## CAST IN PLACE CONCRETE

- 1. ALL CONCRETE WORK SHALL CONFORM TO THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" ACI 318-08 AND STRUCTURAL CONCRETE FOR BUILDINGS ACI 301.
- 2. THE MINIMUM CONCRETE PROTECTION FOR REINFORCING STEEL SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE: 3" FOR CONCRETE CAST AGAINST EARTH FORMED CONCRETE EXPOSED TO EARTH OR WEATHER: 1-1/2" NO. 5 AND SMALLER 2" FOR NO. 6 AND LARGER
- 3. CALCIUM CHLORIDE SHALL NOT BE USED ON THIS PROJECT.
- 4. CONCRETE SHALL BE ADEQUATELY PROTECTED FROM HOT OR COLD WEATHER AS REQUIRED BY ACI PUBLICATIONS 305 AND 306.
- 5. ALL CONCRETE FOR WALLS AND FOOTINGS SHALL OBTAIN A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4500PSI AT 28 DAYS. CONCRETE FOR THE SLABS SHALL OBTAIN A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4500PSI AT 28 DAYS
- 6. THE SLAB SHALL BE A MINIMUM OF 6" THICK .
- 7. THE MAXIMUM WATER/CEMENT RATIO SHALL BE 0.45 FOR WALLS
- 8. MAXIMUM SLUMP SHALL BE 3-1/2" WITHOUT MID RANGE WATER REDUCERS AND 6" ( $\pm 1$ ") WITH MID RANGE WATER REDUCERS.
- 9. ALL CONCRETE EXPOSED TO FREEZING AND THAWING SHALL INCLUDE AIR ENTRAINING ADD MIXTURES. MAXIMUM AIR CONTENT AT DELIVERY SHALL BE 6% ±1.5%. THE INTERIOR SLAB WITHIN HEATED AREAS, SHALL NOT HAVE AIR ENTRAINING ADD MIXTURES. MAXIMUM AIR CONTENT 3.5%.
- 10. AT ALL CONCRETE WALL CORNERS AND INTERSECTIONS, PROVIDE HORIZONTAL BENT BARS OF THE SAME SIZE AND GRADE AS THE HORIZONTAL WALL REINFORCEMENT. PROVIDE MINIMUM 18" OVERLAP.

## REINFORCING STEEL

NO. 200

- 1. ALL REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BARS. THE AMOUNT OF FOUNDATION STEEL SHALL BE INCREASED PER THE ENGINEER'S REQUIREMENTS IF A LESSER STEEL GRADE IS USED. THE ENGINEER MUST BE NOTIFIED IF THIS IS TO BE THE CASE.
- 2. ALL REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST ACI DETAILING MANUAL AND SPECIFICATIONS.
- 3. WHERE CONTINUOUS BARS ARE SPECIFIED, OR REQUIRED, THEY SHALL RUN CONTINUOUSLY AROUND CORNERS LAPPED AT SPLICES, WITH SPLICES STAGGERED AND HOOKED AT DISCONTINUOUS ENDS. LAP LENGTHS SHALL BE A MINIMUM OF 36 BAR DIAMETERS OF THE LARGER BAR.

## SOIL GRADATION AND COMPACTION SPECIFICATIONS

SUITABLE STRUCTURAL FILL SHALL BE CLEAN, NON-FROST SUSCEPTIBLE, SAND AND GRAVEL FREE OF ORGANICS AND OTHER DELETERIOUS MATERIALS MEETING THE FOLLOWING GRADATION:

CLEAN GRANULAR FILL

SIEVE SIZE
3 INCH
100
3/4 INCH
60-90
NO. 40
20-70
NO. 200
2-8

STRUCTURAL FILL
SIEVE SIZE
% PASSING BY WEIG

 SIEVE SIZE
 % PASSING BY WEIGHT

 5 INCH
 100

 3" INCH
 60-100

 NO. 4
 20-80

ALL CLEAN GRANULAR FILL OR STRUCTURAL FILL SHALL BE PLACED IN MAXIMUM 8" LIFTS AND COMPACTED TO 95% MAXIMUM DRY DENSITY.

