

CONDITIONS OF APPROVAL:

Open Issues: 40 These issues are currently being filtered

Engineering - Site Plan Checklist

General Issues

1. J. Stormwater Management Plan

A soil infiltration test report will be required for all soils where water quality BMPs are being proposed to show soils underneath BMP's have adequate infiltration rates as per the City of Franklin's BMP manual. **Test results shall be submitted to the City's Engineering Dept. prior to approval of the Site Plan.** Earlier testing is encouraged to aid in BMP design and to ensure that the Site Plan approval process is not delayed.

If all BMPs are designed with underdrains, and no reduction of required detention volume is being sought to account for anticipated infiltration, standard boring or excavation results that indicate absence of groundwater or bedrock within 2' below the bottom elevation of the BMP may be substituted for infiltration testing (excluding GIP-04 Infiltration Trench and GIP-03 Level 2 Permeable Pavement, which require known infiltration rates for the design of the BMP). **These results shall likewise be submitted to the City's Engineering Dept. prior to approval of the Site Plan.**

NO SITE PLAN APPROVAL WILL BE GRANTED WITHOUT INFILTRATION AND/OR SUBSURFACE TESTING RESULTS WHICH VERIFY THE ACCEPTABLE DESIGN OF ALL STORMWATER BMP(S).

2. D. Site Plan

Applicant shall fund their proportionate share of the improvements to Jordan Road along the site frontage according to the recommendations of the TIA.

Applicant shall revise the Modification of Street Standards request to reference the specific Street Standard being modified. Modification should read: "The applicant requests modification of Street Standards Section 3.3.25(3)(a)v. to allow for access to a corner lot to be from the arterial street (Mallory Lane) rather than the lesser-classified collector street (Jordan Road)."

[Edited By Lance Fittro]

3. E. Roadway Design and Plan & Profile

The applicant has partially addressed the requirements of the offsite improvement plans for Spring Creek Drive. As per the Traffic Impact Analysis, the applicant shall incorporate the signal modifications for EB Spring Creek Drive according to the lane usages shown on sheet C2.1. The applicant shall also update the sheet C2.1 pavement marking plan with a dotted guideline for the dual-optional right turn movement from Spring Creek Drive onto Mallory Lane.

4. D. Site Plan

The previous comment "Applicant shall indicate the location, arrangement, and dimensions of the future connection to Jordan Road." may have been addressed but the reviewer could not find the information requested. Provide the sheet and the location of the information.

5. D. Site Plan

The previous comment "Remove the building, ramp and service area located in the access easement." must remain open until the location of the future access is provided.

6. D. Site Plan

The previous comment "Provide the location of phase 2 building footprints and remove bioretention and detention from the phase 2 footprint areas." was not addressed.

7. I. Grading Plan

The previous comment "Applicant shall provide existing site topography with clear contour labels on the adjacent property at least 50 feet offsite west of the access drive and the continuation of Spring Creek Drive." was addressed. Provide signed and documented construction easements for the offsite grading,

8. Walking Trail

Applicant shall provide documentation of temporary construction easement or written agreement from adjacent property owner prior to issuance of the grading permit.

9. V. Site Permits

The Stormwater/Grading & Utility permit applications have been uploaded to the document manager. Please have the application completed and signed, and submit with ORIGINAL, signed and notarized Agreements and Fees (listed on permit) to Engineering.

*The LTMP will be recorded by Engineering once fees have been paid. and permits will be issued when the plans are stamped as approved.

10. pedestrian connectivity

Provide sidewalks on both sides of the northwestern site entrance drive. Pedestrians need additional separation from vehicular traffic patterns. Walking on the opposite side of the drive provides pedestrians options to walking through long distances of drive aisles.

11. I. Grading Plan

Stream Buffer Management. Provide a level spreader downstream of drainage outlet and upstream of the stream buffer. COF Level Spreader is in the 2016 Stormwater BMP Manual Figure 9.7.

