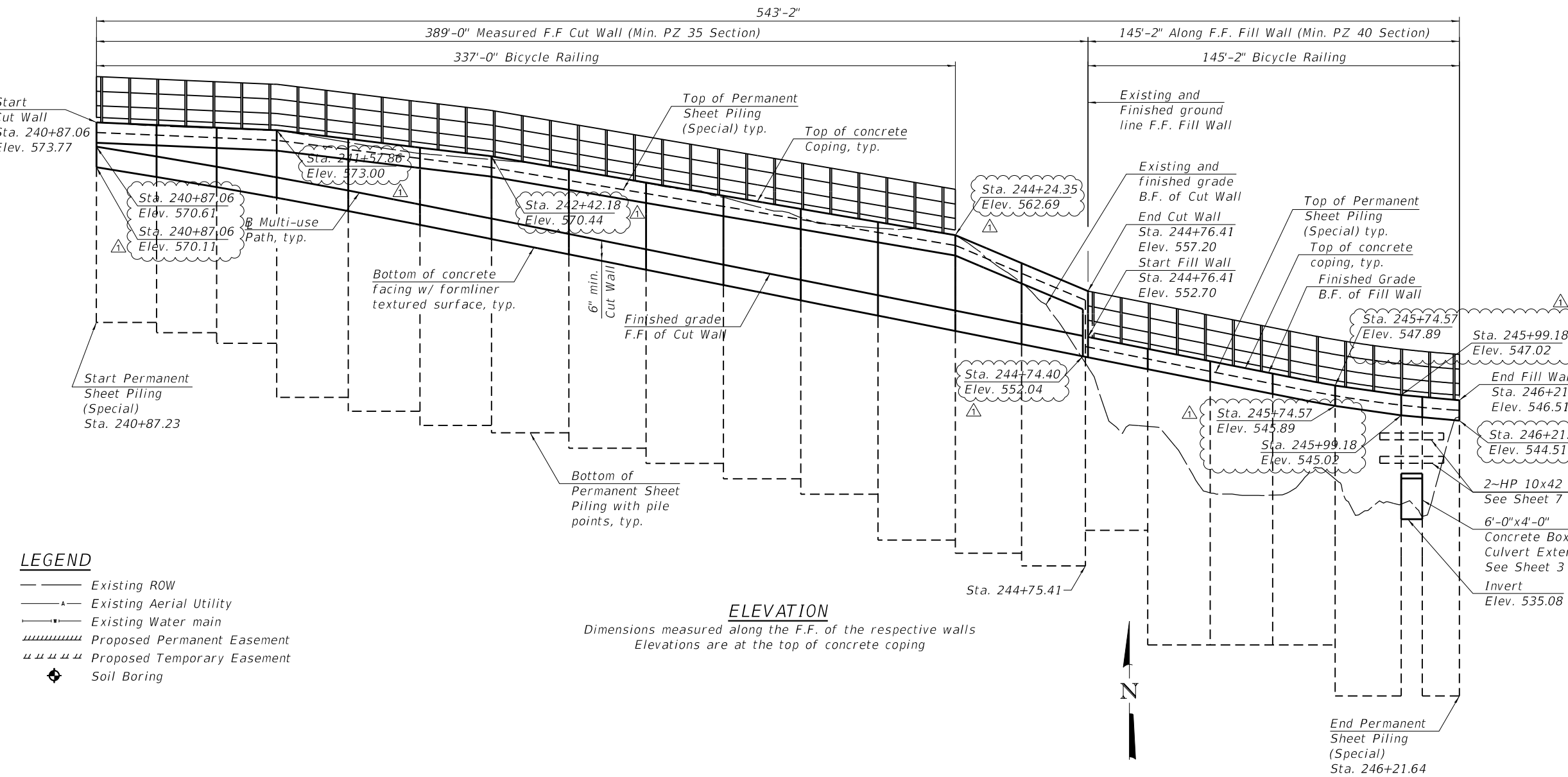


Benchmark: Southern most corner, on top of Southwest wing wall of bridge on Bridge Street (M.S. Rte. 1003) over I&M Canal (S.N. 099-4612) Elev. 522.66. Proposed structure to be constructed while maintaining traffic along Bridge Street (M.S. Rte. 1003).

