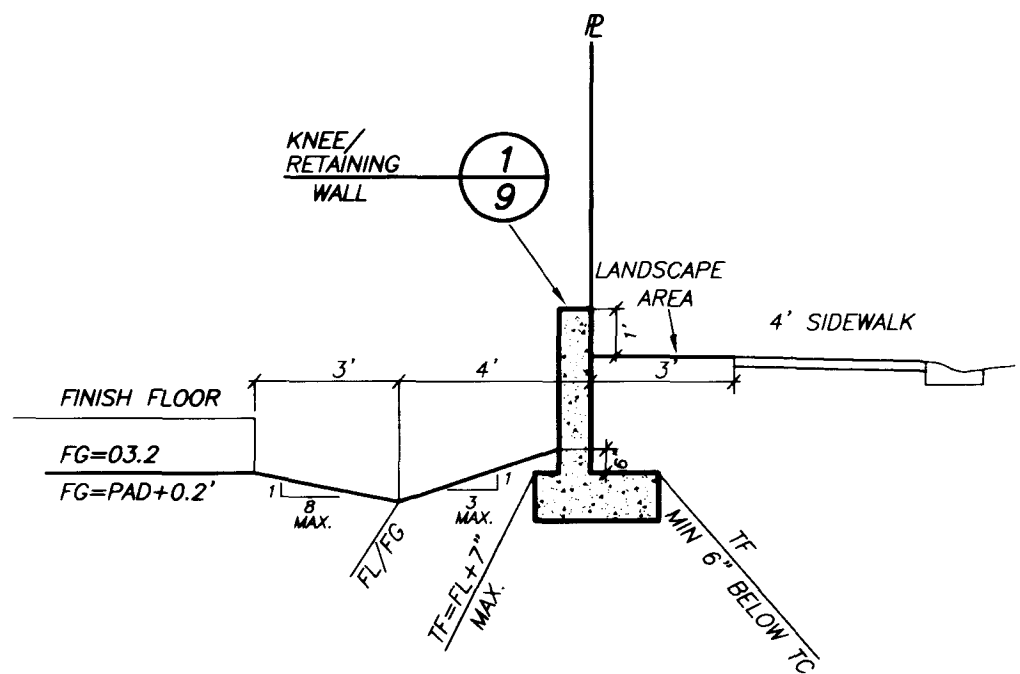
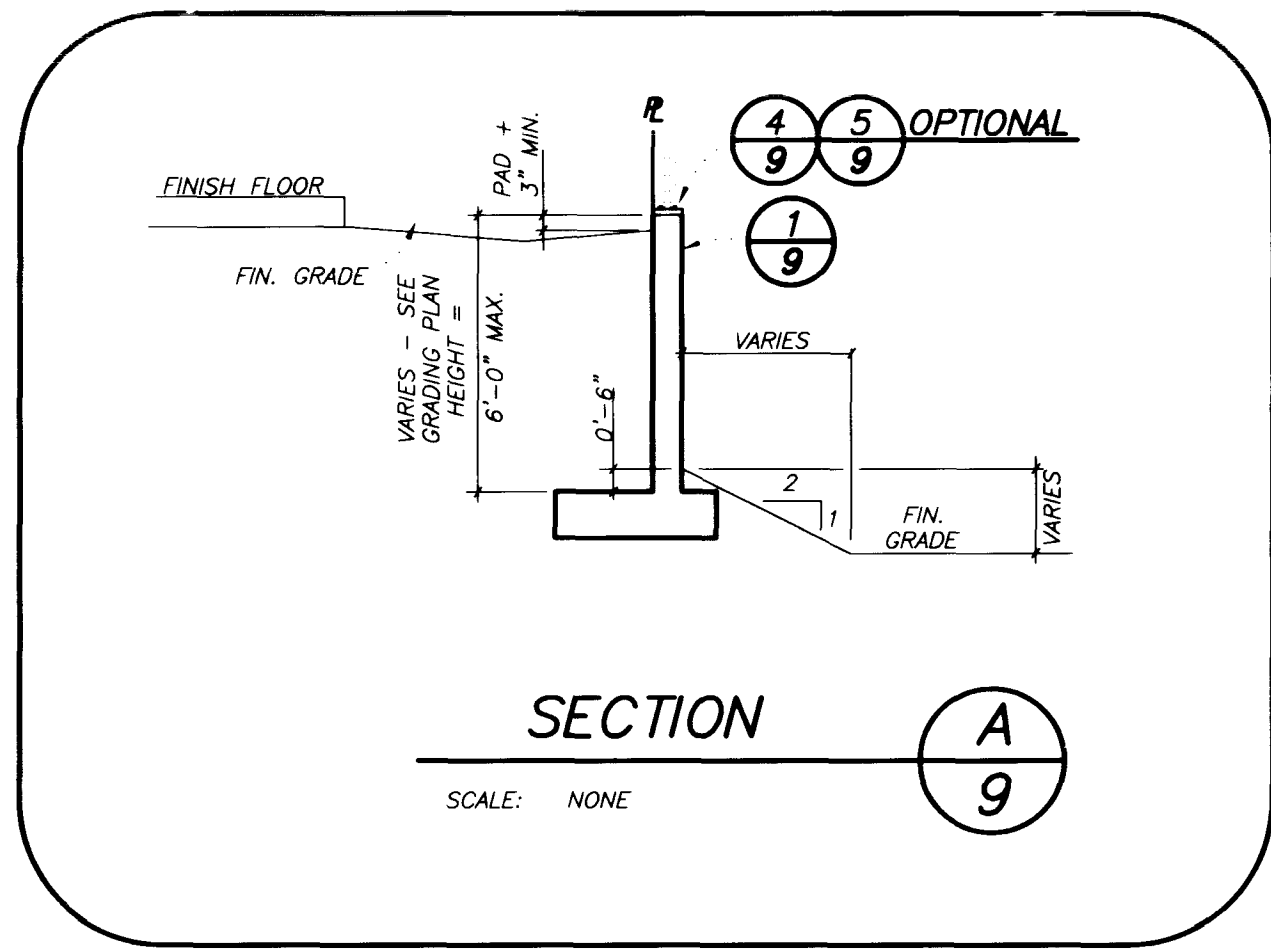
