

**SHEET INDEX**

TITLE SHEET	1
ROADWAY PAY QUANTITIES AND NOTES	2
GENERAL CONSTRUCTION NOTES	3
ROADWAY SUMMARIES (1) TO (2)	4
MISCELLANEOUS SUMMARIES	5
TYPICAL SECTIONS	6
MISCELLANEOUS DETAILS	7
STORMWATER MANAGEMENT PLAN	8
SURVEY DATA SHEETS (1) TO (2)	9-10
ROADWAY KEY MAP AND BORING LOCATION PLAN	11
ROADWAY PLAN SHEETS (1) TO (9)	12-20
CONSTRUCTION PHASING PLAN	21

UTILITY COORDINATION			
UTILITY	CONTACT	PHONE NO.	EMAIL ADDRESS
AT&T	ALFRED NICHOLS	539-444-1069	an9488@att.com
COX COMMUNICATIONS	BRANDON WADE	918-286-4716	Brandon.wade@cox.com
ONG	JONATHON MEADOWS	918-831-8215	jonathon.meadows@onegas.com
PSO/AEP	ADAM FIELDS	918-250-6257	afields@aep.com
CITY OF TULSA UTILITY COORDINATOR	TONY GLYNN	918-596-9245	tglynn@cityoftulsa.org
METROLINK TULSA	ERIC SMITH	918-830-0024	info@tulsatransit.org

# CITY OF TULSA, OKLAHOMA

## CONSTRUCTION PLANS FOR

# NON-ARTERIAL STREET REHABILITATION

## MAINTENANCE ZONE 3004

### PROJECT NO. 2036N3004Z

ACCOUNT NO. 2036N9049Z.Streets.NARrhb.4281.42813122-541106  
**PUBLIC WORKS DEPARTMENT**  
**TULSA, OKLAHOMA**

**ODOT STANDARDS**

SSS-2-0 TCD-3-0 TSD-1-1-01 TCS4-1-01  
 TCS5-1-00 TCS6-1-02 TCS7-1-02

**CITY OF TULSA STANDARDS**

STD. NO.	TITLE
102	PROJECT SIGN
126	SILT FENCE AND CONSTR. ENTRANCE
322	LOCATOR BALL PLACEMENT DETAIL
401	MANHOLE GRADE ADJUSTMENT
402	COVER, FRAME AND FRAME SEAL REPAIR
409	CONCRETE MANHOLE COLLAR
414	MANHOLE ADJUSTING RING
608A	STREET NAME SIGNS
608B	TRAFFIC SIGNS
625	REMOVAL OF TRAFFIC ITEMS
702	RESIDENTIAL CONCRETE DRIVEWAY ASPHALT STREET
704	RESIDENTIAL ASPHALT DRIVEWAY ASPHALT STREET
705	RESIDENTIAL DRIVE NO CURB
706	COMMERCIAL DRIVEWAY
707	COMMERCIAL DRIVEWAY
708	COMMERCIAL ASPHALT DRIVEWAY
709	PARKING LOTS
713	PAVEMENT REMOVAL AND REPLACEMENT
714	PAVEMENT CUTS
725	STANDARD PAVEMENT PATCH AND REPAIR
726	ASPHALT PAVEMENT STANDARD DETAILS FOR ALLEYS, RESIDENTIAL, AND COLLECTOR STREETS
727	CONCRETE PAVEMENT STANDARD DETAILS FOR ALLEYS, RESIDENTIAL, AND COLLECTOR STREETS (1 OF 2)
729	CONCRETE PAVEMENT STANDARD DETAILS FOR ALLEYS, RESIDENTIAL, AND COLLECTOR STREETS (2 OF 2)
751	STANDARD PIPE BEDDING FOR STORM SEWER
752	FRAME AND LID FOR STORMWATER MANHOLES
753	FRAME AND LID FOR 4' AND 5' I.D. STORMWATER MANHOLE
755	CONFIGURATION OF CAST IRON CURB INLETS
764	REINFORCED CONCRETE STORM WATER INLETS
765	STORMWATER FRAMES
766	STORM WATER GRATES
767	CAST IRON CURB
775	PRECAST CONCRETE STORMWATER MANHOLE
793	RESIDENTIAL DRIVE ASPHALT OR CONCRETE NO CURB

SYMBOL LEGEND			
EM	Electric Meter	DT	Deciduous Tree
EB	Electric Box	CT	Coniferous Tree
ET	Electric Transformer	B	Bush
FH	Fire Hydrant	FL	Fence Line (All Types)
FP	Flagpole	OE	Overhead Electric
GM	Gas Meter	UE	Underground Electric
GV	Gas Valve	UCTV	Underground Cable Television
GUY	Guy Anchor	UF	Underground Fiber Optic
ICV	Irrigation Control Valve	UT	Underground Telephone
JB	Junction Box	NGL	Natural Gas Line
LP	Light Pole	SL	Stormwater Line
MB	Mailbox	SSL	Sanitary Sewer Line
PP	Power Pole	W	Water Line
SN	Sign	SSCO	Sanitary Sewer Cleanout
SSCO	Sanitary Sewer Cleanout	SSMH	Sanitary Sewer Manhole
SSMH	Sanitary Sewer Manhole	SWMH	Storm Water Manhole
SWMH	Storm Water Manhole	SH	Sprinkler Head
SH	Sprinkler Head	TS	Traffic Signal
TS	Traffic Signal	TSB	Traffic Signal Box
TSB	Traffic Signal Box	TSJB	Traffic Signal Junction Box
TSJB	Traffic Signal Junction Box	TPED	Telephone Pedestal
TPED	Telephone Pedestal	WM	Water Meter
WM	Water Meter	WV	Water Valve
WV	Water Valve		

**NOTE:**  
 All construction to be in strict accordance with current City of Tulsa Public Works Department, standards and specifications.

**NOTE:**  
 THIS PROJECT COMPLIES WITH ALL OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ) REQUIREMENTS.

**NOTE:**  
 IN ACCORDANCE WITH ODOT SECTION 105.14, THE CITY OF TULSA IS ANTICIPATING THAT THE SUCCESSFUL CONTRACTOR WILL UTILIZE THE APPROPRIATE MEANS AND METHODS TO ACCOMPLISH THE WORK DESCRIBED IN THE PLANS WITHOUT CAUSING COLLATERAL DAMAGE TO THE EXISTING INFRASTRUCTURE. THE PLANS ARE SET UP WITH THE EXPECTATION OF PERFORMING PATCHING AND CONCRETE WORK PRIOR TO MILLING OPERATIONS TO MINIMIZE CONSTRUCTION TRAFFIC LOADINGS TO REDUCED CAPACITY STREET SECTIONS. FURTHER, THE ANTICIPATED CONSTRUCTION PHASING WILL MINIMIZE THE TIME BETWEEN MILLING AND NEW ASPHALT PLACEMENT. LEAVING OPEN MILLED SECTIONS WILL BE AT THE CONTRACTOR'S RISK IN THE EVENT THAT LOCAL OR CONSTRUCTION TRAFFIC CAUSES DAMAGE TO PREVIOUSLY UNDAMAGED AREA. CURRENT CITY OF TULSA CONSTRUCTION BUDGETS DO NOT ALLOW FOR GROWTH OF THE PROJECT.

**PERMANENT BENCH MARK USED ON THIS PROJECT:**  
 GPS 2016-28, 5/8" REBAR w/3" ALUMINUM CAP FLUSH, STAMPED 2016-28, SET IN CONCRETE POST IN GROUND IN ISLAND AT E. 36th ST. N. AND N. WINSTON AVE.

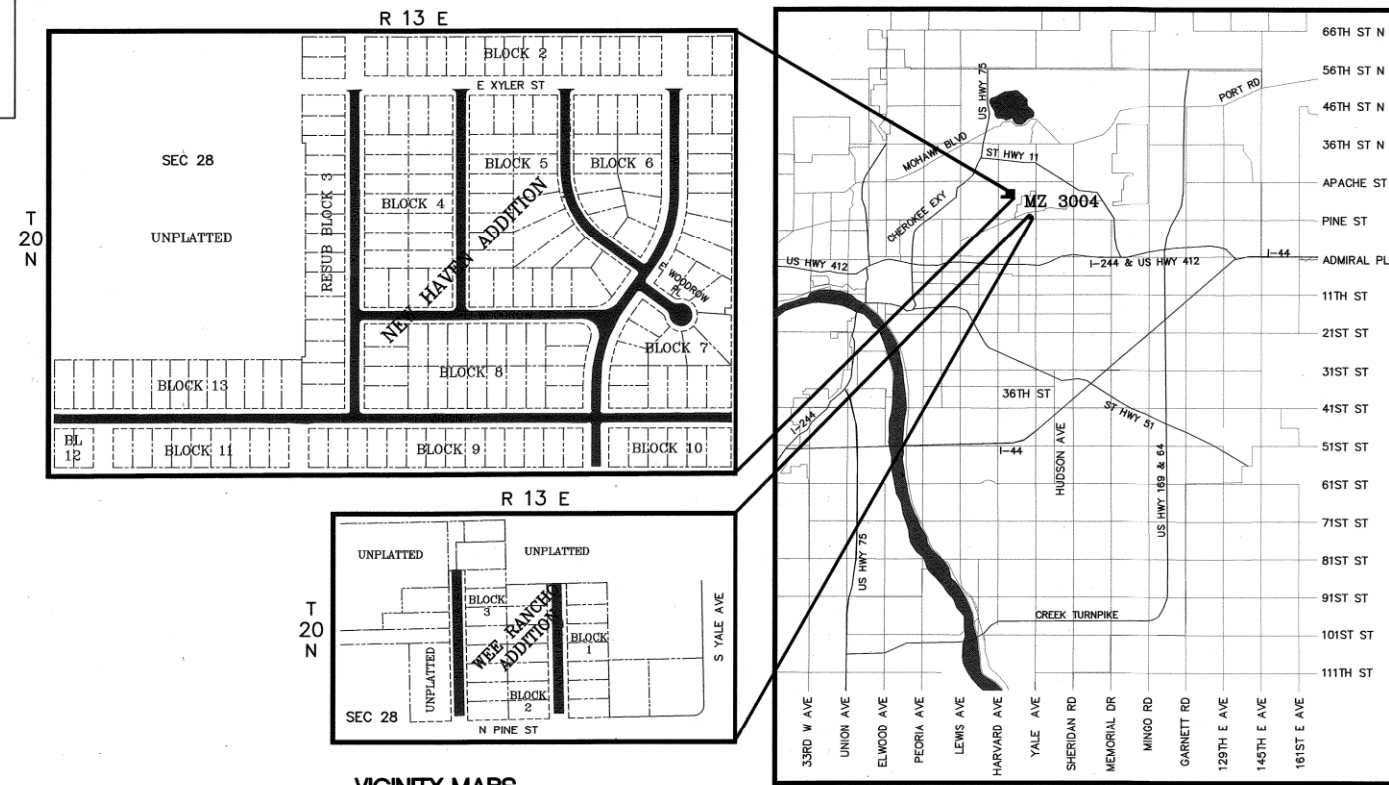
OKLAHOMA STATE PLANE COORDINATES:  
 NORTHING: 445611.64 EASTING: 2580595.97  
 NAVD 1988 ELEV. = 617.81

**VERTICAL CONTROL**  
 NAVD 1988 SCALE FACTOR: 0.9999206903

**HORIZONTAL CONTROL**  
 OKLAHOMA STATE PLANE COORDINATE  
 SYSTEM NORTH ZONE 3501 NAD 1983 (2011)

DESIGN DATA
V = 25 MPH
K(MIN) SAG = 26
K(MIN) CREST = 12
2.75 LANE MILES

**NOTE:**  
 CITY OF TULSA STANDARD SPECIFICATIONS AND STANDARD DETAILS (CURRENT) GOVERN. ALL OTHER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH 2019 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. *AS APPROVED BY COT.*



**VICINITY MAPS**

N.T.S.

**LOCATION MAP**

N.T.S.

Note: Entire project is within the Corporate and City Limits of Tulsa, Oklahoma

APPROVED BY:

*Z. Bell*  
 CITY ENGINEER

12/20/2024  
 ADVERTISEMENT DATE

PREPARED BY:



**Marquardt Engineering, PLLC**  
 CA. 6911 (PE) EXP. 6-30-2025  
 7020 S. YALE AVE., SUITE 225  
 TULSA, OKLAHOMA 74136  
 TEL: 918-704-8781  
 keith.marquardt@gmail.com



