

CITY OF SKIATOOK  
OSAGE COUNTY

PLAN OF THE PROPOSED

OSAGE PRAIRIE TRAIL EXTENSION AND  
HAWK BEACON PEDESTRIAN CROSSING (HWY 20)

SKIATOOK CENTRAL PARK TO 166TH STREET NORTH

GRADING, SURFACING, PEDESTRIAN SIGNALS, STRIPING, SIGNAGE AND LIGHTING

FEDERAL AID PROJECT NO. STP-157E (189) EH; STPG-257E(235)IG  $\Delta$   $\Delta$   
STATE JOB PIECE NO. 28839 (04); 32530 (04)  
LPCI PROJECT NO. 581.00

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	28839(04); 32530(04)			
DESCRIPTION				REVISIONS	DATE
Fed Proj #'s revised for 32530(04); Skiatook signature line removed.					8-14-17
Fed Proj #'s revised for 32530(04)					8-23-17

SURVEY DATUM

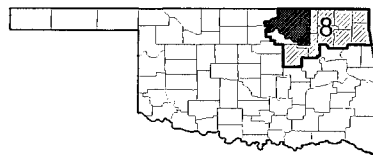
HORIZONTAL CONTROL: OKLAHOMA STATE PLANE COORDINATE SYSTEM NORTH, ZONE 3501, NAD 1983 (1993)  
VERTICAL CONTROL: NGS NAVD 1988 FROM PRIMARY CONTROL POINT ADS140

NOTICE:  
ONLY UNDERGROUND UTILITIES AS FLAGGED BY OKIE SUBSCRIBERS, OR SURFACE INDICATIONS OF UNDERGROUND UTILITIES ARE SHOWN. THE LOCATION OF THE UTILITIES SHALL NOT BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL BE REQUIRED TO MAKE ALL ASSOCIATED UTILITY CONTACTS FOR EXACT UTILITY LOCATIONS PRIOR TO ANY EXCAVATION WITHIN THE PROJECT CORRIDOR.

STATE OF OKLAHOMA LOCATION MAP

OSAGE COUNTY - S 22, 15, & 10 T22N R12E

ODOT FIELD DIVISION 8



SCALES

TRAIL PLANS: 1"=30' (22"x34")  
TRAIL PROFILES: 1"=30' HOR (22"x34"); 1"=3' VER (22"x34")  
CROSS SECTIONS: 1"=5' (22"x34")  
PLAN SCALE MAY VARY - REFER TO GRAPHIC SCALE AS NECESSARY

CITY OF SKIATOOK CONTACTS

PUBLIC WORKS DIRECTOR - BRAD WHITE 918-396-2797  
BUILDING INSPECTOR / CODE ENFORCEMENT - MICHAEL DAVIS 918-396-2797 x 104

UTILITY / OTHER CONTACT INFORMATION

AT&T: 800-778-9140 Fiber Optic Location  
AEP / PSO: 918-337-1256 Joe Green  
COX COMMUNICATION: 918-806-6000 Power Supply  
OKLAHOMA NATURAL GAS: 800-664-5463 Call 811 - Before You Dig



GENERAL NOTES:

This Design is specifically prepared for use at the location shown. Use in any other manner exceeds the intended purpose of these drawings and any accompanying specifications.  
All construction shall be in strict accordance with current City of Skiatook Codes, Standards and Specifications. Back fill in buried conduit trenches shall be compacted to 95% proctor density.  
Contractor shall be responsible for damage to near by structures, shrubbery, landscaping and all other items located within the work area. All damage outside the work area shall be repaired at contractor expense.  
Contractors will coordinate with identified maintenance operations personnel for application and removal of utilities.  
2009 Oklahoma Standard Specifications for Highway Construction Govern, Approved by the U.S. Department of Transportation, Federal Highway Administration, January 4, 2010. Supplemental Specifications to the 2009 Standard Specifications Govern over the Standard Specifications.

SHEET INDEX

1	TITLE SHEET
2	PAY QUANTITIES AND NOTES
3	PAY QUANTITY AND GENERAL NOTES
4	SUMMARY SCHEDULES
5	KEY MAP AND SURVEY DATA
6	TRAFFIC CONTROL PLAN - W. ROGERS BLVD
7	GEOMETRIC LAYOUT PLANS
8-10	CONSTRUCTION DETAILS (1-3)
11	SIGN DETAILS WITH SUMMARY
12-13	SIGN ASSEMBLY DETAILS (1-2)
14-20	PLAN AND PROFILE SHEET (1-7)
21	LIGHTING PLAN
22-23	SIGNAL PAY QUANTITIES AND NOTES (1-2) - W. ROGERS BLVD
24	PEDESTRIAN SIGNAL PLAN - W. ROGERS BLVD
25	WIRING DIAGRAM - W. ROGERS BLVD
26-30	CROSS SECTIONS (1-5)
31	STORMWATER POLLUTION PREVENTION PLAN
32	SILT FENCE DETAILS

ODOT STANDARD DETAIL SHEETS

ROADWAY	TRAFFIC
CSCD-5-03	PM1-1-00
LECS-4-01	SBS1-1-00
PED-3-02	SBS2-1-00
WCR-3-01	SSP1-1-02E
TWD-1-00	SSA2-1-00
CI-1-02	CCD1-1-00
	PBD1-1-00
	TCS1-1-00
	TCS2-1-00
	TCS3-1-00
	TCS4-1-00
	TCS5-1-00
	TCS6-1-01
	TCS10-1-00
	TCS14-1-00



OK T22N R12E

CITY OF SKIATOOK

POPULATION: 7,397

ENTIRE PROJECT IS WITHIN THE CORPORATE OR URBAN LIMITS OF THE CITY OF SKIATOOK

TRAIL LENGTH ..... 9,255.86 FT. .... 1.75 MI.

LandPlan Consultants, Inc. 1110 West 23rd Street Tulsa, OK 74107 (918) 584-6464

PREPARED BY:

1110 West 23rd Street  
Tulsa, OK 74107  
(918) 584-6464

LANDPLAN CONSULTANTS INCORPORATED

Date: 8/14/17  
By: Keith R. Franklin  
Keith R. Franklin, ASLA  
Registered L.A. No. 94

APPROVED BY:

OKLAHOMA DEPARTMENT OF TRANSPORTATION  
Date Approved: \_\_\_\_\_  
By: \_\_\_\_\_  
Chief Engineer

APPROVED BY:

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION  
Date Approved: \_\_\_\_\_  
By: \_\_\_\_\_  
Division Administrator



### TRAIL PAY QUANTITY NOTES

- Contractor shall not waste excess cut material without the approval of the Engineer. Contractor shall take care not to impede any of the drainage structures along the rail ballast with excess cut material. All culvert locations shall be marked and left undisturbed. Do not backfill into drainage flowlines.
- All concrete, tactile warning devices, curb returns and items associated with trail ramp construction as shown in the details shall not be paid for separately but included in the cost for 610(A) - 6" Concrete Sidewalk.
- Includes but is not limited to the removal of the existing steel gate and all associated materials sta. 615+57.96. Damage to remaining fence posts or utilities as a result of removal work shall be repaired at the contractors expense. Remove steel gate leaving end posts in place and undamaged. Removal of existing steel gate shall be considered incidental to the cost of earthwork and will not be paid for as a separate item.
- Unit price includes the cost of full-depth saw-cutting. Removal of aggregate base associated with the existing paving shall be considered incidental and included in the unit price bid.
- Resulting holes and low areas shall be filled with material approved by the engineer. Finished grades shall allow for positive drainage away from removal area. Includes all incidentals.
- Contractor shall utilize limestone screenings in lieu of salvaged topsoil to backfill the shoulders of the trail along the rail ballast sta. 530+00 - sta. 616+34.86. The cost of the limestone screenings shoulder shall not be paid for separately but shall be included in the unit price bid for aggregate base type 'a'. Refer to summary of surfaces for quantity.
- Refer to the details for concrete split rail fence. Unit price bid includes cost of footings, hardware and all incidentals to construct the fence as shown in the plans and details. Unit price bid includes the cost to fully construct the concrete split rail fence columns at each end of the fence as shown in the details. The (4) columns will not be paid for separately but included in the cost for 624 - (PL) Ornamental Fence.
- Brush Hogging shall consist of cutting all underbrush vegetation to a maximum height of 6", 25' each side of the trail edge. Shall be performed using a boom mounted brush hog to minimize disturbance to the existing ground. Includes the removal of vegetation as directed by engineer. Any disturbed area outside the limits of construction will be revegetated at the expense of the contractor.
- The contractor will be responsible for all horizontal and vertical construction staking. Contractor shall preserve survey stakes and bench marks and reset if damaged lost or removed.
- Price bid shall include all materials, equipment, labor & incidentals required to complete the work as shown in the plans and details. Associated items listed on drawings and not included as a separate pay quantity shall be considered incidental and the cost shall be included in the price bid for this item. Refer to Lighting Plan sheet and the plan and profile sheets for enhancement lighting locations along the trail north of Hwy 20. The City of Skiatook will provide the power to the trail lighting cabinet location. Contractor shall be responsible for providing 30LF of conduit and pull wire to the pull box where the City will provide electrical service. Placement of pull box will be determined by Brad White, Public Works Director, City of Skiatook.
- Location of footing to be 3' from edge of trail to center of footing unless otherwise noted in the lighting summary. Engineer shall approve all light locations prior to drilling. Includes the cost of concrete, rebar, anchor bolts, nuts, washers, conduit and copper ground wire and any incidentals as shown on the plans and details. Refer to ODOT traffic standard drawing GMF1-1 for footing details (GMF24x60).
- Includes construction of new concrete footings or other concrete appurtenances for relocated items as needed. Before reinstalling removed traffic items, inspect, repair damage, clean and install a new luminaire of the original size and type if resetting light poles. Includes energizing and testing equipment after resetting in accordance with Section 801 of the ODOT 2009 Standard Specifications - Performance and Operational Tests for Highway Lighting and Traffic. Provide acceptable test results to the engineer for approval.
- Price bid shall include inline fuse and holder (with insulator boots), one per phase conductor located in pole handhole and all other items as shown in the details, required by code, and as necessary for complete and proper operation of the electrical systems. Install equipment per code and manufacturer's written instruction. Refer to Lighting Sheet (1) for electrical control panel layout and supplemental details. All electrical work must be performed by a licensed electrician. Includes the cost and incidentals to fully complete all electrical wiring.
- Includes the cost of all electrical wiring, connectors, fuses, splices, taps, and all incidentals to complete the electrical system as provided on plans and details.
- All wiring and electric control panel work shall be performed by a licensed electrician.
- Symbols and sign locations are diagrammatic only and locations shall be adjusted for existing field conditions as necessary. Sign and symbol locations shall be marked and approved in the field prior to permanent installation.
- Unit Price Bid shall be full compensation for furnishing all materials, equipment, labor & incidentals required to complete the work as shown in the plans and details.
- Traffic stripe (multi-polymer): provide and place white or yellow stripes, arrows, words or symbols with reflective glass beads applied by the drop-on method. Provide materials in accordance with ODOT Standard Specifications Subsection 711.05, "Glass beads for Traffic Paint, Thermoplastic and Multi-Polymer." Equipment must be capable of producing a clean-cut line, uniformly dimensioned. Equipment must include an automatic bead dispenser that continuously mixes and agitates the pavement marking material. Equipment must uniformly and instantly place the reflective beads on the markings. Unit price bid shall include the cost of surface preparation prior to application of striping.

### TRAIL PAY QUANTITY NOTES

- Refer to the general notes and material specifications in ODOT detail PBD1-1.
- Remove the existing pavement markings without damaging the pavement surface or the pavement material texture. Painting over or blotting out the existing pavement markings will not be allowed. If blast cleaning within 10 feet of a lane carrying traffic, remove the residue immediately and concurrently with the blast cleaning operation. Any damage to existing pavement as a result of removal activities shall be repaired as directed by the Engineer at no cost to the City of Claremore.
- Includes the installation of a Holophane Utility Washington Postlite LED 2 (WAUE2) fixture on a 16' aluminum pole for trail lighting. Cost includes providing and installing the fixture and installation of the pole, wiring and assuring the light is completely functional according to code. Includes all materials, labor and incidentals to fully complete the installation. The City of Skiatook will provide the COLORADO aluminum poles for installation; the unit price bid for enhancement lighting shall reflect the installation cost only for the pole.  
Poles: (5) Holophane Unique Solutions Colorado Series, 12" dia. Base 16' cast fluted aluminum, 5" dia. Post; model # CO17F512CABKH or pre-approved equal. Color shall be black. Poles shall be provided by Owner.  
Fixtures: (5) Holophane Utility Washington Postlite LED 2 (WAUE2) W/ N.E.M.A. PHOTOCELL or pre-approved equal, TYPE III DISTRIBUTION Catalog# WAUE2 P30 30K AS BK 3 4 BK. Contact Sales Representative for Acuity Brands Lighting, Inc. / Holophane Sales Channel - Cory Cornett (918) 970-2527 (office) or (918) 200-3242 (mobile).
- Includes coordination with the City of Skiatook for power to the cabinet/control panel location. Includes all necessary conduit, conductor, all materials, parts and incidentals to provide complete electrical service as shown in the lighting plans and details. Cost for electric control panel include conduit, all materials to install the meter, NEMA 3R Hoffman B-Line stainless steel enclosure, steel tube supports, power panel 240V circuitry, astronomical timer switch, photo cell, 120V receptacle, system override switch, wiring and all other items indicated in the plans. Verify voltages with City Engineer before ordering electrical components. Final location of control panel shall be determined by Brad White, City of Skiatook Public Works Director.
- All excavation and removed materials not used in the project embankment or as backfill around structures shall become the property of the Contractor for disposal. Disposal of excess materials shall be considered incidental to the price bid for excavation.
- Topsoil to be reserved for placement/replacement of approximately 2" on completed foreslopes, ditches and backslopes not considered rail road ballast. Refer to the cut and fill catchlines on the plan and profile sheets for extent of the sodded area.
- Total quantity shown includes an additional 400CY of aggregate base material for contingency purposes along the rail ballast portion of the trail. The contingency amount shall be utilized as directed by the Engineer for ballast replacement in areas where the specified compaction cannot be achieved.
- Contractor shall contact Sales Representative for Acuity Brands Lighting, Inc. / Holophane Sales Channel - Cory Cornett (918) 970-2527 (office) or (918) 200-3242 (mobile) for the anchor bolts, bolt template and for the ordering process for the luminaires associated with the trail enhancement lighting. Lighting conductor is not calculated up the poles. Contractor shall order the necessary length of leads with the luminaire in order to fully complete the wiring.
- Limestone screenings shall be gray in color and shall have the following gradation: 100% passing 3/8" sieve, 89% passing NO. 4 sieve, 59% passing NO. 10 sieve, 35% passing NO. 40 sieve, 16.8% passing NO. 200 sieve. Limestone screenings shall be graded smooth and sloped away from the trail surface at 2% max. Compact screenings to 98% SPD.
- The contractor shall be responsible for meeting all Environmental Protection Agency (EPA) and Oklahoma Department of Environmental Quality (ODEQ) requirements for storm water management for this project. All cost to be included in the unit price bid for this item. The Consultant shall include a Storm Water Pollution Prevention Plan with the plan set and erosion control measures have been included on the demo sheets of the plan set.
- Unit Price Bid is for the patching of asphalt pavement within the crosswalk areas shown on the plans. The pavement within the crosswalk must be ADA compliant without holes, broken or uneven surfaces. All holes and uneven surfaces shall be patched within the crosswalk area as directed by the engineer. Includes all equipment, materials, labor and incidentals to complete the patch work in the areas designated by the engineer. Includes sawcutting and tack coat as required.

### EROSION CONTROL PAY QUANTITY NOTES

- R-9 Watering estimated at 40 gallons per square yard of sodding and/or sprigging.
- R-13 Estimated at 200 pounds of 10-20-10 fertilizer per 1000 sq. yds. of sodding and/or sprigging.

### TRAFFIC PLANNING AND SAFETY PAY QUANTITY NOTES

- TS-24 Quantity shown includes 0 L.F. traffic stripe (multi-polymer) (white) and 2,348 L.F. traffic stripe (multi-polymer)(yellow) and will be measured by the linear foot of four inch (4") wide traffic stripe.
- TS-28 Quantity shown includes 125 L.F. traffic stripe (multi-polymer)(white) and will be measured by the linear foot of twenty-four inch (24") wide traffic stripe.
- TS-32 The amount shown is an approximation and the actual amount of removal, if necessary, shall be determined by the engineer. Price bid for pavement marking removal (traffic stripe) shall include cost of removal of arrows, words, and symbols. The pavement marking to be removed shall be considered thermoplastic and bid accordingly. During removal of existing striping and replacement with new striping, permanent striping shall be replaced within 48
- TS-33 Included in this pay item is all hardware associated with properly anchoring and mounting the highway sign in accordance with O.D.O.T plans and standard drawings SSA1-1 and SSP1-1-(latest revision).
- TC-25 All construction traffic control will be implemented according to construction plans and installed in a manner approved by the engineer, in accordance with chapter VI of the manual n uniform traffic control devices, (current edition), and compliant with applicable O.D.O.T. Standard drawings. Price bid for this item shall be payment in full for the installation, maintenance and subsequent removal of all necessary construction traffic control devices and pavement markings require for completion of the project. All signs and barricades, which are shown with type 'A' lights in the standard drawings shall have the corresponding light attached during non-daylight hours.
- TP-1 Payment for this item will be based on plan quantity. See the 2009 specifications for highway construction.
- TR-1 Pay item includes 3 wheelchair ramps. Curb removal, sawing pavement and all other miscellaneous work needed to complete the ramp installation shall be included in the bid price.
- TL-3 Underground utility marking tape shall be used as specified on Standard CCD-1 (latest revision). The cost of the underground marking tape shall be paid for in this item of work.
- TL-7 The contractor shall install a pull line in all conduit for future installation of electrical conductors. Material shall be polyester tape or rope, galvanized steel wire, or any other approved material that has a minimum breaking strength of 1250 lbs. The contractor shall be responsible for securing the pull line at each end to prevent debris from plugging the conduit. Installation, capping and securing procedures shall be approved by the Engineer and City of Skiatook electrical inspector. The cost of all material, labor and incidentals necessary to complete this work shall be included in this item of work.

### ENVIRONMENTAL MITIGATION NOTES

The contractor shall be familiar with the American Burying Beetle (ABB) to insure compliance with the Endangered Species Act. The American burying beetle is a large carrion burying beetle that occurs within the project area. No artificial lighting shall be used during construction. Carcasses and all food trash shall be removed from the permanent and temporary ROW throughout project activities. Following construction, 5 inches of topsoil shall be placed on top of all areas of ground disturbance, prior to re-vegetation.

The contractor shall be familiar with the northern long-eared bat to insure compliance with the Endangered Species Act. The northern long-eared bat is a threatened species that occurs within the project's action area. In order to minimize adverse impacts to the species, the removal of trees and shrubs shall be restricted to areas within the actual limits of construction (toe of slope/top of cut). The Resident Engineer shall install bright-colored flagging/fencing to indicate trees that are not to be removed and ensure limits of tree removal are visibly and clearly defined for the contractor.

In order to avoid and minimize adverse impacts to listed bat species, if any permanent lighting is installed or replaced, downward-facing full cut-off lens lights shall be installed and directed away from wooded areas and streams.

The following Airport/Airfield is located within 4 miles of this project. This action may require notifying the Federal Aviation Administration (FAA) of proposed construction via FAA Form 7460-1 prior to construction. **Skiatook Municipal Airport**

### GENERAL CONSTRUCTION NOTES

All construction shall be in accordance with the City of Skiatook Construction Standards and the Standard Specifications for Highway Construction, Oklahoma Dept. of Transportation (edition of 2009) insofar as same may apply, and special provisions for this project.

All features of this project including, but not limited to, trail curb ramps, and crosswalk markings shall comply with The Americans with Disabilities Act, accessibility guidelines, and the interim final rules for public right-of-way, published in The Federal Register, September 15, 2010. Where spatial limitations or existing features within the limits of the project prevent full compliance with this act, the contractor shall immediately notify the Engineer upon discovery of such features. The contractor shall not proceed with any aspect of the work, which is not in full compliance with the ADA without prior written approval from the Engineer. Any work, which is not performed within the guidelines of the ADA, for which the contractor does not have written approval, shall be corrected at the contractor's expense.

Areas disturbed by construction traffic outside the limits of construction shall be returned to their previous condition at contractor's expense, as directed by Engineer. All areas disturbed between the cut & fill catchlines and the right of way line shall be revegetated by sodding or seeding as listed under erosion and sediment controls and stabilization practices in the SWP3. Cost shall be considered incidental and included in other items. Includes haul roads and construction entrances.

In order to alleviate dust conditions during grading operations and before pavement work is completed, the contractor shall sprinkle grading at intervals approved by the Engineer. Cost of sprinkling to be included in price bid for other items of work.

Placement of signs, symbols, words and arrows shall conform to standards set forth in the Manual on Uniform Traffic Control Devices.

Ramp slopes shall not exceed 12:1.

The contractor shall be responsible for locating all underground utilities prior to construction. Contractor shall be responsible for repair of all damaged utilities.

The contractor shall be responsible for meeting all Environmental Protection Agency (EPA) and Oklahoma Department of Environmental Quality (ODEQ) requirements for storm water management for this project. All cost to be included in other items of work. The Consultant shall include a Storm Water Pollution Prevention Plan and erosion control plan within the plan set.

The cross slope for the trail shall not exceed 50:1 (2%). The longitudinal slope for the trail shall not exceed 20:1 (5%) unless otherwise shown in plans.

The trail shall be set back a minimum of 2' from all items/obstacles adjacent to the trail unless otherwise noted on the plans.

No fly ash allowed in concrete mix.

Unit Price Bid shall be full compensation for furnishing all materials, equipment, labor & incidentals required to complete the work as shown in the plans and details. Items listed on drawings and not included as a separate pay quantity shall be considered incidental and the cost shall be included in the price bid for other items.

Contractor shall coordinate with the City of Skiatook for proper staging location and stabilized entrance locations for access through the project site. The cost for stabilized construction entrances shall be considered incidental and included in the cost of other items.

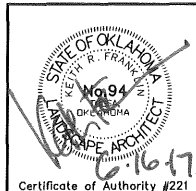
The Contractor shall not waste any excess excavation until all planned embankments and backfills are completed. Excess unclassified excavation material determined by the Engineer to be suitable for backfill shall be utilized for unclassified borrow. Cost of second handling shall be included in other items of work. Any remaining excess excavation shall become the property of the Contractor and be disposed of in a manner approved by the Engineer.

This project shall be constructed without closing the existing road to local and through traffic. See standard specifications for maintenance of local and through traffic.

In accordance with the Oklahoma Underground Facilities Damage Prevention Act the Contractor shall notify the Oklahoma One-Call System, Inc. 48 hours prior to beginning excavation. Oklahoma One-Call System, Inc. "Call Okie" 1-800-522-6543 or 811

Contractor shall not utilize or request payment for any item listed as "contingency only" in the pay notes without written approval. The Contractor shall utilize an RFI form to communicate or request the use of a contingency item and must receive a written approval prior to commencing work.

F:\691 Osage Prairie Trail Ext\Final\691-Pay Quantities.dwg, 8/14/2017 3:29:01 PM



Osage Prairie Trail Extension		PREPARED BY: <b>LANDPLAN CONSULTANTS</b> 1110 West 23rd Street TULSA, OK 74107 918-584-6454
Design	JM	8/16
Drawn	JM/BB	8/16
Checked	JM/KF	6/17
Approved		
Squad	LPCI	

**PAY QUANTITY AND GENERAL NOTES**

State Job No. 28839 (04), 32530 (04) Sheet No. 3 of 32

SUMMARY OF SURFACES

STATION	OFFSET	DESCRIPTION	ITEM #													
			CONSTRUCTION MISCELLANEOUS (LIMESTONE SCREENING SHOULDER, 3" DEPTH)	TYPE A-SALVAGED TOPSOIL	SOLID SLAB SODDING	WATERING	FERTILIZING (10-20-10)	MOWING	AGGREGATE BASE TYPE A	SUBGRADE, METHOD B	SUPERPAVE, TYPE S5 (PG 64-22 OK)	4" CONCRETE SIDEWALK	6" CONCRETE SIDEWALK	TRAFFIC STRIPE (MULTI-POLYMER) (4" WIDE)	TRAFFIC STRIPE (MULTI-POLY) (24" WIDE)	
			CY	CY	SY	M-GAL	TON	AC	CY	SY	TON	SY	SY	LF	LF	
<b>OSAGE PRAIRIE TRAIL EXTENSION - STATE JOB # 28839(04)</b>																
515+71.22 - 520+97.38	CL	10' ASPHALT TRAIL		18.28	329.12	13.82	0.069		117	702	98			132		
520+97.38 - 530+00.00		NO IMPROVEMENTS / STATION EQUATION														
530+00.00 - 616+22.83	CL	10' ASPHALT TRAIL (ON RAIL BALLAST)	319					1.188		11497	1,610			2156		
616+22.83 - 616+27.83	CL	10' CONCRETE TRAIL	0.19					0.001	1	7			6			
616+27.83 - 616+34.86	CL	TRAIL RAMP TYPE 2	0.26						2	9			8			
<b>TOTAL</b>			<b>319</b>	<b>18</b>	<b>329</b>	<b>14</b>	<b>0.069</b>	<b>1</b>	<b>120</b>	<b>12215</b>	<b>1708</b>	<b>0</b>	<b>14</b>	<b>2288</b>	<b>0</b>	
<b>PEDESTRIAN SIGNALIZATION (HAWK BEACON) - STATE JOB # 32530(04)</b>																
514+76.38 - 514+92.38	CL	10' CONCRETE TRAIL / SIDEWALK TRANSITION		0.51	9.22	0.39	0.002		4	21			18	20		
514+92.38 - 514+98.68	CL	TRAIL RAMP TYPE 1		0.22	3.97	0.17	0.001		1	8			7			
514+98.68 - 515+48.96	CL	CONTINENTAL CROSSWALK (HWY 20)													125	
515+48.96 - 515+55.22	CL	TRAIL RAMP TYPE 1		0.21	3.73	0.16	0.001		1	8			7			
515+55.22 - 515+71.22	CL	10' CONCRETE TRAIL / SIDEWALK TRANSITION		0.42	7.58	0.32	0.002		4	21			18	40		
<b>TOTAL</b>			<b>0</b>	<b>1</b>	<b>25</b>	<b>1</b>	<b>0.006</b>	<b>0</b>	<b>10</b>	<b>58</b>	<b>0</b>	<b>36</b>	<b>14</b>	<b>60</b>	<b>125</b>	

SUMMARY OF OTHER STRUCTURES

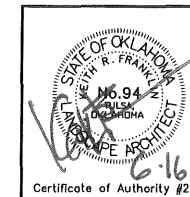
STATION	DESCRIPTION	ITEM #	
		221(C)	221(K)
		TEMPORARY SILT FENCE	TEMPORARY FIBER LOG
		LF	LF
<b>OSAGE PRAIRIE TRAIL EXTENSION - STATE JOB #28839(04)</b>			
514+76.38 - 616+34.86	TOTAL PROJECT		100
515+55.22 - 515+71.22	10' CONCRETE TRAIL	32	
515+71.22 - 520+97.38	10' ASPHALT TRAIL	1052	
520+97.38 - 530+00.00	STATIONING GAP - STATION EQUATION		
530+00.00 - 533+11.25	10' ASPHALT TRAIL (ON RAIL BALLAST)	623	
<b>TOTAL</b>		<b>1707</b>	<b>100</b>

SUMMARY OF STRUCTURES

STATION	DESCRIPTION	ITEM #									
		CONSTRUCTION MISCELLANEOUS - REMOVABLE BOLLARD	(P) ORNAMENTAL FENCE	1 1/2" PVC (SCH. 40) PLAST CONDUIT TRENCHED	PULL BOX SIZE III	STRUCTURAL CONCRETE (LIGHT POLE BASES)	REINFORCING STEEL (LIGHT POLE BASES)	ENHANCEMENT LIGHTING (COMPLETE)	1/2" NO. 6 ELECTRICAL CONDUCTOR	(SP) CABINET	
		EA	LF	LF	EA	CY	LB	EA	LF	EA	
<b>OSAGE PRAIRIE TRAIL EXTENSION - STATE JOB #28839(04)</b>											
515+70.21	CONCRETE SPLIT RAIL FENCE		48								
515+55.22 - 515+71.22	TRAIL ENHANCEMENT LIGHTING			575	4	2	137	5	1725	1	
530+00.00 - 616+27.83	REMOVABLE BOLLARD LOCATION	1									
<b>TOTAL</b>		<b>1</b>	<b>48</b>	<b>575</b>	<b>4</b>	<b>2</b>	<b>137</b>	<b>5</b>	<b>1725</b>	<b>1</b>	
<b>PEDESTRIAN SIGNALIZATION (HAWK BEACON) - STATE JOB #32530(04)</b>											
514+77.38	REMOVABLE BOLLARD LOCATION	1									
515+70.21	REMOVABLE BOLLARD LOCATION	1									
<b>TOTAL</b>		<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