12. M. Sanitary Sewer Design and Plan & Profile

As discussed in a meeting with the applicant 11/10/16 there is one particular tree adjacent to Mallory Lane, the sewer line and water line easements are located within the drip line of the tree. This tree is to be preserved. Prior to the next submittal the applicant shall provide an accurate survey and locate the trunk of the tree on the plans. The survey must also verify the limits of the drip line of the tree. The survey must also verify the location of the existing water line and sewer line in the vicinity of the tree.

[Edited By Tom Ingram]

13. I. Grading Plan

Applicant shall provide phased grading plans to indicate how the 61-space deferred parking lot is to be graded (or remain untouched) in the interim.

14. B. General Information

The applicant shall provide documentation from the developers of the adjacent McEwen Place PUD confirming their coordination and cooperation to provide a connection at Spring Creek Drive and an additional northern connection between the two developments.

[Edited By Jimmy Wiseman]

15. B. General Information

Prior to the first Certificate of Occupancy being issued the applicant shall complete the following offsite improvements.

The applicant shall restripe the eastbound approach to become a left turn lane, a shared through/right turn lane, and an exclusive right turn lane. The necessary traffic signal modification to accommodate the lane designation changes shall be designed and installed per MUTCD and City of Franklin standards. Striping and signal plans shall be submitted to the City of Franklin Engineering Department for approval prior to construction.

16. B. General Information

The applicant shall sign the Jordan Road Development Agreement. This agreement shall be recorded with the property at the Williamson County Register of Deeds office.

Fire-Planning

General Issues

17. Fire Lane

This is a new comment based on information provided in the updated autoturn.

The applicant shall provide a marked Fire Lane in the following areas due to encroachment/conflict indicated in the autoturn:

-along the entrance/drive lane at the west corner of Hotel 2 (autoturn shows body swing/platform across a large part of the proposed sidewalk)

-along the length of the drive lane opposite of the hotel drop-off for Hotel 2; no autoturn is shown but this area appears prone to parking by hotel guests

-

18. Fire Protection

C5.2

At the proposed 5-story office building, a private fire hydrant was shown closer to the drive lane to the parking garage. In the most recent submission the hydrant has been moved behind the corner of the building and will be shielded from view/use.

The applicant shall move the hydrant back around the corner to be adjacent to the drive lane.

Performance Agreement and Surety

General Issues

19. Engineering Sureties

Applicant shall post sureties in the following amounts:	
I. City Water:	\$ 185,000
II. City Sewer:	\$ 237,000
III. City Streets:	\$ 128,000
IV. Private Streets:	\$ 757,000
V. Traffic Signals:	\$ 157,000
VI. Public Sidewalks:	\$ 55,000
VII. Stormwater Drainage:	\$ 364,000
VIII. Green Infrastructure:	\$ 3,072,000
IX. ITS Elements:	

Sureties are calculated, posted to, and approved during the Site Plan approval process. Sureties shall be posted prior to obtaining a building permit. Where a building permit is not expected, sureties shall be posted prior to obtaining a grading permit. If a Final Plat is approved at any time during the development process, all sureties will be transferred to said plat as a Condition of Approval.

Any driveway or related encroachment on City of Franklin right-of-way, including the modification, revision, or change in use of any existing driveway facilities, shall require a Street Access surety to be posted with the City of Franklin.

[Edited By Kevin Long]

Planning

Ranco Farms Subdivision, Lot 2, Revision 2, Site Plan (Mallory Green) - submittal 003.pdf

20. Architecture

Applicant shall revise the elevations of both hotels and the office building to provide HVAC screening more integral to the design of the building. This can be achieved by using a material found elsewhere on the building and/or by using an enhanced parapet wall. Please annotate on the plans the revised HVAC screening.

Planning (Landscape)

General Issues

21. Tree Preservation

The applicant shall preserve the tree grove near Mallory Lane, per the 2008 approved and executed Mass Grading Plan. Removing this tree grove is in direct violation of the previous ordinance.

After the meeting on 11.10.16 with COF staff and Wes McGill and Scotty Bernick, it was decided that with the One stop submittal that the requirements on the following shall be done:

- tree preservation plan and the the trees to be preserved shall be accomplished per the conversation.
- all trees for credit towards tree replacement shall be properly labeled and accounted for on all plans.
- The one tree along Mallory Lane at the proposed entrance can have it's dripline invaded but not more 25% on any side. Then the applicant shall provide tree root pruning and treatment. This note shall be on all grading and landscape plans.
- Trees that now located in an access easement or in the detention area, can be removed as exceptions from the 2008 Mass Grading plan.

