GENERAL CONDITIONS

Contractor must visit the site prior to preparing the bid to determine exact site conditions.

Contractor must identify all underground utilities prior to excavating.

Contractor shall verify all dimensions and details in the field prior to construction. Report any discrepancy to the Architect immediately.

The Contractor shall provide all items, articles, materials, operations, or methods mentioned, listed or scheduled on the Drawings, including all labor, materials, equipment, and incidentals necessary and required for their completion.

Contractor is responsible for obtaining all necessary permits before beginning the project. Permit fees are to be included in the Contract price.

The contractor is to coordinate with the Architect when services need to be disrupted.

Where there is a choice of color, pattern or texture for a product and it is not stated in the Contract Documents the Contractor is to make a submittal to the Architect.

All work shall be done in a workman like manner by qualified personnel. Finish work shall be visually acceptable as judged by the Architect. Unsatisfactory work must be corrected before the approval for final payment.

Maintain the site in a neat orderly fashion during construction and maintain access to the building to the extent possible.

Restore grass where damaged by construction.

Remove all debris caused by construction.

All work is to be guaranteed for a period of one year (or greater per product manufacturer's warranties).

SPECIFICATIONS

REMOVALS:

(Existing wood stair and landing)

- Conduct removal and construction operations to prevent damage to surrounding areas.
- Do not disturb any existing structure, piping, electrical wiring, etc. unless required by the Contract.
- Where cutting, drilling or removals are required in existing walls, floors and/or ceiling construction, investigate both sides of construction prior to starting work and perform work in accordance with the Code.
- Notching and boring shall be in compliance with the Code. Contact the Architect if structural members or unforeseen circumstances are encountered.
- Contractor shall use all means necessary to control dust caused by the Contractor's operations during performance of the Work on and near the work.
- Materials indicated to be salvaged or reused are to be removed with all necessary precautions to minimize damage. Salvaged materials are to be stored on site.
- The Contractor shall remove all debris and rubbish caused by construction.
- All materials to be removed may be disposed of by the Contractor at his/her discretion provided they are removed promptly from the site and disposed of legally.
- Do not disturb any existing landscaping.

MATERIALS:

CONCRETE:

All cements shall be portland cement conforming to ASTM C-150 Type II and shall be the product of one manufacturer; the temperature of cement delivered to the plant shall not exceed 150 degrees F.

All aggregates shall conform to ASTM C-33, except as modified herein.

Coarse aggregate shall be clean, hard, durable, and free from coatings and deleterious matter.

Fine aggregate shall consist of uniformly graded sand and be clean and hard, free from coats and soluble substances.

All water shall be clean and free from deleterious matter, suitable for domestic purpose.

All concrete reinforcement materials shall be new, free from rust, and complying with the following reference standards:

"Specifications for Deformed Billet-Steel Bars for Concrete Reinforcement" all reinforcing bars ASTM A-615, Grade 60.

"Specifications for Cold-Drawn Steel Wire for Concrete Reinforcement", ASTM A-82.

"Specifications for Wire Fabric for Concrete Reinforcement" ASTM A-185.

All other materials, not specifically described but required for a complete and proper installation of cast-in-place concrete, shall be as selected by the Contractor subject to the approval of the Architect.

Exterior flatwork shall be NYS DOT Class C with a minimum compressive strength of 4,000 psi at 28 days, aggregate to be NYS DOT Spec 501-0101, Type I, a minimum cement content of 6.44 sacks/cu.yd., a maximum slump of 4", and air entrainment of 6.5%.

CONCRETE MIX:

All concrete, unless otherwise specifically permitted by the Architect, shall be transit-mix in accordance with ASTM C-94.

Footings and foundations shall have a minimum compressive strength of 3000 psi at 28 days; a maximum aggregate size of 1-1/2"; a minimum cement content of 5.25 sacks/cubic yard; and a maximum slump of 4".

Slabs shall have a minimum compressive strength of 3000 psi at 28 days; a maximum aggregate size of 3/4"; a minimum cement content of 5.15 sacks/cubic yard; a maximum slump of 4".

Do not use admixtures unless approved by the Architect.

INSTALLATION:

Provide at least one person who shall be present at all times during execution of this portion of the Work and who shall be thoroughly trained and experienced in placing the types of concrete specified and who shall direct all work performed under this section.