SUMMARY OF REMOVALS

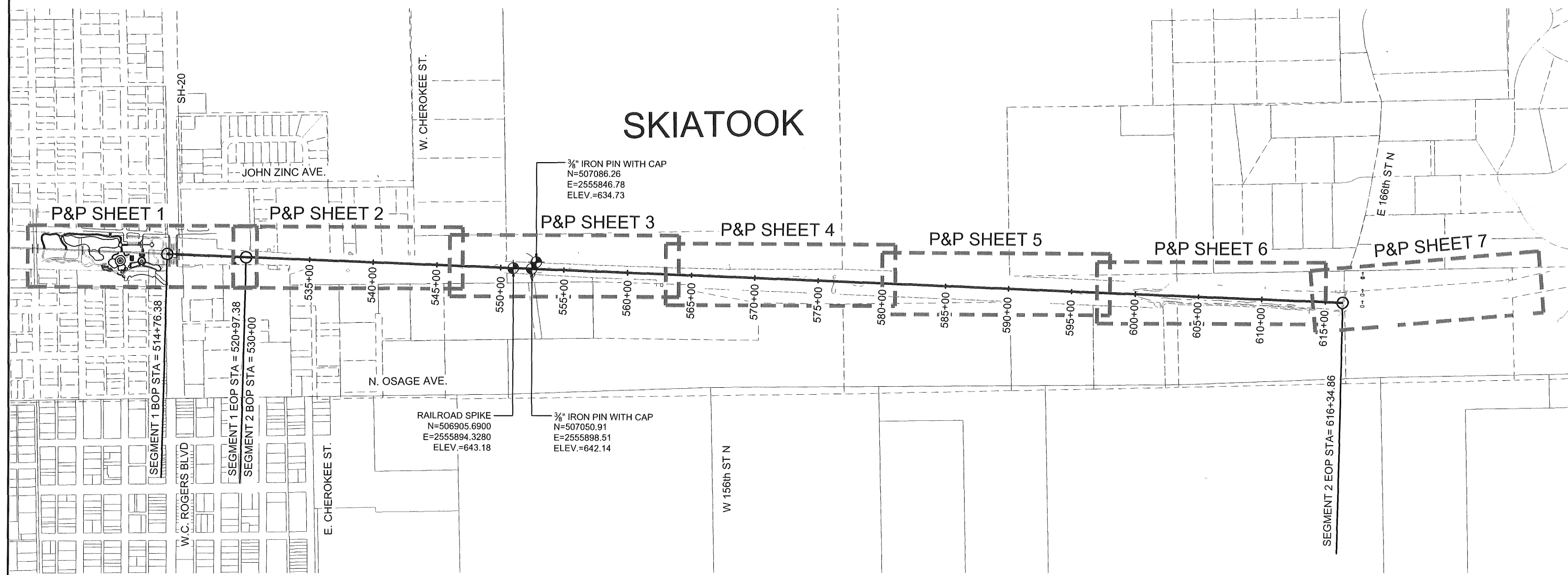
STATION	ITEM #					
	REMOVAL OF CURB AND GUTTER	REMOVAL OF ASPHALT PAVEMENT	REMOVAL OF SIDEWALK	(PL) REMOVE AND RESET LIGHTPOLE	PAVING MARKING REMOVAL (TRAFFIC STRIPE)	
	LF	SY	SY	EA	LF	
<b>PEDESTRIAN SIGNALIZATION (HAWK BEACON) - STATE JOB # 32530(04)</b>						
514+76.38 - 514+91.57		12	9			
514+91.57 - 514+98.68	12			1		
514+98.68 - 515+48.96					400	
515+48.96 - 515+55.66	12					
515+55.22 - 515+71.22			8			
<b>TOTAL</b>		<b>24</b>	<b>12</b>	<b>17</b>	<b>1</b>	<b>400</b>



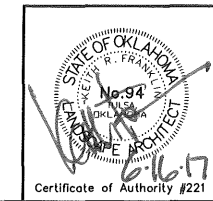
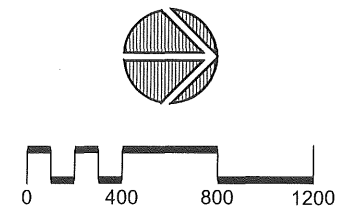
Osage Prairie Trail Extension		PREPARED BY: LANDPLAN CONSULTANTS 1110 West 23rd Street TULSA, OK 74107 918-584-6464
Design	JM 8/16	<p><b>SUMMARY SCHEDULES (1)</b></p> <p>State Job No. 28839 (04), 32530 (04) Sheet No. 4 of 32</p>
Drawn	JM/BB 8/16	
Checked	JM/KF 6/17	
Approved		
Squad	LPCI	

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA	28839(04), 32530(04)		5	32
DESCRIPTION			REVISIONS	DATE	

NOTE:  
TRAIL CENTERLINE STATIONING  
CONTINUES FROM EOP OF  
PREVIOUS PROJECT



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Osage Prairie Trail Extension		
Design	JM	8/16
Drawn	JM/BB	8/16
Checked	JM/KF	6/17
Approved		
Squad	LPCI	

PREPARED BY:  
**LANDPLAN CONSULTANTS**  
1110 West 23rd Street TULSA, OK 74107 918-584-6464

**KEYMAP AND SURVEY DATA**

State Job No. 28839 (04), 32530 (04) Sheet No. 5 of 32

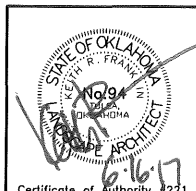
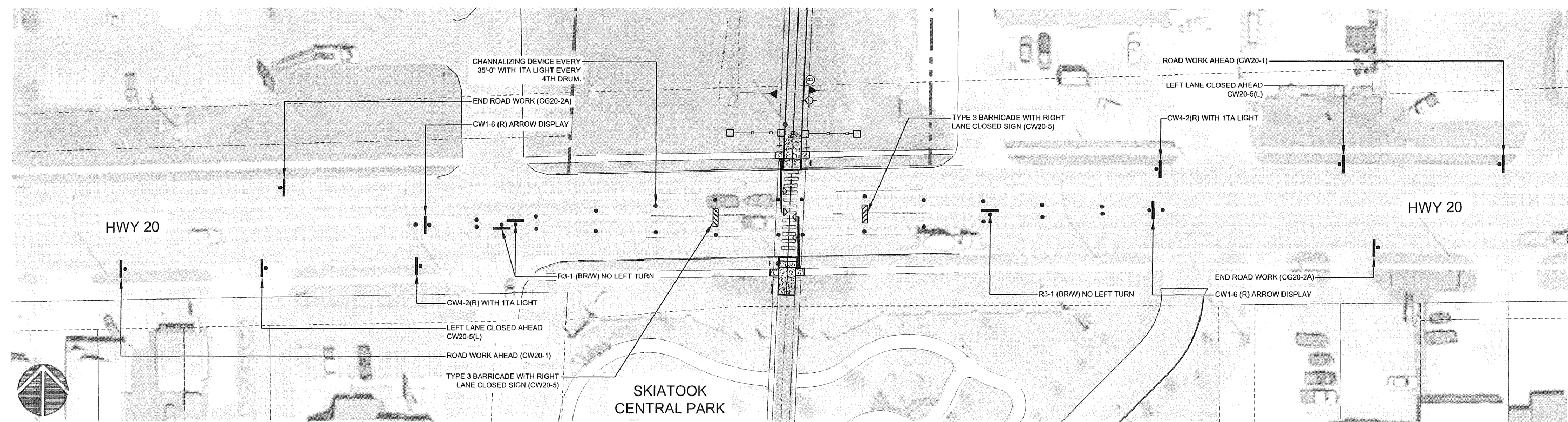
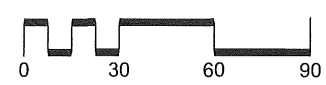
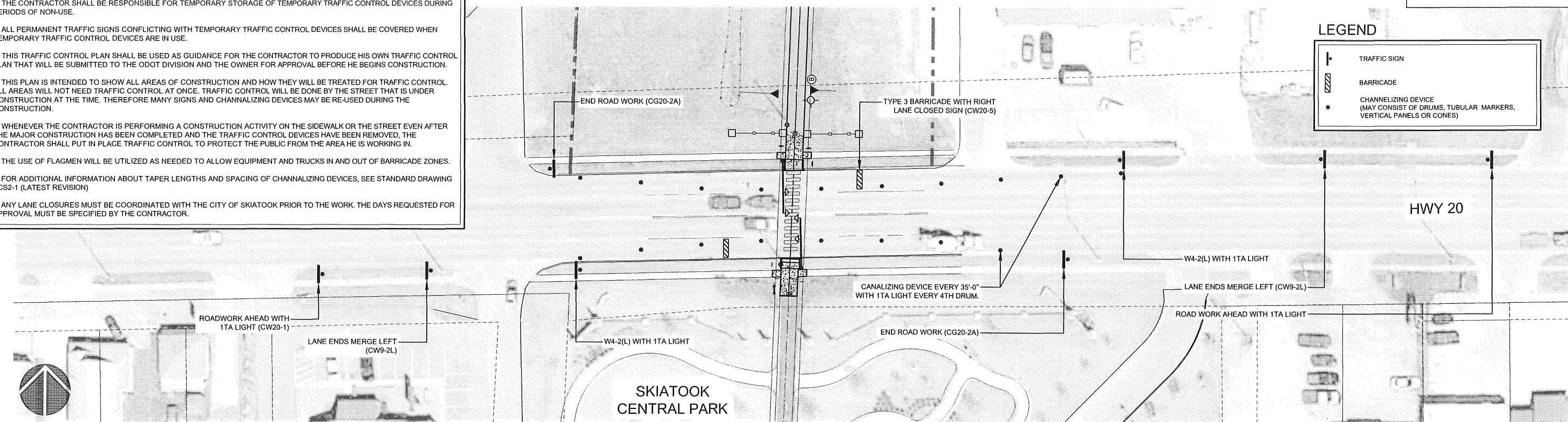
**GENERAL TRAFFIC CONTROL NOTES**

1. TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH CURRENT ODOT STANDARD DETAILS AND SPECIFICATIONS AND ALSO WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) (CURRENT EDITION).
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY STORAGE OF TEMPORARY TRAFFIC CONTROL DEVICES DURING PERIODS OF NON-USE.
3. ALL PERMANENT TRAFFIC SIGNS CONFLICTING WITH TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE COVERED WHEN TEMPORARY TRAFFIC CONTROL DEVICES ARE IN USE.
4. THIS TRAFFIC CONTROL PLAN SHALL BE USED AS GUIDANCE FOR THE CONTRACTOR TO PRODUCE HIS OWN TRAFFIC CONTROL PLAN THAT WILL BE SUBMITTED TO THE ODOT DIVISION AND THE OWNER FOR APPROVAL BEFORE HE BEGINS CONSTRUCTION.
5. THIS PLAN IS INTENDED TO SHOW ALL AREAS OF CONSTRUCTION AND HOW THEY WILL BE TREATED FOR TRAFFIC CONTROL. ALL AREAS WILL NOT NEED TRAFFIC CONTROL AT ONCE. TRAFFIC CONTROL WILL BE DONE BY THE STREET THAT IS UNDER CONSTRUCTION AT THE TIME. THEREFORE MANY SIGNS AND CHANNELIZING DEVICES MAY BE RE-USED DURING THE CONSTRUCTION.
6. WHENEVER THE CONTRACTOR IS PERFORMING A CONSTRUCTION ACTIVITY ON THE SIDEWALK OR THE STREET EVEN AFTER THE MAJOR CONSTRUCTION HAS BEEN COMPLETED AND THE TRAFFIC CONTROL DEVICES HAVE BEEN REMOVED, THE CONTRACTOR SHALL PUT IN PLACE TRAFFIC CONTROL TO PROTECT THE PUBLIC FROM THE AREA HE IS WORKING IN.
7. THE USE OF FLAGMEN WILL BE UTILIZED AS NEEDED TO ALLOW EQUIPMENT AND TRUCKS IN AND OUT OF BARRICADE ZONES.
8. FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1 (LATEST REVISION)
9. ANY LANE CLOSURES MUST BE COORDINATED WITH THE CITY OF SKIATOOK PRIOR TO THE WORK. THE DAYS REQUESTED FOR APPROVAL MUST BE SPECIFIED BY THE CONTRACTOR.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	28839(04), 32530(04)			
DESCRIPTION			REVISIONS	DATE	

**LEGEND**

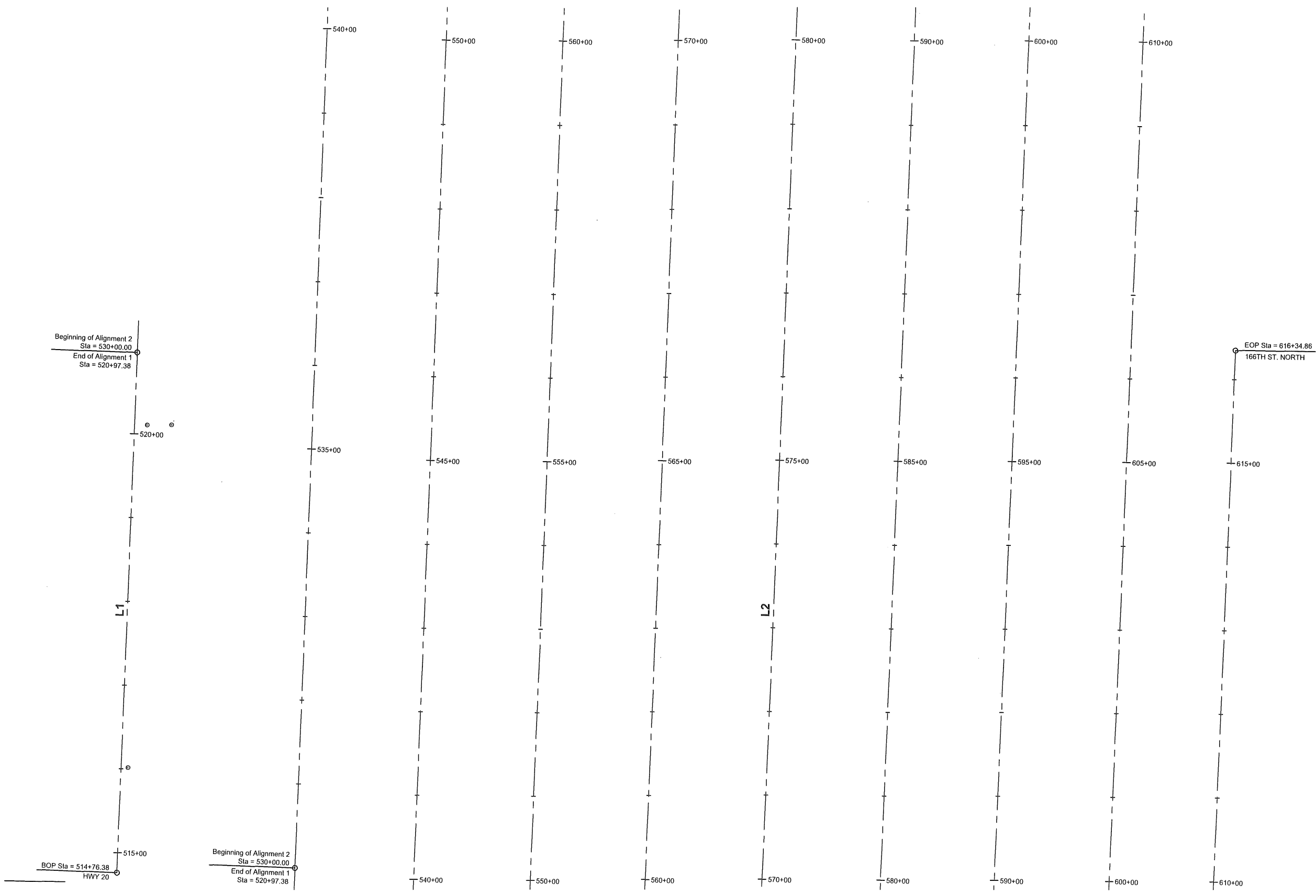
- TRAFFIC SIGN
- BARRICADE
- CHANNELIZING DEVICE (MAY CONSIST OF DRUMS, TUBULAR MARKERS, VERTICAL PANELS OR CONES)



Osage Prairie Trail Extension			PREPARED BY: <b>LANDPLAN CONSULTANTS</b> 1110 West 23rd Street TULSA, OK 74107 918-584-6454		
Design	JM	8/16	<b>TRAFFIC CONTROL PLAN</b>  State Job No. 28839 (04), 32530 (04) Sheet No. 6 of 32		
Drawn	JM/BB	8/16			
Checked	JM/KF	6/17			
Approved					
Squad					

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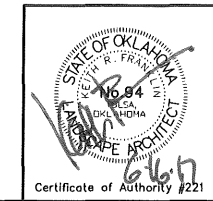
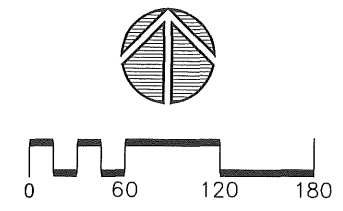
OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA	28839(04) 32530(04)			
DESCRIPTION				REVISIONS	DATE



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PI#	STATION	NORTHING	EASTING
BOP	514+76.38	504186.37	2555792.48
END OF ALIGNMENT 1	520+97.38	504806.93	2555815.69
BEGINNING OF ALIGNMENT 2	530+00.00	504806.93	2555815.69
EOP	616+34.86	513435.85	2556138.41

NUMBER	DIRECTION	DISTANCE
L1	N 02°08'31" E	620.9970 FT
L2	N 02°08'31" E	8634.9567 FT

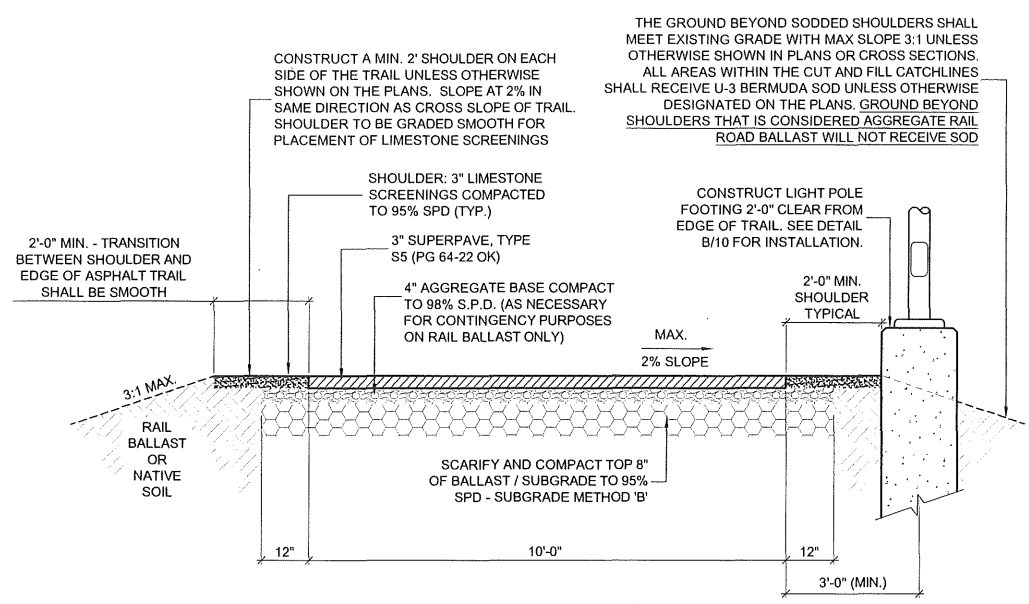


Osage Prairie Trail Extension		
Design	JM	8/16
Drawn	JM/BB	8/16
Checked	JM/KF	6/17
Approved		
Squad	LPCI	

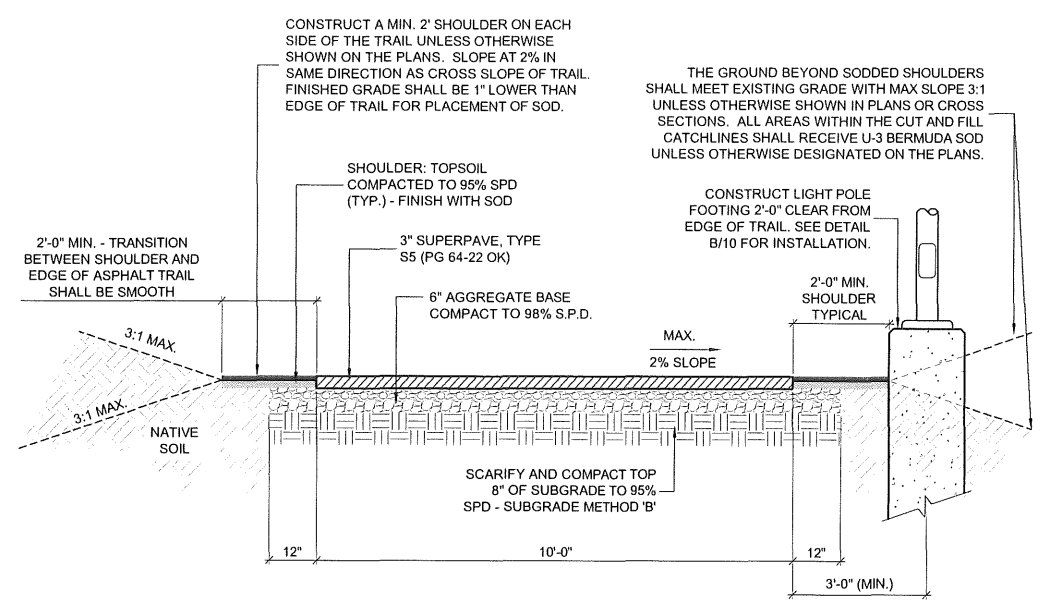
PREPARED BY:  
**LANDPLAN CONSULTANTS**  
1110 West 23rd Street TULSA, OK 74107 918-584-6464

**GEOMETRIC LAYOUT PLAN**

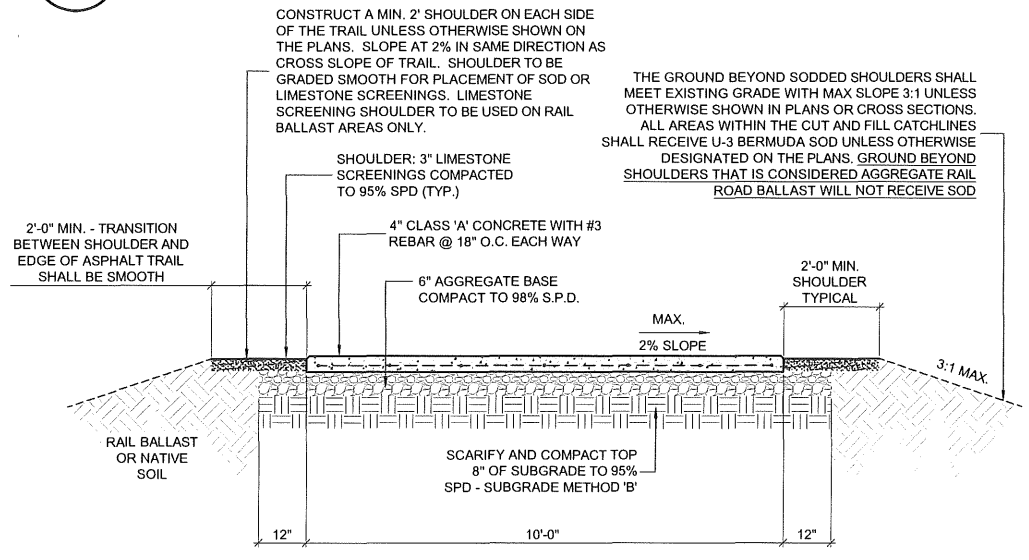
State Job No. 28839 (04), 32530 (04) Sheet No. 7 of 32



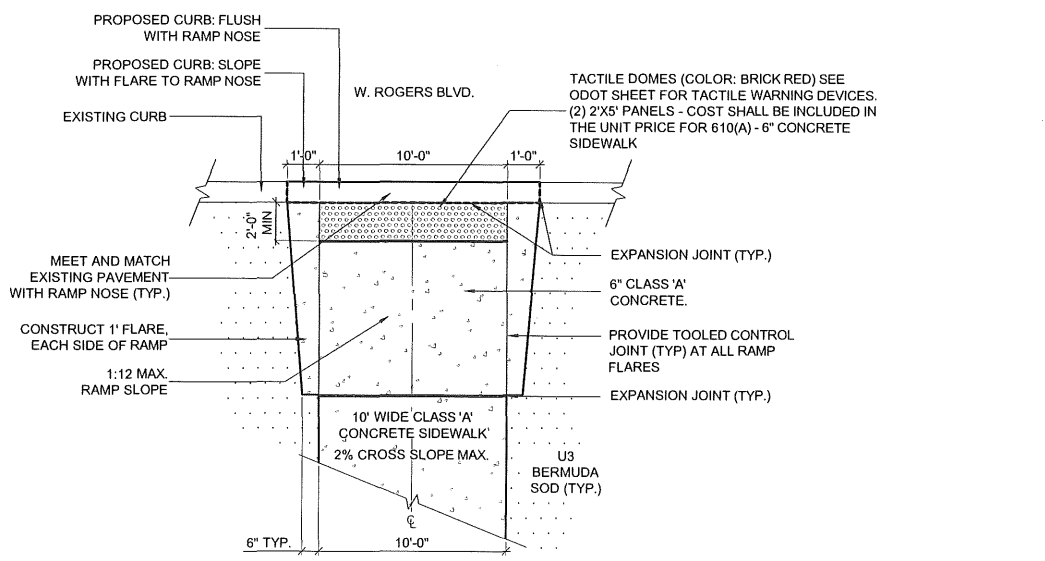
**A** SECTION - TYPICAL 10'-0" WIDE ASPHALT TRAIL ON RAILROAD BALLAST  
 NOT TO SCALE  
 Sta. 530+00.00 - 616+34.86



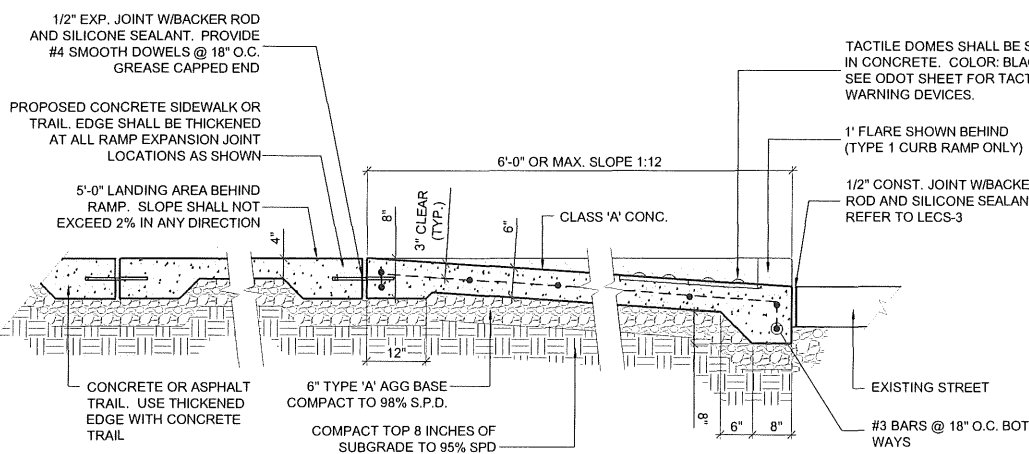
**B** SECTION - TYPICAL 10'-0" WIDE ASPHALT TRAIL ON NATIVE GROUND  
 NOT TO SCALE  
 Sta. 515+71.22 - 520+97.38 (530+00.00)



