
DESIGN GUIDELINES – WATER PROOFING SYSTEM

These Design Guidelines set the minimum architectural and construction standards to reduce and to the extent possible, prevent water leakage and/or mold growth in or around the Premises, adjacent space(s), and Shopping Center.

The Design Guidelines shall apply to all tenants in all areas where “wet tasks are performed.” This would include all areas or tasks as described and would include all areas that have water flow into or out of the Premises. A “wet task” shall include, without limitation, any equipment using water or other liquid, or any space(s) that employ tanks, water containing sinks, floor sinks, mop sinks, dishwashers, fountains, restrooms, showers, tubs, water spray fixtures, steam tables, wet food preparation areas, prep kitchens, kitchens, food service stations, bars, cold or frozen storage areas, etc.

Specifically, the Design Guidelines set forth the minimum standards for the interior construction at the Premises of (i) the walls and the wall systems (which include, the waterproof membrane, waterproof flashing, the fasteners, grout, wall panels, movement joints, and wall penetrations), (ii) flooring and the floor systems (same as a wall system, above), (iii) ceiling systems, (iv) plumbing, (v) electrical, (vi) kitchen equipment, (vii) water features, and (viii) vapor/moisture ventilating.

A key component of a water proofing system is the waterproofing membrane. All wall and floor systems installed in areas having wet task or spaces where wet task are performed, shall have a waterproofing membrane installed beneath the wall finish. The waterproofing membrane shall be installed the height of the wall in accordance with the manufacturer’s written instructions and shall be continuous whenever possible. If contiguity is not possible, the waterproofing membrane should be installed in a weatherboard fashion with horizontal and vertical lap joints of at least 6 inches.

In addition, a membrane flashing shall be installed at the wall-to-floor transition. This membrane flashing shall be integrated with the wall waterproofing and floor waterproofing. It shall provide a watertight barrier to prevent water migration into the adjacent floor or wall area. Tenant shall integrate the wall membrane with the floor waterproofing and ensure that the waterproofing membrane is compatible with the adhesive specified for the panel system. In certain instances to ensure compatibility with the panel installation adhesive, Tenant may be required to install the waterproofing membrane beneath the wall substrate material.

All Tenant’s Work in the Premises shall be performed in accordance with the “Final Plans” as defined in Exhibit C to Lease and be built in accordance with the California Building Code adopted by the local jurisdiction where the Shopping Center is located. Prior to opening for business to the public in the Premises, Tenant shall certify to Landlord, in writing, that Tenant’s Work meets or exceeds the minimum standards set forth in the Design Guidelines and Tenant has performed Tenant’s Work to the extent and in such a manner that all manufacturer’s warranty(ies) are in effect.

During the Term, Tenant shall develop and implement a best management practice plan (the “Plan”) to minimize water usage for cleaning and/or sanitation, which shall include, without limitation, an equipment leak prevention and maintenance program. Tenant shall provide Landlord with a copy of its Plan within 30 days following the Commencement Date, and during the Term, within 15 days of Landlord’s request.

PART 1 GENERAL

1.01 SECTION INCLUDES

(Choose one of the following installation options.)

- A. Installation of porcelain tile using an underlayment for preslope at the substrate, a waterproof membrane, mortar bed, polymer modified thin set, and 100% solids grout. (mud bed - porcelain)
- A. Installation of porcelain tile using an underlayment for preslope at the substrate, a waterproof membrane, polymer modified thin set, and 100% solids grout. (thin set with slope - porcelain)
- A. Installation of porcelain tile using a waterproof membrane, polymer modified thin set, and 100% solids grout on a pre sloped concrete substrate. (thin set with provided concrete pre sloped - porcelain)
- A. Installation of quarry tile using an underlayment for preslope at the substrate, a waterproof membrane, mortar bed, polymer modified thin set, and 100% solids grout. (mud bed - quarry)
- A. Installation of quarry tile using an underlayment for preslope at the substrate, a waterproof membrane, polymer modified thin set, and 100% solids grout. (thin set with slope - quarry)
- A. Installation of quarry tile using a waterproof membrane, polymer modified thin set, and 100% solids grout on a pre sloped concrete substrate. (thin set with provided concrete pre sloped - quarry)

1.02 RELATED SECTIONS

- A. Section 03 35 00 – Concrete Finishing.
- B. Section 09 30 00 - Tile
- C. Section 22 42 00 – Plumbing Fixtures

1.03 REFERENCES

- A. ANSI A108 Series - American National Standard Specifications for Installation of Ceramic Tile.
- B. ANSI A108.1A Installation of Ceramic Tile in the Wet Set Method with Portland Cement Mortar.
- C. ANSI A108.1B Installation of Ceramic Tile on a Cured Portland Cement Mortar Setting Bed with Dry-Set or Latex-Portland Cement Mortar.

-
-
- D. ANSI A108.5 Installation of Ceramic Tile with Dry-Set Portland Cement Mortar or Latex-Portland Cement Mortar.
 - E. ANSI A108.6 Installation of Ceramic Tile with Chemical Resistant, Water Cleanable Tile Setting and Grouting Epoxy.
 - F. ANSI A108.10 Installation of Grout in Tilework.
 - G. ANSI A108.13 Installation of Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone.
 - H. ANSI A118.1 Specifications for Dry-Set Portland Cement Mortar.
 - I. ANSI A118.3 Specifications for Chemical Resistant, Water Cleanable Tile Setting and Grouting Epoxy.
 - J. ANSI A118.4 Specifications for Latex-Portland Cement Mortar.
 - K. ANSI A108.7 Specifications for Polymer Modified Ceramic Tile Grouts.
 - L. ANSI A118.10 Specifications for Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile And Dimension Stone Installations.
 - M. TCA "Handbook for Ceramic Tile Installation"; Tile Council of America Method # F121-07 & F122-07.

