Room Preparations for the CinemaTech ARS System Installation

The ARS system is an acoustic treatment that is added to the walls and ceiling as applicable that enhance sound reproduction in the room.

This system, also know in the industry as a stretch wall system, utilizes a fabric retainer and acoustic absorptive, reflective and diffusive panels covered with acoustically transparent fabric. The installed system is 1-1/4" thick (1.25"). All surfaces to be covered become 1-1/4" thicker.

Below are general guidelines. Many theaters have unique details that may need modification to the general preparation. Please contact CinemaTech if you are unsure how to prep the room or need additional information.

Room Preparation

General

- Unless specifically identified in our contract, CinemaTech does NOT provide any of the structural components of the theater. Stud walls, ceiling, soffits, gypsum board (or other substrates), doors, windows, speaker cutouts, shelves or backboxes, risers and stairs will need to be furnished, installed, and finished (if necessary) by the contractor. All electrical wiring, HVAC, Fire and Security must be provided by licensed contractors. Basically an interior envelope will be provided by the Client for CinemaTech so that we may install the acoustics and other interior finishes identified in out contract.
- CinemaTech custom fits the ARS product at the job site. Small discrepancies in dimensions from our installation drawings to the actual on-site condition are usually not an issue.
- We will need power and lighting in the theater room. We prefer to cut the fabric retainer (commonly called track) and acoustic panels in the room.
- The ARS system is attached directly to gypsum board or plywood walls. These walls do not need to be painted but should receive at least one coat of taping compound or more if required by local codes.
- Both inside and outside corners should be square (not rounded) and finish taped.
- All areas of the room that will not be treated and are therefore exposed after treatment must be finished painted prior to our arrival. CinemaTech includes one installation trip in our pricing. All components, including the finish fabric, are installed on a single trip.
- We prefer that the finish flooring NOT be installed until after CinemaTech completes our installation work. If the carpet or other finish flooring is installed prior to the ARS installation, it must be fully protected from wall to wall with suitable protection materials to allow ladders or scaffolding to move freely over it and protect the floor from the cutting of materials and resultant dust and by-products of those cutting operations. CinemaTech will assume no responsibility for floor protection. This includes pathways to and from the theater.

Wood Work Interface

- The attached **generic** blocking detail illustrates the **preferred** method of woodwork interface with the ARS system. Please reference it only as it applies to your project. For instance many jobs do not have ARS ceiling treatment or chair rail. Obviously on projects that CinemaTech has been contracted to furnish and install millwork, we will provide all blocking and interfaces (except that windows and doors jambs may need to be extended by the contractor responsible for those items).
- A note on blocking materials – plywood thicknesses are usually less than the nominal size noted on the product, that is a piece of ¾" plywood added to a piece of ½" plywood usually do not measure 1-1/4" thick. We recommend the use of MDF or particle board, which have true dimensions – 2 layers of 5/8" material or a layer of ¾" plus ½" will work.
- Blocking should stop 1-1/2" short of vertical features such as an inside corner of the room, a column, door or window casing, etc.
- If this preferred method is used, it should be noted that upon completion, the tuck point of the fabric will be captured behind the trim work and if the fabric should ever need to be removed or replaced, then some wood work components may need to be removed as well.
- Again, if the preferred method is used, and CinemaTech is NOT providing the wood work, all blocking must be installed and edges painted black prior to the start of the ARS installation. The wood work should be prefinished and dry fit. After CinemaTech completes the ARS installation, the contractor can install the finish wood work and perform touch up work. It is not recommended that any wood work be finished (other than touch up work) after the fabric is in place.
- As an alternate, the wood may be installed and finished prior to the start of CinemaTech's installation (please note that this may impact the price). If the woodwork is installed prior to the ARS installation, then all blocking (with the black edge) must be brought flush to the edge of the woodwork. The CinemaTech installer will install the fabric retainer track touching the blocking. It is important that this blocking not extend beyond the edge of the woodwork or be short of the edge. We cannot tuck the fabric into the fabric retainer if the tuck point is behind the woodwork unless that wood work is installed after the fabric. This method allows the fabric to be removed at a later time without the removal of any wood work.
- A special note on reveals: Again, remember that the ARS system will be adding 1-1/4" to the treated surfaces. If there is a cabinet or other wood feature that say was designed to have a 2" reveal, the side of the cabinet that the ARS treatment will die into should be constructed with a 3-1/4" rail so that after the acoustic treatment is added to the adjacent wall the 2" reveal is maintained. Likewise if you would like a 4" reveal on a column or pilaster, it should be constructed 5-1/4" deep. This is especially relevant for cabinet doors where binding may occur if not properly planned for.

Electrical

- All electrical outlet receptacles that are in treated areas must have 1-1/4" extension rings. Cover plates should be removed.
- All electrical switch boxes that are in a treated area must have 1-1/4" extension rings. Cover plates should be removed.

- All junction boxes, such as those used for wall sconces, must have 1-1/4” extension rings. Sconces or fixtures will be installed after the ARS installation.
- Downlights in treated ceilings should be installed with the can extended beyond the gypsum by 1-1/4”. Trim rings should be removed and reinstalled after the ARS fabric installation.
- Thermostats and low voltage security devices should be removed and a 1-1/4” thick block of wood of the appropriate size to mount the device should be securely fastened to the wall. CinemaTech will cover this piece of wood with fabric and the device will be fastened by screwing through the fabric into the wood. Please note that our track needs to run vertically in all corners so the wood blocking must be held at least 1-1/2” from the corner.
- All boxes should be installed true and square.