In addition to complying with all pertinent codes and regulations, comply with all pertinent recommendations of "Structural Concrete for Buildings", publication ACI 301 of the American Concrete Institute.

Use all means necessary to protect formwork, reinforcement, and concrete materials before, during and after installation, and to protect the installed work and materials of all other trades.

Remove all wood scraps and debris from the areas in which concrete will be placed. Thoroughly clean the areas to ensure proper placement and bonding of concrete. Bear all footings on undisturbed soil.

Bend all bars cold. Make bends for stirrups and ties around a pin having a diameter not less than two times the minimum thickness of the bar. Make bends for other bars, including hooks, around a pin having diameter not less than six times the minimum thickness of the bar for #8 and smaller and eight times the thickness of the bar for #9 and larger.

Do not bend or straighten steel in a manner that will injure the material.

Before the start of concrete placement, accurately place all concrete reinforcement, positively securing and supporting by concrete blocks, metal chairs or spacers, or by metal hangers.

Preserve clear space between bars of not less than one time the normal diameter of round bars. In no case let the clear distance be less than 1 inch or less than 1-1/3 times the maximum size of aggregate. Provide the following minimum concrete covering of reinforcement:

a. Concrete below ground deposited against forms: 2 inches.

b. Concrete deposited against earth: 3 inches.

c. Concrete elsewhere: as indicated on the Drawings or otherwise approved by the Architect.

Place bars in horizontal members with minimum laps at splices sufficient to develop the strength of the bars. Bars may be wired together at laps. Wherever possible, stagger the splices of adjacent bars. Splice 24 bar diameters minimum.

Make all splices in wire fabric at least one mesh wide.

Do not place footings in water or on frozen ground.

Convey concrete from mixer to place of final deposit by methods that will prevent separation and loss of materials. Place concrete as dry as possible, consistent with good quality standards, never exceeding the maximum specified slump. Place concrete at such a rate that it is at all times plastic and flows readily between bare bars.

Thoroughly consolidate all concrete by suitable means during placement, working it around all embedded fixtures and into corners of forms.

FINISHING

Exterior slabs to be lightly combed with a medium stiff broom after troweling is complete. As soon as possible after finishing slabs install 4 mil clear or light colored poly curing membrane.

Coat exterior walkways and slabs with anti-spalling compound.

PIPE and TUBE RAILINGS:

PART 1- GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

B. Related Work Described Elsewhere:
1. Cast-in-Place Concrete: Section 03 30 00
2. Exterior Painting: Section 09 91 13
3. Metal Fabrications: Section 05 50 00

1.2 SUMMARY

A. This Section includes the following:
1. Exterior steel pipe and tube handrails and railing systems.

1.3 DEFINITIONS

A. Definitions in ASTM E 985 for railing-related terms apply to this section.

1.4 PERFORMANCE REQUIREMENTS

A. General: In engineering handrail and railing systems to withstand structural loads indicated, determine allowable design working stresses of railing materials based on the following:
1. Steel: 72 percent of minimum yield strength
2. Stainless Steel: 60 percent of minimum yield strength.

B. Structural Performance: Railings shall withstand the effects of gravity loads and the following loads and stresses within the limits and under conditions indicated:

1. Handrails and top of guards:
a. Uniform load of 50 lb/ft. applied in any direction.
b. Concentrated load of 200 lbs applied in any direction.
c. Uniform and concentrated loads need not be assumed to act concurrently.

2. Infill of guards and intermediate rails for handrails:
a. Concentrated load of 50 lbs applied horizontally on an area of 1 square foot.
b. Infill load and other loads need not be assumed to act concurrently.

C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on exterior metal fabrications by preventing buckling, opening of joints, overstressing of components, failure of connections and other detrimental effects.
1. Temperature Change: 120 deg F, ambient; 180 deg F material surfaces.

D. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1.5 SUBMITTALS

A. Product Data:
1. Manufacturer's product lines of mechanically connected railings.
2. Railing brackets.
3. Grout, anchoring cement, and paint products.

B. Shop drawings showing fabrication and installation of handrails and railings including plans, elevations, sections, details of components, and attachments to other units of work.