[Edited By Amy Diaz-Barriga]

22. Lots

Clearly label the lots on all Landscape Plans.

General Issues

23. Stream Buffer

Not addressed

24. EPSC

Applicant shall show elevations for the temporary sediment basin on the detail on C3.9. Applicant shall also show the orifice diameter and the diameter of the riser pipe. All elevations on the riser pipe shall be shown

25. EPSC

Comment not fully addressed, "Applicant shall show EPSC measures on interim EPSC plan, currently only inlet protection shown. Details shall be provided as to what happens when sediment basin is phased out and what measures will be placed in the channel below the basin and before the buffer. EPSC measures shall also be provided for walking path."

26. EPSC

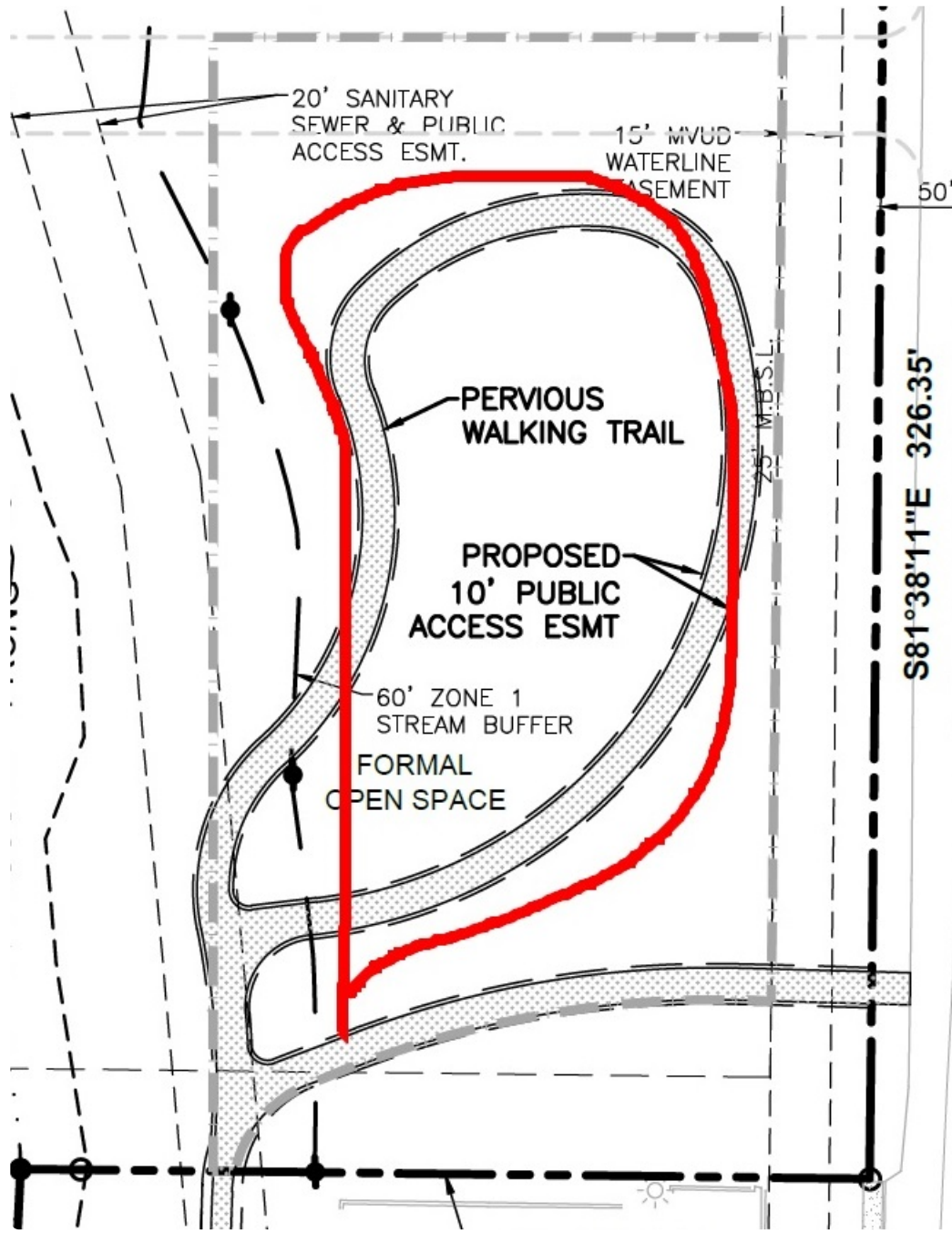
Applicant shall provide filter ring detail and detail how the measure will adequately provide sediment control.

