

PROJECT: CIANBRO / B&M
SUBJECT: MAINT. BLDG FNDN REPAIR
ITEM: GENERAL LAYOUT

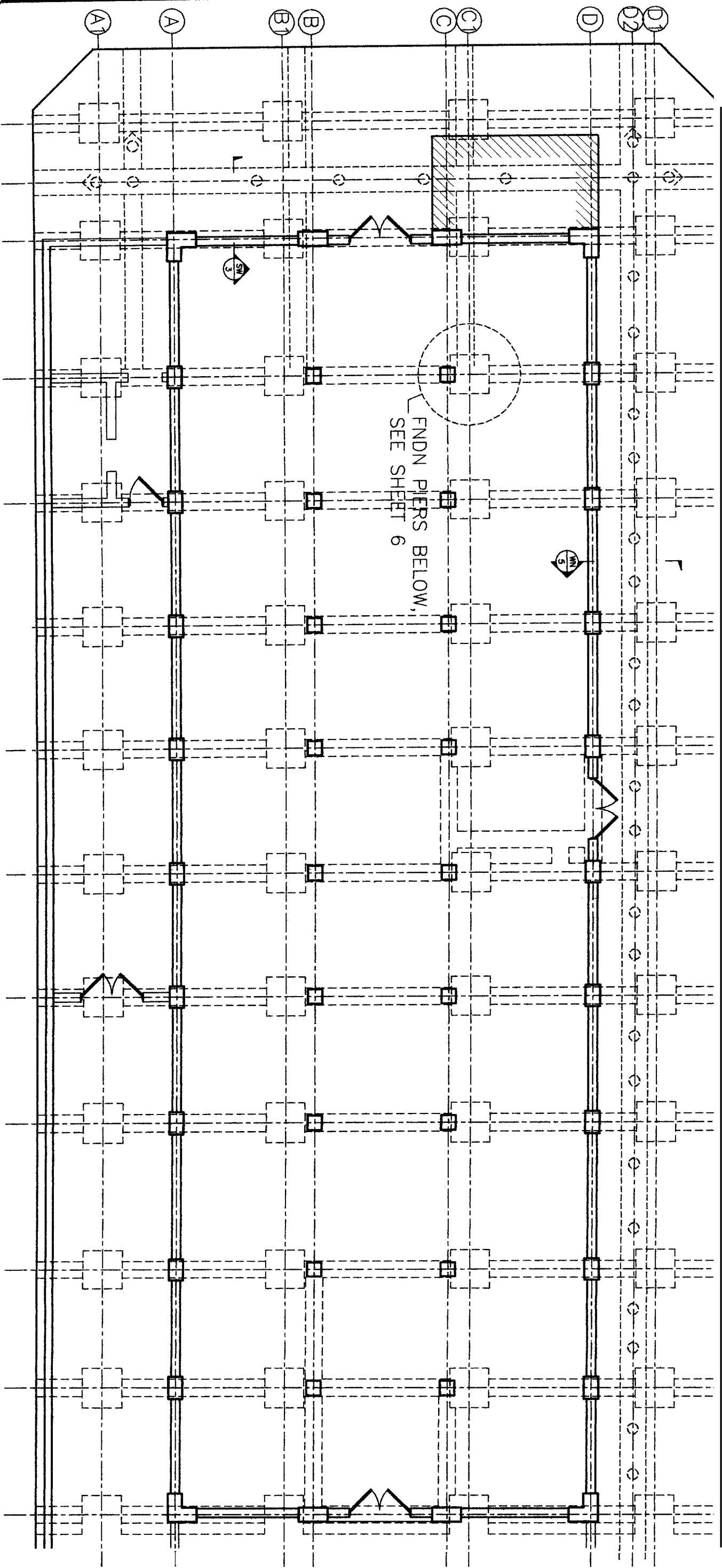
PERMIT

GAGNON ENGINEERING INC.
Structural Consultants
198 MAIN STREET
GORHAM, MAINE 04038

