

PHAU TAW QHIA TSIM TSA HOM PHIAJ UA LAG LUAM

Retail Plan Review Construction Guide

TEJ TSEV UA ZAUB MOV

Retail Food Facilities

Raws li cov txheem lus nyob hauv Americans with Disabilities Act, cov ntaub ntawv sau hauv no muaj ua lwm hom ntaub ntawv nyeem tau yog tias hu mus rau 651-201-6000. Cov siv TTY hu tau Minnesota Relay Service (Kev Pab Cuam Rau Cov Lag Ntseg los sis Hais Lus Tsis Taus) ntawm 711. Koom haum MDA yog ib lub chaw ua hauj lwm muab kev pab uas tsis xaiv ntsej xaiv muag.

In accordance with the Americans with Disabilities Act, this information is available in alternative forms of communication upon request by calling 651-201-6000. TTY users can call the Minnesota Relay Service at 711. The MDA is an equal opportunity employer and provider.

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Hmong

LUB HOM PHIAJ

Phau Taw Qhia Tsim Tsa Hom Phiaj Lag Luam no yog tsim los pab ib tus tswv ntawm lub lag luam uas xav tsim tsa ib lub lab muag khoom noj, hloov ib lub tsev mus ua lab muag khoom noj, los sis kho dua tshiab ib lub lab ua noj uas twb muaj daim lais xees lawm. Yog tias ua raws li phau taw qhia no ib ntus zuj zus, ces tus ua ntaub ntawv yuav txawj ua ntaub ntawv kom txhij txhua los tsim tsa nws lub lag luam kom raws li cov txheem lus tswj xyuas khw ua zaub mov hauv Minnesota(Minnesota Food Code).

Yog xav paub ntiv txog kev ntsuas hom phiaj, mus saib MDA lub vej xaij ntawm: www.mda.state.mn.us/planreview.

THAUM TWG TSEEV NTSUAS HOM PHIAJ

Raws li cov txheeb lus hauv txoj cai Minnesota Rule 4626.1720, yuav tsum muaj kev ntsuas hom phiaj rau ib lub lab ua zaub mov noj. Raws li txoj cai, yuav tsum muaj kev ntsuas hom phiaj ua ntej pib:

- Tsim tsa ib lub tsev ua zaub mov noj.
- Hloov kho ib lub tsev los ua ib lub lab ua zaub mov noj.
- Kev tsim kho hloov lub lab dua ntiv los sis hloov tshiab ib lub lab los sis hloov kev ua thiab pub zaub mov noj.

Nkag siab tias kev hloov kho ib lub lab tseem ceeb. Hauv qab no yog tej piv txwv uas thaum yuav tau ntsuas hom phiaj, thiab thaum twg tsis tas ntsuas.

Thaum twg cheem tsum kev ntsuas hom phiaj:

English

PURPOSE

The Plan Review Construction guide is designed to be used as a tool for a business owner who wishes to build a new retail food facility, convert an existing space into a retail food facility, or remodel an existing licensed facility. Following the guide section by section, an applicant can compile all of the appropriate documents for the plan review application and construct a facility that will meet the minimum standards of the Minnesota Food Code.

For additional information regarding the plan review process, please visit the MDA website at: www.mda.state.mn.us/planreview.

WHEN A PLAN REVIEW IS REQUIRED

Minnesota Rule 4626.1720 outlines when a plan review is required for a retail food facility. Per the rule, a plan review is required before beginning:

- Construction of a food establishment.
- Conversion of an existing structure for use as a food establishment.
- Extensive remodeling of a food establishment or a change of type of food establishment or food operation.

Understanding what is an extensive remodel or change in food operation is important. Here are some examples of when plan review is, and is not, required.

When plan review is required:

- Hloov chaw npaj ua zaub mov los sis chaw pub zaub mov. Qhov no muaj feem rau hloov chaw tej khoom twj siv los sis tub rau khoom.
- Hloov phau ntawv teev cov khoom noj menu uas yuav tsum yuav ib co khoom twj tshiab los thiaj ua tau cov zaub mov ntawd.
- Hloov cov kav dej uas yuav hloov los sis ntxiv dua tej dab ntxuav ub no.
- Hloov kho tej khoom hauv tsev uas siv tej khoom tsis tau kev pom zoo los ntawm tsoom fwv.

Thaum tsis tas yuav ntsuas lub hom phiaj:

- Hloov cov twj siv uas zoo sib xws. Ib qho piv txwv yog hloov lub tub yees es nraub ib lub tshiab nyob qhov chaw qub.
- Muab tej khoom siv txav los sis hloov tshiab. Ib qho piv txwv yog hloov daim paib los sis kho sab nraud lub lab.
- Kev kho ib chav uas zoo sib xws. Ib qho piv txwv yog hloov cov FRP es nruab cov tshiab FRP rau.

KEV HLOOV TSWV

Ib txhia tsis tas yuav tsim tsa ib lub tsev tshiab tiamsis muab ib lub khw hloov kho los pib ua ib lub lab noj mov ua lag luam. Yog tias hloov tswv tshiab tiamsis tsis hloov tej yam hauv lub lab thiab tsis hloov daim menu, tej khoom twj siv, los sis qhov teeb lub lab li cas, ces tsis ntsuas hom phiaj.

Ib qho thiab, yeej muaj ntau yam tshwm sim uas sib txawv uas tus tswv tshiab uas yuav ib lub khw yuav tsum muaj qhov ntsuas hom phiaj. Tej lub sijhawm uas yuav tau ntsuas hom phiaj yog:

- Yuav ib lub khw uas tseem qhib thiab hloov daim menu, tej khoom twj siv, los sis hloov kev teeb lub khw rau li twg.

- Changing the layout of the food preparation or service area. This includes moving equipment or cabinetry.
- Changing the menu that results in new cooking equipment to be installed.
- Changing the plumbing fixtures that results in moving or adding sinks.
- Replacing room finish materials with something that has not been pre-approved by the regulatory authority.

When plan review is not required:

- Replacing like-for-like equipment. An example of this would be replacing an old refrigeration unit with a new refrigeration unit in the same footprint.
- Moving or replacing non-food related equipment. An example of this would be changing signs or doing exterior work.
- Replacing like-for-like room finishes. An example of this is removing old FRP and replacing it with new FRP.

CHANGE OF OWNERSHIP

Instead of constructing a new food facility some operators consider purchasing an existing facility to start their new food business. If the new firm is taking over ownership of an existing facility that is currently operating and there is no change in the menu, equipment, or facility layout then no plan review is required.

Alternatively, there are a number of different circumstances in which a new operator purchases an existing firm that will require a formal plan review. Some situations that may require plan review include:

- Yuav ib lub khw uas muaj daim lais xees los ntawm MDA los sis lwm lub koom haum tiamsis tau muab lub lab ntawd kaw tau ib ntus lawm.

NTAUB NTAWV TIV TAUJ

Tiv tauj tau pab pawg ntsuas hom phiaj MDA Retail Plan Review Team ntawm 651-201-6194 los sis ntawm MDA.Plan.Review@state.mn.us.

Tiv tauj pab pawg ntsuas hom phiaj hauv email los sis xov tooj los yeej tau thiab yuav siv sij hawm ib yam rau lawv teb rov qab. Kaw tseg ib tsab xo hauv xov tooj rau pab pawg ntsuas hom phiaj yuav pab peb taw koj lo lus nug rau ib tug uas teb tau koj tej lus nug. Yog tias koj muaj lus nug sab nraud uas tsis muaj feem txog phau hom phiaj tiamsis yog txog kev ua daim lais xees, thov tiv tauj tus neeg ua lais xees ntawm 651-201-6062.

Yog xav paub ntxiv mus rau MDA lub vej xaij ntawm www.mda.state.mn.us/planreview.

TXHEEJ TXHEEM UA LAIS XEES

Ib lub koom haum los sis ib tug twg uas yeej muag khoom noj ces yuav tsum muaj lais xees ua ntej thiaj muag tau. Cov Neeg Ua Zaub Mov Muag muaj lais xees hauv qab txoj cai Minnesota Statute 28A. Yeej yuav tsum muaj ib qho kev ntsuas hom phiaj ua ntej thiaj li qhib tau lab. Rau cov Neeg Ua Zaub Mov Muag, txheej txheem kev ua lais xees yog raws li hauv qab no:

- Ib tus tswv ntawm lub lag luam tsim ib phau hom phiaj ua lag luam muab zaub mov noj uas tswj los ntawm koom haum

- Purchasing a facility that is currently operating but changing the menu, equipment, or facility layout.
- Purchasing a facility that was previously licensed by MDA or another agency but has been closed for a period of time.

CONTACT INFORMATION

The MDA Retail Plan Review Team can be reached directly at 651-201-6194 or at MDA.Plan.Review@state.mn.us.

Contacting the plan review team via email or phone are both acceptable and the response time is the same. Leaving a detailed message on the plan review phone will help us direct you to the individual who can best answer your questions. If you have any questions outside of the plan review that relate to licensing, please contact our licensing liaison at 651-201-6062.

Additional information can be found on the MDA website at:

www.mda.state.mn.us/planreview.

LICENSING PROCESS

Any firm or individual who is regularly engaged in the sale of food must obtain a license prior to operation. Retail Food Handlers are licensed under Minnesota Statute 28A. A plan review must be completed for many firms before operation. For a Retail Food Handler, the typical licensing process is as follows:

- A potential business owner creates a business plan to sell food that is regulated by the Minnesota Department of Agriculture (MDA).
- The new business owner contacts their area inspector or the MDA licensing

Minnesota Department of Agriculture (MDA).

