

tech-check architectural | core & shell standard

This is a template, so some items will apply to your project, and others won't or will be missing. When using the list, make the changes needed for your project.

Content of the Tech-Check Lists is based on several sources including MASTERSPEC®.

THIS LIST is for a WARM SHELL project - edit as necessary for COLD SHELL projects.

1 GENERAL

☐ REFERENCE DOCUMENTS

- **DIMENSIONING** - CHECK the "Dimensioning Guidelines - Architectural Projects".
- **OTHER CHECK LISTS** – "Building Code" and "Accessibility."
- **NOTATION HELP** – "Drawing Notation," "General Notes for Core & Shell."
- Coordinate abbreviations with list in Cover Sheet.

☐ TITLE BLOCK

- Project name and Address.
- Owner's legal name and address. (check with Google)
- Issue Number, Description (Issue for Bid, Addendum A, etc.) and date of issue.
- Additional information such as general contractor, when known and approved by Principal.
- Initials in "Drawn By" and "Checked By"; plot date.
- Stamp.
- Scale, Project Number.
- Drawing Title / Drawing Number.
- Deltas for Addenda and subsequent Bulletins when applicable.

☐ ALWAYS DO THIS:

- Number SIMILAR components for clear notation: Glass #1, Glass #2; Storefront #1, Storefront #2, etc. Note the designations in the Schedule of Finishes and other schedules and refer to the components by its designation throughout the set.
- Check that the designations in the schedules match the designations on the drawings.
- Always talk to reps. Confirm capacities, sizes, configuration, availability, use. Send your plans for reviewing when applicable.
- If an item is typical and you know it, do not add other labels. Add UON only when you know that there is, or probably is, a different condition or materials from the one documented.

☐ GRAPHICS

- Indicate with dashed lines and label overhead components at building exterior: canopies, awnings, and such. Label them, for example, "CANOPY ABOVE".
- Wall and roof openings: Indicate with an "X" and label "OPEN".
- "North" arrow in every floor plan – oriented in the same way.
- Graphic bars (these are required by some agencies - check).
- Indicate areas in Project Site which are not included in the Contract and label: NIC ("BY OTHERS" can be confusing. Use "NIC" instead.)
- Project Site indicated clearly in building plans.

□ DIMENSIONING

- Height dimensions for architectural projects are from top of slab (TOC).
 - Horizontal dimensions for architectural work are to face of structural framing, concrete, and such, except critical dimensions which are to “face of finish”.
 - First String: Total building dimension (wall-to-wall), closed string.
 - Second String: Dimensions to structural elements (columns, etc.), closed string.
 - Next Strings: Components in order of importance; tied to the structure to fix them, opened strings. Critical dimensions (exiting, accommodate equipment, and such) are labeled “CLEAR”.
 - Generally, do not set dimensioning to less than 1/8”. Go to 1/16” only when you know it can be done in the field or it can be manufactured to that precision level
 - Refer to RMW Standard Dimensioning Guidelines for Architectural Projects. Check that:
 - Dimensions in the elevations and sections are indicated in the same format as in the floor plans.
 - Major components are located with a dimension to a column line or edge of slab.
 - Partitions are located and tagged.
 - Doors not in a room corner are located by the dimension to the side of the opening.
 - Openings in horizontal or vertical components are located to “edge of slab” or framing.
 - Use annotations such as “ALIGN” and “XX EQ SPACES” instead of numerical dimensions when applicable. Count carefully!
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□ COST MANAGEMENT

- Include a **SUMMARY OF ALTERNATES AND ALLOWANCES** where it is easily found and read.
 - **ALTERNATES**
 - Base Bid work is clearly described throughout the set, including in the Schedules and specifications (book or sheet).
 - Alternate work is clearly described, including installation when applicable.
 - The cost of alternate work is calculated by the contractor, and given to the Owner to decide if the alternate work proceeds or not.
 - **ALLOWANCES**
 - Allowance work is clearly described with drawings or in writing or both.
 - Allowance type is indicated as Unit Price (cost per area or per unit) or as a Fixed Sum.
 - The allowance amount is fixed by the Owner and the contractor confirms if the allowance is enough.
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□ CONSISTENCY

- Terminology is the same throughout.
 - Components are tagged with the same tag throughout the set.
 - Work which is the same has the same tab.
 - Address only the contractor, no one else, as if he was in front of you: “Do this”, “Do that”.
 - Graphics representing the same item or work are consistent: Size, type, etc., (for example, finishes, types of partitions, and such).
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□ MOCKUPS

- If you want mockups, list them and coordinate with the specifier.
 - Indicate on the Drawings where do you want the mockups (location and extent), when applicable.
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□ NO-NOS

- Do not describe building envelope finishes and other elevation information in the floor plans.
 - Do not use periods in the abbreviations: (UON not U.O.N).
 - **DO NOT INCLUDE RATED ASSEMBLIES THAT DO NOT HAVE A UL NUMBER (or other number by any other testing agency). NEVER DESIGN YOUR OWN RATED ASSEMBLIES!**
 - **DO NOT use the UON all the time, use ONLY WHEN NEEDED.** When you use UON you are telling the contractor that somewhere in the documents there is or there might be a condition which is different to the one with the UON tag, so the contractor has to search all the documents for it, so unless this is the case, drop the UON.
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2 COVER SHEET and FRONT-END SHEETS

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- **COORDINATION WITH THE SET**
 - Coordinate abbreviations used in the set with list in Cover Sheet
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- **CHECK THAT THIS IS INCLUDED:**
 - Abbreviations
 - General notes – check that they are applicable to the project.
 - Project name and address.
 - Title 24 notes.
 - Drawing List.
 - Project Directory.
 - Vicinity Map.
 - Project Information and code data.
 - Separate permits and deferred submittals.
 - Project Legend - Graphic symbols used on the project.
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- **REQUIREMENTS**
 - Code Analysis and calculations
 - Calculations (Exiting requirements) and if applicable, fixture requirements.
 - CALGreen Checklist - Separate Sheet
 - ADA/ Accessibility Path of Travel Layouts
 - Accessibility Standard Details (maneuvering clearances, signage, etc.)
 - Compliance Statements if required by the local Authority Having Jurisdiction
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- **ACCESSIBILITY**
 - Accessibility Standard Details (maneuvering clearances, signage, etc.)
 - Door and wall accessible toilet signs as applicable to the Project.
 - Exit signage - Route and stairs when applicable
 - REFERENCE ONLY:
 - Accessibility clearances in bathroom floors.
 - Showers accessibility clearances.
 - Enlarged bathrooms or toilet plans showing accessibility clearances.
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- **SIGNAGE**
 - Door and wall accessible toilet signs as applicable to the Project.
 - Exit signage - Exit route and stairs when applicable.
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3 SITE PLAN(S). FOR PROJECTS WHERE SITE WORK IS INCLUDED

☐ COORDINATION WITH CONSULTANTS

- Soils report: Read recommendations on soil work, waterproofing, etc.
- Building footprint.
- Property lines and easements.
- Site topography (grading).
- Ramps, curb ramps, sidewalks/ walkways, steps or stairs: Locations and configurations.
- Parking layout and sloping.
- Trees and planting areas.
- Utilities.
- Exterior lighting.
- Signage.
- Areas for Contractor's use – IF determined by Owner.
- Landscape areas are indicated with footage if required by AHJ.
- Utility lines or service points of connection.