DATE: 12/27/05
BY: RG
SHEET: 1 OF 7
PROJECT NO. 560

4/11/06

- ①
- ①.5
- ②
- ③
- ④
- ⑤
- ⑥
- ⑦
- ⑧
- ⑨
- ⑩
- ⑪
- ⑫



⊙ & ○ = 12" Ø PILES
 [---] = NEW 30x30I BEAMS
 [---] = PROPOSED DECK (10' NOM)

KEY PLAN

SCALE: 1" = 10'-0" ±
 FNDN REPAIRS
 EXSTG & PROPOSED

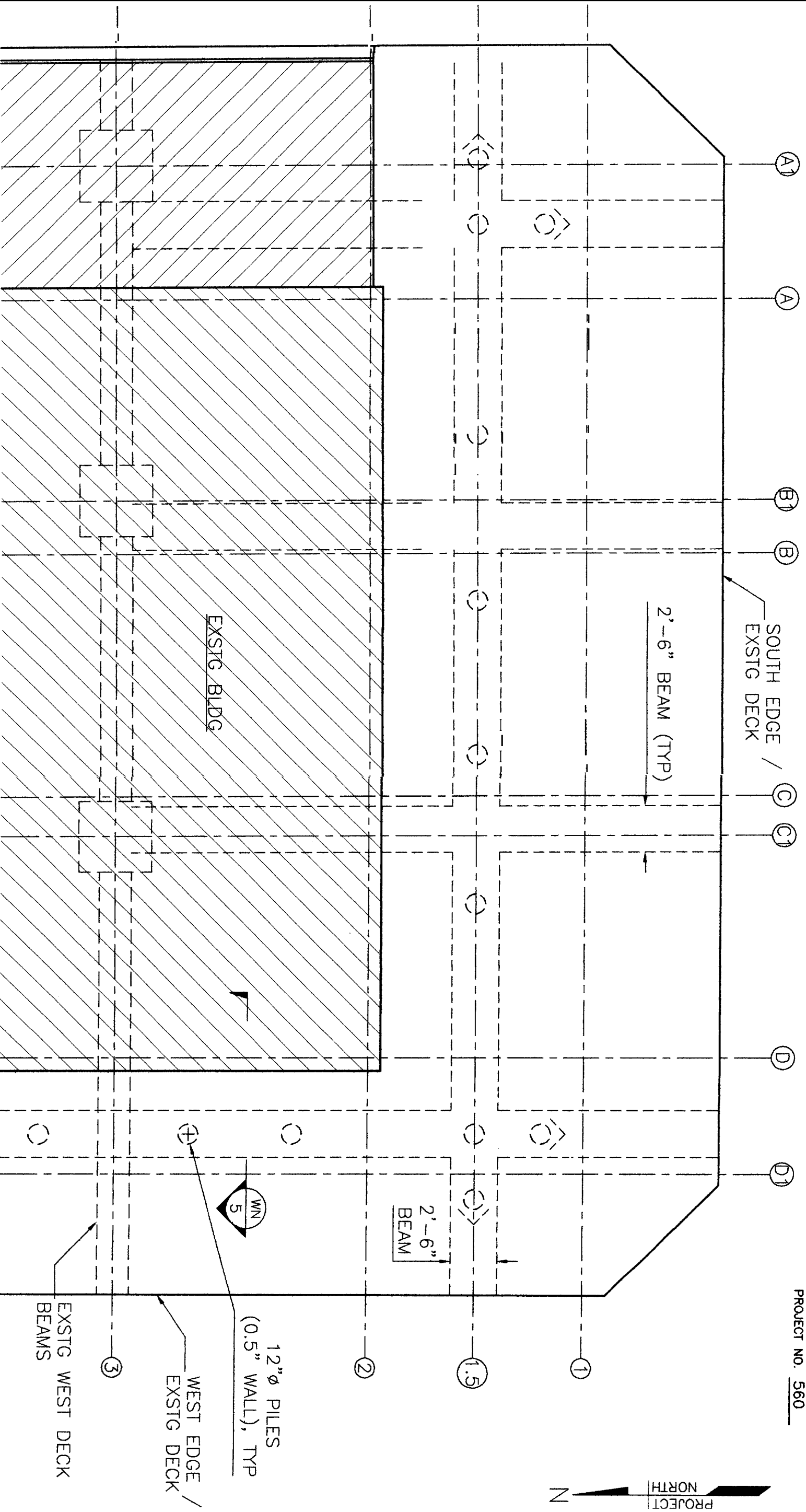
PROJECT: LIANBRU / B&M
SUBJECT: MAINT. BLDG FNDN REPAIR
ITEM: SOUTH END & WEST CORNER