*K. M. Marquardt*  
 KEITH M. MARQUARDT, P.E.  
 PROJECT MANAGER  
 MARQUARDT ENGINEERING, PLLC

NON-ARTERIAL STREET REHABILITATION IN MZ 3004 - PROJ. NO. 2036N3004Z

**PAY ITEM NOTES (11/14/2018)**

- D1. THIS ITEM SHALL INCLUDE THE COST OF NEW MANHOLE FRAME AND COVER PER CITY OF TULSA STD NOS.752, 753, 754, 761, 762, 769A, 769B AND 775.
- D2. THE TOTAL COST FOR RUBBERIZED ASPHALT AND/OR SILICONE AT MANHOLES, VALVE BOXES, INLETS, AND INLET APRONS, SHALL BE INCLUDED.
- D3. NO MASONRY STRUCTURES SHALL BE CONSTRUCTED WITHIN THE RIGHT OF WAY.
- D4-D5. NOT USED
- D6. ALL SANITARY AND STORM SEWER MANHOLE CASTINGS AND LIDS THAT ARE LOCATED IN THE STREET AND ARE DISTURBED BY THE CONTRACTOR SHALL BE REPLACED WITH NEW LIDS AND CASTINGS AND THE OLD ONES SHALL BE SALVAGED AND DELIVERED TO THE METAL RECYCLE BINS IN THE STOCKROOM AREA AT SEWER OPERATIONS AND MAINTENANCE, 9319 E. 42ND STREET NORTH, BETWEEN THE HOURS OF 7:30 AM AND 3:00 PM MONDAY THROUGH FRIDAY.
- D7. INCLUDES THE COST REQUIRED TO MAKE CONNECTION AND REMOVAL OF EXISTING INLETS. THE COST OF PC CONCRETE CURB AND GUTTER THROUGH THE INLET, 5' EACH SIDE OF THE INLET, AND THE PC CONCRETE INLET APRON SHALL BE INCLUDED. GRATE AND FLOWLINE ELEVATIONS SHALL MATCH EXISTING CONDITIONS UNLESS OTHERWISE NOTED IN THE PLANS.
- D8. QUICKSET FLOWABLE FILL SHALL BE USED TO BACKFILL AROUND STREET CURB INLETS AND REINFORCED CONCRETE PIPE, AS NEEDED, AT THE DIRECTION OF THE ENGINEER.
- D9. ALL INLETS, COMPLETE IN PLACE, SHALL BE CAST IN PLACE CONCRETE OR PRECAST CONCRETE. THIS PAY ITEM INCLUDES ANY INLET FRAME(S), GRATE(S), HOOD(S) AND CONCRETE REQUIRED FOR COMPLETE INSTALLATION OF STRUCTURE PER THE CONSTRUCTION DOCUMENTS.
- D10. ADDITIONAL DEPTH QUANTITIES SHALL BE MEASURED AND PAID FOR ALL INLETS EXCEEDING STANDARD DEPTH. STANDARD DEPTHS ARE AS FOLLOWS:  
 A) CAST IRON CURB INLET: 3.71 VF, MEASURED FROM CENTER ELEVATION OF LOWEST CAST IRON CURB TO FLOWLINE OF OUTLET PIPE.  
 B) RECESSED CURB INLET: 3.00 VF, MEASURED FROM TOP OF SLAB TO FLOWLINE OF OUTLET PIPE.  
 C) STANDARD DROP INLET: SEE STANDARD DETAILS 770, 771, 772 AND 773 - VARIES BASED ON PIPE SIZE, MEASURED FROM LOWEST ELEVATION OF INFLOW APRON TO FLOWLINE OF OUTLET PIPE.
- D11. CAST IRON CURB INLET CONFIGURATION NAMING CONVENTION PROVIDED IN COT STANDARD NO. 755. SEPARATE DETAILS SHALL BE REFERENCED OR PROVIDED IN THE PLANS FOR NON-CITY-STANDARD INLETS.  
 STANDARD NAMING: CICI DES G(T) [W/AMH]  
 G: NUMBER OF GRATES.  
 T: LETTER(S) CORRESPONDING TO ARRANGEMENT OF CAST IRON HOODS TO BE INSTALLED UPSTREAM OF GRATES.  
 W/AMH: IF SHOWN, INLET TO BE CONSTRUCTED WITH ATTACHED ACCESS MANHOLE.
- D12. REINFORCED CONCRETE PIPE TO BE CLASS III. ALL REINFORCED CONCRETE PIPE AND MANHOLES TO BE SUPPLIED WITH AN OMNI-FLEX JOINT GASKET OR APPROVED EQUIVALENT. MASTIC JOINT SEALANT SHALL NOT BE ALLOWED.
- D13. THIS PAY ITEM SHALL BE COMPLETE IN PLACE AND SHALL INCLUDE ALL PIPE, STANDARD BEDDING MATERIAL AND TRENCH EXCAVATION, JOINT GASKETS AND ALL OTHER INCIDENTALS. NO ADDITIONAL COST WILL BE MADE. PRIOR TO ACCEPTANCE, INTERIOR OF PIPE SHALL BE INSPECTED FOR DEFECTS USING SELF-PROPELLED MOBILE CLOSED-CIRCUIT CAMERA SYSTEM.
- D14-D15. NOT USED.
- E1. ALL COSTS FOR REMOVING TREES, SHRUBS, STUMPS, POSTS, AND ALL OTHER DEBRIS AND/OR OBSTRUCTIONS NOT COVERED BY A SEPARATE PAY ITEM ARE INCLUDED IN THE PRICE BID.
- E2. ALL EXISTING DRAINAGE STRUCTURES SHALL BE CLEANED AND CLEARED OF ALL SEDIMENTATION AND DEBRIS TO THE RIGHT OF WAY. COST OF CLEARING SHALL BE INCLUDED IN THE PRICE BID.
- E3. CONTRACTOR SHALL BE PAID FOR UNCLASSIFIED EXCAVATION ON THE BASIS OF PLAN QUANTITY. ANY ADDITIONAL EXCAVATION REQUIRED OR OVERRUN OF PLAN QUANTITY WILL BE PAID FOR ON THE BASIS OF UNIT PRICE BID FOR THE ITEM. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SURVEY TO VERIFY ANY ADDITIONAL QUANTITIES.
- E4. UNCLASSIFIED EXCAVATION INCLUDES REMOVAL OF AGGREGATE BASE AND MODIFIED SUBGRADE UNDER EXISTING PAVEMENT TO BE REPAIRED.
- E5. NOT USED.
- E6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE FROM THE CONSTRUCTION SITE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED. ALL COST ASSOCIATED WITH STORM WATER MANAGEMENT, AS WELL AS REMOVAL OF ALL SILT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, STORM SEWER PIPES AND APPURTENANCES WITHIN THE PROJECT LIMITS AT END OF PROJECT, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.
- E7. EROSION PROTECTION SHALL BE PLACED AS FOLLOWS:  
 A) AROUND INLETS TO PREVENT INFLOW OF ERODED MATERIAL INTO STORM SEWER SYSTEM;  
 B) IN LOCATIONS THROUGHOUT PROJECT SITE, AS DETERMINED BY THE ENGINEER, TO PREVENT WASH OF ERODED MATERIAL ONTO ADJACENT PROPERTY;  
 C) FOR ENTIRE DURATION OF PROJECT, WITH MAINTENANCE AND REPLACEMENTS, AS DIRECTED BY THE ENGINEER;  
 D) WITH PERIODIC REMOVAL OF SEDIMENT IN ACCORDANCE WITH STORMWATER MANAGEMENT PLAN.
- E8. PRICE BID SHALL INCLUDE MAINTENANCE, SEDIMENT REMOVAL, DISPOSAL AND REMOVAL OF FILTERS AT PROJECT COMPLETION.
- E9. INCLUDES 24 TYPE [1-C] FILTERS.
- E10. ESTIMATED QUANTITY IS BASED ON SODDING OF ALL DISTURBED AREAS OUTSIDE THE FINAL PAVING LIMITS AND WITHIN THE FINAL GRADING LIMITS AS INDICATED BY THE TOP-OF-CUT/TOE-OF-SLOPE LINE ON THE PLANS (EXCLUDING SURFACES OF STRUCTURES, FIXTURES AND APPURTENANCES). SOD SHALL BE OF LIKE-KIND TO EXISTING SOD. PRICE BID INCLUDES PLACEMENT AND COMPACTION OF SUITABLE BACKFILL. ANY EXISTING GRASSED AREAS BEYOND THE ABOVE STATED LIMITS THAT ARE DAMAGED AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE RESODDED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S SOLE EXPENSE.
- E11. COST OF WATERING AND FERTILIZING SHALL BE INCLUDED. FERTILIZERS SHALL BE 10-20-20 AND SHALL BE APPLIED AT THE RATE OF 1.5 LBS PER 10 SQ YDS. FERTILIZER SHALL BE APPLIED PER SECTION 230.04H OF ODOT STANDARD SPECIFICATIONS. WATERING SHALL BE APPLIED AS NECESSARY UNTIL VEGETATION IS ESTABLISHED OR UNTIL THE WORK IS ACCEPTED AS COMPLETE.
- G1. LOCATIONS TO BE DETERMINED IN THE FIELD AND WORK TO BE PERFORMED AT THE DIRECTION OF THE FIELD ENGINEER. QUANTITY IS ESTIMATED AND MAY BE OMITTED IN ITS ENTIRETY.
- G2. MAXIMUM OVERALL DOLLAR AMOUNT AND SCHEDULE OF PAYMENTS SHALL BE IN ACCORDANCE SECTION 841 OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION. EXCLUDES MOBILIZATION FOR WATERLINE WORK.
- G3. CONSTRUCTION STAKING SHALL INCLUDE SURVEYING AND THE FURNISHING, PLACING, AND MAINTAINING OF THE CONSTRUCTION LAYOUT STAKES NECESSARY FOR THE PROPER COMPLETION AND INSPECTION OF THE ENTIRE PROJECT.
- G4. THE COST TO REPLACE REMOVED OR DAMAGED SECTION CORNERS AND ALL OTHER PERTINENT RIGHT OF WAY MARKERS SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM. NO ADDITIONAL PAYMENT WILL BE MADE.
- G5. CONTRACTOR SHALL REPAIR ANY IRRIGATION SYSTEMS DAMAGED OR REQUIRING RELOCATION DURING THE CONSTRUCTION OF THIS PROJECT TO THE SATISFACTION OF THE PROPERTY OWNER AND CITY ARBORIST. COST SHALL BE INCLUDED IN THE PRICE BID.
- G6. ALL HOUSE NUMBERS SHALL BE REPLACED/ REESTABLISHED THROUGHOUT PROJECT LIMITS. COST TO BE INCLUDED IN URBAN RIGHT OF WAY RESTORATION. CONTRACTOR SHALL REESTABLISH DRAINS, ROOF DRAINS AND OTHER DRAINAGE THROUGH THE CURBS IN ACCORDANCE WITH CITY OF TULSA STANDARD 758. NO NEW CURB OUTLETS SHALL BE CONSTRUCTED WITHOUT APPROVAL OF THE ENGINEER.
- G7. NOT USED
- G8. NOT USED
- G9. CONTRACTOR SHALL COORDINATE WITH HOMEOWNERS TO RESET ALL PAVERS, LANDSCAPE STONE, PRIVATE SIDEWALKS AND FENCES THAT ARE DISTURBED DURING CONSTRUCTION OPERATIONS. ALL MATERIALS, LABOR, AND EQUIPMENT REQUIRED FOR RESETTING OF SUCH ITEMS IS TO BE INCLUDED IN PRICE BID FOR URBAN RIGHT OF WAY RESTORATION.
- G10. PAY ITEM INCLUDES ALL MOWING WITHIN THE RIGHT-OF-WAY AS DIRECTED DURING CONSTRUCTION.
- R1. WASTE MATERIAL TO BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE IN A MANNER APPROVED BY THE ENGINEER.
- R2. ALL SAW CUTTING AND REMOVAL SHALL BE INCLUDED IN THE COST OF THE ITEM TO BE ADJUSTED, REMOVED, REPAIRED, OR REPLACED.
- R3. PAY ITEM INCLUDES REMOVAL OF ALL STRUCTURES AND OBSTRUCTIONS WITHIN PROJECT LIMITS NOT SPECIFIED BY OTHER ITEMS OF WORK.
- R4. INCLUDES SAWING NOT INCLUDED IN OTHER ITEMS OF WORK.
- R5. ITEMS TO BE REMOVED MAY OR MAY NOT BE PRESENT IN ANY SPECIFIED CONDITION.
- R6. SHALL INCLUDE ALL COSTS ASSOCIATED WITH PLUGGING/ PATCHING HOLES IN EXISTING STRUCTURES TO REMAIN.
- S1. TYPE A AGGREGATE BASE WAS ESTIMATED TO BE USED AS THE BASE MATERIAL FOR 90% OF THE PATCHING. QUICK SET FLOWABLE FILL WAS ESTIMATED TO BE USED AS THE BASE MATERIAL FOR 10% OF THE PATCHING. ACTUAL QUANTITIES TO BE DETERMINED BY THE ENGINEER.
- S2. INCLUDES COMPACTION OF AGGREGATE TO 98% AASHTO T180 MODIFIED PROCTOR.
- S3. SEPARATOR FABRIC SHALL BE USED AT ALL PAVEMENT PATCHES AND RECONSTRUCTION SECTIONS. THE SEPARATOR FABRIC SHALL BE CUT AND OVERLAPPED A MINIMUM OF 2 FT AT ALL EDGES OF THE REPAIR.
- S4. FABRIC REINFORCEMENT SHALL BE USED ON OVERLAY AREAS. THE COST OF BITUMINOUS BINDER FOR FABRIC REINFORCEMENT SHALL BE INCLUDED IN THE UNIT COST OF THIS PAY ITEM. THE BITUMINOUS BINDER SHALL MEET ODOT STANDARD SPECIFICATIONS AND THE RECOMMENDATIONS OF THE FABRIC REINFORCEMENT MANUFACTURER.
- S5. THE COST OF TACK COAT, EDGE JOINT SEAL MATERIAL AND SCREENINGS FOR BLOTTING, AND ALL LABOR ASSOCIATED WITH THESE ITEMS, SHALL BE INCLUDED IN ASPHALT CONCRETE.
- S6. ESTIMATED AT 112 LBS PER SQ YD PER 1 INCH THICK.
- S7. ODOT PAY FACTOR FOR AVERAGE LOT DENSITY SHALL NOT BE USED FOR THIS PROJECT. FAILURE TO REACH AVERAGE LOT DENSITY OF 92%-97% WILL RESULT IN REJECTION OF WORK.
- S8. A HIGHER GRADE OF ASPHALT BINDER THAN IS INDICATED ON THE PLANS MAY BE USED, BUT AT NO ADDITIONAL COST TO THE CITY.
- S9. THIS ITEM INCLUDES ALL COSTS ASSOCIATED WITH COLD MILLING AND TO PROVIDE BUTT JOINTS AS REQUIRED. NO ADDITIONAL PAYMENT SHALL BE MADE FOR COLD MILLING BEYOND THE AVERAGE DEPTH SHOWN ON THE TYPICAL SECTIONS.
- S10. NOT USED
- S11. NOT USED
- S12. THE USE OF FLY-ASH IN CONCRETE IS PROHIBITED.
- S13. INCLUDES ALL COST OF SAWED JOINTS AND SEALING OF ALL JOINTS INCLUDING LONGITUDINAL JOINTS.
- S14. NOT USED
- S15. THIS ITEM SHALL BE MEASURED AS THE ACTUAL AMOUNT OF CURB AND/OR GUTTER INSTALLED. NO PAYMENT WILL BE MADE FOR CURB AND/OR GUTTER THROUGH DRIVEWAYS AND INLETS.
- S16. CURB, GUTTER, AND/OR SIDEWALK ASSOCIATED WITH THE DRIVEWAY AND THROUGH THE DRIVEWAY IS INCLUDED IN THE COST OF THE DRIVEWAY.
- S17. ONE SIDEWALK PANEL ON EACH SIDE OF DRIVEWAYS SHALL BE A MINIMUM OF 6" THICK OR MATCH EXISTING DRIVEWAY THICKNESS, WHICHEVER IS GREATER. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THE COST OF THE THICKENED SIDEWALK THROUGH THIS AREA.
- S18. NOT USED
- S19. NOT USED
- S20. NOT USED
- S21. THIS PAY ITEM INCLUDES THE FOLLOWING:  
 A. SAW CUTTING  
 B. REMOVAL OF EXISTING CONCRETE AND/OR ASPHALTIC CONCRETE ROADWAY (CY)  
 C. TYPE S3 ASPHALTIC CONCRETE OR PC CONCRETE COMPLETE AND IN PLACE PER DETAIL  
 D. SEALING OF EDGES AND TACK COAT  
 DOES NOT INCLUDE THE FOLLOWING:  
 A. UNCLASSIFIED EXCAVATION  
 B. SUBGRADE METHOD B (SY)  
 C. SEPARATOR FABRIC (SY)  
 D. AGGREGATE BASE (TYPE A)  
 E. ASPHALT CONCRETE LEVELING OR SURFACE COURSE
- S22. REMOVE AC PAVEMENT ON CONCRETE DRIVEWAY APRONS AND GUTTERS DURING EDGE MILLING AND COLD MILLING OPERATIONS.
- S23. REPLACE AC IN DRIVEWAY GUTTER, AS NEEDED, FOR POSITIVE STORMWATER DRAINAGE AND SMOOTH DRIVEWAY TRANSITIONS.
- T1. ALL TRAFFIC MATERIALS REMOVED SHALL BE HANDLED PER COT SPECIFICATION 625 REMOVAL OF TRAFFIC ITEMS.
- T2. REFLECTORIZED SHEETING ON SIGNS AND BARRICADES SHALL BE OF A CUBIC PRISMATIC TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE IX RETROREFLECTIVE SHEETING. REFLECTORIZED SHEETING ON DRUMS AND TUBE CHANNELIZERS SHALL BE OF A HIGH-INTENSITY TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE III RETROREFLECTIVE SHEETING.
- T3. EXTRUDED-APPLIED THERMOPLASTIC (USE ON ASPHALT PAVEMENT AND CONCRETE PAVEMENT). THERMOPLASTIC PAVEMENT MARKING SHALL ONLY BE APPLIED WHEN THE SURFACE TEMPERATURE EXCEEDS 55° F FOR ALL OF THE SIX HOURS PRIOR TO INSTALLATION AND MAXIMUM WIND SPEEDS ARE 15 MPH AT THE TIME OF APPLICATION. PRICE BID TO INCLUDE FLEX TABS OR LIKE KINC FOR POST CONSTRUCTION LANE MARKINGS/SEPARATION. MECHANICALLY APPLIED PREFORMED PLASTIC TAPE ("COLD TAPE") WILL NOT BE ACCEPTED.
- T4. PAYMENT SHALL BE MADE ON A SIGN-DAY BASIS ONLY FOR TRAFFIC CONTROL DEVICES THAT ARE PROPERLY INSTALLED AND IN GOOD WORKING ORDER. COSTS FOR DELIVERY, INSTALLATION, RELOCATION, MAINTENANCE REMOVAL AND REPLACEMENT, AS NEEDED AT THE DISCRETION OF THE ENGINEER, INCLUDED IN UNIT PRICE BID.
- T5. IF WARNING LIGHTS ARE TO BE USED ON TRAFFIC CONTROL DEVICES, TYPE "A" LIGHTS SHALL ONLY BE USED ON DEVICES WARNING OF UNEXPECTED HAZARDS, AND SHALL NOT BE USED FOR DELINEATION OF THE TRAVELED WAY. ONLY TYPE "C" WARNING LIGHTS SHALL BE USED FOR DELINEATION OF THE TRAVELED WAY, AND TYPE "C" LIGHTS SHALL NOT BE USED FOR ANY OTHER PURPOSE.
- T6. THE PAY ITEM FOR FLAGGER SHALL BE PAID FOR ON A FLAG DAY (F.D.) BASIS. ONE F.D. IS ONE COMPLETE WORKDAY PERFORMED BY THE CONTRACTOR AS SET FORTH IN THE CONTRACT DOCUMENTS AND SPECIFICATIONS.
- T7. PRICE BID FOR THIS ITEM INCLUDES INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF PROJECT SIGN.
- X1. CONTRACTOR SHALL FIELD VERIFY TOP OF GRATE, TOP OF RIM, FLOWLINE, AND PIPE DIMENSIONS PRIOR TO ORDERING ANY PRECAST CONCRETE STRUCTURE FOR USE ON THIS PROJECT.
- X2. QUANTITY INCLUDES 5% OF THE MILLED SURFACE AREA FOR PATCHING EXISTING PC CONCRETE PAVEMENT DEFECTS VISIBLE AFTER COLD MILLING OPERATIONS. THIS QUANTITY IS IN ADDITION TO THE PATCHING QUANTITIES CALLED OUT ON THE ASSOCIATED PLAN SHEETS.

ROADWAY QUANTITIES					
(SEE SHEET 4 FOR SUMMARY OF ROADWAY QUANTITIES)					
ITEM NO.	SPEC. NO.	DESCRIPTION	PAY ITEM NOTE (11/14/2018)	UNIT	QUANTITY
1	202(A)	UNCLASSIFIED EXCAVATION	E3,E4,R1	CY	536
2	205(A)	TYPE A SALVAGED TOPSOIL		CY	50
3	220	SWPPP DOCUMENTATION AND MANAGEMENT	E6-E9,G1	LSUM	1
4	230(A)	SOLID SLAB SODDING	E10,E11	SY	1,275
5	303(A)	AGGREGATE BASE (TYPE A)	S1,S2	CY	514
6	310(B)	SUBGRADE METHOD B		SY	1,606
7	325	SEPARATOR FABRIC	S3	SY	1,766
8	409	FABRIC REINFORCEMENT (Tensar GlasPave-25)	S4	SY	20,869
9	411(C)	SUPERPAVE, TYPE S4 (PG 64-22 OK) INSOLUBLE	S5,S6,S7,S8	TON	2,338
10	411(E)	SUPERPAVE, TYPE S6 (PG 64-22 OK),(LEVELING COURSE)	S5,S6,S7,S8	TON	585
11	412	COLD MILL PAVEMENT (2" DEEP)	S9	SY	20,869
12	609(B)	2'-2" COMBINED CURB AND GUTTER (6" MOUNTABLE)	S12,S13,S15,S16	LF	976
13	610(A)	CONCRETE SIDEWALK (4" THICK)	S12,S13,S16,S17	SY	118
14	610(B)	CONCRETE DRIVEWAY (6" THICK)(H.E.S.)	S12,S13,S16,S17	SY	132
15	611(G)	INLET, CICI DESIGN NO. 2	D2,3,7,8,9,11,R2,X1	EA	8
16	611(H)	ADDITIONAL DEPTH IN INLET DESIGN NO. 2	D10	VF	1
17	612(A)	MANHOLE ADJUSTED TO GRADE	D1,D2,D6,R2,S12	EA	6
18	613(A)	RCP, 15 INCH ROUND, COMPLETE IN PLACE	D12,D13,G1	LF	50
19	619(A)	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	E1,R1,R2,R3,R4,R5,R6	LSUM	1
20	619(B)	REMOVAL OF EXISTING DRIVEWAY	R1,R2,R5	SY	132
21	619(B)	REMOVAL OF EXISTING CURB AND GUTTER	R1,R2,R5	LF	976
22	641	MOBILIZATION	G2	EA	1
23	642	CONSTRUCTION STAKING LEVEL II	G3,G4	EA	1
24	855(A)	TRAFFIC STRIPE (PLASTIC)(12" WIDE)	T3	LF	500
25	855(A)	TRAFFIC STRIPE (PLASTIC)(24" WIDE)	T3	LF	144
26	880(B)	SIGNS 0.00 TO 6.25 SF	T2,T4	SD	1,500
27	880(B)	SIGNS 6.26 TO 15.99 SF	T2,T4	SD	1,500
28	880(B)	SIGNS 16.00 AND UP	T2,T5,T4	SD	2,250
29	880(C)	BARRICADES (TYPE III)	T2,T4,T5	SD	750
30	880(E)	TYPE "A" WARNING LIGHT	T4,T5	SD	3,750
31	880(G)	TUBE CHANNELIZERS	T2,T4	SD	5,000
32	880(I)	FLAGGER	T6	FD	50
33	COT 202	QUICK SET FLOWABLE FILL	D8,G1	CY	55
34	COT 334	CONSTRUCTION AS-BUILTS		LSUM	1
35	COT 335	CONTRACTOR QUALITY CONTROL		LSUM	1
36	COT 608(A)	SHEET ALUMINUM SIGNS	T1	SF	132
37	COT 608(B)	1 1/2" SQUARE TUBE POST		LF	15
38	COT 608(C)	1 3/4" SQUARE TUBE POST		LF	204
39	COT 608(D)	2" SQUARE TUBE POST		LF	51
40	SPECIAL	TYPE I AC PATCH (NON-ARTERIAL)	S21	CY	15
41	SPECIAL	TYPE I APC PATCH (NON-ARTERIAL)	S21,X2	CY	199
42	SPECIAL	TYPE I PCC PATCH (NON-ARTERIAL)	S21,X2	CY	14
43	SPECIAL	REMOVE, STORE AND RESET EXISTING SIGN	T1	EA	1
44	SPECIAL	CURB RAMP		EA	4
45	SPECIAL	PROJECT SIGN (CITY OF TULSA)	T7	EA	2
46	SPECIAL	URBAN RIGHT-OF-WAY RESTORATION	E2,G5,G6,G9,G10	EA	1
47	SPECIAL	OWNER ALLOWANCE		EA	10,000

ITEMS LISTED OR SHOWN ON DRAWINGS AND/OR DESCRIBED IN THE SPECIFICATIONS THAT ARE NOT INCLUDED AS A SEPARATE PAY ITEM QUANTITY SHALL BE CONSIDERED INCIDENTAL AND THE COST SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS. THE PRICE BID FOR ALL WORK SHALL INCLUDE ALL MATERIALS, EQUIPMENT, LABOR, INCIDENTALS, AND ALL OTHER REQUIRED ITEMS TO COMPLETE THE WORK AS SHOWN ON PLANS AND SPECIFICATIONS.

NOTE S8 TABLE			
BINDER GRADE <sup>2</sup>	MESALS <sup>1</sup>	ADT <sup>1</sup>	NOTES
PG 64-22 OK	< 3	< 5,000	USE WHEN MORE THAN 4-6 INCHES BELOW THE SURFACE. ALSO USE FOR SHOULDERS, DRIVEWAYS, BELOW PCC, AND TEMPORARY CONSTRUCTION
PG 70-28 OK	< 10	< 10,000	USE ONLY IN THE TOP 4-6 INCHES FOR DRIVING LANES
PG 76-28 OK	>= 10	>= 10,000	USE ONLY IN THE TOP 4-6 INCHES FOR DRIVING LANES
PG 76-28 E	---	---	CONTACT ODOT MATERIALS DIVISION FOR RECOMMENDED USE.

<sup>1</sup> USE ADT ONLY WHEN ESAL COMPUTATIONAL DATA IS NOT AVAILABLE  
<sup>2</sup> PG 70-28 OK OR PG 76-28 OK MAY BE DESIRABLE IN HIGH VOLUME AREAS WHERE SLOW, STANDING, OR TURNING TRAFFIC OCCURS, SUCH AS URBAN INTERSECTIONS OR OFF-RAMPS. OFF RAMPS SHOULD AT LEAST USE THE SAME BINDER AS THE MAINLINE.



ROADWAY PAY QUANTITIES AND NOTES					
PROJECT NO. 2036N3004Z					
NON-ARTERIAL STREET REHABILITATION MAINTENANCE ZONE 3004					
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT					
PLANS & ESTIMATES PREPARED BY: MARQUARDT ENGINEERING, PLLC 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781					
REVISION	BY	DATE	PLAN SCALE:	DRAWN BY:	GMO 10/23
			N/A	DESIGNED BY:	KMM 10/23
			PROFILE SCALE:	SURVEY BY:	
			N/A	PROJ. MGR.	RF 12/24
			HORIZONTAL:	LEAD ENGR.	12/24
			VERTICAL:	FIELD MGR.	12/24
			N/A	RECOMMENDED:	
			FILE:	DESIGN MANAGER	HMS 12/24
			DRAWING:		
			ATLAS PAGE NO:	DATE:	12/5/2024
				SHEET	2 OF 21 SHEETS





**SUMMARY OF ROADWAY QUANTITIES**

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	QUANTITY	N. LOUISVILLE AVE. SHEET 12	N. MARION AVE. SHEET 13	N. NEW HAVEN AVE. SHEET 14	N. OSWEGO AVE SHEETS 15-16	E. VIRGIN PL. SHEETS 17-18	E. WOODROW ST. SHEET 19	N. VANDALIA AVE SHEET 20	N. VANDALIA PL. SHEET 20
1	202(A)	UNCLASSIFIED EXCAVATION	CY	536	55	47	67	66	129	144	15	13
2	205(A)	TYPE A SALVAGED TOPSOIL	CY	50	-	-	-	-	-	-	-	-
3	220	SWPPP DOCUMENTATION AND MANAGEMENT	LSUM	1	-	-	-	-	-	-	-	-
4	230(A)	SOLID SLAB SODDING	SY	1,275	104	149	124	227	228	283	75	85
5	303(A)	AGGREGATE BASE (TYPE A)	CY	514	53	45	61	70	125	134	13	13
6	310(B)	SUBGRADE METHOD B	SY	1,606	164	140	201	198	387	433	44	39
7	325	SEPARATOR FABRIC	SY	1,766	180	154	221	218	426	476	48	43
8	409	FABRIC REINFORCEMENT (Tensar GlasPave-25)	SY	20,869	2,855	1,985	1,894	3,489	5,327	3,094	1,218	1,007
9	411(C)	SUPERPAVE, TYPE S4 (PG 64-22 OK) INSOLUBLE	TON	2,338	320	222	212	391	597	347	136	113
10	411(E)	SUPERPAVE, TYPE S6 (PG 64-22 OK),(LEVELING COURSE)	TON	585	80	56	53	98	149	87	34	28
11	412	COLD MILL PAVEMENT (2" DEEP)	SY	20,869	2,855	1,985	1,894	3,489	5,327	3,094	1,218	1,007
12	609(B)	2'-2" COMBINED CURB AND GUTTER (6" MOUNTABLE)	LF	976	57	147	98	154	155	365	0	0
13	610(A)	CONCRETE SIDEWALK (4" THICK)	SY	118	0	0	16	30	13	59	0	0
14	610(B)	CONCRETE DRIVEWAY (6" THICK)(H.E.S.)	SY	132	21	0	0	51	44	9	0	7
15	611(G)	INLET, CICI DESIGN NO. 2	EA	8	1	0	2	0	0	5	0	0
16	611(H)	ADDITIONAL DEPTH IN INLET DESIGN NO. 2	VF	1	0	0	0	0	0	0.64	0	0
17	612(A)	MANHOLE ADJUSTED TO GRADE	EA	6	0	0	1	0	2	3	0	0
18	613(A)	RCP, 15 INCH ROUND, COMPLETE IN PLACE	LF	50	5	0	15	0	0	30	0	0
19	619(A)	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LSUM	1	-	-	-	-	-	-	-	-
20	619(B)	REMOVAL OF EXISTING DRIVEWAY	SY	132	21	0	0	51	44	9	0	7
21	619(B)	REMOVAL OF EXISTING CURB AND GUTTER	LF	976	57	147	98	154	155	365	0	0
22	641	MOBILIZATION	EA	1	-	-	-	-	-	-	-	-
23	642	CONSTRUCTION STAKING LEVEL II	EA	1	-	-	-	-	-	-	-	-
24	855(A)	TRAFFIC STRIPE (PLASTIC)(12" WIDE)	LF	500	0	0	0	250	250	0	0	0
25	855(A)	TRAFFIC STRIPE (PLASTIC)(24" WIDE)	LF	144	0	0	48	24	24	48	0	0
26	880(B)	SIGNS 0.00 TO 6.25 SF	SD	1,500	-	-	-	-	-	-	-	-
27	880(B)	SIGNS 6.26 TO 15.99 SF	SD	1,500	-	-	-	-	-	-	-	-
28	880(B)	SIGNS 16.00 AND UP	SD	2,250	-	-	-	-	-	-	-	-
29	880(C)	BARRICADES (TYPE III)	SD	750	-	-	-	-	-	-	-	-
30	880(E)	TYPE "A" WARNING LIGHT	SD	3,750	-	-	-	-	-	-	-	-
31	880(G)	TUBE CHANNELIZERS	SD	5,000	-	-	-	-	-	-	-	-
32	880(I)	FLAGGER	FD	50	-	-	-	-	-	-	-	-
33	COT 202	QUICK SET FLOWABLE FILL	CY	55	7	3	10	5	8	20	1	1
34	COT 334	CONSTRUCTION AS-BUILTS	LSUM	1	-	-	-	-	-	-	-	-
35	COT 335	CONTRACTOR QUALITY CONTROL	LSUM	1	-	-	-	-	-	-	-	-
36	COT 608(A)	SHEET ALUMINUM SIGNS	SF	132	30	0	11.50	14	45	31.40	0	0
37	COT 608(B)	1 1/2" SQUARE TUBE POST	LF	15	5	0	3	0	3	5	0	0
38	COT 608(C)	1 3/4" SQUARE TUBE POST	LF	204	48	0	24	24	60	48	0	0
39	COT 608(D)	2" SQUARE TUBE POST	LF	51	12	0	6	6	15	12	0	0
40	SPECIAL	TYPE I AC PATCH (NON-ARTERIAL)	CY	15	0	0	0	0	0	0	8	7
41	SPECIAL	TYPE I APC PATCH (NON-ARTERIAL)	CY	199	26	16	30	26	46	55	0	0
42	SPECIAL	TYPE I PCC PATCH (NON-ARTERIAL)	CY	14	0	0	0	0	14	0	0	0
43	SPECIAL	REMOVE, STORE AND RESET EXISTING SIGN	EA	1	1	0	0	0	0	0	0	0
44	SPECIAL	CURB RAMP	EA	4	0	0	2	0	0	2	0	0
45	SPECIAL	PROJECT SIGN (CITY OF TULSA)	EA	2	-	-	-	-	-	-	-	-
46	SPECIAL	URBAN RIGHT-OF-WAY RESTORATION	EA	1	-	-	-	-	-	-	-	-
47	SPECIAL	OWNER ALLOWANCE	EA	10,000	-	-	-	-	-	-	-	-

