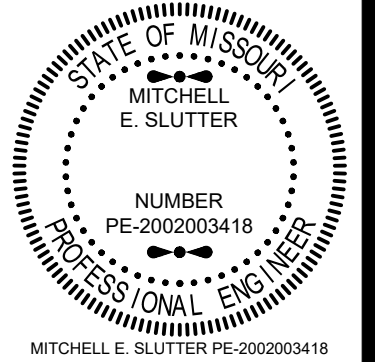


NO.	BY	DATE	REVISION
2	JGD	MES 08/19/19	PER CITY COMMENT
1	JGD	MES 08/13/19	ORIGINAL SUBMISSION

Renaissance Infrastructure Consulting

1816 MCCREE STREET, SUITE 200
KANSAS CITY, MISSOURI 64108
816.800.0950
WWW.RIC-CONSULT.COM

MO Certificate of Authority: E-2010033630



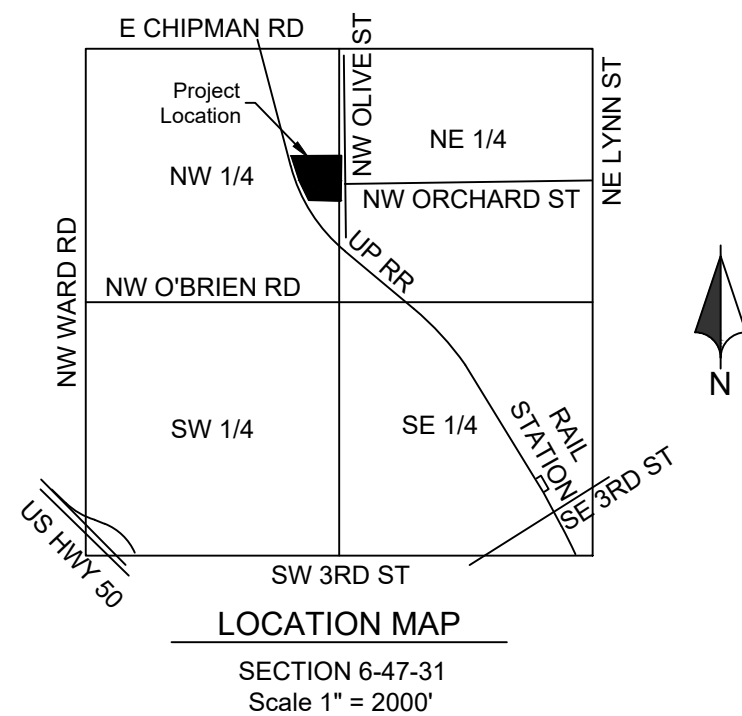
Land Disturbance Plans For
Sequoia Townhomes
Lee's Summit, Jackson County, Missouri
Total Project Area: 3.76 Acres
Limits of Disturbance: 3.76 Acres

Sheet List Table

Sheet Number	Sheet Title
C01	Title Sheet
C02	Existing Conditions
C03	Demo Plan
C04	General Layout
C05	Grading Plan
C06	Drainage Map
C07	Erosion Control Phase 1
C08	Erosion Control Phase 2
C09	Erosion Control Phase 3
C10	Erosion Control Details
C11	Erosion Control Details

GENERAL NOTES

- All construction shall follow the City of Lee's Summit Design and Construction Manual as adopted by Ordinance 5813. Where discrepancies exist between the Land Disturbance Plans and the Design and Construction Manual, the Design and Construction Manual shall govern.
- The contractor will be responsible for securing all bonds, and insurance required by the contract documents, City of Lee's Summit, Mo., and all other governing agencies (including local, county, state, and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all bonds, and insurance shall be the contractor's responsibility and shall be included in the bid for the work.
- All existing utilities indicated on the drawings are according to the best information available to the engineer; however, all utilities actually existing may not be shown. The contractor shall be responsible for contacting all utility companies for an exact field location of each utility prior to any construction. All utilities, shown and un-shown, damaged through the negligence of the contractor shall be repaired or replaced by the contractor at his/her expense.
- The contractor will be responsible for all damages to existing utilities, pavement, fences, structures, and other features not designated for removal. The contractor shall repair all damages at his/her expense.
- The demolition of existing pavement, curbs, structures, and all other features necessary to construct the proposed improvements, shall be performed by the contractor. All waste material removed during construction shall be disposed off the project site. The contractor shall be responsible for all permits for hauling and disposing of waste material. The disposal of waste material shall be in accordance with all local, state, and federal regulations.
- By use of these construction documents the contractor hereby agrees that he shall be solely responsible for the safety of the construction workers and the public. The contractor agrees to hold the engineer and owner harmless for any and all injuries, claims, losses, or damages related to the project.
- The contractor will be responsible for providing all signage, barricades, lighting, etc., as required for temporary traffic control during the construction of this project. Maintenance of the temporary traffic control devices will be the contractor's responsibility. All traffic control in conduction with construction in the right-of-way shall be in conformance with the City Traffic Control Requirements.
- Contractor shall furnish evidence that his/her insurance meets the requirements of the City of Lee's Summit, Missouri Municipal Code.
- Prior to installing, constructing, or performing any work on the public storm sewer line (including connecting private drainage systems to the storm sewer), contact Lee Summit Inspections.
- Connections to the public storm sewers between structures will not be permitted.
- Contractor shall verify and accept existing topography shown herein. Contractor shall notify Engineer if any discrepancies are found prior to any earthwork activities.
- Planning and Codes Administration will require a retaining wall design by a registered engineer in the State of Missouri.
- Geo-grid, footings, or other elements of the retaining wall(s) cannot encroach into the right of way or public easements.
- A Knox Box shall be provided for Each Building.
- All building and life safety issues shall comply with the 2012 International Fire Code and local amendments as adopted by the City of Lee's Summit.



Missouri State Operating General Permit Number: MORA14267 Issued on 08-13-2019

Legal Description:

Lots 1, 2, and 3, EXCEPT the North 70 feet of the East 150 feet of Lot 3, HEARNE'S ADDITION, (aka/ HEARNES FIRST ADDITION) and the North Half of vacated Orchard Street lying South and adjacent, a subdivision in Lee's Summit, Jackson County, Missouri.

Lot 22, and 23, HEARNE'S ADDITION, a subdivision in Lee's Summit, Jackson County, Missouri, EXCEPT the South 8 feet of the West 50 feet of Lot 22 and also EXCEPT, the South 8 feet of Lot 23, and ALSO EXCEPT the South 88 feet of the East 150 feet of Lot 22, together with the South 1/2 of vacated Orchard Street lying North of and Adjacent to the said premises in question.

Common Property:

All common property and common property maintenance plans shall be maintained in accordance with Article 5, Division V of the City of Lee's Summit Unified Development Ordinance. The homeowners association shall have ownership and responsibility of common property and common property maintenance plan revisions.