- Tus tswv tshiab tiv tauj tus xyuas cheeb tsam (area inspector) los sis tus ua ntawv lais xees hauv MDA txog kev ua lais xees.
- Yog tias yuav tsum ntsuas hom phiaj, ib tus xyuas cheeb tsam los sis tus ua lais xees mam li taw qhia tus ntsuas hom phiaj seb yuav ua li cas ntxiv.
- Tus ua ntawv thov nyeem phau ntawv taw qhia ua ntaub ntawv ntsuas hom phiaj, muab tagrho cov ntaub ntawv tso ua ke, ces mam li xa txhua yam ua tiav tuaj rau pab pawg ntsuas hom phiaj hauv MDA ntsuas.
- Tus ntsuas hom phiaj thiab tus ua ntaub thov mam li xyuas ntaub ntawv ua ke kom txhua yam yeej ua raws li tej cai hauv xeev thiab tej txheem lus uas teev tseg.
- Thaum ntsuas ntaub ntawv tag, ces mam li tso cai tsim tsa lub lag luam. Lub koom haum yuav tsum tsim tsa lawv lub lag luam raws li tej uas muab sau tseg nyob hauv phau hom phiaj.
- Ua ntej tus tuaj kuaj lub lab yuav tuaj kuaj, nws yuav xyuas lub lab tej ntaub ntawv seb puas tsim tsa raws li muab sau nyob hauv daim ntawv tso cai thiab txhua yam ntxiv uas nyob hauv ua raws li tau hais tseg (xws li lub tsev, kav dej, tej xaim fais fab, thiab lwm yam).
- Thaum ua tiav tsim tsa lub lab zuj zus, lub lab yuav tsum mus cuag tus xyuas cheeb tsam los tuaj kuaj ua ntej qhib tau.
- Tom qab tuaj kuaj tag lawm, mam li muab daim ntawv ua npe thov lais xees rau tus tswv ces nws mam li them tus nqi ua daim lais xees thiab xa mus rau MDA.

liaison to inquire about the process of obtaining a license.

- If the firm's activities require a plan review, the inspector or licensing liaison directs the applicant to the plan review team for further consultation.
- The applicant reviews the plan review guide, compiles all of the appropriate information, and submits a complete application to the MDA's plan review team.
- The plan review officer and the applicant work through the packet of information to ensure that the facility will be constructed in compliance with all state rules and statutes.
- Once the review is complete, construction of the facility may begin. The firm must construct their facility based on the parameters outlined in the plan review approval letter.
- Before an inspection can be scheduled, the inspector will review the facility's documentation to ensure that it was constructed according to the parameters of the approval letter and that all other associated approvals have been granted (building, plumbing, electrical, etc.).
- As completion of the project gets closer, the firm must reach out to their area inspector to schedule a pre-operational inspection.
- After the inspection has been completed, a license application is provided to the firm to submit with their license fee to the MDA.
- The inspector will approve the firm to sell food and the business may begin operating at that time.

- Tus tuaj kuaj mam li tso cai rau lub lab qhib muag zaub mov thiab pib ua lag luam.
- Yuav siv li 3-6 lub lim tiam lub lab mam li xa daim lais xees mus rau tus tswv.
- Nws yog ib qho zoo rau ib lub lab teev tseg tej ntawv uas lawv tau txais txog tej kev pom zoo lawv tau thov yav tag los.

NTSIAB LUS NTAWM HOM PHIAJ

Tej ntaub ntawv uas xa nrog kev ntsuas hom phiaj tseem ceeb heev. Qhov uas xa tagrho tej ntaub ntawv tuaj yuav pab kom ua ntaub ntawv sai. Tej ntsiab lus uas yuav tsum muaj nyob hauv phau hom phiaj yog:

- Piav tsi ntsees seb yuav qhib lub lab li cas.
- Piav qhia tsi ntsees seb yuav ua yam zaub mov twg muag (menu) los sis yuav muag yam zaub mov twg.
- Muaj daim duab kos tawm tswv yim teeb li cas, xws li yuav muab cov khoom twj siv txawb rau twg, nrog rau chav dej rau cov neeg ua hauj lwm siv, lub rhaub dej kub, thiab dab rau tus pas txhuam tsev.
- Seb yuav siv dab tsi los pua plag tsev, phab ntsa thiab qab thab.
- Ib daim ntawv teev tseg tej khoom twj uas yuav siv.
- Daim ntawv qhia meej meej ib qho zuj zus txog cov khoom twj uas yuav siv.
- Kos duab txog tej tsee rau khoom thiab rooj luj khoom.
- Yog tias ua tau, tus nab npawb ntawm lub thoob loj cug tej dej uas siv tag thiab tej ntawv pov thawj ua raws txoj cai.
- Lwm yam ntaub ntawv uas yuav tsum muaj.

- The firm will receive the paper copy of their license within 3-6 weeks.
- It is recommended that a firm maintain a copy of the various approval documents.

CONTENTS OF A PLAN

Information that is submitted as part of the plan review process is crucial to the success of the project. Submitting complete information will help speed up the process. The contents of the plan must include:

- A detailed description of the project.
- A detailed menu or list of food to be sold.
- The proposed layout drawn to scale with the food equipment locations, including employee rest rooms, water heater, and mop sink.
- The type of finish materials of the floors, walls, and ceiling for the facility.
- An equipment list.
- Equipment specification sheets.
- Countertop and cabinetry shop drawings.
- Unique well number and certificate of compliance for the septic system, if applicable.
- Any other information required.

Being detailed about your operation is helpful to the plan review officer. The more information that is provided at the beginning of the process will better ensure the process goes smoothly.

Qhia kom ntxaws hauv koj phau hom phiaj es thiaj li yooj yimm rau tus ntsuas to taub seb koj yuav tsim tsa ib lub lab li cas. Yim muaj ntaub ntawv ntau thaum ua ntawv ntsuas hom phiaj ces haj yam ua rau txoj kev ntsuas mus yooj yim dua.

PHAU NTAWV TEEV COV KHOOM NOJ

Daim menu (teev cov khoom noj yuav muag) yog ib yam tseem ceeb uas yuav tsum muaj nyob hauv phau hom phiaj. Phau ntawv teev cov khoom noj yuav qhia tawm seb yuav yuav yam khoom twj twg thiab lwm yam tshuab uas los siv hauv lub lag luam. Phau ntawv teev txhua cov khoom noj uas yuav muag yuav tsum muaj nyob nrog phau hom phiaj thaum ua ntaub ntawv qhib lab. Daim ntawv no yuav tsum sau txog cov dej cawv thiab lwm yam dej, nrog rau tej zaub mov ua muag thiab ntim muag tibi. Yog tias muaj feem, yuav tau sau rau phau ntawv teev cov khoom noj seb yuav muag yam khoom noj twg thiab piav mentsis txog yam zaub ntawd seb yuav npaj li cas thiaj ua tau noj. Ua li no rau txhua yam zaub mov. Txhua lub lab ua zaub mov noj muaj ib phau ntawv teev cov khoom noj.

HOM PHIAJ TSIM KHO IB CHAV TSEV

Daim ntawv qhia txog lub tsev muab ua li cas yuav tsum muab lo nrog thaum tso tawm phau hom phiaj coj mus ntsuas. Daim ntawv no yuav muab ua daim qauv vaj tse los sis tes kos duab txog lub lab los yeej tau. Txawm li cas los, daim ntawv no kos qhia txog lub lab yuav tsum kos kom raug raws li qhov nws tsis loj tsis me (drawn to scale). Yuav tsum pom qhia txhua chav uas nyob hauv lub lab. Ntxiv thiab, yuav tsum qhia seb yuav txawb tej khoom twj siv rau twg, tej dab ntxuav tes, tej

MENU

The menu (list of food items to be sold) is an important part of the plan review process. The menu helps to determine whether the equipment and physical facilities will meet the needs of the business. A detailed menu must be included with the submitted plan review application materials. This document should include all alcoholic and non-alcoholic beverages, as well as all prepared and packaged food items. Menus may simply consist of a general list of food items that will be sold and should include a brief summary of necessary preparation steps for each item, if applicable. All licensed food facilities have a menu.

FLOOR PLAN

A detailed floor plan (layout) must be submitted for review. The floor plan can be in the form of an architectural blue print or a hand-drawn sketch. Either way, the floor plan must be drawn to scale. It must identify all of the rooms within the establishment. Additionally, the location of all equipment, hand washing sinks, warewashing sinks, food preparation sinks, mop sinks, storage areas, restrooms, and floor drains should be included.

dab ntxuav ub no, tej dab npaj ua zaub mov, tej dab rau tus pas txhuam tsev, tej chaw rau khoom, chav siv dej, thiab chaw tso dej tawm ntawm plag tsev.

Daim duab kos seb yuav teeb khoom li cas tseem ceeb hauv kev ntsuas hom phiaj. Yog tias muaj sau txhua yam txog yuav teeb lub lub lab li cas, nrog rau cov txawb tso tej tub txe tub rau khoom, ces yuav pab tus ntsuas koj tej ntaub ntawv kom raws sij hawm.

UA TIAV COV CHAV

Yuav tsum muaj daim ntawv Room Finish Schedule thaum ua ntaub ntawv ntsuas hom phiaj rau lub lab koj yuav qhib. Hauv daim ntawv no, sau tagrho tej koj yuav siv los pua plag tsev, pua vuas luaj tom ntug, lo phab ntsa, thiab dab tsi lo txheem qab thab. Sau txhua qhov chaw nyob hauv lub lab rau daim ntawv xws li seb yuav muab zaub mov tso rau twg, yuav npaj ua zaub mov rau chav twg, nrog rau chav uas cov neeg yuav khoom mus muab khoom noj yaj ywj pheej hlo, chav dej nyob twg, chav tso khoom tu lab nyob twg, thiab cheeb tsam tso tej khoom twj siv. Yuav muab ntsuas raws li seb puas ua ib qho kev phom sij rau tibneeg raws phau ntawv teev cov khoom noj, tej khoom twj siv, thiab ntsuas txhua chav. Feem ntau, thaum ua zaum kawg kom tiav rau txhua chav, yuav tsum ua kom du lug, tsis muaj ib yam ntub nqus tau kua dej, thiab yeej yooj yim tu rau txhua fab. Tej yam uas tsis tas ua raws li sau hauv qab no yuav muab ntsuas raws li qhov nws tshwm sim seb puas xyeej tau.

PLAG TSEV

Tej plag tsev yuav tsum txuas kom du lug, kom ruaj khov, kom tsis txhob nqus tau dej, roj lo tsis tau, thiab yooj yim tu thiab tau kev pom zoo los ntawm cov muaj cai tswj. Piv txwv li cov plag tsev yog cov vuas luaj quarry,

The facility layout is an important part to the plan review process. Ensuring that the layout includes everything used within the facility, including all cabinetry, will help the plan review officer approve your plan in a timely manner.

ROOM FINISHES

A Room Finish Schedule form is part of the plan review application and must be submitted for review. Complete this form by listing the proposed materials for all floor, cove base, wall, and ceiling surfaces in the facility. Ensure that each area where food is stored, prepared, or washed is included on the form in addition to areas for customer self-service, toilet rooms, janitorial rooms, and equipment warewashing areas. The finishes for each room will be reviewed from a risk-based stand point by the consideration of the menu, equipment, and intended purpose of each space. In general, room finishes must be smooth, nonabsorbent, durable, and easily cleanable. Exceptions to the room finish guidelines listed below will be reviewed on a case by case basis.