Keith M. Marquardt  
 19096  
 OKLAHOMA  
 11/26/24



ROADWAY SUMMARIES			
PROJECT NO. 2036N3004Z			
NON-ARTERIAL STREET REHABILITATION MAINTENANCE ZONE 3004			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS & ESTIMATES PREPARED BY: <b>MARQUARDT ENGINEERING, PLLC</b> 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781			
REVISION	BY	DATE	APPROVED:
			 J. J. Jolley CITY ENGINEER
PLAN SCALE:	DRAWN BY:	GMD 10/23	DATE: 12/5/2024 SHEET 4 OF 21 SHEETS
N/A	DESIGNED BY:	KMM 10/23	
PROFILE SCALE:	SURVEY BY:		
HORIZONTAL:	PROJ. MGR.	RF 12/24	
N/A	LEAD ENGR.	DD 12/24	
VERTICAL:	FIELD MGR.	TRM 12/24	
N/A	RECOMMENDED:	RF 12/24	
	DESIGN MANAGER		
FILE:	DRAWING:		
ATLAS PAGE NO: XXX			



SUMMARY OF SIGNS								
SIGN NO.	STATION LOCATION	TYPE OF SIGN	SHEET ALUMINUM SIGN	SIGN DIMENSIONS	1 1/2" SQUARE TUBE POST	1 3/4" SQUARE TUBE POST	2" SQUARE TUBE POST	REMOVE STORE & RESET SPECIAL
			608(A)	IN	608(B) LF	608(C) LF	608(D) LF	EA
			SF					
1	2+18.87, 21.69' RT	COT 608, N LOUISVILLE AV	3.00	6" x 36"	1.50	12	3	1
		COT 608, E VIRGIN PL	2.00	6" x 24"				
		ALERT NEIGHBORS	N/A	N/A				
2	4+94.86, 22.63' RT	COT 608, N LOUISVILLE AV	3.00	6" x 36"	1.50	12	3	
		COT 608, E WOODROW ST	3.00	6" x 36"				
3	11+96.79, 17.5' RT	R1-1, STOP	6.25	30" x 30"		12	3	
		R1-4 ALL WAY	0.75	18" x 6"				
4	11+99.94, 21.24' LT	R1-1, STOP	6.25	30" x 30"	1.50	12	3	
		R1-4 ALL WAY	0.75	18" x 6"				
		COT 608, N LOUISVILLE AV	3.00	6" x 36"				
		COT 608, E XYLER ST	2.00	6" x 24"				
4	24+24.03, 21.0' RT	COT 608, N NEW HAVEN AV	3.50	6" x 42"	1.50	12	3	
		COT 608, N OSWEGO AV	2.50	6" x 30"				
5	30+60.46, 18.13' LT	COT 608, N NEW HAVEN AV	3.50	6" x 42"	1.50	12	3	
		COT 608, E XYLER ST	2.00	6" x 24"				
6	34+74.41, 26.55' RT	R1-1, STOP	6.25	30" x 30"		12	3	
		R1-4 ALL WAY	0.75	18" x 6"				
7	34+84.88, 16.26' LT	R1-1, STOP	6.25	30" x 30"		12	3	
		R1-4, ALL WAY	0.75	18" x 6"				
8	48+16.08, 17.71' LT	W14-1, DEAD END	6.25	30" x 30"		12	3	
9	59+01.38, 16.78' RT	S1-1, SCHOOL ADVANCE CROSSING	6.25	30" x 30"		12	3	
		W16-9P, AHEAD	2.00	24" x 12"				
10	63+29.40, 17.05' RT	R1-1, STOP	6.25	30" x 30"		12	3	
		R1-4, ALL WAY	0.75	18" x 6"				
11	63+95.51, 16.87' LT	R1-1, STOP	6.25	30" x 30"	1.5	12	3	
		R1-4, ALL WAY	0.75	18" x 6"				
		COT 608, N OSWEGO AV	2.50	6" x 30"				
		COT 608, E VIRGIN PL	2.00	6" x 24"				
12	67+66.70, 16.75' RT	R1-1, STOP	6.25	30" x 30"	1.5	12	3	
		R1-4, ALL WAY	0.75	18" x 6"				
		COT 608, N PITTSBURG AV	3.00	6" x 36"				
		COT 608, E VIRGIN PL	2.00	6" x 24"				
13	76+00.00, 15.50' RT	W11-2, PEDESTRIAN TRAFFIC	6.25	30" x 30"		12	3	
		W16-9P, AHEAD	2.00	24" x 12"				
14	77+17.57, 19.80' RT	COT 608, N OSWEGO AV	2.50	6" x 30"	1.50	12	3	
		COT 608, E WOODROW ST	3.00	6" x 36"				
		R-2, YIELD	3.90	36" x 36" x 36"				
15	77+57.81, 15.23' RT	W11-2, PEDESTRIAN TRAFFIC	6.25	30" x 30"	1.50	12	3	
		W16-9P, AHEAD	2.00	24" x 12"				
16	80+20.15, 19.62' LT	COT 608, N OSWEGO AV	2.50	6" x 30"	1.50	12	3	
		COT 608, E WOODROW PL	3.00	6" x 36"				
<b>PROJECT TOTALS :</b>			<b>132</b>		<b>15</b>	<b>204</b>	<b>51</b>	<b>1</b>

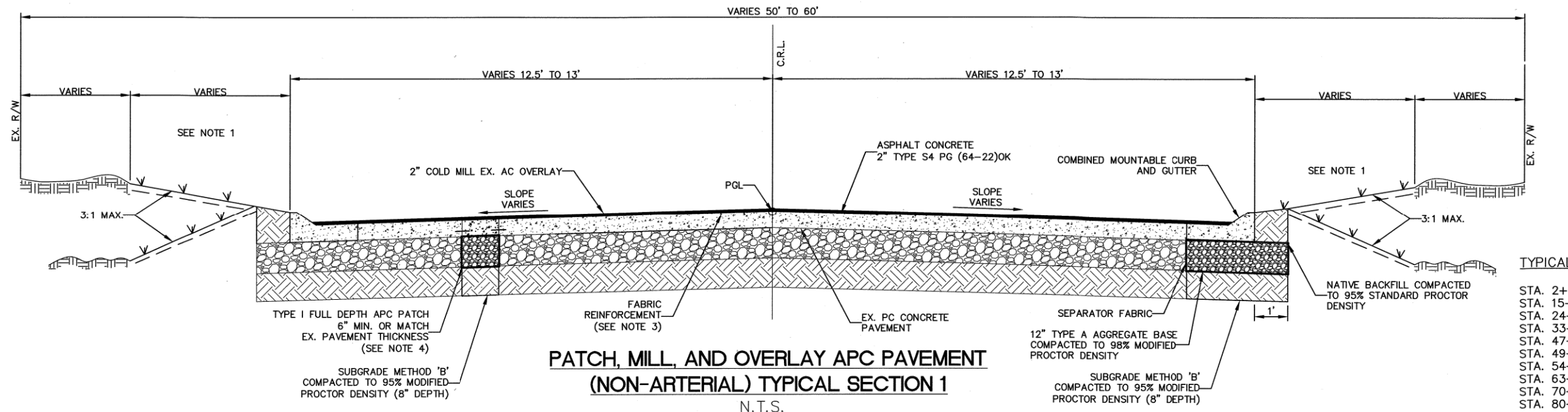
SUMMARY OF DRIVEWAYS							
STREET	ADDRESS	WIDTH	DEPTH	RADIUS	TYPE A AGGREGATE BASE	6" CONCRETE DRIVEWAY (H.E.S.)	
STATION, OFFSET		FT.	FT.	FT.	303 (A) C.Y.	610 (B) S.Y.	
<b>N. LOUISVILLE AVE</b>							
10+61.43, RT	2243	16	10	5	3.48	20.90	
<b>SUBTOTAL</b>					<b>3.48</b>	<b>20.90</b>	
<b>N. MARION AVE</b>							
16+22.27, RT	3805	12	6	5	1.59	9.56	
<b>SUBTOTAL</b>					<b>1.59</b>	<b>9.56</b>	
<b>N. NEW HAVEN AVE</b>							
<b>SUBTOTAL</b>					<b>0.00</b>	<b>0.00</b>	
<b>N. OSWEGO AVE</b>							
40+80.24, RT	2207	23	6	5	2.62	15.73	
43+12.85, LT	2228	17	11	5	3.76	22.54	
44+08.16, LT	3920	17	6	5	2.11	12.65	
<b>SUBTOTAL</b>					<b>8.49</b>	<b>50.92</b>	
<b>E. VIRGIN PL</b>							
50+12.89, LT	3511	8	5	5	1.03	6.16	
59+13.99, RT	3736	8	6	5	1.16	6.94	
65+35.45, LT	4011	15	9	0	2.55	15.28	
67+23.23, LT	4027	15	9	0	2.57	15.39	
<b>SUBTOTAL</b>					<b>7.31</b>	<b>43.77</b>	
<b>E. WOODROW ST</b>							
<b>SUBTOTAL</b>					<b>0.00</b>	<b>0.00</b>	
<b>E. WOODROW PL</b>							
91+54.29, RT	1503	10	5	5	1.11	6.67	
<b>SUBTOTAL</b>					<b>1.11</b>	<b>6.67</b>	
<b>PROJECT TOTAL:</b>					<b>22</b>	<b>132</b>	

SUMMARY OF PROPOSED DRAINAGE STRUCTURES							
DESCRIPTION	LOCATION		LOCATION	TOP OF GRATE ELEVATION	FLOWLINE ELEVATION	DEPTH	RCP FOR* CONNECTION
	NORTHING	EASTING	STATION, OFFSET	FT	FT	FT	15" LF
CICI DESIGN 2	438066.52	2577736.46	5+13.01, 12.28' LT	683.19	680.59	2.60	5
CICI DESIGN 2	438242.81	2578636.45	24+14.50, 17.85' RT	674.24	671.04	3.20	5
CICI DESIGN 2	438216.85	2578615.83	24+16.76, 15.22' LT	674.26	670.56	3.70	10
CICI DESIGN 2	438052.36	2577765.62	70+16.54, 16.63' RT	682.97	679.67	3.30	5
CICI DESIGN 2	438085.46	2577765.14	70+16.81, 16.47' LT	683.06	679.41	3.65	5
CICI DESIGN 2	438052.01	2578489.83	77+40.56, 33.40' RT	682.89	681.09	1.80	5
CICI DESIGN 2	438187.05	2578636.38	80+17.18, 15.10' LT	675.44	671.09	4.35	10
CICI DESIGN 2	438069.71	2578775.73	81+98.72, 0.00' RT	674.27	672.27	2.00	5

\* TO CONNECT NEW STORM SEWER INLET TO EXISTING STORM SEWER PIPE

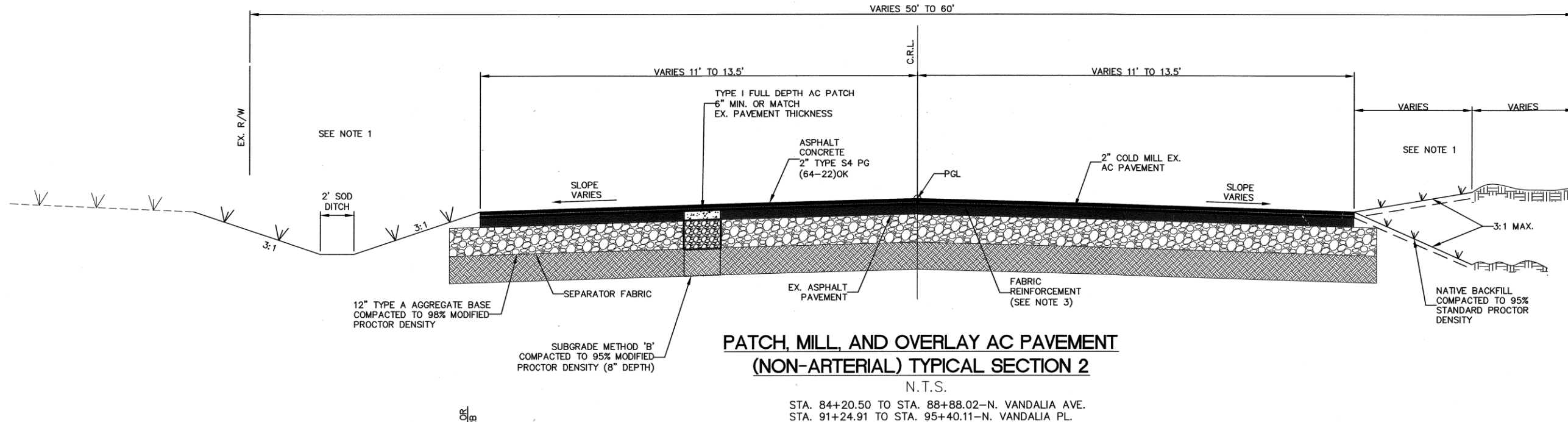


MISCELLANEOUS SUMMARIES (1)																																											
PROJECT NO. 2036N3004Z																																											
NON-ARTERIAL STREET REHABILITATION MAINTENANCE ZONE 3004																																											
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT																																											
PLANS & ESTIMATES PREPARED BY: <b>MARQUARDT ENGINEERING, PLLC</b> 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781																																											
REVISION	BY	DATE	APPROVED:																																								
			<table border="1"> <tr> <td>PLAN SCALE:</td> <td>DRAWN BY:</td> <td>GMO</td> <td>10/23</td> </tr> <tr> <td>N/A</td> <td>DESIGNED BY:</td> <td>KMM</td> <td>10/23</td> </tr> <tr> <td></td> <td>SURVEY BY:</td> <td></td> <td></td> </tr> <tr> <td>PROFILE SCALE:</td> <td>PROJ. MGR.</td> <td>RF</td> <td>12/29</td> </tr> <tr> <td>HORIZONTAL:</td> <td>LEAD ENGR.</td> <td>RF</td> <td>12/24</td> </tr> <tr> <td>N/A</td> <td>FIELD MGR.</td> <td>RF</td> <td>12/24</td> </tr> <tr> <td>VERTICAL:</td> <td>RECOMMENDED:</td> <td></td> <td></td> </tr> <tr> <td>N/A</td> <td>DESIGN MANAGER:</td> <td>HAS</td> <td>12-24</td> </tr> <tr> <td>FILE:</td> <td>DRAWING:</td> <td></td> <td>DATE: 12/15/2024</td> </tr> <tr> <td>ATLAS PAGE NO:</td> <td></td> <td></td> <td>SHEET 5 OF 21 SHEETS</td> </tr> </table>	PLAN SCALE:	DRAWN BY:	GMO	10/23	N/A	DESIGNED BY:	KMM	10/23		SURVEY BY:			PROFILE SCALE:	PROJ. MGR.	RF	12/29	HORIZONTAL:	LEAD ENGR.	RF	12/24	N/A	FIELD MGR.	RF	12/24	VERTICAL:	RECOMMENDED:			N/A	DESIGN MANAGER:	HAS	12-24	FILE:	DRAWING:		DATE: 12/15/2024	ATLAS PAGE NO:			SHEET 5 OF 21 SHEETS
PLAN SCALE:	DRAWN BY:	GMO		10/23																																							
N/A	DESIGNED BY:	KMM	10/23																																								
	SURVEY BY:																																										
PROFILE SCALE:	PROJ. MGR.	RF	12/29																																								
HORIZONTAL:	LEAD ENGR.	RF	12/24																																								
N/A	FIELD MGR.	RF	12/24																																								
VERTICAL:	RECOMMENDED:																																										
N/A	DESIGN MANAGER:	HAS	12-24																																								
FILE:	DRAWING:		DATE: 12/15/2024																																								
ATLAS PAGE NO:			SHEET 5 OF 21 SHEETS																																								



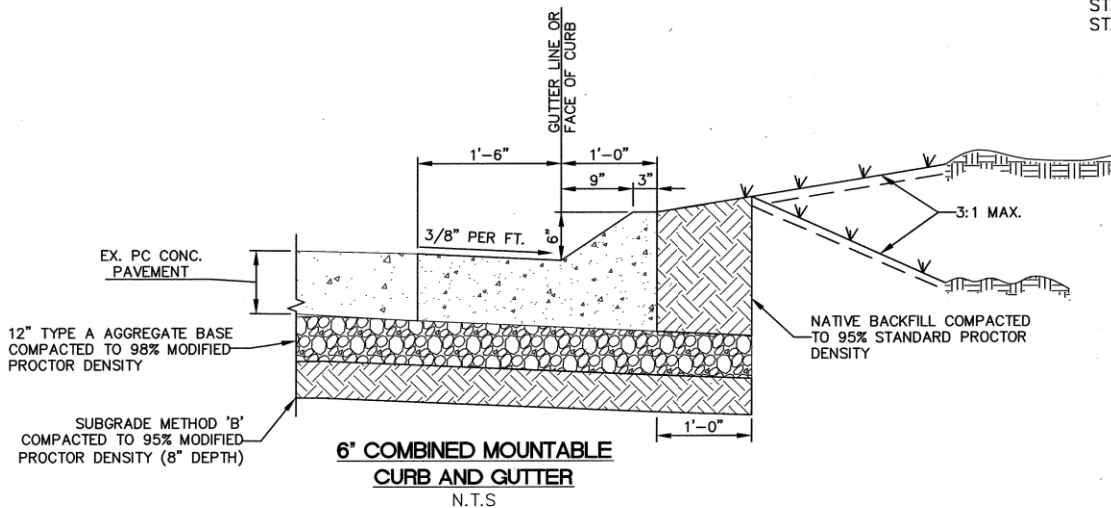
**TYPICAL SECTION 1 STATION RANGES**

STA. 2+13.21 TO STA. 12+05.57-N. LOUISVILLE AVE.  
 STA. 15+13.13 TO STA. 21+92.79-N. MARION AVE.  
 STA. 24+12.44 TO STA. 30+66.34-N. NEW HAVEN AVE.  
 STA. 33+09.81 TO STA. 45+25.06-N. OSWEGO AVE.  
 STA. 47+02.60 TO STA. 48+15.45-E. VIRGIN PL.  
 STA. 49+96.04 TO STA. 54+07.46-E. VIRGIN PL.  
 STA. 54+94.98 TO STA. 63+52.13-E. VIRGIN PL.  
 STA. 63+74.60 TO STA. 67+80.17-E. VIRGIN PL.  
 STA. 70+13.24 TO STA. 77+78.24-E. WOODROW ST.  
 STA. 80+13.25 TO STA. 81+98.72-E. WOODROW PL.



**PATCH, MILL, AND OVERLAY AC PAVEMENT  
(NON-ARTERIAL) TYPICAL SECTION 2**

N.T.S.  
 STA. 84+20.50 TO STA. 88+88.02-N. VANDALIA AVE.  
 STA. 91+24.91 TO STA. 95+40.11-N. VANDALIA PL.