Existing Structure: The existing culvert is a 6' wide opening by 4' tall opening cast-in-place concrete box culvert.



HIGHWAY CLASSIFICATION

M.S. Rte. 1003 (W. Bridge Street)
Functional Class: Local Road
ADT: 1,498 (2016): 2,200 (2040)
DHV: N/A
ADTT: 75 (2016): 110 (2040)
Design Speed: 25 mph
Posted Speed: 25 mph
2-way Traffic
Directional Distribution: 50:50

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

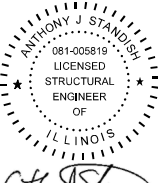
DESIGN STRESSES

f'c = 3,500 psi (Cast-in-Place Concrete)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (Steel Sheeting) ASTM A572
fy = 50,000 psi (Structural Steel) ASTM M270

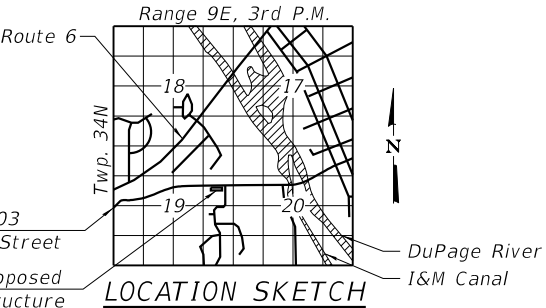
LOADING H-10

Pedestrian Live Loading 90 psf

I certify that to the best of my knowledge, information, and belief, this bridge 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.



Anthony J. Standish, P.E., S.E. Date 01-02-2025
Illinois Registered Engineer No. 081-005819
Registration Expires 11/30/2026



GENERAL PLAN & ELEVATION

MULTI-USE PATH ALONG M.S. 1003

BRIDGE STREET

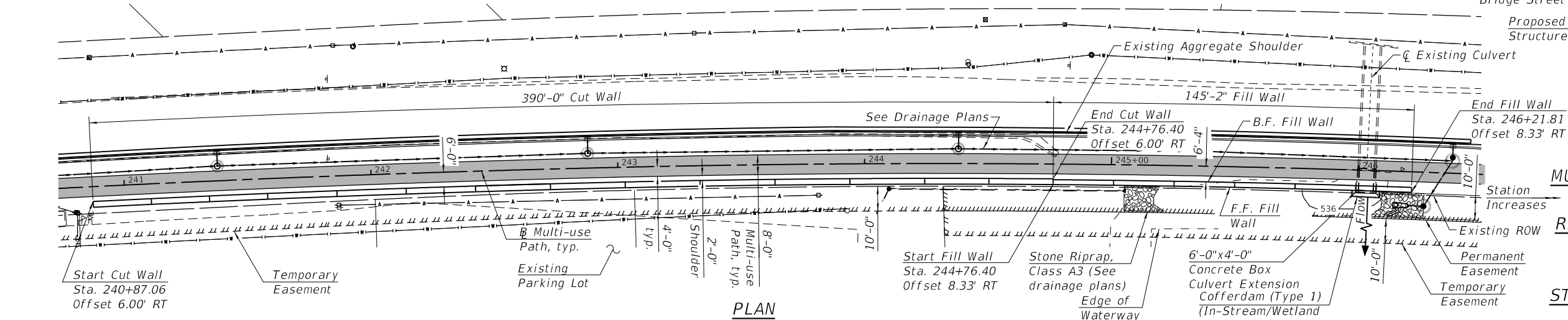
RETAINING WALL & BOX CULVERT

SECTION (15-00024-00-BT)

WILL COUNTY

STA. 240+87.06 TO STA. 246+21.81

STRUCTURE NO. 099-W005



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 099-W005

SHEET 1 OF 12 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1003	15-00024-02-BT	WILL	75	40
CONTRACT NO. 61K84				
ILLINOIS FED. AID PROJECT				