FLOORS

Floors shall be constructed of smooth, durable, nonabsorbent, grease-resistant, and easily cleanable materials that have been approved by the regulatory authority. Examples of approved floor finishes are

vuas luaj av nplaum pua tsev (ceramic), vuas luaj pob zeb (porcelain), tej pob zeb (terrazzo), thiab kev siv kua roj ntoos nyoos los pua plag tseg (poured flooring system).

Cov Vuas Luaj Plag Tsev

Feem ntau cov lab ua mov noj yeej nyiam siv cov vuas luaj (tile) los pua plag tsev. Cov vuas luaj pua plag tsev uas tau kev pom zoo yog cov quarry, cov av nplaum pua tsev (ceramic), thiab pob zeb (porcelain). Cov vuas luaj pua plag tsev no yuav tsum ruaj khov es thiaj tu tau yooj yim thiab tswj tau. Yuav tsum ua raws li tus tsim cov vuas luaj no tej lus qhia seb yuav muab dhos li cas.

Kev Siv Kua Roj Ntoos Nyoos Los Pua Plag Tseg

Ib yam kev siv kua roj ntoos nyoos los pua plag tseg yog kev txuas plag tsev uas yuav tsum txuas kom tuab txog li 1/8"-1/4" seb nyob ntawm yam khoom pua tsev seb yog hom twg. Qhov pua plag tsev no tsis yog puab npog los sis lo rau xwb. Yog tias yuav siv yam kev siv kua roj ntoos nyoos los pua plag tseg, yuav tsum muaj daim ntawv qhia meej meej ib qho zuj zus txog hom pua tsev ntawd. Daim ntawv ntawd yuav tsum qhia txog seb yuav tuab npaum cas, yuav siv theem kub txias li cas, yuav txuas li cas thiaj li tau, yuav nqus tau dej npaum cas, thiab tej lus qhia los ntawm tus tsim yam khoom los txuas ntawd seb yuav txuas li cas nyob rau hauv ib lub lab ua mov noj. Kuj yuav xav kom xa ib qho qauv tuaj seb puas tau kev pom zoo ua ntej. Tej piv txwv txog kev siv kua roj ntoos nyoos los pua plag tseg yog, tiamsis tsis yog hais cov no xwb, yog epoxy resin, polyurethane concrete, urethane, urethane concrete, thiab methacrylate.

quarry tile, ceramic tile, porcelain tile, terrazzo, and a poured flooring system.

Tile Floors

Tile is a commonly proposed floor finish in retail food establishments. Approved tile floor options include quarry tile, ceramic tile, and porcelain tile. Tile grout should be made of a durable material for ease of cleaning and maintenance. The manufacturer's specifications must be followed during the installation process.

Poured Flooring Systems

A poured flooring system is a multi component flooring product that is installed in a specific manner at a minimum installation thickness of 1/8"-1/4" depending on the product. This type of flooring is not a sealant or a coating. If a poured flooring system is proposed for installation, a specification sheet must be submitted for review that includes technical information about the product. The specification sheet should include the installation thickness, service temperature range, common application settings, water absorption level, and a statement from the manufacturer recommending installation in a food facility. A sample of the product may also be required to be submitted for evaluation prior to approval. Examples of poured flooring system materials, include but are not limited to, epoxy resin, polyurethane concrete, urethane, urethane concrete, and methacrylate.

Kev Pua Plag Tsev Uas Tsis Tau Kev Pom Zoo

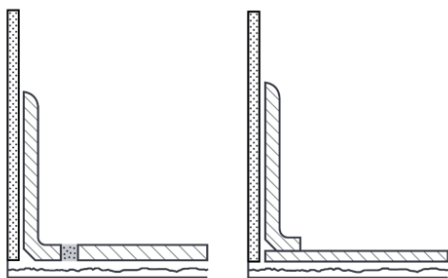
Tej hom kev pua plag tsev uas tsis pub ua yog, tiamsis tsis hais cov no xwb, yog cov sealed concrete, vinyl (sheet thiab vuas luaj), thiab khav pem (carpet). Tsis pub txuas dhos cov no rau chav ua noj, chav yuav khoom noj (deli area), chav npaj zaub mov, chav ntxuav tais diav, chav rau khoom txhuam tsev, los sis lwm yam kev pua tsev uas tswj los ntawm cov muaj cai tswj

VUAS LUAJ PUA TSEV TOM NTUG

Ib qho vuas luaj pua tsev tom ntug (cove base) yuav tsum txuas ntawm plag tsev/phab ntsa. Feem ntau, qhov kho tiav rau vuas luaj pua tsev tom ntug (cove base finish) yuav tsum yog ib yam li qhov pua plag tsev rau txhua cov ntug hauv lub lab. Pom zoo siv hlau uas tsis txawj xeb (stainless steel) thiab hauv paus ntaub hlua kaus (vinyl screen) ua cov vuas luaj pua tsev tom ntug rau tej chav cov thoob rau khoom thiab tub yees khov uas taug kev nkag mus tau.

Txuas Vuas Luaj Pua Tsev Tom Ntug

Daim duab 1



Daim duab 1: Ua Yog (sab laug); Ua Tsis Yog (sab xis)

PHAB NTSA

Unapproved Flooring

Unapproved flooring finishes include, but are not limited to, sealed concrete, vinyl (sheet and tile), and carpet. These finishes are not approved for installation in kitchens, deli areas, food preparation rooms, dishwashing areas, janitorial areas, or any other room of an establishment as determined by the regulatory authority.

COVE BASE

A cove base with a radius transition must be installed at all floor/wall junctures. Typically, the cove base finish shall be the same as the approved floor material in each area of the facility. Stainless steel and vinyl screed cove base that has been provided by the manufacturer is approved for walk-in cooler and walk-in freezer installations.

Cove Base Installation

Figure 1

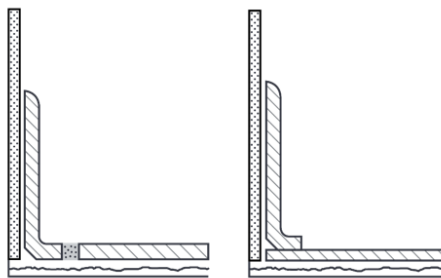


Figure 1: Correct Method (left); Incorrect Method (right)

WALLS

Feem ntau, tej kho phab ntsa (wall finishes) yuav tsum ua kom phab ntsa du lug, tsis txawj nqus dej, thiab tu tau yooj yim. Cov phab ntsa uas ib txwm tau kev pom zoo yog, tha xim rau cov phab ntsa tsev uas muab tej hmoov sib los ua (painted sheetrock), cov hlau tsis txawj xeb, cov yas (fiberglass-reinforced plastic, FRP), thiab vuas luaj av nplaum (ceramic tile). Tej cheeb tsam hauv lub lab, xws li chav rau khoom los sis chaw npaj ua zaub mov, kuj yuav tau siv lwm yam los nruab rau phab ntsa. Mus nyeem cov sau hauv qab no seb tej yam yuav tsum tau siv los pua phab ntsha kom zoo tiav rau tej lab ua noj yog li cas.

Cheeb Tsam Rau Khoom Uas Tsis Ntub Dej

Tej chav rau khoom uas tsis ntub dej thiab lwm cheeb tsam tsis pub ntub ntawm ib lub lab ua noj kuj yuav muaj tej phab ntsa tsev uas muab tej hmoov sib los ua (painted sheetrock) los sis thooj pob zeb siv kua roj ntoos los tha (epoxy painted concrete block) los pua kom phab ntsa tiav los yeej tau thiab.

Cheeb Tsam Ua Zaub Mov

Chav ua zaub mov thiab lwm cheeb tsam tsis pub ntub hauv ib lub lag luam muag zaub mov uas mauj tej dab ntxuav tes, dab ntxuav ub no, los sis dab rau tus pas txhuam tsev yuav tsum txuas cov FRP, vuas luaj av nplaum pua tsev (ceramic tile), los sis cov hlau uas tsis txawj xeb rau phab ntsa.

Tej Twj Siv Ua Zaub Mov Noj

Tej dwb rau phab ntsa kom txhob dim pab uas yog hlau, tej daim hlau tsis txawj xeb, los sis vuas luaj av nplaum pua tsev yuav tsum muab txuas rau tej phab ntsa uas nyob ze tej khoom twj siv los ua zaub mov noj. Yuav tsum txuas kom txiv cov vuas luaj pua plag

In general, wall finishes must be made of smooth, nonabsorbent, and easily cleanable materials. Commonly approved wall finish materials include painted sheetrock, stainless steel, fiberglass-reinforced plastic (FRP), and ceramic tile. Certain areas of a facility, such as dry storage rooms or food preparation areas, may require different wall finishes. Refer to the information below for the minimum required wall finishes in specific areas of a retail food establishment.

Dry Storage Areas

Dry storage rooms and other non-splash areas of a retail food establishment may have painted sheetrock or epoxy painted concrete block as minimum wall finish materials.

Food Preparation Areas

Food preparation rooms and other splash areas of a retail food establishment where there are hand sinks, warewashing, or mop sinks require the installation of FRP, ceramic tile, or stainless steel on the wall as a minimum finish.

Cooking Equipment

Insulated stainless steel panels, stainless steel sheets, or ceramic tile must be installed on the walls near cooking equipment. The material must extend from the cove base up to the ventilation hood. FRP is not approved for installation behind cooking equipment.

tsev tom ntug kom mus txij lub nqus pa ntawm qhov cub. Tsis pom zoo siv FRP los txuas rau tej phab ntsa uas ze cov khoom twj siv ua zaub mov noj.

TEJ QAB THAB

Nyob hauv ib lub lag luam muab zaub mov noj, feem ntau cov qab thab yuav tsum du lug, tsis txawj nqus dej, thiab yooj yim tu tau. Tej cheeb tsam uas cov neeg ua hauj lwm nyob ua hauj lwm, cov qab thab uas zoo siv yog tej vuas luaj uas yog ntaub hluas kaus (smooth vinyl coated tiles) los sis cov phab ntsa tsev uas muab tej hmoov sib los ua (painted sheetrock). Yam uas tso cai siv hauv cheeb tsam ua zaub mov, chav ntxuav ub no, chav rau khoom, thiab lwm chav uas raws li yuav tsum ua. Yeej pub tso cov exposed studs tom ntug, thiab cov nqaj tsev (joists), thiab tej tso txawb saum qab thab rau chav uas tsis muaj kev npaj ua zaub mob xws li lub bar thiab lwm chav muag khoom. Yuav tsis pub txuas tej qab thab uas kab pleb, tho qhov los sis tsis du rau chav ua zaub mov.