BENCHMARK:

BM-A: 1.0 mi NW along the Missouri Pacific Railroad from the station at Lee's Summit, at the crossing of Sheer Road, 86 ft southeast of the center line of Sheer Road, 36 ft northeast of the northwest rail, 28.4 ft southeast of a telephone pole, 697 ft southwest of a fence, 1.8 ft west of a witness post, set in the top of a concrete post which projects 0.3 ft above the ground.
Elev: 994.87

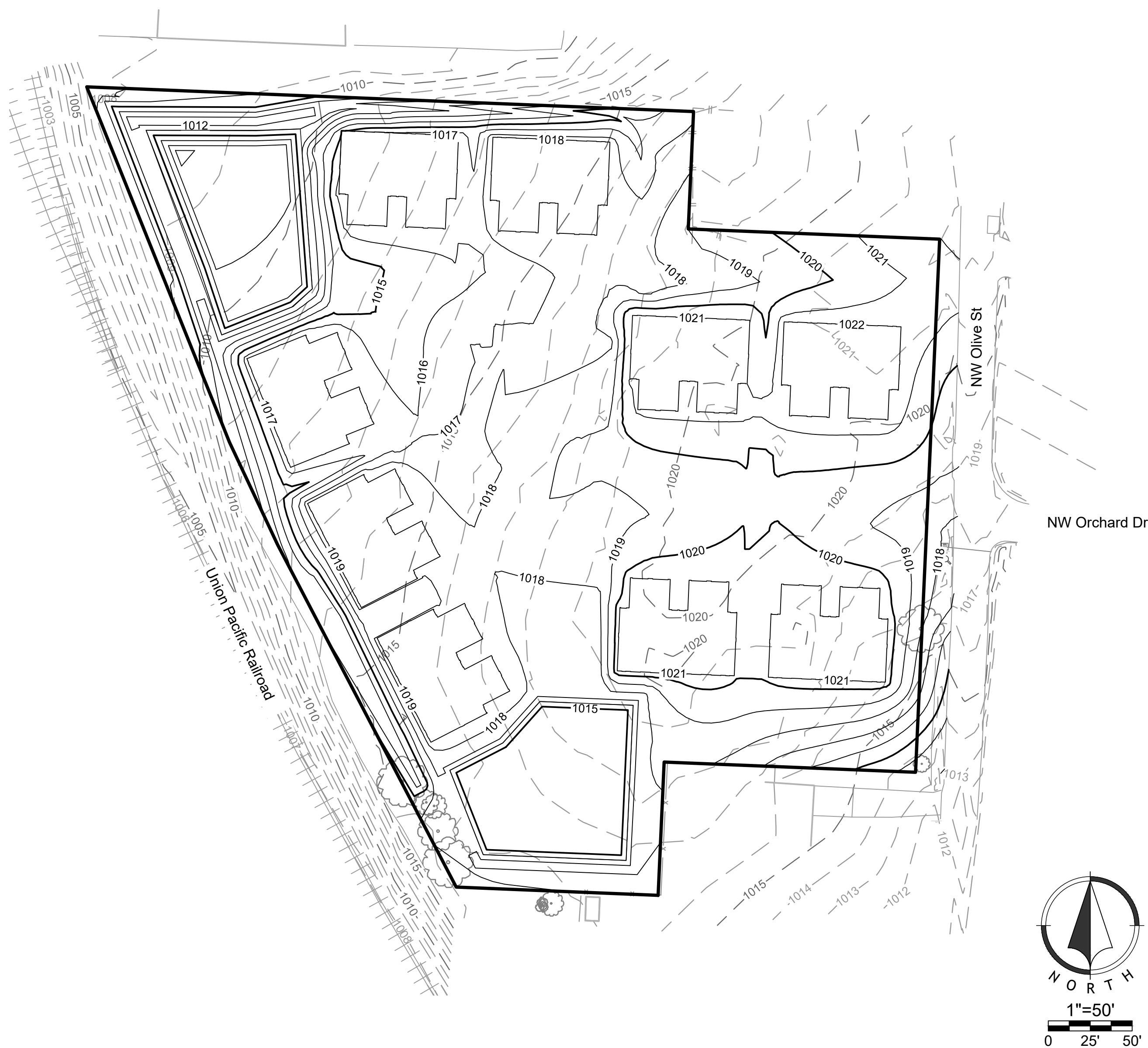
BM-B: 1.3 mi N along the Missouri Pacific Railroad from the station at Lee's Summit, Jackson County, at semaphore 2611, on the top of the concrete base, and 10 ft east of the track. A chiseled square.
Elev: 971.80

Oil / Gas Well Note:

There is no visible evidence, this date, of abandoned oil or gas wells located within the property boundary, as identified in "Environmental Impact Study of Abandoned Oil and Gas Wells in Lee's Summit, Missouri." (Figure B-4, pg. 91)

Flood Plain Note

We have reviewed the F.E.M.A. Flood Insurance Rate Map Number 29095C0417G, revised January 20, 2017, this tract graphically lies in OTHER AREAS, ZONE X, defined as areas determined to be outside the 0.2% annual chance floodplain.



LEGEND

---	Existing Section Line	— R/W —	Proposed Right-of-Way
=====	Existing Right-of-Way Line	— P/L —	Proposed Property Line
----	Existing Lot Line	-----	Proposed Lot Line
-----	Existing Easement Line	— U/E —	Proposed Easement
=====	Existing Curb & Gutter	=====	Proposed Curb & Gutter
=====	Existing Sidewalk	=====	Proposed Sidewalk
=====	Existing Storm Sewer	=====	Proposed Storm Sewer
□	Existing Storm Structure	□	Proposed Storm Structure
— W/L —	Existing Waterline	— A —	Proposed Fire Hydrant
— GAS —	Existing Gas Main	— WATER —	Proposed Waterline
— SAN —	Existing Sanitary Sewer	-----	Proposed Sanitary Sewer
⊙	Existing Sanitary Manhole	•	Proposed Sanitary Manhole
----	Existing Contour Major	-----	Proposed Contour Major
----	Existing Contour Minor	-----	Proposed Contour Minor
-----		-----	Future Curb & Gutter



WATER & SANITARY SEWER
City of Lee's Summit Water Utilities
220 SE Green St
Lee's Summit, MO
Phone: 816.969.1900
After Hours: 816.969.7407

ELECTRICITY
Kansas City Power and Light
Phone: 816.471.5275


GAS
Missouri Gas Energy
PO Box 219255
Kansas City, Missouri 64141
Phone: 816.756.5252

