

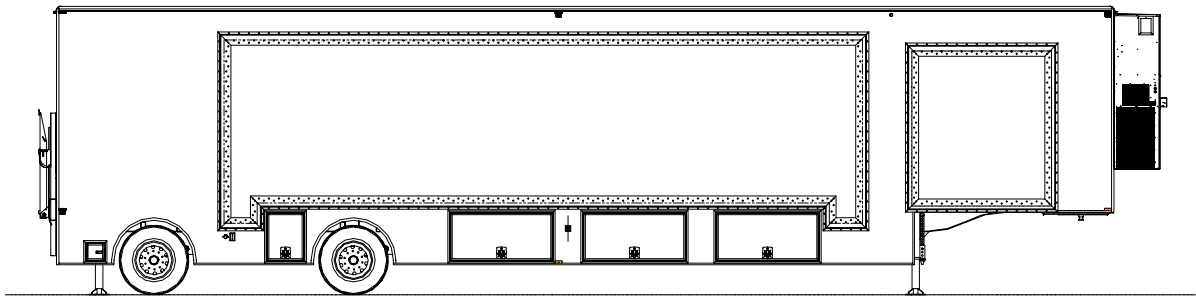


Site Planning Guide

Gulf Care

Mobile Dental Unit

14'-5" H x 10'-0" W x 53'-0" L USA



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North America

Corporate Headquarters
Oshkosh Specialty Vehicles
16745 South Lathrop Ave.
Harvey, IL
60426
USA
(001) 708.596.5066

Europe

Oshkosh Specialty Vehicles, Ltd.
Unit 17, Nelson Way
Tuscum Trading Estate,
Camberley, Surrey
GU15 3DH
United Kingdom
(44) 01276.64490

Buys Ballotstraat 6
3261 LA Oud-Beijerland, Holland
+31 (0) 186-614322
Fax +31 (0) 186-619367
E-mail: smit@smit-mobile.nl

List of Revisions

Revisions

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Initial Release

August 2007

Notice

In accordance with our policy of continued product improvement, Oshkosh Specialty Vehicles reserves the right to make changes in the equipment, design, specifications, and materials of the product described herein. Any problems or questions related to the components or systems covered in this booklet may be directed to:

Oshkosh Specialty Vehicles
Attention: Service Department
16745 South Lathrop Avenue
Harvey, Illinois
60426
USA

(001) 800.839.0630 (24 hour service)

(001) 708.596.2480 (fax)

<http://www.oshkoshsv.com/>

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Introduction

The purpose of this document is to provide the basic information needed for site planning. For specific information not contained in this document, please contact Oshkosh Specialty Vehicles.

The mobile unit requires sufficient room to be maneuvered and positioned for setup and takedown. The mobile unit has many storage compartments and service doors that require access during these procedures as well as during operation. The entry stair and optional platform require additional space on the right side of the mobile self-propelled unit. Refer to the drawings provided for actual locations of doors and stair sizes and locations.

Warnings & Safety Alert Conventions

The following terms define the various precautions and notices used in this manual:

NOTE:

Whenever information exists that requires additional emphasis beyond the standard textual information, the term “NOTE” is used.

IMPORTANT

Whenever information exists that requires special attention to procedures to ensure proper operation of the equipment or to prevent its possible failure, the term “IMPORTANT” is used.

CAUTION

Whenever potential damage to equipment exists, requiring correct procedures / practices for prevention, the term “CAUTION” is used.

WARNING

Whenever potential personal injury or death situations exist, requiring correct procedures / practices for prevention, the term “WARNING” is used.

DANGER

Whenever immediate hazards exist that could result in personal injury or death that cannot be eliminated by design safeguards, the term “DANGER” is used.



This safety alert symbol indicates important safety messages in the manual. When you see this symbol, carefully read the message that follows and be alert to the possibility of personal injury or death.