PERMIT

GAGNON ENGINEERING INC.
Structural Consultants
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GORHAM, MAINE 04038

4/11/06

DATE: 12/27/05
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SHEET: 2 OF 7
PROJECT NO. 560



PLAN

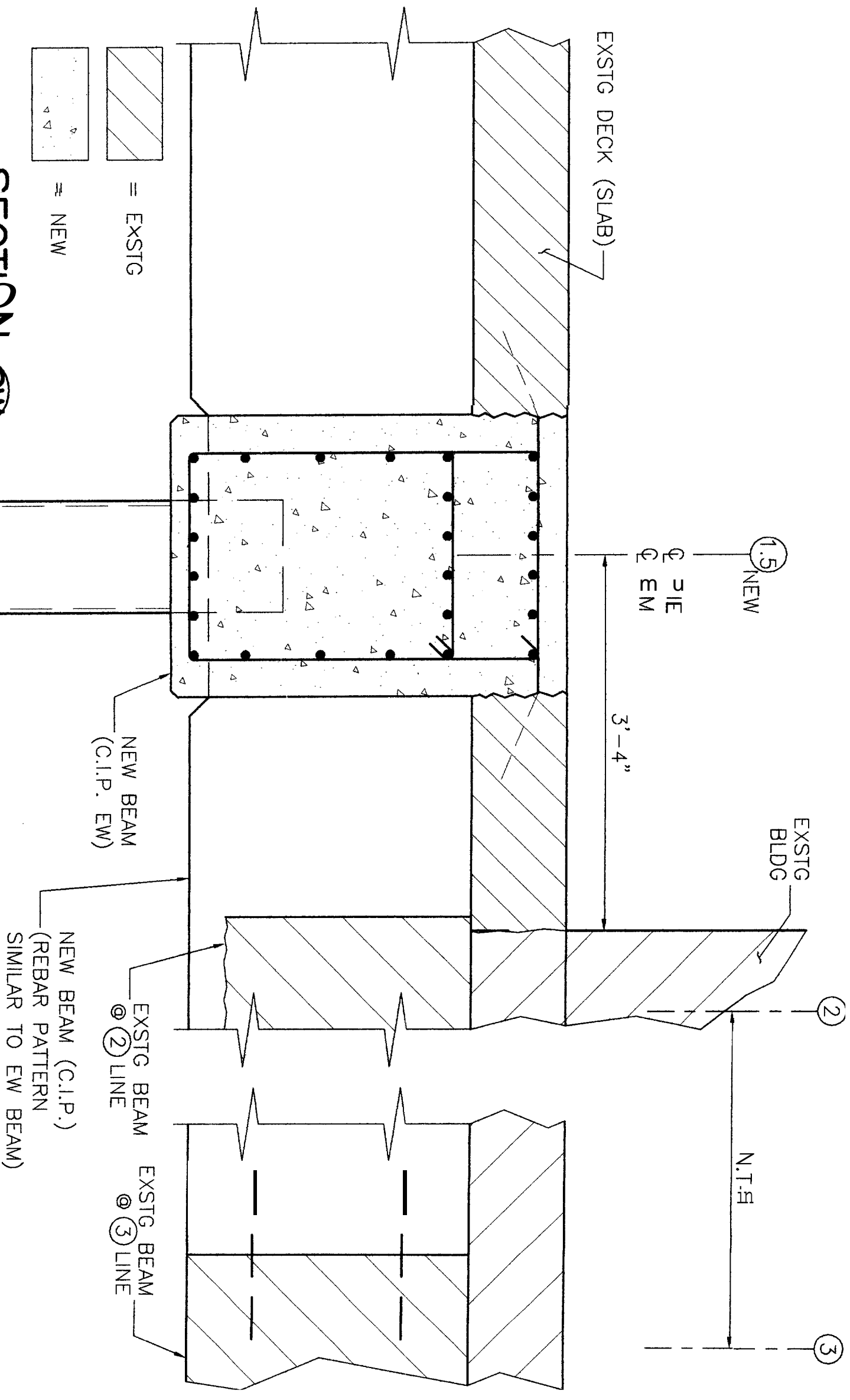
SCALE: 3/16" = 1'-0"
SOUTH END, WEST CORNER