☐ COORDINATION WITH EXISTING CONDITIONS - AS APPLICABLE

- Building footprint, main access, secondary access.
- Ramps, curb ramps, sidewalks/walkways, steps or stairs: Locations and configurations.
- Signage.
- Stripping..
- Access to site from point of connection to public road.
- Access roads, driveways, turn-arounds, including with and slope.
- Location of entrance signage.
- Driveways, access, exiting.
- Pedestrian traffic.
- Accessible path of travel.
- Accessible parking signage.
- Stripping.
- Accessible Details
- Site Entry Sign.

☐ COORDINATION WITHIN THE SET

- Where Plans are subdivided into segments due to size or configuration, insert a "KEY PLAN" with "Match Lines" that show the segments (numbered) and where they are in the Set.

☐ SITE INFORMATION:

(WHEN POSSIBLE obtain a list of what should be shown in the site plan from the local jurisdiction.)

- Parcel number.
- Access to site from point of connection to public road.
- Access roads, driveways, turn-arounds, including with and slope.
- Property lines:
 - Distance between buildings and property lines.
 - Required fire rating in selected portions of the building due to distance from property lines.
 - Easements, dimensioned, located in plan, and labeled (utilities, right-of-way, etc.)
 - Setbacks.

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- **SITE CONSTRUCTION**
 - Trash enclosure, elevations, plans, and details. Check if the trash enclosures are required to have a roof and drains. (Trash enclosures do not have doors, they have gates).
 - Bicycle lockers and racks.
 - Accessibility details: Signage, and tactile surfacing.
 - Accessible parking stalls plans.
 - Access ramps and pipe railings.
 - Location of entrance signage.
 - Fences and gates located in reference to property lines when applicable.
 - References to details are coordinated.
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- **PARKING:**
 - Driveways, access, exiting.
 - Pedestrian traffic.
 - Parking layout, number of slots, dimensions, flow of traffic, signage.
 - Accessible path of travel.
 - Parking signage.
 - Parking appurtenances.
 - Fire hydrants if required by permitting agency.
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4 FLOOR PLANS

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- **COORDINATION WITHIN THE SET, AS APPLICABLE**
 - The following key references are indicated and correctly labeled:
 - Building elevations - show arrow perpendicular to elevation ("go around" the building to check) Tag elevations by location (North, South, Southeast)
 - Building sections - end arrows pointing the right way.
 - References to building sections.
 - References to details are coordinated.
 - Exterior stairs are indicated and tagged.
 - Dock pit is indicated and tagged showing extent of excavated area.
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- **COORDINATION WITH THE PROJECT TEAM**
 - Coordinate with electrical engineer for locations of electrical service to architectural components, including lighting, motor operated doors, motor operated dock equipment, etc.
 - Location of floor, ceiling, and wall mounted electrical components.
 - Coordinate dimensions of roof openings with the structural engineer.
 - Coordinate dimensions of chase walls with mechanical / plumbing engineers, if already part of the Project team, **PARTICULARLY WHERE PLUMBING FIXTURES ARE BACK-TO-BACK ROWS OF WATER CLOSETS.**
 - Coordinate location of light fixtures, outlets, equipment or furnishings that require power, etc..
 - Coordinate location of light fixtures and controls with furnishings.
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□ **GRAPHIC INFORMATION AND SHEET NOTATION**

- North Arrow in all floor plans in the same direction.
- NIC areas clearly marked by shading or any other graphic way.
- Move notes and Information describing items located in walls, partitions, and ceilings to Elevations and RCPs sheets.
- Sheet Notes and Key Notes:
 - Review notes to check they all apply to the project.
 - Notes that address the same thing should be repeated exactly (copy-paste) and if possible with the same number throughout. If a note is not used in a sheet, leave the number and write "NOT USED".
 - Check that the terminology is the same as the terminology on the drawings (tags, schedules and notes). BASICALLY CALL THE SAME THING THE SAME WAY THROUGHOUT.
 - Indicate overhead components at building exterior (awnings, roof components, etc) with dash-lines and label, for example: "CANOPY ABOVE".
- Indicate with an "X" and label floor openings "OPEN".
- Indicate overhead components at building exterior (awnings, roof components, etc) with dash-lines and label, for example: "CANOPY ABOVE".
- Indicate with an "X" and label floor openings "OPEN".

DIMENSIONING

- Dimensions in architectural drawings are from structural element (columns, face of concrete, etc.), face of framing (studs, etc.) or face of sheathing (plywood,
 - Order of dimension strings:
 - First String: Total building dimension (wall-to-wall), closed string.
 - Second String: Dimensions to structural elements (columns, etc.), closed string.
 - Next Strings: Components in order of importance; tied to the structure to fix them, open strings.
 - Critical dimensions (exiting, accommodate equipment, and such) are labeled "CLEAR". Dimensions in the elevations and sections are indicated in the same format as in the floor plans.
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□ **NO-NOS**

- Do not DESCRIBE building exterior finishes and other elevation information in the floor plans.
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□ **PARTITIONS**

- Partition types selected do not exceed the maximum height indicated in the partition details. If you have questions on this, call Gloria or Josie.
 - Partitions are tagged one by one or in group (note "PARTITION TYPE A UON").
 - Plumbing and mechanical chase walls are coordinated with the consultants for wall depths required to accommodate piping or ducts, particularly where plumbing fixtures are back-to-back rows of water closets.
 - Fire ratings at partitions and doors at electrical and IT/computer server have been coordinated with the electrical engineer.
 - Chase walls selected are:
 - Correct for the fire-ratings required.
 - Their purpose has been checked with the mechanical / plumbing consultants.
 - Widths is enough to accommodate what is scheduled to be carried (piping, ducts, etc.)
 - Fire rated partitions are correct for the fire ratings required.
 - At rated partitions with wall reveals an additional layer of gypsum has been added to maintain the fire rating.
 - Depths required by fully-recessed or semi-recessed items, such as fire extinguisher cabinets and toilet accessories, are adequate.
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□ **FLOOR FINISHES**