27. SWPPP & NOC (NPDES)

Comment to remain open until active NOC is received.

28. Stream Buffer

Not addressed. Modify to similar as shown.



29. Bioretention

Not fully addressed.

1. Provide separate bioretention details since soil depth varies between areas.
2. Soil should be specified as
40% Silt
30% Sand
20% Clay
10% Organics
3. Level II design requires 12" gravel drainage layer and 12" gravel sump layer
4. Mulch layer is 3" minimum
5. Geotextile is required as per detail

30. Bioretention

Provide detail for pretreatment area

31. Long Term Maintenance Plan

Pending

32. Bioretention

Bioretention area 2 shows 6" perf. pipe text, but there is no dashed line for pipe placement.

33. Legend

Legend on Sheet C3.7 shall be updated to include bioretention areas.

34. EPSC

Applicant shall add call out note on EPSC sheets or silt fence detail that wire backed silt fence shall be installed along the stream buffer.

35. EPSC

Applicant shall provide detail for stone filter ring inlet protection.

Streets

2016.09.12 - 16065-0569 Mallory Green Site Plans-2.pdf

36. Stormwater detail

Please use these detail sheets for stormwater backfill.

GENERAL NOTES

- REINFORCED CONCRETE PIPE SHALL MEET THE REQUIREMENTS OF ASTM A170 THE WALL THICKNESS SHALL BE PAID IN EXCESS FOR STRUCTURES DEEPER THAN THE MINIMUM DEPTH. SHALL BE IDENTIFIED BY EITHER ACPA OR NCPA.
- WHERE THE TRENCH FOUNDATION IS FOUND UNACCEPTABLE OR LOCATION WHERE THE WATER TABLE IS FOUND NEAR:
 - IMPROVED FOUNDATION OR EXCAVATEABLE FLOWABLE FILL (EFF) MAY BE USED AT ENGINEER'S INSTRUCTION AS SHOWN ON D-PP-2.
 - MAX FILL HEIGHTS AND JOINT SPECIFICATIONS SHALL BE REVIEWED TO VERIFY CONDITIONS MEET WITH THE MANUFACTURER'S SPECIFICATIONS.
- FOR MINIMUM CONSTRUCTION COVER DEPTH: SEE D-PP-3.
- IF LOCAL SOIL CONDITIONS MEET MINIMUM BEDDING REQUIREMENTS BEDDING IS NOT REQUIRED. PROVIDE 12" MINIMUM COVER ABOVE THE PIPE. FILL EXHAUSTED. PIPES PARALLEL TO THE ROADWAY IN AN IMPAVED AREAS, PIPES OUTSIDE THE SHOULDER LENGTHS OF INTERCHANGE RAMP, OR PIPES OUTSIDE NORMAL SLOPE LINES.
- FOR ADDITIONAL INSTALLATION INFO SEE SECTION 27 "CONCRETE CURBS" OF THE ASHTO STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES AND ASTM C-1478-10 AND TO MANUFACTURER'S SPECIFICATIONS.
- ONLY AS MUCH TRENCH AS CAN BE SAFELY MAINTAINED SHALL BE OPENED. ALL TRENCHES SHALL BE BACKFILLED TO THE MINIMUM COVER DEPTH TO PROTECT THE PIPE AND COMPLETED AS SOON AS PRACTICABLE, BUT NOT LATER THAN THE END OF EACH WORKING DAY.