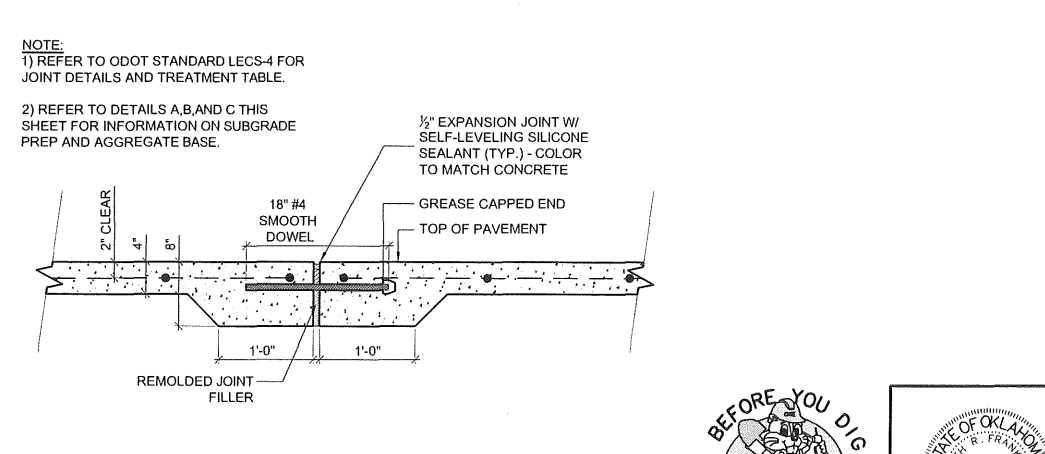
**C** SECTION - TYPICAL 10'-0" WIDE, 4" THICK CLASS 'A' CONCRETE TRAIL  
 NOT TO SCALE  
 Sta. 514+76.38 - 514+98.68  
 Sta. 515+48.96 - 515+71.22



**D** PLAN - TYPE 1 TRAIL RAMP WITH 1' FLARES  
 NOT TO SCALE



**E** TYPICAL SECTION - TYPE 1 & 2 TRAIL RAMPS  
 NOT TO SCALE  
 Sta. 514+92.38 - 514+98.68  
 Sta. 515+48.96 - 515+55.22  
 Sta. 616+22.83 - 616+34.86



**F** SECTION - TYP. CONC. TRAIL EXPANSION JOINT  
 NOT TO SCALE

**TYPICAL TRAIL CONSTRUCTION NOTES**

- 1) CONSTRUCT 2% CROSS SLOPE (MAX.) IN SAME DIRECTION AS EXISTING GRADE UNLESS OTHERWISE DESIGNATED.
- 2) LONGITUDINAL GRADE SHALL NOT EXCEED 5% UNLESS OTHERWISE DESIGNATED.
- 3) WHEN SETTING GRADES FOR TRAIL SURFACES, CONTRACTOR SHALL FIELD VERIFY THAT PAVING ELEVATION WILL NOT TRAP WATER ON EITHER SIDE OF TRAIL AND WILL ALLOW WATER TO FLOW FREELY TO DRAIN AWAY FROM AREA.
- 4) PROVIDE CONTROL JOINTS EVERY 10' AND SEALED EXPANSION JOINTS AS SHOWN ALONG THE 10'-0" WIDE CONCRETE TRAIL.
- 5) THE GROUND BEYOND TRAIL SHOULDERS SHALL MEET EXISTING GRADE WITH MAX. SLOPE OF 3:1 UNLESS OTHERWISE NOTED ON PLANS. ALL AREAS WITHIN THE CUT AND FILL CATCHLINES SHALL BE GRADED SMOOTH AND SODDED UNLESS LOCATED ON RAIL BALLAST.
- 6) REFER TO DETAIL A/9 AND THE TRAIL STRIPING SHEETS FOR COMPLETE TRAIL STRIPING INFORMATION.
- 7) REFER TO ODOT DETAIL LECS-4 FOR DETAILS FOR SEALED EXPANSION / ISOLATION JOINTS AND CONTRACTION JOINTS. NOT ALL DETAILS IN LECS-4 WILL APPLY TO THIS TRAIL PROJECT.
- 8) TO REDUCE SLIPPAGE, PROVIDE A MEDIUM BROOM FINISH PERPENDICULAR TO THE DIRECTION OF TRAFFIC ON ALL CONCRETE TRAIL SEGMENTS.
- 9) UNSTABLE SUBGRADE SOILS SHALL BE MECHANICALLY STABILIZED WITH 3'-6" SURGE STONE WITH TYPE 'A' AGGREGATE BASE PLACED TO FORM THE FINISHED SUBGRADE ELEVATION. SEE PAYNOTE FOR MODIFIED SUBGRADE ON SHEET 2 OF THE PLAN SET FOR COMPLETE DESCRIPTION OF THE PROCEDURE STA. 514+76.38 - STA. 533+11.
- 10) THE TRAIL CORRIDOR SHALL BE CLOSED DURING CONSTRUCTION. PROVIDE ORANGE CONSTRUCTION FENCING AT EACH END OF PROJECT ACROSS THE ENTIRE TRAIL CORRIDOR FROM THE R.O.W. LINE TO THE TRAIL EDGE. COST OF FENCING SHALL BE CONSIDERED INCIDENTAL AND INCLUDED IN OTHER ITEMS.
- 11) ALL CONCRETE TRAIL CONSTRUCTION SHALL BE CLASS 'A' CONCRETE PER ODOT STANDARD SPECIFICATIONS. REFER TO CONCRETE CLASSES TABLE BELOW.
- 12) USE OF TYPE 'A' AGGREGATE BASE MATERIAL ALONG RAIL BALLAST STA. 533+11 - EOP MUST BE APPROVED BY ENGINEER PRIOR TO EXCAVATION AND PLACEMENT OF MATERIAL. AGGREGATE BASE MATERIAL SHALL BE UTILIZED IN AREAS WHERE THE BALLAST CANNOT BE COMPACTED TO THE SPECIFICATIONS SHOWN IN THE DETAILS.

**TYPICAL RAMP CONSTRUCTION NOTES**

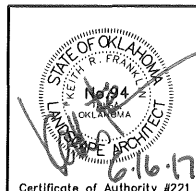
- 1) ALL CONCRETE PAVING SHALL BE CONSTRUCTED WITH CLASS 'A' CONCRETE. ALL RAMP CONSTRUCTION SHALL BE A.D.A. COMPLIANT.
- 2) MEDIUM BROOM FINISH PERPENDICULAR TO THE DIRECTION OF TRAVEL ON ALL RAMPS.
- 3) THE TACTILE FINISH FOR ALL CURB RAMPS AT ROADWAYS SHALL BE TRUNCATED DOMES COLOR: BRICK RED. SEE ODOT SHEET FOR TACTILE WARNING DEVICES.
- 4) DAMAGE TO EXISTING PAVEMENT, OR ROADWAY ADJACENT TO RAMPS, RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 5) LANDING AREA BEHIND ALL RAMPS SHALL BE A LEVEL AREA 5'-0" FROM THE BACK OF RAMP AT A MINIMUM UNLESS OTHERWISE SHOWN ON PLANS. THE LANDING AREA SHALL HAVE A MAX. 2% CROSS SLOPE AND LONGITUDINAL SLOPE.
- 6) ALL CURBS AND 1' CURB RAMP FLARES CONSTRUCTION ASSOCIATED WITH TRAIL RAMP CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL AND INCLUDED IN THE COST OF 610(A)-6" CONCRETE SIDEWALK.

**PROJECT CONCRETE CLASSES**

CLASS OF CONCRETE	MINIMUM CEMENT CONTENT (lb/cy)	AIR CONTENT (%)	WATER/CEMENT RATIO (lb/lb)	SLUMP (in)	MINIMUM 28-DAY COMPRESSIVE STRENGTH (psi)
A	517	6±1.5	0.25-0.48	2±1	3000

PER ODOT 2009 STANDARD SPECIFICATIONS - SECTION 701 PORTLAND CEMENT CONCRETE

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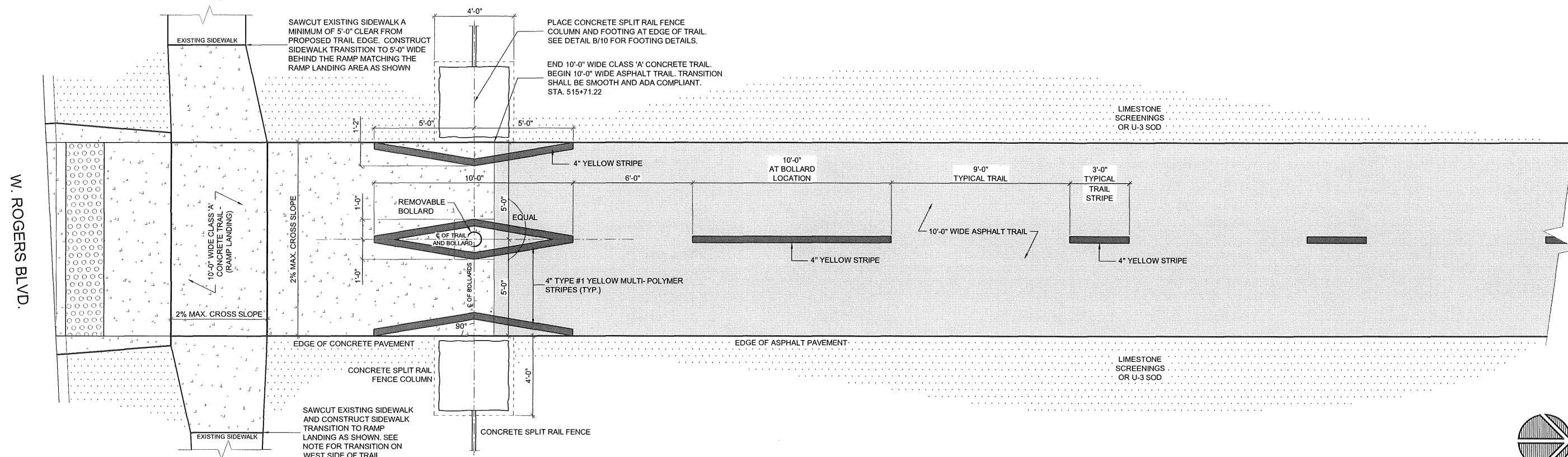
Osage Prairie Trail Extension		PREPARED BY: LANDPLAN CONSULTANTS 1110 West 23rd Street TULSA, OK 74107 918-584-6464	
Design	JM	8/16	<p align="center"><b>CONSTRUCTION DETAILS (1)</b></p> <p>State Job No. 28839 (04), 32530 (04) Sheet No. 8 of 32</p>
Drawn	JM/BB	8/16	
Checked	JM/KF	6/17	
Approved			
Squad	LPCI		



**STRIPING NOTES:**

- 1.) TRAFFIC STRIPING SHALL CONSIST OF 4" WIDE DASHED YELLOW STRIPES DOWN CENTER OF TRAIL TYPICALLY. EACH MULTI-POLYMER DASH WILL BE 3'-0" LONG. GAPS BETWEEN DASHES WILL BE 9'-0".
- 2.) STRIPING AT BOLLARD LOCATIONS IS AS SHOWN BELOW.
- 3.) NO PASSING ZONES ALONG TRAIL WILL BE DESIGNATED WITH A SINGLE SOLID YELLOW LINE.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA	28839(04) 32530(04)			
DESCRIPTION			REVISIONS	DATE	



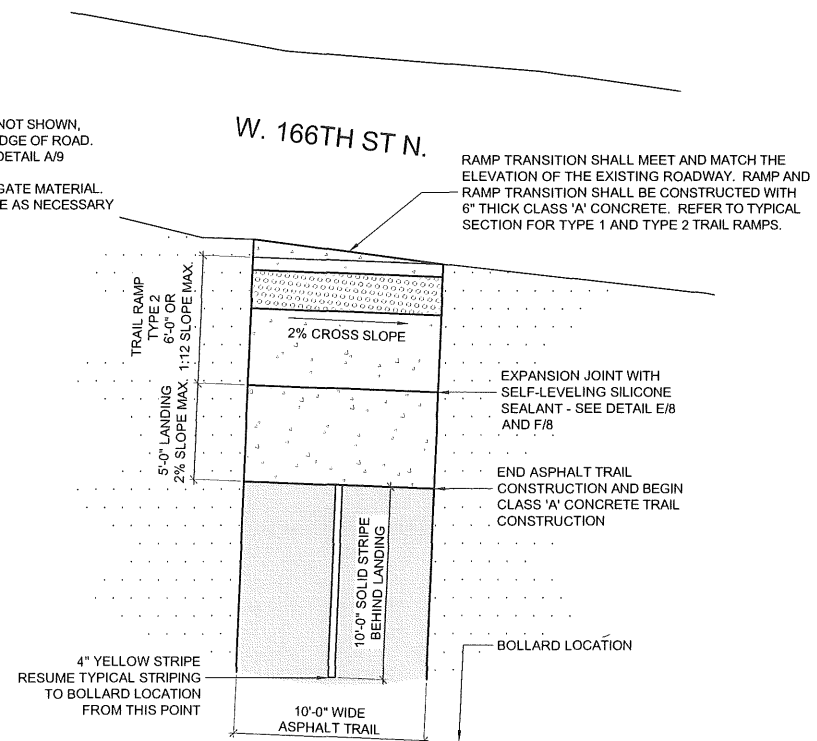
**A** PLAN - STANDARD BOLLARD LOCATION WITH TRAIL STRIPING (North Side of W. Rogers Blvd.)  
**9** NOT TO SCALE

**BOLLARD NOTES:**

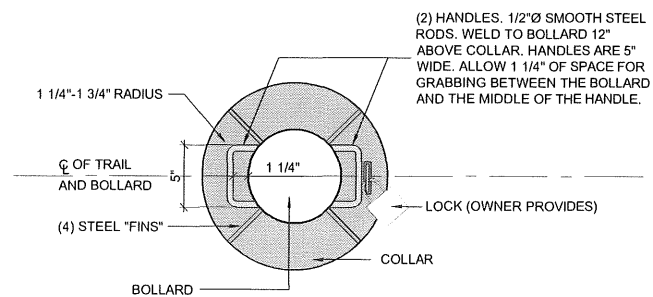
1. BOLLARD SHALL BE CONSTRUCTED SO THAT WHEN IN AN UPRIGHT POSITION AND LOCKED IT WILL STAND PLUMB.
2. WELDS SHALL BE 3/16" FILLET WELD. GRIND ALL WELDS AND EDGES SMOOTH.
3. BOLLARD SHALL BE PRIMED WITH A ZINC RICH PRIMER AND FINISHED WITH A BRONZE TIC POLYESTER POWDER COAT 2.5-3.0 MLS. THICK. SURFACE SHALL BE FREE OF RUST, OILS, ETC. PRIOR TO PAINTING. ENGINEER SHALL APPROVE COLOR PRIOR TO PAINTING. REFLECTIVE TAPE SHALL BE APPLIED HORIZONTALLY ON REMOVABLE BOLLARD AS SHOWN IN THE DETAIL.
4. REFLECTIVE TAPE SUBSTITUTION SHALL BE SUBMITTED FOR APPROVAL BY ENGINEER

**NOTE:**

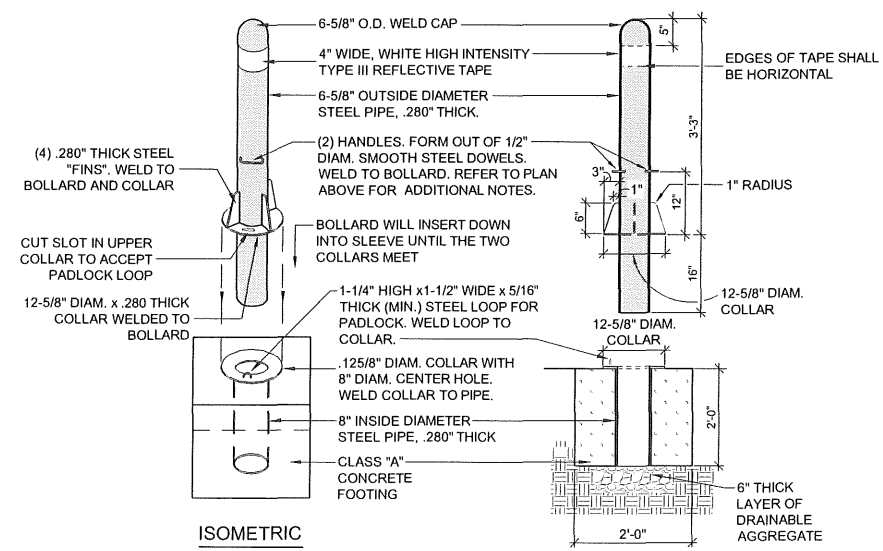
1. BOLLARD LOCATION NOT SHOWN, 77'-0" SOUTH FROM EDGE OF ROAD. REFER TO STRIPING DETAIL A/9
2. ROADWAY IS AGGREGATE MATERIAL FEATHER AGGREGATE AS NECESSARY TO MEET RAMP NOSE



**B** PLAN - TYPE 2 RAMP / TRAIL TERMINUS AT W. 166TH ST N.  
**9** NOT TO SCALE



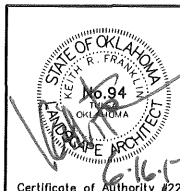
**C** PLAN VIEW - REMOVABLE BOLLARD  
**9** NOT TO SCALE



**D** DETAILS - REMOVABLE BOLLARD  
**9** NOT TO SCALE

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Sta. 616+22.83 - 616+34.86



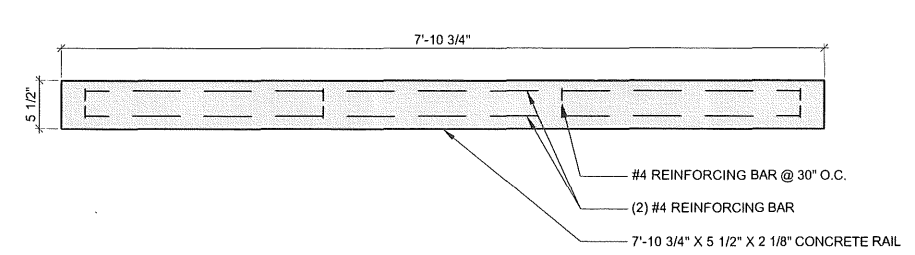
Osage Prairie Trail Extension		
Design	JM	8/16
Drawn	JM/BB	8/16
Checked	JM/KF	6/17
Approved		
Squad	LPCI	

PREPARED BY:  
**LANDPLAN CONSULTANTS**  
 1110 West 23rd Street TULSA, OK 74107 918-584-6464

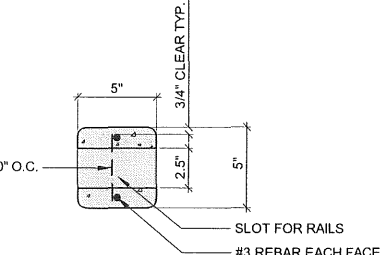
**CONSTRUCTION DETAILS (2)**

State Job No. 28839 (04), 32530 (04) Sheet No. 9 of 32

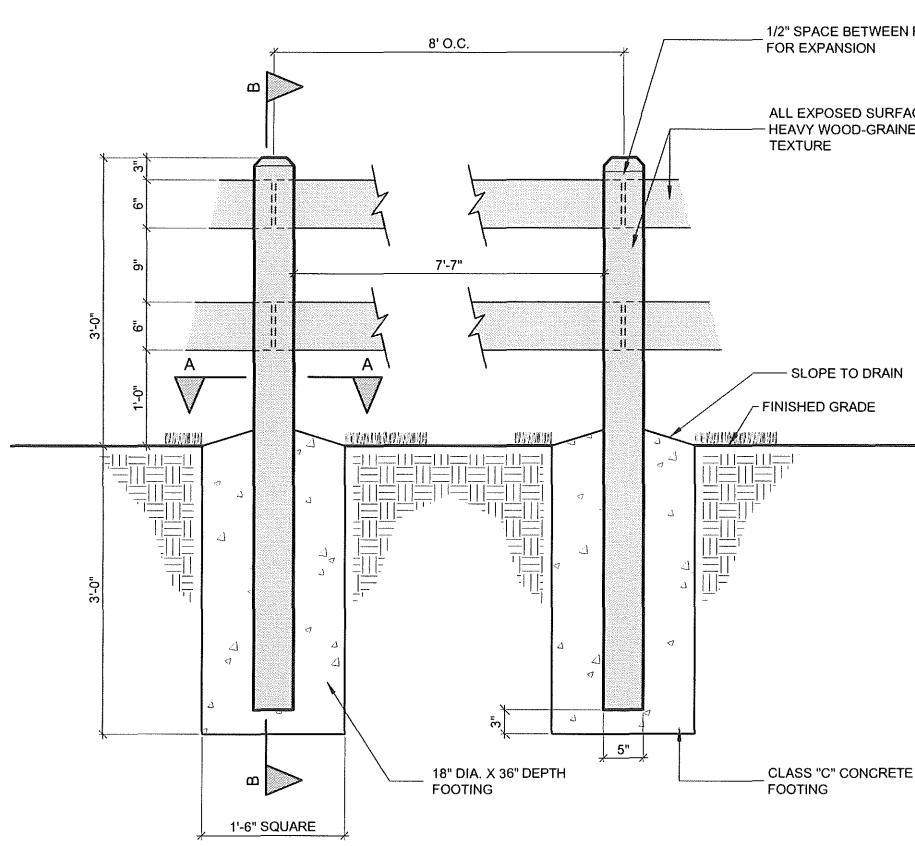
OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	28839(04), 32530(04)			
DESCRIPTION				REVISIONS	DATE



SECTION / ELEVATION - RAIL

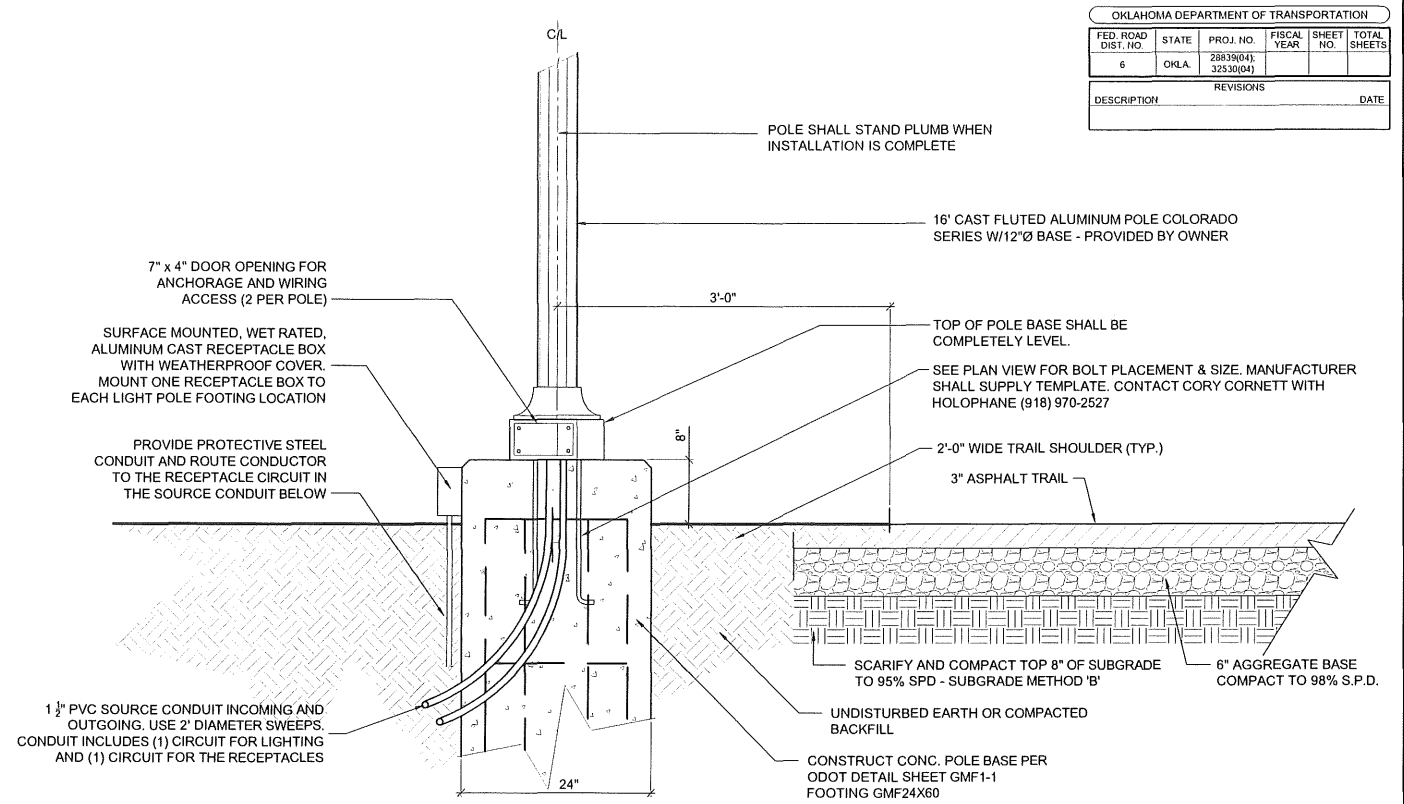


SECTION A - POST

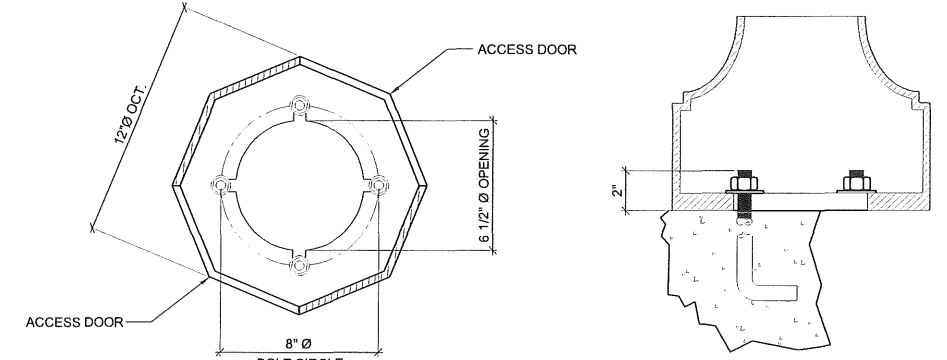


SECTION/ELEVATION B - POST

- NOTE:**
1. CONCRETE SPLIT RAIL FENCE AS MANUFACTURED BY 'SUPERIOR CONCRETE PRODUCTS', 817-277-9255, OR EQUAL.
  2. COLOR TO BE MESA BUFF OR AS SPECIFIED BY OWNER'S REPRESENTATIVE.
  3. INSTALL PER MANUFACTURER'S RECOMMENDATIONS
  4. UNFINISHED SIDES SHALL FACE AWAY FROM THE STREET (HWY 20)

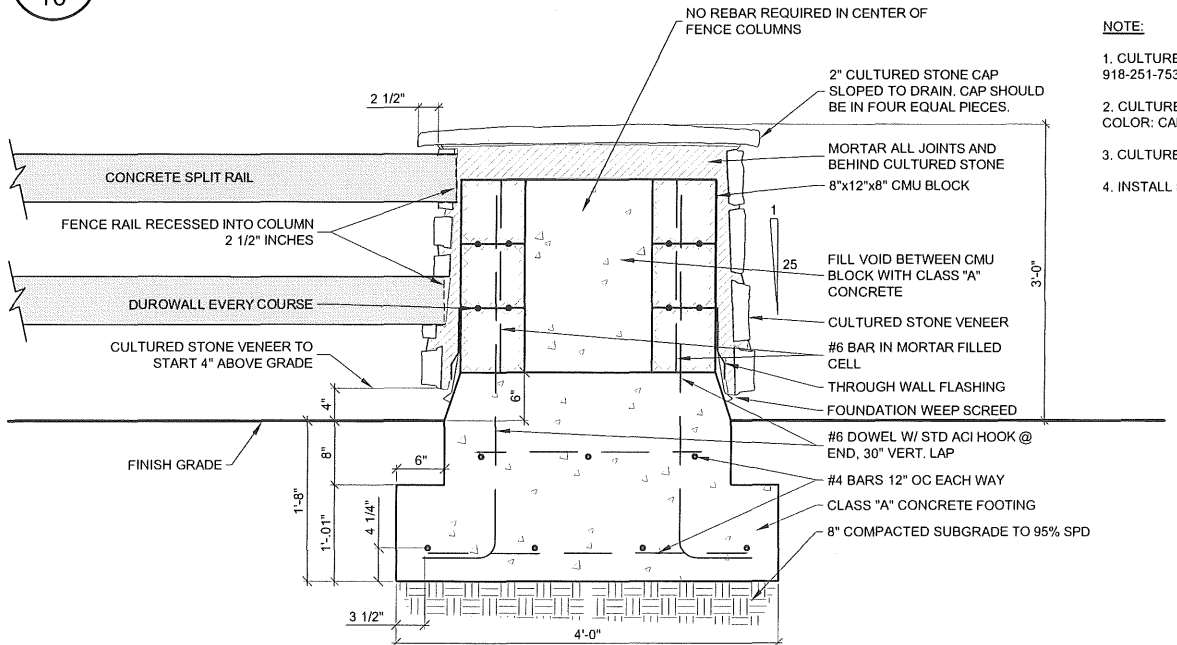


D SECTION - 16' LIGHT POLE FOOTING ALONG TRAIL



E PLAN - 16' LIGHT POLE ANCHORAGE

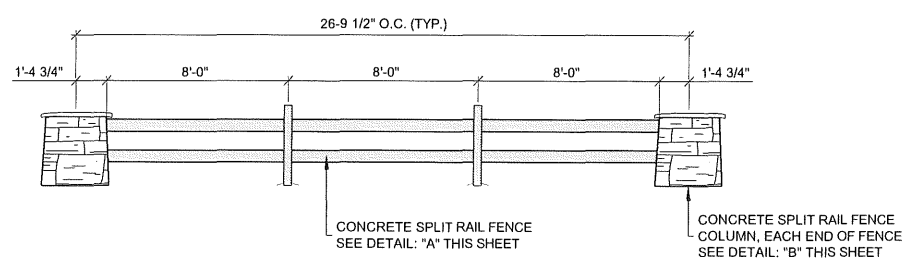
A CONCRETE SPLIT RAIL FENCE



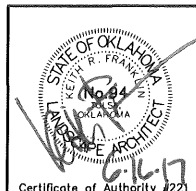
B SECTION - CONCRETE SPLIT RAIL FENCE COLUMN