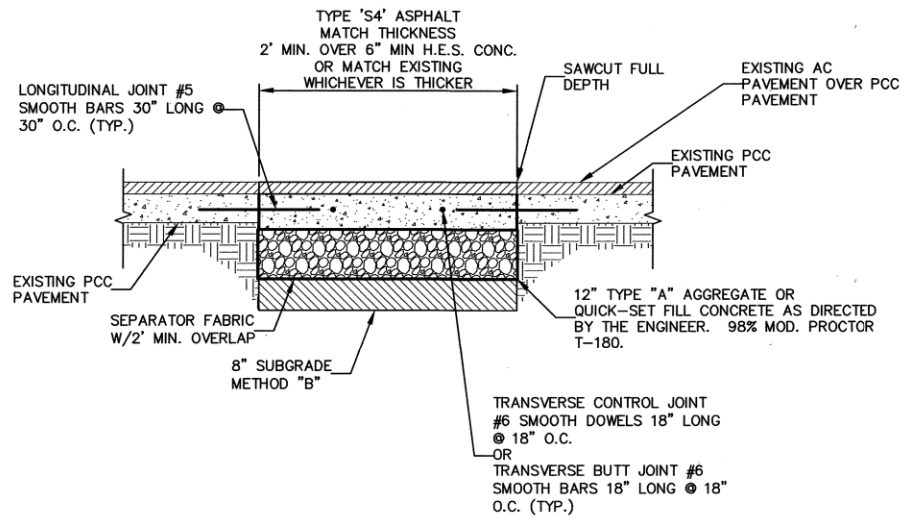


**6" COMBINED MOUNTABLE  
CURB AND GUTTER**

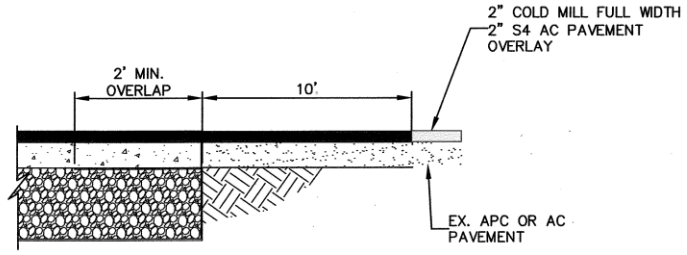
- NOTES:**
- CONTRACTOR SHALL MAINTAIN CURRENT SURFACE DRAINAGE PATTERNS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
  - TYPE S6 ASPHALT LEVELING COURSE SHALL BE USED AT THE DISCRETION OF THE FIELD ENGINEER PRIOR TO PLACEMENT OF FABRIC REINFORCEMENT AND MAY BE OMITTED IN ITS ENTIRETY.
  - FABRIC REINFORCEMENT SHALL BE TENSAR GLASPAVE-25 OR APPROVED EQUAL. ***INSTALL PER MANUFACTURERS SPECIFICATIONS. FOLLOW MAX/MIN OVERLAP AND TACK COAT REQUIREMENTS.***
  - ALL STEEL REINFORCEMENT, UNLESS OTHERWISE NOTED, SHALL BE COATED WITH A RED OXIDE COATING, INCLUDING THE ENDS, TO PROVIDE RUST PROTECTION. ALL BARS SHALL BE THOROUGHLY CLEANED, FREE OF ANY DIRT, RUST, OR DELETERIOUS MATERIAL PRIOR TO PLACEMENT. LOAD TRANSFER UNITS (LTU) FOR DOWEL JOINTED PAVEMENT SHALL BE EPOXY COATED PER THE CURRENT ODOT STANDARD (LTU-5).



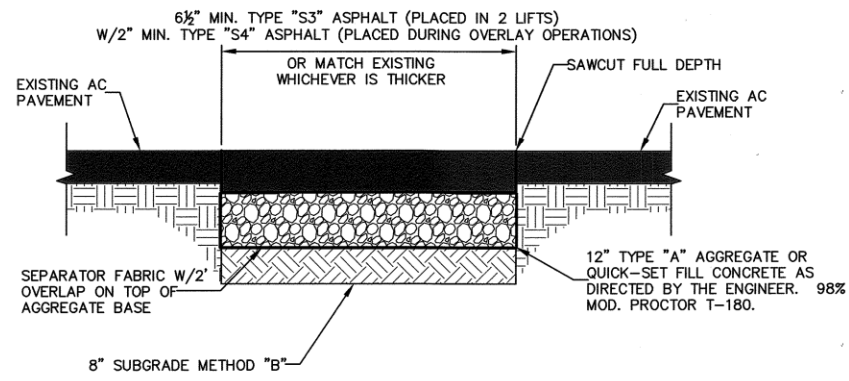
REVISION		BY	DATE	PLAN SCALE:	DRAWN BY:	GMO	10/23	APPROVED:
				N/A	DESIGNED BY:	KMM	10/23	
				PROFILE SCALE:	PROJ. MGR.	RF	12/29	
				HORIZONTAL:	LEAD ENGR.	JD	12/24	
				VERTICAL:	FIELD MGR.	KMM	12/24	
					RECOMMENDED:	KMS	12.24	
					DESIGN MANAGER			
				FILE:	DRAWING:		DATE:	12/15/2024
								SHEET 6 OF 21 SHEETS



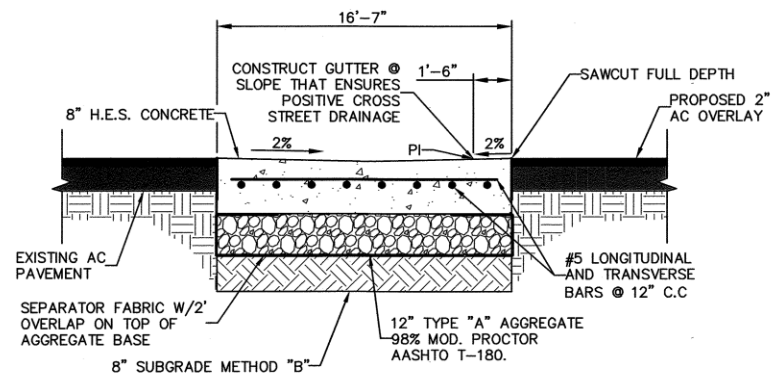
**TYPE I APC PATCH - (NON-ARTERIAL)**  
N.T.S.



**BUTT JOINT DETAIL**  
N.T.S.

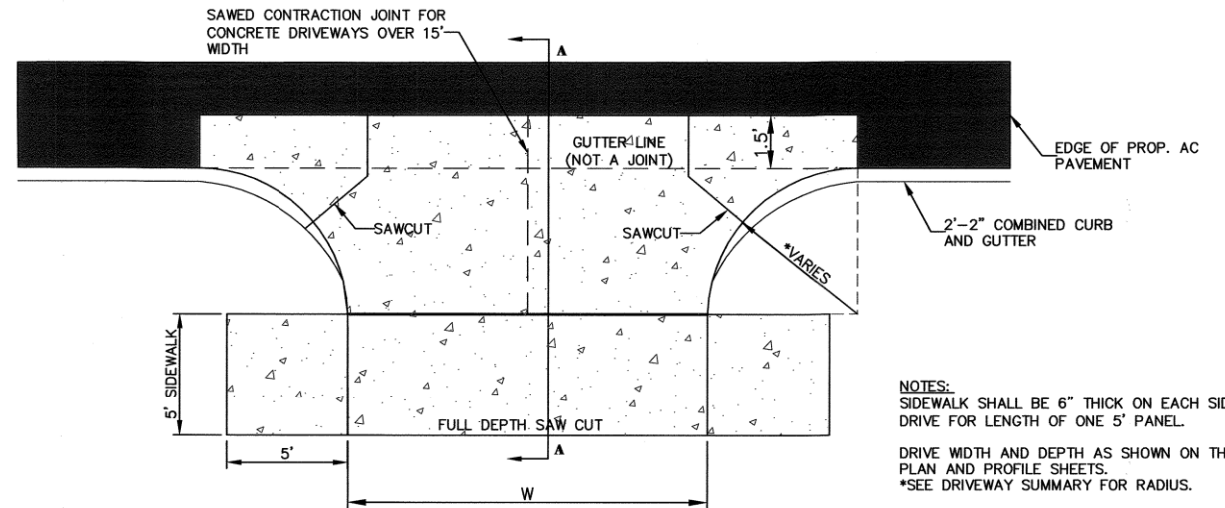


**TYPE I AC PATCH - (NON-ARTERIAL)**  
N.T.S.



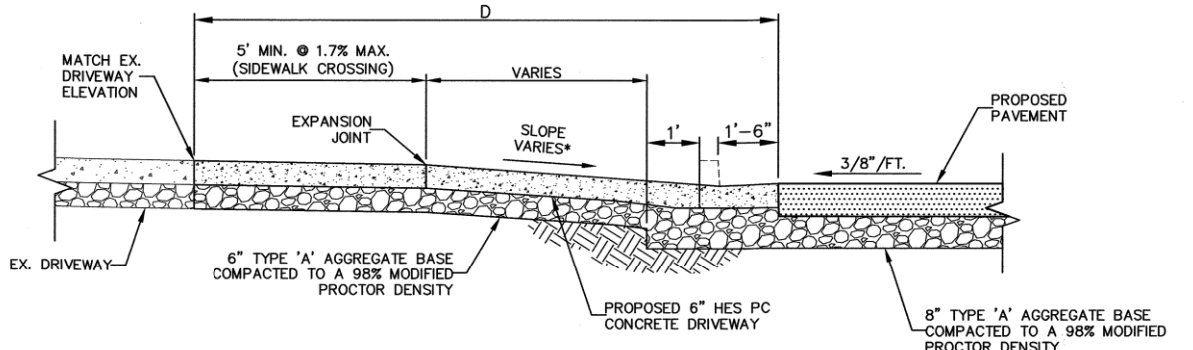
**PC CONCRETE VALLEY GUTTER SECTION**  
N.T.S.

E. VIRGIN PL. - STA. 63+34.91 TO STA. 63+52.99  
PAID FOR AS TYPE I FULL DEPTH PCC PATCH

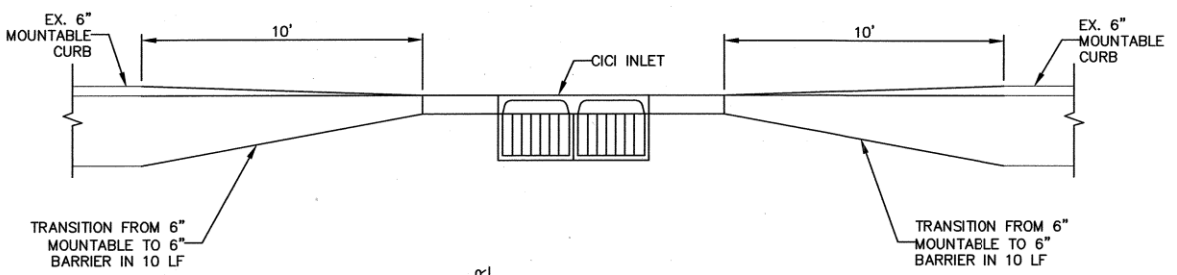


**TYPICAL PC CONCRETE DRIVEWAY PLAN**  
N.T.S.

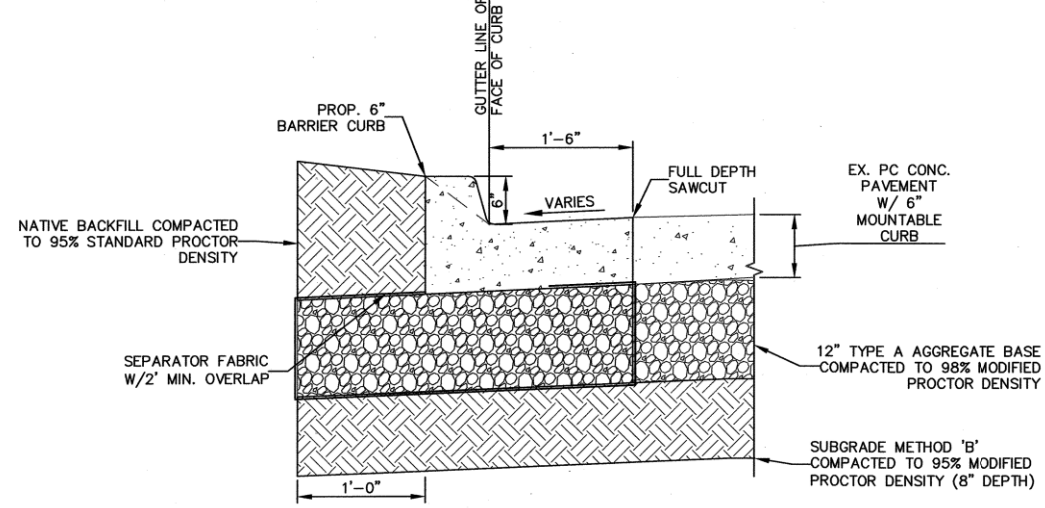
NOTES:  
SIDEWALK SHALL BE 6" THICK ON EACH SIDE OF DRIVE FOR LENGTH OF ONE 5' PANEL.  
DRIVE WIDTH AND DEPTH AS SHOWN ON THE PLAN AND PROFILE SHEETS.  
\*SEE DRIVEWAY SUMMARY FOR RADIUS.



**PC CONCRETE DRIVEWAY PLAN SECTION A-A**  
N.T.S.



**CURB TRANSITION DETAILS**  
N.T.S.



*K. M. Marquardt*  
LICENSED PROFESSIONAL ENGINEER  
Keith M. Marquardt  
19096  
OKLAHOMA  
11/26/24



MISCELLANEOUS DETAILS (1)		PROJECT NO. 2036N3004Z	
NON-ARTERIAL STREET REHABILITATION MAINTENANCE ZONE 3004			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS & ESTIMATES PREPARED BY: <b>MARQUARDT ENGINEERING, PLLC</b> 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781			
REVISION	BY	DATE	APPROVED:
PLAN SCALE:	DRAWN BY:	GMO	10/23
N/A	DESIGNED BY:	KMM	10/23
PROFILE SCALE:	PROJ. MGR.	RF	12/29
	LEAD ENGR.	D	12/24
HORIZONTAL:	FIELD MGR.	CEM	12/24
N/A	RECOMMENDED:		
VERTICAL:	DESIGN MANAGER	Has	12.24
N/A			
FILE:	DRAWING:		DATE: 12/5/2024
ATLAS PAGE NO.:			SHEET 7 OF 21 SHEETS



# STORM WATER MANAGEMENT PLAN

## SITE DESCRIPTION

## EROSION AND SEDIMENT CONTROLS

PROJECT LIMITS: CITY OF TULSA MAINTENANCE ZONE 3004:  
 STREETS INCLUDED ARE: N. LOUVILLE AVE., N. MARION AVE., N. NEW HAVEN AVE., N. OSWEGO AVE.,  
E. WOODROW PL., E. WOODROW ST. AND E. VIRGIN PL., LOCATED IN THE NW 1/4 OF SECTION 28,  
TOWNSHIP 20 NORTH, RANGE 13 EAST, NEW HAVEN ADDITION TO THE CITY OF TULSA.  
 ALSO: S. VANDALIA AVE. AND S. VANDALIA PL., LOCATED IN THE SE 1/4 OF SECTION 28, TOWNSHIP 20  
NORTH, RANGE 13 EAST, WEE RANCHO ADDITION TO THE CITY OF TULSA.

PROJECT DESCRIPTION: NON-ARTERIAL STREET PAVEMENT REHABILITATION.

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES: PRIOR TO INITIATING  
 SOIL DISTURBING ACTIVITIES, THE CONTRACTOR WILL INSTALL ALL PERIMETER TEMPORARY SEDIMENT  
 CONTROLS SPECIFIED. STRIP, STOCKPILE AND STABILIZE TOPSOIL. CLEAR AND GRUB ONLY IN NECESSARY  
 AREAS, PRESERVING AS MUCH NATIVE VEGETATION AS POSSIBLE. INSTALL, MAINTAIN AND/OR MOVE  
 TEMPORARY SEDIMENT ITEMS WITH CONSTRUCTION OPERATIONS AS PRACTICAL. IF DIRECTED BY THE  
 ENGINEER, PLANT TEMPORARY SEEDING. REPLACE SALVAGED TOPSOIL AND DEVICES WHEN AN  
 ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE  
 CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE  
 THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF THE  
 DATES OF MAJOR SOIL DISTURBANCE ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION  
 CONTROL MEASURES.

SOIL TYPE:	<u>URBAN LAND-DENNIS COMPLEX, 0 TO 5 PERCENT SLOPES</u>
TOTAL AREA OF THE CONSTRUCTION SITE:	<u>9.02 ACRES</u>
ESTIMATED AREA TO BE DISTURBED:	<u>0.30 ACRES</u>
OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE)	<u>N/A</u>
TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION:	<u>4.02 ACRES</u>
TOTAL IMPERVIOUS AREA POST-CONSTRUCTION:	<u>4.02 ACRES</u>
POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE:	<u>0.60</u>
LATITUDE & LONGITUDE OF CENTER OF PROJECT:	<u>36° 11' 11.00" N., 95° 56' 06.00" W.</u>

**PROJECT WILL DISCHARGE TO:**

NAME OF RECEIVING WATERS: COAL CREEK

SENSITIVE WATERS OR WATERSHEDS: YES  NO

303(d) IMPAIRED WATERS: YES  NO

IF YES, LIST IMPAIRMENT: \_\_\_\_\_

LOCATED IN A TMDL: YES  NO

ARKANSAS RIVER TMDL: YES  NO

MS4 ENTITY YES  NO

IF YES, LOCATION: CITY OF TULSA, OKLAHOMA

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:**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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 2019 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
- 221 TEMPORARY SEDIMENT CONTROL

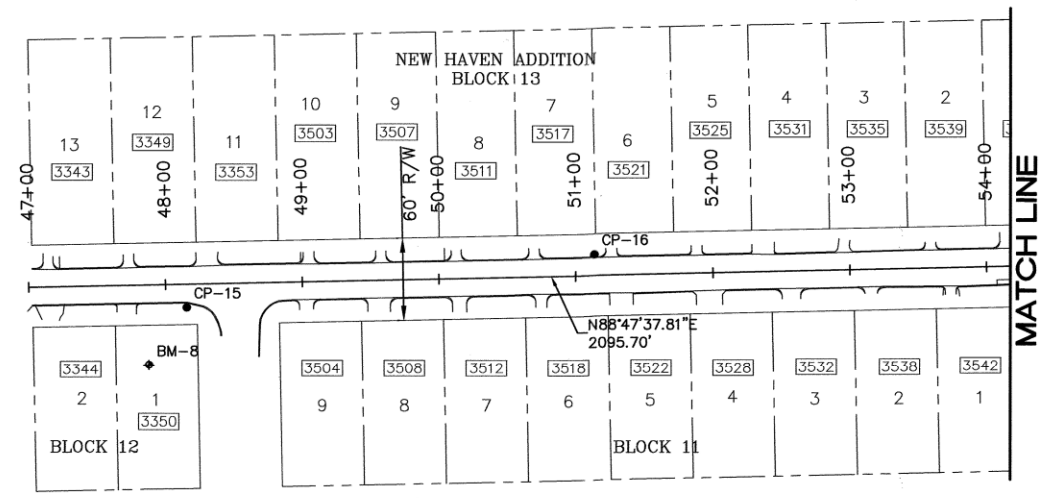
**IN ADDITION:**

"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, NOVEMBER 1, 2023.



REVISION	BY	DATE	PLAN SCALE:	DRAWN BY:	GMO	10/23	APPROVED:
			N/A	DESIGNED BY:	KMM	10/23	 CITY ENGINEER DATE: <u>12/5/2024</u> SHEET 8 OF 21 SHEETS
			PROFILE SCALE:	PROJ. MGR.	RF	12/24	
			HORIZONTAL:	LEAD ENGR.	①	12/24	
			VERTICAL:	FIELD MGR.	RF	12/24	
				RECOMMENDED:	HAS	12/24	
			FILE:	DESIGN MANAGER			
			ATLAS PAGE NO:	DRAWING:			

STORM WATER MANAGEMENT PLAN
PROJECT NO. 2036N3004Z
NON-ARTERIAL STREET REHABILITATION MAINTENANCE ZONE 3004
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT
PLANS & ESTIMATES PREPARED BY: <b>MARQUARDT ENGINEERING, PLLC</b> 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781



**CURVE TABLE**

Curve #	Radius	Length	Delta	Tangent	P.I. Sta.	P.I. Northing	P.I. Easting
C1	260.47	246.56	54°14'11"	133.39	27+05.92	438393.42	2578386.33
C2	425.63	265.90	35°47'38"	137.45	36+86.49	437998.28	2578487.30
C3	385.16	236.25	35°08'38"	121.97	40+86.61	438334.66	2578720.09



SEE SHEET 10 FOR BENCHMARK AND CONTROL DATA.