C. Samples for Initial Selection: Color samples of powder coat finishes and paint products.
1. Submit 4 color samples on 1-1/2 inch diameter by 12-inch long rail section for review and selection by owner.

D. Samples for Verification: For each type of power coating finish required.

E. Mill Certificates: Signed by manufacturers of stainless steel products certifying that products furnished comply with the requirements.

F. Welding Certificates.

1.6 QUALITY ASSURANCE

A. Single-Source Responsibility: Obtain handrails and railing systems of each type and material from a single manufacturer.

B. Welding Qualifications: Qualify procedures and personnel according to the following:
1. AWS D1.1 "Structural Welding Code - Steel."
2. AWS D1.6 "Structural Welding Code - Stainless Steel"

C. Regulatory Requirements:
Components and installation are to follow current ADA and ICC/ANSI 117.1 guidelines.

1.7 STORAGE

A. Store handrails and railing systems in clean, dry location, away from uncured concrete and masonry, protected against damage of any kind. Cover with waterproof paper, tarpaulin, or polyethylene sheeting; allow for air circulation inside the covering.

1.8 PROJECT CONDITIONS

A. Field Measurements: Where handrails and railings are indicated to fit to other construction, check actual dimensions of other construction by accurate field measurements before fabrication; show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delay of Work.

PART 2- PRODUCTS

2.1 METALS

A. General: Provide metal forms and types that comply with requirements of referenced standards and that are free from surface blemishes where exposed to view in the finished unit. Exposed to view surfaces exhibiting pitting, seam marks, roller marks, stains, discolorations, or other imperfections on finished units are not acceptable.

B. Steel Tubing: Product type (manufacturing method) and other requirements as follows:
1. Cold-Formed Cold-Drawn Buttweld Carbon Steel Mechanical Tubing: ASTM A 513.
a. Grade B, extra strong, galvanized per ASTM A 53 on inside and outside surfaces.
C. Steel Plates, Shapes, and Bars: ASTM A 36.

2.2 WELDING MATERIALS, FASTENERS, AND ANCHORS

A. Welding Electrodes and Filler Metal: Provide type and alloy of filler metal and electrodes as recommended by producer of metal to be welded and as required for color match, strength, and compatibility in fabricated items.

B. Fasteners for Anchoring Railings to Other Construction: Select fasteners of the type, grade, and class required to produce connections that are suitable for anchoring railing to other types of construction indicated and capable of withstanding design loadings.
1. For steel railings and fittings use plated fasteners complying with ASTM B 633, Class Fe/Zn 25 for electrodeposited zinc coating or ASTM B 696, Class 12 for cadmium plating.
2. Stainless-Steel: Type 316 stainless-steel fasteners.

C. Railing Mounting Brackets: Galvanized Steel or Iron Bracket.
1. Wagner, R1B Inc; a division of Wagner Companies: 1105-2
2. Elco, Julius I Co, Inc: No. 1302

2.3 GROUT AND ANCHORING CEMENT

A. Non-shrink, Nonmetallic Grout: Premixed, factory-packaged, non-staining, non-corrosive, nongaseous grout complying with ASTM C 1107. Provide grout specifically recommended by manufacturer for exterior applications.

B. Available Products: Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:
1. Non-shrink, Nonmetallic Grouts:
a. Super Per-Rok - Lambert Corporation
b. Euco N-S Grout - Euclid Chemical Co.
c. Masterflow 928 and 713 - Master Builders Technologies, Inc.
d. Sealtight 588 Grout - W.R. Meadows, Inc.
e. Sonogrout 14 - Sonneborn Building Products - ChemRex, Inc.

2.4 FABRICATION

A. General: Fabricate handrails and railing systems to comply with requirements indicated for design, dimensions, details, finish, and member sizes, including wall thickness of hollow members, post spacings, and anchorage, but not less than those required to support structural loads.

B. Preassemble railing systems in shop to greatest extent possible to minimize field splicing and assembly. Clearly mark units for reassembly and coordinated installation.

C. Form changes in direction of railing members as follows:
1. By insertion of prefabricated elbow fittings.

D. Welded Connections: Fabricate railing systems and handrails for connections of members by welding. For connections made during fabrication, weld corners and seams continuously to comply with the following:
1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At tee and cross intersections, notch ends of intersecting members to fit contour of pipe to which end is joined and weld all around.
5. At exposed connections, finish exposed welds and surfaces smooth and blended so that no roughness shows after finishing and contour of welded surface matches those adjacent.