- FOR TRENCHES WITH IN SITU SOIL WALLS, THE SOIL SHALL BE AT RELATIVELY AS DENSE AS THE REQUIREMENT SHALL BE REMOVED AND REPLACED.
- FOR ENHANCEMENT AREAS OR WHERE TRENCH CONDITIONS DO NOT EXIST, AN INDUCED TRENCH SOIL ENHANCEMENT SHALL BE CONSTRUCTED SEE D-PP-3.
- ROUND AND ELLIPTICAL SHAPED PIPE CULVERTS SHALL BE INSTALLED THE SAME AS CIRCULAR WITH 0.5" EQUAL TO THE EXCESS HORIZONTAL DIMENSION ON THE JOINT. TO ESTIMATE BEDDING MATERIAL QUANTITY BY 0.5 FOR THE SHOWN TRENCH DIMENSIONS.
- FOR MULTIPLE PIPES MINIMUM SPACING BETWEEN PIPES IS:
 - 36" PIPES AND SMALLER, EQUAL TO THE OUTSIDE DIAMETER OF THE LARGEST PIPE.
 - PIPES LARGER THAN 36" EQUAL TO HALF THE OUTSIDE DIAMETER OF THE LARGEST PIPE.
- THE BACKFILL SHALL BE TYPE "B" BEDDING MATERIAL MEETING THE REQUIREMENTS OF CONSTRUCTION UNCLASSIFIED BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING AN 8 INCH LOOSE LIFT THICKNESS AND BROUGHT UP EVENLY AND SIMULTANEOUSLY ON BOTH SIDES OF THE PIPE TO AN ELEVATION NOT LESS THAN ONE FOOT ABOVE THE TOP OF THE PIPE.
- UNCLASSIFIED BACKFILL TO THE LIMIT OF PIPE BACKFILL LINE SHALL BE COMPACTED IN ACCORDANCE TO THE MINIMUM COVER DEPTH. PROGRAMMED TIME COMPACTIVE SHALL NOT BE USED OVER THE PIPE. ALL COMPACTOR EQUIPMENT USED SHALL BE APPROVED BY THE ENGINEER.
- A MINIMUM COMPACTION LEVEL OF 90% STANDARD PROCTOR DENSITY PER ASTM 159 SHALL BE ACHIEVED BY USE OF VIBRATORY PLATE. PROGRAMMED TIME COMPACTIVE SHALL NOT BE USED OVER THE PIPE. ALL COMPACTOR EQUIPMENT USED SHALL BE APPROVED BY THE ENGINEER.
- JOINTS BETWEEN PIPES REQUIRES A RUBBER GASKET MEETING ASTM C443. AT CONNECTIONS TO STRUCTURES USE NON-SWELLING GROUT OR RUBBER JOINT PER C232 OR:
 - ALL PIPES SHALL UNDERGO INSPECTION DURING INSTALLATION, FOR LONGITUDINAL AND TRANSVERSE JOINTS. THE BOTTOM JOINT OF ASHTO STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES SHALL BE CONDUCTED NO SOONER THAN 30 DAYS AFTER COMPLETION OF INSTALLATION AND FINAL FILL.
 - FINAL INSPECTIONS SHALL BE CONDUCTED NO SOONER THAN 30 DAYS AFTER COMPLETION OF INSTALLATION AND FINAL FILL.
- EXCAVATION FOR PIPE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF THE PROPOSED PIPE CULVERT.
- EXCAVATION FOR PIPE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF THE PROPOSED PIPE CULVERT. UNCLASSIFIED BACKFILL TO THE LIMIT LINE, AND/OR EXCAVATEABLE FLOWABLE FILL INCLUDING BEDDING MATERIAL WILL BE INCLUDED IN THE UNIT PRICE OF THE PIPE.