**LEGEND**  
 [XXXX] STREET ADDRESS



*E. Dane Trout*  
 E. DANE TROUT, P.L.S. #1893

**SURVEYORS CERTIFICATE**

I, E. Dane Trout of Tulsa County, State of Oklahoma, and a Professional Surveyor, do hereby certify that the above shown survey is true and correct to the best of my knowledge.  
 WITNESS MY HAND AND SEAL THIS 24<sup>th</sup> DAY OF NOVEMBER, 2024

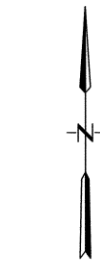
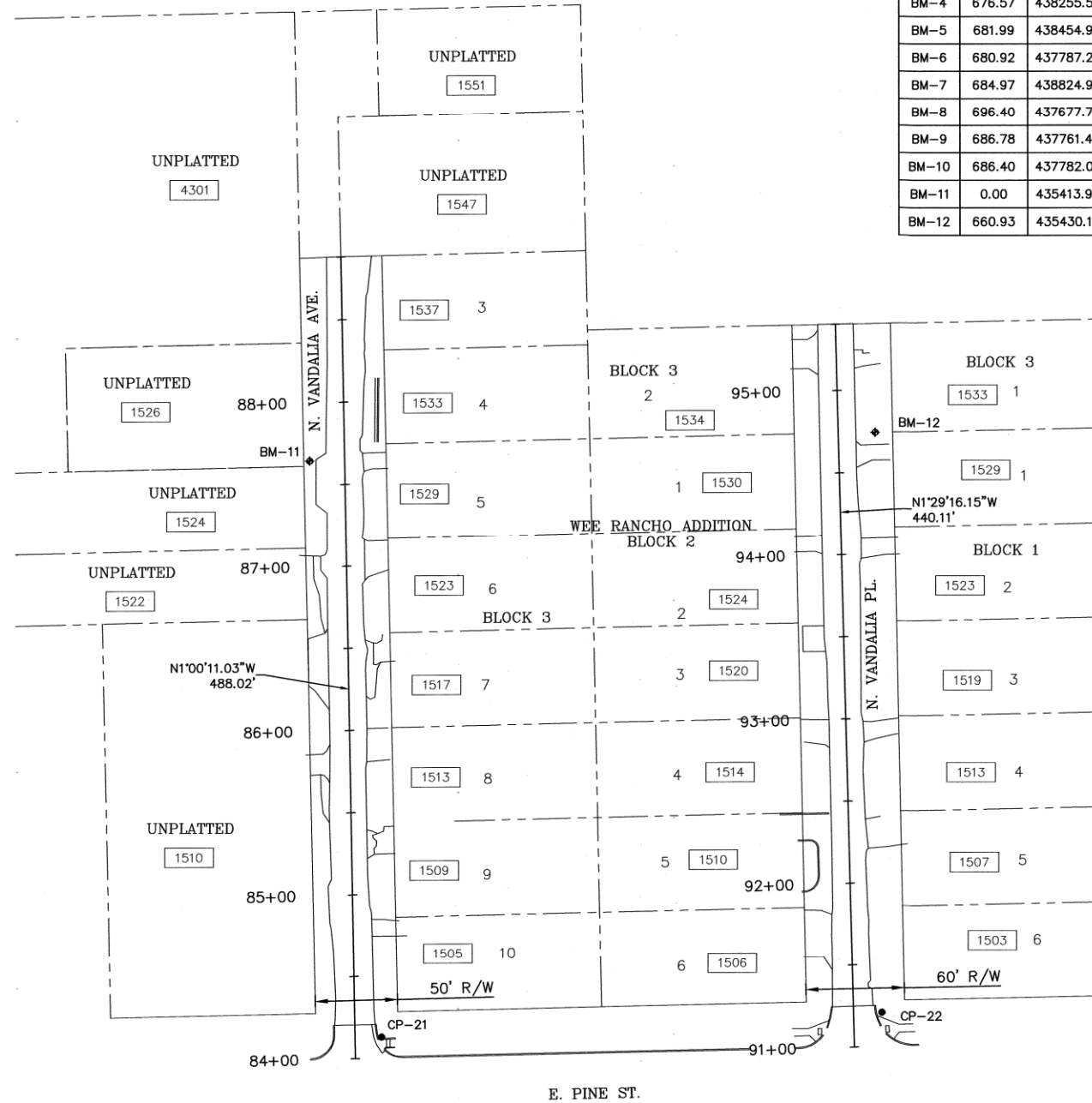
SURVEY DATA PLAN (1)	
PROJECT NO. 2036N3004Z	
NON-ARTERIAL STREET REHABILITATION MAINTENANCE ZONE 3004	
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT	
PLANS & ESTIMATES PREPARED BY: <b>MARQUARDT ENGINEERING, PLLC</b> 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781	
PLAN SCALE: NTS	APPROVED: [Signature]
DRAWN BY: GMO 10/23	DESIGNED BY: KMM 10/23
SURVEY BY: TS 9/23	PROJ. MGR. [Signature] 12/23
PROFILE SCALE: N/A	LEAD ENGR. [Signature] 12/24
HORIZONTAL: N/A	FIELD MGR. [Signature]
VERTICAL: N/A	RECOMMENDED: [Signature]
DESIGN MANAGER: HAS 12-24	CITY ENGINEER: [Signature]
FILE: [Blank]	DRAWING: [Blank]
ATLAS PAGE NO: [Blank]	DATE: 12/5/2024
SHEET 9 OF 21 SHEETS	

MATCH LINE

MATCH LINE

SURVEY CONTROL				
Point #	Elevation	Northing	Easting	Description
CP-1	688.51	437768.48	2577726.63	Iron Pin w/Cap Set
CP-2	683.82	438087.13	2577767.95	Iron Pin w/Cap Set
CP-3	692.76	438790.20	2577713.04	Iron Pin w/Cap Set
CP-4	681.38	438092.35	2578096.73	Iron Pin w/Cap Set
CP-5	684.73	438395.58	2578083.53	Iron Pin w/Cap Set
CP-6	687.51	438796.82	2578050.22	Iron Pin w/Cap Set
CP-7	676.80	438248.58	2578639.65	Iron Pin w/Cap Set
CP-8	680.88	438432.31	2578385.41	Iron Pin w/Cap Set
CP-9	684.52	438803.47	2578362.14	Iron Pin w/Cap Set
CP-10	681.89	437751.21	2578521.45	Iron Pin w/Cap Set
CP-11	677.86	438026.61	2578536.89	Iron Pin w/Cap Set
CP-12	674.64	438057.94	2578768.63	Iron Pin w/Cap Set
CP-13	681.26	438586.50	2578736.23	Iron Pin w/Cap Set
CP-14	684.91	438816.41	2578696.73	Iron Pin w/Cap Set
CP-15	695.29	437719.90	2576947.57	Iron Pin w/Cap Set
CP-16	688.94	437758.49	2577245.33	Iron Pin w/Cap Set
CP-17	687.12	437732.62	2577558.35	Iron Pin w/Cap Set
CP-18	685.94	437774.77	2578029.08	Iron Pin w/Cap Set
CP-19	683.00	437750.65	2578356.12	Iron Pin w/Cap Set
CP-20	678.14	437793.00	2578838.13	Iron Pin w/Cap Set
CP-21	684.09	435062.79	2580806.80	Iron Pin w/Cap Set
CP-22	686.87	435076.90	2581112.79	Iron Pin w/Cap Set

BENCHMARKS				
Point #	Elevation	Northing	Easting	Description
BM-1	688.12	438401.06	2577726.06	IP w/Cap Set
BM-2	680.92	438060.22	2578125.00	Mag Nail Set
BM-3	688.69	438804.98	2578025.27	Mag Nail Set
BM-4	676.57	438255.59	2578644.75	Mag Nail Set
BM-5	681.99	438454.90	2578365.51	Mag Nail Set
BM-6	680.92	437787.29	2578532.46	Mag Nail Set
BM-7	684.97	438824.93	2578689.18	Mag Nail Set
BM-8	696.40	437677.78	2576920.02	Mag Nail Set
BM-9	686.78	437761.48	2577565.92	Mag Nail Set
BM-10	686.40	437782.09	2578013.26	Mag Nail Set
BM-11	0.00	435413.98	2580763.41	Mag Nail Set
BM-12	660.93	435430.19	2581108.95	Mag Nail Set



**LEGEND**

XXXX STREET ADDRESS



*E. Dane Trout*  
E. DANE TROUT, P.L.S. #1893

**SURVEYORS CERTIFICATE**

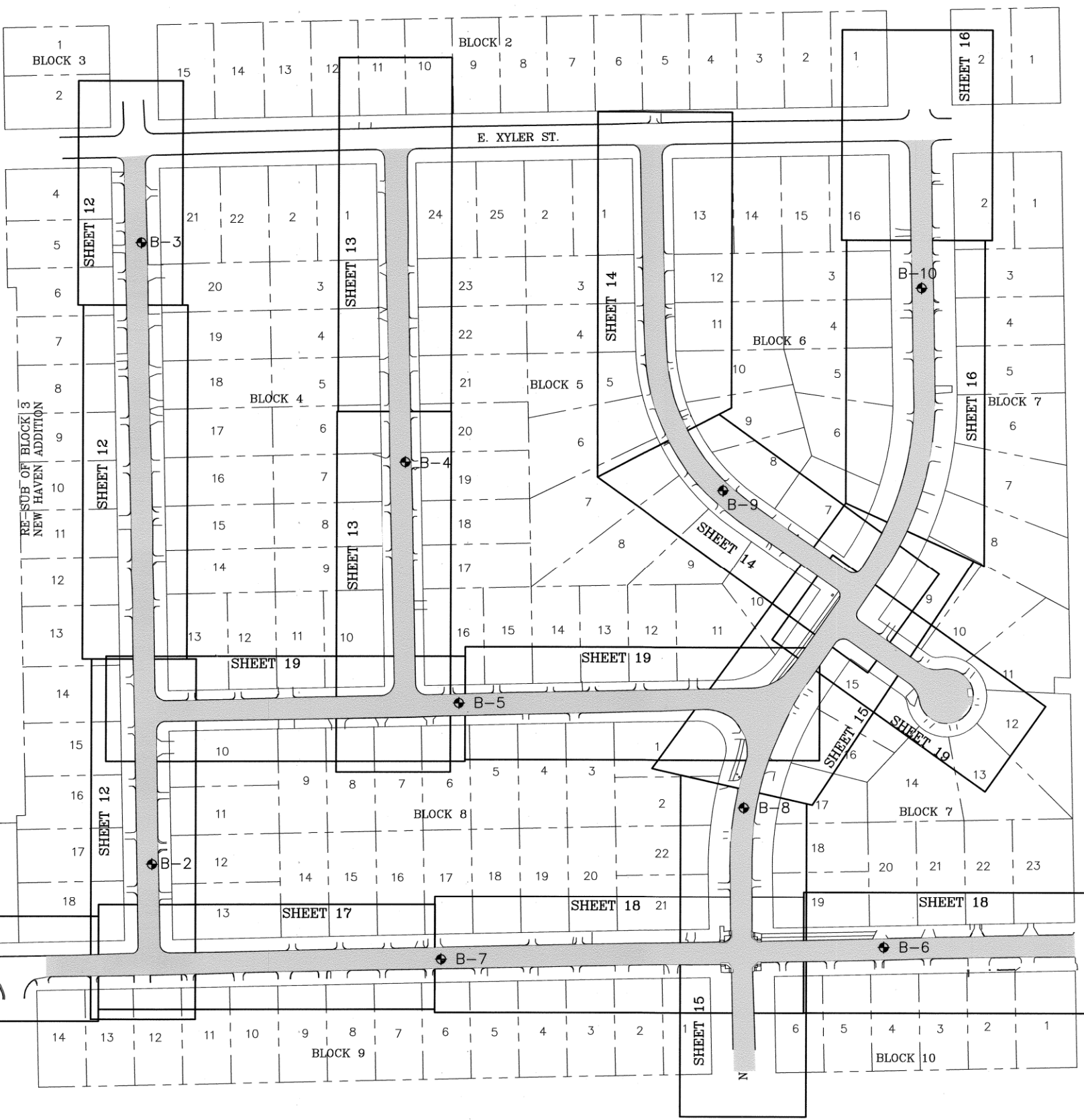
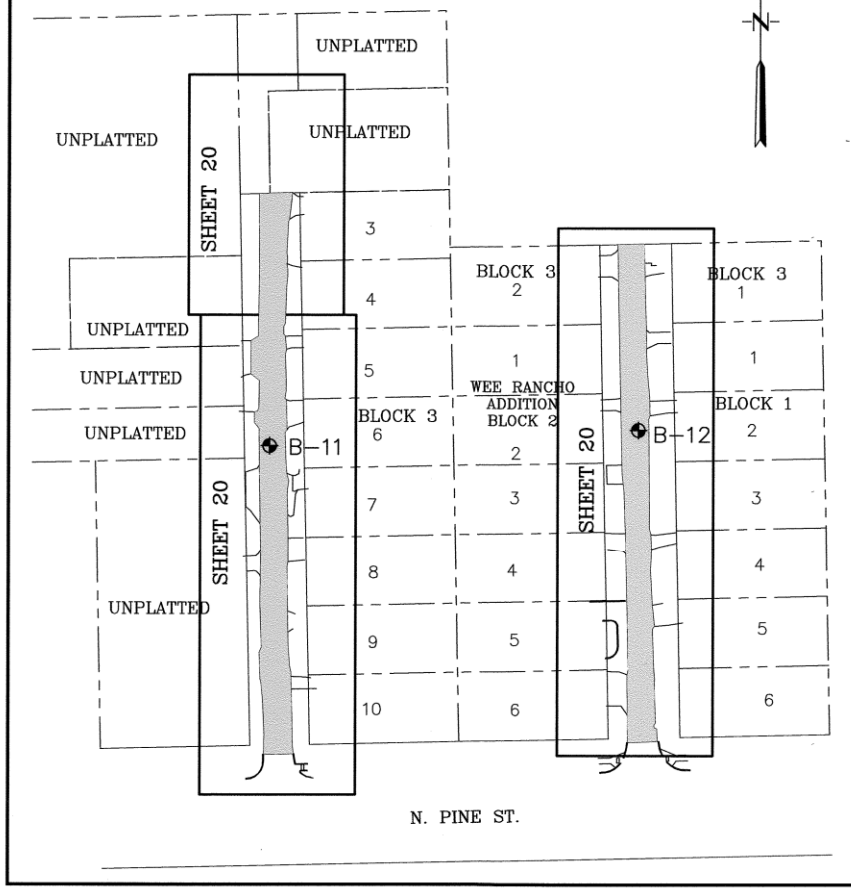
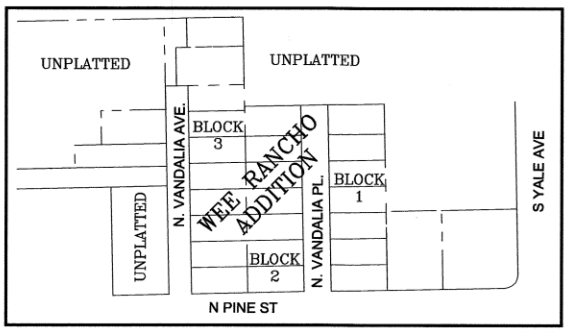
I, E. Dane Trout of Tulsa County, State of Oklahoma, and a Professional Surveyor, do hereby certify that the above shown survey is true and correct to the best of my knowledge.  
WITNESS MY HAND AND SEAL THIS 26<sup>th</sup> DAY OF NOVEMBER, 2024



SURVEY DATA SHEET (2)	
PROJECT NO. 2036N3004Z	
NON-ARTERIAL STREET REHABILITATION MAINTENANCE ZONE 3004	
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT	
PLANS & ESTIMATES PREPARED BY: <b>MARQUARDT ENGINEERING, PLLC</b> 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781	
REVISION	BY DATE
PLAN SCALE: NTS	DRAWN BY: GMD 10/23
	DESIGNED BY: KMM 10/23
	SURVEY BY: TS 8/23
PROFILE SCALE:	PROJ. MGR. RF 12/18
HORIZONTAL:	LEAD ENGR. [Signature] 12/18
N/A	FIELD MGR. [Signature] 12/18
RECOMMENDED:	[Signature] 12-24
N/A	DESIGN MANAGER
FILE:	DRAWING:
ATLAS PAGE NO:	DATE: 12/5/2024
	SHEET 10 OF 21 SHEETS

*[Signature]*  
CITY ENGINEER





**LEGEND**

- ◆ B-1 TYPE B BORE:  
DETERMINE CROSS SECTION OF EXISTING PAVEMENT INCLUDING ANY BASE MATERIAL AND SOIL BORING TO FIVE FEET DEEP TO DETERMINE ATTERBERG LIMITS AND SOIL CLASSIFICATION.
- ▬ PATCH, MILL, AND OVERLAY
- ▨ PATCH AND CRACK SEAL

**NOTE:**  
GEOTECHNICAL REPORT IS AVAILABLE FOR REVIEW AT THE TULSA OFFICE OF:  
MARQUARDT ENGINEERING, PLLC  
7020 S. YALE AVE., SUITE 225  
TULSA, OK 74136

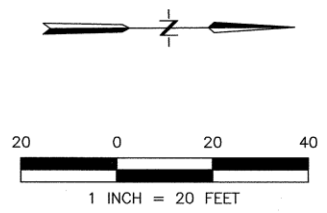


ROADWAY KEY MAP  
PROJECT NO. 2036N3004Z  
NON-ARTERIAL STREET REHABILITATION MAINTENANCE ZONE 3004  
CITY OF TULSA, OKLAHOMA  
PUBLIC WORKS DEPARTMENT

PLANS & ESTIMATES PREPARED BY:  
**MARQUARDT ENGINEERING, PLLC**  
7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781

REVISION	BY	DATE	PLAN SCALE:	DRAWN BY:	GMO	10/23	APPROVED:
			NTS	DESIGNED BY:	KMM	10/23	 CITY ENGINEER
				SURVEY BY:	TS	9/23	
			PROFILE SCALE:	PROJ. MGR.	RF	12/24	
			HORIZONTAL:	LEAD ENGR.	TS	12/24	
			N/A	FIELD MGR.	TS	12/24	
			VERTICAL:	RECOMMENDED:	TS	12/24	
			N/A	DESIGN MANAGER	TS	12/24	
			FILE:	DRAWING:			DATE: 12/15/2024
			ATLAS PAGE NO:				SHEET 11 OF 21 SHEETS





**REPAIR LEGEND**

- FULL DEPTH TYPE I APC PATCH
- 2" ASPHALT MILL AND OVERLAY
- PC CONCRETE DRIVE OR SIDEWALK
- 6" PC CONCRETE MOUNTABLE CURB

- ① FULL DEPTH TYPE I APC PATCH
- ② 2" ASPHALT MILL AND OVERLAY
- ③ REMOVE AND REPLACE EXISTING PC CONCRETE DRIVE
- ④ REMOVE AND REPLACE 6" MOUNTABLE CURB
- ⑤ REMOVE AND REPLACE 4" PC CONCRETE SIDEWALK
- ⑥ ADJUST TO GRADE
- ⑦ CONSTRUCT STORMWATER INLET
- ⑧ CONSTRUCT HANDICAP RAMP
- ⑨ CONSTRUCT TRAFFIC SIGN (SEE SIGN SUMMARY FOR DETAILS)

- PROJECT LIMITS
- NEAREST ADDRESS
- PROPOSED STREET SIGN

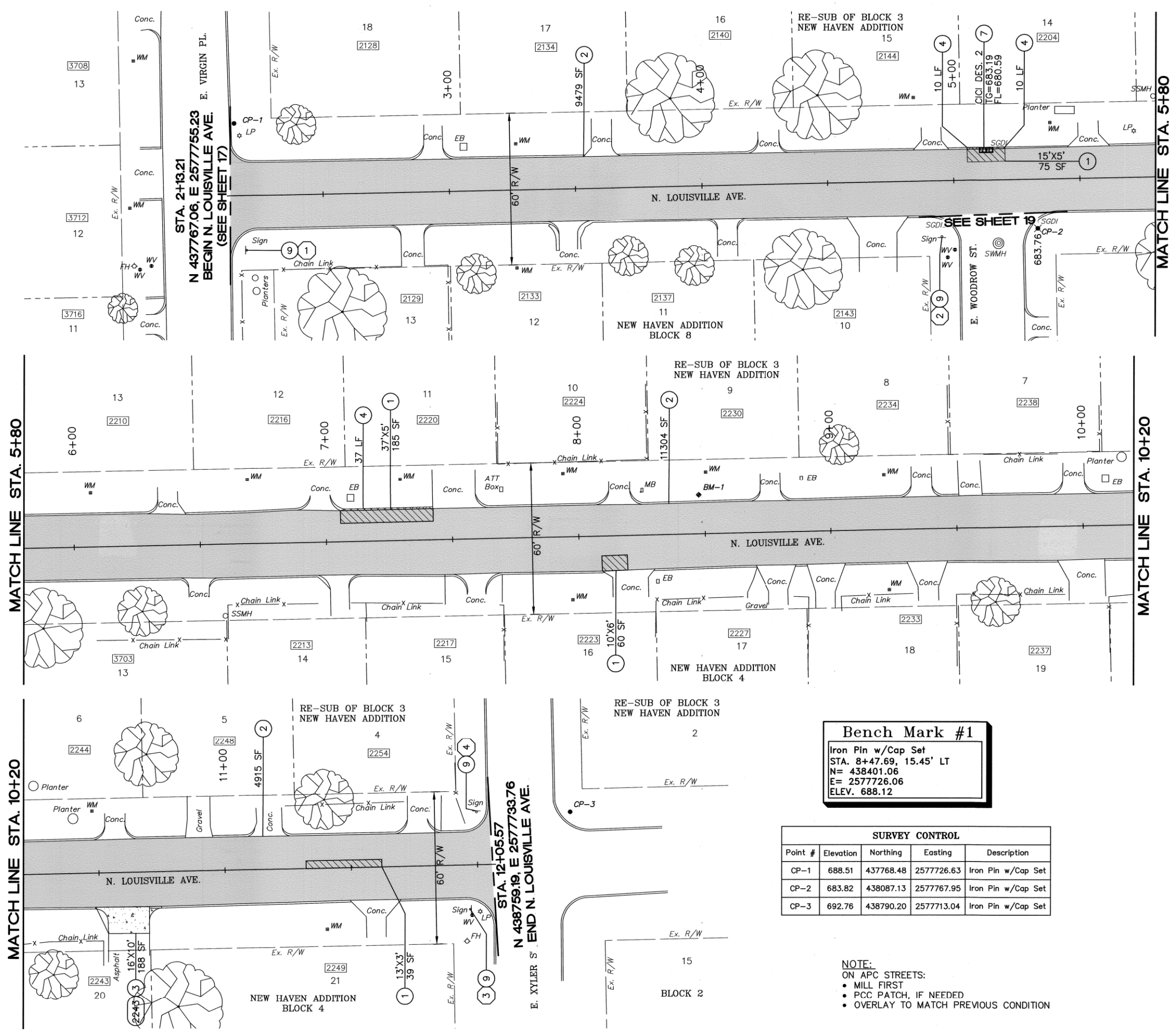


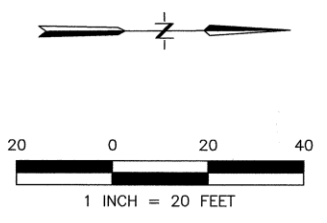
ROADWAY PLANS (1)	
PROJECT NO. 2036N3004Z	
NON-ARTERIAL STREET REHABILITATION MAINTENANCE ZONE 3004	
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT	
PLANS & ESTIMATES PREPARED BY: <b>MARQUARDT ENGINEERING, PLLC</b> 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781	
PLAN SCALE: 1"=20'	APPROVED:
DRAWN BY: GMD 10/23	DESIGNED BY: KMM 10/23
SURVEY BY: TS 9/23	PROJ. MGR. RF 12/29
LEAD ENGR. ① 12/24	FIELD MGR. ② 12/24
RECOMMENDED: HAS 12-24	DESIGN MANAGER:
FILE: _____	DRAWING: _____
ATLAS PAGE NO: 119	DATE: 12/5/2024
	SHEET 12 OF 21 SHEETS

**Bench Mark #1**  
 Iron Pin w/Cap Set  
 STA. 8+47.69, 15.45' LT  
 N= 438401.06  
 E= 2577726.06  
 ELEV. 688.12

SURVEY CONTROL				
Point #	Elevation	Northing	Easting	Description
CP-1	688.51	437768.48	2577726.63	Iron Pin w/Cap Set
CP-2	683.82	438087.13	2577767.95	Iron Pin w/Cap Set
CP-3	692.76	438790.20	2577713.04	Iron Pin w/Cap Set

**NOTE:**  
 ON APC STREETS:  
 • MILL FIRST  
 • PCC PATCH, IF NEEDED  
 • OVERLAY TO MATCH PREVIOUS CONDITION





**REPAIR LEGEND**

- FULL DEPTH TYPE I APC PATCH
- 2" ASPHALT MILL AND OVERLAY
- PC CONCRETE DRIVE OR SIDEWALK
- 6" PC CONCRETE MOUNTABLE CURB