CEILINGS

In a retail food establishment the general requirements for ceiling finishes are that they must be smooth, nonabsorbent, and easily cleanable. In areas where a food employee is operating, approved ceiling finish materials include smooth vinyl coated tiles or painted sheetrock. The permitted finish must be installed in food preparation areas, warewashing rooms, storage rooms, and other areas as required. Exposed studs, joists, and structural ceilings are permitted in bar and retail areas where no open food is handled aside from beverage service. Fissured, perforated, or rough acoustical ceiling tiles are not permitted for installation in food service areas.

NTSIAB LUS TXOG DAIM TEEM SIJ HAWM UA TIAV COV CHAV (ROOM FINISH SCHEDULE SUMMARY)

Daim qhia (Legend)	Kev Npaj Ua Zaub Mov thiab Kev Ntxuav Ub No (Food Prep and Warewashing)
Tau kev pom zoo (Approved)	TAU (YES)
Tsis tau kev pom zoo (Not Approved)	TSIS TAU (NO)
Yuav Tsum Tau Kev Tso Cai Ua Ntej (Pre-Approval Required)	PAR

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Piav Qhia Txog Kev Ua Tiav Pua Plag Tsev (Floor Finish Summary)	Kev Npaj Ua Zaub Mov thiab Kev Ntxuav Ub No (Food Prep and Warewashing)	Chaw Rau Khoom Uas Tsis Ntub Dej (Dry Storage)	Chav Thoob Rau Khoom Uas Taug Kev Nkag Mus Tau, Chav Tub Yees Khov Uas Taug Kev Nkag Mus Tau (Walk-In Cooler, Walk-In Freezer)	Chav Sim Cawv Npias, Cheeb Tsam Pab Cov Neeg Yuav Khoom (Tap/Tasting Room, Customer Facing Service Area)	Roog Rau Tus Neeg Yuav Khoom Pab Nws Tus Kheej (Customer Self-Service Areas)
Kev Siv Kua Roj Ntsoo Nyoos Los Pua Plag Tsev (Poured Flooring System)	YOG (YES)	YOG (YES)	YOG (YES)	YOG (YES)	YOG (YES)
Pob Zeb Av Nplaum (Quarry/Ceramic/Porcelain Tile)	YOG (YES)	YOG (YES)	YOG (YES)	YOG (YES)	YOG (YES)
Yas Vinyl sis Pob Zeb (Vinyl (Sheet or Tile))	TSIS YOG (NO)	YOG (YES)	TSIS YOG (NO)	TSIS YOG (NO)	YOG (YES)
Luam Yas Rau (Laminate)	TSIS YOG (NO)	TSIS YOG (YES)	TSIS YOG (NO)	TSIS YOG (NO)	TSIS YOG (YES)
Ntsoo (Wood)	TSIS YOG (NO)	TSIS YOG (NO)	TSIS YOG (NO)	TSIS YOG (NO)	PAR
Ntaub Pua Tsev (Carpet)	TSIS YOG (NO)	TSIS YOG (NO)	TSIS YOG (NO)	TSIS YOG (NO)	PAR

PHAU TAW QHIA TSIM TSA HOM PHIAJ UA LAG LUAM | RETAIL PLAN REVIEW
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Lus Txog Cov Vuas Luaj Pua Tsev Tom Ntug Kom Zoo Tiav (Cove Base Finish Summary)	Kev Npaj Ua Zaub Mov thiab Kev Ntxuav Ub No (Food Prep and Warewashing)	Chaw Rau Khoom Uas Tsis Ntub Dej (Dry Storage)	Chav Thoob Rau Khoom Uas Taug Kev Nkag Mus Tau, Chav Tub Yees Khov Uas Taug Kev Nkag Mus Tau (Walk-In Cooler, Walk-In Freezer)	Chav Sim Caww Npias, Cheeb Tsam Pab Cov Neeg Yuav Khoom (Tap/Tasting Room, Customer Facing Service Area)	Roog Rau Tus Neeg Yuav Khoom Pab Nws Tus Kheej (Customer Self-Service Areas)
Kev Siv Kua Roj Ntsoo Nyoos Los Pua Plag Tsev (Poured Flooring System)	YOG (YES)	YOG (YES)	YOG (YES)	YOG (YES)	YOG (YES)
Pob Zeb Av Nplaum (Quarry/Ceramic/Porcelain Tile)	YOG (YES)	YOG (YES)	YOG (YES)	YOG (YES)	YOG (YES)
Cov Hlau Uas Tsis Txawj Xeb (Stainless Steel)	PAR	YOG (YES)	YOG (YES)	PAR	YOG (YES)
kev pua tsev kom ncag (Screed)	TSIS YOG (NO)	TSIS YOG (NO)	YOG (YES)	TSIS YOG (NO)	YOG (YES)
Ntsoo (Wood)	TSIS YOG (NO)	TSIS YOG (NO)	TSIS YOG (NO)	TSIS YOG (NO)	YOG (YES)
4" Ntaub Hluas Kaus (4" Vinyl Base)	TSIS YOG (NO)	TSIS YOG (NO)	TSIS YOG (NO)	TSIS YOG (NO)	YOG (YES)
vuas luaj pua tsev uas nkaus raws fab (Coved Transition Strip)	YOG (YES)	YOG (YES)	TSIS YOG (NO)	YOG (YES)	YOG (YES)

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Piav Qhia Txog Kev Ua Tiav Pua Plag Tsev Kom Rua (Wall Finish Summary)	Kev Npaj Ua Zaub Mov thiab Kev Nbxuav Ub No (Food Prep and Warewashing)	Chaw Rau Khoom Uas Tsis Ntub Dej (Dry Storage)	Chav Thoob Rau Khoom Uas Taug Kev Nkag Mus Tau, Chav Tub Yees Khov Uas Taug Kev Nkag Mus Tau (Walk-In Cooler, Walk-In Freezer)	Chav Sim Cawv Npias, Cheeb Tsam Pab Cov Neeg Yuav Khoom (Tap/Tasting Room, Customer Facing Service Area)	Rooj Rau Tus Neeg Yuav Khoom Pab Nws Tus Kheej (Customer Self- Service Areas)
FRP	YOG (YES)	YOG (YES)	TSIS YOG (NO)	YOG (YES)	YOG (YES)
Vuas Luaj (Ceramic Tile)	YOG (YES)	YOG (YES)	TSIS YOG (NO)	YOG (YES)	YOG (YES)
Cov Hlau Uas Tsis Txawj Xeb (Stainless Steel)	YOG (YES)	YOG (YES)	TSIS YOG (NO)	YOG (YES)	YOG (YES)
thaxim rau cov phab ntsa tsev uas muab tej hmoov siv los ua) (Painted Sheetrock)	TSIS YOG (NO)	YOG (YES)	TSIS YOG (NO)	PAR	YOG (YES)
Tej Tub Yees Khov Zaub Mov (Cooler/Freezer Panels)	YOG (YES)	YOG (YES)	YOG (YES)	YOG (YES)	YOG (YES)
Daim Ntaub Vuas Luaj Thwv Cib) (Decorative Wall Tile, Brick)	TSIS YOG (NO)	TSIS YOG (NO)	TSIS YOG (NO)	PAR	YOG (YES)

Piav Qhia Txog Kev Ua Tiav Pua Plag Tsev Kom Ruaj (Ceiling Finish Summary)	Kev Npaj Ua Zaub Mov thiab Kev Ntxuav Ub No (Food Prep and Warewashing)	Chaw Rau Khoom Uas Tsis Ntub Dej (Dry Storage)	Chav Thoob Rau Khoom Uas Taug Kev Nkag Mus Tau, Chav Tub Yees Khov Uas Taug Kev Nkag Mus Tau (Walk-In Cooler, Walk- In Freezer)	Chav Sim Cawv Npias, Cheeb Tsam Pab Cov Neeg Yuav Khoom (Tap/Tasting Room, Customer Facing Service Area)	Rooj Rau Tus Neeg Yuav Khoom Pab Nws Tus Kheej (Customer Self- Service Areas)
tha xim rau cov phab ntsa tsev uas muab tej hmoov sib los ua (Painted Sheetrock)	YOG (YES)	YOG (YES)	TSIS YOG (NO)	YOG (YES)	YOG (YES)
tej vuas luaj uas yog ntaub hluas kaus (Vinyl Coated Tiles)	YOG (YES)	YOG (YES)	TSIS YOG (NO)	YOG (YES)	YOG (YES)
tsis siv txhuas hlau los plooj lwj yam hlau kom txhob xeb (Non-Galvanized Metal)	YOG (YES)	YOG (YES)	TSIS YOG (NO)	YOG (YES)	YOG (YES)
Tej Tub Yees Khov Zaub Mov (Cooler/Freezer Panels)	YOG (YES)	YOG (YES)	YOG (YES)	TSIS YOG (NO)	YOG (NO)
yam tso txawb (Structural)	TSIS YOG (NO)	PAR	TSIS YOG (NO)	PAR	PAR
Cov phab ntsa yas (PVC Plastic Panels)	YOG (YES)	YOG (YES)	TSIS YOG (NO)	YOG (YES)	YOG (YES)
iav yas (Plexiglass)	YOG (YES)	YOG (YES)	TSIS YOG (NO)	YOG (YES)	YOG (YES)
Ntoo (Wood)	TSIS YOG (NO)	PAR	TSIS YOG (NO)	PAR	PAR

KHOOM TSHUAB SIV (Equipment)

KEV TSIM TXUAS KHOOM TWJ SIV (Equipment Design and Construction)

Tej txheem xwm uas muaj ntawv pov thawj rau tej khoom twj siv yog (The most common certification programs for equipment are):

Txheej Xwm Ua Ntawv Pov Thawj (Certification Program)	Lub Cim (Mark)
Txheej Xwm Ua Ntawv Pov Thawj (Certification Program)	Lub Cim (Mark)
NSF International (NSF)	
Intertek Cim tias (Marked “ETL Sanitation Listed”)	
Underwriters Laboratory (UL) Cim tias (Marked “Classified UL EPH”)	
Canadian Standards Association (CSA) Cim tias (Marked “CSA Sanitation to NSF/ANSI”)	
National Automatic Merchandising Association	
Baking Industry Sanitation Standards Committee	