TELEPHONE
AT&T
Phone: 800.288.2020

Time Warner Cable
Phone: 816.222.5952

CABLE TV
Comcast
Phone: 816.795.1100

Time Warner Cable
Phone: 816.358.8833

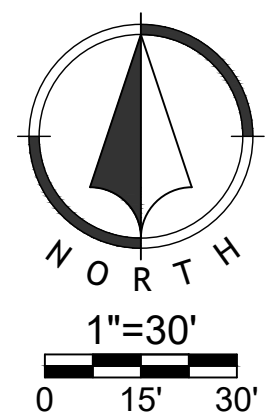
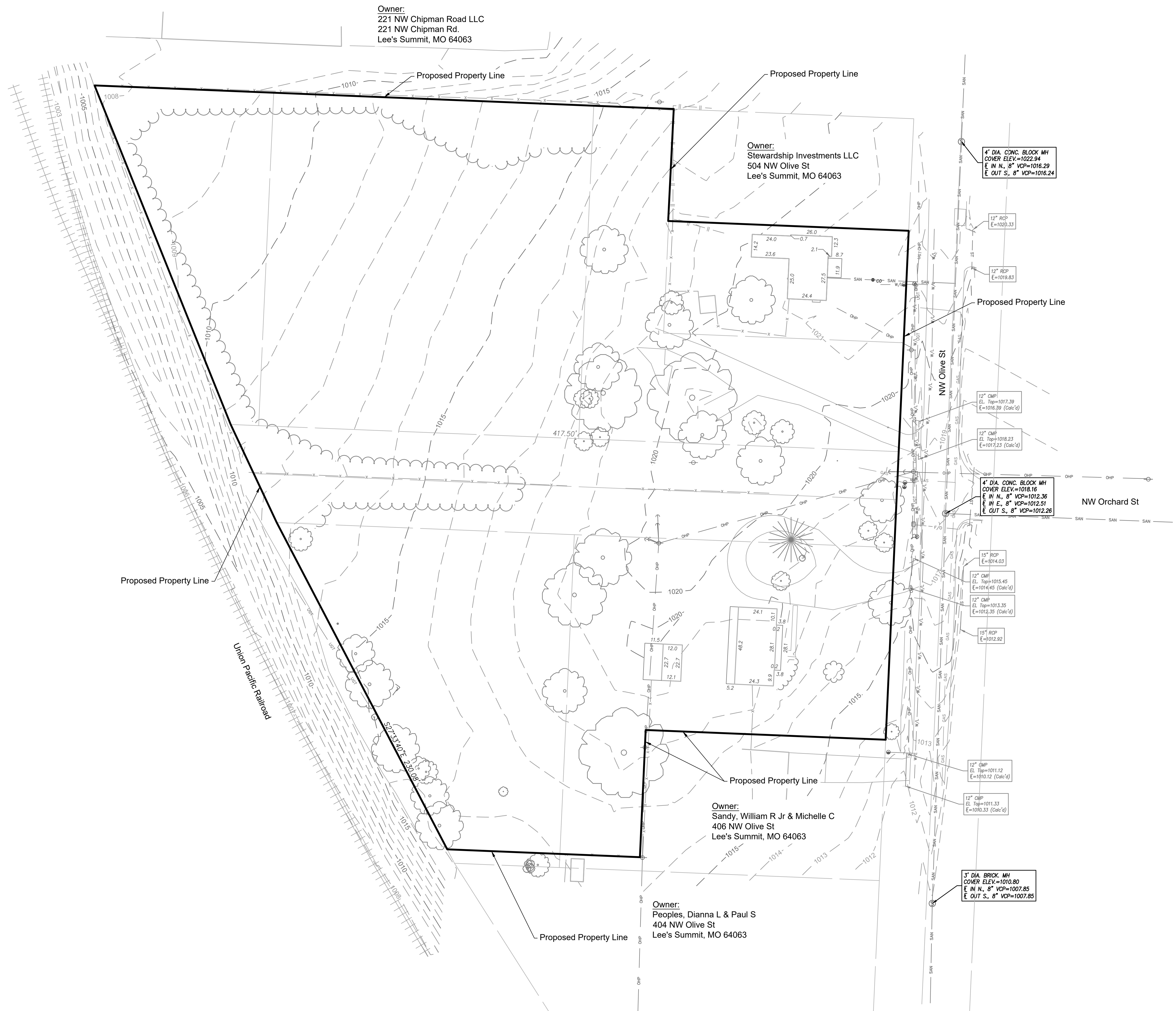