- Starting point for tiling work is indicated.
 - An enlarged plan is included if necessary to clearly indicate floor finish layout.
 - Details for floor finishes transitions are tagged.
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**DOORS**

- All doors tagged; tag doors only in the floor plans, not in the enlarged plans.
- Door numbers correspond to the room numbers.
- Doors in rooms with multiple doors are tagged sequentially, for example, doors in Room 1001 are tagged as 1001A, 1001B, 1001C, etc.
- Sidelights are tagged as one unit along with the adjacent door, not separately.
- Door tags are coordinated with the Door & Frame Schedule and the Hardware Groups.
- Door sidelights and vision panels are labeled as "SAFETY GLAZING".
- Required clearances at doorways (doors and gates) are correct and labeled.
- Direction of door swing meets code.

EXTERIOR DOORS

- Tagged correctly in the following categories: Hollow Metal (no "man doors", overhead coiling doors (motor operated or manually operated), or sectional doors.

**EXITING WIDTHS**

- Required minimum clear exiting widths at stairs, hallways and corridors are provided or exceeded and labeled as "CLEAR".
- Aisles with cabinets that open towards the aisle (in the full-open position) do not reduce the required minimum clear exiting width.

**FIRE EXTINGUISHERS**

- Travel distances to nearest fire extinguisher are indicated (max. 75').
- Cabinet types are labeled: Rated or non-rated, recessed; semi-recessed; surface-mounted.
- Partition type widths are sufficient to accommodate recessed and semi-recessed cabinets.
- References to drawing and detail number that show accessible mounting heights for cabinets are included.

**DOCKS**

- Location of dock bumpers
- Location (footprint) of dock leveler (if motor operated coordinate with electrical consultant).

5 REFLECTED CEILING PLANS

**COORDINATION WITH THE DESIGN TEAM**

- Items such as motors, projection screens and overhead coiling grilles or coiling doors concealed in the ceiling space do not conflict with Structural or MEP (if there are included in the Project team) elements and that required clearances are provided.
- Location of electrical and mechanical items.

**CEILINGS**

- Schedule: Products including tiles or panels and suspension system.
- "Heavy Duty" type for all.
- Areas without ceilings are marked 'NO CEILING' or 'OPEN TO STRUCTURE ABOVE'.
- Location of overhead equipment or other items is coordinated.
- Layout does not include tiles or panels smaller than ½ a unit or are cut in a way they cannot be suspended.
- Extent of each new ceiling is shown.
- Ceiling and Soffit heights indicated; 9'-0" AFF, UON.
- Light fixtures
- Layout of ceiling grids.
- Ceiling-mounted items, such as screens, air supply diffusers, return air grilles, exit signs, operable partitions, overhead doors, etc.

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- **COORDINATION WITH FF&E:**
 - Access to items such as light switches, outlets, thermostats, access panels, electrical panels and similar items are not blocked by fixed furniture.
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6 FINISH PLANS

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- **FINISH SCHEDULE TEMPLATES ARE AT THE END OF THIS DOCUMENT**
 - References to floor plans are the correct.
 - References in elevations to details are correct.
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- **COORDINATION WITH the PRODUCT REPS**
 - Finishes are correct for intended use.
 - Finishes are available and ready for sale.
 - If needed, extra materials for replacements or patching are available.
 - Warranties are available.
 - Installation is easy.
 - Maintenance is easy.
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- **DRAWINGS**
 - Locations and extent of finishes are clearly indicated and finishes are tagged and scheduled.
 - Finish products are described correctly.
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7 ROOF PLAN

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- **COORDINATION WITHIN THE SET**
 - The following key references are indicated and correctly labeled:
 - Details.
 - Enlarged plans.
 - Type of roofing assembly has been confirmed with the specifier and the roofing manufacturer representative.
 - Details shown correspond to the applicable roof type.
 - Roof dimensions are shown.
 - References to building sections.
 - References to details.
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- **TERMS**
 - Roof Membrane: Single Ply (TPO or PVC)
 - Board insulation.
 - Protection board if under the roofing membrane; cover board if over the roofing membrane
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☐ **ROOF CONSTRUCTION**

- Heights are to top of concrete, steel deck, or parapet
 - Parapets.
 - Perimeter drainage.
 - High and low points of the roof.
 - Slope directions and slope ratios. Cricketing.
 - Roof drains and overflow drains
 - Mechanical/ Electrical/ Plumbing units (future location - dashed - if not in the contract)
 - Roof equipment screens.
 - Maintenance pads.
 - Guardrails and fall protection rails when required.
 - Roof Access: Hatches and ladders.
 - Expansion Joints.
 - Seismic Joints.
 - Walking pads.
 - Stairs over equipment.
 - Skylights.
 - Window washing equipment.
 - Ladders at roof perimeter.
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8 BUILDING ELEVATIONS

☐ **NO-NOS**

- Do not indicate building envelope finishes and other elevation information in the floor plans.
 - DO NOT describe materials in the elevation notations, just identify them (GL1, GL2, etc.) UNLESS IT IS NECESSARY FOR CLARITY. Describe materials in the Exterior Finishes Schedule.
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☐ **AN EXAMPLE OF A SCHEDULE OF EXTERIOR FINISHES IS AT THE END OF THIS DOCUMENT.**

☐ **COORDINATION WITH THE DESIGN TEAM**

- Structural components.
 - Exterior levels.
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☐ **DIMENSIONING**

- Horizontal Dimensions:
 - First dimension: Exterior wall to exterior wall – match floor plans.
 - Second dimension: Column lines.
 - Vertical Dimensions:
 - Heights: To top of sheathing, top of concrete, top of parapet, top of equipment screen.
 - Heights of canopies, and other appurtenance.
 - Openings: To face of opening (framing or concrete) except if critical (dimension only to locate if the item in the opening if the item dimensions are indicated in a schedule, such as doors, windows, etc.
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- **INDICATE:**
 - Sections at least in two directions.
 - Gridlines.
 - If possible, indicate items in the front plane with one line weight and items in the back planes with a lighter line weight.
 - Materials tagged on all sides of the building by type (for example, GL1, GL2, and included as such in the Exterior Finish Schedule.
 - One section for every type of exterior wall arranged in the sheet in order.
 - Materials tagged.
 - References to details coordinated.
 - Door elevations and types are coordinated with the door schedule.