- NOTE:**
1. CULTURED STONE AS MANUFACTURED BY 'BORAL', 918-251-7533, OR APPROVED EQUAL.
  2. CULTURED STONE VENEER TO BE COUNTRY LEDGESTONE, COLOR: CARAMEL.
  3. CULTURED STONE CAP TO BE HEARTHSTONE, COLOR: MARSH.
  4. INSTALL PER MANUFACTURER'S RECOMMENDATIONS

C ELEVATION - CONCRETE SPLIT RAIL FENCE AND COLUMNS



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Osage Prairie Trail Extension		PREPARED BY: LANDPLAN CONSULTANTS 1110 West 23rd Street TULSA, OK 74107 918-584-6454	
Design	JM	8/16	<p><b>CONSTRUCTION DETAILS (3)</b></p> <p>State Job No. 28839 (04), 32530 (04) Sheet No. 10 of 32</p>
Drawn	JM/BB	8/16	
Checked	JM/KF	6/17	
Approved			
Squad	LPCI		

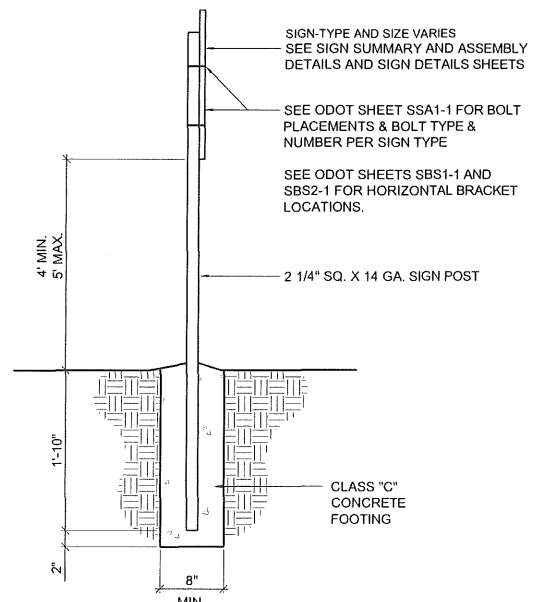
### SIGN ASSEMBLY DETAILS

 ASSEMBLY 1 ASSEMBLIES REQD. - 3 3.31 SQ. FT.	 ASSEMBLY 2 ASSEMBLIES REQD. - 1 8.25 SQ. FT.	 ASSEMBLY 3 ASSEMBLIES REQD. - 2 8.25 SQ. FT.	 ASSEMBLY 4 ASSEMBLIES REQD. - 3 2.25 SQ. FT.
 ASSEMBLY 5 ASSEMBLIES REQD. - 1 3 SQ. FT.	NOTE: RAILROAD MILE MARKERS WILL BE NUMBERED SEQUENTIALLY, STARTING FROM MILE 167 AND ENDING WITH MILE 168. TWO COPIES OF EACH MILE NUMBER WILL BE REQUIRED.  ASSEMBLY 6 ASSEMBLIES REQD. - 2 1.33 SQ. FT.	NOTE: RAILROAD MILE MARKERS WILL BE NUMBERED SEQUENTIALLY, STARTING FROM MILE 00 AND ENDING WITH MILE 14. TWO COPIES OF EACH MILE NUMBER WILL BE REQUIRED.  ASSEMBLY 7 ASSEMBLIES REQD. - 2 1.33 SQ. FT.	NOTE: RAILROAD MILE MARKERS WILL BE NUMBERED SEQUENTIALLY, STARTING FROM MILE 00 1/2 AND ENDING WITH MILE 14 1/2. TWO COPIES OF EACH MILE NUMBER WILL BE REQUIRED.  ASSEMBLY 8 ASSEMBLIES REQD. - 1 1.33 SQ. FT.
 ASSEMBLY 9 ASSEMBLIES REQD. - 1 1.25 SQ. FT.	 ASSEMBLY 10 ASSEMBLIES REQD. - 1 1.25 SQ. FT.	 ASSEMBLY 11 ASSEMBLIES REQD. - 2 1.5 SQ. FT.	 ASSEMBLY 12 ASSEMBLIES REQD. - 2 3.0 SQ. FT.

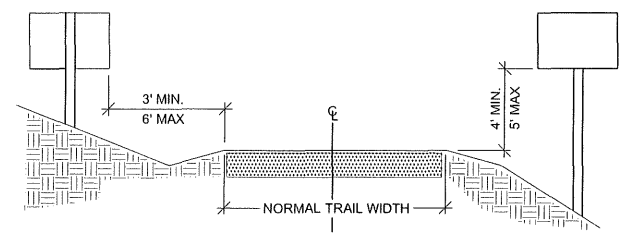
### SIGN SUMMARY

SIGN #	STATION	OFFSET	TYPE OF SIGN	850(A)	850(D)	850(D)	851(B)	COMMENTS
				SHEET ALUMINUM SIGNS SF	SPECIAL SIGNS SF	SPECIAL SIGNS EA	2" @ 3.65 GALV. STEEL PIPE POST LF	
1	514+85	10	ASSEMBLY 1	3.31			10	SIGN FACES SOUTH
2	514+86	10	ASSEMBLY 4	2.25			10	SIGN FACES NORTH
3	515+62	10	ASSEMBLY 4	2.25			10	SIGN FACES SOUTH
4	515+62	10	ASSEMBLY 1	3.31			10	SIGN FACES NORTH
5, 6, 7	536+74	10	ASSEMBLY 5, 9, 10			3		ASSEMBLY 5 & 9 SIGNS FACE SOUTH, ASSEMBLY 10 SIGN FACES NORTH
8	543+13	10	ASSEMBLY 6		1.33		10	SIGN FACES WEST
9	547+27	10	ASSEMBLY 7		1.33		10	SIGN FACES WEST
10	550+39	10	ASSEMBLY 11		1.5		10	SIGN FACES EAST
11	573+68	10	ASSEMBLY 8		1.33		10	SIGN FACES WEST
12	583+48	10	ASSEMBLY 12		3		10	SIGN FACES EAST
13	595+93	10	ASSEMBLY 6		1.33		10	SIGN FACES WEST
14	605+29	10 FT L	ASSEMBLY 12		3		10	SIGN FACES EAST
15	605+29	10 FT R	ASSEMBLY 11		1.5		8	SIGN FACES WEST
16	607+07	10	ASSEMBLY 7		1.33		10	SIGN FACES WEST
17	616+30	10	ASSEMBLY 1	3.31			10	SIGN FACES SOUTH
18	616+33	10	ASSEMBLY 4	2.25			10	SIGN FACES NORTH
19	616+46	10	ASSEMBLY 3	8.25			12	SIGN FACES EAST
20	616+33	10	ASSEMBLY 3	8.25			12	SIGN FACES WEST
21	616+33	305	ASSEMBLY 2	8.25			12	SIGN FACES WEST
<b>TOTAL</b>				<b>41</b>	<b>16</b>	<b>3</b>	<b>184</b>	

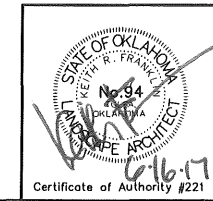
**NOTE:**  
 CONTRACTOR SHALL BE RESPONSIBLE FOR ACCURATE LINEAR MEASUREMENT FROM EXISTING TRAIL MONUMENTS IN ORDER TO LOCATE AND STAKE PROPOSED SIGN LOCATIONS FOR APPROVAL BY ENGINEER



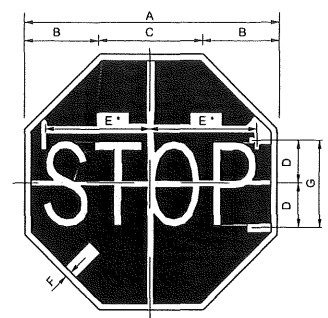
**A**  
 11  
 DETAIL- TRAIL SIGN POST  
 NOT TO SCALE



**B**  
 11  
 SECTION- TRAIL SIGN PLACEMENT  
 NOT TO SCALE



Osage Prairie Trail Extension			PREPARED BY <b>LANDPLAN CONSULTANTS</b> 1110 West 23rd Street TULSA, OK 74107 918-584-6464	
Design	JM	8/16	<b>SIGN DETAILS WITH SUMMARY</b>	
Drawn	JM/BB	8/16		
Checked	JM/KF	6/17		
Approved				
Squad	LPCI			
State Job No. 28839 (04), 32530 (04) Sheet No. 11 of 32				

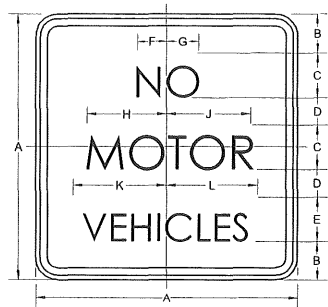


COLOR: LEGEND AND "F".....WHITE (REFLECTORIZED)  
BACKGROUND.....RED (TRANSPARENT REFLECTORIZED)

\* REDUCE SPACING 40%

SIGN SIZE	DIMENSIONS							BLANK STD.
	A	B	C	D	E	F	G	
18 X 18	18	5-9/32	7-15/32	3	7-3/4	3/8	6 C	B-18(O)

18" X 18" R1-1B 1.86 SQ. FT.



COLOR: LEGEND AND BORDER.....BLACK (NON-REFLECTORIZED)  
BACKGROUND.....WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										BLANK STD.	
	A	B	C	D	E	F	G	H	J	K		L
18 X 18	18	2-5/8	3 C	1-7/8	3 B	2	2-1/8	5-7/16	5-11/16	6-3/8	6-3/16	B-18(S)

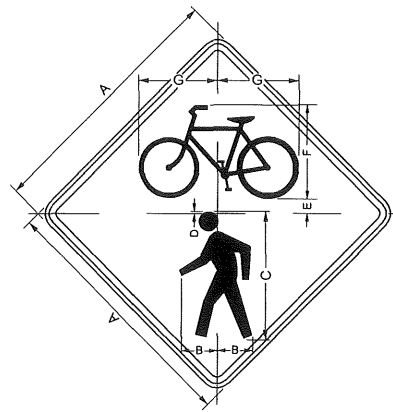
18" X 18" R5-3B 2.25 SQ. FT.



COLOR: LEGEND AND BORDER.....WHITE (NON-REFLECTORIZED)  
BACKGROUND.....BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									BLANK STD.
	A	B	C	D	E	F	G	H	I	
12 X 18	18	12	2	1 1/2	1	5-3/8	7-7/16	7-9/16	6-1/4	B-1218

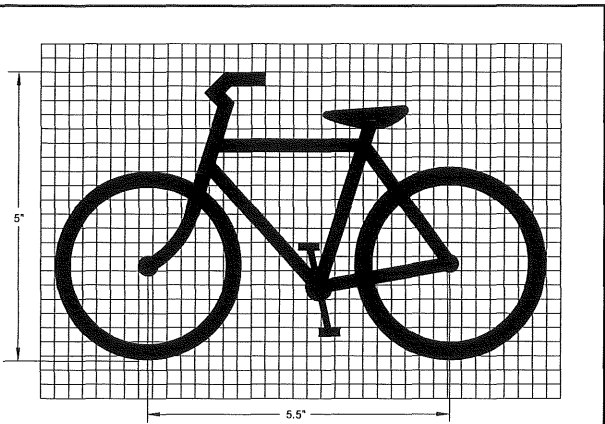
12" X 18" SPECIAL 1.5 SQ. FT.



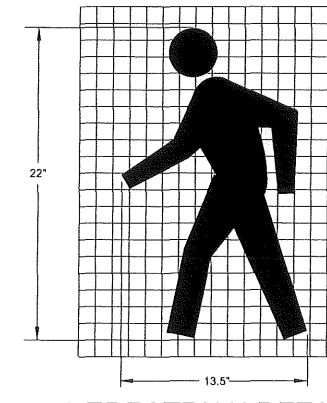
SIGN SIZE	DIMENSIONS							MAR-GIN	BOR-DER	BLANK STD.
	A	B	C	D	E	F	G			
30 X 30	30	3 3/4	15	1/4	1 3/4	10 3/4	9 9/16	1/2	3/4	B-30(D)

COLOR: SYMBOL AND BORDER.....BLACK (NON-REFLECTORIZED)  
BACKGROUND.....FLOURESCENT YELLOW-GREEN (REFLECTORIZED)

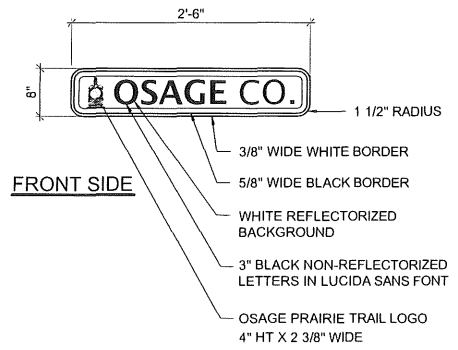
30" X 30" W11-15 6.25 SQ. FT.



BIKE DETAIL



PEDESTRIAN DETAIL



FRONT SIDE

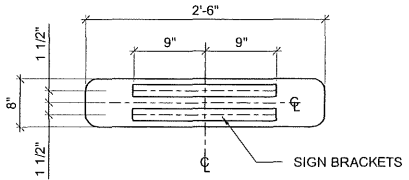
- 3/8" WIDE WHITE BORDER
- 5/8" WIDE BLACK BORDER
- WHITE REFLECTORIZED BACKGROUND
- 3" BLACK NON-REFLECTORIZED LETTERS IN LUCIDA SANS FONT
- OSAGE PRAIRIE TRAIL LOGO 4" HT X 2 3/8" WIDE



QUANTITY REQUIRED: 1



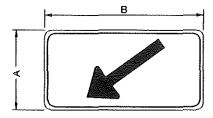
QUANTITY REQUIRED: 2



BACK SIDE

**ALUMINUM SIGN NOTES:**

- ALL SIGNS SHALL BE ALUMINUM ALLOY 6061-T6 OR 5052-H38.
- THICKNESS OF ALUMINUM ALLOY SIGNS SHALL BE 0.063" FOR SIGNS THROUGH 24" AND 0.080" FOR SIGNS LARGER THAN 24".
- SIGN BRACKETS SHALL BE GALVANIZED STEEL OR ALUMINUM ALLOY 6061-T6, 6062-T6, OR 6063-T6. HOLES FOR MOUNTING BRACKETS TO SIGN SHALL BE 5/16" D. HOLES SHALL BE PUNCHED BEFORE GALVANIZING. SIZE OF BRACKETS SHALL BE 1 1/2" X 1/2" X 1/8".
- ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED STEEL OR CADMIUM PLATED. ALL BOLT ENDS SHALL BE SUFFICIENTLY BRADDED AFTER INSTALLATION TO MINIMIZE REMOVAL BY VANDALISM. BOLT HEADS SHALL BE POWDER COATED TO MATCH WHATEVER COLOR IT LANDS IN WITHIN THE SIGN FACE, EITHER BLACK OR WHITE.
- REFER TO ODOT DETAIL SHEET SSA2-1 FOR SIGN CONNECTIONS TO POST. SEE SPECIFICALLY TYPICAL POST MOUNTING DETAILS FOR SIGN REQUIRING HORIZONTAL SIGN BRACKETS.

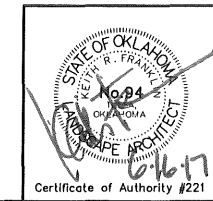


SIGN SIZE	DIMENSIONS		MAR-GIN	BOR-DER
	A	B		
12 X 24	12	24	1/2	3/8

COLOR: SYMBOL AND BORDER.....BLACK (NON-REFLECTORIZED)  
BACKGROUND.....FLOURESCENT YELLOW-GREEN (REFLECTORIZED)

NOTE: REFER TO REVISED SIGN W16-7P IN THE AASHTO/MUTCD 2000 EDITION FOR EXACT DIMENSIONS

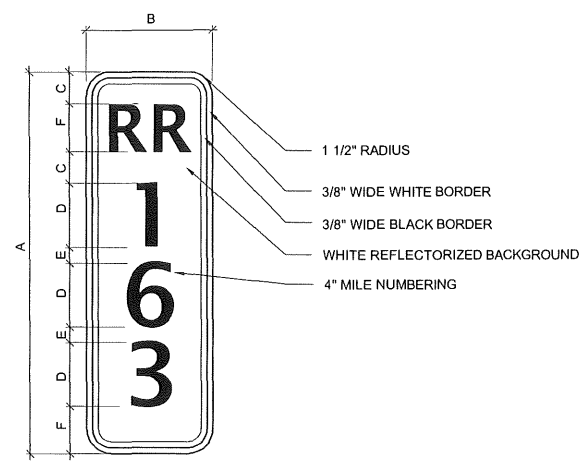
12" X 24" W16-7P 2.0 SQ. FT.



Osage Prairie Trail Extension		
Design	JM	8/16
Drawn	JM/BB	8/16
Checked	JM/KF	6/17
Approved		
Squad	LPCI	

PREPARED BY: LANDPLAN CONSULTANTS  
1110 West 23rd Street TULSA, OK 74107 918-584-6464

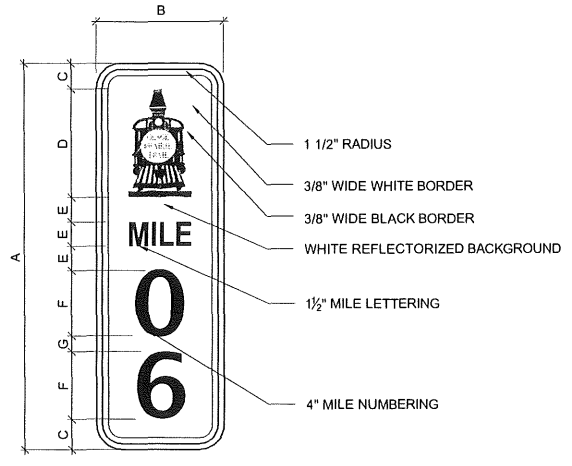
**SIGN ASSEMBLY DETAILS (1)**



COLOR: SYMBOL AND BORDER.....BLACK (NON-REFLECTORIZED)  
BACKGROUND.....WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						MARGIN	BOR- DER	BLANK STD.
	A	B	C	D	E	F			
8 X 24	24	8	2	4	1	3	3/8	3/8	SPECIAL

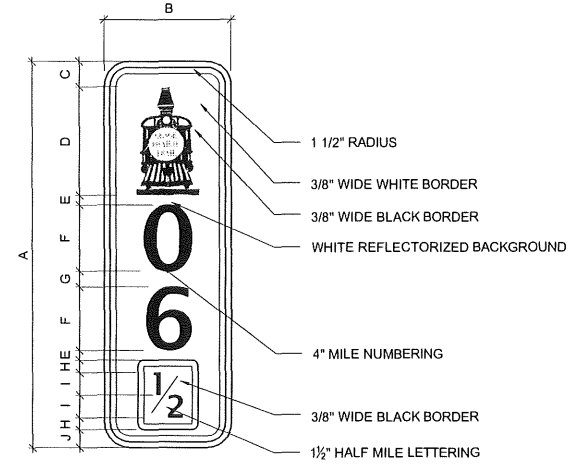
8" X 24" SPECIAL 1.33 SQ. FT.



COLOR: SYMBOL AND BORDER.....BLACK (NON-REFLECTORIZED)  
BACKGROUND.....WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							BLANK STD.
	A	B	C	D	E	F	G	
8 X 24	24	8	2	6 1/2	1 1/2	4	1	SPECIAL

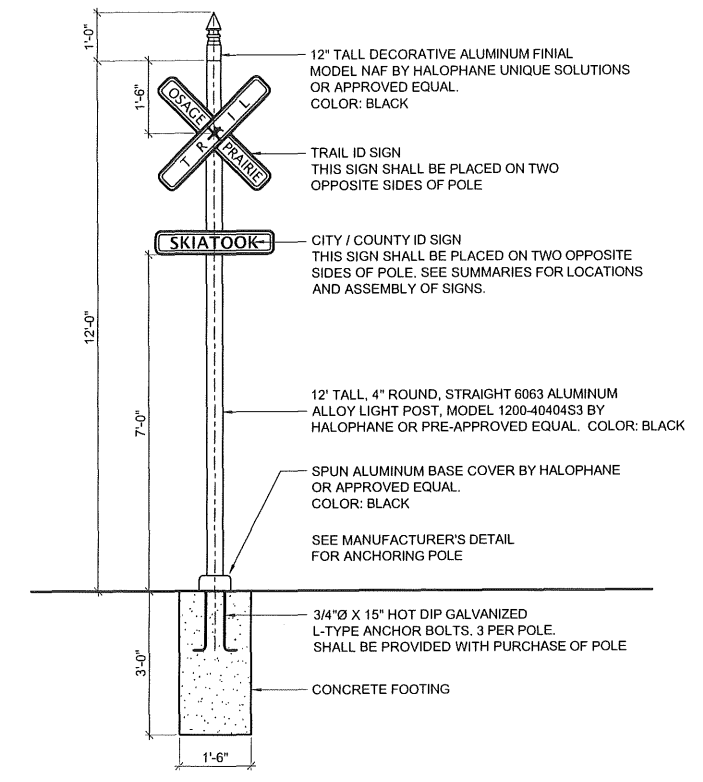
8" X 24" SPECIAL 1.33 SQ. FT.



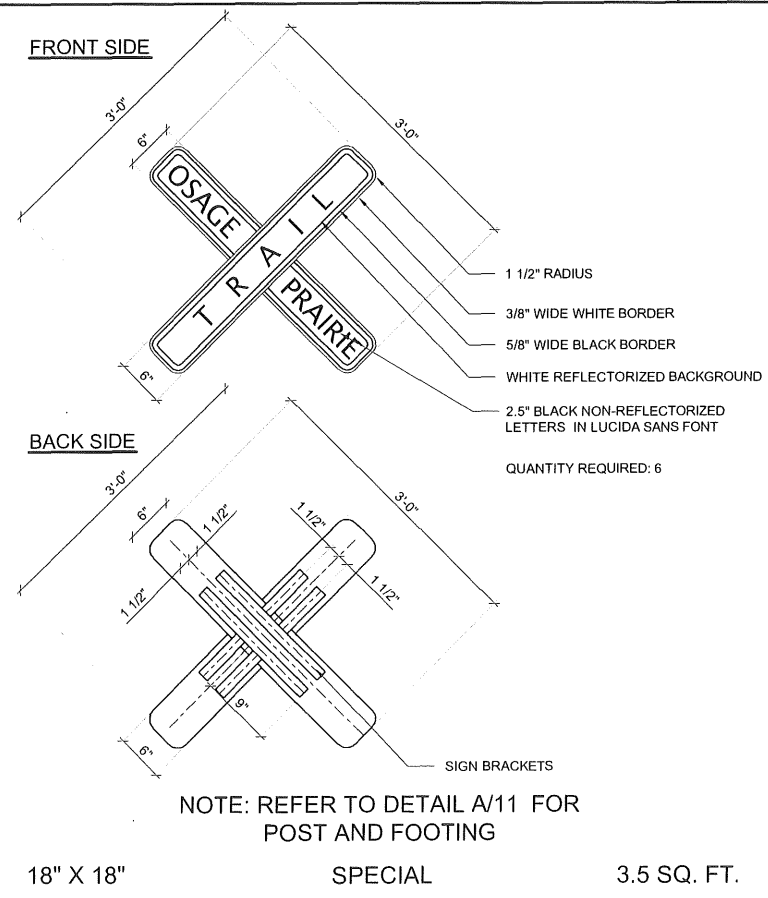
COLOR: SYMBOL AND BORDER.....BLACK (NON-REFLECTORIZED)  
BACKGROUND.....WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										BLANK STD.
	A	B	C	D	E	F	G	H	I	J	
8 X 24	24	8	2	6 1/2	5/8	4	1	3/4	1 1/2	1 1/8	SPECIAL

8" X 24" SPECIAL 1.33 SQ. FT.

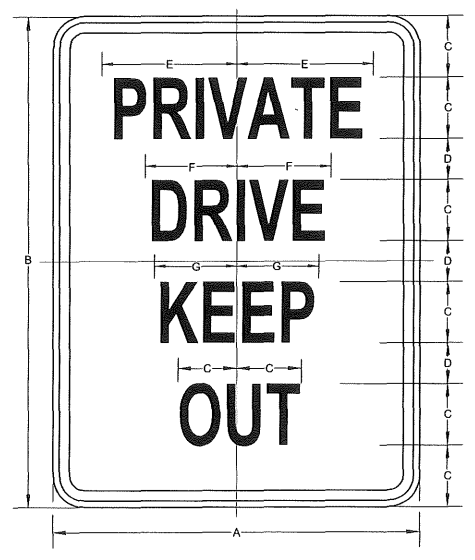


**A** TOWN & COUNTY LIMIT LOCATION SIGNS  
13 NOT TO SCALE QUANTITY REQUIRED: 3



NOTE: REFER TO DETAIL A/11 FOR POST AND FOOTING

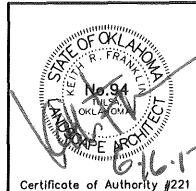
18" X 18" SPECIAL 3.5 SQ. FT.



COLOR: LEGEND AND BORDER.....BLACK (NON-REFLECTORIZED)  
BACKGROUND.....WHITE (REFLECTORIZED)

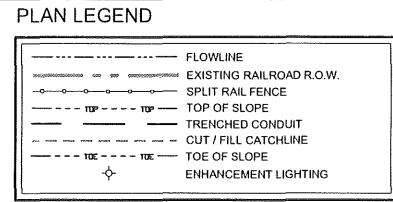
SIGN SIZE	DIMENSIONS							BLANK STD.
	A	B	C	D	E	F	G	
18 X 24	18	24	3	2	6-5/8	4-9/16	4	B-1824

18" X 24" SPECIAL 3.0 SQ. FT.