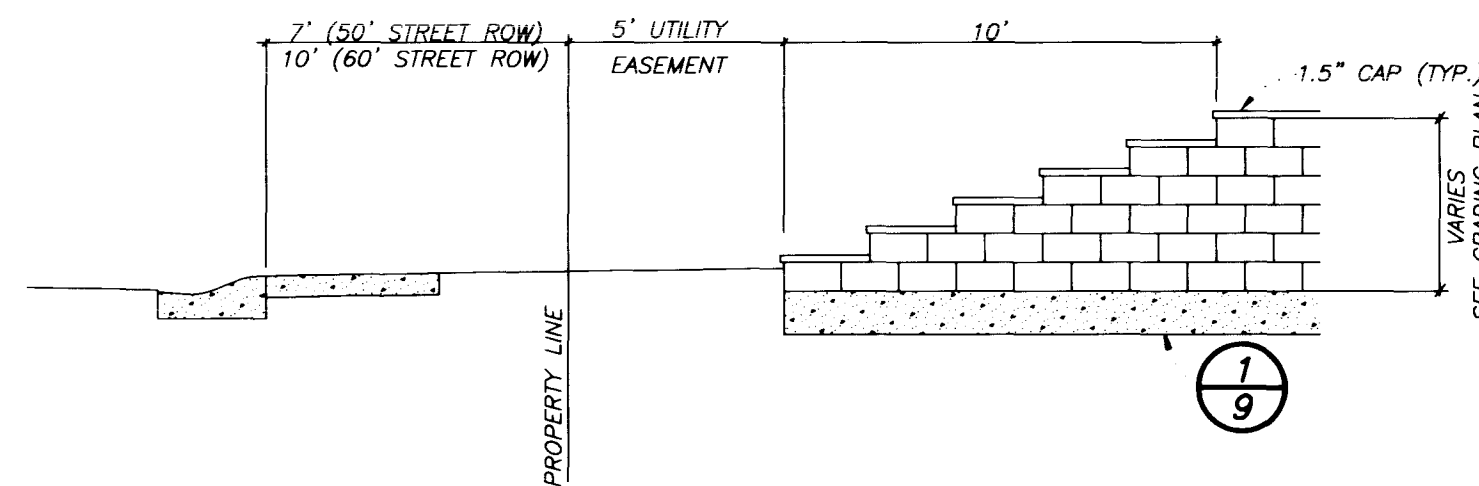