NOTE:
CONC. SLAB FINISH SHALL BE IN
ACCORDANCE W/ ARCH. REQUIREMENTS

## SHEET C12 NOTES:

1. ALL HANDRAILS AND RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE ADA ACCESSIBILITY GUIDELINES.

2. ALL RAMPS SHALL HAVE A MINIMUM CLEAR WIDTH OF 4'-3" AFTER THE INSTALLATION OF RAILINGS.

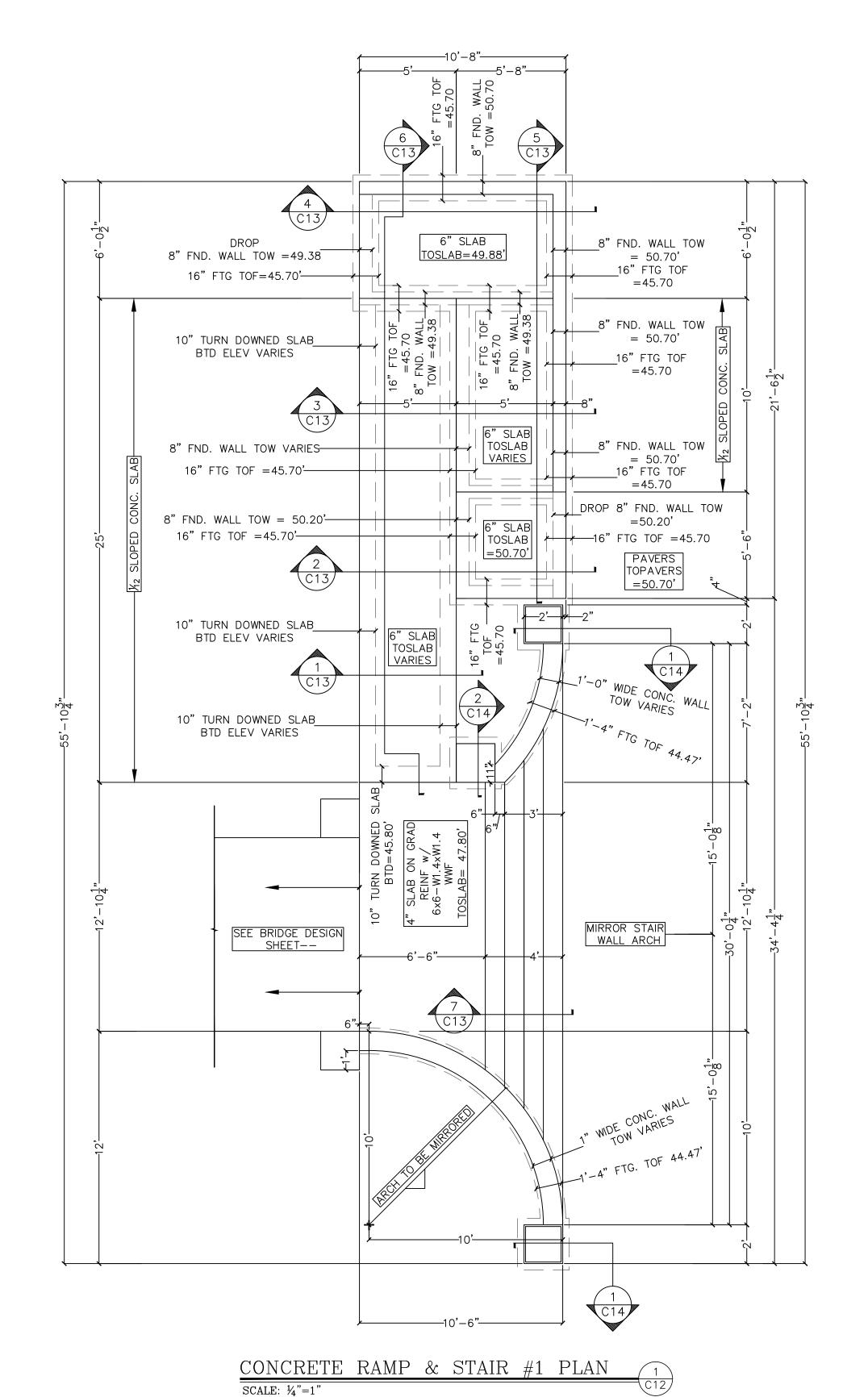
3. THE RAMP LANDING SHALL HAVE A MINIMUM CLEAR WIDTH OF 5'-0" AFTER THE INSTALLATION OF RAILINGS.

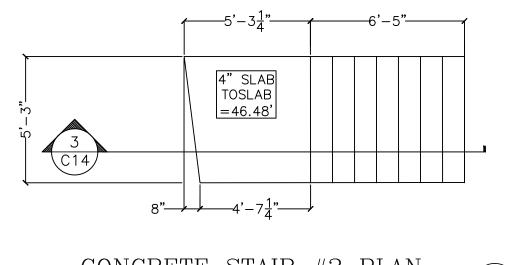
4. HANDRAILS SHALL BE CONTINUOUS AT THE TRANSITION FROM THE RAMP TO THE STAIRS.

5. AS SHOWN, RAILINGS SHALL BE MOUNTED FROM THE TOP OF THE RAMP.

6. ALL HANDRAIL SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

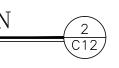
7. THE RAILING SHALL BE CONSTRUCTED SUCH THAT A 4" DIAMETER BALL WILL NOT PASS THROUGH IT AT ANY LOCATION.

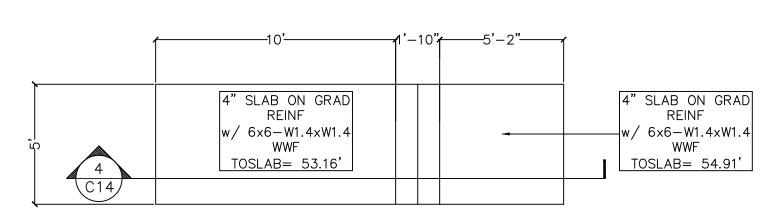




CONCRETE STAIR #2 PLAN

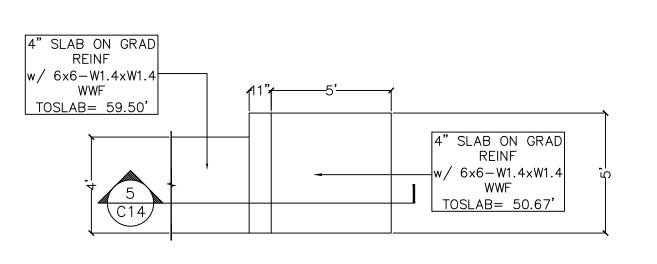
SCALE: 1/4"=1"





CONCRETE STAIR #3 PLAN

SCALE: 1/4"=1"



CONCRETE STAIR #4 PLAN

SCALE: ¼"=1"

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C12