

TOTAL BILL OF MATERIAL

| Item | Unit | Quantity |
|----------------------------------|-------|----------|
| Concrete Structures | Cu. M | 23.4 |
| Reinforcement Bars, Epoxy Coated | kg | 1,240 |
| Structure Excavation | Cu. M | 23 |
| Permanent Steel Sheet Piling | Sq. M | 142 |
| Pipe Handrail | Meter | 31 |

DESIGN LOADING

Equivalent Fluid Lateral Soil Pressure
6.3 kN/Cu. M

DESIGN STRESSES

$f'_c = 24 \text{ MPa}$
 $f_y = 400 \text{ MPa (Reinf.)}$
 $f_y = 270 \text{ MPa (Sheet Piling)}$

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition.

Illinois Department of Transportation Standard Specifications for Road & Bridge Construction, adopted January 1, 2002 and Supplemental Specifications and Recurring Special adopted January 1, 2004.

GENERAL NOTES:

1. Reinforcement bars shall conform to the requirements of AASHTO M 31M, M 42M or M 53M Grade 400.
2. Steel sheet piling shall conform to the requirements of Section 1006.05 of the Standard Specifications.
3. If the Contractor chooses to alter the sheet piling design requirements shown on the plans for lesser design requirements, then full design submittal including plan details and sealed calculations will be required for review and acceptance by the Engineer.
4. All dimensions are in millimeters (mm) except as noted.
5. For Soil Boring logs, see Special Provisions.
6. Any pre-excavation carried out for the placement of the sheet piling shall not extend below the bottom of concrete facing elevation.