A. Cov khoom twj sau hauv qab no, yog tsim los raws li tus tswv lub siab nyiam, thiab yuav tsum muaj ntawv pov thawj tiv thaiv kev mob nkeeg los ntawm American National Standards Institute (ANSI) rau tej khoom twj siv ua zaub mov:

- tej dab ntxuav ub no;
- tej dab ntxuav tais diav uas nws ua nws tus kheej;
- tej tub yees (mechanical refrigeration units) tshwj tsis yog tej tshuab uas tsim los tswj tej zaub mov uas khov;
- cov tub yees khov uas taug kev nkag mus tau;
- cov dab tso zaub mov kom sov;

A. The following equipment, including types of equipment listed in this part that are custom fabricated, must be certified or classified for sanitation by an American National Standards Institute (ANSI) accredited certification program for food service equipment:

- manual warewashing sinks;
- mechanical warewashing equipment;
- mechanical refrigeration units except for units or equipment designed and used to maintain food in a frozen state;
- walk-in freezers;
- food hot-holding equipment;
- cooking equipment, except for microwave ovens and toasters;

- | | |
|--|--|
| <ul style="list-style-type: none"> • tej tshuab siv ua zaub mov noj, tshwj tsis yog cov tshuab rhaub mov los sis ci nplem; • tej tshuab ua dej khov; • cov tshuab hlais ub no; • cov tshuab ua nqaij mos thiab zom nqaij; thiab • tej npoo rooj npaj ua zaub mov noj los sis tej dab siv los npaj zaub mov. <p>B. Cov qhov cub (exhaust hoods) yuav tsum muaj raws li tej txheeb lus hauv Minnesota Mechanical Code, Minnesota Rules, tshooj 1346.</p> <p>C. Cov tub siv nyiaj tso khoom noj tawm (vending machine) thiab cov tub siv los tso dej haus los sis khoom noj yuav tsum muaj ntawv pov thawj los sis muaj ntawv pov thawj tiv thaiv kev mob nkeeg los ntawm ANSI los sis raws li cov ncej txheem hauv National Automatic Merchandising Association (NAMA) uas sau tsi ntsees txog NAMA Standards for the Sanitary Design and Construction of Food and Beverage Vending Machines.</p> <p>D. Cov tub siv nyiaj tso khoom noj tawm uas muaj qhov tso tawm tej poom dej yuav tsum muaj raws li cov ncej txheem nyob rau hauv Minnesota Rules feem 1550.3200 mus txog 1550.3320.</p> <p>E. Yog tias cov ncej txheem uas tsim raws li cov ncej txheem ANSI tsis muaj rau yam khoom twj koj siv raws li muab sau hauv yam khoom A, ces qhov khoom twj siv yuav tsum muaj:</p> <ul style="list-style-type: none"> • tsim los siv hauv lag luam; • ruaj, du lug, yooj yim tu; • tu tau yooj yim; | <ul style="list-style-type: none"> • ice machines; • mechanical slicers; • mechanical tenderizers and grinders; and • food preparation surfaces including sinks used for food preparation. <p>B. Exhaust hoods must meet the requirements in the Minnesota Mechanical Code, Minnesota Rules, chapter 1346.</p> <p>C. Vending machines and machines used to dispense water or food must be certified or classified for sanitation by an ANSI- accredited certification program or be accredited to meet the standards of the National Automatic Merchandising Association (NAMA) specified in NAMA Standard for the Sanitary Design and Construction of Food and Beverage Vending Machines.</p> <p>D. Vending machines that vend water must meet the standards in Minnesota Rules parts 1550.3200 to 1550.3320.</p> <p>E. If a standard developed by an ANSI- accredited standards developer is not available for a piece of equipment specified in item A, the equipment must:</p> <ul style="list-style-type: none"> • be designed for commercial use; • be durable, smooth, and easily cleanable; • be readily accessible for cleaning; and |
|--|--|

- tej npoo rooj npaj ua zaub mov uas tsis muaj kuab lom tau neeg;
- F. Yeej pub koj siv tej khoom tshuab siv uas yog ib lub lwm tus tau siv dhau los lawm yog tias:
- Muaj raws li cov ncej txheem tau hais thaum tsim txuas los.
 - Uas tsis tau puas.
 - Yooj yim tu tau.
 - Lub npoo rooj ua zaub mov yuav tsis muaj kuab lom tau neeg.
 - Yuav tsis ua rau tibneeg muaj mob muaj nkeeg.
 - Tau kev pom zoo los ntawm cov nom tswv uas tswj cai.
- G. Qhov khoom twj siv yuav tsum tsis txhob tau hloov los sis pauv raws li thaum xub thawj tsim los siv.
- have food-contact surfaces that are not toxic.
- F. Used equipment may be approved as part of your plan if it:
- Met existing applicable standards when it was manufactured.
 - Is in good repair.
 - Is easy to clean.
 - Has non-toxic food-contact surfaces.
 - Does not pose a health hazard.
 - Is approved by the regulatory authority.
- G. Equipment should not be changed or altered from its original design.

TEJ DUAB NTXUAV UB NO

Cov Dab Ntxuav Tes

Muaj tej dab ntxuav tes kom txaus zoo rau koj lub lab. Txuas tej dab ntxuav tes uas yooj yim rau cov neeg ua hauj lwm uas npaj ua zaub mov, rho zaub mov dej cawv, rho siv tej twj tais, thiab zoo rau lawv siv chav dej.

Txhua lub dab ntxuav tes yuav tsum muaj dej sov thiab txias thiab muaj tus kais dej tso kom sib xyaw tau dej sov thiab dej txias ua ke. Lub MDA kuj xav kom txuas rau tej phab ntsa daim phiaj tiv thaiv tsis pub dej txaws rau kom thiaj li tsis mus tsuas tau rau zaub mov, dej cawv, thiab tej khoom twj uas huv, los sis tej khoom siv ib zaug xwb.

Cov dab ntxuav tes yuav tsum tsis txhob siv rau lwm yam, tsuas cia rau ntxuav tes nkaus xwb.

SINKS

Handwashing Sinks

Provide enough handwashing sinks to meet the needs of the establishment. Install handwashing sinks to provide easy access for all employees who are preparing food, dispensing food or beverages, conducting warewashing, and using the restroom.

Each handwashing sink must be provided with hot and cold water under pressure through a mixing valve or combination faucet. MDA may require splash guards at handwashing sinks to limit contamination of food, beverages, clean equipment, or single-use items.

Handwashing sinks must not be used for purposes other than handwashing.

Lub Dab Ntxuav Ub No

Yog tias phau hom phiaj tsis muaj ib cav ntxuav tais diav, ces yuav tsum ib lub dab uas muaj peb kem thiab lub phiaj tso dej tawm rau ob tog tibi. Cov kem hauv lub ntxuav tais diav yuav tsum loj txaus ntxuav yam khoom siv los sis twj tais uas loj tshaj plaws hauv lub lab. Cov kem thiab phiaj tso dej tawm yuav tsum yog los ntawm tib qho xwb. Cov phiaj tso dej tawm ntiv, chaw rau diav rawg, los sis rooj noj mov uas muaj los rau tej khoom uas siv tag thiab cov tsis tau siv. Lub dab ntxuav ub no yuav tsum muaj tus kais dej uas tso tau tawm dej sov los sis txias tibi. Ib lub dab ntxuav ub no yuav tsum tsis txhob muab koj los siv ntxuav tes los sis laub tej dej txhuam tsev mus rau hauv.

Txawm tias muaj lub cav ntxuav tais diav uas nws ua nws tus kheej los, kuj xav kom muaj lub dab ntxuav tais diav uas ua peb kem thiab. Lb lub lab uas tsuas muaj lub cav ntxuav tais diav uas nws ua nws tus kheej, kuj yuav txwv kom tsis txhob ua zaub mov noj, yog tias lub cav ntawd tuag lawm, nws yuav tsum kho kom rov zoo siv mam li rov pub qhib ua hauj lwm tau.

LUB DAB NPAJ UA ZAUB MOV

Yog tias ib yam khoom noj twg yuav kom cia kom nws yaj tag hauv lub dab mam li ua tau noj, ces yuav tsum muaj ib lub dab rau kev npaj ua zaub mov nkaus xwb hauv koj phau hom phiaj. Yuav tsum muaj ib lub dab cia ntxuav zaub mov, ua ntej yuav muab hlais los sis txiav. Yuav tsum tsim lub dab ntawv los ua lub dab npaj ua zaub mov xwb.

LUB DAB NTXUAV UB NO

Manual Warewashing Sinks

If the plans do not include a dishwasher, provide a sink with at least three compartments and drainboards on each end. Each compartment must be large enough to allow immersion of the largest utensil or piece of equipment used in the operation. All compartments and the drainboards must be part of the same piece of equipment. Additional drainboards, utensil racks, or tables may also be required for storing soiled and clean equipment and utensils. The warewashing sink must be supplied with water under pressure with a mixing valve. A warewashing sink must not be used for handwashing or dumping mop water.

When mechanical warewashing equipment is allowed in lieu of a three compartment sink, a three compartment sink is also recommended. A food establishment relying solely on mechanical warewashing equipment, may be required to cease food preparation and service operations, until malfunctioning or broken mechanical warewashing equipment is properly repaired.

FOOD PREPARATION SINKS

If the proposed menu calls for a food preparation process that requires washing or thawing food in a sink, include a separate sink for food preparation only, in submitted plans. A food preparation sink is required to wash raw produce, prior to slicing or cutting. The sink must be designed for use as a food preparation sink.

SERVICE SINKS

Yuav tsum muaj ib lub dab ntxuav ub no los sis chaw tso dej tawm ntawm plag tsev. Txuas lub dab ntxuav ub no rau cheeb tsam uas yooj yim rau cov neeg ua hauj lwm los ntxuav tej pas txhuam tsev los sis nchuav tej dej txhuam tsev pov tseg. Hauv koj phau hom phiaj, sau txog tej kev uas koj yuav muab cov pas txhuam tsev tso li cas thaum koj tsis siv lawm es cov pas no thiaj li tsis ntub tej phab ntsa, lwm yam khoom siv. Tsis txhob siv lub dab ntxuav ub no los ua lwm yam.