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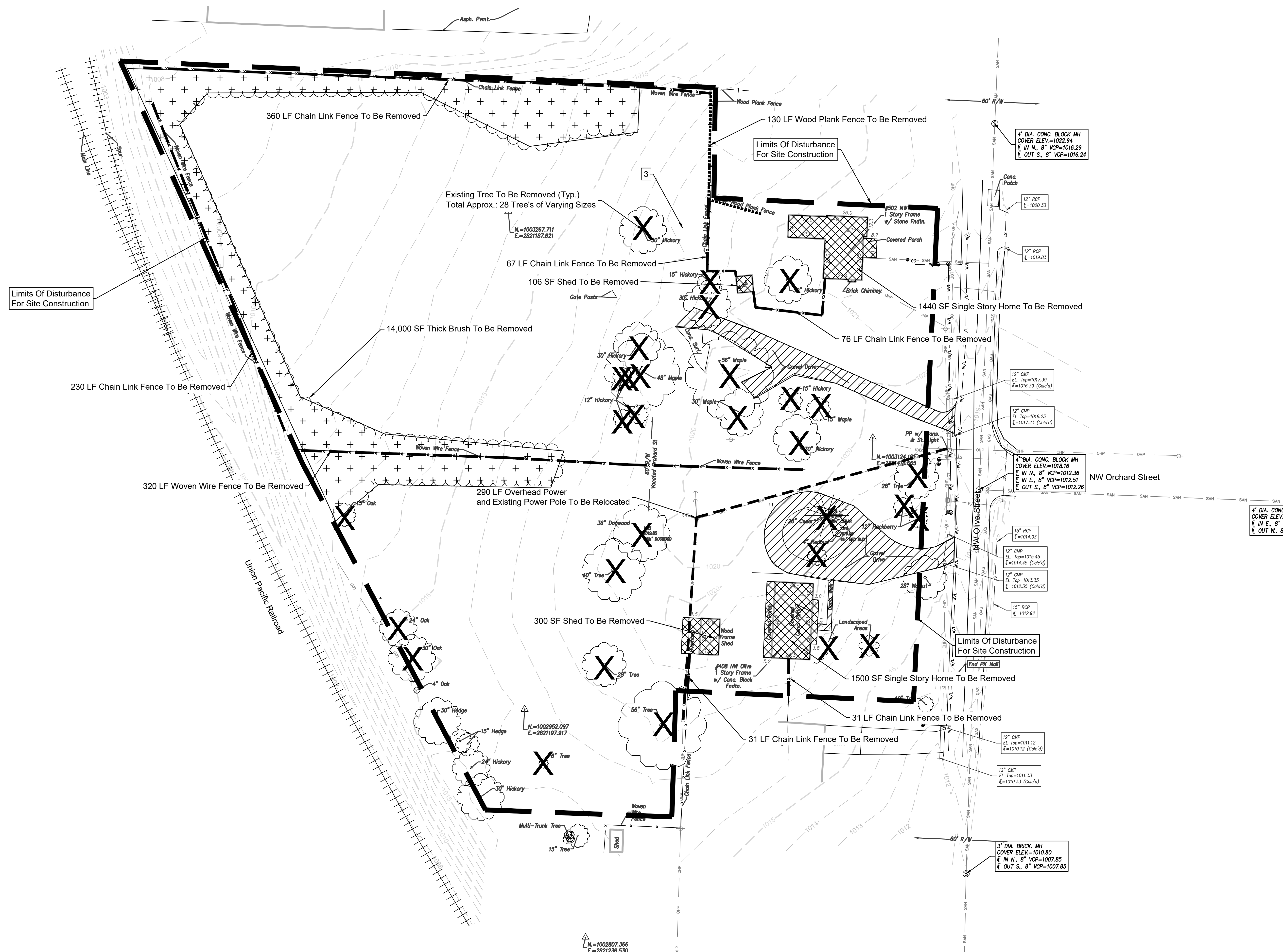
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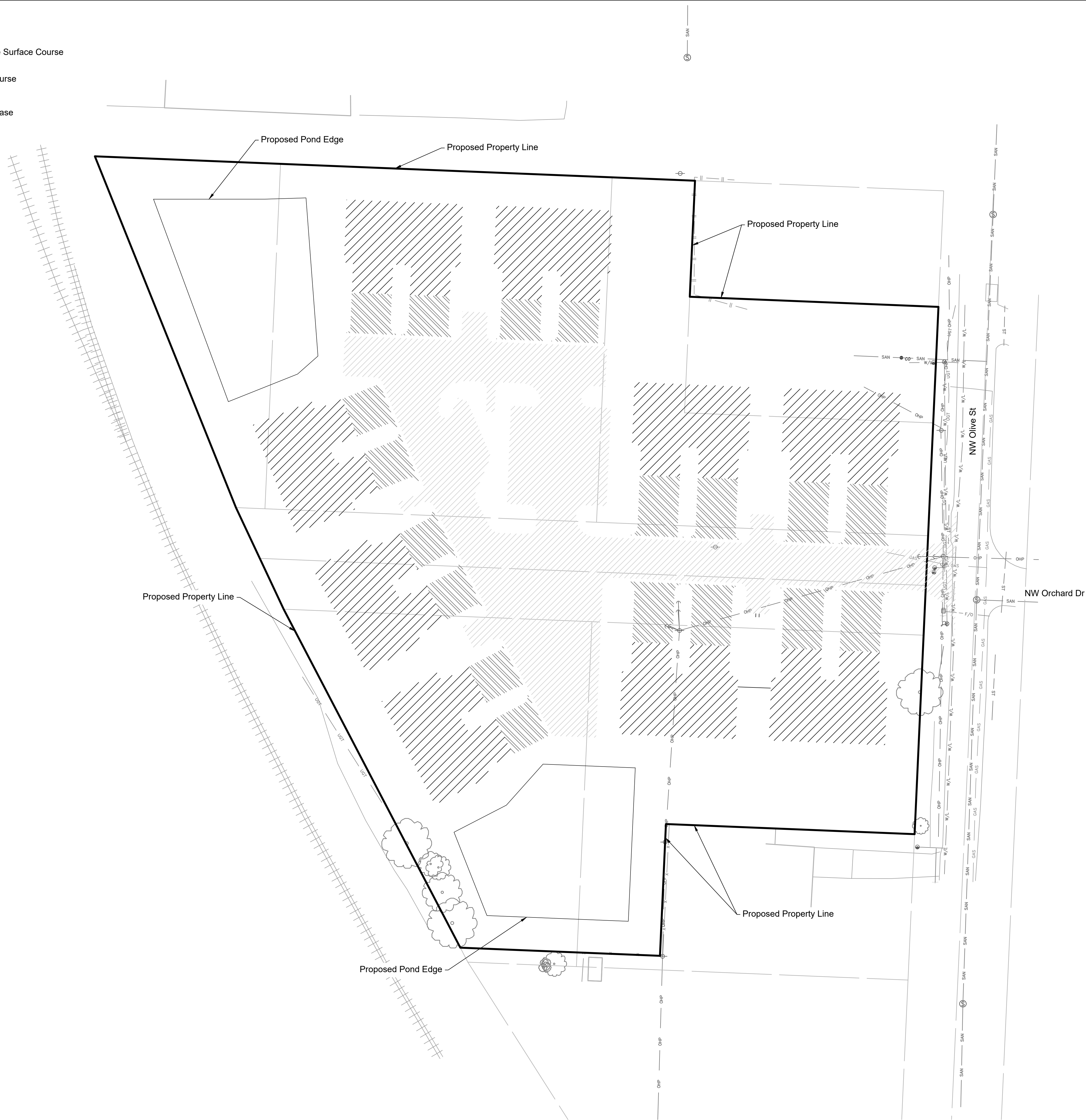
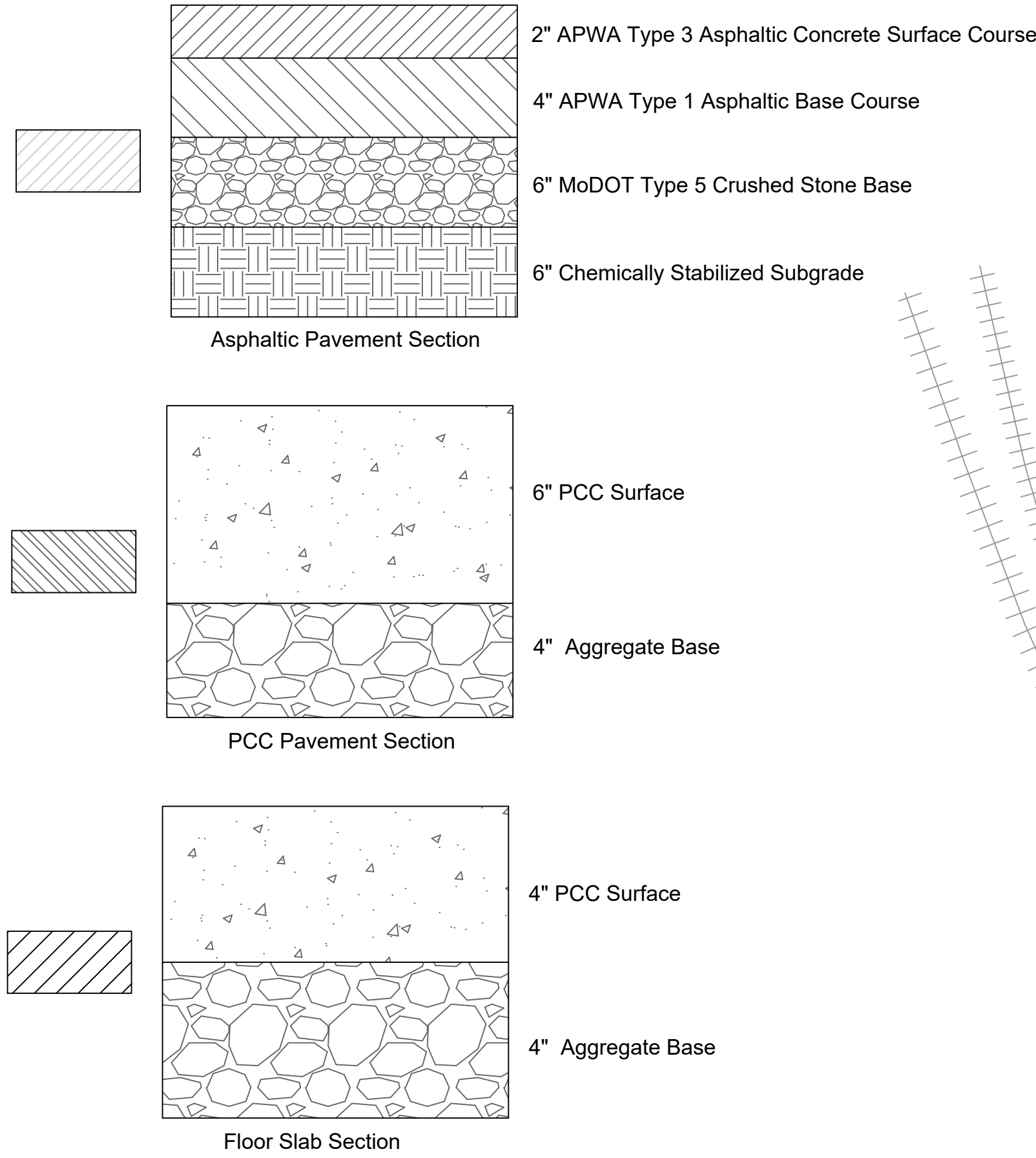
1815 MCGEE STREET, SUITE 200
KANSAS CITY, MISSOURI 64108

