

SHEET NO.	TOTAL SHEETS
1	8

CITY OF WICHITA, KANSAS

JAMES L. ARMOUR, P.E., ACTING CITY ENGINEER

TRAFFIC SIGNAL IMPROVEMENTS

FOR

21ST STREET NORTH AND REGENCY LAKES

CITY OF WICHITA PROJECT NO. 472-83954

OCA NO. 765859

INDEX OF SHEETS

1. TITLE SHEET
2. BENEFIT DISTRICT MAP
3. TRAFFIC SIGNAL PLAN
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GENERAL NOTES

UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.

RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR AND APPROVED AS NOTED BELOW.

ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

CONTRACTOR SHALL SATISFY HIMSELF OF SURFACE AND SUBSURFACE CONDITIONS PRIOR TO BIDDING.

CONTRACTOR SHALL PROVIDE A MINIMUM FORTY-EIGHT (48) HOUR ADVANCE NOTICE (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO BEGINNING ANY EXCAVATION, TO KANSAS ONE-CALL SYSTEM, A UTILITY LOCATION SERVICE, AT (316) 687-2470 TO REQUEST THE FOLLOWING UTILITY COMPANIES TO LOCATE ALL EXISTING LINES WITHIN THE PROJECT AREA: K.G.S. GAS, WILLIAMS NATURAL GAS, WESTAR ELECTRIC, SOUTHWESTERN BELL TELEPHONE, COX COMMUNICATIONS, CITY OF WICHITA SEWER MAINTENANCE AND CITY OF WICHITA WATER DEPARTMENT.