- **ALUMINUM GLAZED ASSEMBLIES**
 - Tagged correctly in the following categories:
 - Storefront: From top of slab to underside of floor deck above not to exceed 14 feet high.
 - Curtain wall: From top of slab to underside of floor or roof deck above, 14 feet or two floors or more high.
 - Ribbon walls: Running continuously constructed with storefront components.
 - Punched Walls: Single openings in the building envelope.
 - Glass types identified and tagged.

9 BUILDING SECTIONS

- **COORDINATION WITH THE DESIGN TEAM**
 - Structural components.
 - Exterior levels.
- - Sections at least in two directions.
 - Grid lines.
 - One section for every type of exterior wall arranged in the sheet in order.
 - Grid lines.
 - Heights to top of parapet and top of sheathing, building clear height, and top of openings.
 - Materials tagged.
 - References to details.

10 ENLARGED PLANS

- **BEFORE YOU ENLARGE A PLAN, MAKE SURE IT IS NECESSARY!**
- **COORDINATION WITHIN THE SET**
 - References to floor plans are the correct.
 - References in elevations to details are correct.
- **ITEMS INDICATED**
 - Locations and extent of finishes are clearly indicated and finishes are tagged and scheduled.
 - Elevation is complete and enclosed: Floor, ceiling (show changes in ceiling and floor levels if applicable), side walls or end of walls.
 - Openings are crossed and labeled "OPEN".
 - Heights are indicated as AFF.
 - Room doors and cabinet doors show swing.
 - Elevations of the same room are together.

- **SHOWERS AND JANITOR ROOMS**
 - Showers:
 - Elevations: Show fixtures, bench, shelf for shampoo, soap dish, hook, and curtain/rod.
 - Plans: Indicate curb at non-accessible showers,
 - Partitions on Wet Side: Backboard (not gypsum) on wet side, tile over mortar over waterproofing.
 - Shower Receptacle: Waterproofing under pre-manufactured receptacle (preferred).
 - Janitor Rooms:
 - Elevations: Show shelf for cleaning stuff and protective panels to waist height.
 - Plans: Show janitor floor sink.

11 INTERIOR ELEVATIONS

- **COORDINATION WITHIN THE SET**
 - References to floor plans are the correct.
 - References in elevations to details are correct.
- **SHOWERS AND JANITOR ROOMS**
 - Showers:
 - Elevations: Show fixtures, bench, shelf for shampoo, soap dish, hook, and curtain/rod.
 - Plans: Indicate curb at non-accessible showers,
 - Partitions on Wet Side: Backboard (not gypsum) on wet side, tile over mortar over waterproofing.
 - Shower Receptacle: Waterproofing under pre-manufactured receptacle and extending to the room (preferred).
 - Janitor Rooms:
 - Elevations: Show shelf for cleaning stuff and protective panels to waist height.
 - Plans: Show janitor floor sink.

12 BUILDING DETAILS - GENERAL

- **COORDINATION IN THE SHEET**
 - As much as possible keep details of the same family together.
 - Check that in details that include the same assembly, the assembly is the same (size of door frames, type of floor slab, etc.
 - Check that items in the details are tagged in the same manner (overhead deck is always overhead deck", "window" is always "window", etc.
- **GRAPHICS**
 - Details are grouped by families.
 - Graphic representation of items is consistent.
 - Terminology is consistent and correct.

13 DETAILS - CONCRETE AND MASONRY

PRECAST ARCHITECTURAL CONCRETE

Basis of Design Manufacturer: Clark Pacific.

- Layout of the framing system. Show the relative location of various precast concrete units, floor elevations, openings, column centers and offsets, and dimensions.
- Locations and types of finishes. Include thin brick and stone facings.
- Details of connections and joints. Show anchorage devices, other embedded items, and grouting.
- Details of openings.
- Fire-resistance-rated construction and joint-filling requirements.

CMU

Basis of Design Manufacturer: Basalite.

- Extent of each type and thickness of concrete unit masonry.
- Extent of each fire-resistance rating if any, and identification of fire-resistance design designation or equivalent thickness.
- Location and detail of each type of movement joint. Show isolation joints between masonry and concrete and between masonry and steel framing if any. S
- Locations, types, and details of items, such as anchors, ties, inserts, lintels, flashings, and reglets, to be built into masonry.
- Details of special masonry features, such as chases, recesses, and openings for other work, if known.
- Joint thickness and coursing heights if critical.
- Joint profiles if other-than-specified concave tooling.
- Pattern bonds for exposed surfaces if other-than-specified running bond.

14 DETAILS - METALS AND RAILINGS

☐ ARCHITECTURALLY EXPOSED STRUCTURAL STEEL FRAMING

- Locations of structural-steel items considered to be architecturally exposed structural steel; coordinate with the structural Drawings.
- Location of the mockup, if any.
- Sheet Note: Welds to be ground smooth.

☐ COLD-FORMED METAL FRAMING (LOAD-BEARING STUD FRAMING)

Basis of Design Manufacturers: Clark Dietrich and Cemco.

- This item is always either “delegated design” or calculated and designed by the structural engineer.
- Extent of each form of load bearing cold-formed metal framing.
- Identification of exterior and interior load-bearing walls from exterior and interior non-load-bearing walls.
- Depth, thickness, shape, height, finish, and spacing of each component, but only to the extent not specified.
- Details at abutting construction.
- Locations and construction details of control joints and building expansion joints.
- Special framing, blocking, and bracing to support fixtures and other work from the framing system.
- Extra studs or other reinforcement at doors and other significant openings.

☐ METAL FABRICATIONS

- Extent of each fabricated item. Include plans, elevations, and details as applicable.
- Name of each item. Coordinate with Specification terminology.
- Metal types and finishes if more than one. Coordinate with Specification terminology.
- Metal thicknesses and other dimensional data not specified, or exceptions to default sizes.
- Profiles and details. Include cutouts, returns, reveals, edge finishing, stiffeners, jointing, and anchoring.
- Concealed flashings, if required to make exterior construction weathertight.