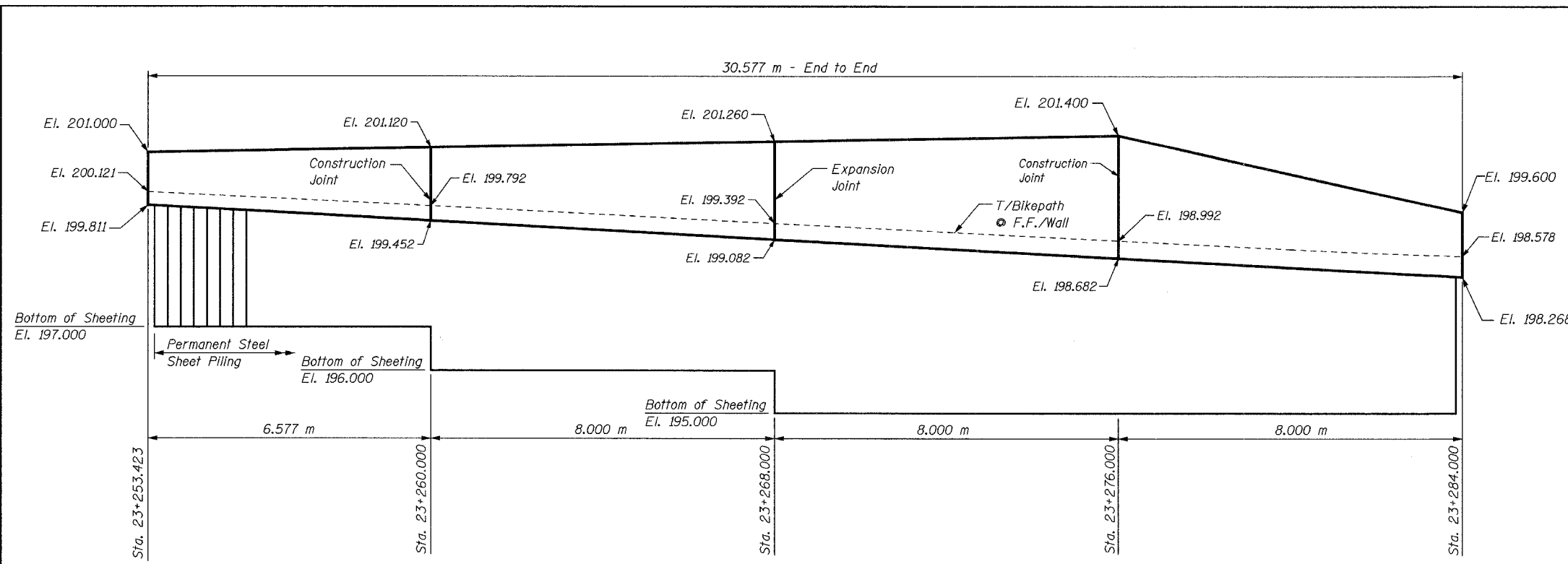
SHEET S17 of S33

| REVISIONS | | NAME | DATE |
|-----------|-------------|------|------|
| NO. | DESCRIPTION | | |
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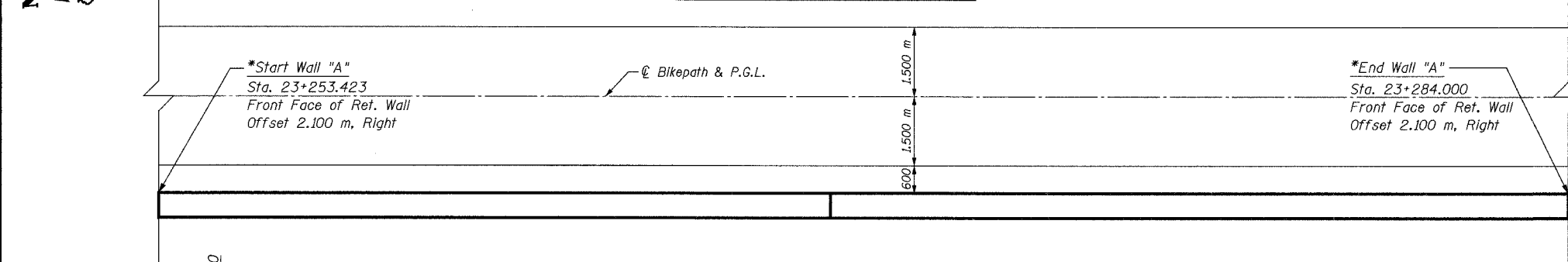
URS 1701 GOLF ROAD, SUITE 1000 TEL (847) 228-0707
ROLLING MEADOWS, IL 60008 FAX (847) 228-1115

VILLAGE OF OAKBROOK
SALT CREEK GREENWAY TRAIL
ROOSEVELT RET. WALL "A"
GENERAL PLAN & ELEVATION

DATE: 06/30/05
DESIGNED BY: MDS
DRAWN BY: MDS
CHECKED BY: GAT



ELEVATION - RET. WALL "A"



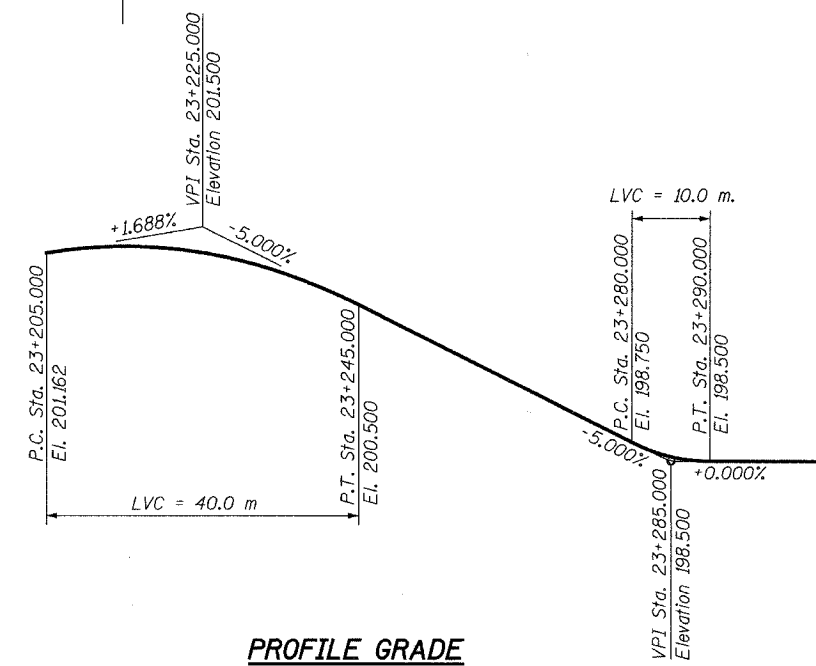
PLAN

***NOTE:**
For horizontal curve and alignment information, see Plan & Profile drawings.



Signature: *George A. Tappas*
Current Date: 7/21/05
License Expires: 11/30/06

"I certify that to the best of my knowledge, information and belief, this retaining wall design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with the requirements of the current 'AASHTO Standard Specifications for Highway Bridges'."



PROFILE GRADE