Moreover, locating the new parking area on the north side of the property will improve the visitor access environment to the parking area, clarifying the tour routes to the Guidance Facility and to the component part.
- (4) The views from inside the component part are not elements (attributes) representing the OUV, but are subject to the impact assessment. The reason is that conservation of the landscape in the buffer zone is a matter designated for consideration in the CMP, and these development projects take place in the buffer zone.

While Guidance Facility renovation will involve expansion of the building, the plans call for only minimal expansion on the west side of the building, resulting in no change to the building appearance as seen from the component part.

Moreover, all due consideration will be made to harmonizing the appearance of the new community

centre with the surroundings, in coloration, materials, shapes and other aspects. Specifically, the plans are for white and black as the basic colors for the exterior and roof, respectively, while the height of the building (at its highest point) will be nearly the same as that of the surrounding private houses. In the current state, when viewing the planned building site from the component part, since there is an embankment road of a certain height (elevation approximately 6m) between the component part and the building site, only some of the roofs of houses near the embankment can be seen. Accordingly, in the case of the new community centre as well, when viewed from the component part in the direction of the building site, there will be almost no change to the view as seen from the component part, since it will barely be visible as with the surrounding houses (Fig. 10-1 to Fig. 10-4).

Note that these development projects are in conformity with the standards prescribed in the Saga City landscape ordinances.

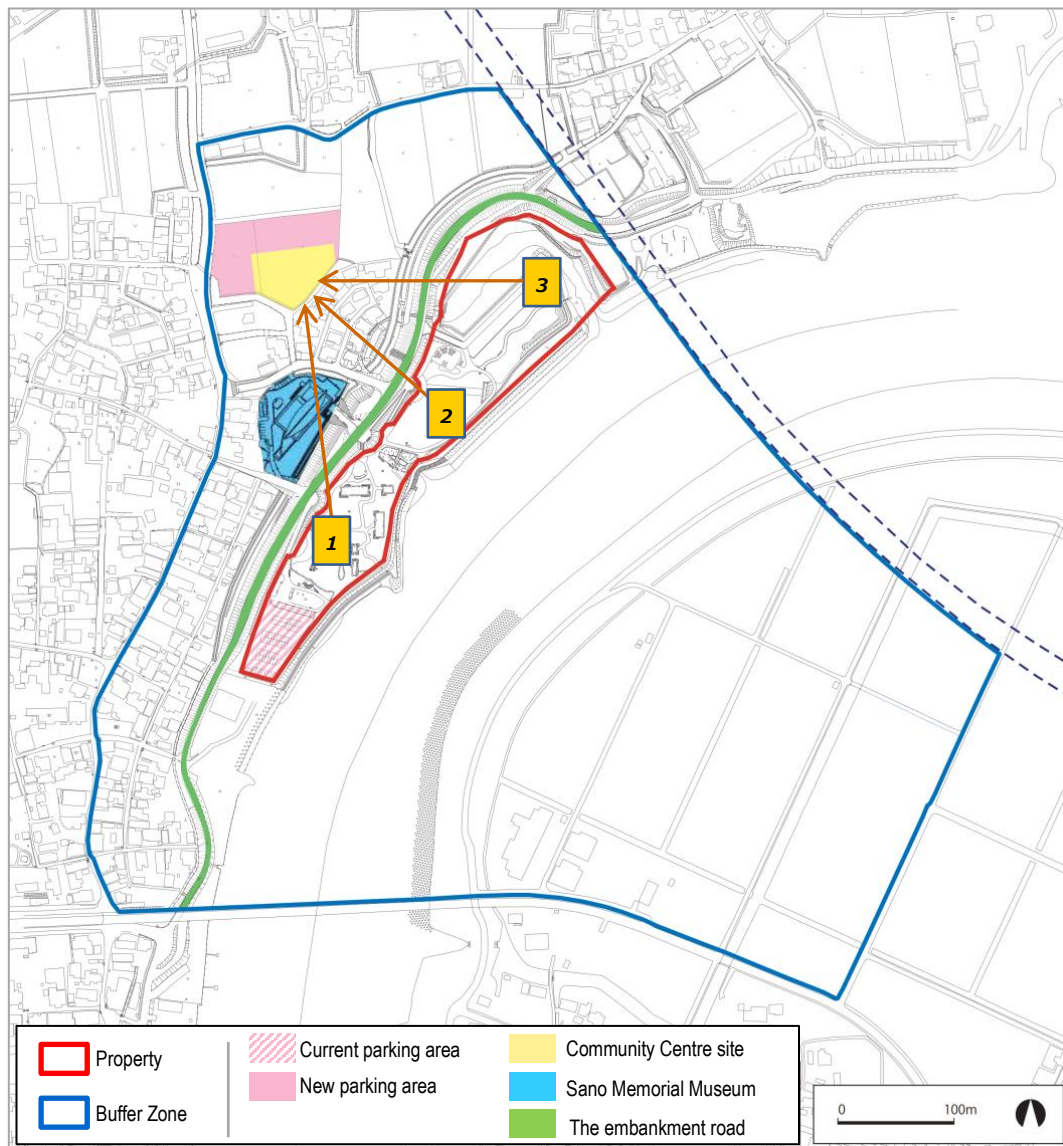


Figure 10-1. View of the proposed site of the Nakakawasoe Community Centre from the component part  
[viewpoint positions]

## Appendix 8



Figure 10-2. View from Viewpoint 1 (Shipbuilding/repair docks and metal works section) [photographed August 31, 2019]