PROJECT: LIANRKU / B&M
SUBJECT: MAINT. BLDG FNDN REPAIR
ITEM: SOUTH END SECTION

PERMIT

GAGNON ENGINEERING INC.
Structural Consultants
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GIRHAM, MAINE 04038

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SHEET: 3 OF 7
PROJECT NO. 560



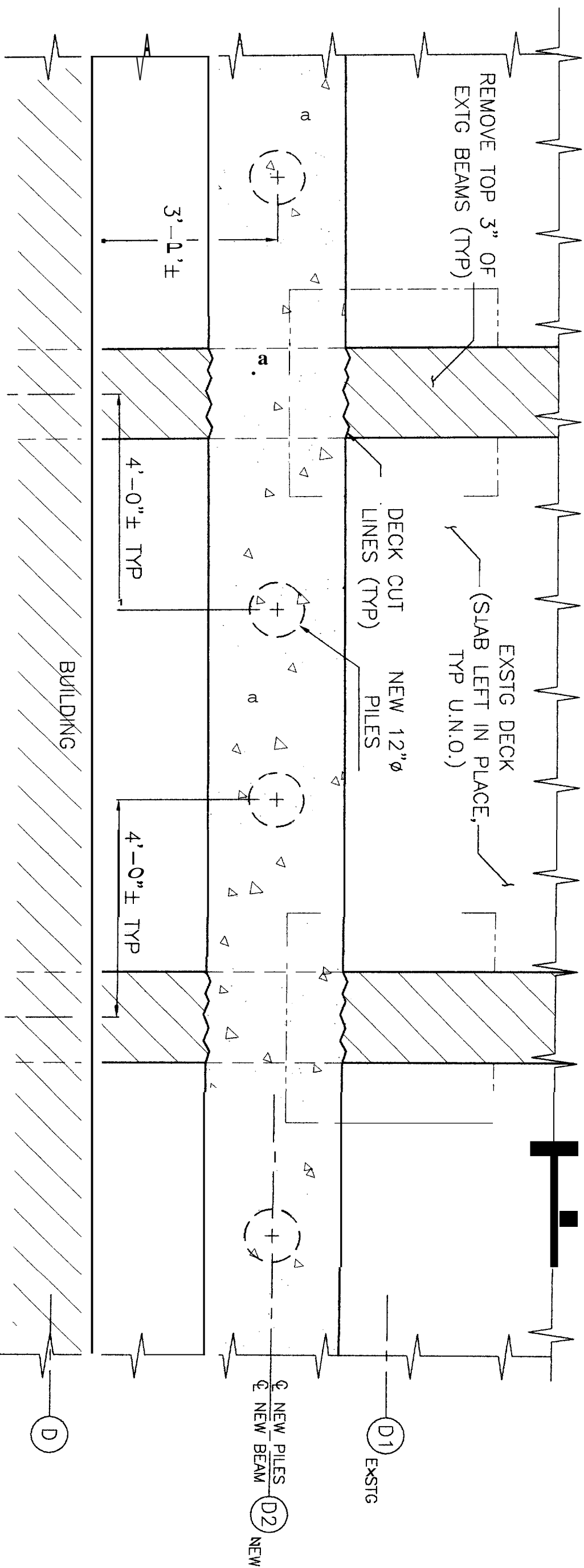
SECTION **SW** 1
SCALE: 1"=1'-0"
SOUTH END, LKG WEST