- ① FULL DEPTH TYPE I APC PATCH
- ② 2" ASPHALT MILL AND OVERLAY
- ③ REMOVE AND REPLACE EXISTING PC CONCRETE DRIVE
- ④ REMOVE AND REPLACE 6" MOUNTABLE CURB
- ⑤ REMOVE AND REPLACE 4" PC CONCRETE SIDEWALK
- ⑥ ADJUST TO GRADE
- ⑦ CONSTRUCT STORMWATER INLET
- ⑧ CONSTRUCT HANDICAP RAMP
- ⑨ CONSTRUCT TRAFFIC SIGN (SEE SIGN SUMMARY FOR DETAILS)

- PROJECT LIMITS
- ⑪ NEAREST ADDRESS
- ① PROPOSED STREET SIGN



**Bench Mark #2**  
 Mag Nail Set  
 STA. 14+84.07, 50.52' RT  
 N= 438060.22  
 E= 2578125.00  
 ELEV. 680.92

**Bench Mark #3**  
 Mag Nail Set  
 STA. 22+30.96, 31.72' LT  
 N= 438804.98  
 E= 2578025.27  
 ELEV. 688.69

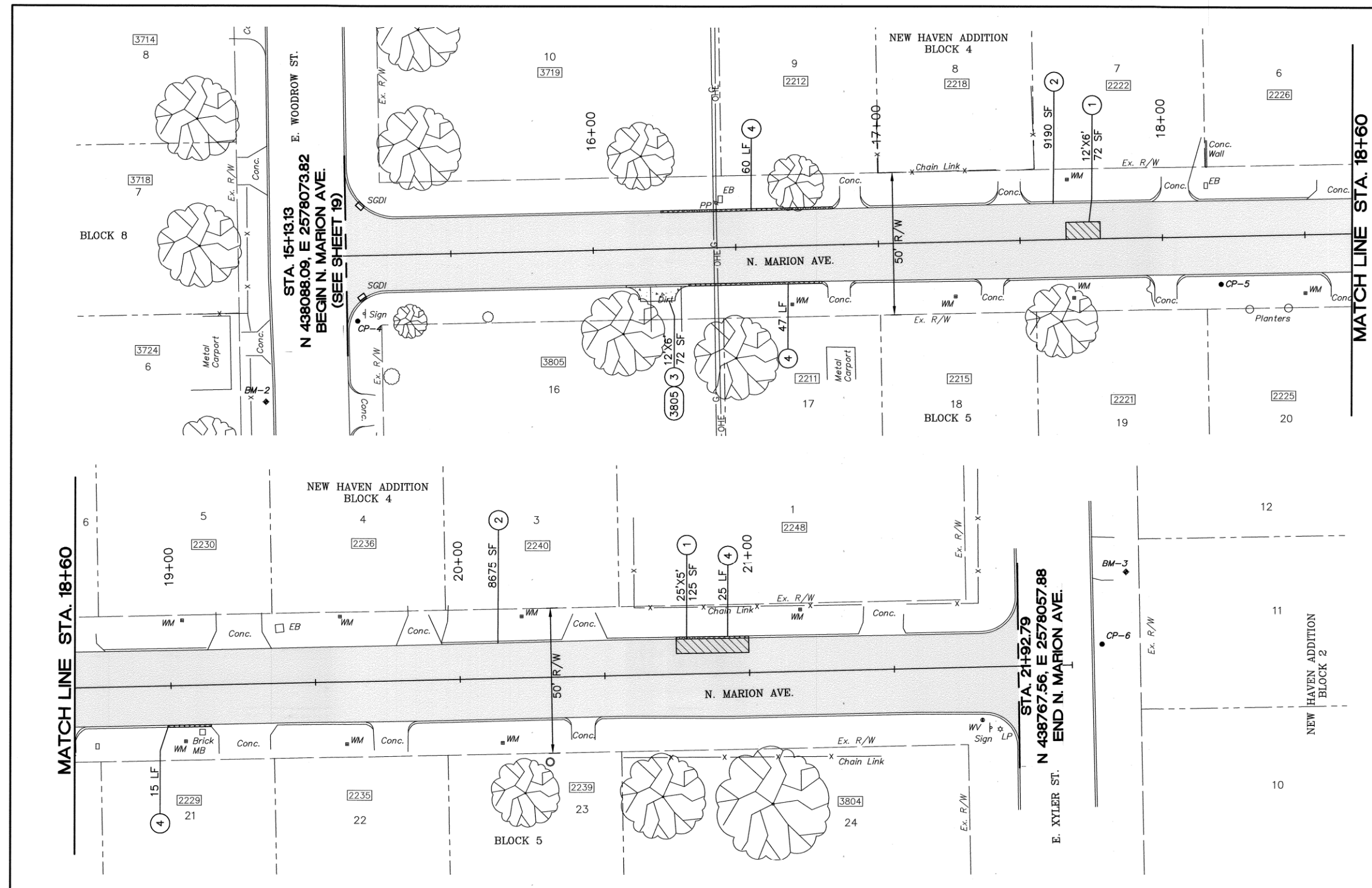
**NOTE:**  
 ON APC STREETS:  
 • MILL FIRST  
 • PCC PATCH, IF NEEDED  
 • OVERLAY TO MATCH PREVIOUS CONDITION



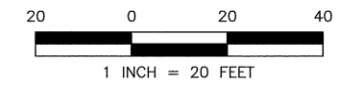
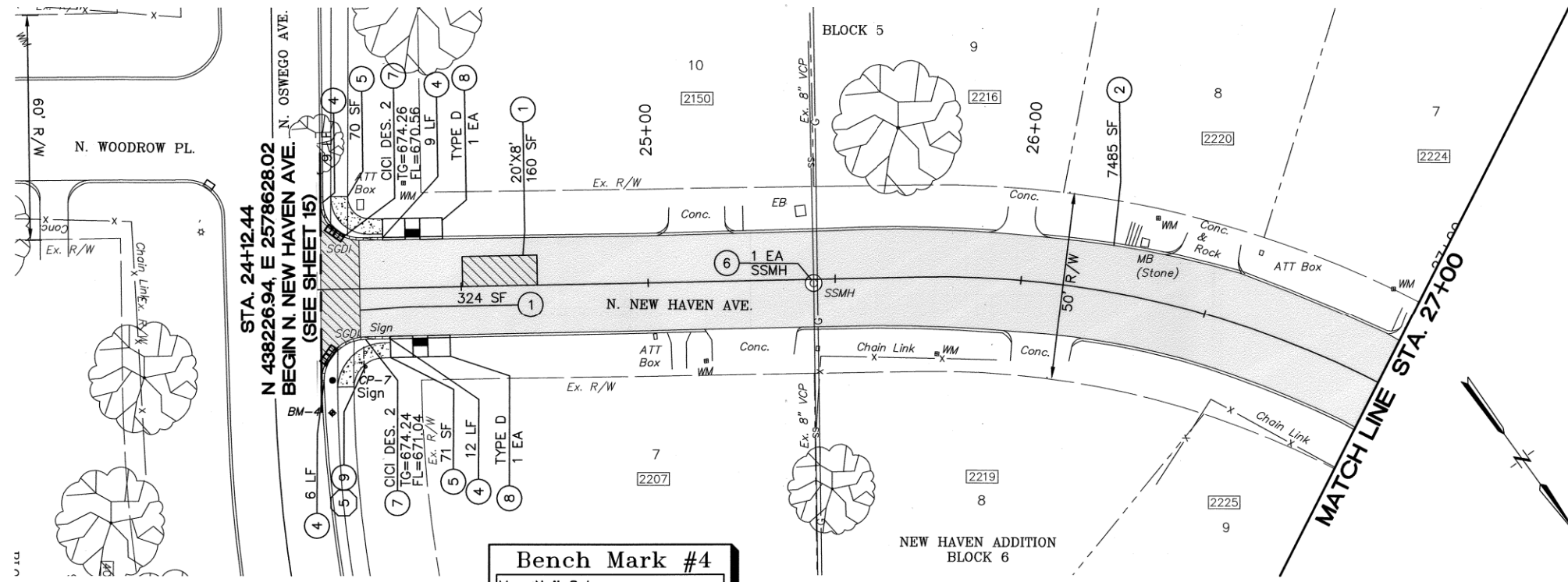
ROADWAY PLANS (2)  
 PROJECT NO. 2036N3004Z  
 NON-ARTERIAL STREET REHABILITATION  
 MAINTENANCE ZONE 3004  
 CITY OF TULSA, OKLAHOMA  
 PUBLIC WORKS DEPARTMENT  
 PLANS & ESTIMATES PREPARED BY:  
**MARQUARDT ENGINEERING, PLLC**  
 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781

SURVEY CONTROL				
Point #	Elevation	Northing	Easting	Description
CP-4	681.38	438092.35	2578096.73	Iron Pin w/Cap Set
CP-5	684.73	438395.58	2578083.53	Iron Pin w/Cap Set
CP-6	687.51	438796.82	2578050.22	Iron Pin w/Cap Set

REVISION	BY	DATE	PLAN SCALE:	DRAWN BY:	GMO	10/23	APPROVED:
			1"=20'	DESIGNED BY:	KMM	10/23	CITY ENGINEER
				SURVEY BY:	TS	9/23	
			PROFILE SCALE:	PROJ. MGR.	RF	12/23	
			HORIZONTAL:	LEAD ENGR.	CS	12/24	
			VERTICAL:	FIELD MGR.	CS	11/14	
				RECOMMENDED:	HAS	12-24	
			FILE:	DESIGN MANAGER			
			ATLAS PAGE NO: 119	DRAWING:			DATE: 12/6/2024
							SHEET 13 OF 21 SHEETS





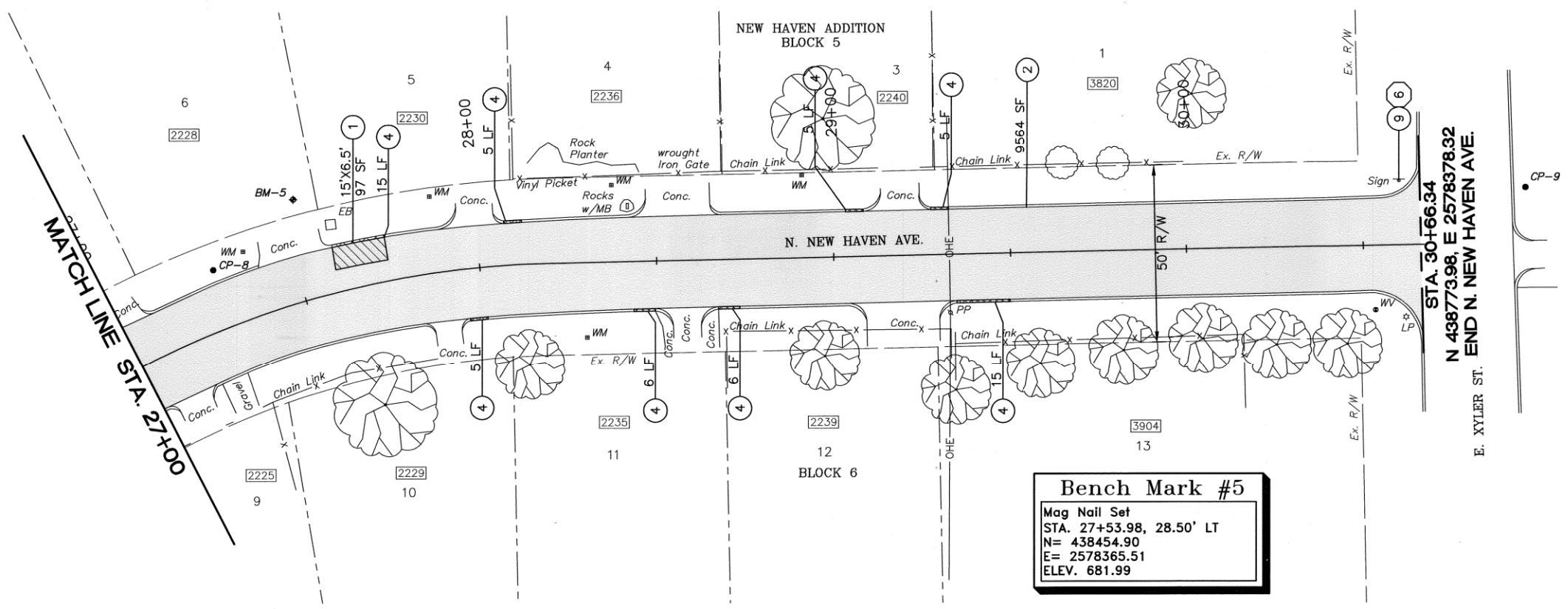


**REPAIR LEGEND**

- FULL DEPTH TYPE I APC PATCH
- 2" ASPHALT MILL AND OVERLAY
- PC CONCRETE DRIVE OR SIDEWALK
- 6" PC CONCRETE MOUNTABLE CURB

- ① FULL DEPTH TYPE I APC PATCH
- ② 2" ASPHALT MILL AND OVERLAY
- ③ REMOVE AND REPLACE EXISTING PC CONCRETE DRIVE
- ④ REMOVE AND REPLACE 6" MOUNTABLE CURB
- ⑤ REMOVE AND REPLACE 4" PC CONCRETE SIDEWALK
- ⑥ ADJUST TO GRADE
- ⑦ CONSTRUCT STORMWATER INLET
- ⑧ CONSTRUCT HANDICAP RAMP
- ⑨ CONSTRUCT TRAFFIC SIGN (SEE SIGN SUMMARY FOR DETAILS)

**Bench Mark #4**  
 Mag Nail Set  
 STA. 24+14.92, 33.08' RT  
 N= 438255.59  
 E= 2578644.75  
 ELEV. 676.57



- PROJECT LIMITS
- ⑪① NEAREST ADDRESS
- ① PROPOSED STREET SIGN

**Bench Mark #5**  
 Mag Nail Set  
 STA. 27+53.98, 28.50' LT  
 N= 438454.90  
 E= 2578365.51  
 ELEV. 681.99

*K.M. Marquardt*  
  
 11/26/24

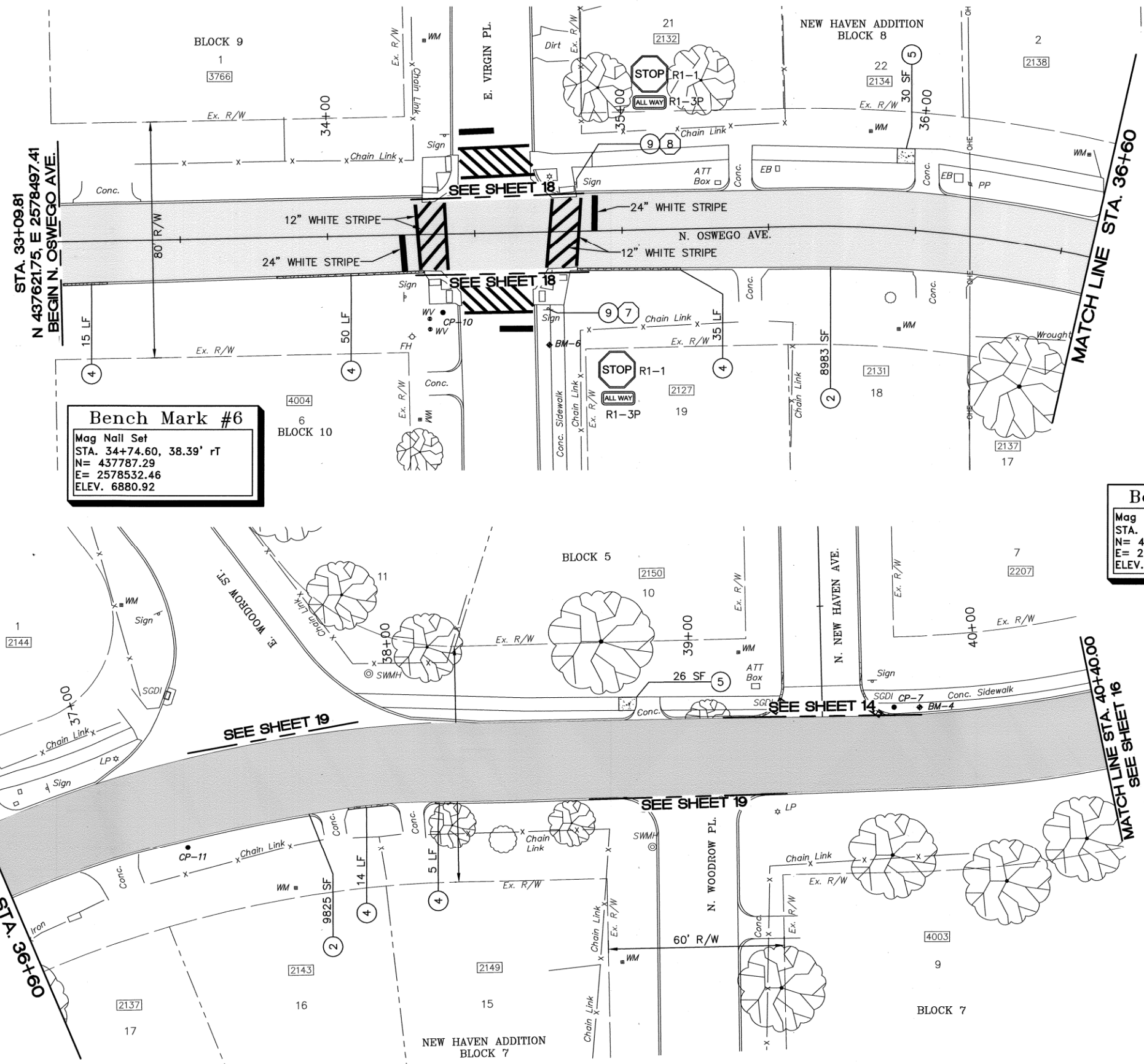


ROADWAY PLANS (3)  
 PROJECT NO. 2036N3004Z  
 NON-ARTERIAL STREET REHABILITATION  
 MAINTENANCE ZONE 3004  
 CITY OF TULSA, OKLAHOMA  
 PUBLIC WORKS DEPARTMENT  
 PLANS & ESTIMATES PREPARED BY:  
**MARQUARDT ENGINEERING, PLLC**  
 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781

**NOTE:**  
 ON APC STREETS:  
 • MILL FIRST  
 • PCC PATCH, IF NEEDED  
 • OVERLAY TO MATCH PREVIOUS CONDITION

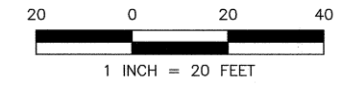
SURVEY CONTROL				
Point #	Elevation	Northing	Eastng	Description
CP-7	676.80	438248.58	2578639.65	Iron Pin w/Cap Set
CP-8	680.88	438432.31	2578385.41	Iron Pin w/Cap Set
CP-9	684.52	438803.47	2578362.14	Iron Pin w/Cap Set

REVISION	BY	DATE	PLAN SCALE:	DRAWN BY:	GMO	10/23	APPROVED:
			1"=20'	DESIGNED BY:	KMM	10/23	
				SURVEY BY:	TS	9/23	
			PROFILE SCALE:	PROJ. MGR.	RF	12/29	
			HORIZONTAL:	LEAD ENGR.	(Signature)	12/29	
			VERTICAL:	FIELD MGR.	(Signature)	12/29	
				RECOMMENDED:	HAS	12-29	
				DESIGN MANAGER	(Signature)		CITY ENGINEER
			FILE:	DRAWING:			DATE: 12/5/2024
			ATLAS PAGE NO: 119				SHEET 14 OF 21 SHEETS



**Bench Mark #6**  
 Mag Nail Set  
 STA. 34+74.60, 38.39' rT  
 N= 437787.29  
 E= 2578532.46  
 ELEV. 6880.92

**Bench Mark #4**  
 Mag Nail Set  
 STA. 39+79.03, 15.04' LT  
 N= 438255.59  
 E= 2578644.75  
 ELEV. 676.57



**REPAIR LEGEND**

- FULL DEPTH TYPE I APC PATCH
- 2" ASPHALT MILL AND OVERLAY
- PC CONCRETE DRIVE OR SIDEWALK
- 6" PC CONCRETE MOUNTABLE CURB

- ① FULL DEPTH TYPE I APC PATCH
- ② 2" ASPHALT MILL AND OVERLAY
- ③ REMOVE AND REPLACE EXISTING PC CONCRETE DRIVE
- ④ REMOVE AND REPLACE 6" MOUNTABLE CURB
- ⑤ REMOVE AND REPLACE 4" PC CONCRETE SIDEWALK
- ⑥ ADJUST TO GRADE
- ⑦ CONSTRUCT STORMWATER INLET
- ⑧ CONSTRUCT HANDICAP RAMP
- ⑨ CONSTRUCT TRAFFIC SIGN (SEE SIGN SUMMARY FOR DETAILS)

- PROJECT LIMITS
- ⑪① NEAREST ADDRESS
- ① PROPOSED STREET SIGN

*K.M. Marquardt*  
 LICENSED PROFESSIONAL ENGINEER  
 Keith M. Marquardt  
 19096  
 OKLAHOMA  
 11/26/24

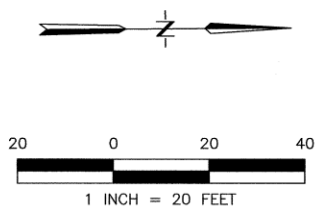


ROADWAY PLANS (4)  
 PROJECT NO. 2036N3004Z  
 NON-ARTERIAL STREET REHABILITATION  
 MAINTENANCE ZONE 3004  
 CITY OF TULSA, OKLAHOMA  
 PUBLIC WORKS DEPARTMENT  
 PLANS & ESTIMATES PREPARED BY:  
**MARQUARDT ENGINEERING, PLLC**  
 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781

SURVEY CONTROL				
Point #	Elevation	Northing	Easting	Description
CP-7	676.80	438248.58	2578639.65	Iron Pin w/Cap Set
CP-10	681.89	437751.21	2578521.45	Iron Pin w/Cap Set
CP-11	677.86	438026.61	2578536.89	Iron Pin w/Cap Set

**NOTE:**  
 ON APC STREETS:  
 • MILL FIRST  
 • PCC PATCH, IF NEEDED  
 • OVERLAY TO MATCH PREVIOUS CONDITION

REVISION	BY	DATE	PLAN SCALE:	DRAWN BY:	GMO	10/23	APPROVED:
			1"=20'	DESIGNED BY:	KMM	10/23	
				SURVEY BY:	TS	9/23	
			PROFILE SCALE:	PROJ. MGR.	RF	12/29	
			HORIZONTAL:	LEAD ENGR.	①	12/29	
			VERTICAL:	FIELD MGR.	②	12/29	
				RECOMMENDED:	③	12/29	
				DESIGN MANAGER:	HAS 12-24		
			FILE:	DRAWING:		DATE:	12/15/2024
			ATLAS PAGE NO:	119			SHEET 15 OF 21 SHEETS