1.04 SUBMITTALS

Note: Waterproofing Consultant must review and approve products and detail drawings prior to Pre-Construction meeting and commencement of work.

- A. Submit under provisions of Section 01300.
- B. Product Data for Mortars, Grouts, and Adhesives:
 - 1. Submit manufacturer's product data demonstrating compliance with specified requirements.
 - 2. Submit manufacturer's instructions for use.
 - 3. Submit manufacturer's certification that materials are suitable for the intended use.
- C. Samples: Submit samples of each type and color of grouting material and tile.
- D. Tile Certificates:

-
-
1. Submit Master Grade Certificates issued and signed by the manufacturer and the Contractor when the tile is shipped. State grade, kind of tile, and identification marks for tile packages.
 2. Submit Certification from tile manufacturer of satisfactory performance of frost proof tile.

1.05 QUALITY ASSURANCE

- A. Mock-ups: Provide mock-up panel using materials specified for final work. Construct mock-up as directed, and of full thickness. Obtain Architect's acceptance of visual qualities of the sample panel.
- B. Installer Qualifications: Engage an experienced installer who has completed tile installations similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.
- C. Source Limitations for Tile: Obtain each color, grade, finish, type, composition, and variety of tile from one source with resources to provide products from the same production run for each contiguous area of consistent quality in appearance and physical properties without delaying the Work.
- D. Source Limitations for Setting and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and grout component from a single manufacturer and each aggregate from one source or producer.
- E. Source Limitations for Other Products: Obtain each of the following products specified in this Section from one source and by a single manufacturer for each product.
- F. Mandatory Inspections: The Waterproofing Consultant and the Material Manufacturer's Representative shall attend a Pre-Construction meeting and provide one (1) field audit during installation of the waterproofing membrane. One additional inspection shall also be provided for the water test and final inspection.

1.06 PRODUCT HANDLING

- A. Provide heated and dry storage facilities on site.
- B. Deliver and store all materials on site a minimum of 24 hours before usage.
- C. Deliver and store tile and packaged materials in original containers with seals unbroken and labels intact until time of use. Prevent damage to materials such as chipping, breakage, freezing, or excessive heat. Prevent contamination by water, moisture, foreign matter, or other causes.

1.07 PROJECT CONDITIONS

-
-
- A. Maintain ambient and surface temperatures at not less than 60 degrees Fahrenheit during installation of cementitious materials and for 72 hours thereafter. Maintain ambient and surface temperatures between 65 degrees Fahrenheit and 95 degrees Fahrenheit during installation of epoxy setting and grouting materials and for 72 hours thereafter.
 - B. Vent temporary heaters to outside to avoid carbon dioxide damage to new tile work.
 - C. Provide adequate lighting for good grouting and clean-up.

1.08 PRECONSTRUCTION

- A. A Pre-Construction meeting shall be scheduled a minimum of 2 weeks prior to commencement of work.
- B. Attendees at the Pre-Construction meeting shall be: Waterproofing Consultant, General Contractor, Waterproofing Subcontractor, Waterproofing Material Manufacturer's Representative, The Irvine Company Representative and all other trades that will interface with the waterproofing.
- C. At the meeting, the project scope of work shall be reviewed along with related details that will impact the waterproofing. Each of the Subcontractors that interface with the waterproofing shall have their scope of work reviewed. Notes from the meeting shall be recorded and distributed by the Waterproofing Consultant.

PART 2 PRODUCTS

2.01 TILE

Specify tile in the following paragraph, or in a schedule at the end of this specification section or on the drawings.

If more than one type or color of tile, mortar or grout material, or setting method is specified, indicate which respective color, material, and method is to be used in each of the locations tile is required.

Delete one of the two following paragraphs.

- A. Ceramic tiles shall be porcelain Style _____ manufactured by _____
- A. Ceramic tiles shall be quarry Style _____ manufactured by _____

2.02 SETTING MATERIAL MANUFACTURER

-
-
- A. Mer-Krete Systems ParexLahabra Inc. 800-851-6303 www.merkrete.com Local Representative Tim McDonald.

1. Substitutions will not be acceptable.

2.03 MORTAR BED WITH WATERPROOF MEMBRANE AND TILE

- A. Pre Slope and Mortar Bed

1. Mer-Krete Underlayment C; a polymer modified underlayment for pre slope of substrate at 1/4 inch per foot.
2. Mer-Krete Underlayment M; a cement based mortar bed mixture. Underlay M shall be gauged with 150 Acrylic Latex; latex admixture.

- B. Mer-Krete Hydro Guard 2000; a neoprene asphaltic based elastomeric waterproofing and crack isolation membrane. Load Bearing, Bonded, Waterproof Membrane For Thin-Set Ceramic Tile And Dimension Stone Installations; ANSI A118.10

- C. Mer-Krete Thin-Set 735; a superior grade flexible latex modified Portland cement dry set mortar for demanding installations.

- D. Water Cleanable Tile Setting and Grouting Epoxy; ANSI A118.3: ProEpoxy a 100% solids epoxy grout and mortar for extra heavy performance, color #_____.

2.03 THINSET WITH WATERPROOF MEMBRANE AND TILE

- A. Mer-Krete Underlayment C; a polymer modified underlayment for pre slope of substrate at 1/4 inch per foot previous to waterproof membrane.

- A. Concrete substrate sloped 1/4 inch per foot

- B. Mer-Krete Hydro-Guard 2000; an asphaltic based elastomeric waterproofing and crack isolation membrane. Load Bearing, Bonded, Waterproof Membrane For Thin-Set Ceramic Tile And Dimension Stone Installations; ANSI A118.10. La City RR Listed 4321 ICC-ES Listed

- C. Mer-Krete Thin-Set 735; a superior grade flexible latex modified Portland cement dry set mortar for demanding installations.