PROJECT: UNIVERSITY / D&M
SUBJECT: MAINT. BLDG FNDN REPAIR
ITEM: WEST SIDE FRAMING PLAN

PERMIT

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GERHAM, MAINE 04038

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PROJECT NO. 560



XSTG

PLAN



EXSTG

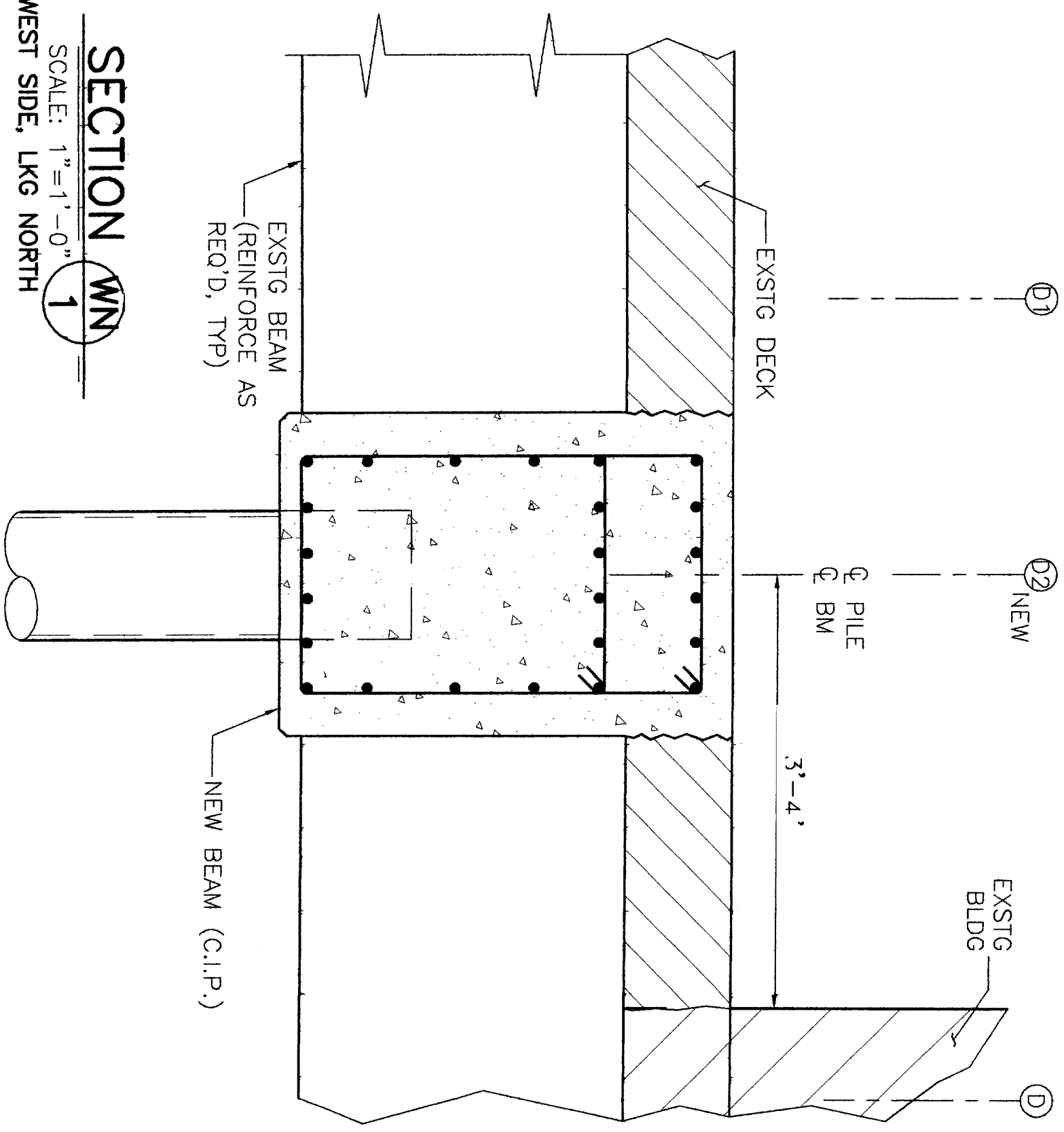
SCALE: 1/2" = 1'-0"
WEST SIDE FRAMING PLAN,
NEW PILES & BEAMS