1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR NO. 184-001273

USER NAME = RaymondP	DESIGNED - DWK	REVISED - ADDENDUM #1 1/3/25
CHECKED - AJS		
PLOT SCALE = 0:2.0000" = 1' in.	DRAWN - BJF	REVISED -
PLOT DATE = 1/2/2025	CHECKED - DWK	REVISED -

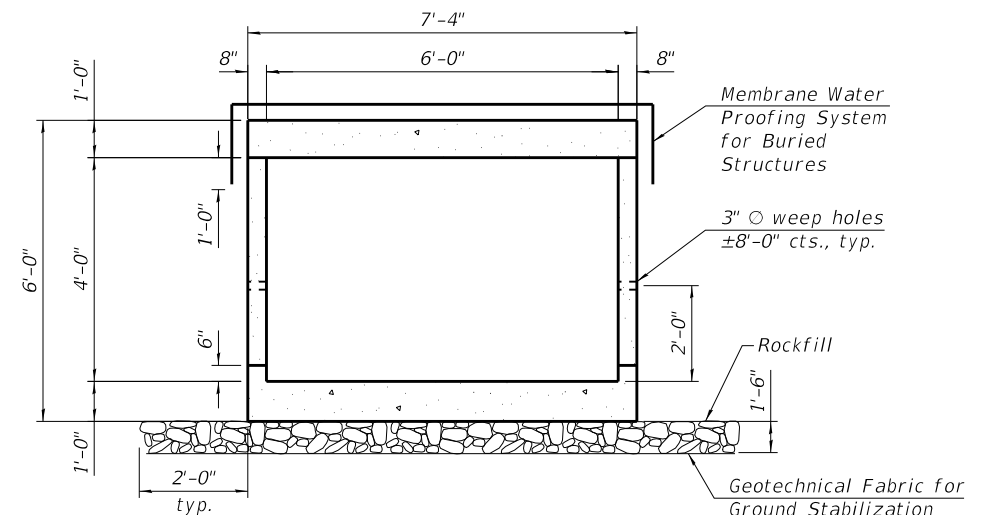
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1/2/2025 8:47:08 AM

GENERAL NOTES

1. All permanent sheet piling shall be PZ40 sized Grade 50 steel.
2. Hard driving is anticipated 10 to 15 feet below existing grade. A hardened steel piling point should be utilized for the steel sheet pile to prevent excessive tip damage while driving into refusal type soil.
3. All structural steel shall be AASHTO M 270 Grade 50 and shall be galvanized. See special provision for "Hot Dip Galvanizing for Structural Steel."
4. No field welding is permitted except as specified in the contract documents. Concrete Sealer and Anti-Graffiti Coating shall be applied to the exposed faces of the concrete coping and wall facing.
5. The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of false work, in addition to allowance for dead load deflection.
6. Backfill shall be placed behind the wall prior to the concrete facing being poured.
7. The formliner textured surface pattern shall match the adjacent structure (S.N. 099-P012). formliner textured surface limits shall extend to the minimum limits shown on the plans and heights confirmed by the Contractor. The formliner textured surface coursing on concrete facing shall be level and the formliner textured surface pattern shall be continuous across the vertical joints. Cost for concrete formliner textured surface pattern.
8. Concrete Structures shall match the existing adjacent concrete structure (S.N. 099-P012) in color at wall facing and cap. Concrete Structures shall be colored in accordance with Integrally Colored Concrete and cost included in Concrete Structures and form liner textured surface pattern.
9. Exploratory excavation shall be performed to locate existing utilities within the project limits and shall be included in the cost of Earth Excavation. See Roadway Plans.
10. A Structure Geotechnical Report was prepared and can be provided by the Owner for Contractor review.
11. Protection and restoration of existing property is the responsibility of the Contractor and shall be provided as discussed in the Structure Geotechnical Report and in accordance with the Standard Specifications.
12. Vibration levels caused by equipment used to install Permanent Sheet Piling shall be selected to minimize the potential for damage to nearby structures. The maximum particle velocity caused by vibratory equipment shall not exceed 1 inch/second.
13. Reinforcement bars designated (E) shall be epoxy coated.
14. All exposed concrete edges shall have a $\frac{3}{4}$ " x 45° chamfer, except where shown otherwise. Chamfer on vertical edges shall be continued a minimum distance of one foot below finished ground level.
15. Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.
16. The Illinois Department of Transportation is not the owner of record for this culvert.
17. Concrete Sealer shall not be applied to surfaces to which Waterproofing Membrane System is applied.
18. The Contractor shall be responsible for diverting the water flow from the construction area using a method meeting the approval of the Engineer and included in the unit cost of Concrete Box Culverts.
19. Light Weight Cellular Concrete (LWCC) Backfill behind the Fill Wall shall be placed and cured according to the Special Provisions for LWCC Class II.
20. Plan dimensions and details relative to existing structures or existing ground elevations are subject to nominal construction variations. The Contractor shall verify existing dimensions and ground elevations prior to ordering of materials and construction. Such variations will not be cause for additional compensation for a change in the scope of the work; however, the Contractor will be paid for the quantity furnished at the unit price bid for the work.
21. The concrete for Concrete Box Culverts must reach 3500 psi compressive strength before the Fill Wall sheet piling is driven.