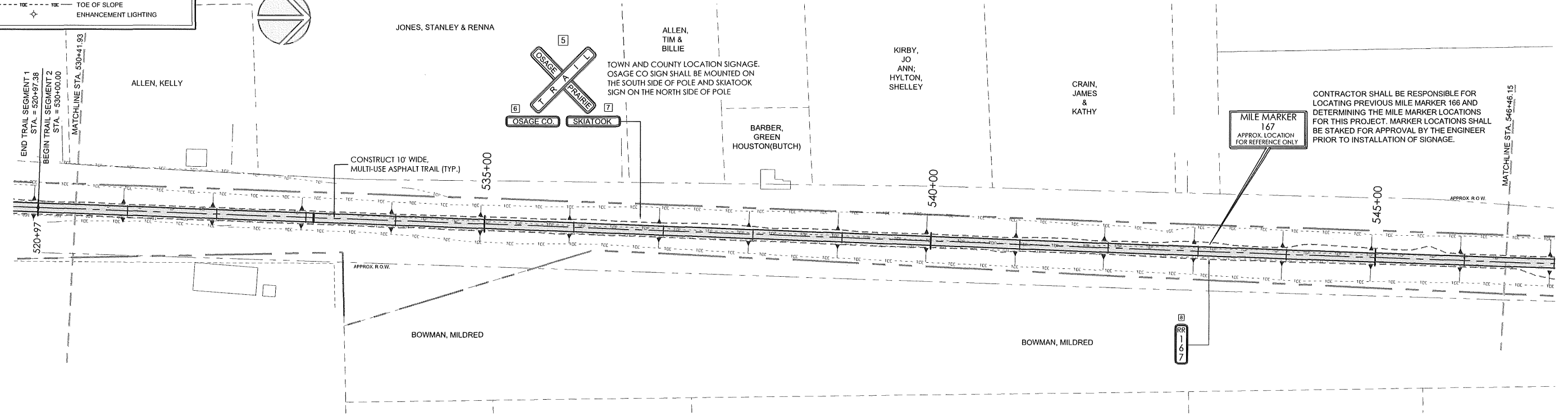


Osage Prairie Trail Extension		PREPARED BY: LANDPLAN CONSULTANTS 1110 West 23rd Street TULSA, OK 74107 918-584-6464	
Design	JM	8/16	SIGN ASSEMBLY DETAILS (2)  State Job No. 28839 (04), 32530 (04) Sheet No. 13 of 32
Drawn	JM/BB	8/16	
Checked	JM/KF	6/17	
Approved			
Squad	LPCI		

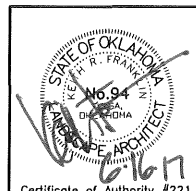
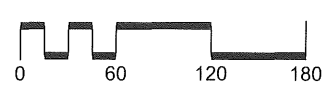
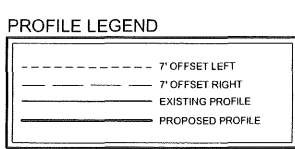
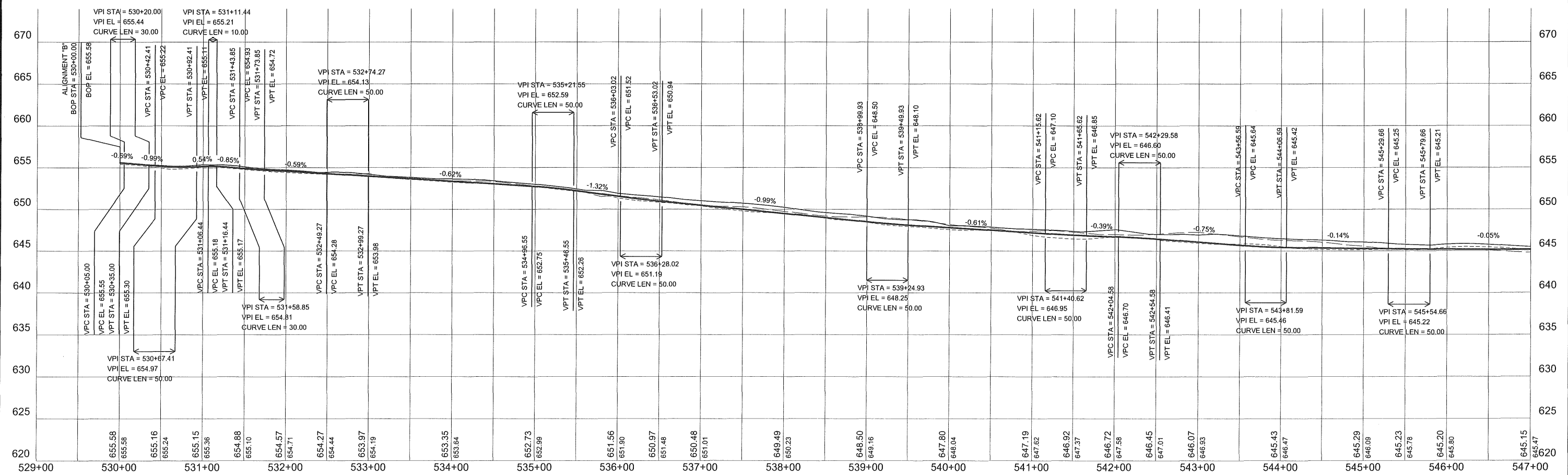




SCALES (22x34):  
1" = 60' HOR  
1" = 6' VER



CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING PREVIOUS MILE MARKER 166 AND DETERMINING THE MILE MARKER LOCATIONS FOR THIS PROJECT. MARKER LOCATIONS SHALL BE STAKED FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION OF SIGNAGE.

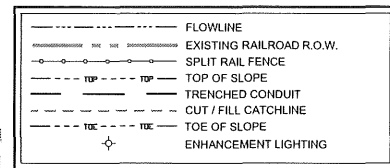


Osage Prairie Trail Extension		PREPARED BY: LANDPLAN CONSULTANTS 1110 West 23rd Street TULSA, OK 74107 918-584-6464	
Design	JM	8/16	<b>PLAN AND PROFILE (2)</b>  State Job No. 28839 (04), 32530 (04) Sheet No. 15 of 32
Drawn	JM/BB	8/16	
Checked	JM/KF	1/17	
Approved			
Squad	LPCI		

F:\691 Osage Prairie Trail Ext\Final\ICAD BASE Files\From RoadCalc\363\363P&P Sheets\RCp01001R1.dwg, 6/15/2017 8:46:30 AM

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA	28839(04) 32530(04)			
DESCRIPTION			REVISIONS	DATE	

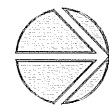
**PLAN LEGEND**



SCALES (22x34):

1" = 60' HOR

1" = 6' VER



KEHLER, BOB & LEOTA

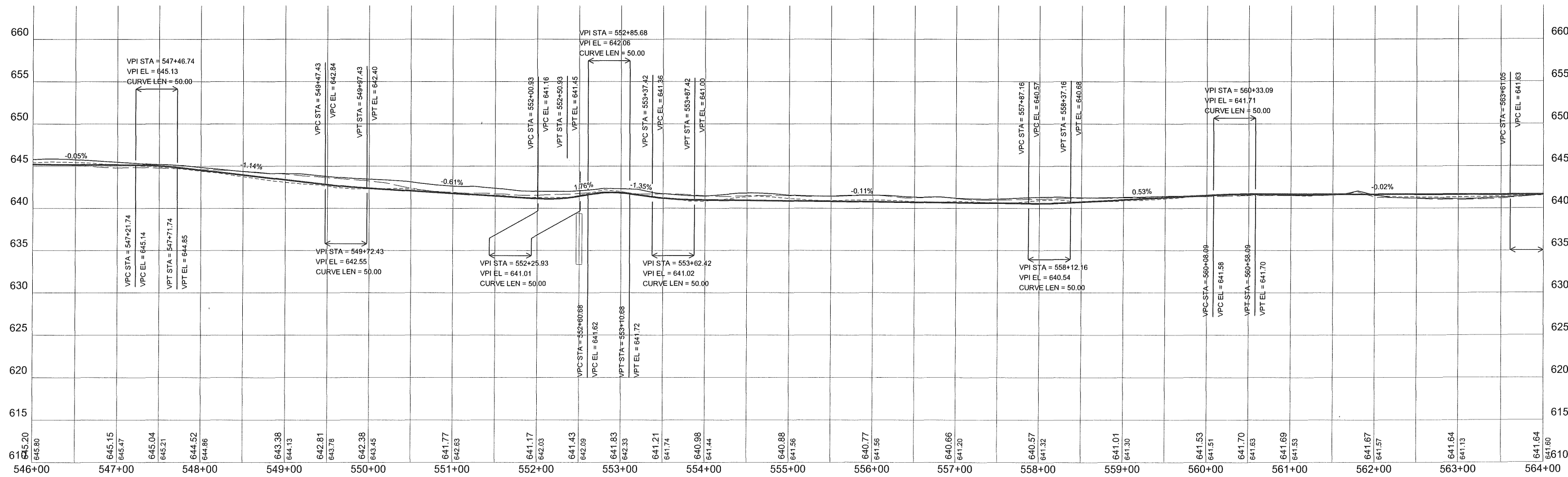
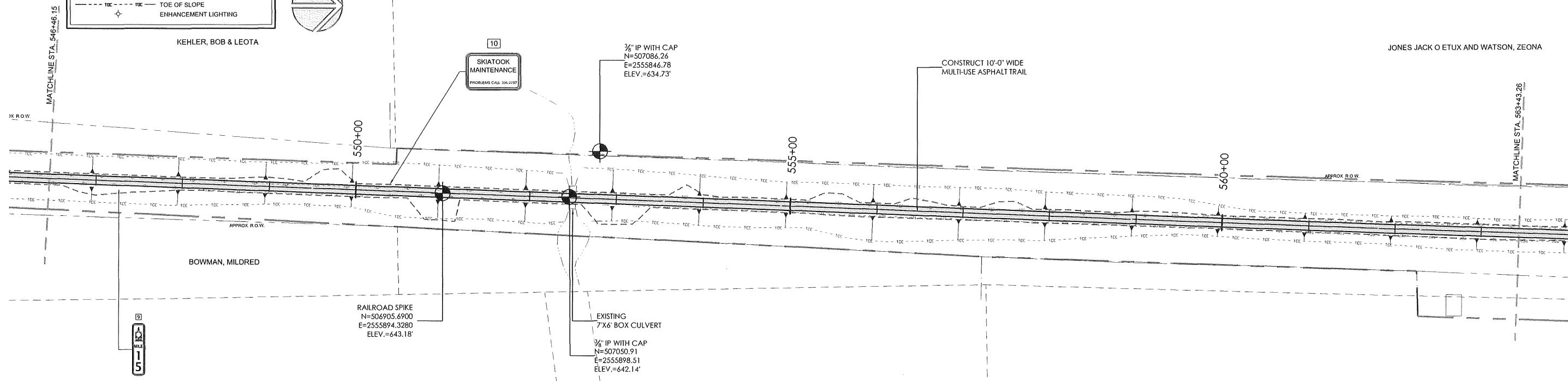
10

SKIATOOK MAINTENANCE  
PROBLEMS CALL 336-2397

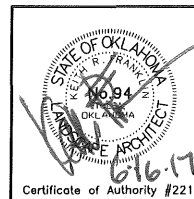
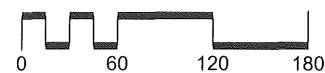
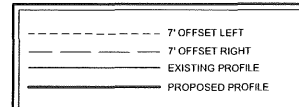
3/4" IP WITH CAP  
N=507084.26  
E=2555846.78  
ELEV.=634.73'

CONSTRUCT 10'-0" WIDE  
MULTI-USE ASPHALT TRAIL

JONES JACK O ETUX AND WATSON, ZEONA



**PROFILE LEGEND**



Osage Prairie Trail Extension

Design	JM	8/16
Drawn	JM/BB	8/16
Checked	JM/KF	1/17
Approved		
Squad	LPCI	

PREPARED BY:  
LANDPLAN CONSULTANTS  
1110 West 23rd Street  
TULSA, OK 74107  
918-584-6464

**PLAN AND PROFILE (3)**


State Job No. 28839 (04), 32530 (04) Sheet No. 16 of 32



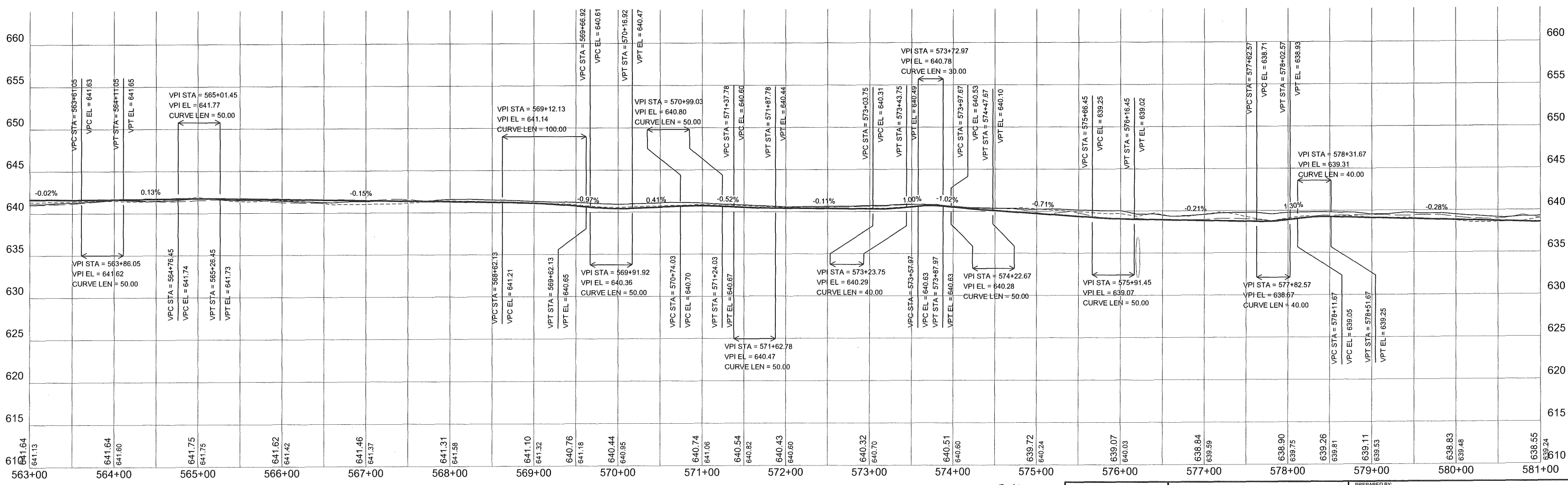
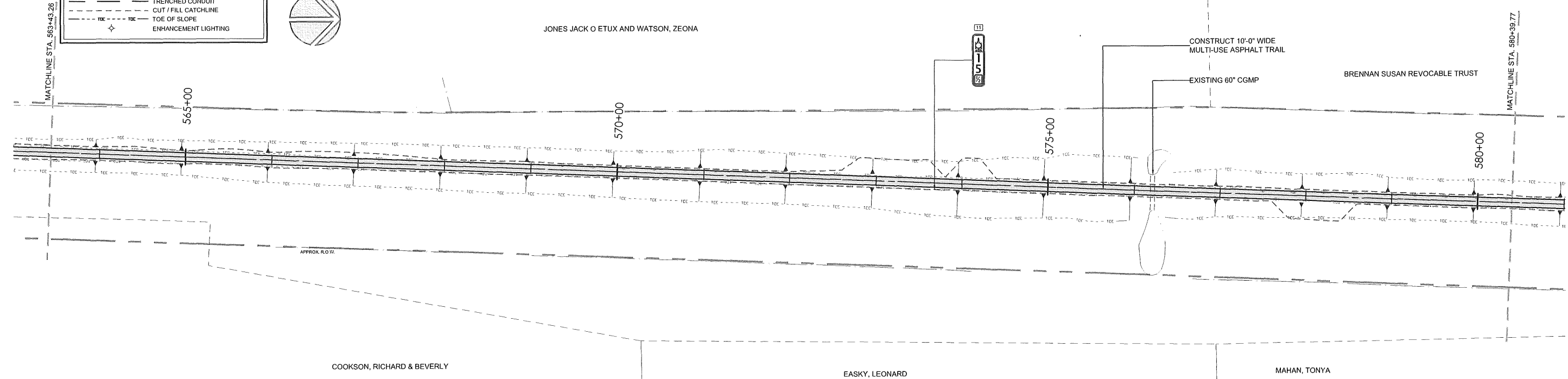
**PLAN LEGEND**

- FLOWLINE
- EXISTING RAILROAD R.O.W.
- SPLIT RAIL FENCE
- TOP OF SLOPE
- TRENCHED CONDUIT
- CUT / FILL CATCHLINE
- TOE OF SLOPE
- ENHANCEMENT LIGHTING

**SCALES (22x34):**  
 1" = 60' HOR  
 1" = 6' VER

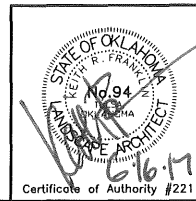
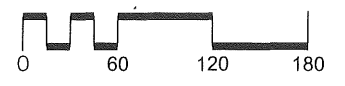


JONES JACK O ETUX AND WATSON, ZEONA



**PROFILE LEGEND**

- 7' OFFSET LEFT
- 7' OFFSET RIGHT
- EXISTING PROFILE
- PROPOSED PROFILE



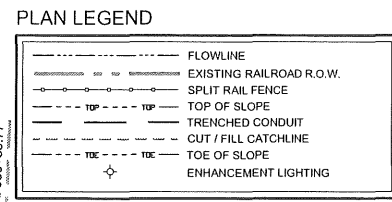
Osage Prairie Trail Extension		
Design	JM	8/16
Drawn	JM/BB	8/16
Checked	JM/KF	6/17
Approved		
Squad	LPCI	

**LANDPLAN CONSULTANTS**  
 1110 West 23rd Street TULSA, OK 74107 918-584-6464

**PLAN AND PROFILE (4)**

State Job No. 28839 (04), 32530 (04) Sheet No. 17 of 32

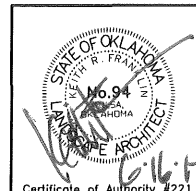
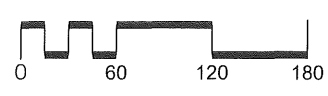
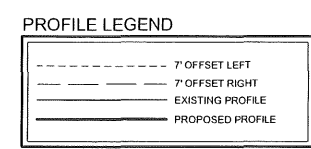
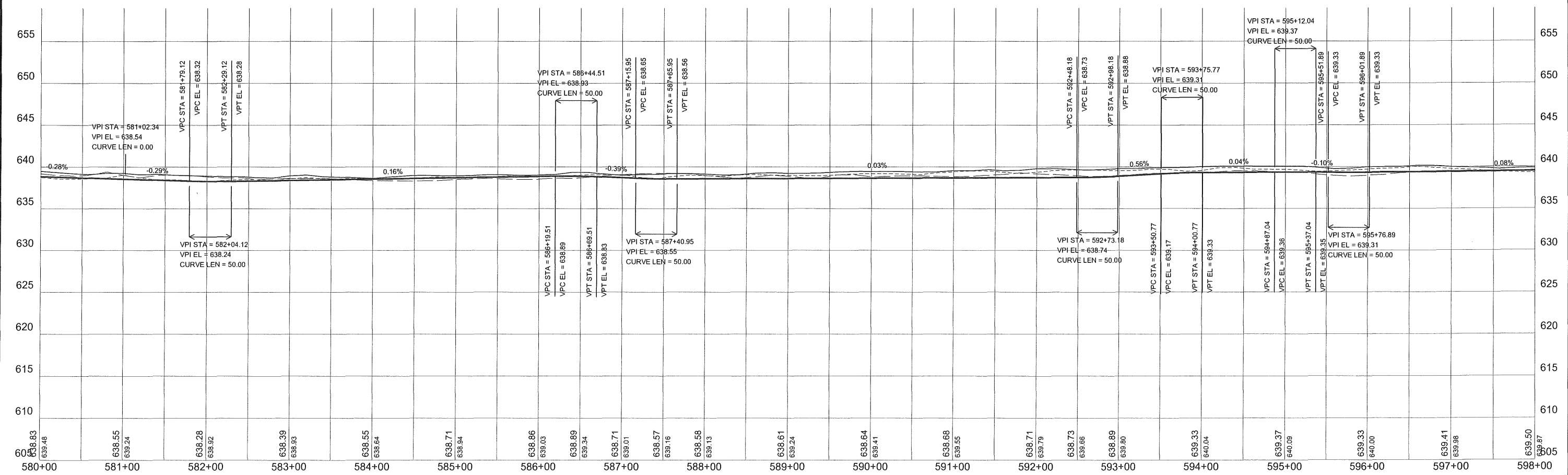
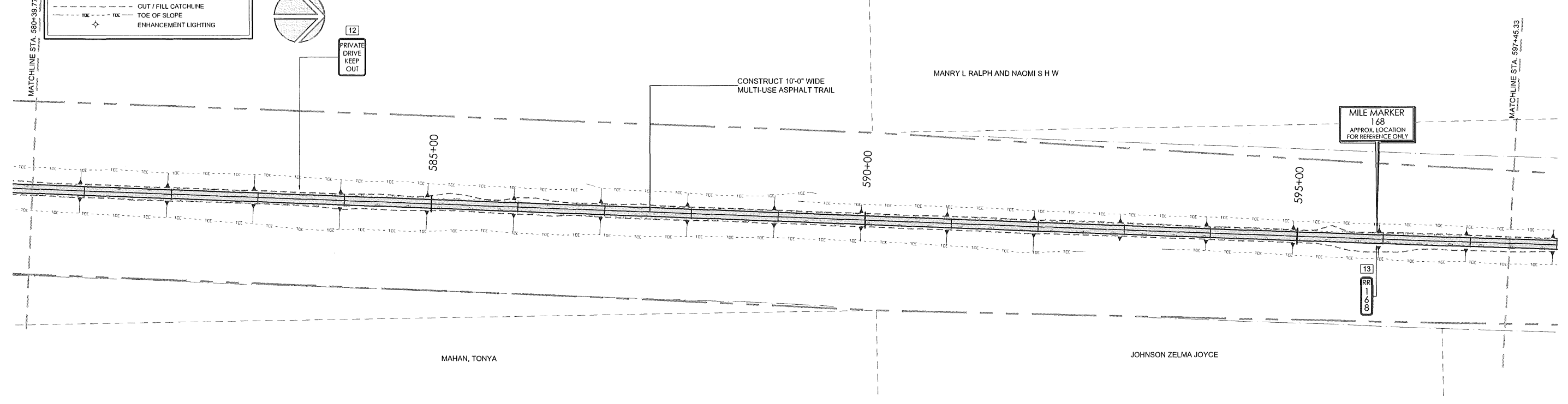
F:\981 Osage Prairie Trail\Ext\Final\CAD BASE Files\Final\RoadCalc\32530\1R1.dwg, 6/15/2017 8:57:55 AM



SCALES (22x34):  
1" = 60' HOR  
1" = 6' VER

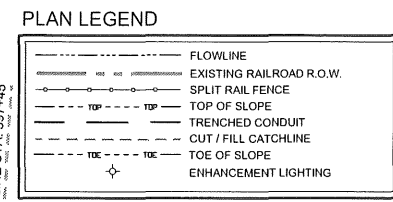


12  
PRIVATE DRIVE  
KEEP OUT



Osage Prairie Trail Extension		PREPARED BY: LANDPLAN CONSULTANTS 1110 West 23rd Street TULSA, OK 74107 918-584-6664	
Design	JM 8/16	<b>PLAN AND PROFILE (5)</b> State Job No. 28839 (04), 32530 (04) Sheet No. 18 of 32	
Drawn	JM/BB 8/16		
Checked	KF 6/17		
Approved			
Squad	LPCI		

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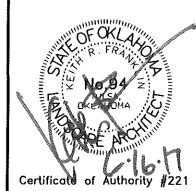
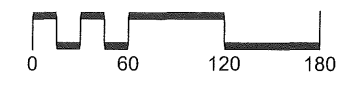
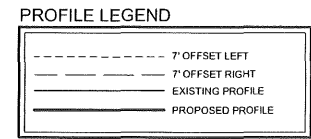
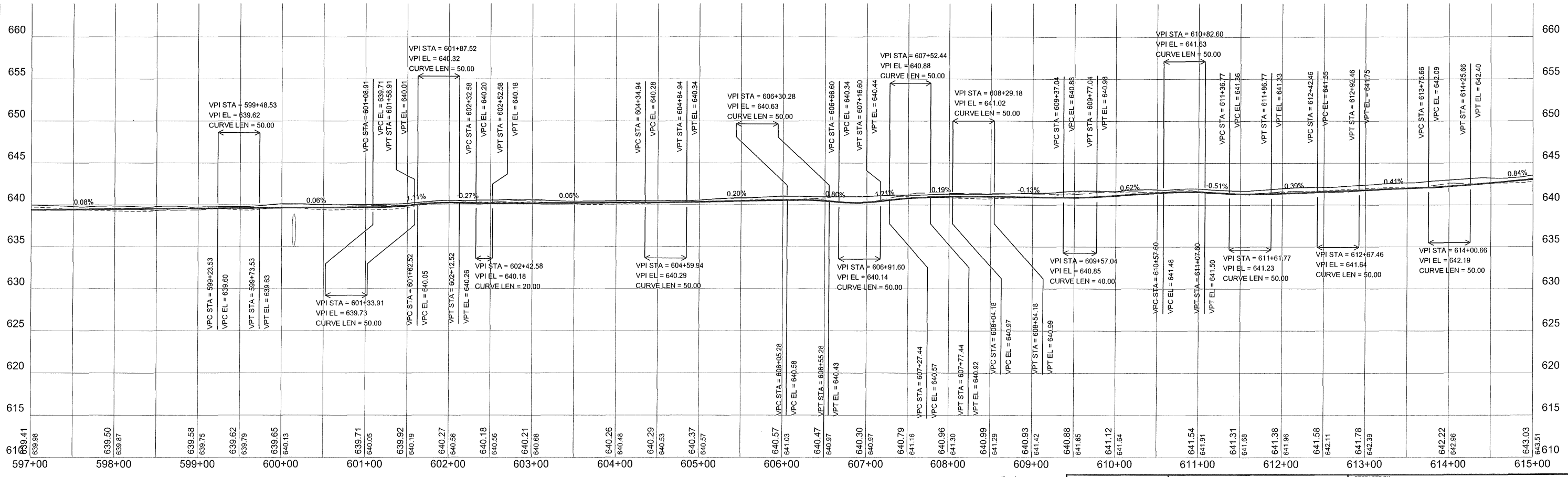
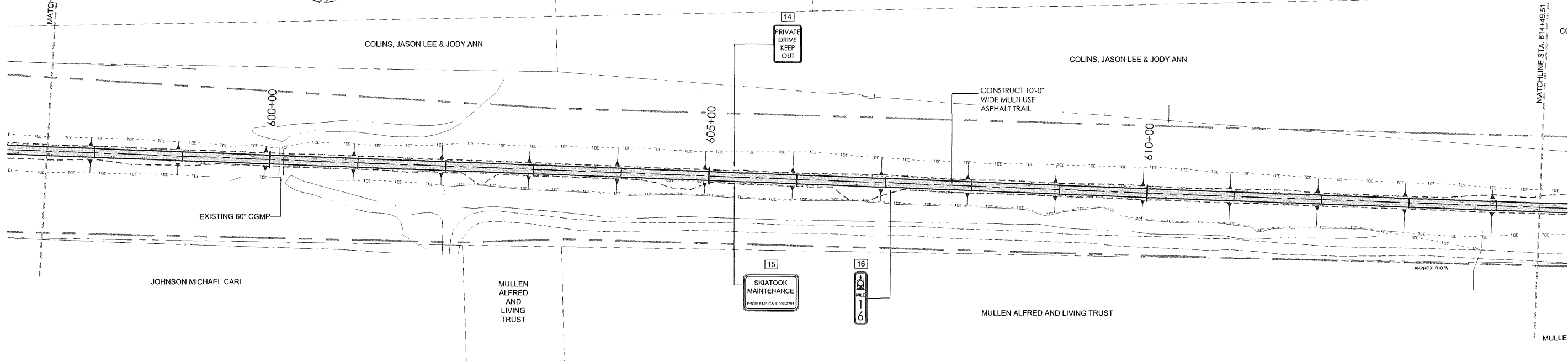
SCALES (22x34):  
 1" = 60' HOR  
 1" = 6' VER



MANRY, L RALPH & NAOMI S H W

DOLLAR GERALD L AND BEVERLY M

DARROW, ALIENE



Osage Prairie Trail Extension

Design	JM	8/16
Drawn	JM/BB	8/16
Checked	JM/KF	6/17
Approved		
Squad	LPCI	

PREPARED BY:  
**LANDPLAN CONSULTANTS**  
 1110 West 23rd Street TULSA, OK 74107 918-584-6164