STATE OF MISSOURI
MITCHELL
E. SLUTTER
NUMBER
PE-2002003418
PROFESSIONAL ENGINEER
MITCHELL E. SLUTTER PE-2002003418



[illegible]

Note:
1) General layout is for information only. No above or below ground infrastructure shall be constructed with this permit.



NO.	BY	DATE	REVISION
2	JGD	MES 08/19/19	PER CITY COMMENT
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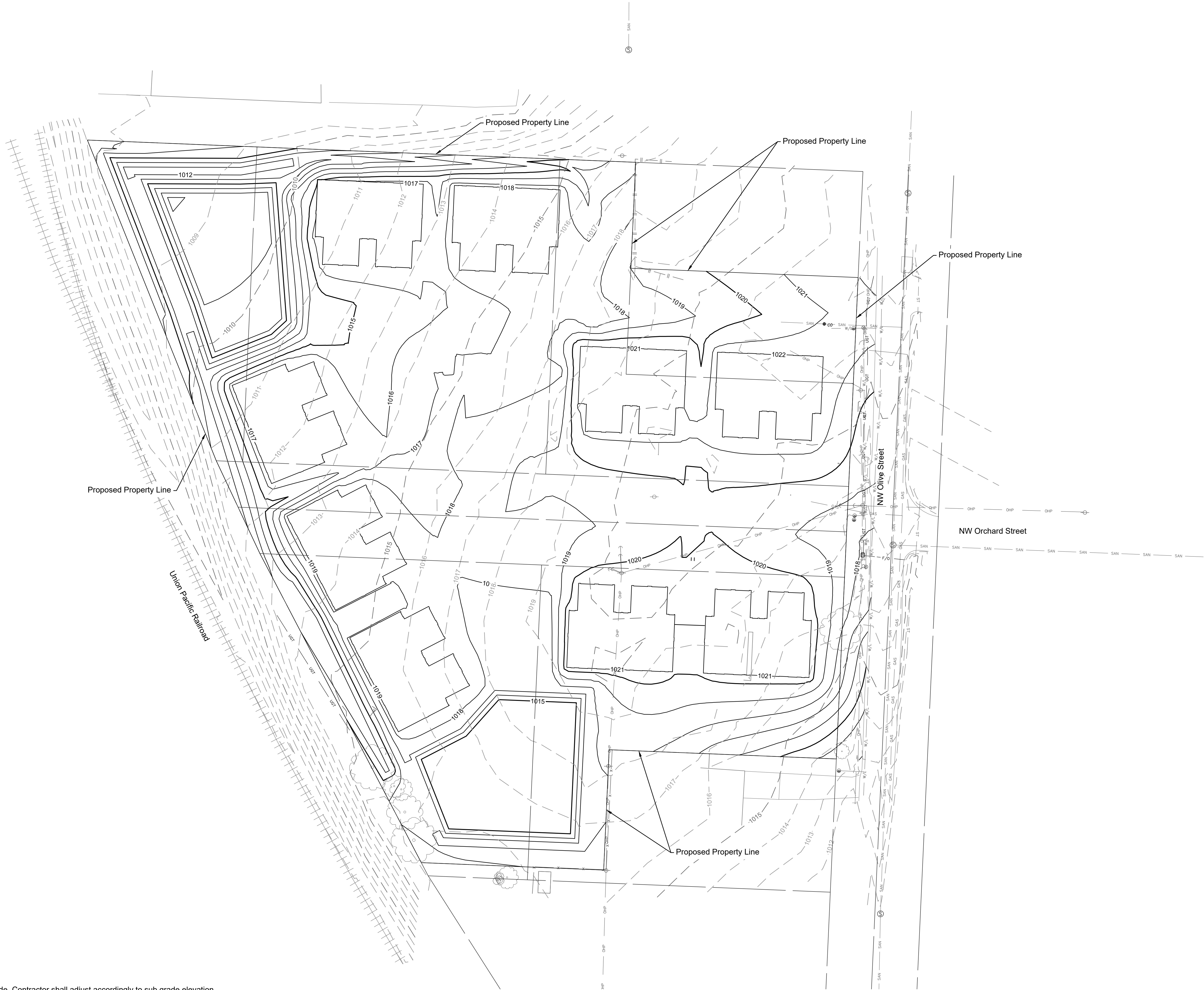
MO Certificate of Authority: E-2010033630



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Notes:

- 1) Contours shown are finished grade. Contractor shall adjust accordingly to sub grade elevation.



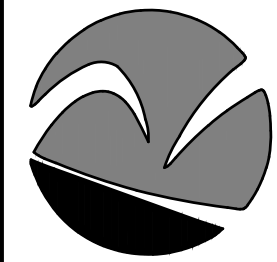
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Land Disturbance Plans
18-0251
Sequoia Townhomes
Lee's Summit, Missouri

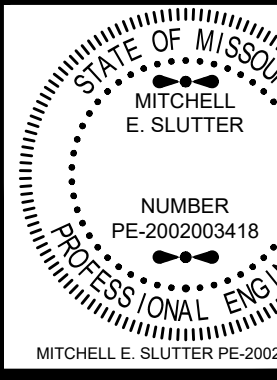
Grading Plan

NO.	BY	CD	DATE	PER CITY COMMENT
2	JGD	MES	08/19/19	ORIGINAL SUBMISSION
1	JGD	MES	08/13/19	REVISION

**Renaissance
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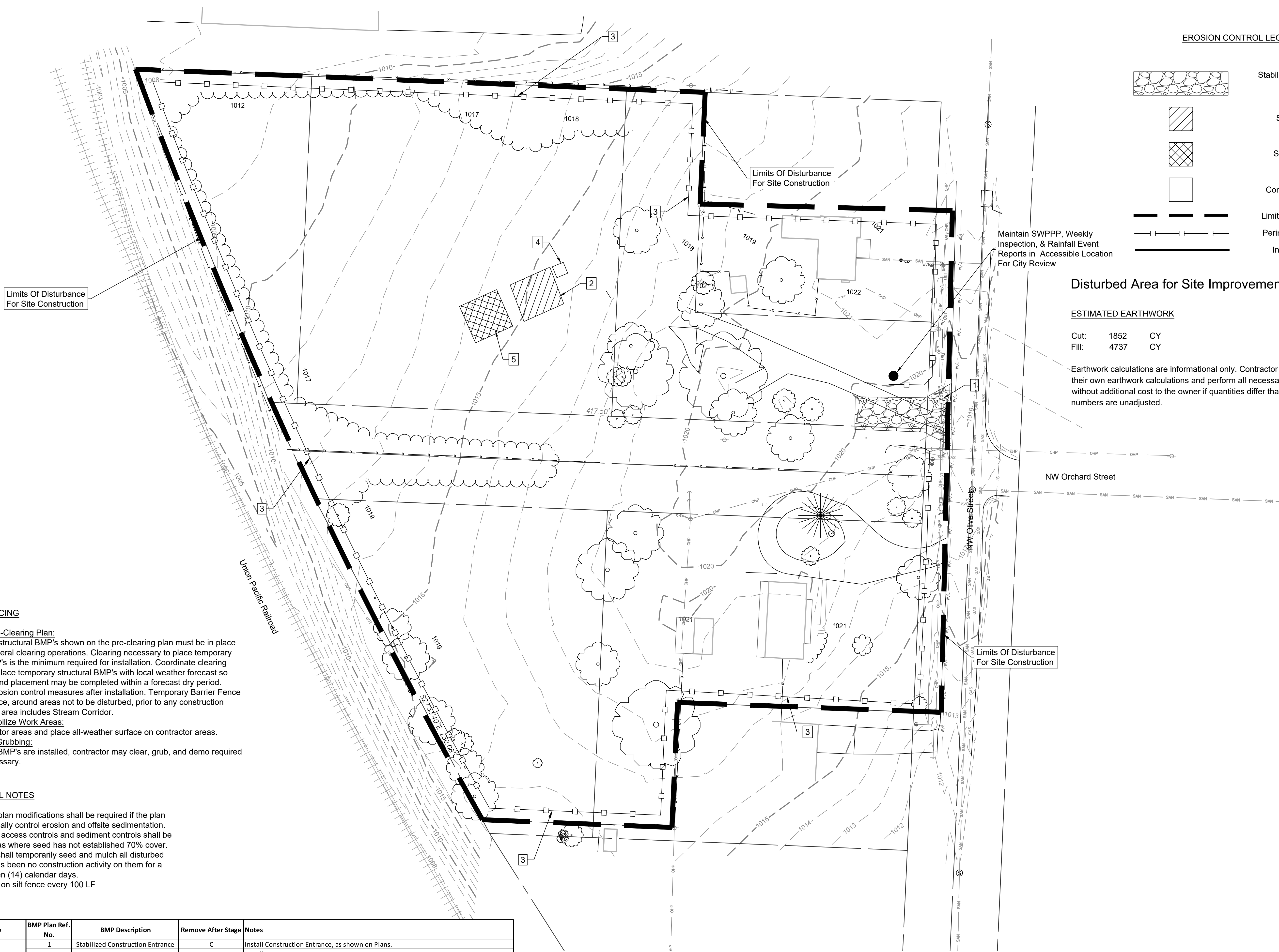
1815 MCCREE STREET, SUITE 200
KANSAS CITY, MISSOURI 64108
816.800.0950
WWW.RIC-CONSULT.COM