WARNING

Electrical, mechanical, and pneumatic safety devices have been installed on this vehicle to help protect against personal injury and / or damage to equipment. Under no circumstances should any attempt be made to disconnect or in any way render any of these devices inoperative. If a malfunction of any safety device is discovered to exist, DO NOT operate the vehicle, and immediately notify appropriate maintenance personnel.

Oshkosh Specialty vehicles shall have no liability with respect to: REPAIRS IMPROPERLY PERFORMED OR REPLACEMENTS IMPROPERLY INSTALLED (or) USE OF REPLACEMENT PARTS OR ACCESSORIES NOT CONFORMING TO Oshkosh SPECIALTY VEHICLE'S SPECIFICATIONS, WHICH ADVERSELY AFFECT PERFORMANCE OR DURABILITY (or) ALTERATIONS OR MODIFICATIONS NOT RECOMMENDED OR APPROVED IN WRITING BY Oshkosh Specialty Vehicles (or) FOR EQUIPMENT DAMAGE OR PERSONAL INJURY OR DEATH AS A RESULT OF RENDERING ANY SAFETY DEVICE INOPERABLE.

Certain inherent risks are associated with heavy trailers due to the nature of their use. Personnel working in the area of these trailers are subject to certain hazards that cannot be met by mechanical means but only by the exercise of intelligence, care, and common sense. It is therefore essential for the owner of this equipment to have personnel involved in the use and operation of these trailers who are competent, careful, physically and mentally qualified, and trained in the safe operation of this equipment.

Support Pad Requirements

The following is a list of recommendations and requirements for a concrete support pad. However, due to varying site conditions, the actual pad design should be prepared by an appropriately licensed structural or architectural engineer.

Trailer Weight

The weight of the trailer should be considered in the design of the support and service pads. The overall weight of the trailer is approximately 62,860lbs. The weight on the rear axles is approximately 33,040 lbs. The weight on the King Pin is approximately 29,820 lbs.

Recommended Support Pad Requirements

A full pad measuring 11'-10" x 45'-6-1/4" is the recommended support pad as shown on [Figure 1: Pad Layout](#). The cross hatching as shown on [Figure 2: Right Side Elevation](#), and [Figure 3: Left Side Elevation](#) represents the minimum recommended support pad.

Support Pad Depth

Recommendations for the width and length of the pad are given above. Based upon the weight distribution of the mobile unit and existing site conditions, the depth should be determined by a local contractor.

Support Pad Levelness

In order to ensure proper operation of the system, the support pad(s) must be level and the deviation must not exceed 2" in 10'-0".

Recommended Service Pad

A full pad measuring 35'-10" x 68'-3/4" is the recommended service pad. This will allow full service access to the mobile unit. The recommended service pad is shown on [Figure 1: Pad Layout](#), [Figure 2: Right Side Elevation](#), and [Figure 3: Left Side Elevation](#).

Vehicle Access

A firm, level surface is required around the mobile unit in order to provide access to the site, personnel access to the mobile unit, and servicing of the mobile unit.

Swing Clearance Note

Please verify the actual dimensions of the rearmost projections on the mobile self-propelled unit to the centerline of tandem suspension. Refer to [Figure 5: Turning Requirements](#) for proper turning requirements.

Customer Power Requirements



It is the operator's responsibility to verify that the shore power receptacle is electrically compatible with the mobile unit's power cable and connector prior to connecting to the shore power connection. Plugging into a receptacle not electrically compatible could cause serious injury or damage.



Always inspect the power cable, connectors, and fasteners prior to usage. If during inspection, it is suspected that either internal or external damage has occurred, have a certified electrician inspect and repair the damage before using.



Follow the maintenance schedule in the Operator and Service Manual for safe operation of the mobile unit.

Lockout/Tagout

A Lockout/Tagout provision in accordance with OSHA Standard 1910.147 is required. The facility shore power disconnect device must be located within 40'-0" of the unit and must provide for an effective lockout/tagout to facilitate safe service and maintenance of the unit.

Electrical Service

220/127V AC, 3 Phase, fused at 200 Amps, with A-B-C Phase Rotation.

Configuration

Three-phase, five wire L₁, L₂, L₃, Neutral, with ground.