**PLAN AND PROFILE (6)**

State Job No. 28839 (04), 32530 (04) Sheet No. 19 of 32

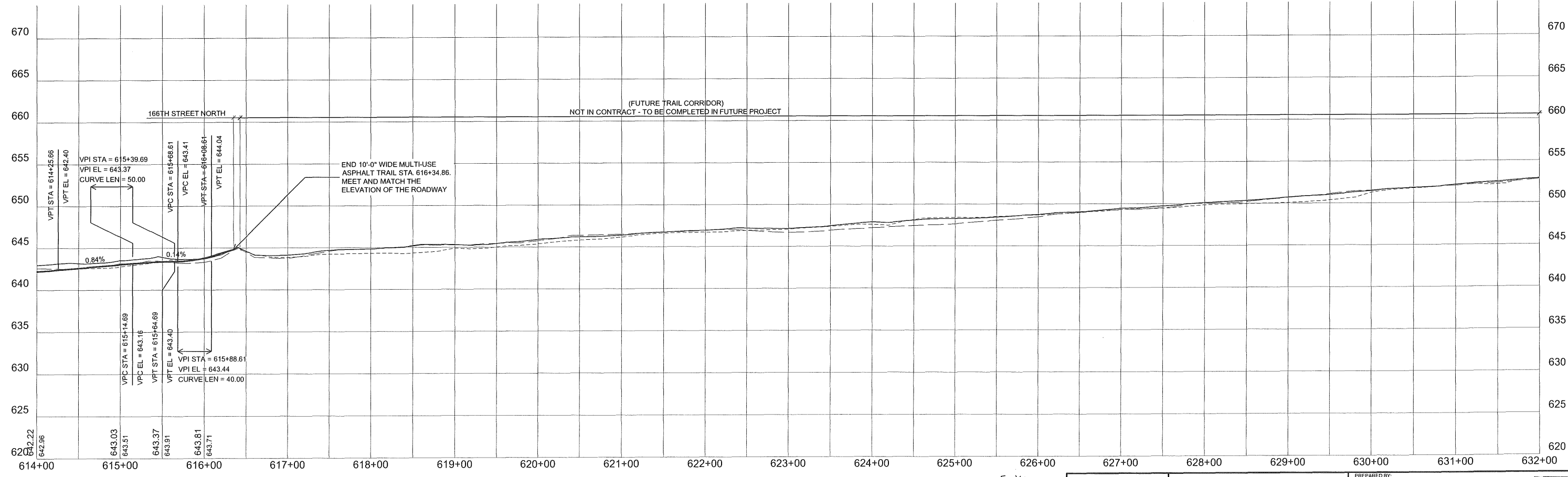
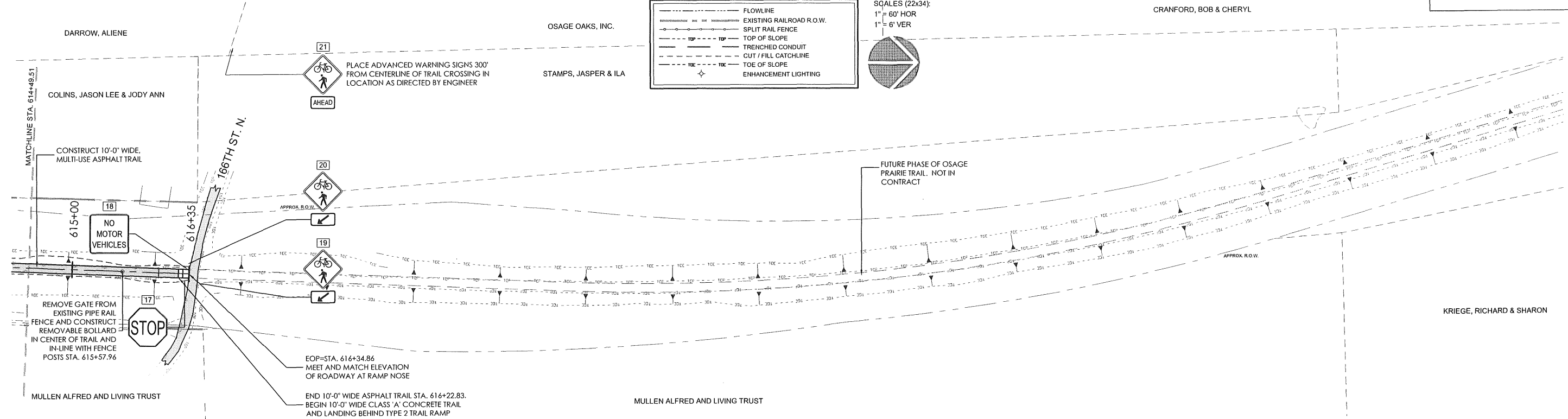
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OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA	2883(04), 32530(04)			
DESCRIPTION			REVISIONS	DATE	

**PLAN LEGEND**

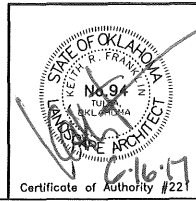
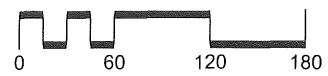
- FLOWLINE
- - - - - EXISTING RAILROAD R.O.W.
- - - - - SPLIT RAIL FENCE
- - - - - TOP OF SLOPE
- - - - - TRENCHED CONDUIT
- - - - - CUT / FILL CATCHLINE
- - - - - TOE OF SLOPE
- ◆ ENHANCEMENT LIGHTING

**SCALES (22x34):**  
 1" = 60' HOR  
 1" = 6' VER



**PROFILE LEGEND**

- 7' OFFSET LEFT
- 7' OFFSET RIGHT
- - - - - EXISTING PROFILE
- PROPOSED PROFILE

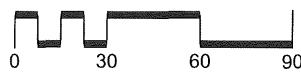
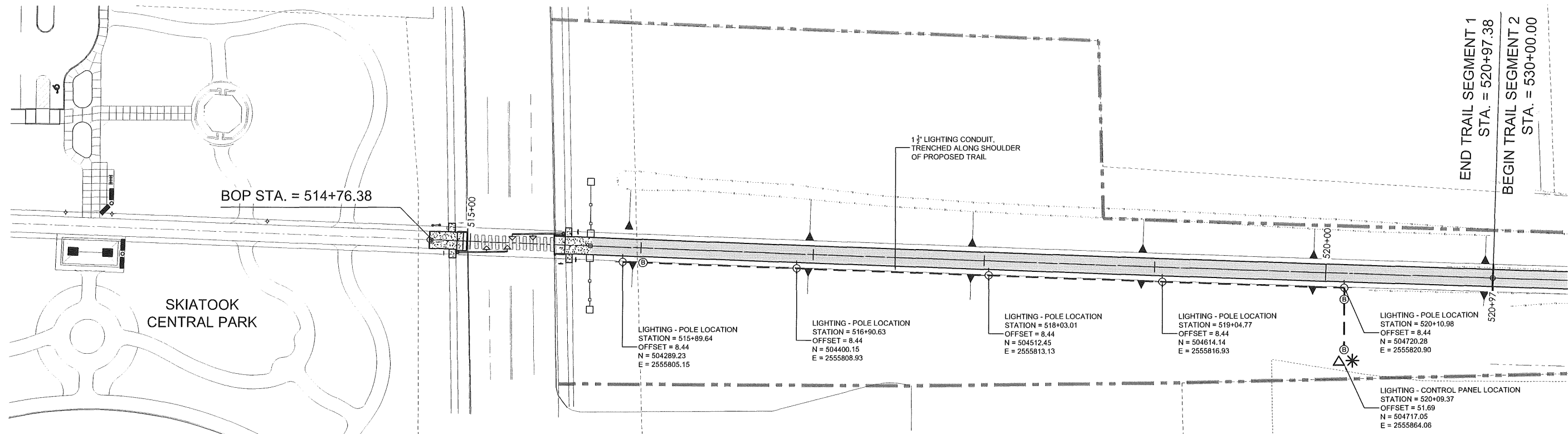


Osage Prairie Trail Extension		
Design	JM	8/16
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Checked	JMKF	6/17
Approved		
Squad	LPCI	

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**LANDPLAN CONSULTANTS**  
 1110 West 23rd Street TULSA, OK 74107 918-584-6464

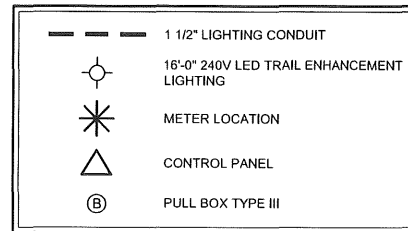
**PLAN AND PROFILE (7)**

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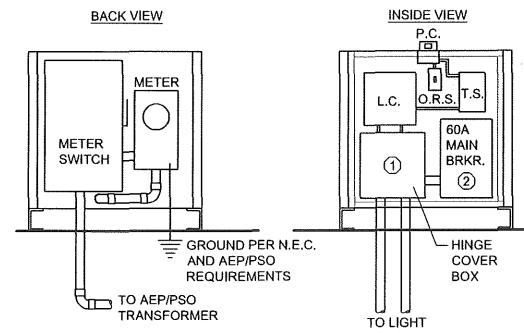


Thomas Keeter, PE#17749  
TFK Engineering CofA 5206  
expires 6/2019

**LIGHTING LEGEND**



**GENERAL NOTE:**  
ALL ELECTRICAL WORK SHALL BE COMPLETED BY A LICENSED ELECTRICIAN AND APPROVED BY THE CITY OF SKIATOOK. THE COST FOR ALL NECESSARY PERMITS/FEES SHALL BE INCLUDED IN THE UNIT PRICE BD FOR 824(C)-(SP) CABINET.

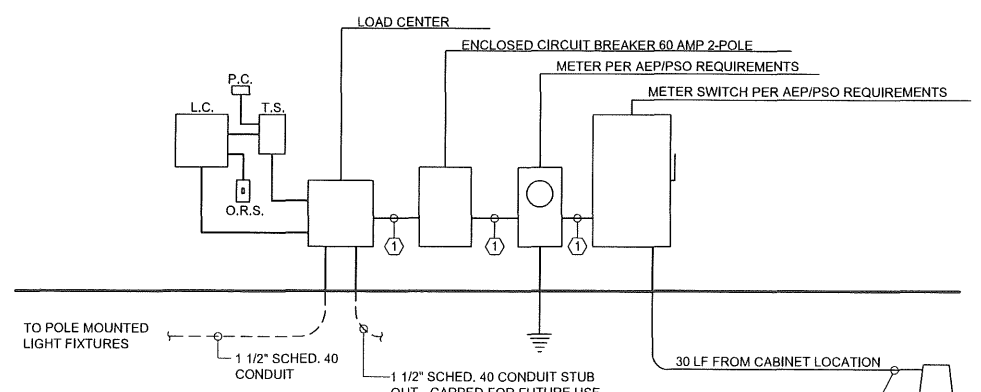


- KEY NOTES:**
- LOAD CENTER - 240/120V-1PH  
1- 20 / 2 LIGHTS  
1- 20 / 1 RECEPTACLES  
1- 20 / 2 FUTURE USE  
1- 20 / 1 FUTURE USE
  - SURFACE ENCLOSED CIRCUIT BREAKER SQUARE "D" FA 60 AMP 2-POLE. FURNISH NEUTRAL AND GROUND BAR.
- P.C. = TORK 2100 SERIES PHOTO CELL  
O.R.S. = P+S 20AC1-1 OVERRIDE SWITCH  
T.S. = SYLVANIA SA 306 (DPST) DIGITAL INDUSTRIAL TIME SWITCH  
L.C. = ASCO 917 SERIES LIGHTING CONTACTOR AND ENCLOSURE WITH (4) SPARE CONTACTS

**ELECTRIC CABINET (CONTROL PANEL) LAYOUT**

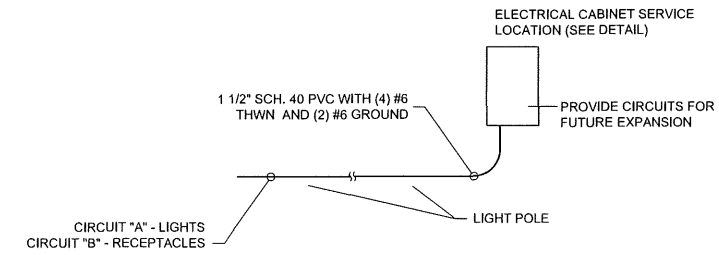
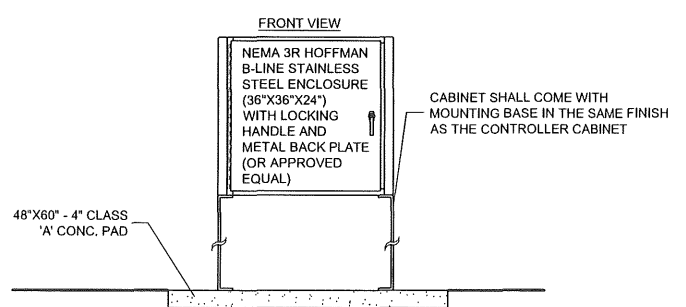
NOT TO SCALE

**WIRE AND CONDUIT SIZE FOR SERVICE:**  
① 2" CONDUIT WITH (3) #4 THWN CU. AND (1) #6 THWN CU. GROUND TYP.



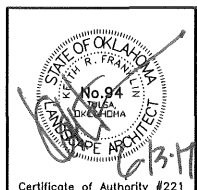
**ONE LINE DIAGRAM**

NOT TO SCALE



**WIRE AND CONDUIT SIZE FOR LIGHTING (DIAGRAMMATIC)**

NOT TO SCALE



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Design	JM	8/16	<b>LIGHTING PLAN</b>  State Job No. 28839 (04), 32530 (04) Sheet No. 21 of 32
Drawn	JM/BB	8/16	
Checked	JM/KF	6/17	
Approved			
Squad			

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	OKLA.	28839(04) 32530(04)			
DESCRIPTION					DATE

**GENERAL CONSTRUCTION NOTES**

- (C-150) SYMBOLS AND LEGENDS ARE DIAGRAMMATIC ONLY AND LOCATIONS SHALL BE ADJUSTED FOR EXISTING FIELD CONDITIONS, BUT NO MAJOR ALTERATIONS OR RELOCATIONS WILL BE MADE WITHOUT FIRST CONSULTING WITH THE TRAFFIC ENGINEERING DIVISION AT (405) 521-2861.
- (C-151) THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING ROAD TO LOCAL AND THROUGH TRAFFIC. SEE STANDARD SPECIFICATIONS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.
- (C-152) ALL BROKEN CONCRETE, WASTE MATERIAL, AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.
- (C-155) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC.... PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES:  
THE "OKIE" NOTIFICATION CENTER 811 OR (405)522-6543 OR WWW.CALLOKIE.COM OR THE LOCAL COUNTY CLERK'S OFFICE.
- (C-58) NO SPLICES SHALL BE PERMITTED IN ANY PIPE OR WIDE FLANGE SIGN POSTS.
- (C-60) THE STATIONS AND LOCATIONS OF THE SIGN PLACEMENT, AS SHOWN ON THE PLAN SHEETS, ARE APPROXIMATE. EXACT STATIONS AND LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR SO THAT THE SIGN IS INSTALLED IN ACCORDANCE WITH DEPARTMENT STANDARDS AND THE MUTCD IN ORDER TO PROVIDE OPTIMUM VISIBILITY TO THE ONCOMING/APPROACHING MOTORIST. IF A PROPOSED LOCATION CONFLICTS WITH OTHER SIGNS, UTILITIES OR OTHER ROADWAY FEATURES, THE ENGINEER SHALL BE NOTIFIED.
- (C-63) ALL EXISTING AND NEW BREAKAWAY SIGN POST, PIPE AND WIDE FLANGE BEAMS SHALL HAVE SHEET METAL BOLT RETAINER PLATES AS SPECIFIED IN O.D.O.T. STD. FGS1-1-(LATEST REVISION), REPLACEMENT COST OF MISSING OR DAMAGED BOLT RETAINER PLATES AND ALL ASSOCIATED HARDWARE AND LABOR SHALL BE INCLUDED IN OTHER ITEMS OF WORK.
- (K-1) TRAFFIC SIGNAL HEADS SHALL EITHER BE TURNED AWAY FROM APPROACHING TRAFFIC OR SHALL BE COVERED WITH APPROVED TRAFFIC SIGNAL BAGS IN A MANNER APPROVED BY THE TRAFFIC ENGINEER WHILE A SIGNAL IS OUT OF OPERATION. PLASTIC GARBAGE BAGS, DUCT TAPE, GUNNY SACKS, AND SIMILAR METHODS WILL NOT BE ACCEPTED.

**PAY QUANTITY NOTES**

- (TC-25) ALL CONSTRUCTION TRAFFIC CONTROL WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS, AND ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS. PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS REQUIRED FOR COMPLETION OF THE PROJECT.  
  
ALL SIGNS, BARRICADES, WHICH ARE SHOWN WITH TYPE 'A' LIGHTS IN THE STANDARD DRAWINGS SHALL HAVE THE CORRESPONDING LIGHT ATTACHED DURING NON- DAYLIGHT HOURS.
- (TL-24) 1 - ROADWAY LUMINAIRES SHALL BE 250 WATT HIGH PRESSURE SODIUM, WITH CLEAR LAMP OF 28,000 LUMENS, ILLUMINATION ENGINEERING SOCIETY DISTRIBUTION AS FOLLOWS:  
VERTICAL = MEDIUM; LATERAL = TYPE 3;  
CONTROL = SEMI; O.D.O.T. FIXTURE STYLE = A1.  
SEE STD. HLD1-1-(LATEST REVISION).
- (TL-35) FOR ADDITIONAL INFORMATION CONCERNING THE SERVICE POLE, CONTACT THE FOLLOWING PRIOR TO INSTALLATION:  
WITH THE COMPANY - VERDIGRIS VALLEY ELECTRIC COOPERATIVE  
COMPANY'S TELEPHONE NO. - (918) 371-2584
- (TS-24) QUANTITY SHOWN INCLUDES 150 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (WHITE) AND 200 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR INCH (4")WIDE TRAFFIC STRIPE.
- (TS-28) QUANTITY SHOWN INCLUDES 125 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (WHITE) AND WILL BE MEASURED BY THE LINEAR FOOT OF TWENTY-FOUR INCH (24")WIDE TRAFFIC STRIPE.
- (TS-32) THE AMOUNT SHOWN IS AN APPROXIMATION AND THE ACTUAL AMOUNT OF REMOVAL, IF NECESSARY, SHALL BE DETERMINED BY THE ENGINEER. PRICE BID FOR PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE) SHALL INCLUDE COST OF REMOVAL OF ARROWS, WORDS, AND SYMBOLS. THE PAVEMENT MARKING TO BE REMOVED SHALL BE CONSIDERED THERMOPLASTIC AND BID ACCORDINGLY.  
  
DURING REMOVAL OF EXISTING STRIPING AND REPLACEMENT WITH NEW STRIPING, PERMANENT STRIPING SHALL BE REPLACED WITHIN 48 HOURS AFTER OLD STRIPING IS REMOVED.
- (TP-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE THE 2009 SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

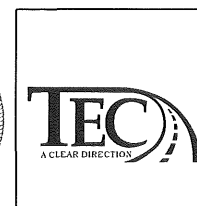
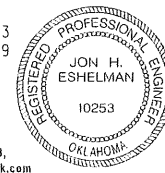
**SUMMARY OF QUANTITIES**

0300 TRAFFIC					
ITEM	DESCRIPTION	UNIT	TOTAL		
802(B) 8340	2" PVC SCH. 40 PLASTIC CONDUIT BORED	(TP-1) LF	15		
802(B) 8342	2" PVC SCH. 40 PLASTIC CONDUIT TRENCHED	(TP-1) LF	5		
802(C) 8553	3" HIGH DENSITY PE PIPE - BORED	(TP-1) LF	60		
803(A) 8065	PULL BOX (SIZE I)	(45) EA	2		
804(A) 2915	STRUCTURAL CONCRETE	(TP-1) CY	10		
804(B) 2916	REINFORCING STEEL	(TP-1) LB	1437		
806(A) 8726	POLE & 25' TS MST. ARM (G.STL.)	(46,56) EA	1		
806(A) 8351	32' MH POLE 25', TS & 10' LMA (G.STL.)	(46,56) EA	1		
809(A) 8090	ROADWAY LUMINAIRE	(TL-24) EA	1		
810(A) 3118	SERVICE POLE	(TL-35) EA	1		
811 8040	1/C NO. 6 ELECTRICAL CONDUCTOR	(TP-1)(47) LF	200		
811 8044	1/C NO. 10 ELECTRICAL CONDUCTOR	(TP-1) LF	275		
834(A) 8207	5/C TRAFFIC SIGNAL ELECTRICAL CABLE	(TP-1) LF	300		
834(A) 8208	7/C TRAFFIC SIGNAL ELECTRICAL CABLE	(TP-1) LF	100		
834(B) 8220	2/C SHIELDED LOOP DETECTOR LEAD-IN CABLE	(TP-1)(52) LF	10		
850(A) 8110	SHEET ALUMINUM SIGNS	(TP-1)(54,55) SF	33.0		
850(C) 8118	MAST ARM MOUNTED SIGNS (ALUMINUM)	(TP-1)(53,54) SF	66.0		
851(B) 3216	2"@3.65 GALV. STEEL PIPE POST	(TP-1) LF	50		
856(A) 8530	TRAFFIC STRIPE (MULTI-POLYMER)(4" WIDE)	(TS-24)(37) LF	350		
856(A) 8555	TRAFFIC STRIPE (MULTI-POLY)(24" WIDE)	(TS-28)(37) LF	125		
857(F) 8006	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	(TS-32) LF	400		
880(J) 8905	CONSTRUCTION TRAFFIC CONTROL	(TC-25) LSUM	1		
890 7700	(PL) TRAFFIC ITEMS	(48,49,50,51) LSUM	1		

**NOTE: FOR REFERENCE, THE ABOVE TABLE REPRESENTS THE ITEMS ASSOCIATED WITH THE HAWK BEACON CONSTRUCTION, STRIPING, AND SIGNAGE ONLY - SHEETS 25-28 OF 32 (TRAIL CONSTRUCTION ITEMS ARE NOT INCLUDED). FOR A COMPLETE LIST OF QUANTITIES ASSOCIATED WITH THE HAWK BEACON PROJECT #32530(04) REFER TO PAY QUANTITIES AND NOTES SHEET 2 OF 32.**

06/16/17 G:\Projects\10-735 Osage Prairie Trail of Sh 20\CAD\QUANT Ldgn

*Jon Eshelman*  
 JON H. ESHELMAN, P.E. # 10253  
 C.A. # 1160. RENEWAL 06-30-19  
 6/16/17  
 DATE  
 Traffic Engineering Consultants, Inc.  
 6931 S. 66th E. Ave., Suite 100 - Tulsa, OK 74133,  
 Ph: 918-481-8484, Fax: 918-481-3163, Web: www.tecok.com



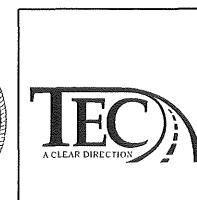
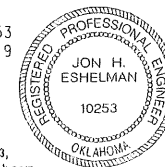
Osage Prairie Trail Extension			PREPARED BY: LANDPLAN CONSULTANTS 1119 West 23rd Street TULSA, OK 74107 918-584-6484
Design	JHE	06/16/17	<b>SIGNAL PAY QUANTITIES &amp; NOTES</b> <b>W. ROGERS BLVD. (S.H 20) (1 of 2)</b>  State Job No. 28839 (04), 32530 (04) Sheet No. 22 of 32
Drawn	CCC	06/16/17	
Checked	JHE	06/16/17	
Approved			
Squad	TEC		

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
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#	OKLA.	28839(04) 32530(04)			
REVISIONS				DATE	
DESCRIPTION					

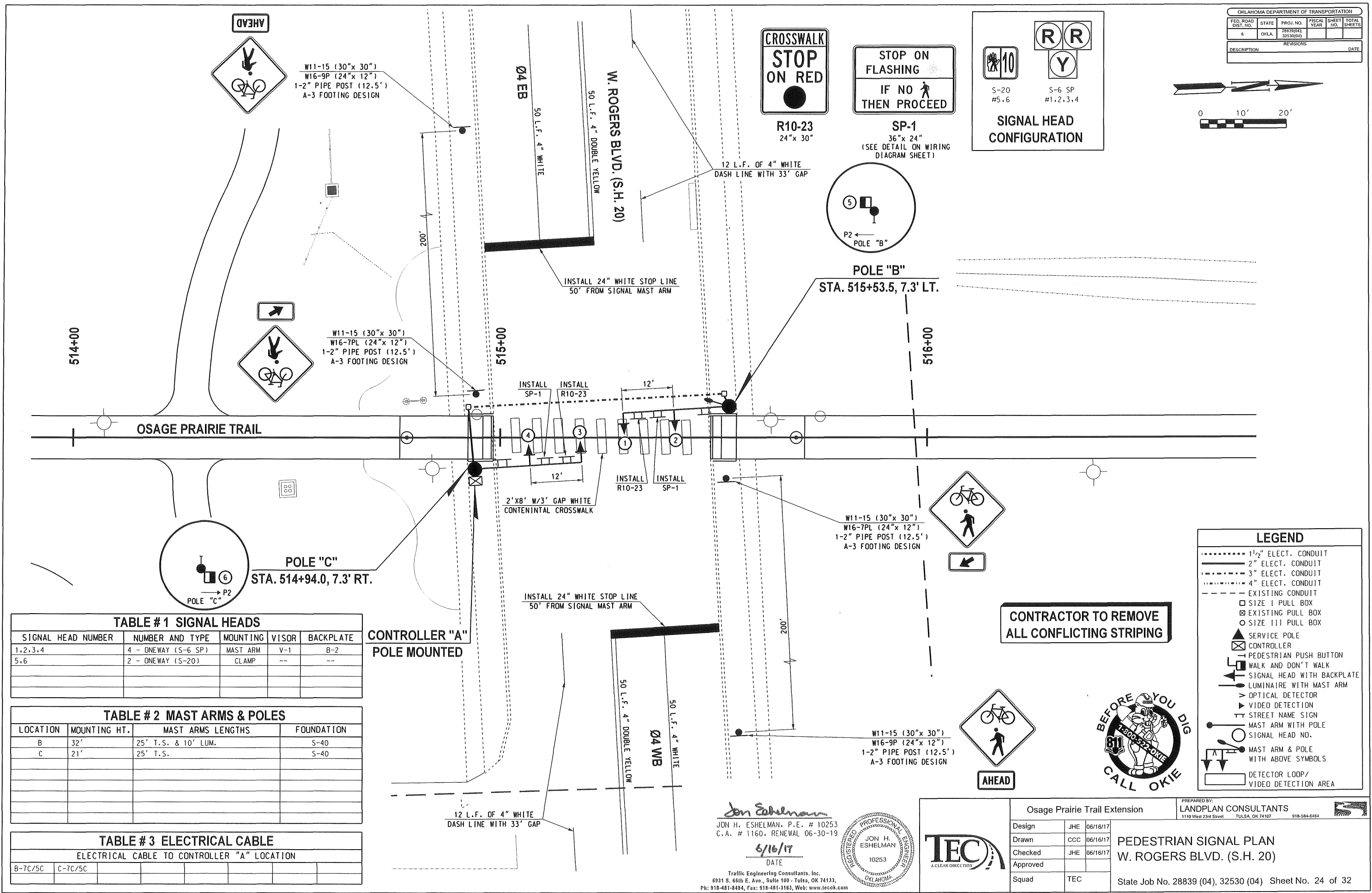
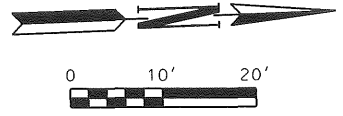
- (45) POLYMER CONCRETE PULL BOXES SHALL BE USED.
- (46) THE HAND HOLES AT THE BASE OF THE POLES SHALL BE PLACED AT 135 DEGREES CLOCKWISE FROM THE MAST ARM IN ORDER TO AVOID CONFLICTS WITH THE PEDESTRIAN PUSH BUTTONS AND SIGNS BEING INSTALLED ON THIS PROJECT.
- (47) THIS PAY ITEM IS TO BRING POWER TO THE CONTROLLER CABINET FROM THE SERVICE POLE.
- (48) THE PRICE BID FOR THIS PAY ITEM SHALL INCLUDE ALL ITEMS NECESSARY FOR THE INSTALLATION OF A HAWK SIGNAL SYSTEM.
- CONTROLLER CAPABLE OF PERFORMING AS SHOWN IN THE SEQUENCE AND TIMING SCHEDULE IN THE PLANS.
- TWO-PHASE TERMINAL FACILITY MODIFIED TO PROVIDE THE HAWK SIGNAL SEQUENCE, INCLUDING LOAD SWITCHES, FLASHERS, FLASH TRANSFER RELAY, AND CONFLICT MONITOR.
- ALL ITEMS TO BE ENCLOSED IN A SIZE "K" ALUMINUM CABINET CONFIGURED FOR SIDE OF POLE MOUNTING AND INCLUDING MOUNTING BRACKETS. THE CABINET SHALL CONTAIN 8 LOAD SWITCH POSITIONS ON THE BACK PANEL IN ORDER TO SERVE THE SPECIAL PHASING OF THE SOLID/ALTERNATE FLASHING RED LIGHTS AT THIS SIGNAL.
- FOUR SINGLE SECTION 12" YELLOW LED SIGNAL ASSEMBLY. HOUSING, DOORS AND VISORS TO BE BLACK.
- EIGHT SINGLE SECTION 12" RED LED SIGNAL ASSEMBLY. HOUSING, DOORS AND VISORS TO BE BLACK.
- FOUR HAWK SIGNAL MOUNTING BRACKET ASSEMBLY CONSISTING OF AB0186-96 ASTRO-BRAC INCLUDING ALL NECESSARY CONNECTING HARDWARE.
- FOUR MULTI-PIECE ALUMINUM BACKPLATE FOR HAWK SIGNAL CONFIGURATION.
- TWO PEDESTRIAN PUSH BUTTON ASSEMBLY. HOUSING TO BE YELLOW.
- TWO PEDESTRIAN SIGNAL HEADS COUNTDOWN -TYPE. HOUSING TO BE BLACK.
- (49) CONTRACTOR SHALL PROVIDE POLARA 2-WIRE NAVIGATOR ACCESSIBLE PEDESTRIAN SIGNAL PUSH BUTTON OR APPROVED EQUAL. R10-3E PEDESTRIAN PUSH BUTTON SIGNS SHALL BE USED.
- (50) RED, YELLOW AND GREEN LED TRAFFIC SIGNAL HEADS SHALL BE FURNISHED AND INSTALLED ON THIS PROJECT. THE LED TRAFFIC MODULES, LENSES, AND ALL ASSOCIATED MATERIAL AND EQUIPMENT SHALL CONFORM TO I.T.E. VEHICLE TRAFFIC CONTROL SIGNAL HEAD (VTC SH) STANDARDS IN EFFECT AT THE TIME THAT THE ORDER IS PLACED. LED HEADS SHALL BE CAPABLE OF OPERATING WITHOUT A REFLECTOR.
- THEY SHALL HAVE AN INCANDESCENT "LOOK".
- (51) LED INTERNATIONAL HEADS DISPLAYING INCANDESCENT LOOKING FULLY-ILLUMINATED SYMBOLS (WALKING PERSON AND UPRAISED HAND) SHALL BE REQUIRED ON THIS PROJECT.
- THESE PEDESTRIAN HEADS SHALL ALSO BE COUNTDOWN TYPE HEADS.
- (52) PAY ITEM IS TO RUN FROM THE PEDESTRIAN PUSH BUTTONS TO THE TERMINAL STRIP AT THE BASE OF THE POLES.
- (53) MAST ARM MOUNTED STREET NAME SIGNS SHOWN ON THE PLANS ARE LARGER THAN THE MAXIMUM SIZE USED IN STANDARD ODOT POLE AND FOOTING DESIGNS. THE CONTRACTOR AND SUPPLIER SHALL PROVIDE CERTIFICATION AND DESIGN CALCULATIONS FOR HIGHER LOADING REQUIREMENTS.
- (54) REFLECTIVE SHEETING SHALL BE EITHER 3M BRAND DG3 (SERIES 4000) SHEETING OR AN ASTM CLASS XI APPROVED EQUAL.
- (55) GROUND MOUNT SIGNS SHALL BE FLUORESCENT YELLOW-GREEN. THEY SHALL INCLUDE:  
FOUR W11-15 (30X30)  
TWO W16-7P (24X12)  
TWO W16-9P (24X12)
- (56) THE FINAL FINISH FOR THE FOLLOWING ITEMS SHALL BE BLACK POWDER COAT.  
(1) TRAFFIC SIGNAL POLES AND MAST ARMS  
(2) MAST ARM SIGNAL AND SIGN SUPPORT BRACKETS  
(3) CONTROL CABINET (SIDE OF POLE MOUNTED)  
(4) CONTROL CABINET MOUNTING BRACKETS  
(5) ELECTRICAL SERVICE HARDWARE (IF MOUNTED ON SIGNAL POLE)
- STAINLESS STEEL BANDING STRAPS OR CABLES SHALL NOT BE POWDER COATED.