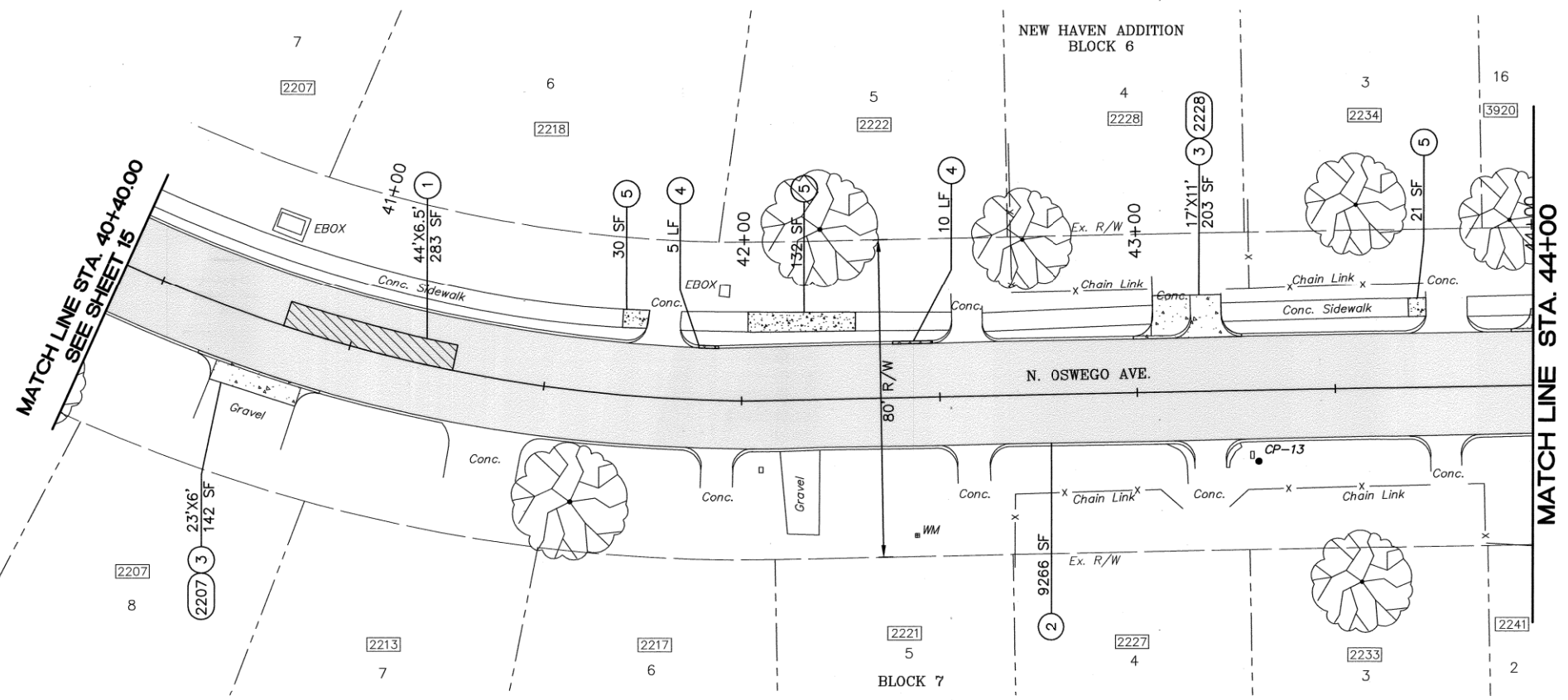


**REPAIR LEGEND**

- FULL DEPTH TYPE I APC PATCH
- 2" ASPHALT MILL AND OVERLAY
- PC CONCRETE DRIVE OR SIDEWALK
- 6" PC CONCRETE MOUNTABLE CURB

- ① FULL DEPTH TYPE I APC PATCH
- ② 2" ASPHALT MILL AND OVERLAY
- ③ REMOVE AND REPLACE EXISTING PC CONCRETE DRIVE
- ④ REMOVE AND REPLACE 6" MOUNTABLE CURB
- ⑤ REMOVE AND REPLACE 4" PC CONCRETE SIDEWALK
- ⑥ ADJUST TO GRADE
- ⑦ CONSTRUCT STORMWATER INLET
- ⑧ CONSTRUCT HANDICAP RAMP
- ⑨ CONSTRUCT TRAFFIC SIGN (SEE SIGN SUMMARY FOR DETAILS)

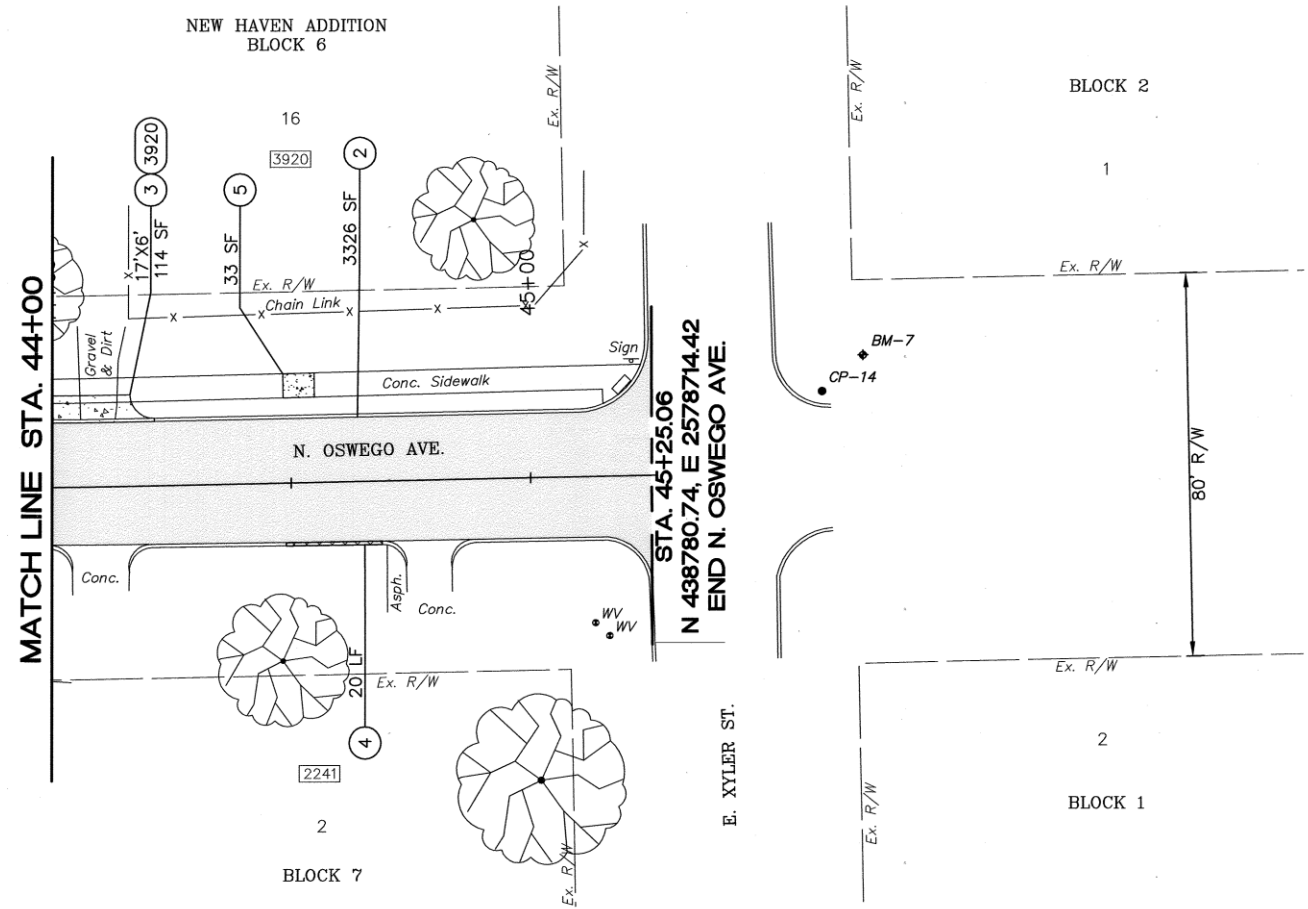
- PROJECT LIMITS
- NEAREST ADDRESS
- PROPOSED STREET SIGN



**Bench Mark #7**  
 Mag Nail Set  
 STA. 45+69.76, 24.35' LT  
 N= 438824.93  
 E= 2578689.18  
 ELEV. 684.97

SURVEY CONTROL				
Point #	Elevation	Northing	Easting	Description
CP-13	681.26	438586.50	2578736.23	Iron Pin w/Cap Set
CP-14	684.91	438816.41	2578696.73	Iron Pin w/Cap Set

**NOTE:**  
 ON APC STREETS:  
 • MILL FIRST  
 • PCC PATCH, IF NEEDED  
 • OVERLAY TO MATCH PREVIOUS CONDITION



*K.M. Marquardt*  
 LICENSED PROFESSIONAL ENGINEER  
 Keith M. Marquardt  
 19096  
 OKLAHOMA  
 11/26/24

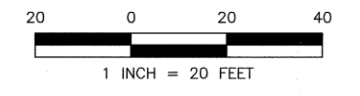


ROADWAY PLANS (5)  
 PROJECT NO. 2036N3004Z  
 NON-ARTERIAL STREET REHABILITATION  
 MAINTENANCE ZONE 3004  
 CITY OF TULSA, OKLAHOMA  
 PUBLIC WORKS DEPARTMENT  
 PLANS & ESTIMATES PREPARED BY:  
**MARQUARDT ENGINEERING, PLLC**  
 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781

REVISION	BY	DATE	PLAN SCALE:	DRAWN BY:	GMO	10/23	APPROVED:
			1"=20'	DESIGNED BY:	KMM	10/23	
				SURVEY BY:	TS	9/23	
			PROFILE SCALE:	PROJ. MGR.	RF	12/24	
			HORIZONTAL:	LEAD ENGR.	TS	12/24	
			VERTICAL:	FIELD MGR.	TS	12/24	
				RECOMMENDED:	HAS	12.24	
				DESIGN MANAGER			
			FILE:	DRAWING:			DATE: 12/5/2024
			ATLAS PAGE NO. 119				SHEET 16 OF 21 SHEETS



**Bench Mark #8**  
 Mag Nail Set  
 STA. 47+86.77, 58.41' RT  
 N= 437677.78  
 E= 2576920.02  
 ELEV. 696.40



**REPAIR LEGEND**

- FULL DEPTH TYPE I APC PATCH
- 2" ASPHALT MILL AND OVERLAY
- PC CONCRETE DRIVE OR SIDEWALK
- 6" PC CONCRETE MOUNTABLE CURB

- ① FULL DEPTH TYPE I APC PATCH
- ② 2" ASPHALT MILL AND OVERLAY
- ③ REMOVE AND REPLACE EXISTING PC CONCRETE DRIVE
- ④ REMOVE AND REPLACE 6" MOUNTABLE CURB
- ⑤ REMOVE AND REPLACE 4" PC CONCRETE SIDEWALK
- ⑥ ADJUST TO GRADE
- ⑦ CONSTRUCT STORMWATER INLET
- ⑧ CONSTRUCT HANDICAP RAMP
- ⑨ CONSTRUCT TRAFFIC SIGN (SEE SIGN SUMMARY FOR DETAILS)

**Bench Mark #9**  
 Mag Nail Set  
 STA. 54+34.29, 11.67' LT  
 N= 437761.48  
 E= 2577565.92  
 ELEV. 686.78

**NOTE:**  
 ON APC STREETS:  
 • MILL FIRST  
 • PCC PATCH, IF NEEDED  
 • OVERLAY TO MATCH PREVIOUS CONDITION

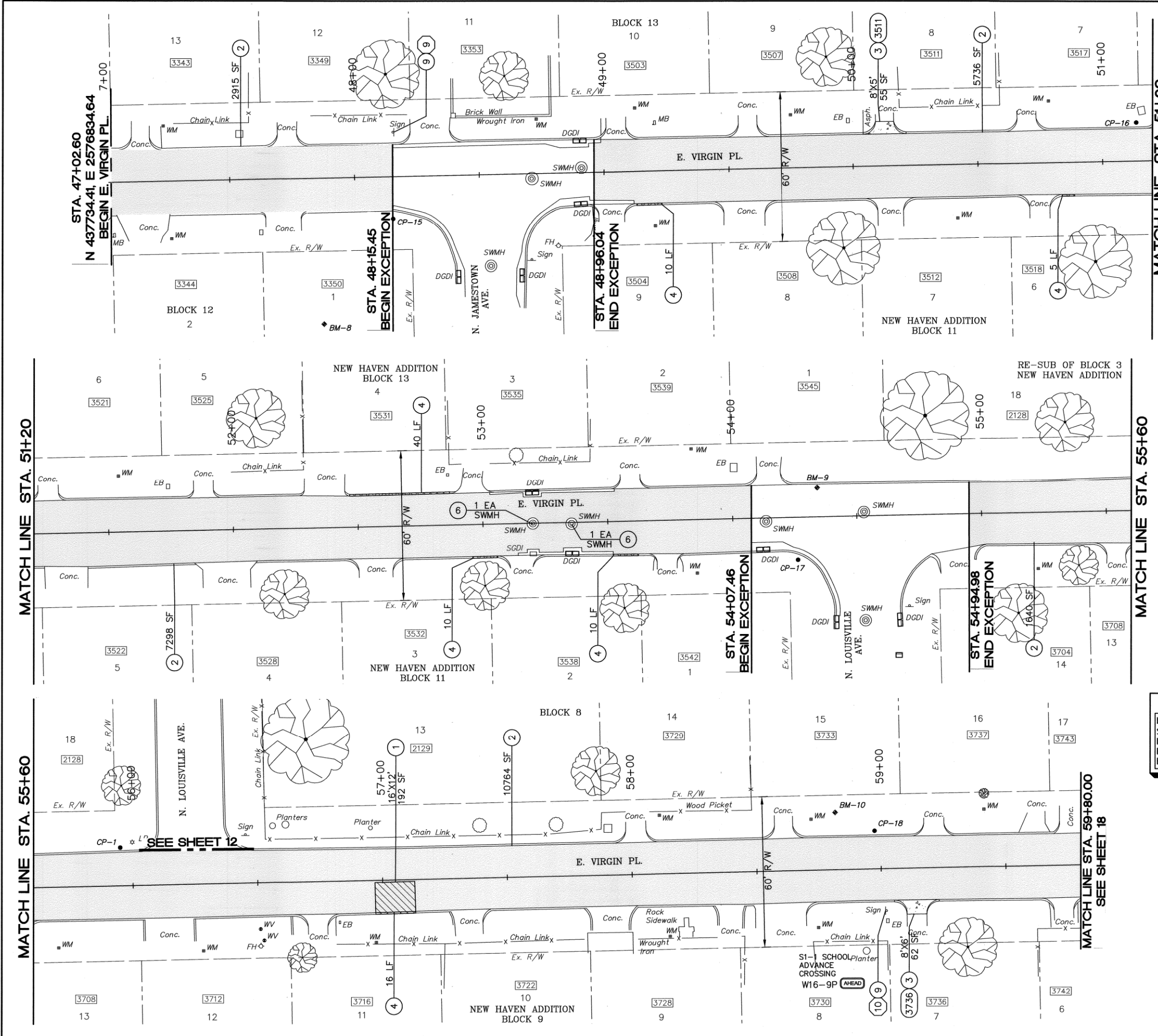
**Bench Mark #10**  
 Mag Nail Set  
 STA. 58+81.96, 22.86' LT  
 N= 437782.09  
 E= 2578013.26  
 ELEV. 686.40



ROADWAY PLANS (6)  
 PROJECT NO. 2036N3004Z  
 NON-ARTERIAL STREET REHABILITATION  
 MAINTENANCE ZONE 3004  
 CITY OF TULSA, OKLAHOMA  
 PUBLIC WORKS DEPARTMENT

PLANS & ESTIMATES PREPARED BY:  
**MARQUARDT ENGINEERING, PLLC**  
 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781

REVISION	BY	DATE	PLAN SCALE:	DRAWN BY:	GMO	10/23	APPROVED:
			1"=20'	DESIGNED BY:	KMM	10/23	
			PROFILE SCALE:	PROJ. MGR.	PF	12/29	
			HORIZONTAL:	LEAD ENGR.	(Signature)	12/29	
			VERTICAL:	FIELD MGR.	(Signature)	12/29	
				RECOMMENDED:	HAS	12/24	
				DESIGN MANAGER	(Signature)		CITY ENGINEER
			FILE:	DRAWING:			DATE: 12/5/2024
			ATLAS PAGE NO: 119				SHEET 17 OF 21 SHEETS



MATCH LINE STA. 51+20

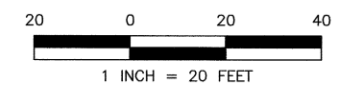
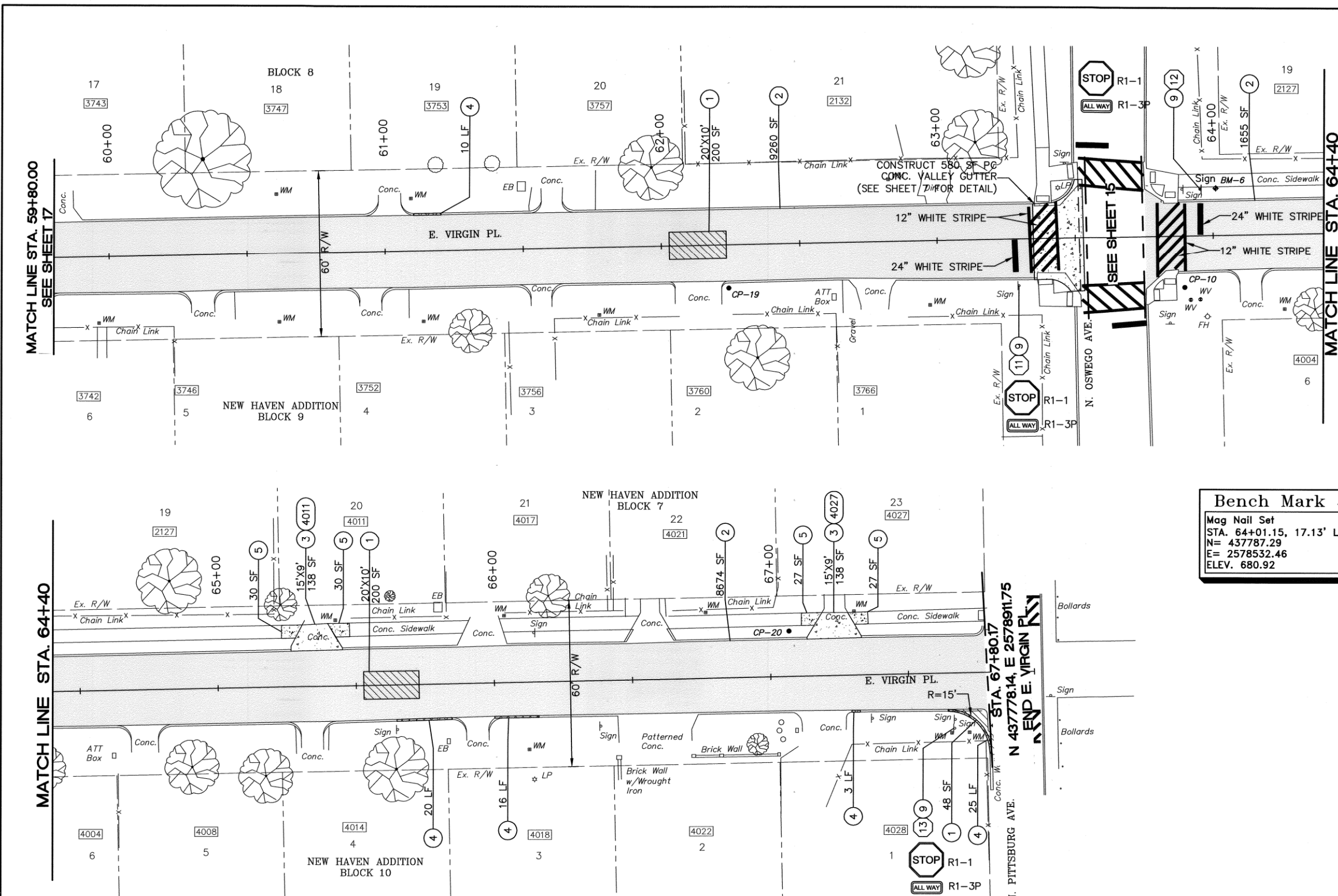
MATCH LINE STA. 55+60

MATCH LINE STA. 51+20

MATCH LINE STA. 55+60

MATCH LINE STA. 59+80.00  
SEE SHEET 18

SEE SHEET 12



**REPAIR LEGEND**

- FULL DEPTH TYPE I APC PATCH
- 2" ASPHALT MILL AND OVERLAY
- PC CONCRETE DRIVE OR SIDEWALK
- 6" PC CONCRETE MOUNTABLE CURB

- ① FULL DEPTH TYPE I APC PATCH
- ② 2" ASPHALT MILL AND OVERLAY
- ③ REMOVE AND REPLACE EXISTING PC CONCRETE DRIVE
- ④ REMOVE AND REPLACE 6" MOUNTABLE CURB
- ⑤ REMOVE AND REPLACE 4" PC CONCRETE SIDEWALK
- ⑥ ADJUST TO GRADE
- ⑦ CONSTRUCT STORMWATER INLET
- ⑧ CONSTRUCT HANDICAP RAMP
- ⑨ CONSTRUCT TRAFFIC SIGN (SEE SIGN SUMMARY FOR DETAILS)

**Bench Mark #6**  
 Mag Nail Set  
 STA. 64+01.15, 17.13' LT  
 N= 437787.29  
 E= 2578532.46  
 ELEV. 680.92

- PROJECT LIMITS
- NEAREST ADDRESS
- PROPOSED STREET SIGN

*Keith M. Marquardt*  
 LICENSED PROFESSIONAL ENGINEER  
 KEITH M. MARQUARDT  
 19096  
 OKLAHOMA  
 11/26/24

SURVEY CONTROL				
Point #	Elevation	Northing	Easting	Description
CP-1	688.51	437768.48	2577726.63	Iron Pin w/Cap Set
CP-15	695.29	437719.90	2576947.57	Iron Pin w/Cap Set
CP-16	688.94	437758.49	2577245.33	Iron Pin w/Cap Set
CP-17	687.12	437732.62	2577558.35	Iron Pin w/Cap Set
CP-18	685.94	437774.77	2578029.08	Iron Pin w/Cap Set