Load Regulation at Line Frequency

Wires are to be sized such that the line voltage drops from the power source to the mobile unit is less than 6% of the nominal voltage for the rated load of the mobile unit.

Frequency

60Hz \pm 0.5Hz.

Phase Balance

The load balance is 2% maximum of lowest voltage.

Maximum Voltage Variation

The maximum voltage variation is \pm 2% from a nominal steady state (under the worst case conditions of line voltage).

Connector Type

The mobile unit Leviton connectors at the Generator, Trailer Front Panel, and ATS are as specified below:

- Ground – Leviton #16R21-G, Green, Male
- L₁ – Phase "A" – Leviton #16R22-E, Black, Female
- L₂ – Phase "B" – Leviton #16R22-R, Red, Female
- L₃ – Phase "C" – Leviton #16R22-B, Blue, Female
- Neutral – Leviton #16R21-W, White, Male

Cable Plugs

There are two 50 foot cables supplied with the Trailer for connection between the generator and trailer and for connection from the facility and the ATS and are configured as follows:

Generator Cable: This cable has connectors at both ends

- Ground – Leviton #16D31-G, Green, Female
- L₁ – Phase "A" – Leviton #16D22-E, Black, Male
- L₂ – Phase "B" – Leviton #16D22-R, Red, Male
- L₃ – Phase "C" – Leviton #16D22-B, Blue, Male
- Neutral – Leviton #16D31-W, White, Female

Shore Power Cable: This cable has connectors at one end only. The bare end is to be connected to shore power.

- Ground – Leviton #16D31-G, Green, Female
- L₁ – Phase "A" – Leviton #16D22-E, Black, Male
- L₂ – Phase "B" – Leviton #16D22-R, Red, Male
- L₃ – Phase "C" – Leviton #16D22-B, Blue, Male
- Neutral – Leviton #16D31-W, White, Female

Trailer Front Connector Covers

The mobile unit Leviton connectors at the Trailer Front Panel are protected by Snap Back Covers and are as specified below:

- Ground – Leviton #16S21-G, Green.
- L₁ – Phase "A" – Leviton #16S21-E, Black.
- L₂ – Phase "B" – Leviton #16S21-R, Red.
- L₃ – Phase "C" – Leviton #16S21-B, Blue.
- Neutral – Leviton #16S21-W, White.

Connector Notes

The standard connector for the mobile unit is a Leviton connector. The mobile unit is configured for 220/127V AC service. Many existing mobile sites are set up for a variety of different mobile units that this Mobile Dental Unit could utilize. Review the different site configurations to determine the best location for the Dental Unit on these sites. If an existing site currently implements a different connector, connector configuration, or the available power supply varies from the above specifications, please contact Oshkosh Specialty Vehicles to arrange for a compatible power connector before the mobile unit leaves the facility.

A set of Leviton loose cam-lock connectors for use at sites with raw ended power cables are included to enable connection to the trailer via the 50' power cables.

Voltage Surges

Transient voltage variations caused by external loads must not:

- Exceed $\pm 5\%$.
- Exceed five cycles duration.
- Occur more than ten times an hour.

Power Source Monitoring

NOTE: Perform a power audit first.

A power analyzer should be used to check the proposed Mobile Command Center site power for average line voltage, surges, sags, reclosures, impulses, frequency and microcuts. A period that includes two weekends should be used to simulate several days of normal use. Analysis of the data and site history of any previous power problems with other systems or computer installations should be reviewed with your power and ground representative. Verify "brown-out" (low voltage) conditions, which may occur during summer months, will not exceed the allowable range.

Some analyzer models that are suitable for power monitoring are:

- Dranetz Model 658
- Dranetz Model 656A
- BMI 3630
- RPM



Mobile Grounding Requirements

IMPORTANT

All work is to be done in accordance with the local and national electrical codes.

IMPORTANT

Information shown here is only a recommendation and must be verified with both local and national site codes.

IMPORTANT

Ground wires inside enclosures are to be taped green for the entire visual length for identification purposes.