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- **PIPE AND TUBE RAILINGS (INTERIOR OR EXTERIOR)**
 - Locations and the extent of railings with adequately dimensioned plans and details. Show guard infill design to the extent it is not specified.
 - Material sizes and types.
 - Finishes: Galvanized for exteriors, primed for interiors. Location of each metal finish if more than one.
 - Locations of removable railing sections, if any.
 - Railing details at bends and returns, handrail bracket design and connections, and connections of railings to building structure.
 - Infil panels type.
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15 DETAILS - LADDERS AND STAIRS

- **LADDERS**
 - DO NOT detail ladders: Ladders have strict OSHA requirements so are pre-manufactured. O'Keeffe's. Is the basis of design product. Choose a ladder model - call for recommendations if unsure - and insert cut sheet in the drawings. <http://okeeffes.com/>
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- **CODE COMPLIANCE**
 - Landing and adjacent doors: Accessibility clearance.
 - Plan, elevations, and sections: Widths.
 - Projections on the width.
 - Headroom clearances.
 - Tread size and configuration.
 - Handrails configuration and heights.
 - Handrails extensions at top and bottom of stairs.
 - Space under stairs is open.
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- **METAL PAN STAIRS (THESE ARE OUR STANDARD PRE-MANUFACTURED FIRE STAIRS)**
Basis of Design Manufacturer: American Stair.
 - Extent of metal pan stairs. Include plans, elevations, and details. Indicate types of metal pan stairs if more than one type.
 - Extent of railings. Include plans, elevations, and details. If railings are included with preassembled stairs and railing configuration is specified in this Section, do not show details that limit the manufacturer's construction methods unnecessarily.
 - Profiles of treads and risers.
 - Types of treads and landings if more than one type.
 - Types of nosings. Include profiles and dimensions.
 - Finishes: Primed for field painting for interiors; galvanized for exteriors.
 - Supporting construction and methods of attachment.
 - Elements of fire-resistive construction enclosing the stairs.
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METAL GRATING STAIRS (THESE ARE OUR STANDARD PRE-MANUFACTURED UTILITARIAN STAIRS)

Basis of Design Manufacturer: American Stair.

- Extent of metal grating stairs. Include plans, elevations, and details. Indicate types of metal grating stairs if more than one type.
 - Extent of railings. Include plans, elevations, and details.
 - Profiles of treads and risers.
 - Types of treads and landings if more than one type.
 - Types of nosings. Include profiles and dimensions.
 - Finishes: Primed for field painting for interiors; galvanized for exteriors.
 - Supporting construction and methods of attachment.
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16 DETAILS - CARPENTRY (FOR ARCHITECTURAL WOODWORK SEE INTERIORS LIST)

- **COORDINATION WITHIN THE SET**
 - Extent of miscellaneous carpentry. Include section sizes.
 - Details of typical and special conditions.
 - Blocking: Indicate continuous (two diagonals at section) or not (one diagonal at section).
 - Locations where pressure-preservative-treated and fire-retardant-treated wood are required.
- **SHEATHING**
 - Extent of each type of panel product. In our projects we typically use plywood sheathing and gypsum sheathing.
 - Thickness of each type of panel product.
 - Extent of wood structural panels required to be plywood.
 - Locations where pressure-preservative-treated and fire-retardant-treated plywood are required.
- **MISCELLANEOUS CARPENTRY**
 - Extent of each type of exterior finish carpentry.
 - Details of construction and relationship with adjacent materials, including flashing, sealants, vapor retarders, building wraps or air barriers, and insulation.
 - Profiles of trim, moldings.
 - Extent of preservative-treated finish carpentry.
 - Species and grades of lumber if not fully covered by the Specifications.
 - Furring and blocking needed for installing other work.

17 DETAILS - WATER AND AIR INTRUSION PROTECTION

- **BENTONITE WATERPROOFING (THIS IS OUR STANDARD WATERPROOFING PRODUCT)**
Basis of Design Product: Bentonite by Tremco (sheet-applied).
 - Locations and details of bentonite waterproofing.
 - Connections to or coordination with flashings, expansion joints, waterstops, transitions to other types of waterproofing, and other elements of the substrate and waterproofing systems.
 - Locations and details of protection-course applications if any.
 - Locations and details of subsoil drainage systems.
 - Unusual provisions recommended by the manufacturer.
 - Insulation coordination details if any.
- **SHEET AIR BARRIERS (PRODUCT BELOW IS FIRE TESTED AS PART OF AN ASSEMBLY AND CAN BE USED IN RAIN SCREENS)**
Basis of Design Product: ExoAir® 110 by Tremco. It also comes already applied to sheathing.
 - Locations and extent of air barriers - sections showing building envelope assemblies
 - Materials to bridge and seal exterior wall air-leakage pathways and gaps, including the following:
 - Connections of walls to foundations.
 - Seismic and expansion joints.
 - Openings.
 - Penetrations.
 - All other air-leakage pathways in building envelope.

18 DETAILS - BUILDING ENVELOPE - METAL PANELS

- **FORMED METAL WALL PANELS AT CANOPIES**
 - Details of trim and other accessories. Include profiles and dimensions unless the manufacturer's standard units are acceptable.
 - Details of flashings and gutters.
 - Support framing.
 - Location of each metal panel color if more than one is required.
 - Steel finishes: Galvanized or "factory-applied manufacturer's standard finish". DO NOT use "PAINTED" as tag.
 - **METAL COMPOSITE MATERIAL WALL PANELS**
 - Extent of metal panels and other accessories or components.
 - Details of trim and other accessories.
 - Details of flashings, door and window openings, louvers, penetrations, parapets, and panel interfaces with roofs, soffits, and expansion joints.
 - Fire-resistance ratings, testing agency, testing agency design number, and other requirements to extent required by authorities having jurisdiction.
 - Specific metal panel anchorage and support assemblies. Show sizes, shapes, locations, spacings, and methods of attaching metal plate support assembly and sub-framing including girts, angles, channels, and other structural supports and anchors.
 - Gaskets and sealants at joints, if required.
 - Location of each metal panel color if more than one is required.
 - Locations, views, and details of mockups if required.
-

19 DETAILS - ROOF

- **ROOF**
 - Parapet showing coping and transition to roof.
 - Roof drain.
 - Downspout
 - Skylight, plan and section at curb.
 - Scooper at roof, including scupper box and flashing box.
 - Roof hatches - show post and railings.
 - Equipment screen.
 - Penthouses.
-

