PROVIDENCE INFRASTRUCTURE

Material Takeoff, ROM Cost, Timeline, and Efficiency Analysis

Prepared For: Russ
Date: 2026-03-28 (UTC)

1) SOURCE FILES CONSOLIDATED

A) Engineering/Site Plan
- 250714_-_RESORTMENTS_TXK_2025_UPDATE_APPROVED (24 pages)
- Includes drainage basin/control, storm pipe network (18"–36"), floodplain notes, detention summary, and site utility framework

B) Utilities Material Quotes
- 230629_-_Utilities_Ferguson
  - Full water + sewer package with service assemblies and lift station package references
  - Net Total: $559,356.70
- 230524_-_Utilities_Lift_Station_Jack_Tyler_Engineering
  - Lift station equipment package
  - Package Price: $67,102.26
  - Lead Time: 14–16 weeks after approved submittals
- 240117_-_Phase_1_Utilities_Ferguson
  - Phase 1 water + sewer package
  - Water Total: $64,975.41
  - Net Total: $117,284.83

2) PRELIMINARY INFRASTRUCTURE TAKEOFF (ROM)

Site Prep / Earthwork
- Clearing & grubbing: ~20–26 acres
- Topsoil strip/handling: ~12,000–20,000 CY
- Mass grading (cut/fill): ~35,000–65,000 CY

Storm / Detention
- RCP storm network (18"–36"): ~2,200–3,200 LF
- Inlets/manholes/junction structures: ~22–40
- Detention control storage: up to ~1.38 ac-ft (100-yr control summary)

Water / Sewer / Lift Station
- Water main extensions/tie-ins: ~2,000–3,500 LF
- Gravity sewer: ~1,800–3,000 LF
- Lift station package: 1 complete station system
- Force main: ~1,500–3,000 LF

Paving / Hardscape
- Asphalt + base: ~250,000–420,000 SF
- Curb & gutter: ~6,000–10,000 LF
- Sidewalk/hardscape: ~25,000–55,000 SF

3) COST SYNOPSIS (ROM)

Civil/Utility Infrastructure ROM (current planning range)
- Low: ~$4.8M
- Base: ~$6.3M
- High: ~$8.1M

Recommended Working Budget
- Use ~$6.3M base with 15% contingency until final utility profile and paving quantities are fully reconciled.

Material Quote Reference Anchors
- Ferguson full package (2023): $559,356.70
- JTE lift station package (2023): $67,102.26
- Ferguson phase 1 package (2024): $117,284.83

Note

• Quote terms indicate prices are not firm beyond immediate shipment windows; escalation and freight variability should be included in procurement risk.

4) DELIVERY TIMELINE (REALISTIC)

• Precon + final civil release: 4–6 weeks
• Mobilization + SWPPP/erosion controls: 1–2 weeks
• Earthwork + rough grading: 6–10 weeks
• Underground utilities/storm: 8–12 weeks
• Lift station + force main + startup/testing: 6–10 weeks
• Paving/curb/hardscape: 6–9 weeks
• Punch/closeout/acceptance: 3–5 weeks

Total Infrastructure Duration

• Fast-track: 30–34 weeks
• Realistic base: 36–42 weeks
• Conservative: 44+ weeks

5) TAKEOFF ACCURACY CHECKPOINTS

Observed Cross-Check Items

1. Hydrant branch logic should be verified (6 branch assemblies vs 5 hydrants listed in one quote context)
2. “Yard hydrant at lift station – no detail” should be resolved with explicit detail to avoid field change orders
3. Phase 1 quote should be reconciled against earlier full package scope to ensure no service assemblies were unintentionally dropped
4. Valve box/open-right specification consistency should be confirmed across all detail callouts

Validation Status

• Current review is a desk-level reconciliation based on provided quote text and extracted plan data.
• Final quantity confidence requires line-by-line sheet overlay verification.

6) ENGINEERING EFFICIENCY & SAVINGS OPPORTUNITIES

A) Standardization

• Standardize valve boxes/restraints and hydrant assembly kits to reduce SKU complexity and field install errors.
Potential impact: lower rework, faster install cycles.

B) Procurement Strategy

• Bid alternates for core pipe categories (8" C900 water, 8" SDR26 sewer) and lock package pricing windows.
Potential impact: direct material savings + reduced escalation risk.

C) Lift Station Risk Control

• Release submittals early and lock long-lead equipment with milestone-based procurement.
Potential impact: schedule protection and reduced general conditions overrun.

D) Detail Completeness

• Close all “no detail” conditions before buyout (yard hydrant, tie-ins, connection details).
Potential impact: fewer change orders and less field ambiguity.

E) Utility Coordination

• Verify tie-in sequence and shutdown windows with utility owners early.
Potential impact: reduced downtime risk and better schedule certainty.

7) EXECUTIVE ACTION PLAN (NEXT 10 BUSINESS DAYS)

1) Quantity Reconciliation Workshop

• Civil engineer + estimator + utility subcontractor align plan LF/EA counts to quote lines.

2) Alternate Procurement Bid Round

• Reprice high-dollar utility lines with at least 2 alternates per major category.

3) Lift Station Procurement Gate

• Finalize package scope, approve submittals, issue early buy release.

4) Detail Gap Closure

- Resolve all undefined detail notes and publish signed IFC utility detail set.

5) Risk Register Activation

- Track: lead times, escalation, tie-in permits, flood/drainage compliance tasks.

8) EXECUTIVE CONCLUSION

Providence is in a workable position for infrastructure execution,
but schedule and cost performance will depend on disciplined quantity reconciliation,
early long-lead commitments, and elimination of detail ambiguities before field mobilization.

This package should be used as the current executive baseline until stamped quantity reconciliation is complete.