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*Jon Eshelman*  
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Design	JHE	06/16/17	<b>SIGNAL PAY QUANTITIES &amp; NOTES</b> <b>W. ROGERS BLVD. (S.H 20) (2 of 2)</b>  State Job No. 28839 (04), 32530 (04) Sheet No. 23 of 32
Drawn	CCC	06/16/17	
Checked	JHE	06/16/17	
Approved			
Squad	TEC		



**TABLE # 1 SIGNAL HEADS**

SIGNAL HEAD NUMBER	NUMBER AND TYPE	MOUNTING	VISOR	BACKPLATE
1,2,3,4	4 - ONEWAY (S-6_SP)	MAST ARM	V-1	B-2
5,6	2 - ONEWAY (S-20)	CLAMP	--	--

**TABLE # 2 MAST ARMS & POLES**

LOCATION	MOUNTING HT.	MAST ARMS LENGTHS	FOUNDATION
B	32'	25' T.S. & 10' LUM.	S-40
C	21'	25' T.S.	S-40

**TABLE # 3 ELECTRICAL CABLE**

ELECTRICAL CABLE TO CONTROLLER "A" LOCATION	
B-7C/5C	C-7C/5C

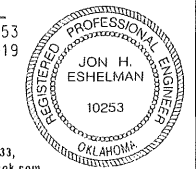
**LEGEND**

- ..... 1 1/2" ELECT. CONDUIT
- 2" ELECT. CONDUIT
- 3" ELECT. CONDUIT
- 4" ELECT. CONDUIT
- - - - - EXISTING CONDUIT
- SIZE I PULL BOX
- ⊠ EXISTING PULL BOX
- SIZE III PULL BOX
- ▲ SERVICE POLE
- ⊠ CONTROLLER
- ⊠ PEDESTRIAN PUSH BUTTON
- ⊠ WALK AND DON'T WALK
- ⊠ SIGNAL HEAD WITH BACKPLATE
- ⊠ LUMINAIRE WITH MAST ARM
- ▶ OPTICAL DETECTOR
- ▶ VIDEO DETECTION
- ⊠ STREET NAME SIGN
- ⊠ MAST ARM WITH POLE
- ⊠ SIGNAL HEAD NO.
- ⊠ MAST ARM & POLE WITH ABOVE SYMBOLS
- ⊠ DETECTOR LOOP/VIDEO DETECTION AREA

**CONTRACTOR TO REMOVE ALL CONFLICTING STRIPING**



Jon Eshelman  
 JON H. Eshelman, P.E. # 10253  
 C.A. # 1160. RENEWAL 06-30-19  
 6/16/17  
 DATE  
 Traffic Engineering Consultants, Inc.  
 6931 S. 66th E. Ave., Suite 100 - Tulsa, OK 74133,  
 Ph: 918-481-8484, Fax: 918-481-3163, Web: www.tecok.com



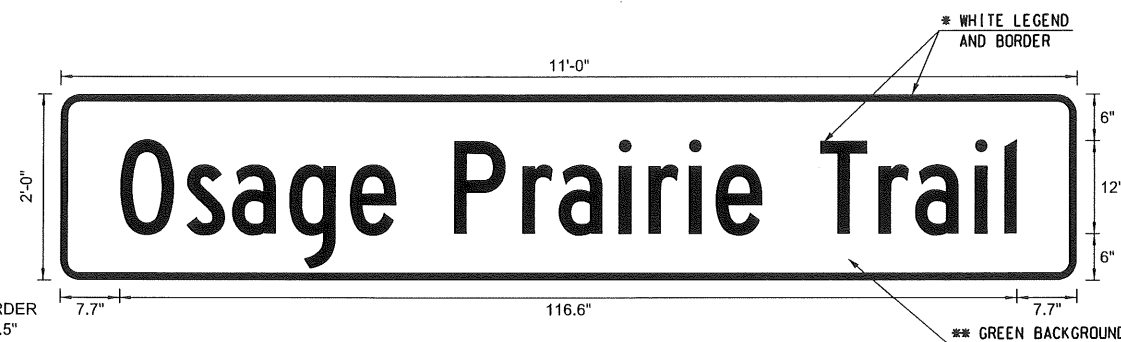
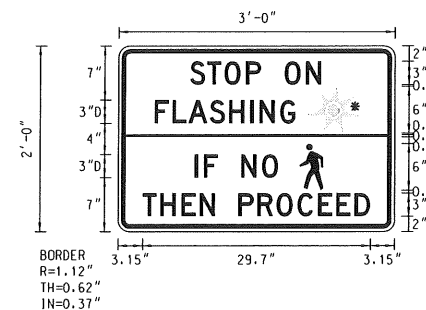
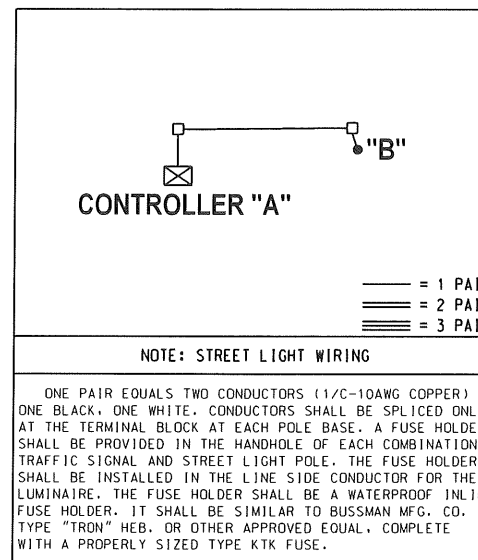
Osage Prairie Trail Extension		PREPARED BY: LANDPLAN CONSULTANTS 1110 West 23rd Street TULSA, OK 74107 918-584-6464
Design	JHE 06/16/17	<b>PEDESTRIAN SIGNAL PLAN</b> <b>W. ROGERS BLVD. (S.H. 20)</b> State Job No. 28839 (04), 32530 (04) Sheet No. 24 of 32
Drawn	CCC 06/16/17	
Checked	JHE 06/16/17	
Approved		
Squad	TEC	

06/16/17 G:\Projects\10-735 Osage Prairie Trail\10-735 CAD\SIG.dgn



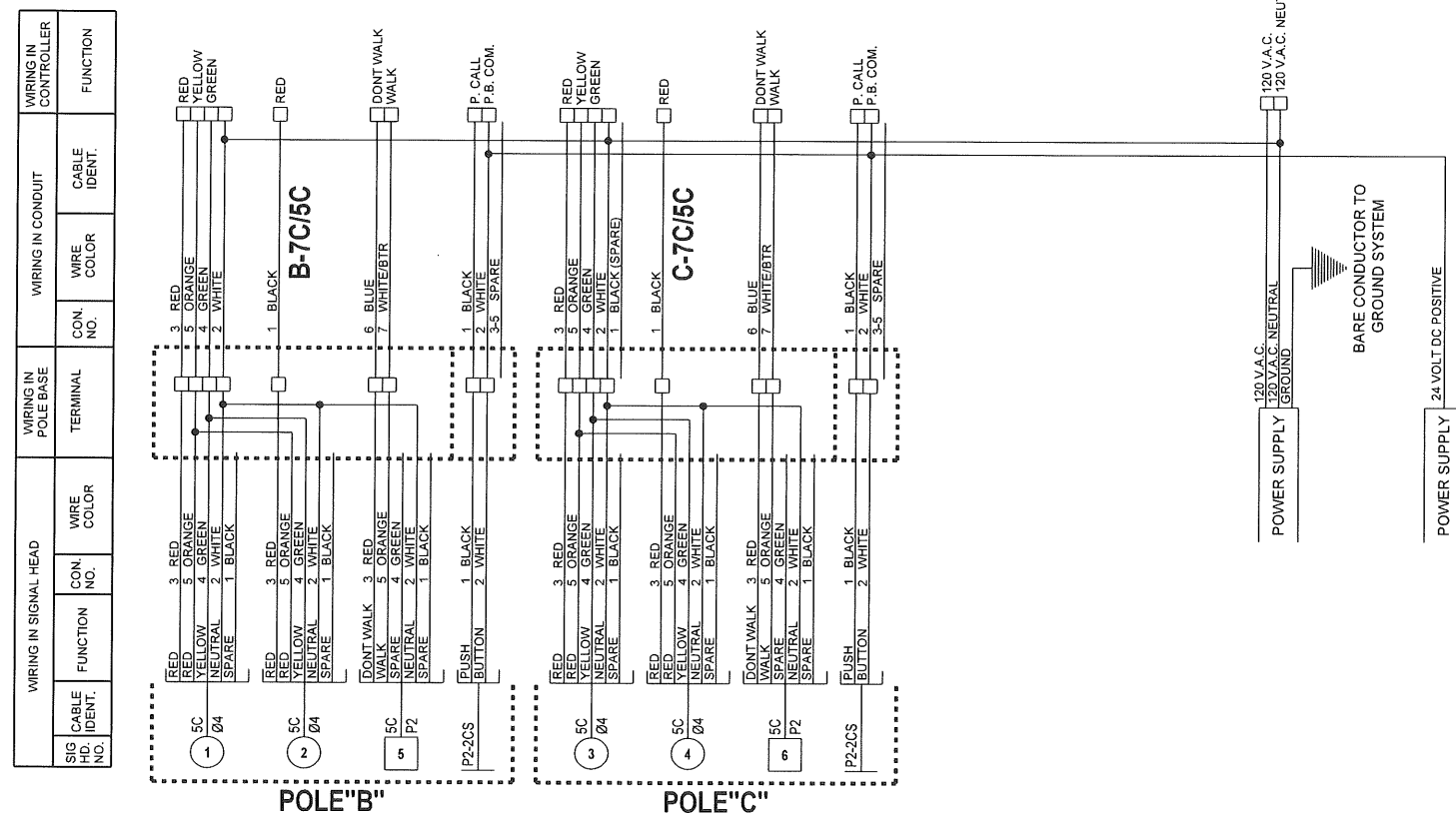
OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	28839(04) 32530(04)			
REVISIONS					
DESCRIPTION	DATE				

SEQUENCE AND TIMING SCHEDULE		
SEQUENCE		SECONDS
HYBRID BEACON		
1	FLASHING YELLOW UPON ACTIVATION	3
2	STEADY YELLOW	3
3	STEADY RED DURING PEDESTRIAN WALK INTERVAL	7
4	ALTERNATING FLASHING RED DURING PEDESTRIAN CLEARANCE INTERVAL	15
5	DARK UNTIL ACTIVATED	N/A
PEDESTRIAN SIGNAL		
1	PEDESTRIAN WALK INTERVAL	7
2	PEDESTRIAN CLEARANCE INTERVAL	15



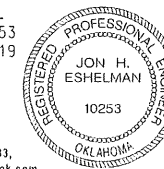
SUMMARY OF MAST ARM MOUNTED SIGNS							
MESSAGE	POLE LOCATION	NO. OF SIGN	LENGTH (IN.)	HEIGHT (IN.)	LEGEND (IN.)	SIGN AREA (SQ. FT.)	TOTAL SIGN AREA (SQ. FT.)
Osage Prairie Trail	B.C	2	132	24	116.6	22.0	44.0
SP-1	B.C	2	36	24	--	6.0	12.0
R10-23	B.C	2	24	30	--	5.0	10.0
<b>TOTAL</b>							<b>66.0</b>

\* - TYPE VIII VIP REFLECTIVE SHEETING SHALL BE USED  
 \*\* - TYPE III VIP REFLECTIVE SHEETING SHALL BE USED



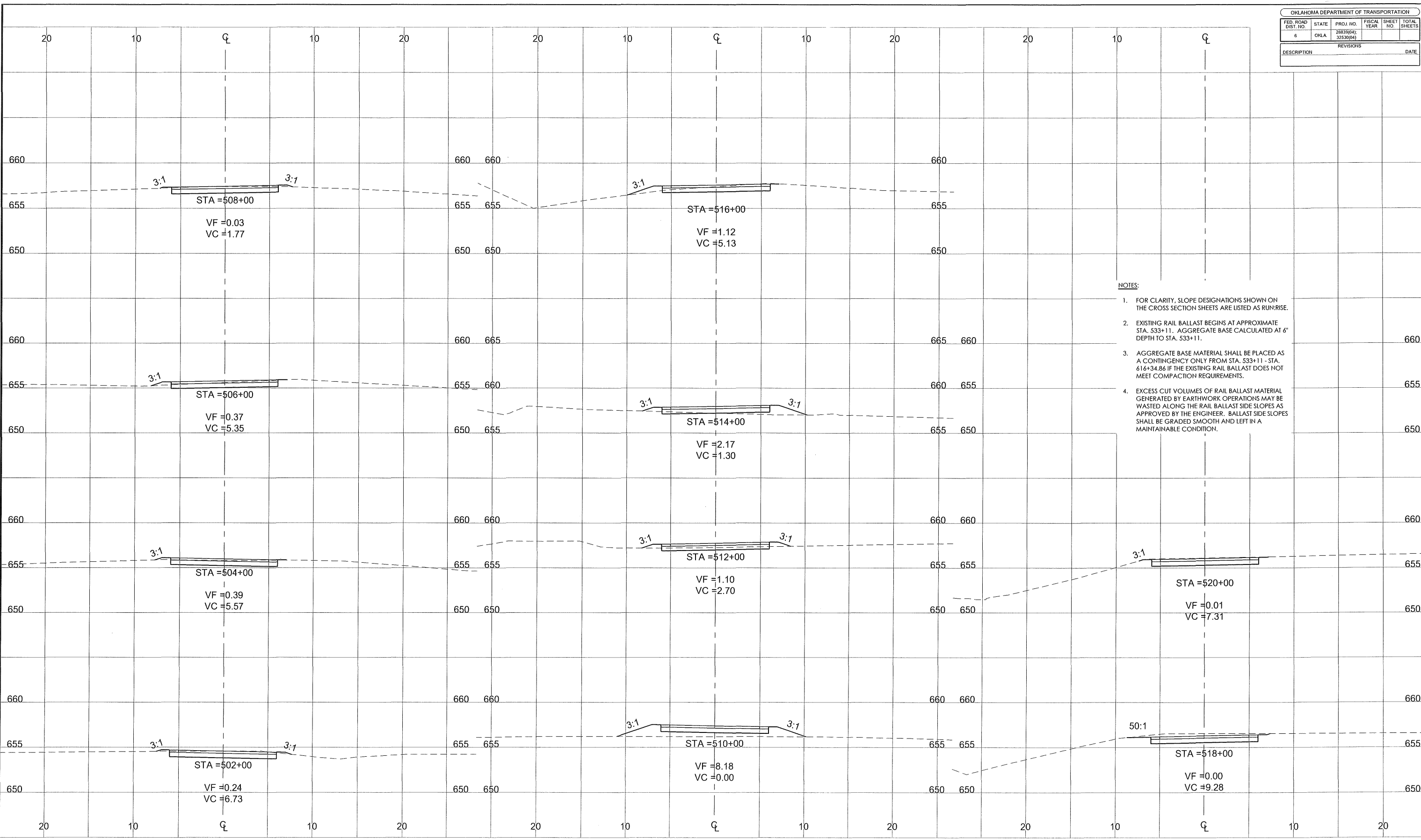
06/16/17 C:\OP\Projects\10-735 Osage Prairie Trail\01 SH 20\CAD\DET\_WIRING.dgn

*Jon Eshelman*  
 JON H. ESHELMAN, P.E. # 10253  
 C.A. # 1160, RENEWAL 06-30-19  
 6/16/17  
 DATE



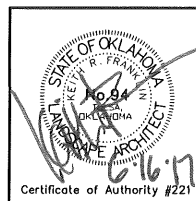
		Osage Prairie Trail Extension		PREPARED BY: <b>LANDPLAN CONSULTANTS</b> 1110 West 23rd Street TULSA, OK 74107 918-584-5464	
		Design	JHE 06/16/17	<b>WIRING DIAGRAM</b> <b>W. ROGERS BLVD. (S.H. 20)</b>	
Drawn	CCC 06/16/17				
Checked	JHE 06/16/17				
Approved					
Squad	TEC	State Job No. 28839 (04), 32530 (04) Sheet No. 25 of 32			

Traffic Engineering Consultants, Inc.  
 6931 S. 66th E. Ave., Suite 100 - Tulsa, OK 74133,  
 Ph: 918-481-8484, Fax: 918-481-3163, Web: www.tecok.com



- NOTES:**
- FOR CLARITY, SLOPE DESIGNATIONS SHOWN ON THE CROSS SECTION SHEETS ARE LISTED AS RUN:RISE.
  - EXISTING RAIL BALLAST BEGINS AT APPROXIMATE STA. 533+11. AGGREGATE BASE CALCULATED AT 6" DEPTH TO STA. 533+11.
  - AGGREGATE BASE MATERIAL SHALL BE PLACED AS A CONTINGENCY ONLY FROM STA. 533+11 - STA. 616+34.86 IF THE EXISTING RAIL BALLAST DOES NOT MEET COMPACTION REQUIREMENTS.
  - EXCESS CUT VOLUMES OF RAIL BALLAST MATERIAL GENERATED BY EARTHWORK OPERATIONS MAY BE WASTED ALONG THE RAIL BALLAST SIDE SLOPES AS APPROVED BY THE ENGINEER. BALLAST SIDE SLOPES SHALL BE GRADED SMOOTH AND LEFT IN A MAINTAINABLE CONDITION.

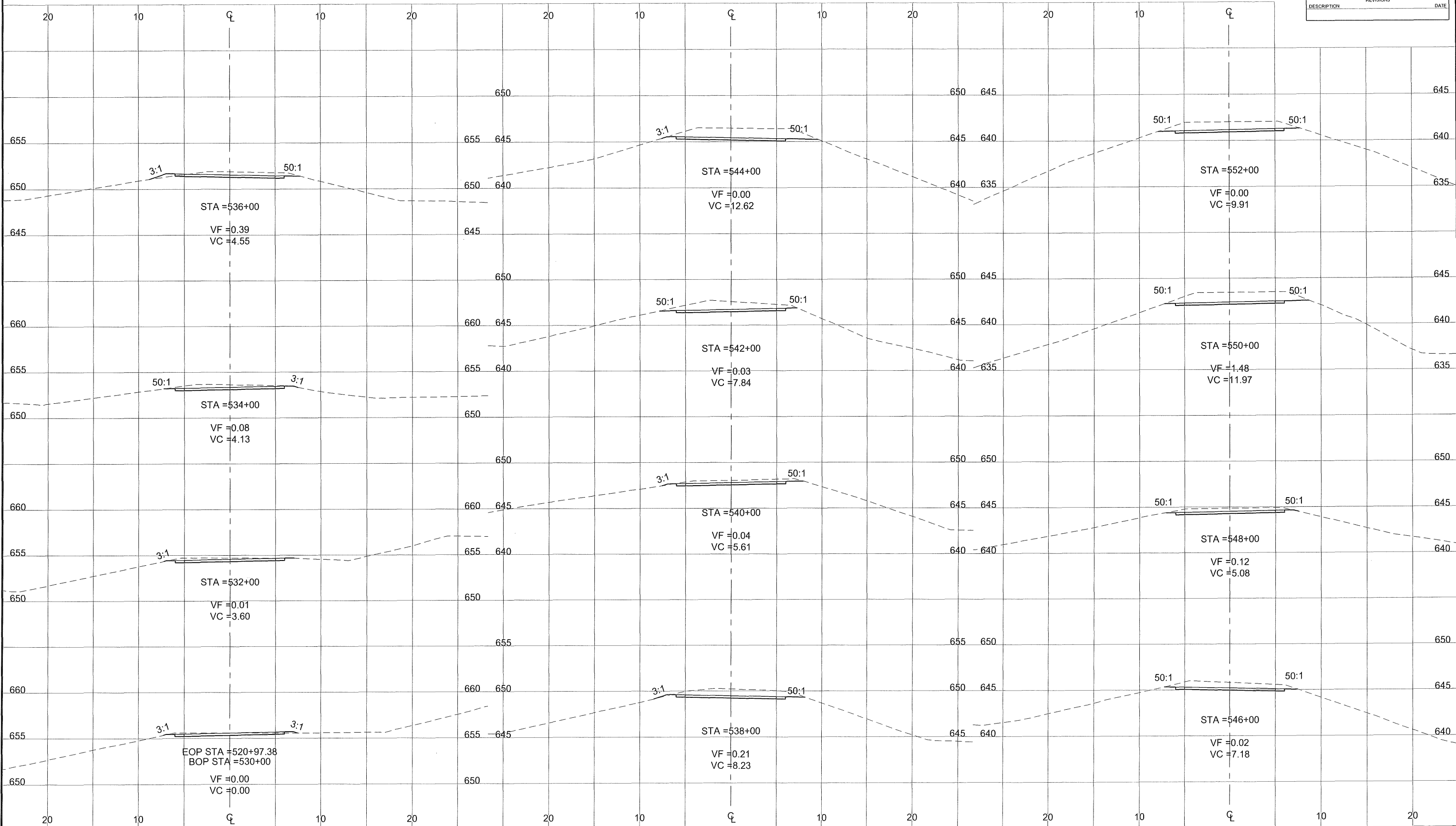
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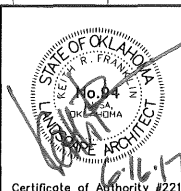
Osage Prairie Trail Extension		
Design	JM	8/16
Drawn	JM/BB	8/16
Checked	JM/KF	6/17
Approved		
Squad	LPCI	

PREPARED BY:  
**LANDPLAN CONSULTANTS**  
1110 West 23rd Street TULSA, OK 74107 918-584-6464

**CROSS SECTIONS (1)**

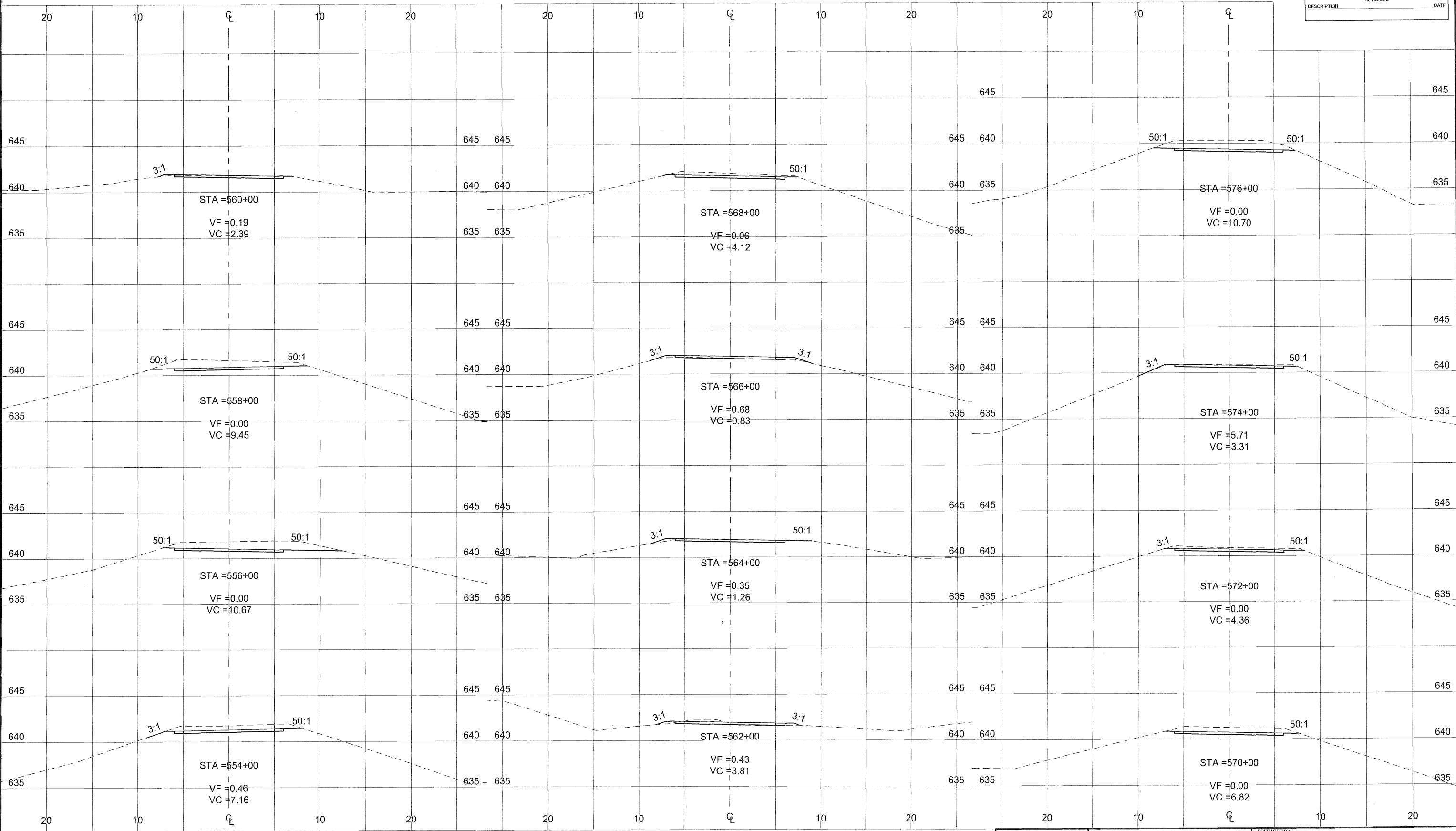


NOTE:  
 AGGREGATE BASE MATERIAL SHALL BE PLACED AS A CONTINGENCY ONLY FROM STA. 530+11 - END OF PROJECT. AGGREGATE BASE MATERIAL SHALL BE UTILIZED IN AREAS WHERE SPECIFIED COMPACTION CANNOT BE ATTAINED. USE OF AGGREGATE BASE ALONG THE RAIL BALLAST PORTION OF THE PROJECT MUST BE APPROVED BY THE ENGINEER BEFORE MATERIAL IS PLACED.