SIDE YARD CORNER LOT SECTIONS 6
9

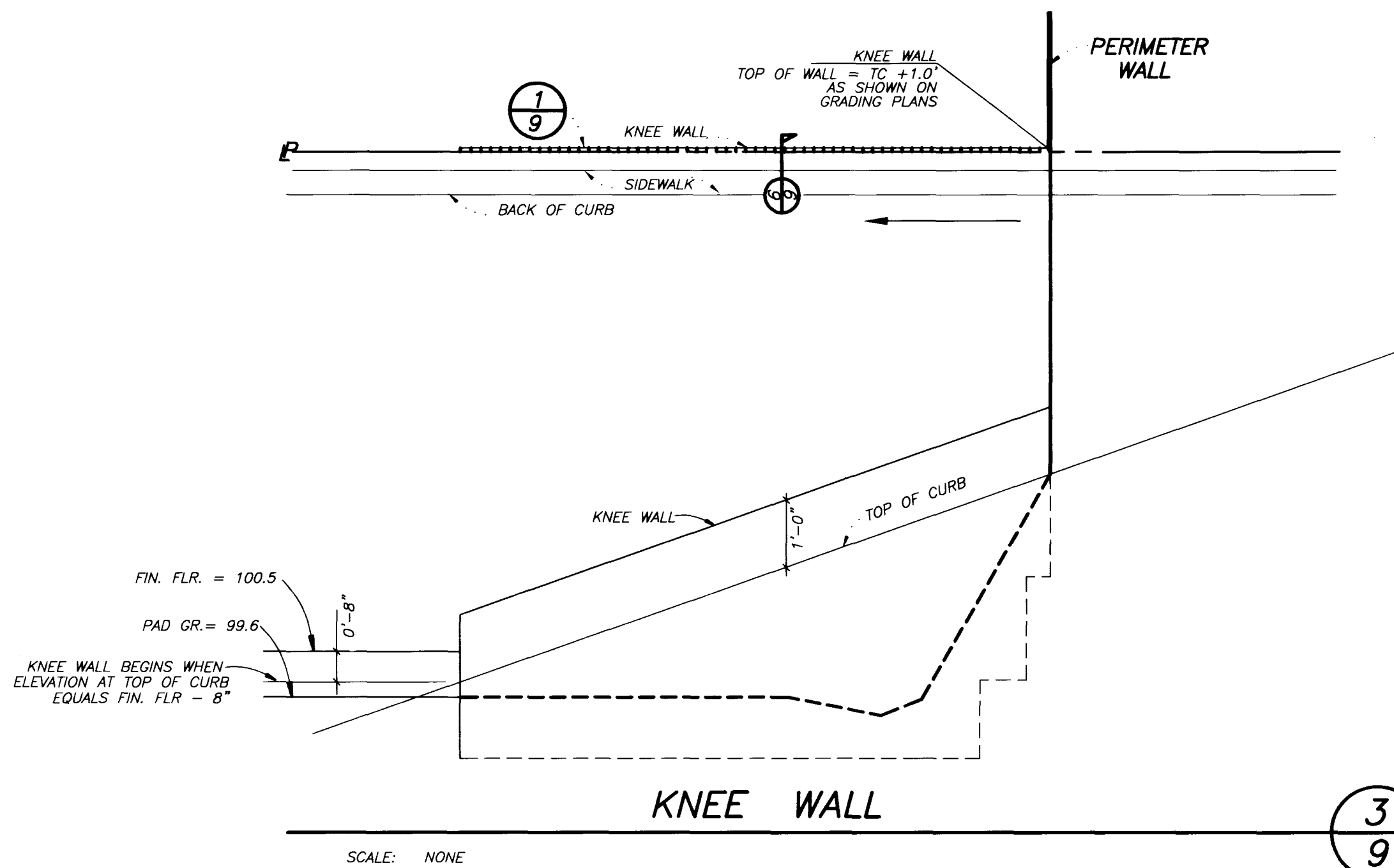


SINGLE RETAINING WALL

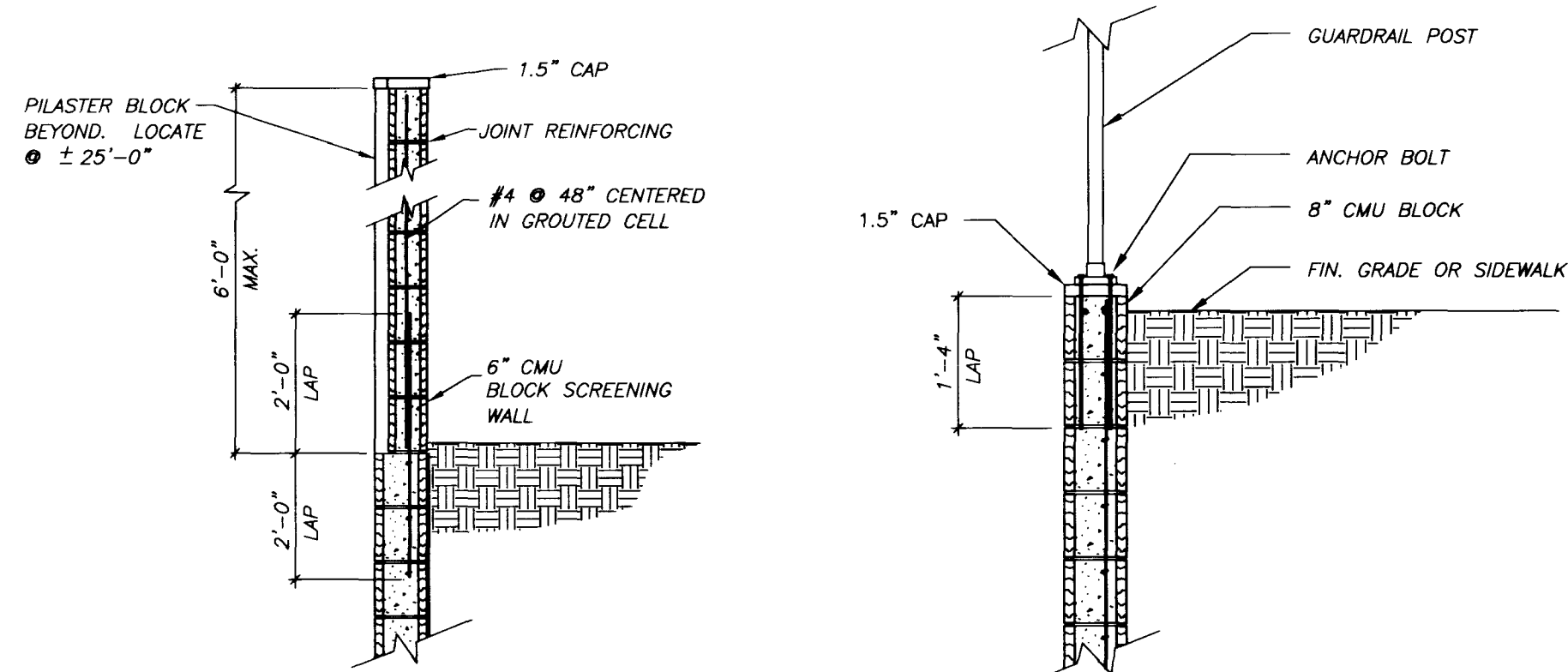


SIDE WALL TAPERED END DETAIL 2
9

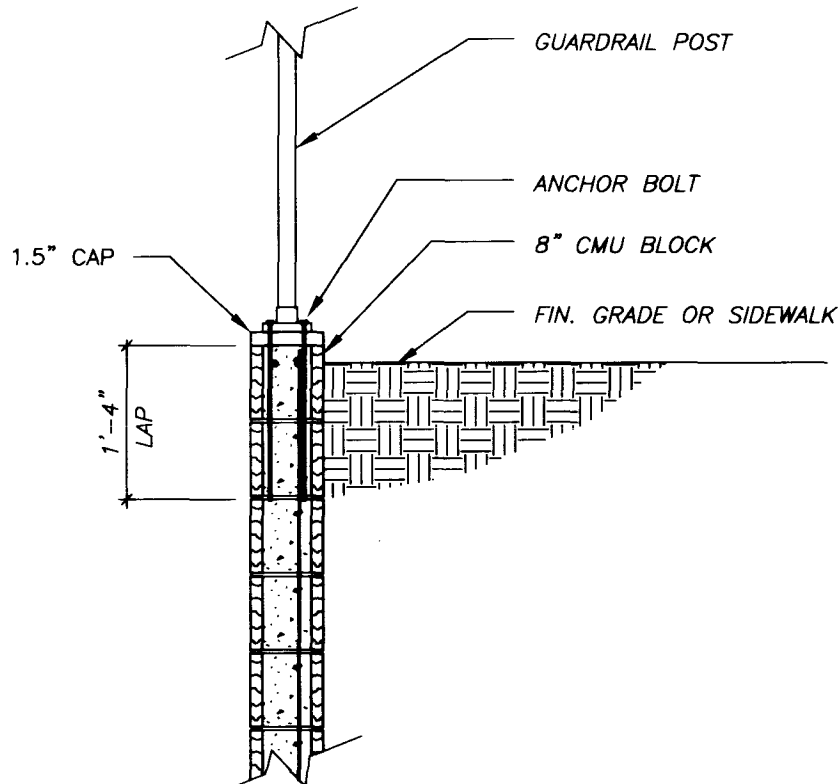
- WALL NOTES;
1. APPROVAL OF THESE PLANS BY THE CITY ENGINEER DOES NOT PERTAIN TO CONSTRUCTION OF NEW WALLS (RETAINING OR NON-RETAINING) OR MODIFICATIONS TO EXISTING WALLS.
 2. ALL WALLS, NEW OR EXISTING, ARE REVIEWED BY THE CITY ENGINEER FOR GRADING RELATIONSHIPS ONLY.
 3. ALL WALLS, RETAINING AND NON-RETAINING, MUST BE APPROVED AND A PERMIT OBTAINED FROM THE DEPARTMENT OF BUILDING AND SAFETY.
 4. BLOCK WALL PERMITS WILL NOT BE ISSUED FOR ANY WALL NOT SHOWN ON THE GRADING PLANS FOR THIS SITE WITHOUT THE PRIOR APPROVAL OF THE SUN CITY HOMEOWNERS ARCHITECTURE REVIEW COMMITTEE.
 5. BLOCK WALLS AND/OR RETAINING WALLS ARE NOT PERMITTED IN PUBLIC RIGHTS-OF-WAY.