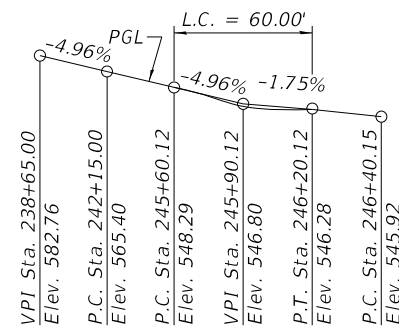
INDEX OF SHEETS

- | | |
|------|--|
| 1 | General Plan and Elevation |
| 2 | General Notes |
| 3 | Culvert Extension Plan and Elevation |
| 4 | Cut Wall Plan and Elevation |
| 5 | Cut Wall Details |
| 6 | Fill Wall Plan and Elevation |
| 7 | Fill Wall Details |
| 8 | Concrete Cap, Facing and Railing Details |
| 9-10 | Soil Boring Logs |



SECTION THRU BARREL

Phoebe nesting sites at downstream end of interior wall.

PROFILE GRADE

(Along \mathcal{C} of Multi-Use Path)

CURVE DATA-8

$P.I. Sta. = 241+41.09$
 $\Delta = 2^{\circ}19'39''$
 $D = 0^{\circ}42'58''$
 $R = 8,000.00'$
 $T = 162.51'$
 $L = 324.97'$
 $E = 1.65'$
 $e =$
 $T.R. =$
 $S.E. Run =$
 $P.C. Sta. = 239+78.58$
 $P.T. Sta. = 243+03.55$

CURVE DATA-9

P.I. Sta. = 245+29.80
 Δ = 4°42'31"
D = 1°02'28"
R = 5,503.00'
T = 226.25'
L = 452.24'
E = 4.65'
e =
T.R. =
S.C. Run =
P.C. Sta. = 243+03.55
P.T. Sta. = 247+55.79

BILL OF MATERIAL

Item	Unit	Total
Geotechnical Fabric for Ground Stabilization	Sq Yd	13
Structure Excavation	Cu Yd	170
Removal and Disposal of Unsuitable Material for Structures	Cu Yd	6.2
Concrete Structures	Cu Yd	180.3
Form liner Textured Surface	Sq Ft	2175
Furnishing and Erecting Structural Steel	Pound	2240
Stud Shear Connectors	Each	858
Reinforcement Bars, Epoxy Coated	Pound	18,730
Bicycle Railing	Foot	483
Permanent Steel Sheet Piling (Special)	Sq Ft	14,777
Concrete Box Culverts	Cu Yd	10.3
Concrete Sealer	Sq Ft	3869
Geocomposite Wall Drain	Sq Yd	157
Lightweight Cellular Concrete Fill	Cu Yd	515.2
Anti-Graffiti Coating	Sq Ft	3869
Cofferdam (Type 1) (In-Stream/Wetland Work)	Each	1
Membrane Waterproofing System for Buried Structures	Sq Yd	11
Rockfill	Cu Yd	6.2