- D. Water Cleanable Tile Setting and Grouting Epoxy; ANSI A118.3: ProEpoxy a 100% solids epoxy grout and mortar for extra heavy performance, color #_____.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Before work commences, examine the areas to be covered and report any flaw or adverse condition in writing. Do not proceed with the tile work until surfaces and conditions comply with the requirements indicated in the manufacturer's instructions and in ANSI A108.5
- B. Verify that slope, when required, is in subfloor.
- C. Protect adjoining work surfaces before tile work begins.

3.02 PREPARATION:

- A. Floor Flatness: Install leveling material if necessary to bring floors to required flatness. Maximum variation from plane:
 - 1. 1/4 inch in 10 feet for installations with a thick mortar bed.
 - 2. 1/8 inch in 10 feet for thin-set mortar
 - 3. Leveling, when necessary, is to be accomplished using leveling materials specified in Part 2.
 - 4. Mortar bed and waterproof membrane must be pre-sloped using leveling materials specified in Part 2.

3.03 INSTALLATION - GENERAL

- A. Comply with applicable ANSI 108 series of the "American National Standard Specifications for the Installation of Ceramic Tile."
- B. Comply with TCA installation methods indicated or, if not otherwise indicated, as applicable to installation conditions shown.
- C. Coverage and Terminations: Extend tile work into recesses and under or behind equipment and fixtures, to form a complete covering without interruptions, except as otherwise shown.
- D. Intersections and Returns: Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish or built-in items for straight aligned joints.
- E. Jointing Pattern: Unless otherwise shown, lay tile in grid pattern. Align joints when adjoining floor tile with tile, base, or trim on walls when wall tile, base or trim are same size. Layout tile work and center tile fields in both directions in each space or on each wall area. Adjust to minimize tile cutting. Provide uniform joint widths, unless otherwise shown.

-
-
- F. Expansion Joints: Locate expansion joints and other sealant filled joints, including control, contraction and isolation joints, where indicated, or if not indicated, at spacing and locations recommended by EJ 171 in the TCA "Handbook for Ceramic Tile Installation", and approved by Architect.
1. Prepare joints and apply sealants to comply with referenced installation standards and sealant manufacturer's instructions.
- G Waterproof Membrane: Install waterproof membrane, where required, to comply with manufacturer's instructions.
1. Manufacturer's Instructions: Install proprietary components to comply with manufacturer's instructions at all wet floor and wet wall areas. Wet wall areas are walls behind mop sinks, dishwasher walls, shower walls, mandated washable walls, walls that are required to receive stainless steel cladding or Marlite, etc. These walls shall receive the waterproofing membrane from floor to ceiling and extend around corners beyond the width of the sinks or counters.
 2. Flashing required in all changes in plane, dissimilar materials, plumbing fixtures, drains and through out the field.
 3. The waterproofing membrane shall extend out through wet area doors a minimum 6 feet.
 4. Prior to installation of metal stud wall bottom "C" channels, apply a layer of the waterproofing self-adhering membrane beneath the "C" channel as shown on drawings. Any and all penetrations through the "C" channel must be sealed to create a watertight condition using the waterproofing manufacturer's mastic.
- H. Install tile to comply with referenced TCA and ANSI installation standards, using setting materials indicated.
- I. Curing set tile:
1. 72 hours before grouting when the temperature is low or the humidity is high.
 2. 48 hours before grouting when hot, dry conditions exist.
 3. Check the bond strength carefully before grouting.
- J. Grout the tile to comply with referenced installation standards using grouting materials indicated.
1. Chemical Resistant, Water Cleanable Grouting Epoxy; ANSI A108.6

-
-
2. Latex Portland Cement Grout ANSI A108.10

3.04 WATER TEST

- A. A water test shall be conducted at all horizontal waterproofing locations after the membrane has had a proper cure. The water test shall provide a minimum of 1 inch of standing water for a 4 hour period. If breaches in the membrane occur, repair the membrane in accordance with the manufacturer's criteria and retest.
- B. The Tenant and General Contractor shall provide a written letter to The Irvine Company that a successful water test has been conducted.