IMPORTANT

If a separately derived, secondary system transformer is used, a bonding jumper between the grounded conductor (neutral) and the equipment – grounding conductor must be used.

Special Ground Note

The mobile unit must have an earth driven ground rod within 5'-0" of the site power receptacle. A grounding cable of a minimum #2 AWG must be connected between the grounding rod and the grounding pin of the trailer if the trailer is powered by the generator. The portable Generator Set must also be connected to a grounding rod.

If the trailer is connected to shore power, a separate grounding conductor must still be run with the conductors to the source of the power from the grounding pin of the site power receptacle in accordance with NEC 2002 Article 250-24.

Telephone Service Requirements

Telephone Service

The five telephone connections are located on the IO Panel in the left front underbody compartment.

Data Service

The data connection is located on the IO Panel in the left front underbody compartment.

Water Requirements

IMPORTANT

During winter conditions, provisions must be made to ensure that water lines do not freeze because of weather conditions.

Water Supply Tank

A 50-gallon water supply tank is located in the right side center underbody compartment.

The water supply tank is filled from the exterior of the mobile unit by using the connection on the right side wall between the second and third lower compartment doors.

The drain for the water supply tank is located below fill connection. The drain valve is located in the lower compartment near the door.

Water Supply Filters

A 5 micron cartridge filter to remove sediment and offensive taste from the water is located between the water pump and UV Sterilizer.

The UV Sterilizer is located between the sediment filter and the cold water manifold and ensures that the water supplied to the trailer is sterile.

Hot Water Heater

A 7-gallon hot water heater is located between the cold water manifold and the hot water manifold and is sized to provide hot water to the trailer as needed.

Waste Water Tank

A 70-gallon waste water holding tank is located in the right side second lower compartment. The drain valve and connection for the waste tank is located in the same compartment.