□ **POLYVINYL-CHLORIDE (PVC) ROOFING AND THERMOPLASTIC-POLYOLEFIN (TPO) ROOFING**

Basis of Design Product: PVC roofing by Johns Manville

- Roof plan indicating extent of each type of roofing. Include slopes, drain locations, tapered insulation locations and slopes, and sheet roofing termination conditions.
 - Rating (Underwriters Laboratories or other testing agency) and the testing agency's design designation for roof areas requiring fire-resistance ratings.
 - Board insulation: thicknesses, number of layers, and taper of insulation if required. Show locations and extent of crickets.
 - Flashing, nailers, and reglets at terminations of roofing. Show nailers if required.
 - Remodeling and Additions: Tie-ins with other roofing systems, both existing and new.
 - Locations and details for sheet metal accessories. Include the metal type if several types are specified. Show the relationship of membrane roofing to metal flashings.
 - Locations and large-scale details of roof expansion joints; area dividers; hatches, skylights, and other accessories; equipment supports.
 - Details of preformed, vent-pipe flashings.
 - Details of roof drains and scuppers.
 - Locations and dimensions of walkway products.
 - Window washing equipment.
 - Roof equipment screen.
 - Access ladders where needed on roof, and at roof at to access penthouses roofs.
 - Assemblies:
 - INSULATED - Over composite deck: Board insulation / Protection board / Roof membrane
 - INSULATED - Over steel deck: Base board / Board Insulation / Roof membrane
 - NOT INSULATED - Over composite deck: Base board / Roof membrane
 - NOT INSULATED - Over steel deck: Base board / Roof membrane
-

□ **ROOF ACCESSORIES**

- Location, size, and configuration of each roof accessory.
 - Flashing and cant details of roof accessories. Show cricket details where accessory obstructs the flow of water toward a drain.
 - Details of each roof accessory. Include profiles and interfaces with other work and security grilles if required at roof curbs. Indicate extent of security grilles if only some units require them.
 - Coordination of each roof hatch with its roof opening, the access stair or ladder, the space between steps, and toe clearances. Verify roof hatch opening location and orientation with respect to fall-prevention requirements.
 - Coordination of roof walkway locations with access and servicing points for roof-mounted equipment.
 - Height of roof curbs and equipment and pipe supports above the roof's surface. Coordinate this height with space needed for roof maintenance and replacement.
 - Configuration and details of roof-hatch safety railing.
 - Anchorage details. Include provisions for deck reinforcement at openings.
 - Special framing to accommodate multiple units.
 - Material, finish, and color designations if not uniform for all units of any type of roof accessory. specified. Indicate surfaces to receive field-applied paint.
 - Location and attachments for window washing equipment.
-

20 DETAILS - FIRE PROTECTION

□ APPLIED FIREPROOFING

- Locations and extent of fireproofing. **DO NOT indicate thickness unless YOU GET THEM FROM THE MANUFACTURER'S TECHNICAL REPRESENTATIVE.**
- Schedule or details indicating UL-design designations or designations of another testing and inspecting agency for each assembly if required for permitting.
- Locations of restrained beams if designated by the structural engineer.
- Finishes (texture and paint) required for fireproofing exposed to view are indicated - this includes exposed under deck fireproofing. COORDINATE WITH FIREPROOFING MANUFACTURER.
- Locations and types of auxiliary materials required.
- Details of fireproofing assemblies using metal lath and lathing accessories, if any.
- Details of construction that encloses or covers fireproofing. Coordinate with fireproofing thickness.
- Details of penetrations through fireproofing showing coordination with firestopping.

□ INTUMESCENT FIREPROOFING

MAKE ABSOLUTELY SURE YOU ARE WORKING WITH INTUMESCENT FIREPROOFING AND NOT INTUMESCENT PAINT". STICK WITH "ALBI" TO MAKE SURE YOU HAVE THE RIGHT PRODUCT.

- Locations and extent of fireproofing. **DO NOT indicate thickness unless YOU GET THEM FROM THE MANUFACTURER'S TECHNICAL REPRESENTATIVE.**
- Finishes required for fireproofing exposed to view are indicated. COORDINATE WITH FIREPROOFING MANUFACTURER.
- Schedule or details indicating UL-design designations or designations of another testing and inspecting agency for each assembly if required for permitting.
- Locations and types of auxiliary materials required.
- Locations and extent of mockups.

□ PENETRATION FIRESTOPPING - THIS IS FOR PENETRATIONS (HOLES) IN RATED ASSEMBLIES

- Most of the locations of fireproofing in the project are only known at the time of construction. A few we can identify at the time of documenting the project (for example, electrical boxes in rated partitions) and those are in the Detail library. At the time of construction, a licensed subcontractor will make an inventory of the penetrations and should submit a schedule with the selected assemblies for each case. We only acknowledge that the inventory was made and received by us; we DO NOT REVIEW IT for accuracy or completeness.
- If you are adding a detail because of permitting authority requires it, MAKE SURE that the assembly was tested by UL or another testing agency. If you cannot find one, call either TREMCO or HILTI.
- **NEVER NEVER NEVER** design your own firestopping assembly.

□ JOINT FIRESTOPPING - THIS IS FOR JOINTS IN RATED ASSEMBLIES (EDGE OF SLAB, HEAD OF RATED PARTITIONS, FOR EXAMPLE

- Locations and fire-resistance ratings of joint firestopping are identified. Coordinate with fire-resistance ratings of constructions in which fire-resistive joints are located. In architectural projects, **ALWAYS TALK TO THE MANUFACTURER (TREMCO OR HILTI)** and get the appropriate assembly from them. For interior partitions, if the detail is not in the Detail Library, look in the manufacturers website for tested assemblies or call the manufacturer.
- **DO NOT EVER DESIGN YOUR OWN ASSEMBLY.** If the manufacturer hasn't tested an assembly exactly like yours, they can give you an "engineering judgement".
- Make sure you work with actual joint widths. Coordinate with maximum widths allowed for selected fire-resistive joint systems.
- Details of perimeter fire-resistive joint systems. Show relationships to curtain-wall assemblies, spandrels, and adjoining floor assemblies.

21 DETAILS - SEALANTS AND JOINT COVERS

□ JOINT SEALANTS

- Dimensions and details of typical joint conditions. Include each form of tooled joint configuration, locations where more than one is required, and the location of each if it cannot be described in this Section.
- Colors required for each type of joint sealant, if more than one color is required.
- Locations for pre-construction and field quality-control adhesion testing.

□ EXTERIOR EXPANSION JOINT COVER ASSEMBLIES

- Locations and types of expansion joint cover assemblies. Include adequately dimensioned plans, sections, and details.
- Detail of joint corners.
- Joint size, movement capability, and the type of movement (thermal, wind sway, or seismic) for each expansion joint.
- IF REQUIRED FOR CLARITY - Three-dimensional illustration showing where expansion joint cover assemblies make transition of planes or change direction.
- Material types.
- Types of finish materials to be applied to expansion joint cover assemblies, if any.
- Continuity between floor, wall, and ceiling expansion joint cover assemblies.
- Locations and fire-resistance ratings of fire-rated expansion joint cover assemblies. Include UL designations.
- Drainage of moisture-barrier gutters and connections to plumbing if any.

22 DETAILS - OPENINGS

□ COORDINATION WITHIN THE SET

- All doors types are tagged and tags are the same throughout.
- Coordinate with the Door Schedule, Hardware Groups, and elevations of door types.