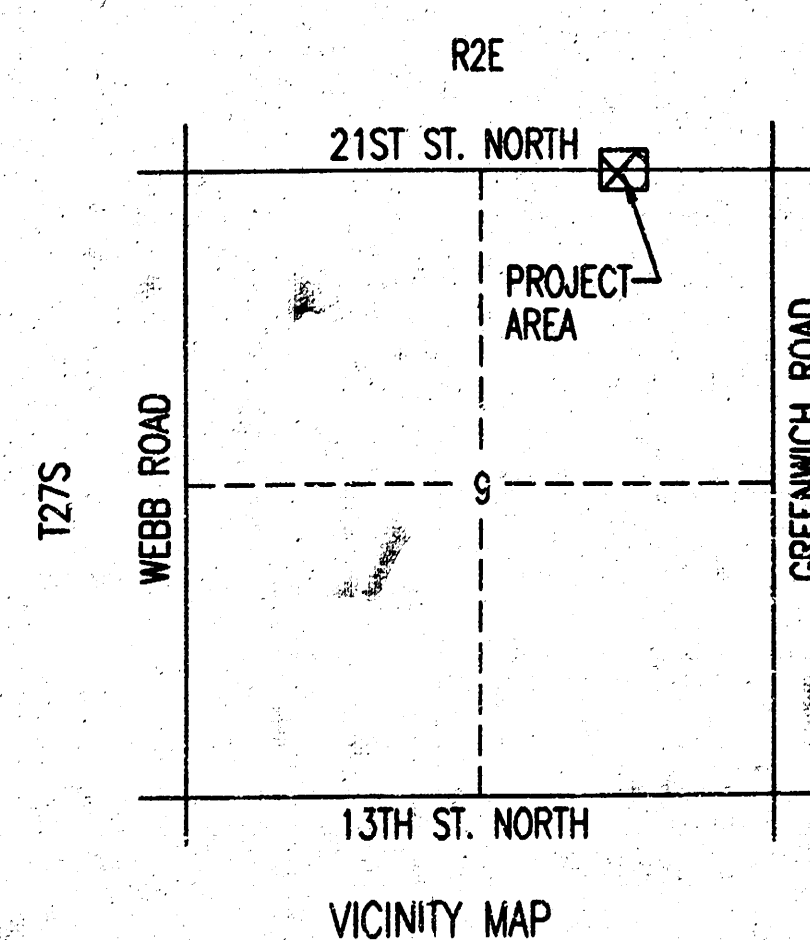
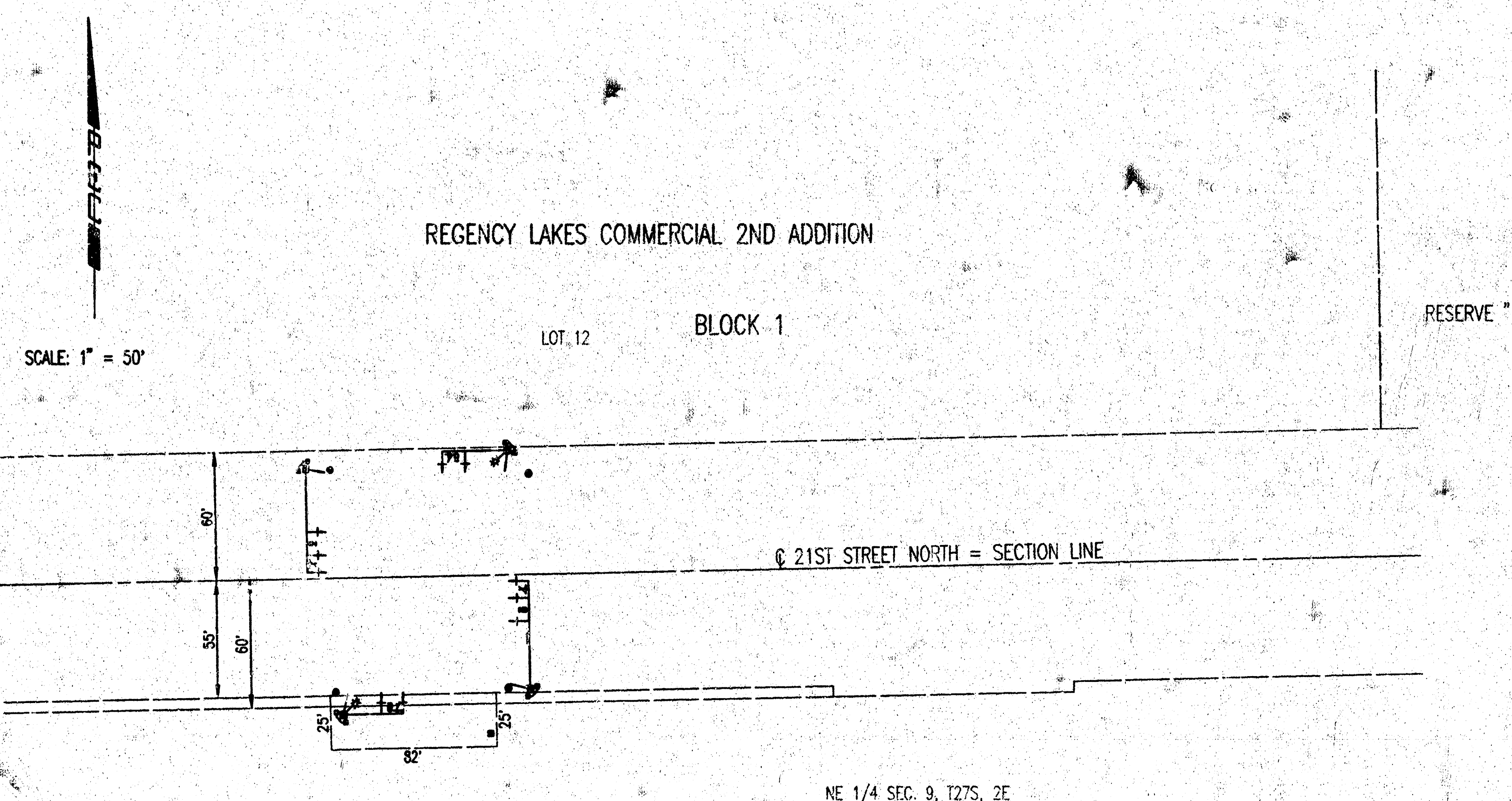
THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

THE WATER DEPARTMENT SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, WATER VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

THE CONTRACTOR SHALL ADJUST WATER VALVE BOXES AS DIRECTED BY THE ENGINEER. THIS WORK TO BE SUBSIDIARY TO OTHER BID ITEMS.