HVAC

- HVAC ductwork that penetrates the treated areas should have the grilles removed and 1-1/4” extensions added. In this case, the grille cover holds the fabric in place around the opening.
- As an alternate, CinemaTech can track around the vent opening and the HVAC contractor can use longer screws to reattach the grille.
- As a further alternate, the contractor can install narrow blocking around the opening and CinemaTech will staple the fabric to the blocking. The grille cover will hide the staples.

Sprinklers and Other Penetrations

- Please remember that if a sprinkler penetrates a treated area, it will need to be extended by the 1-1/4”. The trim ring will be installed after the ARS installation. The trim ring will be touching the fabric rather than the gypsum board. All prep work for this should be done prior to the ARS installation, so that the cutting of the pipe, leak testing, etc. should not be done once the fabric is in place.

Acoustically Treated Doors

- CinemaTech does not supply the door leaf, jamb or any hardware such as the hinges, locksets, and associated components.
- We often apply the ARS acoustic treatments to doors. This is usually done for one or two reasons: the door is in a critical acoustic area of the room or to hide the door as much as possible. Again it must be remembered that we will be adding 1-1/4” to the face of the door.
- The door must have a solid core and ideally have a flat surface at least on the interior side.
- If the treated door swings into the theater, it should be installed with the face of the door on the same plane as the adjacent gypsum board and the door jamb flush with the gypsum board as well.
- Since both the door and the adjacent wall will have the 1-1/4” ARS materials applied, thus both becoming thicker by 1-1/4” the pivot point for the must be moved by the same 1-1/4” so the door does not immediately bind. Wide throw hinges and some specialty hinges allow for the proper swing of the door.

- If the door will be fitted with pull handles, a ball catch should be used for latching and wood blocking added to the door where the handles fasten to the door, so you are not relying on the acoustic panels for support or fastening.
- If a conventional lockset is to be used, the spindle that connects from the interior handle to the exterior handle must be long enough to accommodate the extra 1-1/4" thickness of the door leaf with the ARS Treatment attached. Again a 1-1/4" thick block of wood (donut) must be installed so the lockset is tightened against a solid surface.
- If the ARS treated door swings out of the room, it obviously cannot be "hidden" as the face of the door will be recessed from the adjacent wall treatments, and since the interior face of the door will hit against a door stop, when the treatment is applied it will be away from the edge of the door to clear the door stop and allow for the swing. We will install the acoustic treatment as tight as possible.
- The door should be finished on all exposed faces and edges prior to the arrival of CinemaTech's installation crew.

Fiber Optic – Starfield Ceilings

- CinemaTech has designed and engineered its fiber optic starfield ceilings to be both acoustically functional and aesthetically beautiful.
- The ceiling area where the fiber optic ceiling is to be installed must be clad with a minimum of ½" plywood that has been properly fastened to the ceiling joists prior to the arrival of the CinemaTech installation team.
- The CinemaTech fiber optic ceiling panels are 1-1/2" when installed. If they are being installed into a recessed ceiling area the resultant vertical exposed area will be reduced by this 1-1/2"
- The panels are factory fabricated to the largest size practical (usually no larger than 4' x 8') to minimize seams but still allow for ease of handling by the CinemaTech installer.
- If cove moulding is to be installed around the perimeter of the fiber optic ceiling area, then it should be installed after CinemaTech is complete with the installation.
- The LED lit illuminator must be located within 25' of the edge of the ceiling area at it nearest point.
- The contractor should install a shelf approximately 12" x12"on high on a wall where the illuminator will be installed (this is often the equipment room area).
- The illuminator is approx. 6" x 6" x 8", weighs 10# and requires a dual receptacle. One receptacle will be controlled by an on/off switch. The other receptacle will be remotely controlled to adjust the dimming of the illuminator. The illuminator also has a manual speed control on the unit to adjust the twinkle frequency of the "stars".
- A 4" diameter PVC conduit with a pull cord must be installed by the contractor approximately 12 inches from the interior edge in the FO ceiling area nearest to the illuminator location. The conduit should make a straight run and terminate immediately adjacent to the illuminator shelf.

LED Lighting

- CinemaTech LED lighting systems are designed to work with most automated control systems.
- Unless the contract specifies otherwise, CinemaTech will supply the light fixture, strip, etc. and it will be the responsibility of others to install them.

- Some LED lighting such as in columns or in woodwork (when supplied by CinemaTech) will be installed by CinemaTech.
- Usually the low voltage LED lighting is powered via 18/2 lamp cord run by others.
- CinemaTech will furnish all connectors, splices, as well as dimmable drivers with the LED Lighting. The drivers should be mounted and hard wired to local code by a licensed electrician in a common area, and then controlled by the Automation Contractor.
- When CinemaTech furnishes self-adhesive LED lighting strips, great care should be taken to apply the LED strips to clean, flat consistent surfaces. Consistency in spacing and application is critical to get a uniform light pattern.