E. Non-welded Connections: Fabricate railing systems and handrails for connection of members by means of railing manufacturer's standard concealed mechanical fasteners and fittings unless otherwise indicated. Fabricate members and fittings to produce flush, smooth, rigid, hairline joints.
1. Fabricate splice joints for field connection using epoxy structural adhesive where this represents manufacturer's standard splicing method.

F. Shear and punch metals cleanly and accurately. Remove burrs from exposed cut edges.

G. Provide weep holes or other means for evacuation of entrapped water in hollow sections of railing members.

H. Fabricate joints that will be exposed to weather in a manner to exclude water.

2.5 FINISHES, GENERAL

A. Comply with NAAMM "Metal Finishes Manual" for recommendations relative to application and designations of finishes.

B. Protect mechanical finishes on exposed surfaces from damage by application of strippable, temporary protective covering prior to shipment.

2.6 GALVANIZED FINISH

A. General: Hot-dip galvanize items indicated to be galvanized to comply with applicable standard listed below:
1. ASTM A 153 for galvanizing iron and steel hardware.
2. ASTM A 123 for galvanizing iron and steel products made from rolled, pressed and forged steel shapes, castings, plates, bars, and strips.

B. After galvanizing:
1. Fill vent and drain holes that will be exposed in the finished Work by plugging with zinc solder and filing off smooth.
2. Touch up all areas affected by finishing procedures after galvanizing with galvanizing repair paint.

C. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.

2.7 POWDER COAT FINISH

A. Prior to applying powder, the product shall be preheated to 350 degrees Fahrenheit for 20 minutes to encourage out gassing of zinc.

B. Powder Coat System: Polyester based powder applied by electrostatic spray process. Two coats minimum, each coat shall be baked at 350 degrees Fahrenheit for 30 minutes (2 to 5 mils. Per coat).

C. Provide owner with powder coat touch-up material for each color to repair minor scratches that occur after acceptance of railing systems.

PART 3 - EXECUTION

3.1 PREPARATION

A. Coordinate setting drawings, diagrams, templates, instructions, and directions for installation of anchorages, such as sleeves, concrete inserts, anchor bolts, and miscellaneous items having integral anchors, that are to be embedded in concrete as masonry construction. Coordinate delivery of such items to project site.

3.2 INSTALLATION, GENERAL

A. Fit exposed connections accurately together to form tight, hairline joints.

B. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installation of handrails and railings. Set handrails and railings accurately in location, alignment, and elevation, measured from established lines and levels and free from rack.
1. Do not weld, cut, or abrade surfaces of handrails and railing components that have been coated or finished after fabrication and are intended for field connection by mechanical or other means without further cutting or fitting.
2. Set posts plumb within a tolerance of 1/4 inch in 12 feet.
3. Align rails so that variations from level for horizontal members and from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.

C. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing handrails and railings to in-place construction.

3.3 ANCHORING POSTS

A. Adjust handrails and railing systems prior to anchoring to ensure matching alignment at abutting joints. Space posts at interval indicated but not less than that required by design loadings.

3.4 RAILING CONNECTIONS

A. Nonwelded Connections: Use manufacturer's standard mechanical or adhesive joints for permanently connecting railing components. Use wood blocks and padding to prevent damage to railing members and fittings. Seal recessed holes of exposed locking screws with plastic filler cement colored to match finish handrails and railing systems.

B. Welded Connections: Use fully welded joints for permanently connecting railing components by welding. Cope or butt components to provide 100 percent contact or use manufacturer's standard fittings designed for this purpose.

C. Expansion Joints: Install expansion joints at locations indicated but not further apart than required to accommodate thermal movement. Provide slip-joint internal sleeve extending 2 inches beyond joint on either side; fasten internal sleeve securely to one side; locate joint within 9 inches of post.

3.5 ADJUSTING AND CLEANING

A. Touch-Up Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with same material.

3.6 PROTECTION

A. Protect finishes of railing systems and handrails from damage during construction period by use of temporary protective coverings approved by railing manufacturer. Remove protective covering at time of Substantial Completion.