LUB COV DAB NTXUAV UB NO

Cov dab sab rau saud txwv qhov nws siv tau. Lwm cov dab uas nquhuag siv nyob hauv tej lab ua mov no yog:

- Lub dab nchuav tej kua dej tsis huv - rau cov npos ua dej cawv haus, cov zom dej haus thiab chaw ua kas fes haus. Cov dab ntxuav ub no kuj yuav muaj tau lub ntxuav taub hliv dej.
- Lub dab dej me me uas muaj dej los tsis tu ntxuav tej twj siv hauv chav ua mov - siv rau cov daus ais xim khees (ice cream scoop).

[Minnesota Rules, parts 4626.0275, 4626.0300, 4626.0315, 4626.0320, 4626.0505, 4626.0680, 4626.0685, 4626.0780, 4626.0955, 4626.1080, 4626.1095, 4626.1110, 4626.1540](#)

TSHUAB NTXUAV TWJ TAIS

Sau qhia seb cov cav ntxuav tais diav yog hom dab tsi thiab yuav npaj txawb rau twg raws li phau hom phiaj tau hais. Cov phiaj tso dej tawm, chaw rau diav rawg, los sis rooj noj mov uas muaj los rau tej khoom uas siv tag thiab cov tsis tau siv. Cov ciav ntxuav tais diav uas txuas rau ntawm tsee yuav tsum muaj cov ceg siab txog li 6 inch. Txog txij tso cai siv lub cav ntxuav tais diav lawm es tsis siv lub dab ua peb kem lawm ces, lub cav no yuav

Provide at least one service sink or curbed floor drain with a faucet. Install the service sink in a location that provides easy access for all employees who are cleaning mops or disposing of mop water. The plan should include a way to store mops between uses so that they do not soil or damage walls, equipment, or supplies. The service sink must not be used for any other purpose.

OTHER SINKS

The sinks listed above have use limitations. Other commonly used sinks in a food establishment may include:

- Dump sink—for bars, blender drinks, or espresso operations. Sink may have a pitcher rinser.
- Dipper well sink—for in-use utensils such as ice cream scoops.

[Minnesota Rules, parts 4626.0275, 4626.0300, 4626.0315, 4626.0320, 4626.0505, 4626.0680, 4626.0685, 4626.0780, 4626.0955, 4626.1080, 4626.1095, 4626.1110, 4626.1540](#)

WAREWASHING EQUIPMENT

Include specifications and proposed locations for all commercial dishwashers in submitted plans. Drainboards, utensil racks or tables are required for storing soiled and clean equipment and utensils. Undercounter dishwashers must be installed on six-inch legs, casters, or skids. When mechanical warewashing equipment is allowed in lieu of the required three compartment sink, the mechanical

tsum ntim taus tej twj tais uas loj tshaj plaws
uas yuav tau ntxuav, yaug, thiab ntxuav ib
zaug los tua kab mob.

warewashing equipment must be capable
of accommodating the largest piece of
equipment to be washed, rinsed and
sanitized.

Yuav tsum ua li cas (Requirements)	Siv Tshuaj Khes Mis Kauj Los Tiv Thaiv Kev Mob Nkeeg (Chemical Sanitizing)	Dej Kub Los Ntxuav Tiv Thaiv Kab Mob (Hot Water Sanitizing)
Lub twj qhia sij hawm tu kom huv tsis muaj kab mob (Sanitizer alarm)	Lub cim tau lub suab thiab cim pom duab thaum theem tshuaj tua kab mob qis lawm (Audible or visual indicator of low sanitizer level)	Tsis tas ua (Not required)
Qhov dav ntawm cheeb tsam ziab ub no kom qhuav (Minimum space for drying)	Tsib daim phiaj ziab (Five racks)	Peb daim phiaj ziab (Three racks)
Cheeb tsam muab tu ua ntej (Pre-cleaning area)	Lub dab siv los txuag khoom, chaw tso khib nyiab los sis lwm qhov chaw tso khib nyiab (Spray sink, garbage disposal or other means for disposal of garbage)	Lub dab siv los txuag khoom, chaw tso khib nyiab los sis lwm qhov chaw tso khib nyiab (Spray sink, garbage disposal or other means for disposal of garbage)
Cov sib faib kem (Internal dividers (conveyer- type machines))	Qhov uas thaiv kom dej tu, daim ntaub los sis lwm cov faib kem kom cais tau dej ntxuav thiab dej yaug. (Baffles, curtains or other internal dividers to keep wash and rinse water separate)	Qhov uas thaiv kom dej tu, daim ntaub los sis lwm cov faib kem kom cais tau dej ntxuav thiab dej yaug. (Baffles, curtains or other internal dividers to keep wash and rinse water separate)
Kev siv ob lub qhov rooj kaw rau ib chav (cov cav ntxuav tais diav uas tsis muaj lub lim cua) (Interlocking door device (ventless dishmachines))	Yuav cheem lub qhov rooj kom txhob qhib coos kuaj lub tshuab ntxuav tais ua tag hauj lwm tso Tej zaum yuav qhov khoom los dhos rau lub tshuab ntiv (Prevents the door from opening until the vent cycle operation is complete May be an additional accessory for the machine)	Yuav cheem lub qhov rooj kom txhob qhib coos kuaj lub tshuab ntxuav tais ua tag hauj lwm tso Tej zaum yuav qhov khoom los dhos rau lub tshuab ntiv (Prevents the door from opening until the vent cycle operation is complete May be an additional accessory for the machine)

KEV CAI LIM TSO PA

Ib txhia khoom siv ua zaub mov noj yuav xav tau kom muaj lub qhov cub nqus lim tau pa xws li pa roj, pa hluav taws, ncho pa kub dhau, pa hws, tej ntshiab twj phem. Cov qhov cub nqus lim tau pa yuav tsum muaj raws li cov txheem lus tswj xyuas pa roj hauv Minnesota (Minnesota Mechanical and Fuel Gas Code, Minnesota Rules), tshooj 1346. Cov nqus lim pa yuav tsum yog Hom I los sis Hom II raws li cov khoom twj thiab hauj lwm uas siv hauv lub lab.

Cov pa uas tsim tshiab rau ib chav twg thiab lub nqus pa thiab tshuab tsim pa tshiab yuav tsum sib txuas raws hluav taws xob kom cov pa tshiab no tshuab raws li lub twj lim nqus pa no ua hauj lwm.

Hom I ntawm lub nqus pa ntawm qhov cub yuav tsum muaj qhov txhais dej tua txuag hluav taws kub nyiab yam tsis tas tibneeg taws (automatic fire suppression system) tshwj tsis yog cov tswj xyuas kev tua hluav taws thiab cov tsim tsa lub tsev hais kom tsis tas muaj. Tsim lub nqus lim pa Hom I los sug roj los sis nqus hws kom tsis txhob txeej los sis ntwis mus rau zaub mov, khoom twj siv, diav rawg, phab ntsa, qab thab, ntaub, thiab tej khoom siv ib zaug.

Cov ntaub lim roj los sis cov tshem tawm roj uas siv rau lub qhov cub yuav tsum tsim los kom yooj yim tu los sis hloov, los sis tsim los kom tu tau.

Lub nqus pa ntawm qhov cub yuav tsum txuas rau lub lab yam raws li cov tsim tsa tau pom zoo. Nyob rau cheeb tsam uas tsis muaj lub tsev ua hauj lwm rau chaw tsim tsa tsev, ces qhov txuas lub nqus pa ntawm qhov cub yuav tsum yog ib tug kws tsim txuas uas muaj daim lais xees los kos ua ces mam xa mus rau MDA (tus muaj cai tswj) seb lawv puas pom zoo txuas raws li tus kos. Tus kws tsim txuas uas muaj daim lais xees los sis tsim tsa tsev

MECHANICAL VENTILATION REQUIREMENTS

Some cooking equipment requires a commercial kitchen hood ventilation system designed to capture and remove contaminants such as grease-laden vapors, smoke, fumes, excessive heat, steam, condensation, odors, etc. Commercial kitchen ventilation systems must meet the requirements of the Minnesota Mechanical and Fuel Gas Code, Minnesota Rules, chapter 1346. Hoods shall be Type I or Type II based on the equipment and activities in the facility.

Makeup air must be provided by mechanical means and the exhaust and makeup air systems must be electrically interlocked to ensure that makeup air is provided whenever the exhaust system is in operation.

Type I ventilation hoods must be provided with an approved automatic fire suppression system unless the fire inspector and building official provide documentation indicating it is not required. Type I hoods should be designed to prevent grease or condensation from draining or dripping onto food, equipment, utensils, walls, ceilings, linens, and single-service articles.

Grease filters or grease extractors used in a hood must be designed to be either readily removable for cleaning or replacing, or designed to be cleaned in place.

The commercial kitchen ventilation hood and installation must be approved by the building official. In areas that do not have a local building official, the ventilation plans and specifications must be prepared by a Minnesota licensed professional engineer or architect and submitted to the MDA (regulatory authority). The licensed

uas nyob hauv yuav tsum yog tus lav txhua yam tom qab tsim txuas tag thiab nws yog tus kuaj tias ib puas tsav yam yeej txuas raws li cov khoom siv txuas thiab raws li cov txheem lus teev tseg. Sau qhia meej txog lub nqus pa ntawm qhov cub thiab yuav muab txawb rau qhov twg hauv lub lab nyob rau hauv phau hom phiaj.

Cov nqus cua ntawm qhov cub (tsis muaj qhov qhib cua), cov qhov cub ua mov noj uas muaj lub nqus pa, thiab cov cav uas tsis muaj qhov qhib cua yuav tsum muaj nyob hauv UL710B thiab txuas raws li tus tsim lub qhov cub ntawd li lus hais nyob hauv txheem lus tswj xyuas pa roj (Minnesota Mechanical Code). Tej twj siv ua zaub mov noj uas tsis siv cov nqus lim pa thiab cov cav ntxuav tais diav yuav tsum tau kev pom zoo los ntawm tsev ua hauj lwm rau chaw tsim tsa tsev thiab cov koom haum ua ntawv lais xees ua ntej yuav txuas dhos tau. Yuav tsum tswj thiab tu raws li tus tsim lub qhov cub ntawd tej lus qhia.

Ib txhiab cav ntxuav tais diav yuav tsum muaj Hom II li qhov cub nqus pa los lim cov cua kub thiab hws. Cov cav ntxuav tais diav nyob hauv qab txee tsis tas yuav lub nqus cua ntawm qhov cub.

PES TSAWG LUB TSHUAB SIV THIAB QHOV NTIM TAU

Sau txog seb lub lab yam twj uas siv ntawd puas ua noj tau, cia kom txias tau, rov rhaub dua, puas dim pa tau thiab puas tuav tau tej khoom noj kom kub txias tau. Dhos thiab siv lub twj yam li siv tsim nyog.