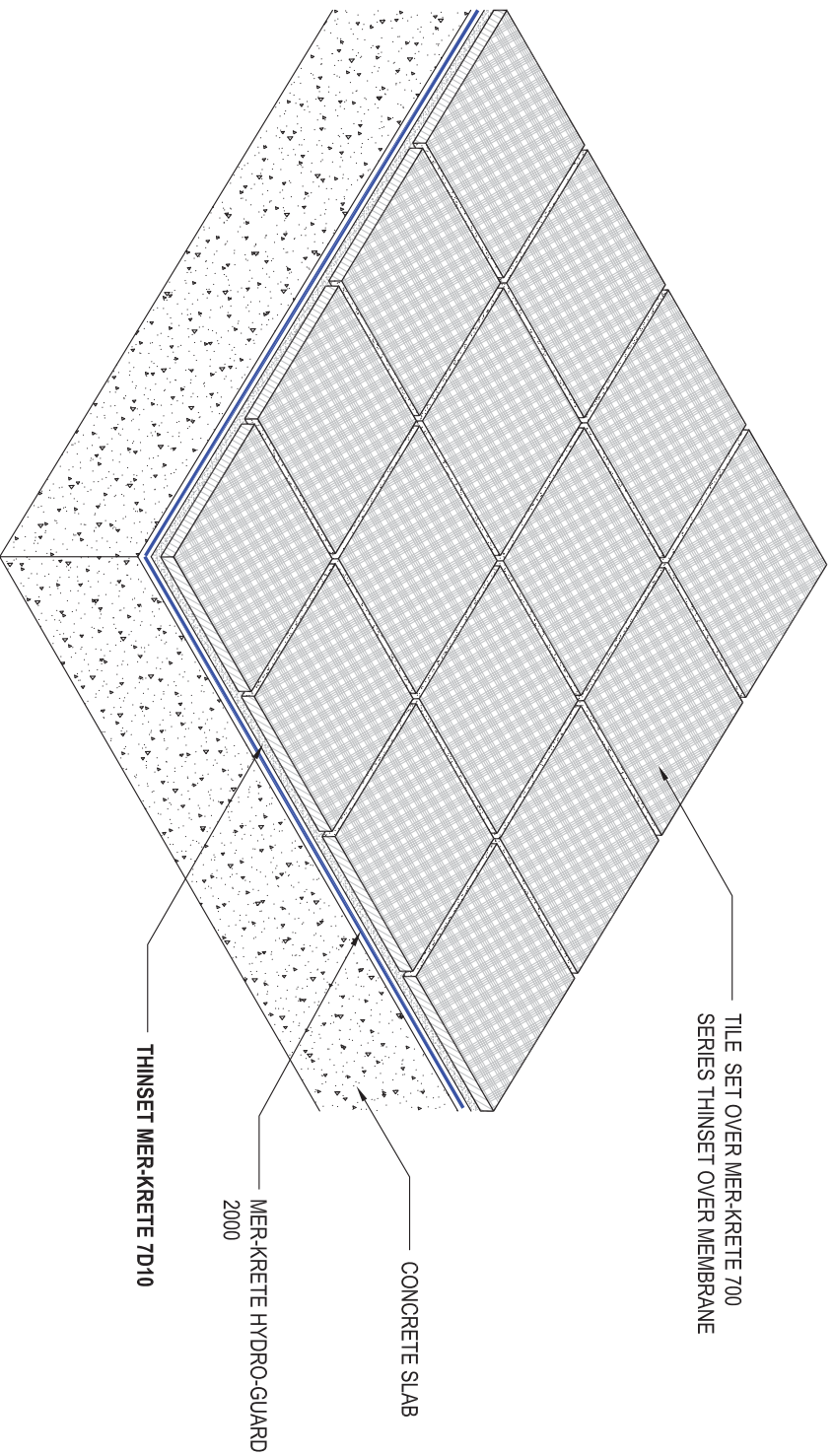
3.05 CLEANING AND PROTECTION

- A. Upon completion of setting and grouting, clean all ceramic tile surfaces so they are free of foreign matter.
- B. Acid Cleaning: Tile may be cleaned with sulfamic acid solutions complying with the following:
 1. Only if permitted by tile and grout manufacturer's printed instructions.
 2. No sooner than 14 days after installation.
 3. Protect metal surfaces, cast iron and vitreous plumbing fixtures from effects of acid cleaning.
 4. Flush surface with clean water before and after cleaning.
 5. Do not clean Chemical Resistant, Water Cleanable Grouting Epoxy (A118.3) with acid.
- C. Protection: When recommended by tile manufacturer, apply a protective coat of neutral protective cleaner to completed tile walls and floors. Protect installed tile work with Kraft paper or other heavy covering during construction period to prevent staining damage and wear.
 1. Protective Coatings: Before final inspection, remove protective coverings and rinse neutral cleaner from tile surfaces.
- D. Finished Tile Work: Leave finished installation clean and free of cracked, chipped, broken, unbonded, or otherwise defective tile work.
- E. Protect tile installation from traffic as specified in ANSI specifications.
- F. Protect tile installation from traffic according to manufacturer's instructions.

END OF SECTION

Independent Roofing Consultants

1761 E. GARRY AVE
 SANTA ANA, CA 92705
 (949) 476-8626
 (949) 476-9810 FAX
 (800) 666-7663
WWW.IRCTECH.COM



- NOTES:
1. TILE INSTALLATION PER TILE COUNCIL OF AMERICA & ANSI.
 2. MORTAR BED SHALL BE MER-KRETE "UNDER-LAY "M" TWO PART SYSTEM.

PROJECT NAME:

NOTES:

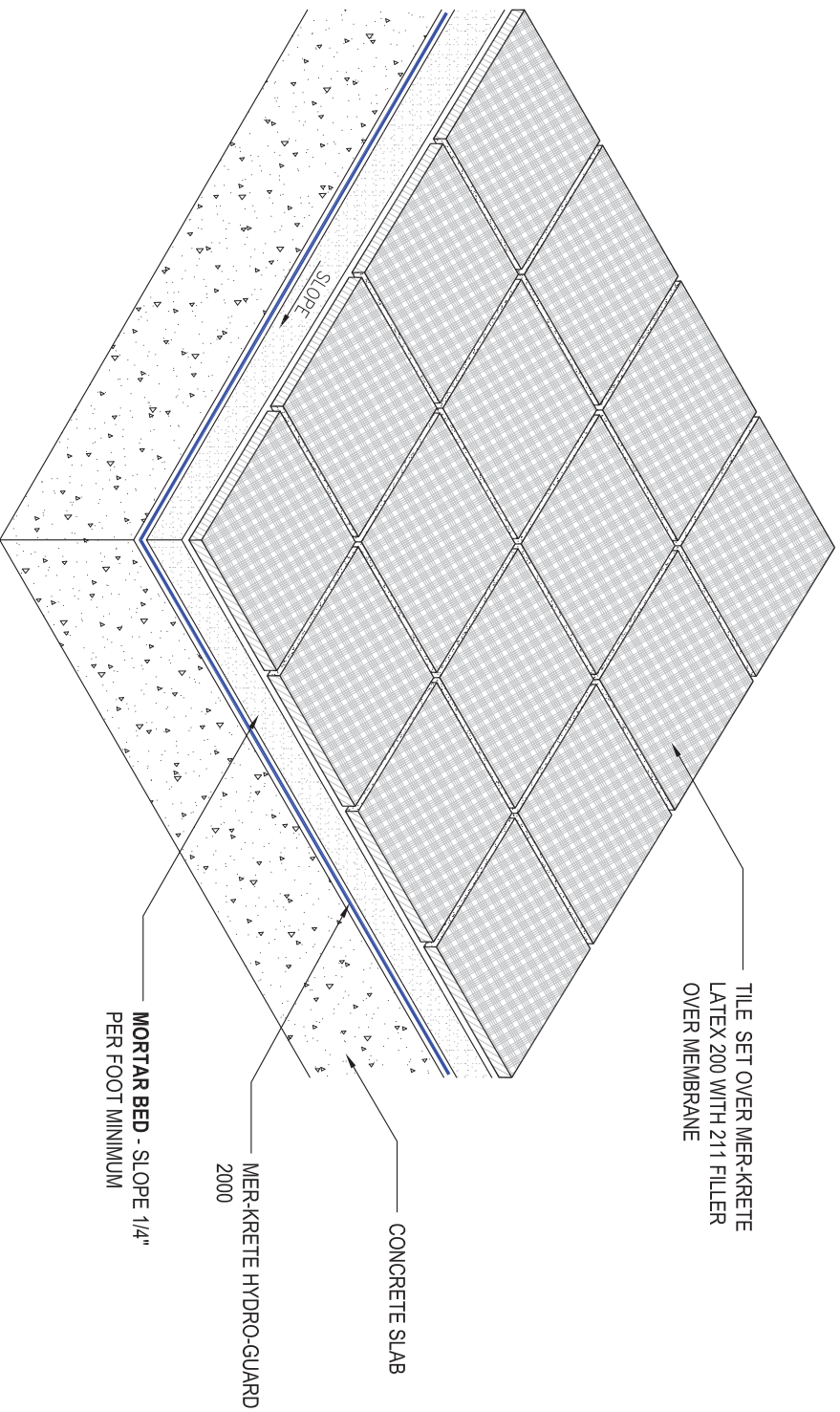
DETAIL DESCRIPTION:

TYPICAL CROSS SECTION W/THINSET APPLICATION

IRC PROJECT NO:	000000.00
DATE:	02/12/08
DRAWN BY:	BN
CHECKED BY:	PP
CAD DRAWING NO:	4025TS02
SCALE:	NOT TO SCALE

Independent Roofing Consultants

1761 E. GARRY AVE
 SANTA ANA, CA 92705
 (949) 476-8626
 (949) 476-9810 FAX
 (800) 666-7663
WWW.IRCTECH.COM



- NOTES:
1. TILE INSTALLATION PER TILE COUNCIL OF AMERICA & ANSI.
 2. MORTAR BED SHALL BE MER-KRETE "UNDER-LAY "M" TWO PART SYSTEM.

PROJECT NAME:

NOTES:

DETAIL DESCRIPTION:

TYPICAL CROSS SECTION W/MORTAR BED APPLICATION

IRC PROJECT NO: 000000.00

DATE: 02/12/08

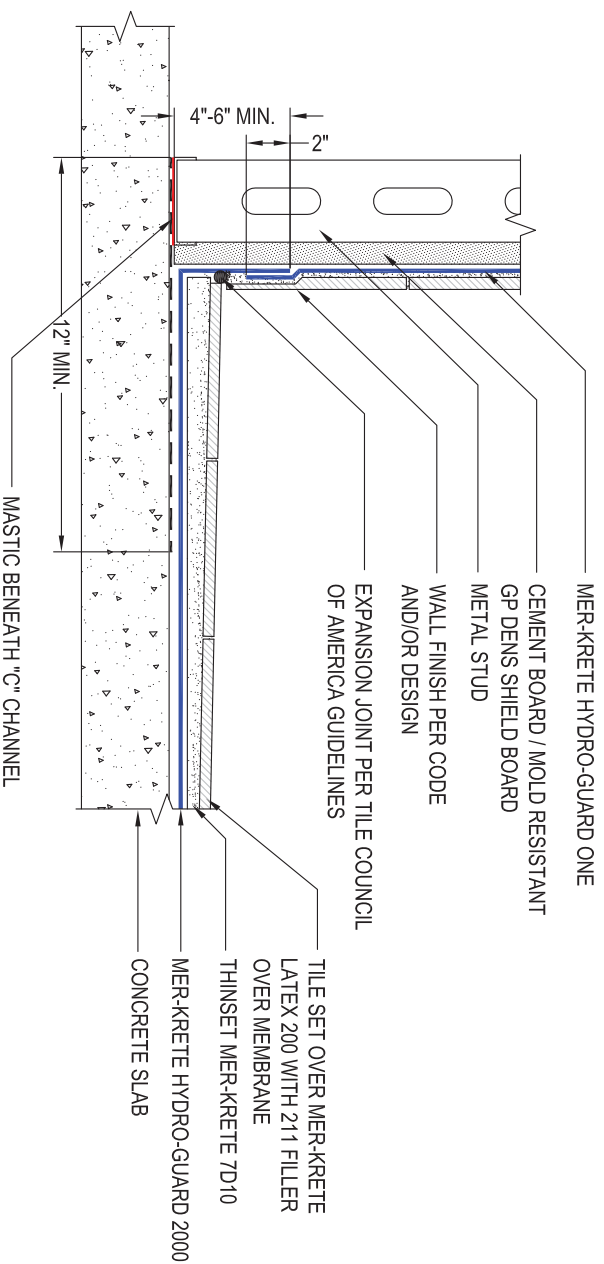
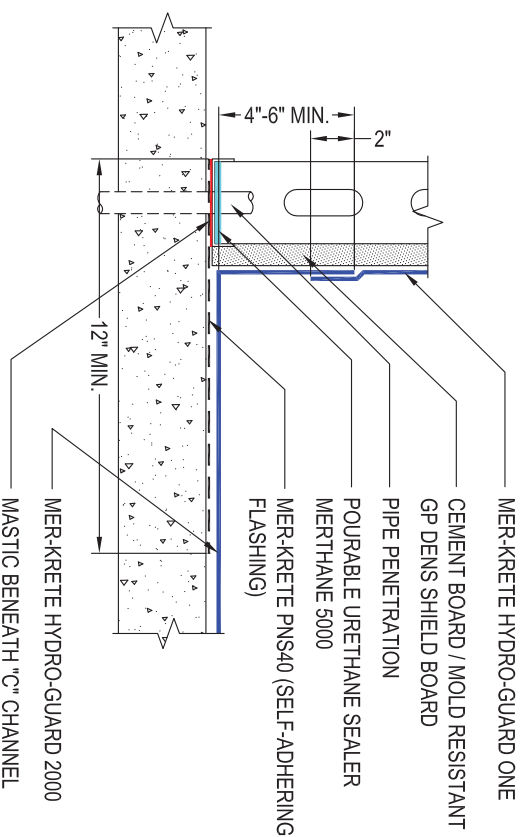
DRAWN BY: BN