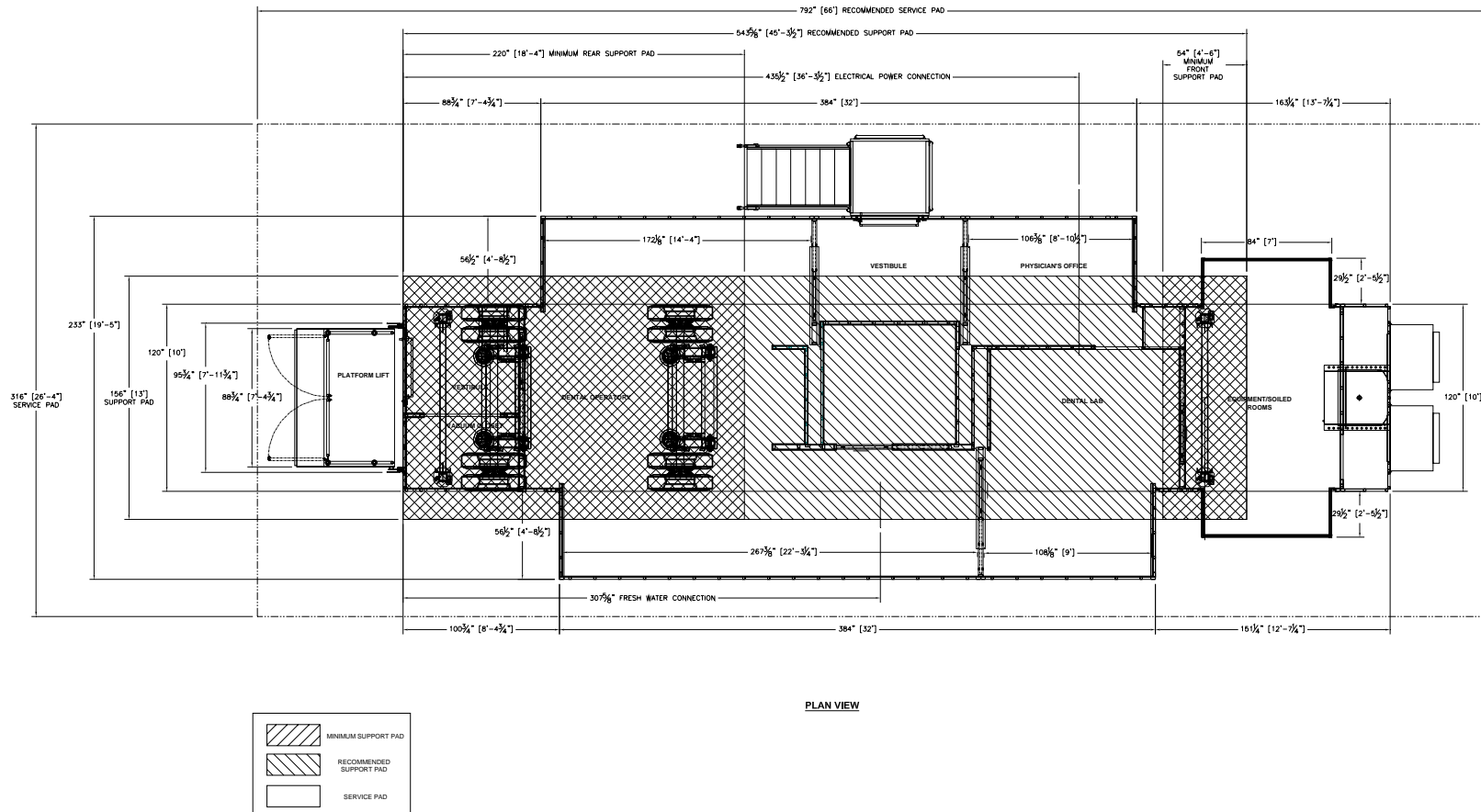


Figure 1: Pad Layout

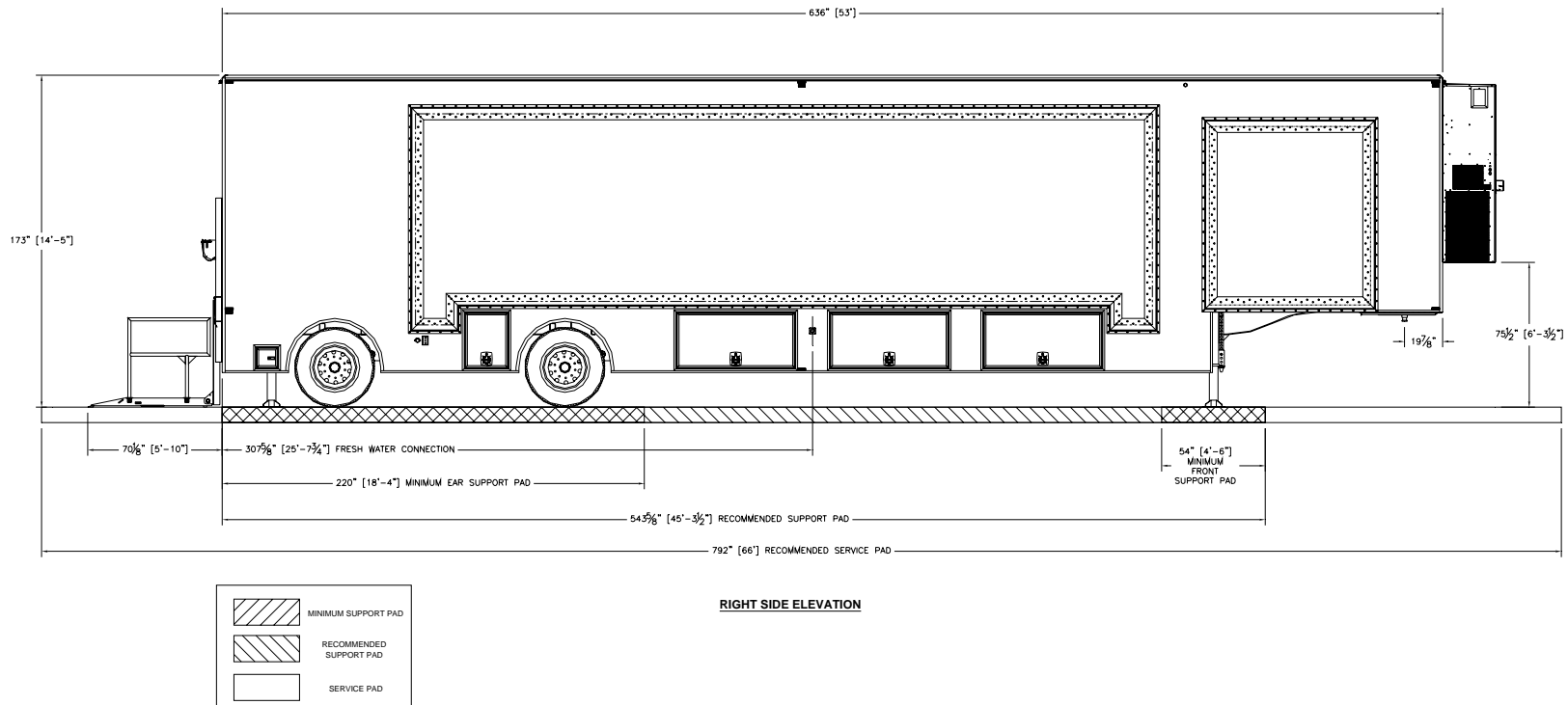