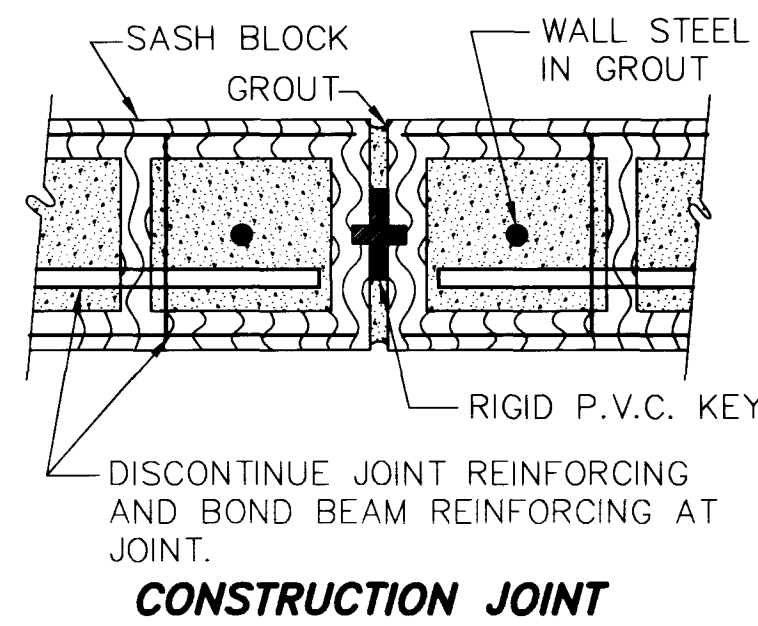
KNEE WALL 3
9



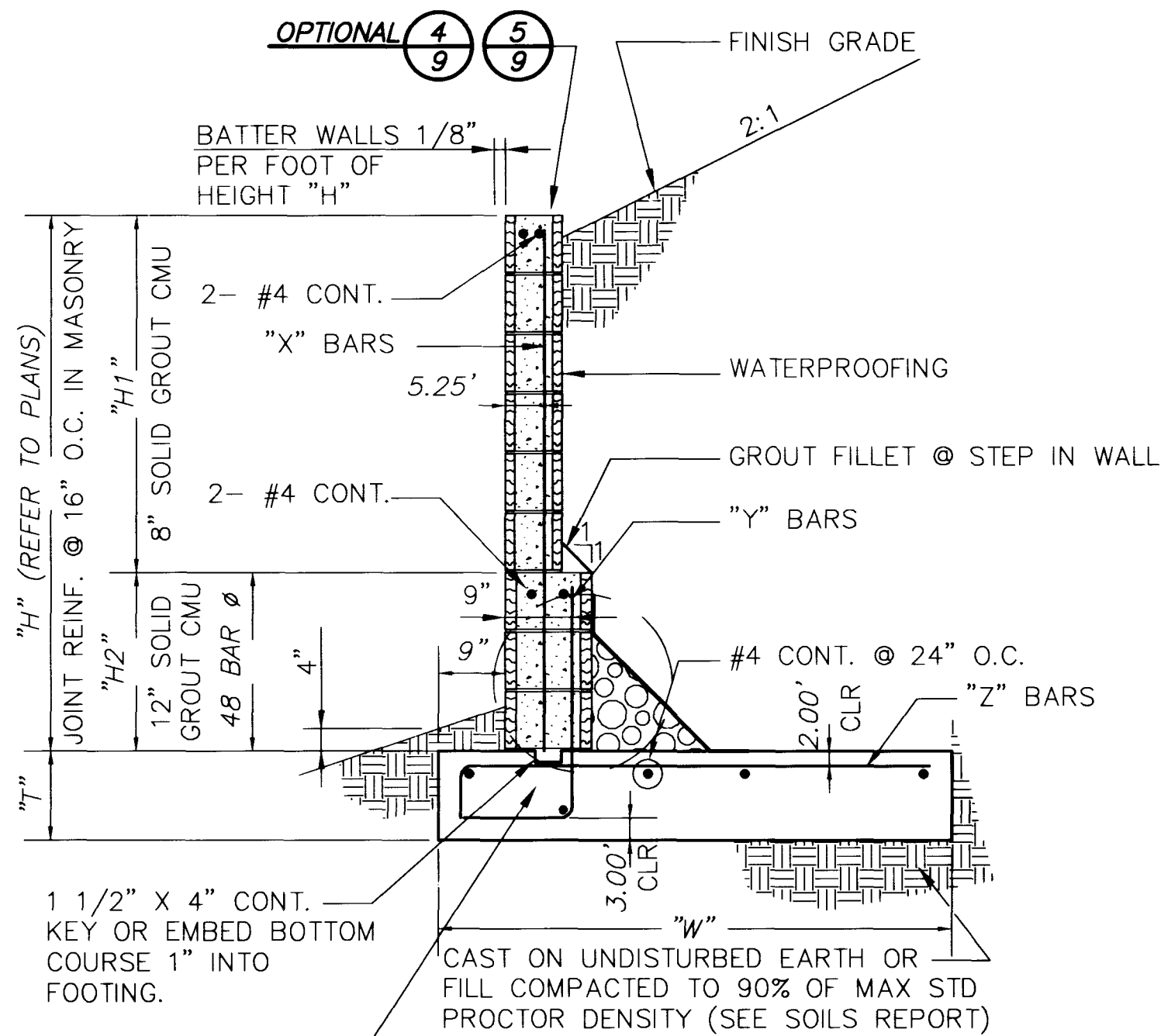
OPTIONAL BLOCK WALL ATTACHMENT 4
9



OPTIONAL HANDRAIL ATTACHMENT 5
9



CONSTRUCTION JOINT



SPECIAL INSPECTION IS REQUIRED FOR WALLS OVER 5'-4"