CHECKED BY: PP

CAD DRAWING NO: 4025TS01

SCALE: NOT TO SCALE

2H



- NOTES:**
1. TILE INSTALLATION PER TILE COUNCIL OF AMERICA & ANSI.
 2. MORTAR BED SHALL BE MER-KRETE "UNDER-LAY" TWO PART SYSTEM.
 3. PROVIDE FOAM FILLER IF REQUIRED AROUND PIPE PENETRATION FOR CLOSING LARGE OPENINGS.

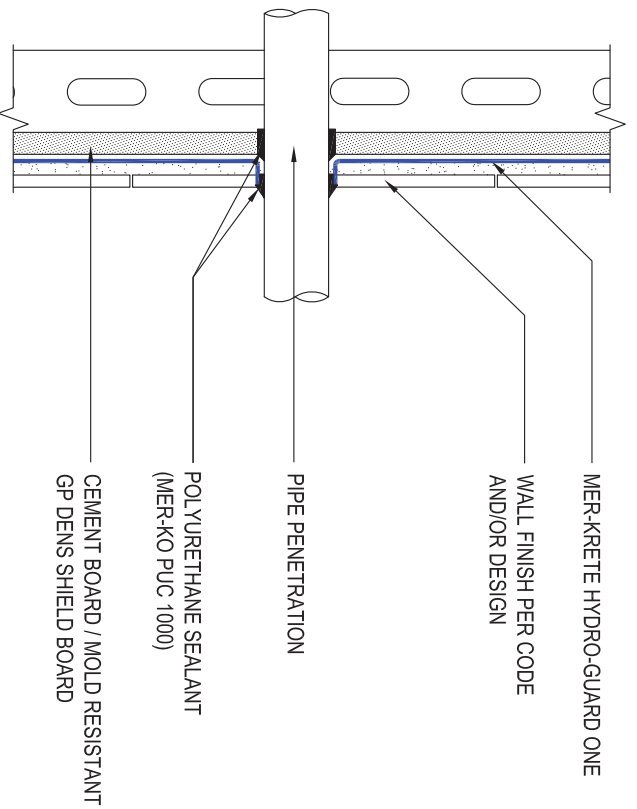
NOTES:

PROJECT NAME:

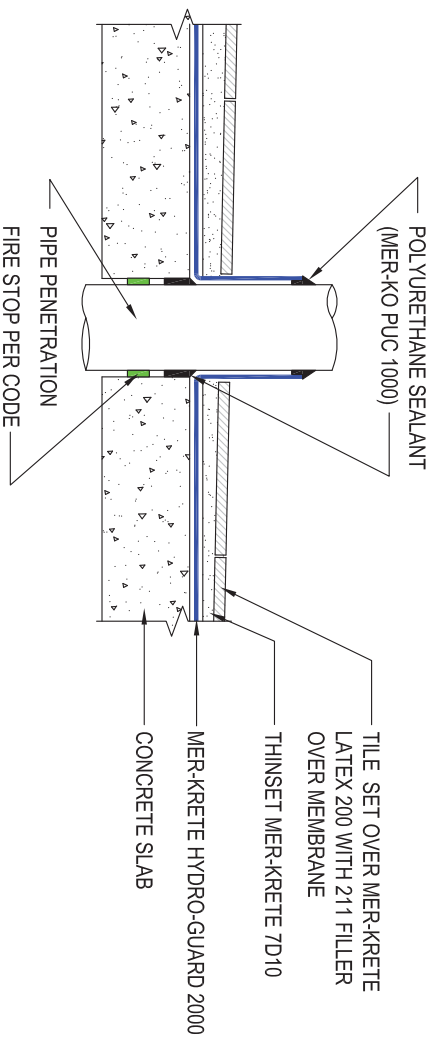
DETAIL DESCRIPTION:

**WALL-TO-FLOOR
DETAIL**

IRC PROJECT NO:	000001.00
DATE:	02/12/08
DRAWN BY:	BN
CHECKED BY:	PP
CAD DRAWING NO:	4025WD01
SCALE:	NOT TO SCALE



HORIZONTAL PENETRATION



VERTICAL PENETRATION

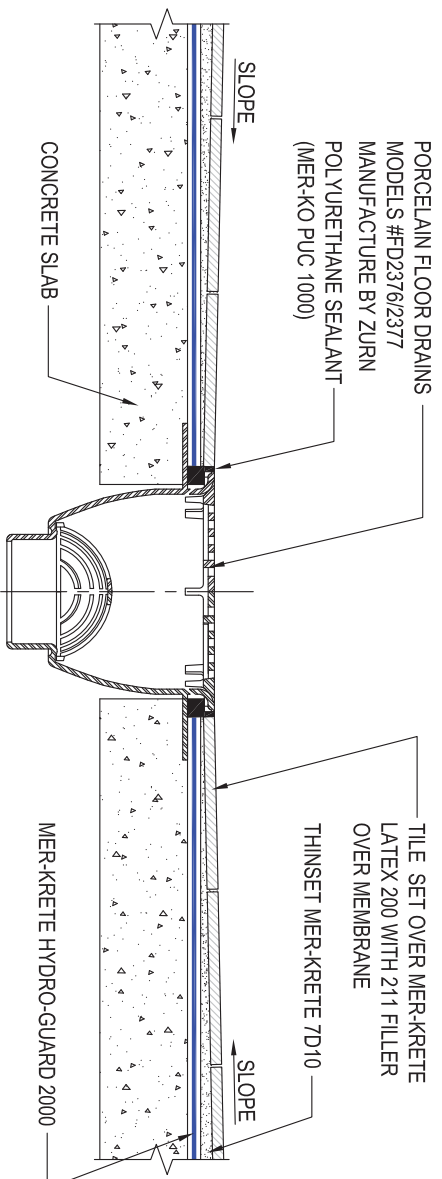
- NOTES:**
1. TILE INSTALLATION PER TILE COUNCIL OF AMERICA & ANSI.
 2. MORTAR BED SHALL BE MER-KRETE "UNDER-LAY 'M'" TWO PART SYSTEM.
 3. PROVIDE FOAM FILLER IF REQUIRED AROUND PIPE PENETRATION FOR CLOSING LARGE OPENINGS.
 4. CONCRETE FOR HORIZONTAL / DENS SHIELD FOR VERTICAL.

Independent Roofing Consultants
 1761 E. GARRY AVE
 SANTA ANA, CA 92705
 (949) 476-8626
 (949) 476-9810 FAX
 (800) 666-7663
WWW.IRCTECH.COM

PROJECT NAME:	
NOTES:	
DETAIL DESCRIPTION:	
VERTICAL & HORIZONTAL PIPE PENETRATION	
IRC PROJECT NO:	000001.00
DATE:	02/12/08
DRAWN BY:	BN
CHECKED BY:	PP
CAD DRAWING NO:	4025PP01
SCALE:	NOT TO SCALE
4H	

Independent Roofing Consultants

1761 E. GARRY AVE
SANTA ANA, CA 92705
(949) 476-8626
(949) 476-9810 FAX
(800) 666-7663
WWW.IRCTECH.COM

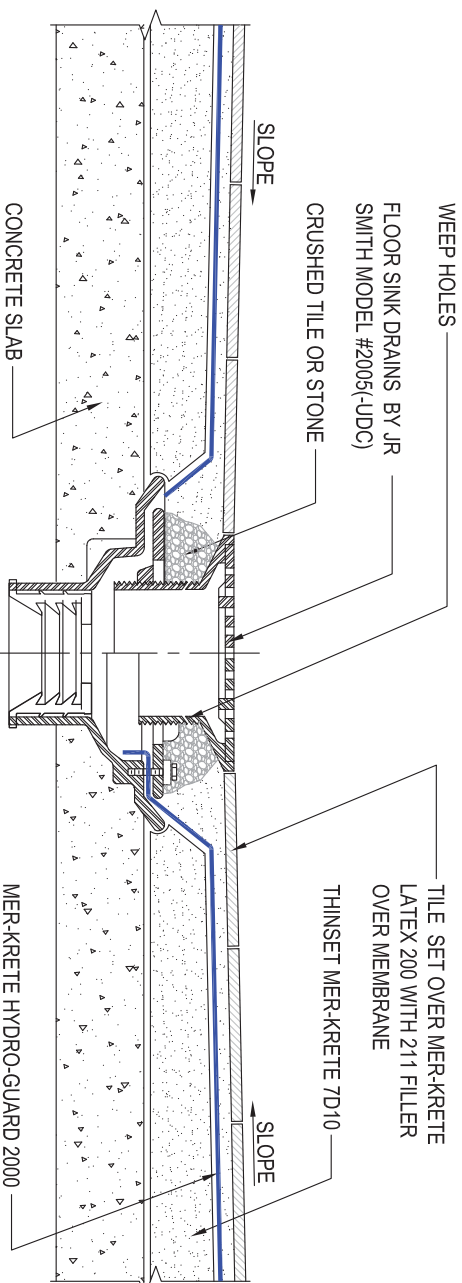


- NOTES:**
1. TILE INSTALLATION PER TILE COUNCIL OF AMERICA & ANSI.
 2. MORTAR BED SHALL BE MER-KRETE "UNDER-LAY "W" TWO PART SYSTEM.
 3. PROVIDE FOAM FILLER IF REQUIRED AROUND PIPE PENETRATION FOR CLOSING LARGE OPENINGS.

NOTES:	
PROJECT NAME:	
DETAIL DESCRIPTION:	
FLOOR SINK DRAIN	
IRC PROJECT NO:	000000.00
DATE:	02/12/08
DRAWN BY:	BN
CHECKED BY:	PP
CAD DRAWING NO:	4025FD01
SCALE:	NOT TO SCALE
5H	

Independent Roofing Consultants

1761 E. GARRY AVE
 SANTA ANA, CA 92705
 (949) 476-8626
 (949) 476-9810 FAX
 (800) 666-7663
WWW.IRCTECH.COM



- NOTES:**
1. TILE INSTALLATION PER TILE COUNCIL OF AMERICA & ANSI.
 2. MORTAR BED SHALL BE MER-KRETE "UNDER-LAY "W" TWO PART SYSTEM.
 3. PROVIDE FOAM FILLER IF REQUIRED AROUND PIPE PENETRATION FOR CLOSING LARGE OPENINGS.