PROJECT: UNIVERSITY / UGAM
SUBJECT: MAINT. BLDG FNDN REPAIR
ITEM: WEST SIDE SECTION

PERMIT

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SHEET: 5 OF 7
PROJECT NO. 560



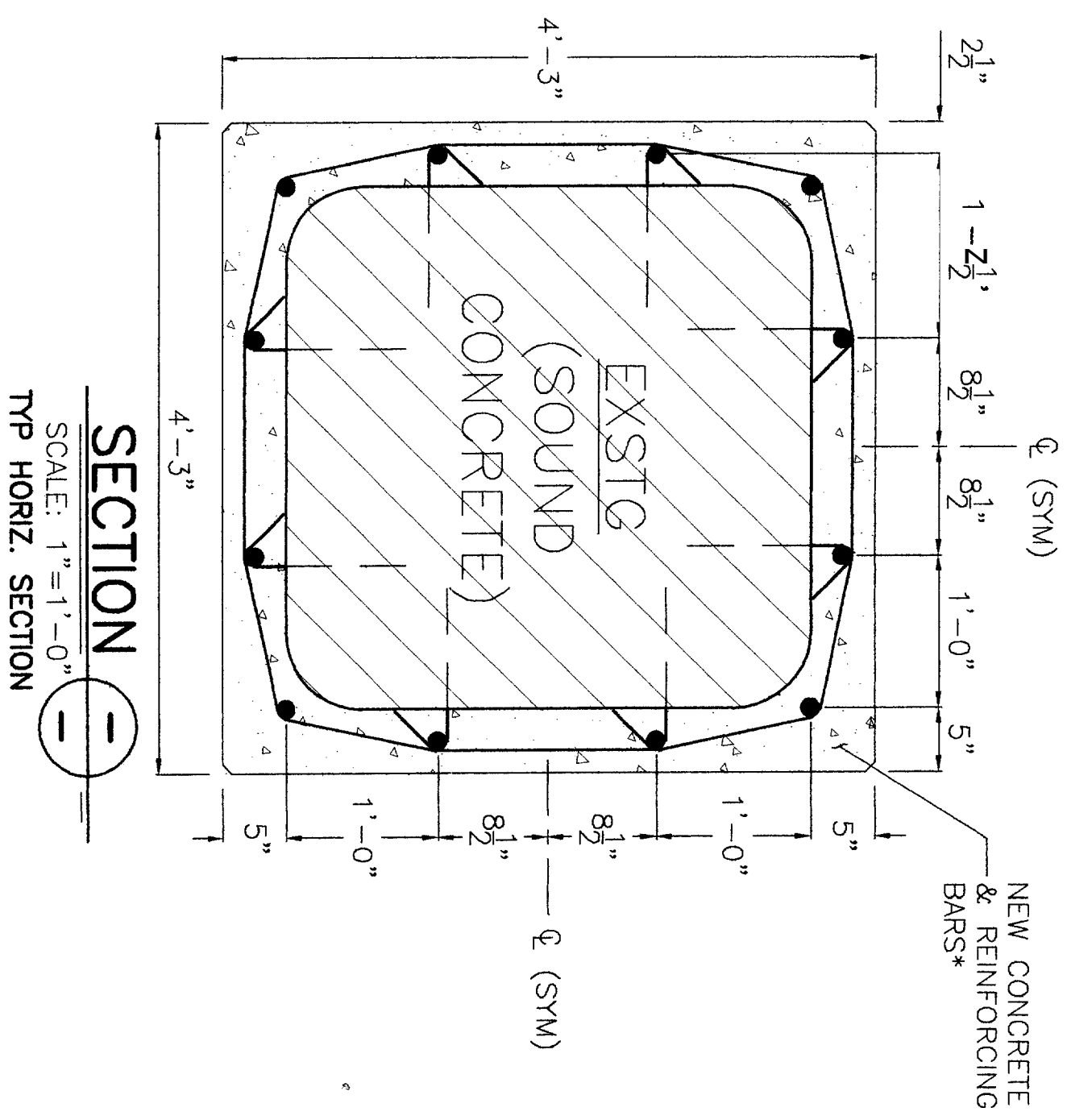
SECTION **WN**
SCALE: 1"=1'-0"
WEST SIDE, LKG NORTH