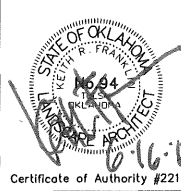


Osage Prairie Trail Extension		PREPARED BY: LANDPLAN CONSULTANTS 1110 West 23rd Street TULSA, OK 74107 918-584-6464
Design	JM 8/16	<b>CROSS SECTIONS (2)</b> State Job No. 28839 (04), 32530 (04) Sheet No. 27 of 32
Drawn	JM/BB 8/16	
Checked	JM/KF 6/17	
Approved		
Squad	LPCI	

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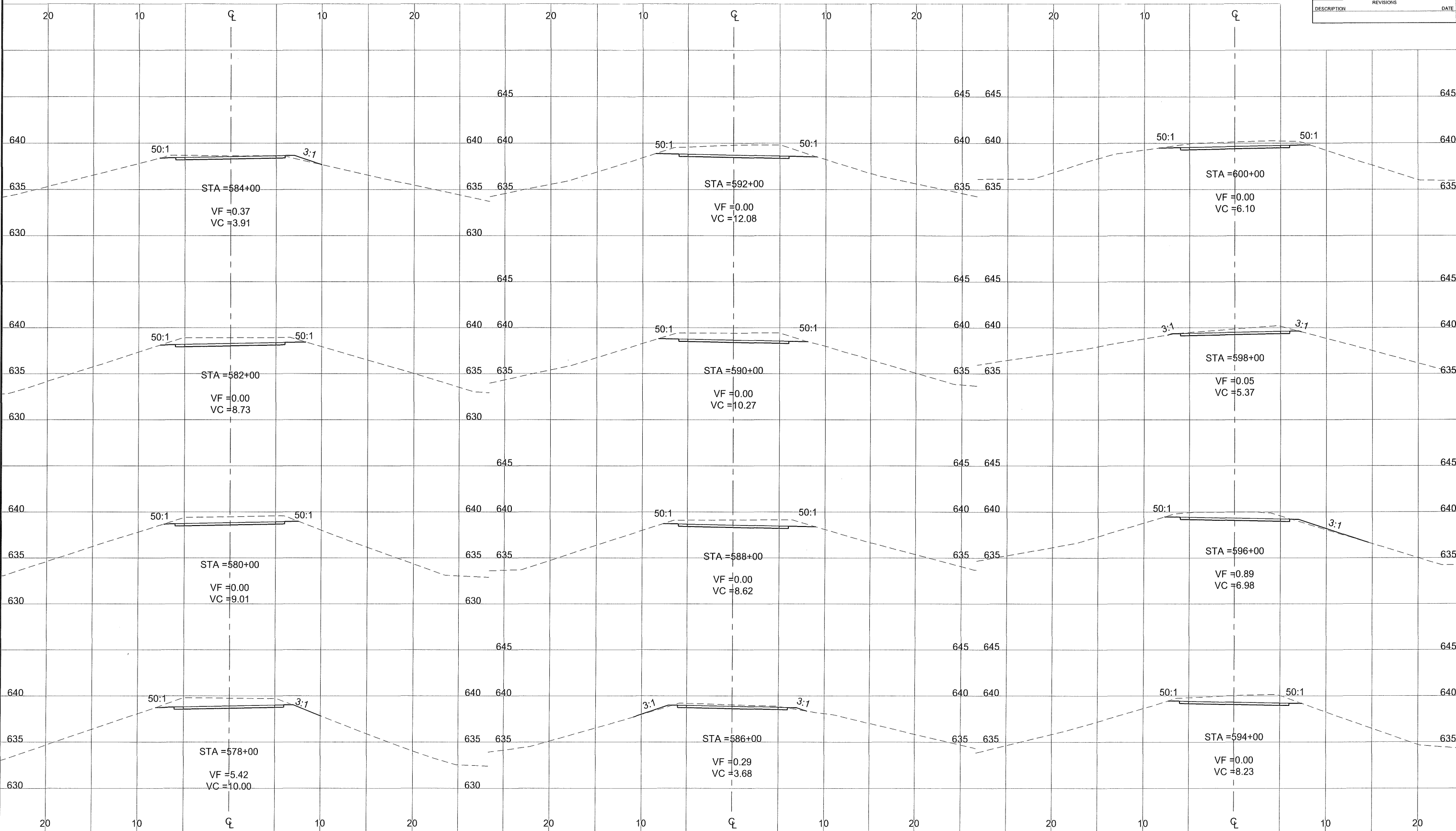


NOTE:  
 AGGREGATE BASE MATERIAL SHALL BE PLACED AS A CONTINGENCY ONLY FROM STA. 530+11 - END OF PROJECT. AGGREGATE BASE MATERIAL SHALL BE UTILIZED IN AREAS WHERE SPECIFIED COMPACTION CANNOT BE ATTAINED. USE OF AGGREGATE BASE ALONG THE RAIL BALLAST PORTION OF THE PROJECT MUST BE APPROVED BY THE ENGINEER BEFORE MATERIAL IS PLACED.

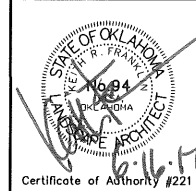


Osage Prairie Trail Extension		PREPARED BY: LANDPLAN CONSULTANTS 1110 West 23rd Street TULSA, OK 74107 918-584-6464
Design	JM 8/16	<b>CROSS SECTIONS (3)</b>  State Job No. 28839 (04), 32530 (04) Sheet No. 28 of 32
Drawn	JM/BB 8/16	
Checked	JM/KF 6/17	
Approved		
Squad	LPCI	

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NOTE:  
 AGGREGATE BASE MATERIAL SHALL BE PLACED AS A CONTINGENCY ONLY FROM STA. 530+11 - END OF PROJECT. AGGREGATE BASE MATERIAL SHALL BE UTILIZED IN AREAS WHERE SPECIFIED COMPACTION CANNOT BE ATTAINED. USE OF AGGREGATE BASE ALONG THE RAIL BALLAST PORTION OF THE PROJECT MUST BE APPROVED BY THE ENGINEER BEFORE MATERIAL IS PLACED.



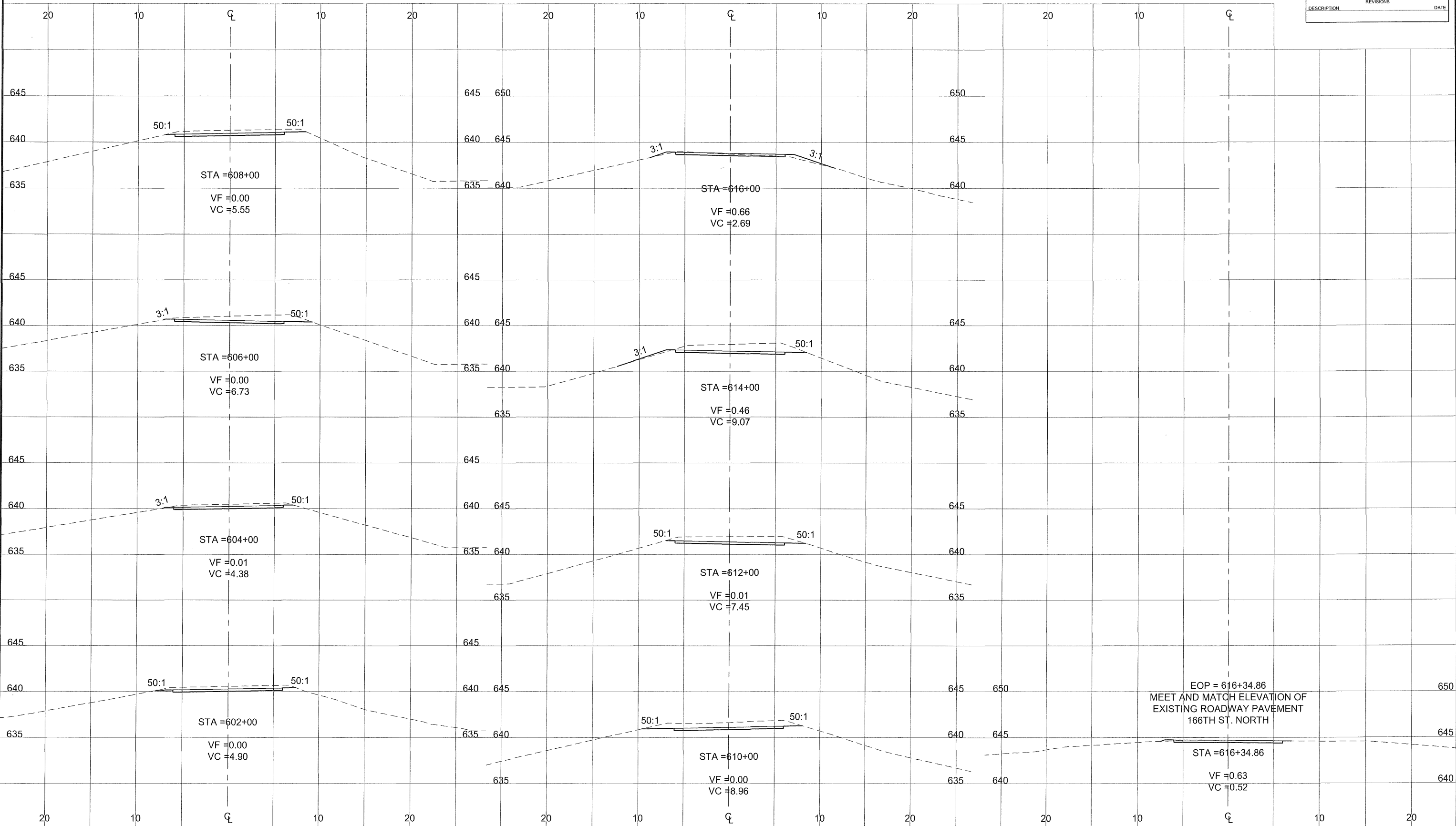
Osage Prairie Trail Extension		
Design	JM	8/16
Drawn	JM/BB	8/16
Checked	JM/KF	6/17
Approved		
Squad	LPCI	

PREPARED BY:  
**LANDPLAN CONSULTANTS**  
 1110 West 23rd Street TULSA, OK 74107 918-584-6464

**CROSS SECTIONS (4)**

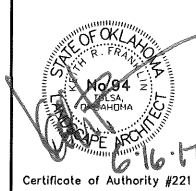
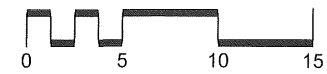
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OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA	28839(04) 32530(04)			
DESCRIPTION			REVISIONS	DATE	



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NOTE:  
 AGGREGATE BASE MATERIAL SHALL BE PLACED AS A CONTINGENCY ONLY FROM STA. 530+11 - END OF PROJECT. AGGREGATE BASE MATERIAL SHALL BE UTILIZED IN AREAS WHERE SPECIFIED COMPACTION CANNOT BE ATTAINED. USE OF AGGREGATE BASE ALONG THE RAIL BALLAST PORTION OF THE PROJECT MUST BE APPROVED BY THE ENGINEER BEFORE MATERIAL IS PLACED.



Osage Prairie Trail Extension		PREPARED BY: LANDPLAN CONSULTANTS 1110 West 23rd Street TULSA, OK 74107 918-584-6464	
Design	JM	8/16	<b>CROSS SECTIONS (5)</b>  State Job No. 28839 (04), 32530 (04) Sheet No. 30 of 32
Drawn	JM/BB	8/16	
Checked	JM/KF	6/17	
Approved			
Squad	LPCI		

# STORM WATER MANAGEMENT PLAN

REVISIONS	
DESCRIPTION	DATE
Sheet replaced with new version. Removed temporary sediment traps.	8-14-17
Removed stabilized construction exits. Returned receiving waters.	

## SITE DESCRIPTION

## EROSION AND SEDIMENT CONTROLS

PROJECT LIMITS: OSAGE PRAIRIE TRAIL EXTENSION IS A 10'-0" WIDE MULTI-USE TRAIL THAT RUNS FROM SKIATOOK CENTRAL PARK IN THE SOUTH TO W. 166TH ST. N. TO THE NORTH.

PROJECT DESCRIPTION: CITY OF SKIATOOK AND OSAGE COUNTY, SECTION 23, T22N, R12E, STATE OF OKLAHOMA. THIS PROJECT INCLUDES A 10'-0" WIDE MULTI-USE TRAIL THAT BEGINS AT THE EXISTING OSAGE PRAIRIE TRAIL IN SKIATOOK CENTRAL PARK, 22' SOUTH OF W. ROGERS BLVD. FROM HERE THE TRAIL PROCEEDS NORTH, CROSSING W. ROGERS BLVD. AND CONTINUING ALONG THE EXISTING ABANDONED RAILROAD BALLAST TO W. 166TH ST. N.

### SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES:

1. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES/EXITS
2. INSTALL SILT FENCE & FIBER LOGS
3. TRENCHING FOR ELECTRICAL CONDUIT
4. GRADING AND TRAIL LIGHTING BASE CONSTRUCTION
5. CONSTRUCT TRAIL
6. CONSTRUCT CONCRETE SPLIT RAIL FENCE
7. LIGHT POLE AND LUMINAIRE INSTALLATION
8. INSTALL TRAIL SIGNAGE AND STRIPING
9. COMPLETE FINE GRADING AND SOD INSTALLATION

SOIL TYPE: OSAGE SILTY CLAY

AREA TO BE DISTURBED: 3.55 ACRES (AREA WITHIN CUT/FILL CATCHLINES)

OFFSITE AREA TO BE DISTURBED:  
(FOR CONTRACTOR USE)

MAXIMUM ACRES TO BE  
DISTURBED AT ANY ONE TIME:  
(FOR CONTRACTOR USE)

LATITUDE & LONGITUDE  
OF CENTER OF PROJECT: 36°22'54.6"N 96°00'14.7"W

### PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: UNNAMED TRIBUTARY OF BIRD CREEK

SENSITIVE WATERS OR WATERSHEDS: YES  NO

303(d) IMPAIRED WATERS: YES  NO

IF YES, LIST IMPAIRMENT: FISHES BIOASSESSMENTS

LOCATED IN A TMDL: YES  NO

LAKE THUNDERBIRD TMDL: YES  NO

MS4 ENTITY: YES  NO

IF YES, LOCATION:

### NOTE:

THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

### SOIL STABILIZATION PRACTICES:

- TEMPORARY SEEDING
- PERMANENT SODDING, SPRIGGING OR SEEDING
- VEGETATIVE MULCHING
- SOIL RETENTION BLANKET
- PRESERVATION OF EXISTING VEGETATION

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER.

### STRUCTURAL PRACTICES:

- STABILIZED CONSTRUCTION EXIT
- TEMPORARY SILT FENCE
- TEMPORARY SILT DIKES
- TEMPORARY FIBER LOG
- DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- ROCK FILTER DAMS
- TEMPORARY SLOPE DRAIN
- PAVED DITCH W/ DITCH LINER PROTECTION
- TEMPORARY DIVERSION CHANNELS
- TEMPORARY SEDIMENT BASINS
- TEMPORARY SEDIMENT TRAPS
- TEMPORARY SEDIMENT FILTERS
- TEMPORARY SEDIMENT REMOVAL
- RIP RAP
- INLET SEDIMENT FILTER
- TEMPORARY BRUSH SEDIMENT BARRIERS
- SANDBAG BERMS
- TEMPORARY STREAM CROSSINGS

### OFFSITE VEHICLE TRACKING:

- HAUL ROADS DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- EXCESS DIRT ON ROAD REMOVED DAILY

### NOTES:

SPECIAL CAUTION AND CARE SHALL BE TAKEN BY THE CONTRACTOR TO ENSURE THAT EROSION AND SEDIMENT FROM PROJECT CONSTRUCTION ACTIVITY SHALL NOT ENTER INTO THE CITY'S COLLECTION SYSTEM. NO CHEMICALS OR OTHER TOXINS SHALL BE USED DURING CONSTRUCTION EXCEPT THOSE IDENTIFIED BY CONSTRUCTION SPECIFICATIONS.

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

### MAINTENANCE AND INSPECTION:

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCH AS RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT NEED TO BE INSPECTED.

### WASTE MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING, SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

### HAZARDOUS MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIALS IS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, STATE AND FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS, CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

### GENERAL NOTES:

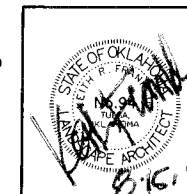
A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO COMPLY WITH THE OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (OPDES) REGULATIONS. THIS PLAN IS INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORM AND PERMIT CERTIFICATE THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING THE PROGRESSION OF THE PROJECT. ALL CONTRACTOR OFF-SITE OPERATIONS ASSOCIATED WITH THE PROJECT MUST BE DOCUMENTED IN THE SWPPP, I.E., BORROW PITS, WORK ROADS, DISPOSAL SITES, ASPHALT/CONCRETE PLANTS, ETC. THE BASIC GOAL OF STORM WATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUTION DUE TO EXPOSED SOILS AND THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORM WATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2009 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

- 103.05 BONDING REQUIREMENTS
- 104.10 FINAL CLEANING UP
- 104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK
- 104.13 ENVIRONMENTAL PROTECTION
- 106.08 STORAGE AND HANDLING OF MATERIAL
- 107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED
- 107.20 STORM WATER MANAGEMENT
- 220 MANAGEMENT OF EROSION, SEDIMENTATION AND STORM WATER POLLUTION PREVENTION AND CONTROL
- 221 TEMPORARY SEDIMENT CONTROL

### IN ADDITION:

"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, SEPTEMBER 13, 2017.



Osage Prairie Trail Extension

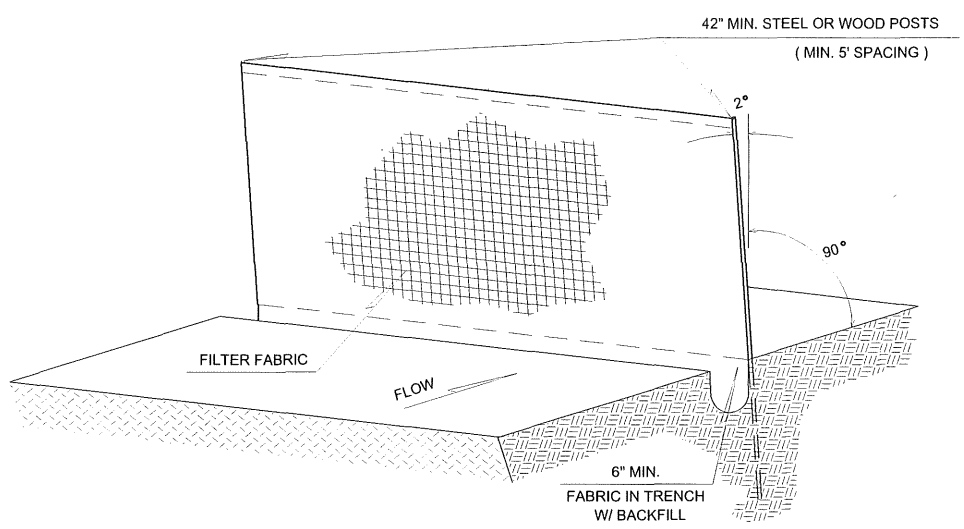
Design	JM	7/16
Drawn	JM/BB	8/16
Checked	KF/JM	8/17
Approved		
Squad	LandPlan	

PREPARED BY:  
LANDPLAN CONSULTANTS

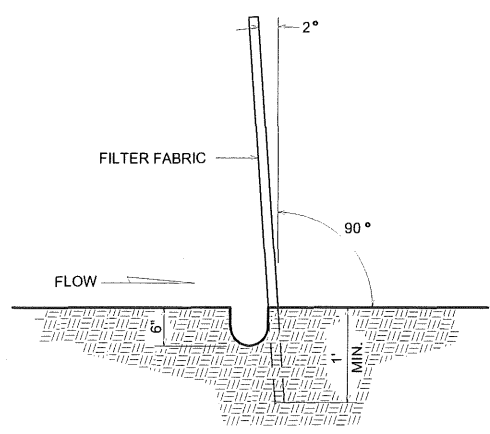
410 S.W. 124th St. OKLAHOMA, OK 73107 918-551-6811

ROADWAY DESIGN DIVISION

## STORM WATER MANAGEMENT PLAN



**TEMPORARY SILT FENCE**



NOTE: ALL DIMENSIONS AND LOCATIONS NOT INDICATED FOR ITEMS APPEARING ON THIS SHEET OR ON THE PLANS SHALL BE AS DIRECTED BY THE ENGINEER. STAKES AND ATTACHMENT OF FILTER FABRIC SHALL BE AS DIRECTED BY THE ENGINEER.

**RECOMMENDED TOE-IN SECTION**

**TEMPORARY SILT FENCE**

**DESCRIPTION:** THIS WORK SHALL CONSIST THE FURNISHING, INSTALLATION, MAINTENANCE, AND REMOVAL OF GEOTEXTILE BARRIER FENCE DESIGNED TO REMOVE SUSPENDED SOIL PARTICLES FROM WATER PASSING THROUGH THE FENCE. SILT FENCE SHALL BE INSTALLED AS SOON AS PRACTICAL TO PREVENT CONSTRUCTION FROM CONTAMINATING DRAINAGE WAYS. THE LOCATIONS FOR TEMPORARY SILT FENCE SHOWN ON THE PLANS ARE APPROXIMATE AND MAY BE CHANGED BY THE ENGINEER.

**MATERIALS:** THE SILT FENCE SHALL BE A WOVEN, POLYPROPYLENE, POLYESTER OR POLYAMIDE MATERIAL THAT SHALL BE RESISTANT TO ULTRAVIOLET DEGRADATION, MILDEW AND ROT. THE EDGES OF WOVEN FABRICS SHALL BE SEALED OR SELVAGED TO PREVENT RAVELING. FABRIC SHALL BE AT LEAST 36 INCHES WIDE WITH 6 INCHES OF THE WIDTH BURIED IN A TRENCH TO PREVENT UNDERCUTTING. THE FABRIC SHALL EXHIBIT THE FOLLOWING PHYSICAL PROPERTIES WHEN SAMPLED AND TESTED USING THE SPECIFIED METHODS.

PROPERTY	TEST METHOD	VALUES
GRAB TENSILE	ASTM D-4632	100 LBS. MIN.
ELONGATION @ YIELD	ASTM D-4632	10-40 LBS. (MAX.)
TRAPEZOID TEAR	ASTM D-4533	50 LBS. MIN.
UV RESISTANCE	ASTM D-4355	80% MIN.
APPARENT OPENING SIZE	ASTM D-4751	20-50 US SIEVE
	ASTM D-4491	0.01 MIN.

THE MANUFACTURER SHALL FURNISH A TYPE A CERTIFICATION WITH EACH SHIPMENT OF FENCE. THE MATERIAL SHALL BE WRAPPED IN A PROTECTIVE COVER TO GUARD AGAINST DAMAGE FROM ULTRAVIOLET RADIATION AND ABRASION DURING SHIPPING AND HANDLING. PREFABRICATED FENCE SYSTEMS MAY BE USED PROVIDED THEY MEET ALL OF THE MATERIAL REQUIREMENTS.

**CONSTRUCTION METHODS:** THE CONTRACTOR SHALL INSTALL A TEMPORARY SILT FENCE AS SHOWN ON THE PLANS AND/OR AS DIRECTED BY THE ENGINEER. FENCE CONSTRUCTION SHALL BE ADEQUATE TO HANDLE THE STRESS FROM HYDRAULIC AND SEDIMENT LOADING. GEOTEXTILE AT THE BOTTOM OF THE FENCE SHALL BE BURIED AS INDICATED ON THE STANDARD DRAWINGS. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE GEOTEXTILE. FABRIC ENDS SHALL BE SPICED TOGETHER AS INDICATED ON THE STANDARD DRAWING.

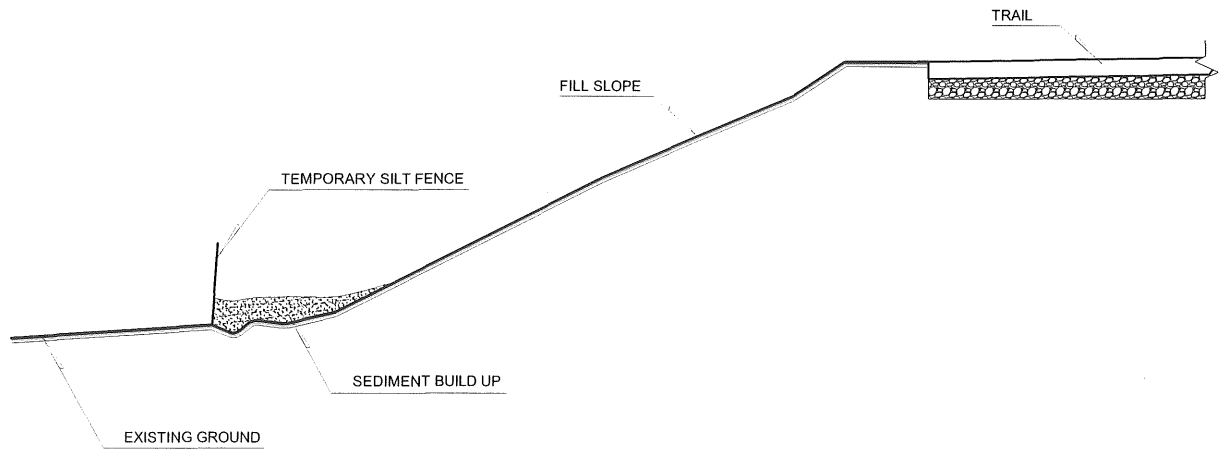
**POSTS:** POSTS MAY BE EITHER WOOD, STEEL OR SYNTHETIC MATERIAL WITH A MINIMUM LENGTH OF 42 INCHES AND BE OF SUFFICIENT STRENGTH TO RESIST DAMAGE DURING INSTALLATION AND STRONG ENOUGH TO SUPPORT APPLIED LOADS. SPACING BETWEEN POSTS SHALL NOT EXCEED 5 FEET AND POSTS WILL BE EMBEDDED INTO THE GROUND AT LEAST 1 FOOT. THE GEOTEXTILE WILL BE SECURELY FASTENED TO THE FENCE POSTS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE INTEGRITY OF SILT FENCES AS LONG AS THEY ARE NECESSARY TO CONTAIN SEDIMENT RUNOFF. THE CONTRACTOR SHALL INSPECT ALL TEMPORARY SILT FENCES IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY DEFICIENCIES SHALL BE IMMEDIATELY CORRECTED BY THE CONTRACTOR. IN ADDITION, THE CONTRACTOR SHALL MAKE A DAILY REVIEW OF THE LOCATION OF SILT FENCES IN AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CHANGED THE NATURAL CONTOUR AND DRAINAGE RUNOFF TO ENSURE THAT THE SILT FENCES ARE PROPERLY LOCATED FOR EFFECTIVENESS.

WHEN THE ACCUMULATED SILT REACHES A DEPTH OF 6 INCHES, THE CONTRACTOR SHALL REMOVE THE SEDIMENT AND DEPOSIT IT AT APPROVED SITES IN A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION INTO THE RECEIVING WATERS. THE SILT FENCE SHALL REMAIN IN PLACE UNTIL THE ENGINEER APPROVES REMOVAL. THE EFFECTED AREA SHALL BE GRADED AND DRESSED TO THE SATISFACTION OF THE ENGINEER AFTER REMOVAL OF SILT FENCE.

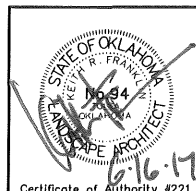
**METHOD OF MEASUREMENT:** SILT FENCE WILL BE MEASURED BY THE LINEAR FOOT IN PLACE AS DIRECTED BY THE ENGINEER.

**BASIS OF PAYMENT:** ACCEPTED SILT FENCE, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR TEMPORARY SILT FENCE. PRICE BID WILL INCLUDE THE COST OF FURNISHING THE MATERIALS, INSTALLATION, MAINTENANCE, REMOVAL OF SEDIMENT AND SILT FENCE ALONG WITH THE DRESSING OF DISTURBED AREAS.



**TYPICAL SILT FENCE PLACEMENT**

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Osage Prairie Trail Extension			PREPARED BY: LANDPLAN CONSULTANTS 1110 West 23rd Street TULSA, OK 74107 918-584-6464		
Design	JM	8/16	<b>SILT FENCE DETAIL</b>  State Job No. 28839 (04), 32530 (04) Sheet No. 32 of 32		
Drawn	JM/BB	8/16			
Checked	JM/KF	6/17			
Approved					
Squad	LPCI				