Xav txog cov hauv qab no thiab tej kom ua li cas:

- Cov tub yees thiab tub yees khov tau zaub mov yuav tsum txaus rau khoom noj txias rau theem txias uas nyab xeeb thiab ua kom zaub mov txias li tsim nyog.

engineer or architect of record is responsible for the final inspection and ensuring compliance with the applicable mechanical code requirements. Specifications and proposed locations for ventilation hoods must be submitted with the facility plans.

Recirculating (ventless) hoods, commercial cooking recirculating systems and ventless dishwashers must be listed as meeting UL710B and installed according to the Minnesota Mechanical Code and manufacturer's instructions. Ventless cooking equipment and dishwashers must be approved by the local building official and licensing authority prior to installation. Maintenance must be performed in accordance with the manufacturer's instruction manual.

Some commercial dishwashers require a Type II hood system to exhaust heat and moisture. Undercounter electric dishwashers are not required to have a hood system.

EQUIPMENT NUMBERS AND CAPACITY

Provide adequate mechanical equipment to support the cooking, heating, ventilation, and hot and cold holding needs of the intended menu. Install and use equipment as intended by the manufacturer.

Consider the following equipment needs and requirements:

- Mechanical refrigeration and freezer capacity to maintain cold food at safe temperatures and rapidly cool hot food as necessary.

- Cov dab tso zaub mov kom sov yuav tsum tuav kom zaub mov kub nyob rau theem kub uas nyab xeeb.
- Cov phiaj tiv thaiv zaub mov, tej tub tso khoom saib, kev ntim pob khoom noj los sis lwm yam kev los tiv thaiv kom zaub mov tsis txhob tsuas.
- Cov twj ua mov noj uas hnyav heev nyob ntawm txee uas tsis yooj yim muab txav yuav tsum muab txhos rau cov ceg siab li 4 in los sis lo rau lub txee ntawd.
- Cov twj hnyav heev nyob ntawm plag tsev uas tsis yooj muab txav yuav tsum muab txhob rau cov ceg los sis log uas siab li 6 in los sis muab lo kiag rau plag tsev.
- Cia kom muaj chaw zoo rau khoom khab seeb thiab tej tub txee rau khoom uas tau kev pom zoo los rau khoom noj, khoom twj siv, diav rawg, ntaub, thiab tej khoom siv ib zaug kom lub txee no siab txog li 6 in ntawm plag tsev.
- Cov tub rau khoom nyob hauv chav tub yees yuav tsum yog hom uas puas tsis tau.
- Yog tias tej tshuab rau lub tub yees, xws li chav thoob rau khoom uas taug kev nkag tau mus los sis lub tub yees khov tsis muaj lub tais cug tso dej tawm, ces yuav tsum muaj chaw tso dej tawm ntawm plag tsev.
- Cov tub yees uas taug kev nkag mus tau uas txuas sab nraum zoov yuav tsum txuas kom ib nyuag kho zov thiaj tiv thaiv tau daus thiab dej khov.
- Hot food holding equipment to maintain hot food at safe temperatures after cooking.
- Food shields, display cases, food packaging or other effective means to protect food from contamination.
- Heavy food equipment that sits on the counter and is not easily movable must be elevated on 4-inch legs or sealed to the counter.
- Heavy floor equipment which is not easily movable must be installed on 6-inch legs or casters, or sealed to the floor.
- Provide adequate storage areas and approved storage shelving to store food, equipment, utensils, linens, and single-service items at least 6-inches off the floor.
- Shelving in refrigeration equipment must be corrosion-resistant.
- If refrigeration equipment, such as a walk-in cooler or freezer, does not come with an evaporator pan, the condensate must be discharged to a nearby floor drain.
- Walk-in refrigeration units installed outside should be designed for extra structural loads from snow and ice.

COV RHAUB DEJ

Sau qhia seb cov rhaub dej (hom muaj lub taub thiab tsis muaj lub taub rau dej) yog hom dab tsi thiab yuav npaj txawb rau twg raws li phau hom phiaj tau hais. Cov rhaub dej yuav tsum loj txaus rhaub taus dej siv

WATER HEATER

Include specifications and proposed locations for commercial water heaters (traditional and tankless) in submitted plans. Water heaters must be adequately

thaum lub lab cheem tsum dej siv ntau tshaj plaws.

Tej lab ua mov noj uas tsis ua zaub mov ntau tej zaum yuav tsum tau lub rhaub dej uas rhaub tau 40 nkas loos dej xwb. Lb lub khw muag zaub txhij txhua nrog rau cheeb tsam ua zaub mov noj tej zaum kuj yuav tsum tau ib lub rhaub dej uas rhaub tau dej puas puas nkas loos rau txhua teev.

Cov rhaub dej uas tsis siv lub taub rau dej sov yuav tsum muab txuas thiab tswj raws li tus tsim lub taub ntawd tej lus qhia. Tiv tauj tus tsim lub taub ntawd seb yuav tsum tau lub loj thiab xav tau ntau npaum cas.

COV TUB RAU KHOOM THIAB TXEE

COV TUB RAU KHOOM

Feem ntau, cov tub rau khoom yog siv los rau tej khoom twj siv thiab diav rawg. Thaum tseem xaiv ib lub tub rau khoom, nco ntsoov xaiv cov uas yog hlau thiab tsis txawj xeb, cov luam roj hmab rau ob peb theem, los sis ib hom ntxiv uas no du lug, tsis muaj dej nkag mus tau, thiab yooj yim tu tau. Ib lub tub txee rau khoom yuav tsum luam pua txhua qhov, nrog rau sab hauv tibsi. Tej yas xaim tso dej yuav tsum muaj xaws lo kom zoo zoo.

Qee zaus yuav muab theem saum lub txee tso tej twj tais npaj ua zaub mov. Nyob rau lub sij hawm ntawd, theem saum lub txee ntawd yuav tsum yog pua cov hlau uas tsis txawj xeb, los sis ib daim phiaj pua uas khov heev, xws li Corian. Cov tub txee uas muab txav tsis tau yooj yim yuav tsum muab txhos rau cov ceg uas siab txog 6 in kom thiaj li yooj yim txhuam tu hauv qab. Tsis pub muaj cov haus paus khoob lug.

NPOO ROOJ

sized to meet the peak hot water demands of the food establishment.

Food establishments with a limited menu may only need a 40-gallon water heater. A large grocery store with several food preparation areas may require a water heating system sufficient to generate hundreds of gallons of hot water per hour.

Tankless water heaters should be installed and maintained following the manufacturer's use and maintenance instructions. Consult the manufacturer to determine adequate sizing and proper number of units.

CABINETS AND COUNTERTOPS

CABINETS

Cabinets are often used throughout an establishment to provide storage for equipment and utensils. When selecting or constructing cabinets, be sure that they are made of stainless, high-pressure laminate, or another material that is smooth, non-porous, and easily cleanable. A laminate cabinet can have no exposed wood anywhere on the unit, including interior surfaces. Cut outs for items such as beverage lines must be sealed.

Sometimes the top of a cabinet will double as food preparation surface. In that case, the top must be made of stainless steel or a seamless, solid surface material, such as Corian. Cabinets that are not easily movable must be installed on 6-inch legs to allow for cleaning underneath. Hollow bases are not allowed.

COUNTERTOPS

Tej npoo rooj siv tau los npaj ua zaub mov, tso txawb tej diav rawg uas siv tag los sis huv, tuav tej khoom twj siv, los sis tso tawm tej qhaub cij. Phau ntawv teev cov khoom noj thiab tej hauj lwm uas tshwm sim hauv lub lab yuav qhia seb yuav siv yam twg los pua cov npoo rooj. Nyeem cov ntaub ntawv hauv qab no los txiav txim seb yuav siv yam twg los pua cov npoo rooj.

Piav Qhia Tej Cheeb Tsam

Rooj Muab Kev Pab Rau Tus Neeg Yuav Khoom – Kuj yog lub rooj "them nyiaj yuav khoom," uas cov neeg yuav khoom them tau nyiaj yuav khoom noj. Yuav tsis siv lub rooj no los npaj ua zaub mov.

Rooj Rau Tus Neeg Yuav Khoom Pab Nws Tus Kheej – Lub rooj no yog rau tej khoom siv thiab zaub mov noj uas nyob ntawd rau tus neeg yuav khoom muab tau yam tsis tas ib tus neeg ua hauj lwm pab nws.

Lub Npos Ntawm Hauv Ntej – No yog lub rooj uas cov neeg yuav khoom auv dawm (order) tau yam khoom lawv xav yuav thiab pub dej cawv haus ntawm no. Kuj yuav muaj rooj zaum rau sab neeg sawv yuav khoom. Tej zaum yuav muaj ib lub taub laub tau dej haus ntawm npoo rooj tiamsis yuav tsis muaj kev npaj ua zaub mov ntawm lub npoo rooj no.

Lub Txee Tom Qab/Npos – Muab lub rooj no lo rau lub phab ntsa tom qab. Kuj yuav muab lub txee no tso rau ntau yam khoom siv, xws li siv los npaj ua zaub mov yog tias lub npoo rooj yog pua raws li yam uas tsim nyog.

Chav Muag Khoom – Chav no yog chav uas cov neeg yuav khoom ib txwm taug kev thiab nrhiav khoom yuav. Tsis yog ib chav npaj ua zaub mov noj tiamsis kuj muaj cheeb tsam tus neeg yuav khoom pab nws tus kheej thiab tso zaub mov tawm muag.

Countertops can be used for activities such as preparing food, storing clean or soiled utensils, holding dispensing equipment, or displaying baked goods. The menu that is being offered and the activity that is taking place within the facility will dictate the material requirements for the countertops. Review the information below to better identify what countertop material meets the needs of the facility.

Area Descriptions

Customer Service Counter – Also known as the “checkout counter,” this is the counter where customers pay for their food purchases. Little to no preparation takes place on this counter.

Customer Self-Service Counter – This counter is where equipment and food is provided for the customer to dispense or receive themselves without the help of a food employee.

Front Bar – This is the counter where customers order and are served drinks. There may be seating on the customer side. An approved tap tower may be installed on top of the counter where drinks are poured but no food or drink preparation takes place on the countertop itself.

Back Counter/Bar – This counter is mounted on the back wall. It may have several uses, such as storage for food or equipment, as well as providing a surface for food preparation if it meets the material requirements.