TABLE A

PIPE CLASSIFICATION (ASHTO MET)	FILL CLASS
≤ 18"	131
> 18 TO 24"	2V
> 24 TO 36"	V
> 36"	SPECIAL DESIGN

TABLE B

PIPE CULVERT	CLASS "B" BEDDING MATERIAL	CY/LF
PIPE DIA	PAYMENT ITEM NO	W
18"	607-03.30	4.77
24"	607-05.30	5.47
30"	607-06.30	6.17
36"	607-07.30	6.87
42"	607-08.30	7.57
48"	607-09.30	8.27
54"	607-10.30	8.97
60"	607-11.30	9.67
66"	607-12.30	10.37
72"	607-13.30	11.07
78"	607-14.30	11.77
84"	607-15.30	12.47

MINIMUM HAUNCH AREA DETAIL

TABLE A

MINIMUM DEPTH (D)	MATERIAL	DEPTH
PIPE	131	12"
36"	2V	24"
48"	V	36"
PVC	131	12"
SDRP	131	12"
PP	131	12"

TABLE B

PIPE CULVERT	CLASS "B" BEDDING MATERIAL	CY/LF
PIPE DIA	PAYMENT ITEM NO	W
18"	607-03.30	5.313
24"	607-05.30	5.382
30"	607-06.30	5.457
36"	607-07.30	5.526
42"	607-08.30	5.597
48"	607-09.30	5.668
54"	607-10.30	5.741
60"	607-11.30	5.818
66"	607-12.30	5.895
72"	607-13.30	5.978

GENERAL NOTES

PIPE MATERIALS:

- ALL PERMISSIBLE PIPE MATERIALS ARE HDPE, PVC, CMP, SDRP, AND PP.
- ALL HIGH-DENSITY POLYETHYLENE (HDPE) PIPE USED FOR CULVERT AND STORAGE APPLICATIONS SHALL CONFORM TO THE REQUIREMENTS OF ASHTO MAND. TYPE 1. CURRENT EDITION ALL HDPE PIPE DELIVERED AND USED SHALL BE A PART OF THE PIPE MANUFACTURER'S QUALITY CONTROL PROGRAM.
- POLY VINYL CHLORIDE (PVC) PROFILE WALL ORDNANCE PIPE SHALL MEET ASHTO DESIGNATION W304. THE MAXIMUM PIPE DIAMETER FOR THE PIPE IS 36".
- STRUCTURAL METAL PIPE (CMP) SHALL BE ALUMINUM COATED CORRUGATED METAL PIPE SHALL MEET ASHTO MAND. MAXIMUM DIA IS 72". CMP FROM 78"-144" IN DIAMETER MAY BE USED IN SPECIAL CASES SUCH AS FOR A RIB GASKET WILL NOT WORK. NON-SWELLING GROUT APPLIED IN THE JOINTS SHALL BE USED.
- POLYPROPYLENE (PP) PIPE SHALL MEET ASHTO DESIGNATION W303. THE MAXIMUM PIPE DIAMETER IS 36".

INSTALLATIONS REQUIREMENTS:

- FOR ENHANCEMENT AREAS OR WHERE TRENCH CONDITIONS DO NOT EXIST, AN INDUCED TRENCH SHALL BE CONSTRUCTED SEE D-PP-3.
- FOR TRENCHES WITH IN SITU SOIL WALLS, ANY PORTION OF THE WALL SHALL BE AT LEAST AS FIRM AS THE MINIMUM COVER DEPTH FOR CONSTRUCTION LONGS SEE D-PP-3.
- FOR ADDITIONAL INSTALLATION INFORMATION SEE ASHTO SECTION 30 OR ASTM D2321. JOINTS SHALL BE ASSEMBLED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PIPE SHALL BE PLACED IN THE BED POSITIONING AT THE DOWNSTREAM END.
- ONLY AS MUCH TRENCH AS CAN BE SAFELY MAINTAINED SHALL BE OPENED. ALL TRENCHES SHALL BE BACKFILLED TO THE MINIMUM COVER DEPTH TO PROTECT THE PIPE AND COMPLETED AS SOON AS PRACTICABLE, BUT NOT LATER THAN THE END OF EACH WORKING DAY.
- FOR MULTIPLE PIPES MINIMUM SPACING BETWEEN PIPES IS:
 - 36" PIPES AND SMALLER, EQUAL TO THE OUTSIDE DIAMETER OF THE LARGEST PIPE.
 - PIPES LARGER THAN 36" EQUAL TO HALF THE OUTSIDE DIAMETER OF THE LARGEST PIPE.
- MAXIMUM ALLOWABLE FILL HEIGHTS ARE AS DEFINED IN THE ORDNANCE MANUAL TABLE 6A-1.
- FOR MINIMUM COVER DEPTH FOR CONSTRUCTION LONGS SEE D-PP-3.
- ORDNANCE COMPACTABLE BACKFILL REQUIREMENTS:
 - THE BACKFILL SHALL BE TYPE "B" BEDDING OR E MATERIAL MEETING THE REQUIREMENTS OF SUBSECTION 303.05.
 - STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING AN 8 INCH LOOSE LIFT THICKNESS AND BROUGHT UP EVENLY AND SIMULTANEOUSLY ON BOTH SIDES OF THE PIPE TO AN ELEVATION NOT LESS THAN 1 INCH ABOVE THE TOP OF THE PIPE.
 - UNCLASSIFIED BACKFILL TO THE LIMIT OF PIPE BACKFILL LINE SHALL BE COMPACTED IN ACCORDANCE TO THE MINIMUM COVER DEPTH. PROGRAMMED TIME COMPACTIVE SHALL NOT BE USED OVER THE PIPE. ALL COMPACTOR EQUIPMENT USED SHALL BE APPROVED BY THE ENGINEER.
 - A MINIMUM COMPACTION LEVEL OF 90% STANDARD PROCTOR DENSITY PER ASTM 159 SHALL BE ACHIEVED BY USE OF VIBRATORY PLATE. PROGRAMMED TIME COMPACTIVE SHALL NOT BE USED OVER THE PIPE. ALL COMPACTOR EQUIPMENT USED SHALL BE APPROVED BY THE ENGINEER.
- INSPECTION REQUIREMENTS:
 - ALL PIPES SHALL UNDERGO INSPECTION DURING INSTALLATION.
 - FINAL INSPECTIONS SHALL BE CONDUCTED NO SOONER THAN 30 DAYS AFTER COMPLETION OF INSTALLATION AND FINAL FILL.
 - THE PIPE SHALL BE EVALUATED TO DETERMINE WHETHER THE INTERNAL DIAMETER OF THE SIDING HAS BEEN REDUCED MORE THAN WHEN REQUIRED BUT LESS THAN 30 DAYS FOLLOWING COMPLETION OF THE INSTALLATION.
 - FOR LOCATIONS WHERE PIPE IS 36" OR THE EXCESS DIAMETER, AN EVALUATION SHALL BE CONDUCTED BY THE INSPECTOR AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. THE EVALUATION SHALL BE CONDUCTED IN THE PRESENCE OF THE PIPE MANUFACTURER'S REPRESENTATIVE AND THE DESIGN SERVICES FIRM. THE EVALUATION SHALL BE CONDUCTED IN THE PRESENCE OF THE PIPE MANUFACTURER'S REPRESENTATIVE AND THE DESIGN SERVICES FIRM. THE EVALUATION SHALL BE CONDUCTED IN THE PRESENCE OF THE PIPE MANUFACTURER'S REPRESENTATIVE AND THE DESIGN SERVICES FIRM.
 - INSPECTOR SHALL INDICATE WHETHER THE INSTALLATION WAS SUBSTANTIAL. SEE SECTION 603.05.
- IN ALL PIPE INSTALLATIONS, AT LEAST 10% OF THE TOTAL NUMBER OF PIPE JOINTS INSPECTED AT EACH END OF THE PIPE SHALL BE INSPECTED. THE INSPECTION SHALL BE CONDUCTED BY THE INSPECTOR AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. THE EVALUATION SHALL BE CONDUCTED IN THE PRESENCE OF THE PIPE MANUFACTURER'S REPRESENTATIVE AND THE DESIGN SERVICES FIRM. THE EVALUATION SHALL BE CONDUCTED IN THE PRESENCE OF THE PIPE MANUFACTURER'S REPRESENTATIVE AND THE DESIGN SERVICES FIRM.