B. Restore finishes damaged during installation and construction period so that no evidence remains of correction work. Return items that cannot be refinished in the field to the shop; make required alterations and refinish entire unit or provide new units.

RAMP

Ramps must comply with section 1012 of the 2020 New York State Building Code and ICC A117.1.

Controlling dimensions for:

Minimum Width: 36" clear between handrails);
Handrail;
Height (above finished surface of ramp slope): 34" min., 38" max.
Clearance to wall: 1-1/2" minimum
Circular shape: outside diameter of 1-1/4" min., 2"max.
Other than circular shape: perimeter dimension of 4" min., 4-1/4" max., with 2-1/4" max. cross section

Exception: Handrails which have finger recesses may have a greater perimeter than 4 1/4". See R311.7.8.3 for a detailed description.

Extensions at Top and Bottom: extend horizontally above landing 12 inch minimum beyond top and bottom of ramp runs; return to wall, guard or floor/deck

Guard:
Required: at open sides of ramps/landings more than 30" A.F.F.
Height: 34" minimum guard

Guards whose top rail also serves as a handrail shall have a height not less than 34 inches and not more than 38 inches measured vertically from the leading edge of the stair tread nosing

Guard opening limitations: guard openings shall not allow the passage of a sphere 4 in diameter.

DIMENSIONS TAKE PRECEDENCE OVER SCALE.
CONTRACTOR TO FIELD VERIFY ALL CONDITIONS AND DIMENSIONS AND IS RESPONSIBLE FOR SAME

TITLE: GENERAL NOTES and SPECIFICATIONS

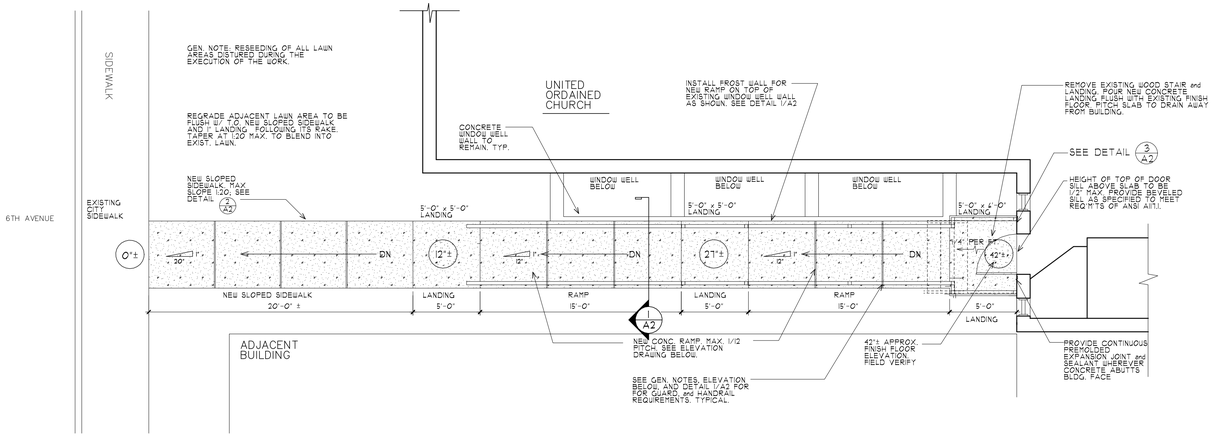
PROJECT: TCLB FACADES
3370 6th AVE
TROY, NY
CLIENT: TROY COMMUNITY LAND BANK

DATE: 12/21/2023
DRAWN BY: SB
REVISIONS:
BLK MTL RLNG per SHPO, CS 05/01/2025

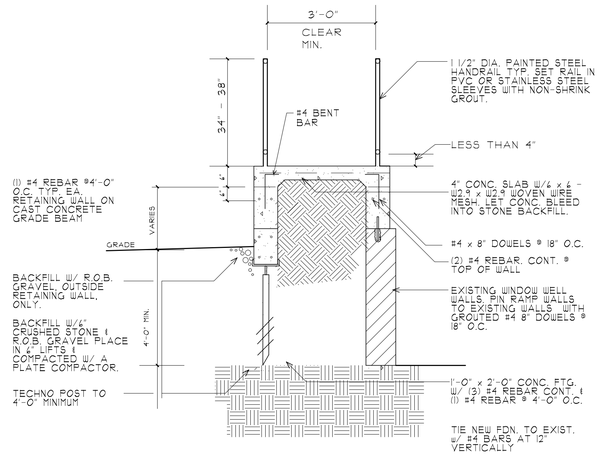
TROY ARCHITECTURE PRACTICE, PLLC.
210 RIVER ST.
TROY, NY 12180
(518) 274-3050
WWW.TAPINC.ORG
THE CAPITAL REGION'S COMMUNITY DESIGN CENTER