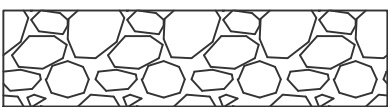
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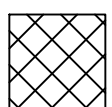
EROSION CONTROL LEGEND



Stabilized Construction Entrance



Staging Area



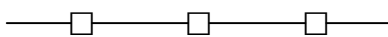
Stockpile Area



Concrete Washout



Limits of Disturbance



Perimeter Silt Fence



Inlet Protection

Disturbed Area for Site Improvements : 3.76 Acres

ESTIMATED EARTHWORK

Cut: 1852 CY
Fill: 4737 CY

Earthwork calculations are informational only. Contractor shall be responsible for their own earthwork calculations and perform all necessary earthwork shown herein without additional cost to the owner if quantities differ than above. Earthwork numbers are unadjusted.

WRITTEN SEQUENCING

1. Implement Pre-Clearing Plan:
All temporary structural BMP's shown on the pre-clearing plan must be in place before the general clearing operations. Clearing necessary to place temporary structural BMP's is the minimum required for installation. Coordinate clearing necessary to place temporary structural BMP's with local weather forecast so that clearing and placement may be completed within a forecast dry period. Stabilize all erosion control measures after installation. Temporary Barrier Fence shall be in Place, around areas not to be disturbed, prior to any construction activities. This area includes Stream Corridor.
2. Clear and Stabilize Work Areas:
Grade contractor areas and place all-weather surface on contractor areas.
3. Clearing and Grubbing:
After Phase I BMP's are installed, contractor may clear, grub, and demo required areas as necessary.

EROSION CONTROL NOTES

1. Erosion control plan modifications shall be required if the plan fails to substantially control erosion and offsite sedimentation.
2. The retention of access controls and sediment controls shall be required for areas where seed has not established 70% cover.
3. The contractor shall temporarily seed and mulch all disturbed areas if there has been no construction activity on them for a period of fourteen (14) calendar days.
4. Install "J" Hooks on silt fence every 100 LF

Phases	Project Stage	BMP Plan Ref. No.	BMP Description	Remove After Stage	Notes
Phase I	A- Prior to Land Disturbance	1	Stabilized Construction Entrance	C	Install Construction Entrance, as shown on Plans.
		2	Staging Area	C	Install Staging Area
		3	Perimeter Silt Fence	C	Install Perimeter Silt Fence, as Shown on Plans.
		4	Concrete Washout	C	Install Concrete Washout as shown on plans prior to pouring any concrete
Phase II	B- Mass Grading	5	Stockpile Topsoil	D	Install Sediment Fence a Minimum of 5' Beyond Toe of Slope
		6	Sediment Fence	D	Install Sediment Fence, as Shown on Plans
		7	Curb Inlet Protection	D	Install Filter Bags around Proposed Curb Inlets
		8	Rock Ditch Check	D	Install Rock Ditch Check, as Shown on Plans
Phase III	D - Final Stabilization	9	Establish Perennial Vegetation	N/A	Redistribute topsoil and seed and mulch all disturbed areas. Sod right-of-way. Stabilization complete when 100% disturbed area is established with perennial vegetation with a density of 70%.

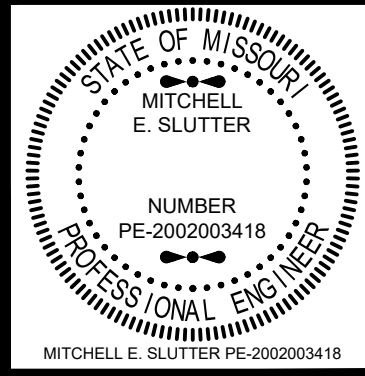
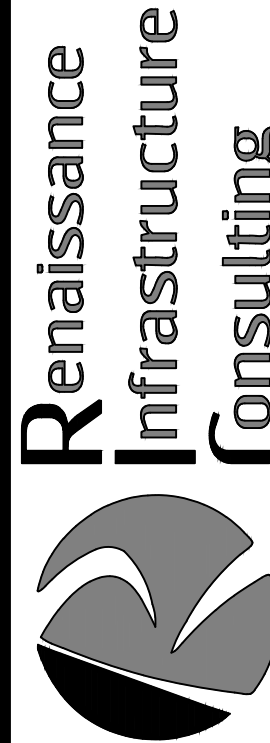
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Land Disturbance Plans

18-0251
Sequoia Townhomes
Lee's Summit, Missouri

Erosion Control Phase 1

NO.	BY	DATE	REVISION
2	JGD	MES 08/19/19	PER CITY COMMENT
1	JGD	MES 08/13/19	ORIGINAL SUBMISSION



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Limits Of Disturbance
For Site Construction

Limits Of Disturbance
For Site Construction

Maintain SWPPP, Weekly
Inspection, & Rainfall Event
Reports in Accessible Location
For City Review

Disturbed Area for Site Improvements : 3.76 Acres

ESTIMATED EARTHWORK

Cut: 1852 CY
Fill: 4737 CY

Earthwork calculations are informational only. Contractor shall be responsible for their own earthwork calculations and perform all necessary earthwork shown herein without additional cost to the owner if quantities differ than above. Earthwork numbers are unadjusted.

WRITTEN SEQUENCING

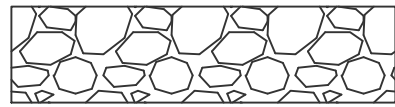
- Implement Pre-Clearing Plan:**
All temporary structural BMP's shown on the pre-clearing plan must be in place before the general clearing operations. Clearing necessary to place temporary structural BMP's is the minimum required for installation. Coordinate clearing necessary to place temporary structural BMP's with local weather forecast so that clearing and placement may be completed within a forecast dry period. Stabilize all erosion control measures after installation. Temporary Barrier Fence shall be in Place, around areas not to be disturbed, prior to any construction activities. This area includes Stream Corridor.
- Clear and Stabilize Work Areas:**
Grade contractor areas and place all-weather surface on contractor areas.
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After Phase I BMP's are installed, contractor may clear, grub, and demo required areas as necessary.