□ COORDINATE WITH FLOOR PLANS, ELEVATIONS, DOOR SCHEDULE AND DOOR/FRAME ELEVATIONS

- Tag of each door opening on plans and in a door and frame schedule.
- Hardware group for each door, tag with the door and in the Door Schedule.
- Hand of each door and degree of swing.
- Size, exposure, special clearances, and so forth, for each door
- Special characteristics of doors. Include fire-protection rating, and sound rating requirements.
- Special sill, head, joint, lite, louver, or meeting stile conditions affecting type, size, installation, or clearance of door hardware units.
- For pairs of doors, location of active leaf.
- Special door hardware installation requirements if any. Include unusual security or fasteners, and so forth.
- Mounting locations if different from those specified or indicated in referenced standards.
- Heights and locations of armor, kick, mop, and stretcher plates.
- Locations and details of weather stripping, sound seals, and thresholds.
- Coordination of electrified hardware locations with electrical power supply.
- Locations of blocking in walls to support wall stops.

□ HOLLOW METAL DOORS AND FRAMES

- Locations and elevations of aluminum frames.
- Fire ratings for frames (check ratings availability with manufacturer).
- Finish for interiors : Shop primed to be field painted. Note color.
- Finish for exteriors: Galvanized to be field painted. Note color.
- Glass type(s) and thicknesses if not specified or scheduled.
- Anchorage and support system.

□ **OVERHEAD COILING DOORS**

- Door types, locations, and dimensions. I
 - Locations of vision panels in door slats.
 - Details of head and jamb conditions and guide mounting.
 - Door operation method. Indicate chain, crank, or electric motor operator and location of these devices.
 - Type and location of emergency manual operation.
 - Clearance dimensions for motors, cranks, chains, and maintenance service.
 - Mounting details for doors and tracks.
 - Locations for controls and operators.
 - Locations and characteristics of electrical power to motors and controls. Coordinate with electrical Drawings.
 - Fire Rated Doors: Related walls and construction for fire-rated doors must be equal or greater fire resistance than door.
-

□ **OVERHEAD SECTIONAL DOORS**

- Door types, locations, and dimensions.
 - Locations of windows in door sections and full-vision sections.
 - Details of head, sill, and jamb conditions and track mounting.
 - Clearance dimensions for overhead position of the door, motors, counterweights, chain wheels, and maintenance service.
 - Locations of removable center posts and other options.
 - Door operation method: Indicate manual push-up, chain, or rope operators or electric motor operators.
 - Locations for controls and operators. UL 325 requires locating control stations so that the user cannot come in contact with the door while operating the controls.
 - Locations and characteristics of electrical power to motors and controls. Coordinate with electrical consultant and Drawings.
-

□ **DOOR HARDWARE**

Coordinate with floor plans, elevations, door schedule and door/frame elevations

- Tag of each door opening on plans and in a door and frame schedule.
 - Hardware group for each door, tag with the door and in the Door Schedule.
 - Hand of each door and degree of swing.
 - Size, exposure, special clearances, and so forth, for each door
 - Special characteristics of doors. Include fire-protection rating, sound rating, and radiation protection requirements.
 - Special sill, head, joint, lite, louver, or meeting stile conditions affecting type, size, installation, or clearance of door hardware units.
 - For pairs of doors, location of active leaf.
 - Special door hardware installation requirements if any. Include unusual security or fasteners, and so forth.
 - Mounting locations if different from those specified or indicated in referenced standards.
 - Heights and locations of armor, kick, mop, and stretcher plates.
 - Locations and details of weather stripping, sound seals, and thresholds.
 - Coordination of electrified hardware locations with electrical power supply.
 - Locations of blocking in walls to support wall stops.
-

23 DETAILS - BUILDING ENVELOPE - ALUMINUM-FRAMED GLAZED ASSEMBLIES

□ NOMENCLATURE

- STOREFRONT - Ground floor, from top of slab to underside of deck of floor above; maximum 14 feet but check with manufacturer.
- CURTAIN WALL - From top of slab if ground floor to underside of roof deck, hanging in front of building with gaps between curtain wall and slab.
- GLASS WALL - Same as storefront but in higher floors.
- WINDOW - Opening in wall, usually framed with storefront components.
- RIBBON WINDOWS - Windows in a row.

□ ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

- Extent of entrance or storefront system.
- Type, color, and finish if more than one of each are required.
- Glass designations. Include safety glazing at entrance systems.
- Basic dimensions.
- Door elevations. Include rail and stile dimensions, push-pull trim configurations, and hardware mounting heights.
- Notation of entrance door hardware sets for each door opening in the door schedule.
- Coordination requirements with structural supports, column lines, and floor levels.
- Basic anchorage and support systems.
- Details of joint sealants and fillers at the interface of entrance and storefront systems and other building components.
- Test-area requirements for field testing.

□ GLAZED ALUMINUM CURTAIN WALLS

- Extent of glazed aluminum curtain walls. Include operable units if any. Distinguish between curtain-wall assemblies and other aluminum-framed systems such as storefront, and windows.
- Type, color, and finish if more than one of each is required.
- Glass designations.
- Basic dimensions.
- Coordination requirements. Include structural support, column lines, and floor levels.
- Expansion, deflection, and movement requirements to accommodate building structure and design loads.
- Basic anchorage and support systems.
- Details of perimeter safing insulation. CALL SPECIFIER FOR THIS.
- Details of joint sealants and fillers at the interface of the glazed aluminum curtain wall and other building components.
- Connections with adjacent construction.

□ STRUCTURAL-SEALANT-GLAZED CURTAIN WALLS (THESE HAVE BUTT JOINTS)

- Extent of structural-sealant-glazed curtain walls. Include operable units if any. Distinguish between curtain-wall assemblies and other aluminum-framed systems such as storefront, window, sloped glazing assemblies, and conventionally glazed curtain walls.
- Type, color, and finish if more than one of each is required.
- Glass designations.
- Basic dimensions. Include glass- and spandrel-panel thicknesses and framing-member profile requirements.
- Coordination requirements. Include structural support, column lines, and floor levels.
- Expansion, deflection, and movement requirements to accommodate building structure and design loads.
- Basic anchorage and support systems.
- Connections with adjacent construction.
- Details of perimeter fire safing. CALL SPECIFIER.
- Details of joint sealants and fillers at the interface of the structural-sealant-glazed curtain wall and other building components.
- Integral stabilization requirements for window washing equipment if any.

24 DETAILS - GLAZING

☐ GENERAL

Coordinate with floor plans, elevations, door schedule and door/frame elevations, and with glass partitions and windows.