Figure 2: Right Side Elevation

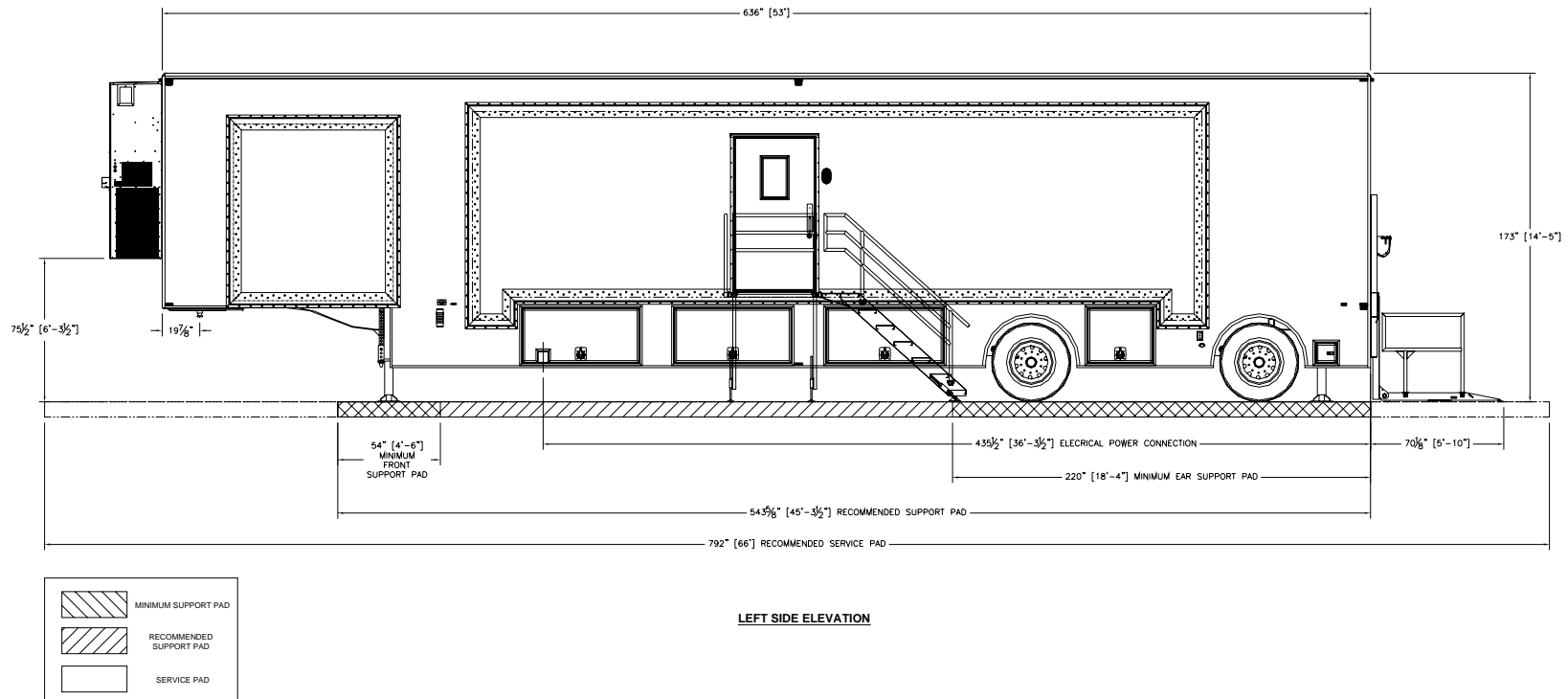