EROSION CONTROL NOTES

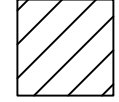
- Erosion control plan modifications shall be required if the plan fails to substantially control erosion and offsite sedimentation.
- The retention of access controls and sediment controls shall be required for areas where seed has not established 70% cover.
- The contractor shall temporarily seed and mulch all disturbed areas if there has been no construction activity on them for a period of fourteen (14) calendar days.
- Install "J" Hooks on silt fence every 100 LF

Phases	Project Stage	BMP Plan Ref. No.	BMP Description	Remove After Stage	Notes
Phase I	A- Prior to Land Disturbance	1	Stabilized Construction Entrance	C	Install Construction Entrance, as shown on Plans.
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		6	Sediment Fence	D	Install Sediment Fence, as Shown on Plans
	C - Site Construction	7	Curb Inlet Protection	D	Install Filter Bags around Proposed Curb Inlets
		8	Rock Ditch Check	D	Install Rock Ditch Check, as Shown on Plans
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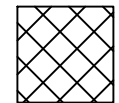
EROSION CONTROL LEGEND



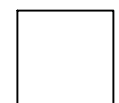
Stabilized Construction
Entrance



Staging Area



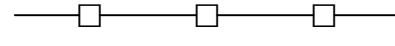
Stockpile Area



Concrete Washout



Limits of Disturbance



Perimeter Silt Fence



Inlet Protection



Rock Ditch Check

NW Orchard Street

NW Olive Street

Limits Of Disturbance
For Site Construction



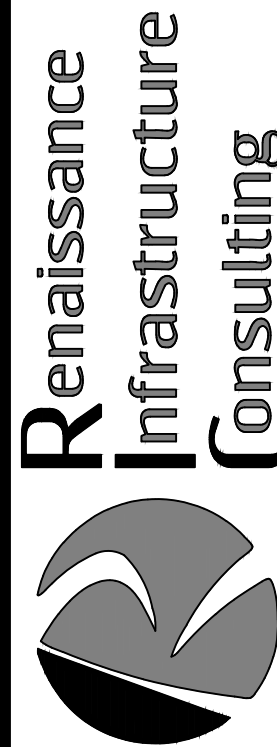
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Land Disturbance Plans

18-0251
Sequoia Townhomes
Lee's Summit, Missouri

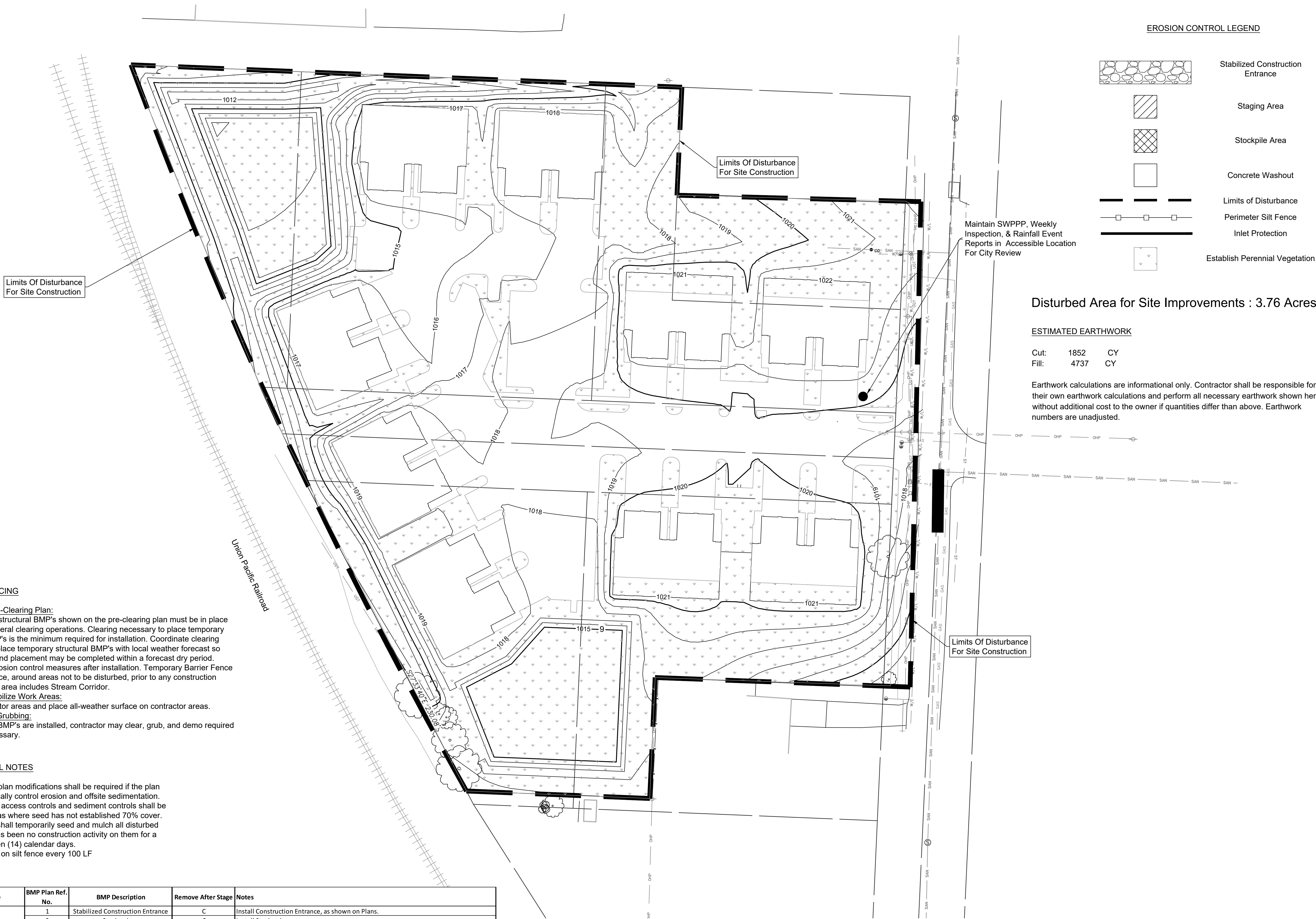
Erosion Control Phase
2

NO.	BY	DATE	REVISION
2	JGD	MES 08/19/19	PER CITY COMMENT
1	JGD	MES 08/13/19	ORIGINAL SUBMISSION



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Land Disturbance Plans

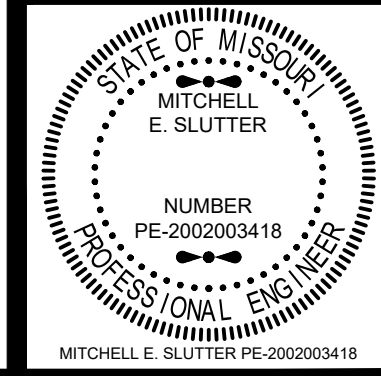
18-0251
Sequoia Townhomes
Lee's Summit, Missouri