NOTES:

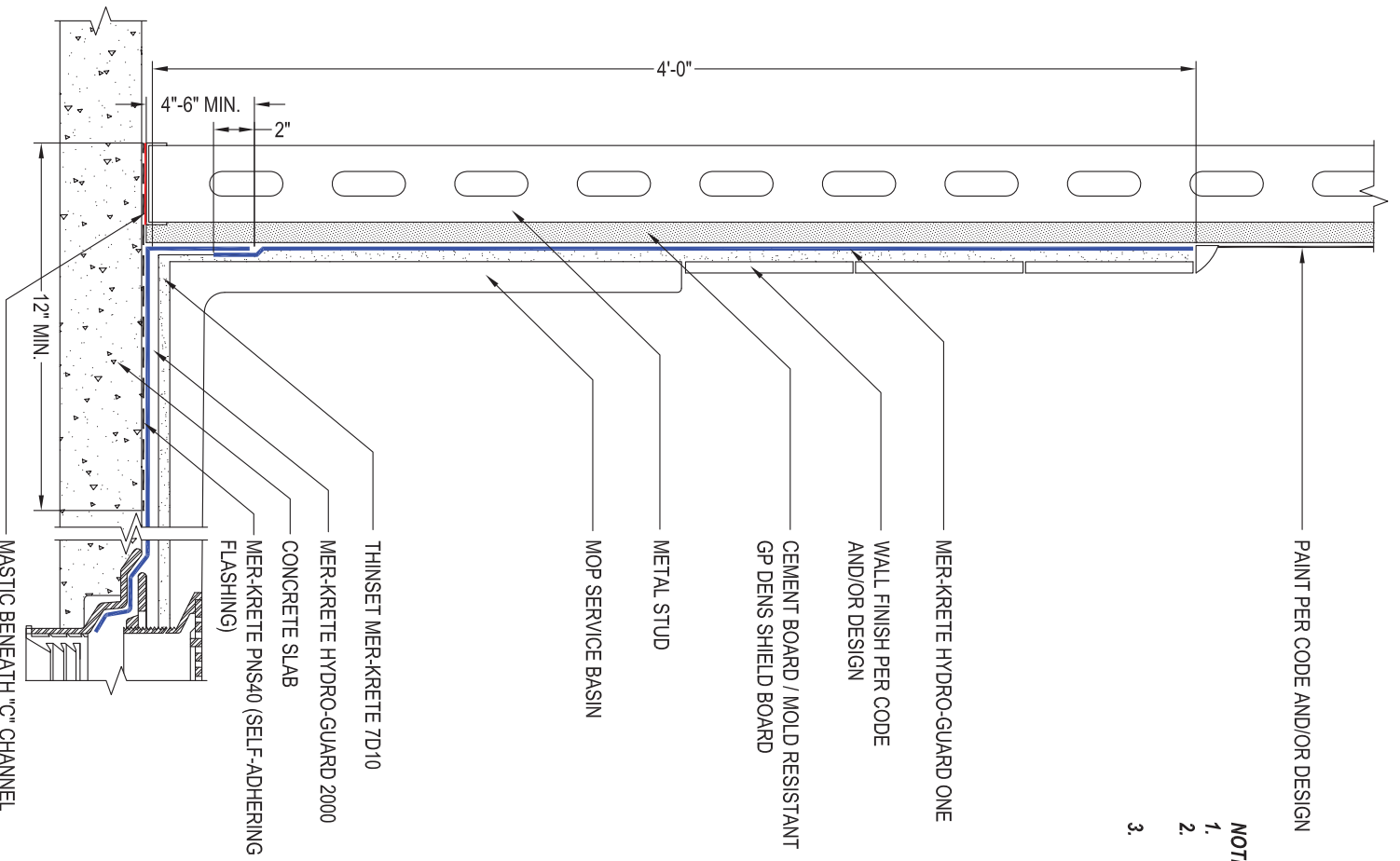
PROJECT NAME:

DETAIL DESCRIPTION:

FLOOR DRAIN

IRC PROJECT NO:	00000.00
DATE:	02/12/08
DRAWN BY:	BN
CHECKED BY:	PP
CAD DRAWING NO:	4025FD02
SCALE:	NOT TO SCALE

6H



PAINT PER CODE AND/OR DESIGN

NOTES:

1. TILE INSTALLATION PER TILE COUNCIL OF AMERICA & ANSI.
2. MORTAR BED SHALL BE MER-KRETE "UNDER-LAY"™ TWO PART SYSTEM.
3. PROVIDE FOAM FILLER IF REQUIRED AROUND PIPE PENETRATION FOR CLOSING LARGE OPENINGS.

MER-KRETE HYDRO-GUARD ONE

WALL FINISH PER CODE AND/OR DESIGN

CEMENT BOARD / MOLD RESISTANT GP DENS SHIELD BOARD

METAL STUD

MOP SERVICE BASIN

THINSET MER-KRETE 7D/10

MER-KRETE HYDRO-GUARD 2000

CONCRETE SLAB

MER-KRETE PNS40 (SELF-ADHERING FLASHING)

MASTIC BENEATH "C" CHANNEL

Independent Roofing Consultants

1761 E. GARRY AVE
 SANTA ANA, CA 92705
 (949) 476-8626
 (949) 476-9810 FAX
 (800) 666-7663
WWW.IRCTECH.COM

NOTES:

PROJECT NAME:

DETAIL DESCRIPTION:

MOP SERVICE BASIN DETAIL

IRC PROJECT NO:	000000.00
DATE:	02/12/08
DRAWN BY:	BN
CHECKED BY:	PP
CAD DRAWING NO:	4025WD02
SCALE:	NOT TO SCALE

7H