DIMENSIONS					X"	Y"	Z"
H	H1	H2	W	T	BARS	BARS	BARS
2'-0"	2'-0"	-	2'-6"	12"	#4 @ 48"	#4 @ 48"	#4 @ 24"
2'-8"	2'-8"	-	3'-3"	12"	#4 @ 48"	#4 @ 48"	#4 @ 24"
3'-4"	3'-4"	-	4'-0"	12"	#4 @ 48"	#4 @ 48"	#4 @ 24"
4'-0"	4'-0"	-	4'-9"	12"	#4 @ 48"	#4 @ 48"	#4 @ 24"
4'-8"	4'-8"	-	5'-6"	12"	#4 @ 48"	#4 @ 24"	#4 @ 24"
5'-4"	5'-4"	-	6'-3"	12"	#4 @ 48"	#5 @ 16"	#4 @ 16"
WALLS REQUIRING SPECIAL INSPECTION							
6'-0"	4'-0"	2'-0"	6'-6"	12"	#4 @ 48"	#4 @ 24"	#4 @ 24"

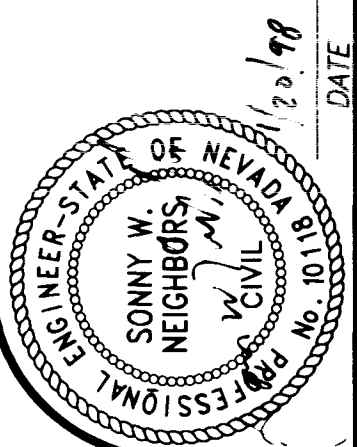
- * FOR THIS HEIGHT WALL THE "X" BARS MAY BE ELIMINATED BY EXTENDING THE "Y" BARS TO THE TOP OF THE WALL.
- ** WHEN "H2" DOES NOT EXIST, LOCATE THE "Y" BARS IN THE SAME POSITION AS THE "X" BARS. EXTEND THE "X" BARS INTO THE MASONRY WALL 2'-0" MINIMUM FOR A #4 BAR, 2'-6" MINIMUM FOR A #5 BAR AND 3'-0" FOR A #6 BAR.

NOTES:

1. REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60.
2. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 psi AT 28 DAYS USING TYPE V CEMENT PER ASTM C-150. (DESIGN BASED ON $f_c=2500$ psi, NO SPECIAL INSPECTION IS REQUIRED)
3. MASONRY UNITS SHALL BE ASTM C-90, GRADE N-1 HOLLOW CONCRETE UNITS. SPECIAL INSPECTION PER UBC SECTION 1701 SHALL BE PROVIDED WHEN "H" EXCEEDS 5'-4".
4. MORTAR SHALL BE ASTM C270, TYPE "M" OR "S" WITH A MINIMUM STRENGTH OF 1800 psi AT 28 DAYS.
5. GROUT SHALL HAVE A MINIMUM STRENGTH OF 2000 psi AT 28 DAYS USING TYPE V CEMENT PER ASTM C-150.
6. HORIZONTAL JOINT REINFORCING, WHERE REQUIRED, SHALL BE 9-GA. LADDER TYPE WITH LAP SPLICES OF 12" MINIMUM, INCLUDING CORNERS AND INTERSECTIONS.
7. UNLESS OTHERWISE NOTED, ALL CONSTRUCTION SHALL CONFORM TO THE UNIFORM BUILDING CODE, LATEST EDITION, AND PER STANDARD SPECIFICATIONS FOR THE CITY OF LAS VEGAS, NEVADA, BUILDING DEPARTMENT.
8. ALL WALLS ARE SUBJECT TO APPROVAL BY THE CITY OF LAS VEGAS, NEVADA, BUILDING DEPARTMENT.
9. SOLID GROUT ALL MASONRY UNITS THAT ARE BELOW THE HIGHEST FINISH GRADE AT THE WALL.
10. ALL CORNERS OR ANGLES SHALL BE TIED TOGETHER WITH REINFORCING STEEL AND GROUTED SOLID.
11. WHERE VERTICAL GROUT POURS ARE NOT CONTINUOUS FOR THE ENTIRE HEIGHT OF THE WALL, TERMINATE LIFT 1 1/2" BELOW TOP OF TOP BLOCK TO FORM A KEY FOR FUTURE LIFTS.
12. LOCATE KEYED JOINT IN RETAINING WALL AT A MAXIMUM SPACING OF 24'-0".
13. BOND BEAMS AND JOINT REINFORCING SHALL NOT BE CONTINUOUS THROUGH WALL CONSTRUCTION JOINTS.
14. WALLS SHALL BE STEPPED ONLY AS SHOWN ON THE PLANS.
15. IF ACTUAL HEIGHT OF WALL IS NOT LISTED IN TABLE, USE STEEL AND DIMENSIONS FOR NEXT HIGHEST WALL LISTED.
16. BACKFILL BEHIND WALLS SHALL BE COMPACTED TO 90% OF STANDARD PROCTOR DENSITY.
17. SOILS REPORT PREPARED BY WESTERN TECHNOLOGIES, INC., PROJECT No. 4124JS104 DATED SEPTEMBER 29, 1981:
ALLOWABLE SOILS BEARING PRESSURE = 3000 psf
SOIL ACTIVE PRESSURE = 30 psf/ft (LEVEL)
SOIL PASSIVE PRESSURE = 250 psf/ft
COEFFICIENT OF FRICTION = 0.45

RETAINING WALL DETAIL

1
9



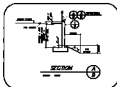
G. C. WALLACE, INC.
Engineering/Architecture

DEL WEBB COMMUNITIES, INC.
SUN CITY SUMMERLIN - UNIT NO. 31A
RETAINING WALL DETAILS & SECTIONS

SHEET
9



SEE YARD CORNER LOT SECTION ①

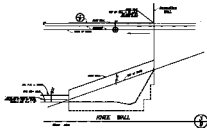


SINGLE RETAINING WALL

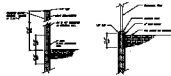


SEE WALL TAPERED END DETAIL ②

- SEE WALL
- 1. MINIMUM 12" RADIUS AT ALL 90° CORNERS
 - 2. MINIMUM 12" RADIUS AT ALL 90° CORNERS
 - 3. MINIMUM 12" RADIUS AT ALL 90° CORNERS
 - 4. MINIMUM 12" RADIUS AT ALL 90° CORNERS
 - 5. MINIMUM 12" RADIUS AT ALL 90° CORNERS
 - 6. MINIMUM 12" RADIUS AT ALL 90° CORNERS



KNEE WALL



OPTIONAL
ROCK WALL
ATTACHMENT

OPTIONAL
HANDRAIL
ATTACHMENT



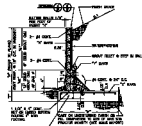
SEE WALL TAPERED END DETAIL ②

MINIMUM RETAINING WALL HEIGHTS FOR GRADES FROM 0' TO 10'

RETAINING WALL	0'	1'	2'	3'	4'	5'	6'	7'	8'	9'	10'
GRAVEL	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
GRAVEL	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
GRAVEL	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
GRAVEL	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
GRAVEL	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
GRAVEL	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
GRAVEL	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
GRAVEL	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
GRAVEL	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
GRAVEL	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
GRAVEL	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
GRAVEL	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"

SEE WALL TAPERED END DETAIL ②

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RETAINING WALL DETAIL



STATE OF CALIFORNIA
DIVISION OF PUBLIC WORKS
REGISTERED PROFESSIONAL ENGINEER
No. 12345
EXPIRATION DATE 12/31/2025

SEE WALL TAPERED END DETAIL ②