PROJECT: CIANBRO / B&M
 SUBJECT: MAINT. BLDG. FNDN REPAIR
 ITEM: UNDER BLDG PIER REPAIRS

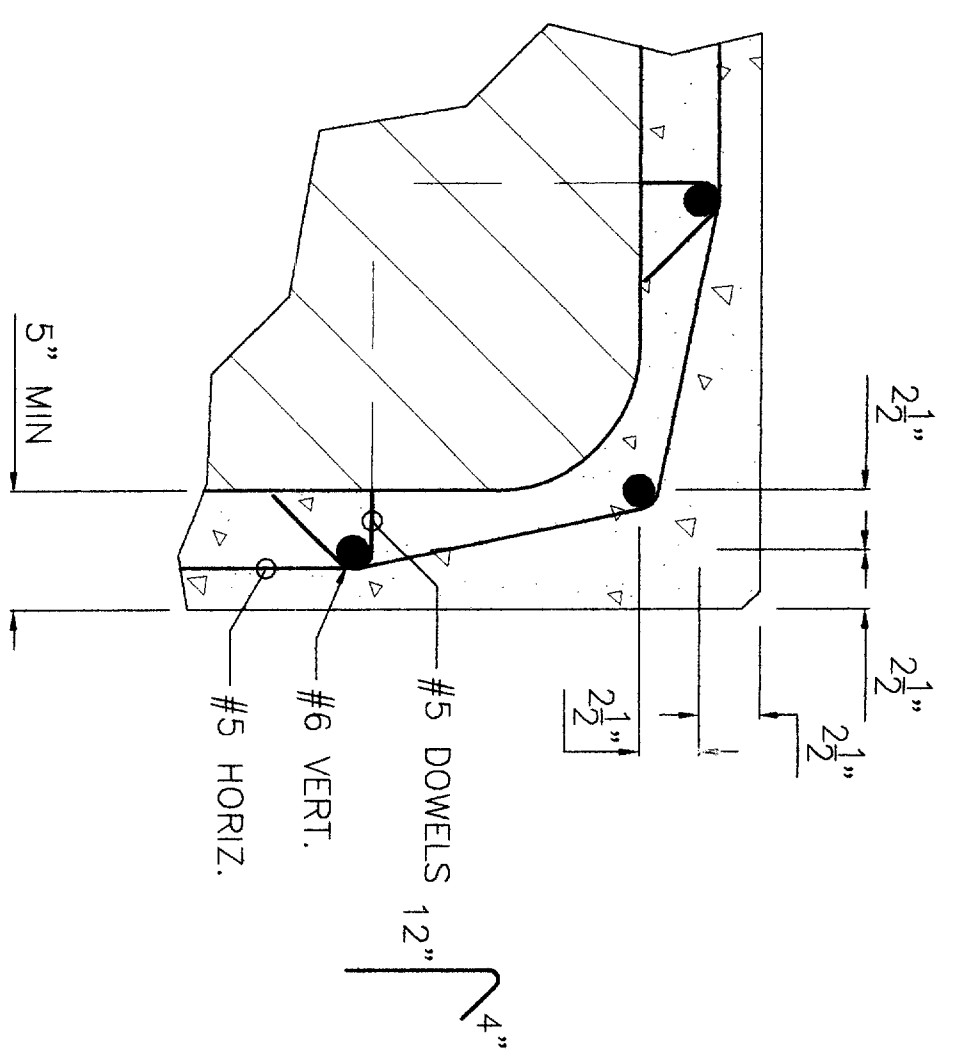
PERMIT

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 Structural Consultants
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 4/11/06 BY: RG
 SHEET: 6 OF 7
 PROJECT NO. 560



SECTION
 SCALE: 1" = 1'-0"
 TYP HORIZ. SECTION



DETAIL
 SCALE: 1-1/2" = 1'-0"
 CORNER DETAIL

***NOTE:**
 CAST ALL CONCRETE "IN THE DRY" AHEAD OF RISING TIDES.
 USE TIGHTLY FITTING FORMS. FORMS SHALL NOT BE REMOVED
 WITHIN 7 DAYS OF CONCRETE PLACEMENT.