Figure 10-3. View from Viewpoint 2 (Training ground section) [photographed August 31, 2019]



Figure 10-4. View from Viewpoint 3 (Small boat docks section) [photographed August 31, 2019]

**For Reference:** Elevation of each point and straight-line distance to embankment road and building site

	Elevation	Straight-line distance to embankment road	Elevation of embankment road*1	Straight-line distance to building site	Appearance of community centre from each point
Point 1	3.67m	Approx. 50m	6.6m	Approx. 260m	Not visible.
Point 2	3.5m	Approx. 40m	6.3m	Approx. 180m	About the same height as the roofs of houses currently seen across the embankment road, which are partially visible.
Point 3	2.9m	Approx. 65m	6.3m	Approx. 190m	About the same height as the roofs of houses currently seen across the embankment road, which are partially visible.
Planned building site	3.14m				
Community centre building	12.41m (at highest point)				

\*The elevation of the embankment road given here is the height when viewed squarely from each point in the direction of the planned building site.

\*The elevation of the community centre building is calculated as the height of the highest point of the building (9.27m) from the ground surface after land formation (3.14m).

Appendix 8

5. Management Process

- (1) In the management structure of the Sites of Japan’s Meiji Industrial Revolution, local conservation councils have been established for each area, based on the General Principles and Strategic Framework for Conservation and Management for the Sites of Japan’s Meiji Industrial Revolution: Iron and Steel, Shipbuilding, and Coal Mining. For this area as well, the Saga Local Conservation Council has been formed, which exchanges information and views and makes decisions regarding such matters as conservation and management of the component part. As necessary, the advice of the national government (Cabinet Secretariat) Industrial Heritage Expert Committee (including Working Properties) may be also sought.
- (2) Saga City has been carrying out these development projects from the early planning stage based on guidance and advice from the Cabinet Secretariat and Agency for Cultural Affairs, and on all due deliberation in a committee of experts and elsewhere.

At the same time, the projects were approved by the Saga Local Conservation Council, which provided the following assessment.

- The Guidance Facility will contribute greatly to overall understanding of the Sites of Japan’s Meiji Industrial Revolution: Iron and Steel, Shipbuilding, and Coal Mining and of the contribution of the Mietsu Naval Dock to the OUV.
- Relocating the parking area outside the component part will lead to enhanced protection of the property and will establish an access route from the parking area to the historical and archaeological remains. The resulting flow is expected to deepen the understanding of visitors, who will first further their understanding of the World Heritage and component parts at the Guidance Facility and then go on to visit the historical and archaeological remains.
- The design of the new Nakakawasoe Community Centre takes into account harmony with the surrounding landscape and conforms to the landscape standards prescribed by Saga City. Community centres have a long tradition in Japan and serve an essential role in communities providing residents with a place to gather and endeavor in lifelong learning activities. As one subproject of the larger plan, this community centre is expected to enhance the long-term understanding and participation of residents in regional development activities that utilize the Mietsu Naval Dock, one of the important component parts of the World Heritage.

- (3) The assessment by the “Sites of Japan’s Meiji Industrial Revolution” National Committee of Conservation and Management is similar.
- (4) Note that this HIA was drawn up after discussions in the meeting of the Saga Area Conservation Council held October 2, 2019.



## Governance

### - Governance system and Expertise

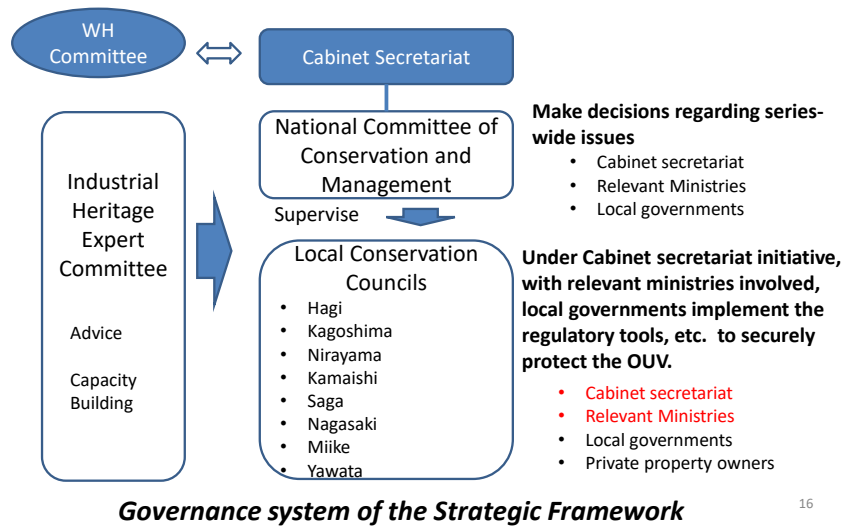


Figure 11. Governance System Defined in the Strategic Framework

(Additional information November 2014)

- (5) Since these development projects are led by Saga City as the component part manager, close contact and coordination with related parties will be carried out in the construction work stages and the work will be carried out paying all due care to the impact on the property.

## 6. Conclusions

The development projects to be carried out by Saga City in the vicinity of the Mietsu Naval Dock, since there are no problems with the assessment of overall impact or in the management process, will not have an adverse impact on the OUV, integrity, or authenticity of the Sites of Japan's Meiji Industrial Revolution: Iron and Steel, Shipbuilding, and Coal Mining, and will contribute greatly to enhancing protection of the property and to furthering understanding of the Mietsu Naval Dock as a contributing element.

**Appendix 8**