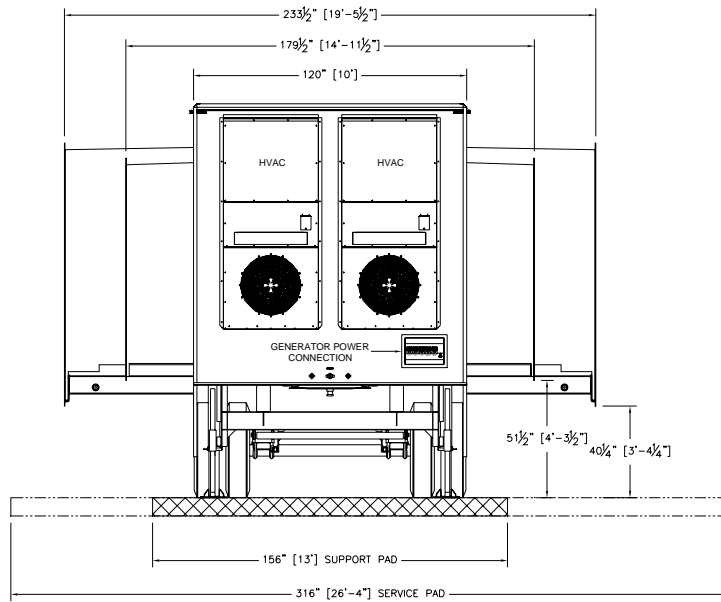
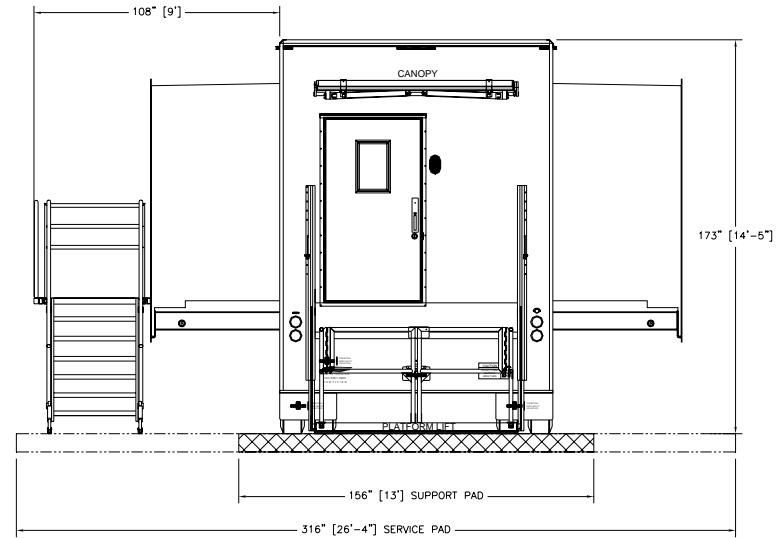