Erosion Control Phase
3

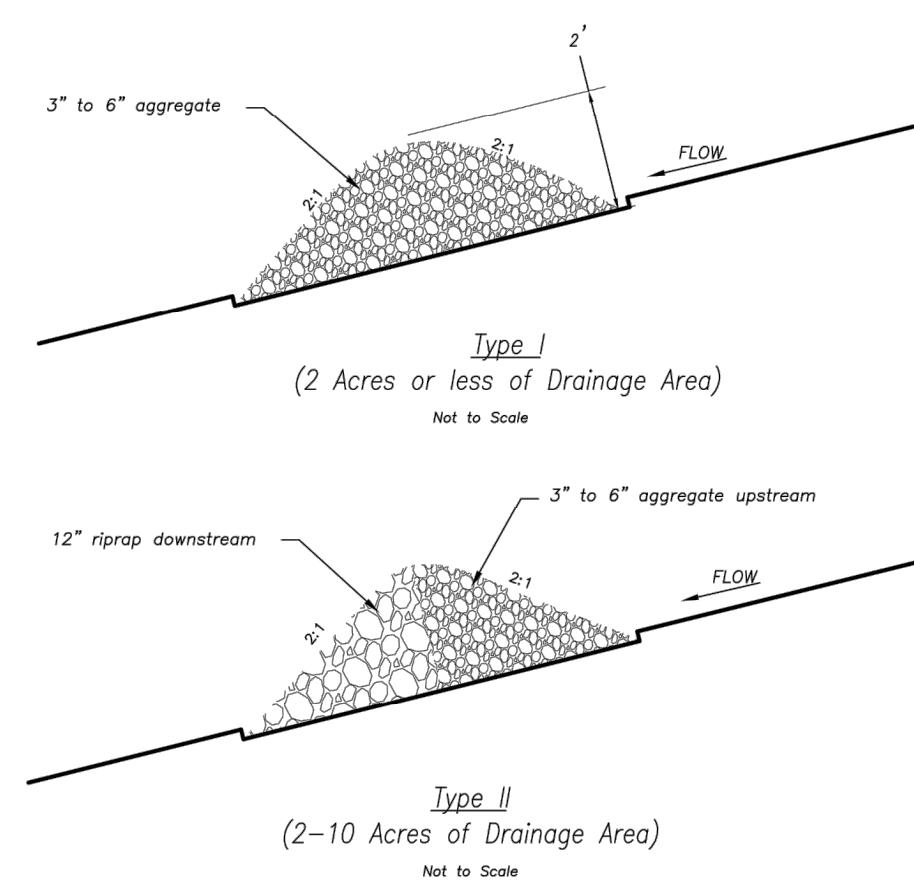
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Renaissance Infrastructure Consulting

1815 MCCREE STREET, SUITE 200
KANSAS CITY, MISSOURI 64108
816.800.0950
WWW.RIC-CONSULT.COM



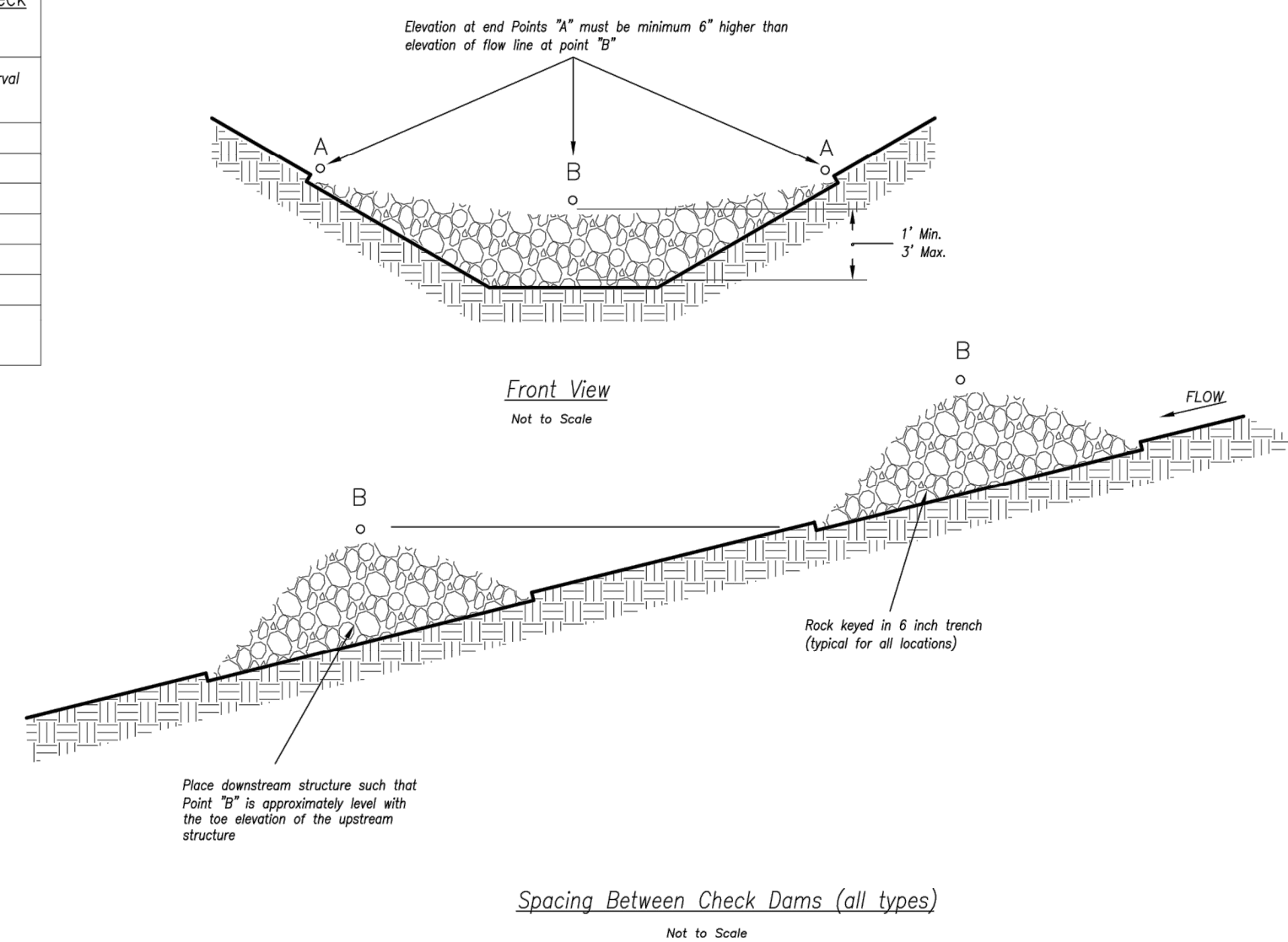
MO Certificate of Authority: E-2010033530

[illegible]ROCK DITCH CHECK

Ditch Centerline Slope (%)	Spacing Interval (Feet)
5.0	60
6.0	50
7.0	43
8.0	36
9.0	33
10.0	29

Note: Use this spacing only for Rock Ditch Checks.

Note: Use this spacing only for
Rock Ditch Checks.



Notes:

1. Rock check dams shall be used only for drainage areas less than 10 acres unless approved by the City Engineer.
2. Use rock checks only in situations where the ditch slope exceeds 6%.

Maintenance.

1. Remove and dispose of sediment deposits when the deposit approaches $\frac{1}{2}$ the height of the ditch check.
2. Replace and reshape as necessary to maintain function and integrity of installation.

Modified from 2015 Overland Park Standard Details
for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION



KANSAS CITY
METRO CHAPTER

ROCK DITCH CHECKS

STANDARD DRAWING NUMBER ESC-10
ADOPTED: 10/24/2016