PERMIT

GENERAL NOTES.

1. Report any Conditions that differ from the Details Presented herein. Do not proceed with dependent Work until discrepancies have been resolved by the Engineer.
2. All concrete Work shall be performed in compliance with applicable sections of ACI 301-99, "Specifications for Structural Concrete", published by the American Concrete Institute.
3. All Pile Work shall comply with applicable sections of "Standard Specifications" Maine Department of Transportation, December 2002.
4. Do not substitute Materials or Modify Details without the Written Consent of the Engineer (GEI).
5. Install proprietary Materials, Equipment, Hardware, etc. in strict compliance with the Manufacturer's recommendations. Report any conflicts with the Applications Specified herein with Manufacturer's Specifications
1. All work shall be performed in strict compliance with applicable portions of Chapter 305, Section 4 (Replacement of Structures) of the Natural Resources Protection Act (NRPA). Reference DEP PBR Notification Form Dated.
2. All Work shall be performed between start date and end date, as approved by the Department of Marine Resources (DMR). Reference DMR document?.
3. All Repair Work shall be within the "Footprint" of Existing Structure.
4. Install Marine Silt Ecom extending fully, and reaching to the High Tide Boundaries.
5. Wheeled or Tracked Equipment may not operate in the Water. Equipment operating outside of the water may reach into the water with a bucket or similar Extension.
6. All Debris and excavated materials must be removed when water (tide) levels are below the Work. Remove all Debris and Excavated Materials in advance of rising tides, remove or stock-pile beyond high tide boundaries.
7. Uncured Concrete may not be placed directly into the Water. Concrete must be placed in tightly fitting forms and cured for at least one week before removing forms. Washing of Tools forms, etc. may not occur in or adjacent to the waterbody or wetland.
8. The use of treated lumber is limited to CCA, which has been dry-land-cured at least 21 days after treatment and prior to submerged use.

MATERIALS.

1. Concrete: 5000 psi minimum 28-day compressive strength, 0.40 maximum water-cement ratio, 4 inch maximum slump at placement (after all water has been added), 5% to 7% entrained air, pre-approved admixtures for corrosion-inhibitor, water-reducer.
2. Reinforcing Bars: ASTM A615, Grade 60 Epoxy-coated deformed bars. 2.5 inch minimum concrete cover (U.N.O.).
3. Epoxy-Bonding & Grouting: High Strength, two-component, moisture-insensitive structural adhesive, ASTM C-881 compliant. SIKAdur 32, or approved equal.
4. Steel Plates & Shapes: ASTM A36 or A572/Grade 50. Hot-dip Galvanized or Epoxy-coated.
5. Concrete Anchor Bolts: ASTM A307, Hot-dip Galvanized.
6. Welding: E70XX Electrodes, AWS D1.1 procedures, Certified Welders.
7. Non-Shrink Grout: High Strength, cementitious, shrinkage-compensating (non-shrink) Grout designed for Structural Grouting (submerged saltwater service). SIKAGROUT 212, or approved equal.
8. Pipe Piles: ASTM A252 (Welded and Seamless Steel Pipe Piles), Grade 2, with either straight or Spiral Butt-welded seams.

SUBMITTALS.

1. Project Schedule
2. Concrete Mix Designs
3. Concrete Sampling and Testing Results.
4. Compliance, Installation, Preparation, Use, Restrictions, and other technical Details for Grout and Epoxy. Compliance for Hot-dip Galvanized Parts & Hardware.
5. Shop Drawings for All Reinforcing Bars and Fabricated Steel Parts.
6. Compliance Certifications for Pipe Piles, Sand-Blasting, and Epoxy-Coating. Pile-driving Records.
7. Welder Certifications.