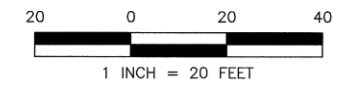
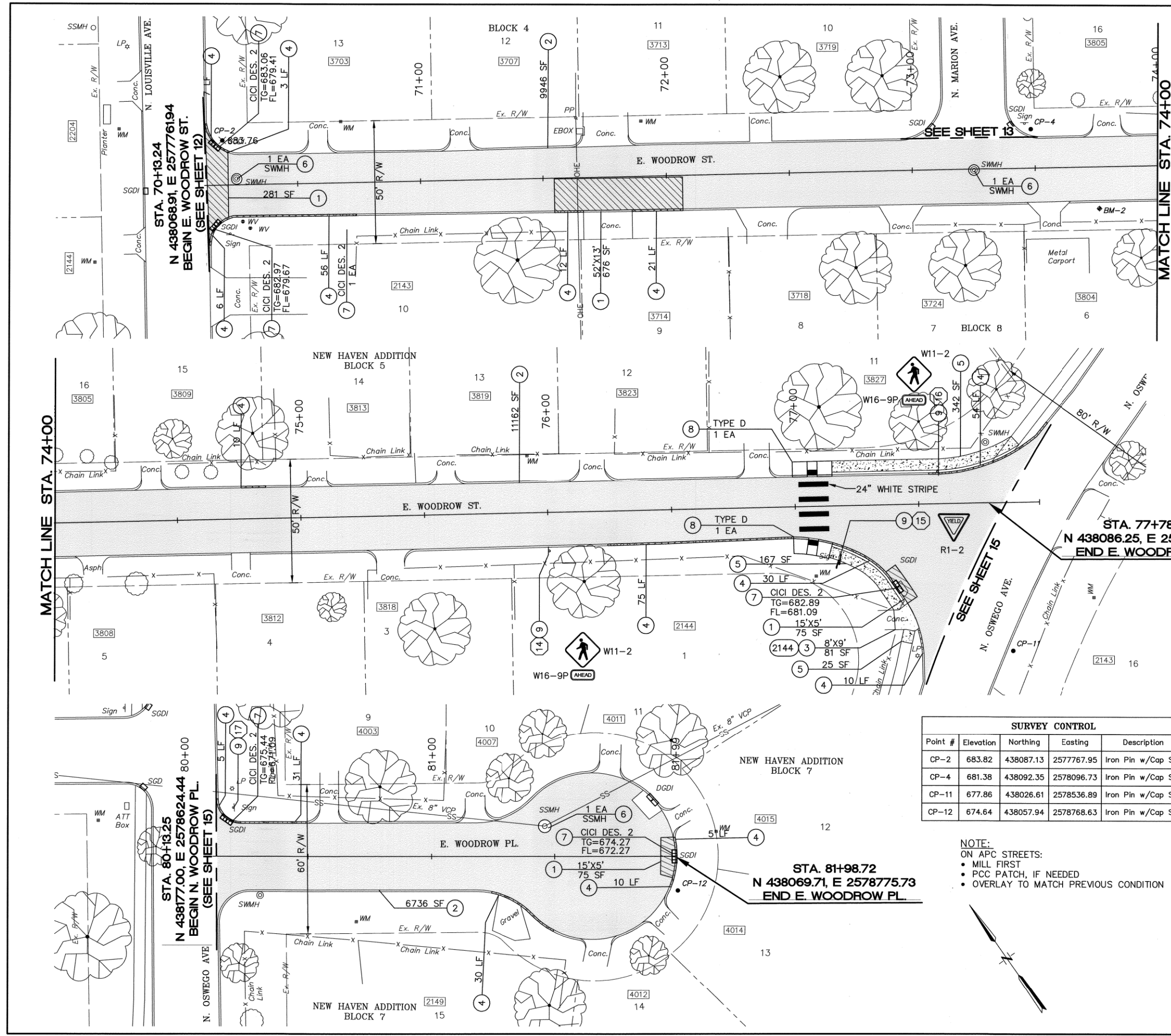
CONTROL DATA FOR PREVIOUS SHEET

SURVEY CONTROL				
Point #	Elevation	Northing	Easting	Description
CP-10	681.89	437751.21	2578521.45	Iron Pin w/Cap Set
CP-19	683.00	437750.65	2578356.12	Iron Pin w/Cap Set
CP-20	678.14	437793.00	2578838.13	Iron Pin w/Cap Set

**NOTE:**  
 ON APC STREETS:  
 • MILL FIRST  
 • PCC PATCH, IF NEEDED  
 • OVERLAY TO MATCH PREVIOUS CONDITION



ROADWAY PLANS (7)	
PROJECT NO. 2036N3004Z	
NON-ARTERIAL STREET REHABILITATION MAINTENANCE ZONE 3004	
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT	
PLANS & ESTIMATES PREPARED BY: MARQUARDT ENGINEERING, PLLC 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781	
REVISION	BY DATE
PLAN SCALE: 1"=20'	DRAWN BY: GMD 10/23
	DESIGNED BY: KMM 10/23
	SURVEY BY: TS 9/23
PROFILE SCALE:	PROJ. MGR. RF 12/29
HORIZONTAL:	LEAD ENGR. [Signature] 12/29
VERTICAL:	FIELD MGR. [Signature] 12/29
	RECOMMENDED: HAS 12-24
	DESIGN MANAGER
FILE:	DRAWING:
ATLAS PAGE NO: 119	DATE: 12/15/2024
	SHEET 18 OF 21 SHEETS



**REPAIR LEGEND**

- FULL DEPTH TYPE I APC PATCH
- 2" ASPHALT MILL AND OVERLAY
- PC CONCRETE DRIVE OR SIDEWALK
- 6" PC CONCRETE MOUNTABLE CURB

- ① FULL DEPTH TYPE I APC PATCH
- ② 2" ASPHALT MILL AND OVERLAY
- ③ REMOVE AND REPLACE EXISTING PC CONCRETE DRIVE
- ④ REMOVE AND REPLACE 6" MOUNTABLE CURB
- ⑤ REMOVE AND REPLACE 4" PC CONCRETE SIDEWALK
- ⑥ ADJUST TO GRADE
- ⑦ CONSTRUCT STORMWATER INLET
- ⑧ CONSTRUCT HANDICAP RAMP
- ⑨ CONSTRUCT TRAFFIC SIGN (SEE SIGN SUMMARY FOR DETAILS)

- PROJECT LIMITS
- ⑪① NEAREST ADDRESS
- ① PROPOSED STREET SIGN

**Bench Mark #2**  
 Mag Nail Set  
 STA. 73+76.01, 16.92' RT  
 N= 438060.22  
 E= 2578125.00  
 ELEV. 680.92



SURVEY CONTROL				
Point #	Elevation	Northing	Easting	Description
CP-2	683.82	438087.13	2577767.95	Iron Pin w/Cap Set
CP-4	681.38	438092.35	2578096.73	Iron Pin w/Cap Set
CP-11	677.86	438026.61	2578536.89	Iron Pin w/Cap Set
CP-12	674.64	438057.94	2578768.63	Iron Pin w/Cap Set

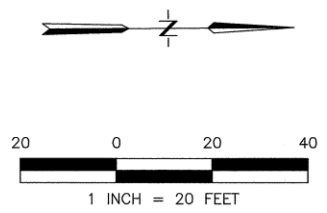
**NOTE:**  
 ON APC STREETS:  
 • MILL FIRST  
 • PCC PATCH, IF NEEDED  
 • OVERLAY TO MATCH PREVIOUS CONDITION



ROADWAY PLANS (8)	
PROJECT NO. 2036N3004Z	
NON-ARTERIAL STREET REHABILITATION MAINTENANCE ZONE 3004	
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT	
PLANS & ESTIMATES PREPARED BY: <b>MARQUARDT ENGINEERING, PLLC</b> 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781	
PLAN SCALE: 1"=20'	APPROVED: 
DRAWN BY: GMD 10/23	DESIGNED BY: KMM 10/23
SURVEY BY: TS 9/23	PROJ. MGR. RF 12/29
LEAD ENGR. @ 12/24	FIELD MGR. HHS 12/24
RECOMMENDED: HHS 12/24	DESIGN MANAGER: HHS 12/24
FILE:	DRAWING:
ATLAS PAGE NO: 119	DATE: 12/5/2024
SHEET 19 OF 21 SHEETS	



**Bench Mark #11**  
 Mag Nail Set  
 STA. 87+64.75, 21.11' LT  
 N= 435413.98  
 E= 2580763.41  
 ELEV. 662.58



**REPAIR LEGEND**

- FULL DEPTH TYPE I APC PATCH
- 2" ASPHALT MILL AND OVERLAY
- PC CONCRETE DRIVE OR SIDEWALK
- 6" PC CONCRETE MOUNTABLE CURB

- 1 FULL DEPTH TYPE I APC PATCH
- 2 2" ASPHALT MILL AND OVERLAY
- 3 REMOVE AND REPLACE EXISTING PC CONCRETE DRIVE
- 4 REMOVE AND REPLACE 6" MOUNTABLE CURB
- 5 REMOVE AND REPLACE 4" PC CONCRETE SIDEWALK
- 6 ADJUST TO GRADE
- 7 CONSTRUCT STORMWATER INLET
- 8 CONSTRUCT HANDICAP RAMP
- 9 CONSTRUCT TRAFFIC SIGN (SEE SIGN SUMMARY FOR DETAILS)

- PROJECT LIMITS
- NEAREST ADDRESS
- PROPOSED STREET SIGN

**CAUTION**  
 SPECIAL UTILITY NOTICE  
 • STA. 84+20.05 TO STA. 88+88.02  
 NO FULL DEPTH PATCHING  
 • STA. 88+00.00 TO STA. 88+88.02  
 NO VIBRATORY COMPACTION

**NOTE:**  
 ON AC STREETS:  
 • FULL DEPTH AC PATCHES  
 • COLD MILL PAVEMENT  
 • OVERLAY TO MATCH PREVIOUS CONDITION



ROADWAY PLANS (9)	
PROJECT NO. 2036N3004Z	
NON-ARTERIAL STREET REHABILITATION MAINTENANCE ZONE 3004	
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT	
PLANS & ESTIMATES PREPARED BY: <b>MARQUARDT ENGINEERING, PLLC</b> 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781	
REVISION	BY DATE
PLAN SCALE: 1"=20'	DRAWN BY: GMD 10/23
DESIGNED BY: KMM 10/23	APPROVED:
SURVEY BY: TS 8/23	
PROFILE SCALE:	PROJ. MGR. [Signature] 12/29
HORIZONTAL:	LEAD ENGR. [Signature] 12/24
VERTICAL:	FIELD MGR. [Signature] 12/24
	RECOMMENDED: [Signature] 12/24
	DESIGN MANAGER: HAS 12-24
FILE:	DRAWING:
ATLAS PAGE NO: XXX	DATE: 12/15/2024
	CITY ENGINEER: [Signature]
	SHEET 20 OF 21 SHEETS

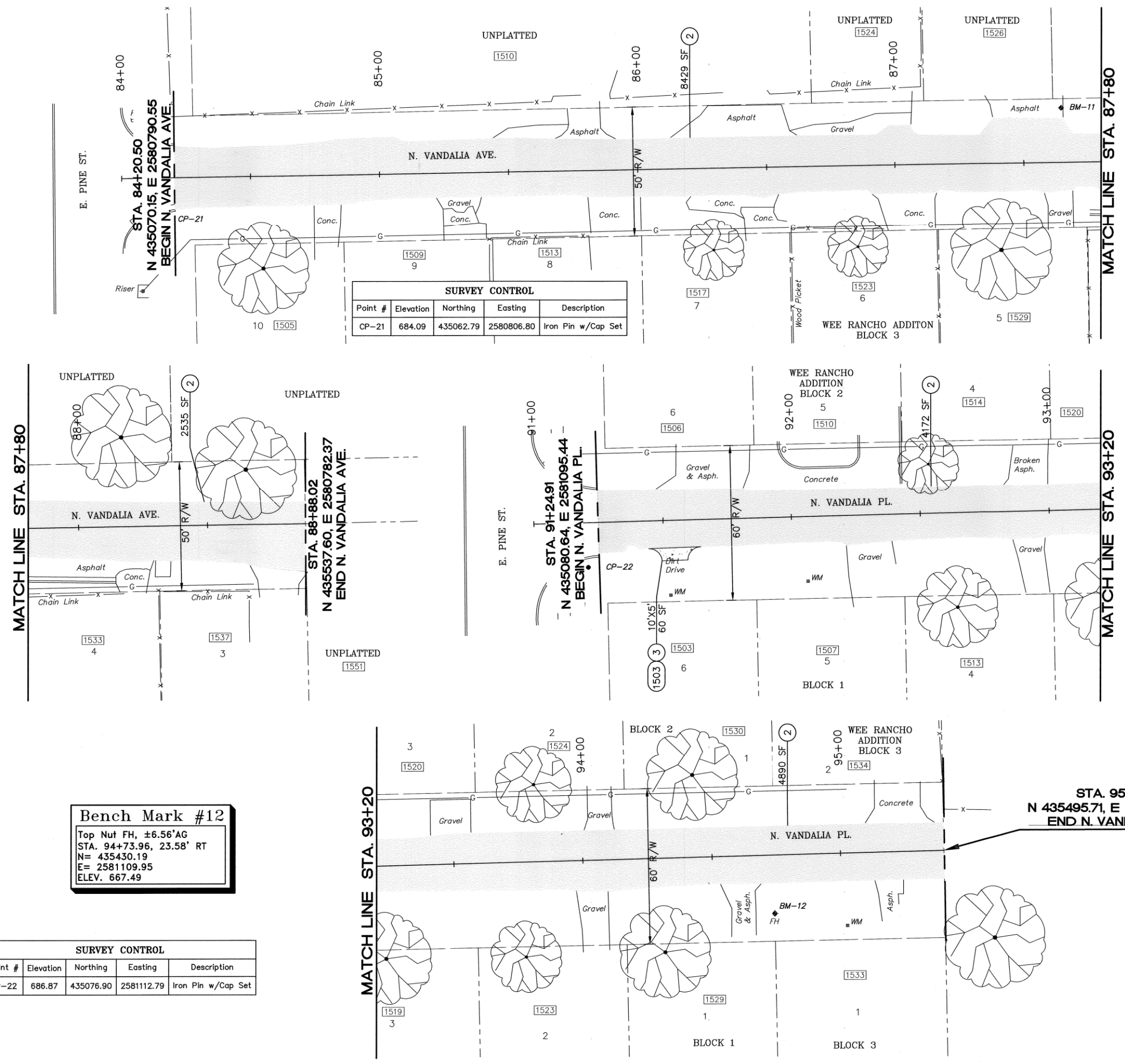
**SURVEY CONTROL**

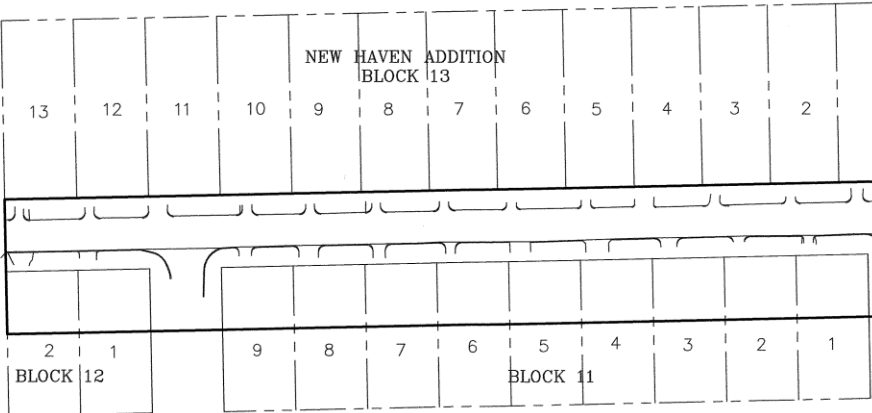
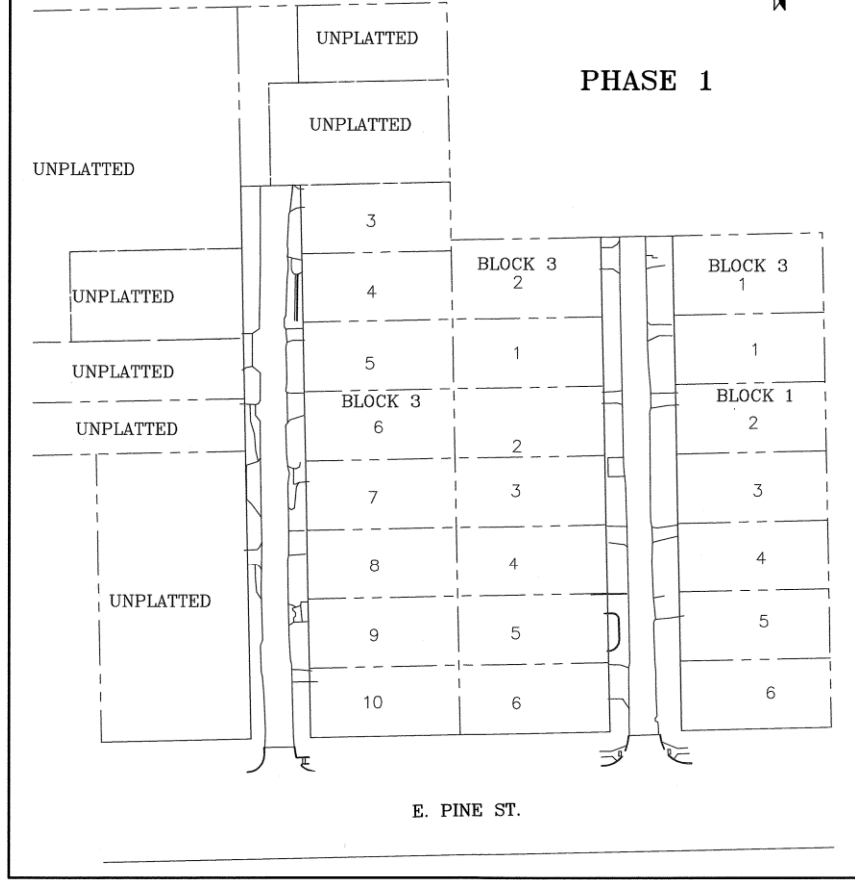
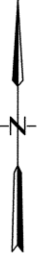
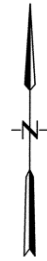
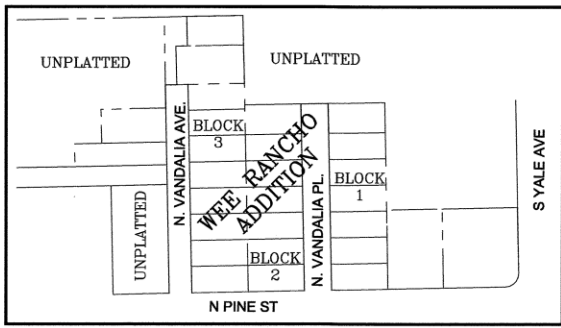
Point #	Elevation	Northing	Easting	Description
CP-21	684.09	435062.79	2580806.80	Iron Pin w/Cap Set

**Bench Mark #12**  
 Top Nut FH, ±6.56'AG  
 STA. 94+73.96, 23.58' RT  
 N= 435430.19  
 E= 2581109.95  
 ELEV. 667.49

**SURVEY CONTROL**

Point #	Elevation	Northing	Easting	Description
CP-22	686.87	435076.90	2581112.79	Iron Pin w/Cap Set





**PHASING NOTES:**

CONTRACTOR MAY FOLLOW THIS SUGGESTED CONSTRUCTION SEQUENCE OR SUBMIT A PROPOSED CONSTRUCTION SEQUENCING PLAN FOR APPROVAL BY THE CONTRACT ADMINISTRATOR.

1. CONTRACTOR SHALL ATTEND A SITE VISIT WITH FIELD ENGINEERING REPRESENTATIVE TO DETERMINE PATCHING QUANTITIES PRIOR TO CONSTRUCTION.
2. INSTALL TEMPORARY EROSION CONTROL MEASURES.
3. CONSTRUCT STORMWATER IMPROVEMENTS.
4. REMOVE AND REPLACE EXISTING P.C. CONCRETE DRIVEWAYS, SIDEWALKS, AND CURBS.
5. FOR APC STREETS
  - 5.1 COLD MILL EXISTING ASPHALT OVERLAY TO EXPOSE UNDERLYING PCC PAVEMENT
  - 5.2 CONSTRUCT FULL DEPTH PATCHING

6. FOR FULL DEPTH ASPHALT STREETS
  - 6.1 CONSTRUCT FULL DEPTH PATCHING
  - 6.2 COLD MILL EXISTING ASPHALT PAVEMENT 2" DEEP
7. ADJUST MANHOLES TO GRADE
8. PLACE 2" ASPHALT OVERLAY
9. INSTALL NEW SIGNAGE AND PAVEMENT STRIPING
10. REMOVE TEMPORARY EROSION CONTROL MEASURES



SUGGESTED CONSTRUCTION SEQUENCE			
PROJECT NO. 2036N3004Z			
NON-ARTERIAL STREET REHABILITATION MAINTENANCE ZONE 3004			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS & ESTIMATES PREPARED BY: <b>MARQUARDT ENGINEERING, PLLC</b> 7020 S. YALE AVE., SUITE 225 TULSA, OK. 74136 918-704-8781			
PLAN SCALE:	DRAWN BY:	GMO	10/23
NTS	DESIGNED BY:	KMM	10/23
	SURVEY BY:		
PROFILE SCALE:	PROJ. MGR.	RF	12/23
HORIZONTAL:	LEAD ENGR.	SM	11/24
N/A	FIELD MGR.	KMM	12/24
VERTICAL:	RECOMMENDED:		
N/A	DESIGN MANAGER:	KMS	12-24
FILE:	DRAWING:		
ATLAS PAGE NO:	DATE:	12/5/2024	
	SHEET:	21	OF 21 SHEETS

REVISION	BY	DATE