☐ GLASS

- Extent and the location of each different glass product and glazing system.
- Detail of joints for butt glazing.
- Tags for different types of glazing units.
- Dimensions of assemblies. Show framing system or glass opening dimensions rather than actual sizes (width and height) of glass lites.
- Complete glazing details. Show glazing channels or rabbets and the kind of glazing method required for each. If wet glazing is specified, indicate the silicone sealant.
- Indicate locations of glass with patterns, film, or designs in plans and show layout in interior elevations.

☐ FIRE RESISTANT GLAZING

- Extent and location of each different fire-resistant glass product. Tags for each type of product and rating.
- Dimensions of assemblies. Show framing system or glass opening dimensions rather than actual sizes (width and height) of glass lites.
- Unless Contractor is allowed to use any glazing method approved by testing agencies that listed and labeled fire-resistant glazing products, show complete glazing details. Show glazing channels or rabbets and the kind of glazing method required for each.

25 DETAILS - EXTERIOR FINISHES

☐ STUCCO - PENTHOUSES AND ELSEWHERE

- Locations and the extent of each type of cement plasterwork required.
- Details of exterior cement plaster, weather-resistant barriers installed over sheathing, flashing, and methods of draining water that gets behind plaster to the exterior.
- Ratings and requirements for fire-resistance-rated assemblies. Include design designations from a qualified testing agency.
- Location of the following:
 - Insulation, thermal and acoustical.
 - Control and expansion joints (12 feet horizontally and 12 feet vertically max).
 - Accessories.

26 DETAILS - INTERIOR PARTITIONS

- ☐ STANDARD INTERIOR GYPSUM BOAD PARTITIONS – See Interiors tech-check list.

□ SHAFT WALLS

- Extent of each gypsum board shaft wall assembly. Tag is the same throughout.
- Design designations of a qualified testing agency that has determined the fire-resistance rating of the assembly.
- Locations and thicknesses of gypsum board or other finish panels, and the number of layers applied to the room or shaft side of the assembly for each application.
- Control joints location or include in sheet note.
- Locations requiring sound attenuation blankets or other acoustical treatment. Indicate the location of STC-rated assemblies.
- Locations of sprayed fire-resistive materials. Show details of shaft wall assemblies terminating at surfaces protected by sprayed fire-resistive material.
- Locations of building structure and other penetrations in gypsum board shaft wall assemblies.
- For elevator hoistways, locations of door frames, electrical boxes, elevator call buttons, elevator floor indicators, and similar items. Indicate details of door head and jamb framing.
- Locations of fixtures and handrails requiring supplementary framing or blocking.

27 DETAILS - ELEVATORS

□ HYDRAULIC ELEVATORS

- COORDINATE the following with consultants:
 - Standby power to fused disconnect switches (or circuit breakers) for each elevator that must be able to operate on standby power. Include connections from auxiliary contacts in the transfer switch to elevator controllers.
 - Dedicated 120-V circuit in the machine room for each elevator controller.
 - Lighting, switches, and power outlets (120 V) in each machine room and elevator pit.
 - Fire-detection and -alarm system connections to elevator controllers.
 - Security-system (access-control) connections to elevator controllers.
 - Connections for the traveling cable on the electrical and communication Drawings, including the following:
 - 120-V power supply for car lighting and fan.
 - Telephone or intercom.
 - Firefighters' two-way telephone communication service.
 - Other services as appropriate (e.g., Muzak, security system, and closed-circuit television)
 - Heating, ventilation, and cooling of machine rooms on HVAC Drawings. Ensure that cooling is provided to maintain an adequate working temperature for microprocessor controls.
 - Sprinkler coverage of the machine room and shaft on fire sprinkler Drawings if required. NFPA 13 no longer requires sprinklers at the top of noncombustible shafts for passenger elevators that comply with ASME A17.1/CSA B44 and does not require sprinklers at the bottom of noncombustible shafts if combustible hydraulic fluids are not used. ASME A17.1/CSA B44 requires that the power be automatically disconnected to the affected elevator before or on applying water.
 - Cab finishes: Coordinate with manufacturer's representative for custom finishes.
 - Railing at back wall as required
- Finishes of controls in elevator cab and at hoistway walls.

28 EXTERIOR FINISHES SCHEDULE

EXTERIOR FINISHES SCHEDULE SAMPLE

- Materials are grouped by types (all glass types, etc).
- Tags in the elevation are the same as in the Exterior Finishes Schedule.

These are examples to illustrate nomenclature and listing; products named are also examples.

GLASS - SINGLE PANEL

- Glass Type: Clear, fully tempered.
- Thickness: 1/2 inch

GLASS - INSULATING

- Glass Type:
- Exterior Panel: 1/2" thick, tinted with Low E coating in #2 Surface.
- Interior Panel: 1/2" thick, clear
- Interspace: Air, dehydrated
- Total Thickness: 1".
- Product: [Solarban 60 by PPG] [insert]

ALUMINUM FRAMING:

- Product: X by Kawneer.
- Dimensions: 2" by 4-1/2".
- Assembly: Stick.
- Finish: [Clear anodized] [insert]

ALUMINUM COMPOSITE WALL PANELS

- Product: X by Alucobond.
- Dimensions: 8' by 4'.
- Assembly: Rout & Return.
- Finish: [Clear anodized] [insert].

FORMED ALUMINUM WALL PANELS

- Product: X by [insert].
- Dimensions: 8' by 4'.
- Assembly: Rout & Return.
- Finish: [Clear anodized] [insert].

THIN BRICK VENEER (STONE SIMILAR):

- Type: Clay Face Brick.
- Unit Size: X wide by X height by X long.
- Product: X by Basalite, colors [insert].
- Installation: [thinset over concrete] [mortar bed] [description]

GLASS - SINGLE PANEL

CONCRETE PANELS:

- Face Up Finish: Troweled.
- Face Down Finish: Smooth, as cast.
- Concrete Coating: Elastomeric, colors [insert].
- Product: [TEX-COTE®] [insert]

ALUMINUM FRAMING:

- Product: X by [Kawneer] [insert]
- Dimensions: 2" by 4-1/2".
- Assembly: Stick.
- Finish: [Clear anodized] [insert]

FORMED METAL ROOF PANELS: (these panels are fabricated by "folding" metal sheet)

- Type: Exposed Fasteners.
- Material: Galvanized steel sheet.
- Finishes: [Manufacturer's standard] [insert]
- Product: [AEP Span, HR-36® Roof & Wall] [Insert]

END OF TECH-CHECK LIST