SHEET: A1

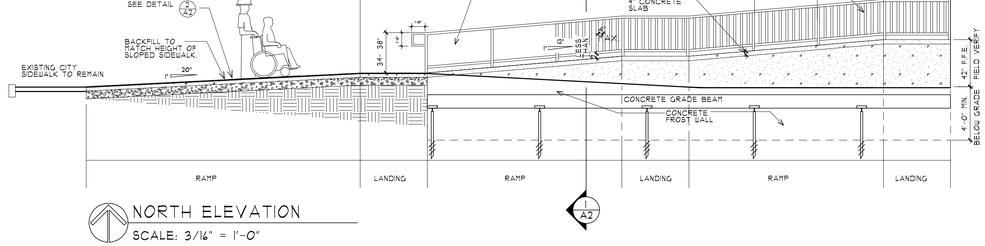
JOB: 233,026



RAMP PLAN
SCALE: 3/16" = 1'-0"

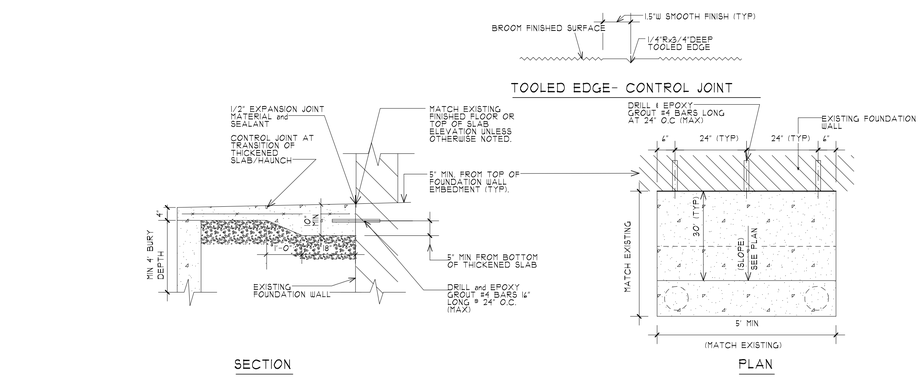


1/A2 SECTION AT RAMP
SCALE: 1/2" = 1'-0"



NORTH ELEVATION
SCALE: 3/16" = 1'-0"

2/A2 SECTION THROUGH SLOPED CONCRETE SIDEWALK
SCALE: 1-1/2" = 1'-0"

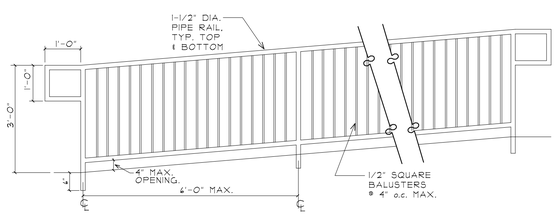


TOOLED EDGE- CONTROL JOINT

SECTION

PLAN

3/A2 CONCRETE SIDEWALK AT BUILDING ENTRANCE
SCALE: NOT TO SCALE



4/A2 TYPICAL RAMP RAILING DETAIL
SCALE: 1/2" = 1'-0"

DIMENSIONS TAKE PRECEDENCE OVER SCALE. CONTRACTOR TO FIELD VERIFY ALL CONDITIONS AND DIMENSIONS AND IS RESPONSIBLE FOR SAME

TITLE: FLOOR PLAN, ELEVATION. DETAILS

PROJECT: TCLB FACADES
3370 6th AVE
TROY, NY

CLIENT: TROY COMMUNITY LAND BANK

DATE: 12/21/2023
DRAWN BY: SB
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BLK MTL RLNG per SHPO, CS 05/01/2025

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