Sales Floor – The sales floor is where customers routinely walk and shop. It is not a food preparation space but does have customer self-service and food display areas.

Food Preparation Surface – This countertop is used for handling, packaging, or preparing

Npoo Rooj Npaj Ua Zaub Mov – Lub npoo rooj no yog siv los npaj thiab ntim zaub mov. Yuav tsum siv yam zoo tshaj lo pua lub npoo rooj no kom thiaj li tu thiab ntxuav tiv thaiv kev kab mob tau.

Piav Tej Yam Khoom Txuas

Cov Hlau Uas Tsis Txawj Xeb – Cov npoo rooj uas yog cov hlau tsis txawj xeb yeej siv los lawm ntau rau tej lab ua zaub mov. Yeej pom zoo siv los npaj ua zaub mov, thiab chaw rau khoom noj thiab tej khoom twj siv. Txhua lub npoo rooj uas siv los npaj ua zaub mov yuav tsum tau kev pom zoo los ntawm ANSI hais tias lub rooj no yeej nyab xeeb siv tau los npaj ua zaub mov.

Npoo Rooj Uas Ruaj Khov – Tej npoo rooj uas ruaj khov yog pob zeb granite, quartz, marble, los sis Corian. Siv tau tej not haum npaj zaub mov uas yuav nto hws heev, siv los tuav cov tsee tso zaub mov kom sov, thiab tsis kov khoom noj thaum npaj ua zaub mov. Lb lub npoo rooj uas ruaj khov yuav tsum tau kev pom zoo los ntawm ANSI tias yam rooj no yeej nyab xeeb siv los npaj tau zaub mov.

Luam Roj Hmab Rau Ob Peb Theem – Siv yam no los pua ntau lub npoo rooj xws li chaw rau khoom, npoo rooj rau khoom twj siv, los sis tej dab ntxuav ub no. Yuav tsis pub txiav, hlais, los sis tsuav ub no rau lub rooj uas siv roj hmab los luam. Tsis txhob cia ntub heev, los sis txawb tej khoom kub tshaj 275 degrees, los sis qhov kub uas tswj tau tshaj 150 degrees.

Ntoo – Yuav tsum tsis txhob siv ntoo los ua lub npoo rooj npaj ua zaub mov, tshwj tsis yog cov rooj (wood-top baker's table) thiab tej laug cam uas ua raws li cov ncej txheem ANSI. Siv tau ntoo los txuas rau lub npos ntawm hauv ntej yog tias muab cov ntoo no luam nrog epoxy los sis polyurethane.

food. The highest level of finish materials are required in this area for cleaning and sanitation purposes.

Material Descriptions

Stainless Steel – Stainless steel countertops can be used for many applications within a retail food facility. They are acceptable for food preparation, and the storage of food and equipment. All food preparation countertops must be ANSI accredited for food safety.

Solid Surface – Solid surfaces include approved granite, quartz, marble, or Corian. These surfaces can be used in areas with high moisture, drop-in hot holding inserts, and indirect contact during food preparation. A solid surface countertop must be ANSI accredited for food safety if used as a food contact surface.

High Pressure Laminate – High pressure laminate countertops are used in a multitude of applications including the storage of self-service equipment, countertop equipment, or drop-in hand sinks. Cutting, slicing, or chopping on a laminate surface is not allowed. Laminate surfaces must not be exposed to excessive moisture, objects hotter than 275 degrees, or sustained heat above 150 degrees.

Wood – Wood shall not be used in a food preparation area, except for wood-top baker's tables and cutting boards conforming to ANSI standards. Wood can be used for front bar tops if sealed with a water resistant epoxy or polyurethane.

Other Material – A number of other materials may be used as a countertop in different scenarios. Specifications for a

Lwm Yam – Yeej tseem muaj ntau yam siv tau rau lwm hom npoo rooj. Yuav tsum qhia tsi ntsees seb yuav siv ib yam twg txawv thaum ua ntaub ntawv ntsuas hom phiaj seb puas tau kev pom zoo qhib lub lab.

COV CHAW HAUJ LWM XWS LI HLUAV TAWS XOB, ROJ THIAB DEJ

Ntaub ntawv qhia tsi ntsees txog tsev tuav dej siv thiab kev muab cov dej siv tag pov tseg, nrog rau lub taub rhaub dej thiab lwm cov hauj lwm siv yuav tsum muab sau tagrho nyob rau hauv phau pov hwm.

Yuav tsum tsis txhob lam muab cov kav dej thiab kav hluav taws xob tso tawm yam tsis tsim nyog. Muab tej kav dej thiab kav hluav taws xob, nrog rau tej yas tso dej qab zib kaw kom thiaj nyab xeeb. Txuas tej kav dej thiab kav hluav taws xob kom zoo es thiaj li cuam tshaum tau rau thaum txhuam tsev, txhuam phab ntsa los sis qab thab.

KAV DEJ THIAB KEV POV TSEG TEJ DEJ SIV TAG

Txheem lus tswj xyuas kev txuas kav dej siv (Minnesota Plumbing Code) yuav kom xa tej phau hom phiaj tuaj rau [Minnesota Department of Labor and Industry \(DLI\)](https://www.dli.mn.gov/) kom lawv thiaj tau ntsuas saib seb puas pom zoo los sis xa tuaj rau lub khoom hauv zos ntsuas saib ua ntej yuav tsim txuas dua tej kav dej. Tej hom phiaj txuas kav dej los ntawm ib tus kws txuas kav dej uas muaj daim lais xees yuav tsum tau xa tuaj rau MN Department of Labor and Industry, Plumbing Plan Review and Inspection, 443 Lafayette Road N., St. Paul, Minnesota 55155-4343. Mus rau DLI qhov vej xaij ntawm www.dli.mn.gov/ rau cov ntaub ntawv thov thiab tej lus qhia.

different material must be submitted for review prior to approval.

UTILITIES

Specific information about the source of the water supply and sewage disposal, along with the water heater and any other utilities must be submitted with the plans.

Utility service lines and pipes must not be unnecessarily exposed. Enclose utility service lines and pipes, including beverage lines, when possible. Install utilities so they do not obstruct or prevent cleaning of the floors, walls and ceilings.

PLUMBING AND WASTEWATER DISPOSAL

The Minnesota Plumbing Code requires that plans and specifications be submitted to and approved by the [Minnesota Department of Labor and Industry \(DLI\)](https://www.dli.mn.gov/) or delegated local agency prior to any plumbing work or the construction of any new plumbing system. Plumbing plans must be submitted by a Minnesota licensed plumber to the MN Department of Labor and Industry, Plumbing Plan Review and Inspection, 443 Lafayette Road N., St. Paul, Minnesota 55155-4343. Go to the DLI website at www.dli.mn.gov/ for an application and instructions.

Your plumbing and/or waste disposal plans must be approved by the appropriate

Lub koom haum hauv zos yuav tsum pom zoo rau koj tej hom phiaj txuas kav dej thiab tso tawm cov dej uas siv tag ua ntej koj txais daim lais xees los ntawm MDA. Nyob rau tej cheeb tsam uas tsis muaj lub tsev ua hauj lwm kuaj tsev los sis chav ua hauj lwm rau chaw tsim tsa tsev, cov kev ntuas tej kav dej yuav ua los ntawm ib tus neeg kuaj kav dej los ntawm DLI.

TSEV TUAV DEJ SIV

Sau qhia txog seb yuav siv cov dej twg nyob rau hauv koj phau hom phiaj. Sau qhia seb cov dej yuav los ntawm tsev tuav dej siv los sis ntawm ib lub qhov dej. Yuav tsum muaj dej ntau txaus siv los dhia lub lab.

Muaj ntau yam lus rau dej (e.g., drinking water, potable water, and fresh water) yog siv los piav cov dej zoo yaug ub no hauv ib lub lab ua noj. Tsuas siv cov dej uas tau kev pom zoo los ntawm txoj cai [Minnesota Rules, chapter 4714](#), cov cuab yeej kab dej; [chapter 4720](#), dej pej xeeb siv; thiab [chapter 4725](#), qhov dej thiab kas.

Yog tias siv cov dej los ntawm ib lub qhov dej, ces yuav tsum tho lub qhov dej los ntawm ib tus uas muaj ntawv lais xees thiab muaj ntaub ntawv los ntawm lub [Minnesota Department of Health \(MDH\)](#). Lub MDH Well Management Unit mam li ntsuas seb lub qhov dej puas zoo siv. Sau qhia tus nab npawb qhia txog tej dej nyob hauv av ntawm lub qhov dej ntawv rau lawv paub. Lub MDH mam li txiav txim seb lub qhov dej tho ntawd puas zoo siv cov dej ntawd raws li cov txheem lus saib xyuas qhov dej (Minnesota Well Code).

KEV POM ZOO RAU THOOB LOJ CUG COV DEJ UAS SIV TAG

Yog tias muaj cov thooob cug tej dej uas siv tag, ces yuav tsum tau kev pom zoo los

regulatory agency prior to receiving a license from the MDA. In areas that do not have a local inspection department or building official, plumbing inspections are conducted by a DLI plumbing inspector

WATER SUPPLY

Identify the source of water on the plan review application. Indicate whether the water source is municipal water or from a well. Provide an adequate supply of water to meet the needs of the operation.

Several different terms (e.g., drinking water, potable water, and fresh water) are used to describe water that is approved and safe for use in a food establishment. Use only drinking water from an approved source according to [Minnesota Rules, chapter 4714](#), plumbing code; [chapter 4720](#), public water supplies; and [chapter 4725](#), wells and borings.

If the facility is using water from a well, it must be installed by a licensed well driller and certified by the [Minnesota Department of Health \(MDH\)](#). The MDH Well Management Unit will verify well construction and water quality compliance. Provide the unique well number from the well log or the well head for existing wells. The MDH will determine if the construction, location, and quality of the water supply is in compliance with the applicable Minnesota Well Code.

SEPTIC APPROVAL

If a septic system is used for the facility, it must be approved by the appropriate regulatory authority. A current Certificate of

ntawm cov neeg muaj cai tswj. Yuav tsum muaj daim ntawv pov thawj tias cov thoob loj no yeej siv raws cai los ntawm ntawv pov thawj tau kev pom zoo (Certificate of Compliance). Tiv tauj koj lub zos seb yauv mus muab ntaub ntawv txog kev pom zoo siv thoob cug dej Certificate of Compliance qhov twg.

Compliance provides evidence of septic system compliance. Contact your county for information on how to verify septic system compliance and obtain a current Certificate of Compliance.