PAYMENT:

- EXCAVATION FOR PIPES WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF THE PROPOSED PIPE CULVERT.
- FOR GRANULAR COMPACTABLE TYPE "B" BACKFILL, UNCLASSIFIED BACKFILL TO THE LIMIT LINE, AND/OR EXCAVATEABLE FLOWABLE FILL INCLUDING BEDDING MATERIAL WILL BE INCLUDED IN THE UNIT PRICE OF THE PIPE.
- GEOTECH TYPE 313 WILL BE PAID UNDER ITEM NO. 740-03.03 IF IMPROVED FOUNDATION IS REQUIRED.

TABLE A

MINIMUM DEPTH (D)	MATERIAL	DEPTH
PIPE	131	12"
36"	2V	24"
48"	V	36"
PVC	131	12"
SDRP	131	12"
PP	131	12"

TABLE B

PIPE CULVERT	CLASS "B" BEDDING MATERIAL	CY/LF
PIPE DIA	PAYMENT ITEM NO	W
18"	607-03.30	5.313
24"	607-05.30	5.382
30"	607-06.30	5.457
36"	607-07.30	5.526
42"	607-08.30	5.597
48"	607-09.30	5.668
54"	607-10.30	5.741
60"	607-11.30	5.818
66"	607-12.30	5.895
72"	607-13.30	5.978

Ranco Farms Subdivision, Lot 2, Revision 2, Site Plan (Mallery Green) - submittal 003.pdf

37. Expansion joint

Concrete walk detail shall specify rubberized expansion joint.

Water/Sewer

General Issues

38. Sanitary sewer

Applicant did submit sanitary sewer plan and profile, but the sewer plan and profiles are for more than the originally discussed sanitary replacement. Therefore, applicant shall revise the sanitary sewer as noted below:

- Stationing and manholes shall be clearly labeled on the sanitary sewer plan and profile.
- All storm sewer shall be clearly labeled on the sanitary sewer plan and profile. This includes crossings and storm sewer that may parallel the sewer main.
- Slopes over the sewer main shall be designed so maintenance can be performed.
- Sanitary sewer main to be replaced shall be centered in the drive isle. Storm sewer and the tree to be saved shall be clear of the sanitary sewer main.
- Sanitary sewer main to be replaced shall be designed at minimal depths. Outside drop manholes shall be shown where practical. Added sanitary sewer manholes shall be minimized where possible.
- Existing manhole 6 shall be replaced with drop manhole. This will eliminate the newly proposed sewer manhole A-4.
- Sanitary sewer service lines shall have cleanout shown at ROW or property line.
- proper separation shall be shown between sanitary sewer main and proposed water line. The scale does not match on the PDF that was submitted. Unable to tell what the separation is.
- The sanitary sewer main B shall end at the corner of the 5 story office building. The sanitary sewer service line shall be extended to the building from that point. A cleanout shall be shown at the edge of easement, ROW or property line.
- Sanitary sewer main C shall be shown at minimal depths. Drop manhole shall be shown where applicable. The invert or Finished floor elevation for the future building shall be shown to ensure the line will serve and is at minimal depths.
- Any existing sanitary sewer service lines shall be terminated at the main.
- Bypass pumping shall be utilized during construction. This shall be noted on the plans.
- A sketch has been sent to Wes, for his review. The mark up shall be reflected at next submittal.
- Questions or comments please contact Franklin Water management (615) 794-4554

39. Engineered fill

Applicant shall add engineered fill note to sewer plan and profile. Sewer main over engineered fill shall be called out as engineered fill area.

- Where sanitary sewers are installed in new fill, a compaction letter sealed by a Geotechnical Engineer registered in the State of Tennessee shall be submitted to the Owner prior to accepting said utilities. An acceptable compaction letter shall state that field density testing indicates the fill has been compacted to at least 95% of the maximum dry density according to the Standard Proctor. If a compaction letter is not available, special protection such as replacement with ductile iron pipe with joint restraint or encasement with flowable fill shall be utilized as approved by the WMD.

40. Accurate utility survey

Applicant shall provide an accurate utility survey, depicting the existing sanitary sewer, domestic water and the existing tree in question along Mallory Ln. The current layout may not accurately depict the location of utilities and the tree location.