Figure 3: Left Side Elevation



FRONT ELEVATION VIEW



REAR ELEVATION VIEW

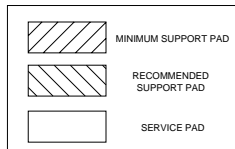


Figure 4: Front and Rear Side Elevation

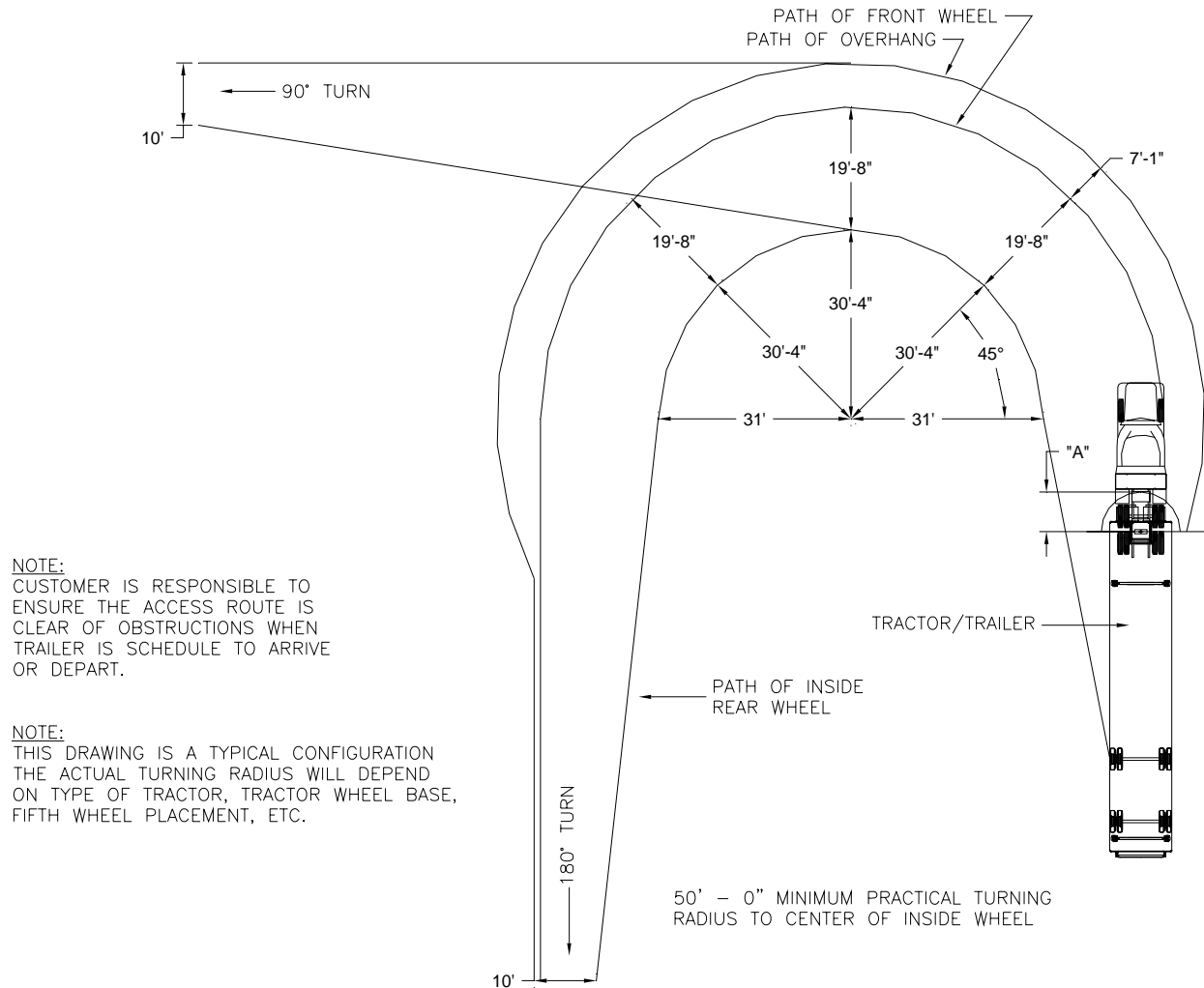


Figure 5: Turning Requirements