THE CONTRACTOR SHALL INSTALL CONDUIT UNDER EXISTING PAVEMENT USING DIRECTIONAL BORING METHODS. THE CONTRACTOR SHALL COORDINATE WITH WESTAR FOR INSTALLATION AND LOCATION OF THE POWER FEED AND METER. ALL COSTS FOR THE INSTALLATION OF THE POWER FEED, INCLUDING SERVICE AND INSPECTION FEES SHALL BE BORNE BY THE CONTRACTOR.

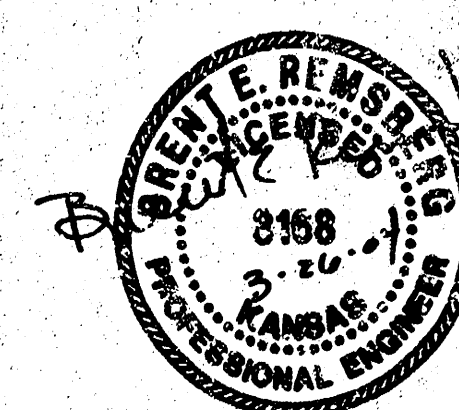
COORDINATE WITH WESTAR FOR SIGNAL POWER AND STREET LIGHT INSTALLATION.



MARCH 2004

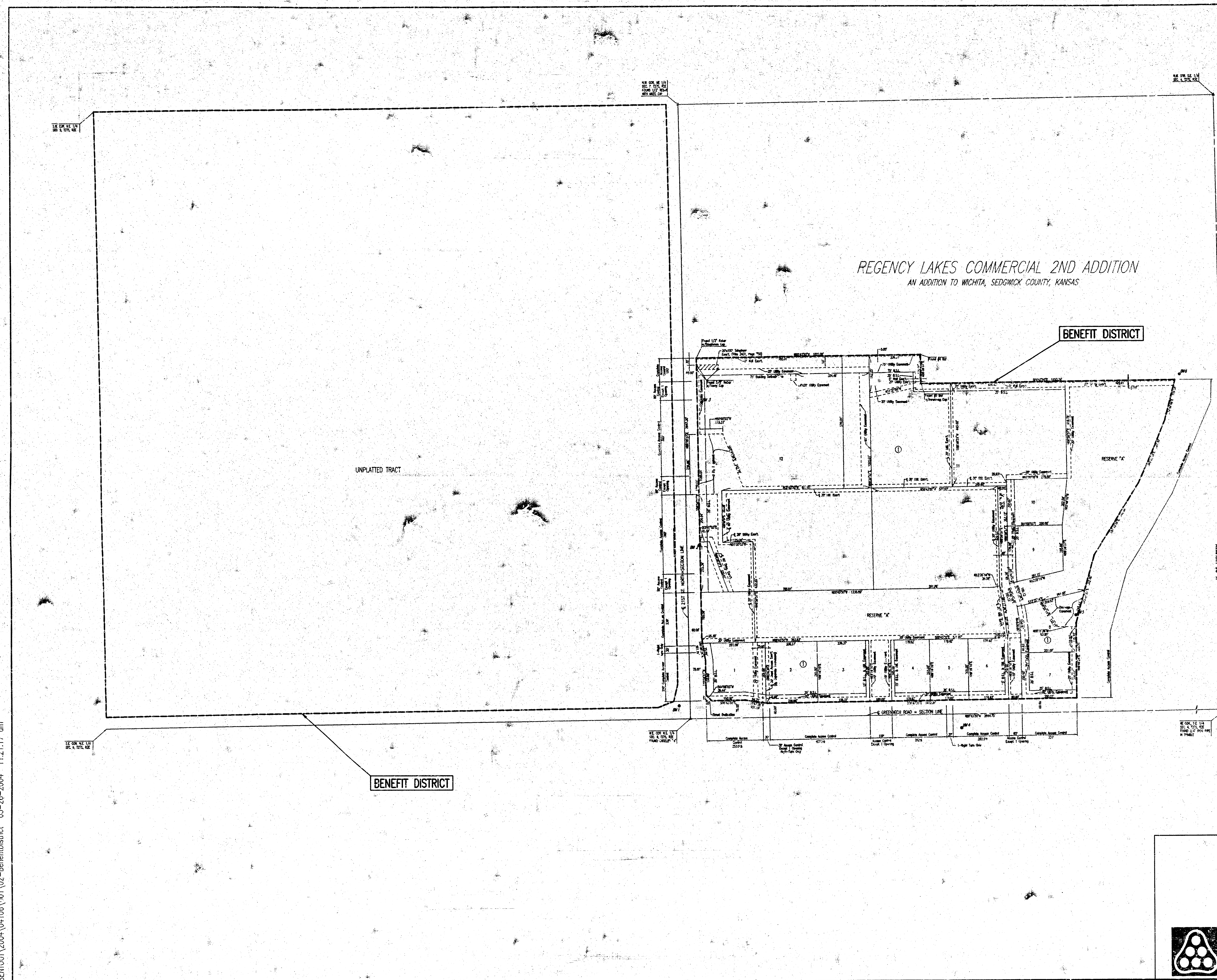
PLANS PREPARED BY

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS



DSNR: BEE OPER: SW SCALE: 1"=50.00
JA\SENTOUT\2004\04106\001\01-title 03-26-2004 11:20:39 am

DSNR: BER OPER: SAW SCALE: 1"=200.00
J:\SETOUIT\2004\04\06\01\02-BenefitDistrict 03-26-2004 11:21:17 am



SCALE: 1"=200'

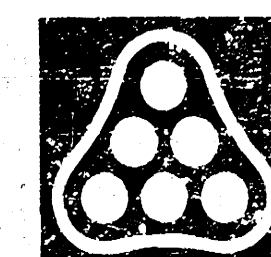
- = FOUND (5 BAR W/ARCC CAP (UNLESS OTHERWISE NOTED)
- = SET 1/2" REBAR W/ PEC CAP (UNLESS OTHERWISE NOTED)

BENCHMARKS:

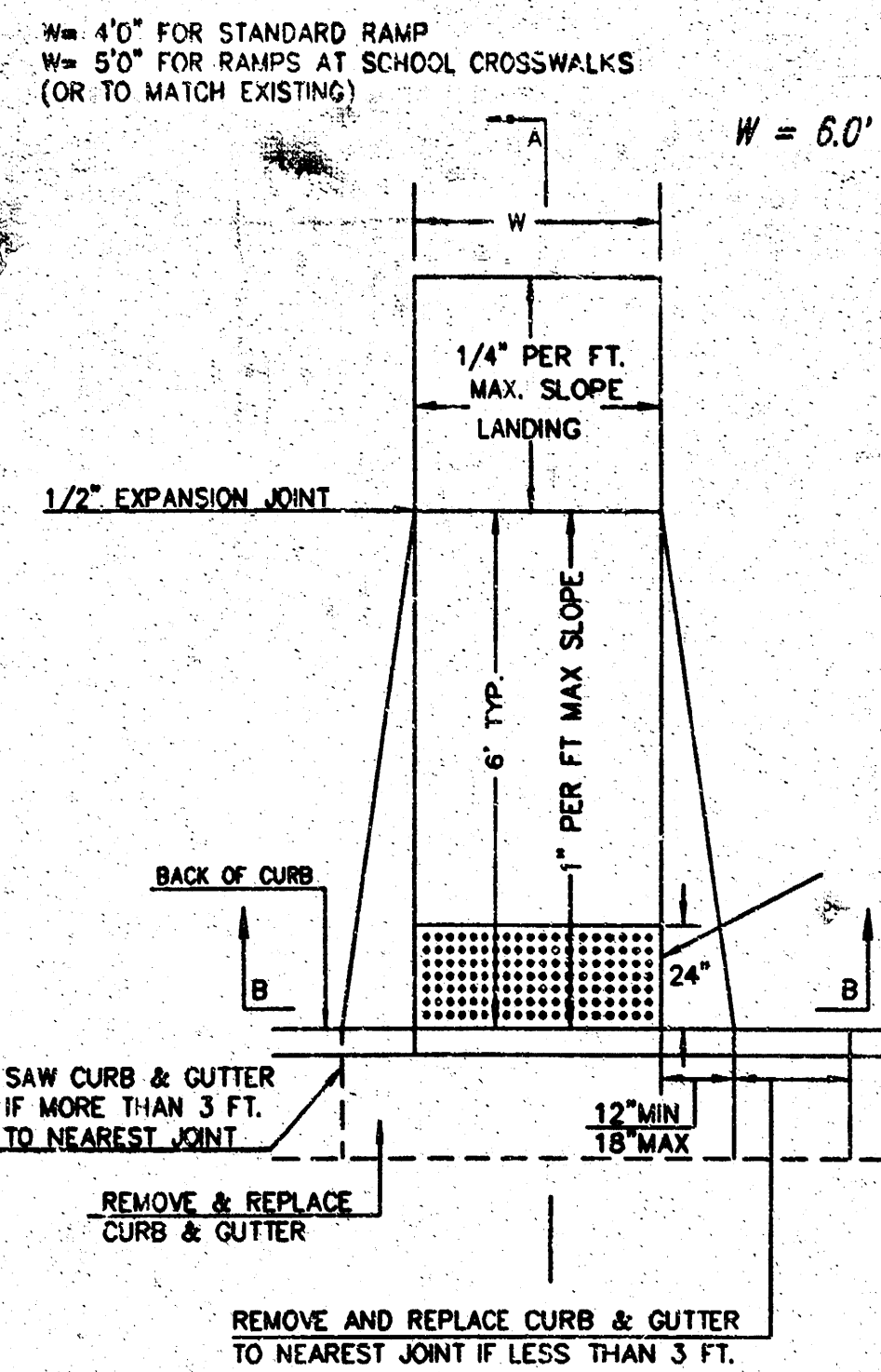
- C.O.W. Disc in Conc. Base R.R. Signal W. Side Greenwich
1/2 Mile S. of 21st St. N. City Datum: 183.19
N.G.V.D.: 1370.59
- BM 1: Chiselled "d" on Conc. base Traffic Signal at S.W.
Corner 21st. N. and Greenwich
City Datum: 176.16
N.G.V.D.: 1363.55
- BM 2: Chiselled "d" on headwall N.E. Corner RCBC
under 21st. N. 750'± W. of Greenwich
City Datum: 173.05
N.G.V.D.: 1362.45
- BM 3: R.R. Spike in 18" Locust tree, E. end
row on N. Side 21st N. 1350'± W. of
Greenwich
City Datum: 180.14
N.G.V.D.: 1367.54
- BM 4: W. end Ball in Tower Pole 1 1/2' above
ground of Private Dr. 2400 N. Greenwich
on E. side of Rd.
City Datum: 183.86
N.G.V.D.: 1371.20
- BM 5: Chiselled "d" on W. wing wall at W. end of
S. headwall RCBC under Blue Path just S.
of K-96 E.B. Ramp to Greenwich 400'± from
Greenwich
City Datum: 179.87
N.G.V.D.: 1367.27
- 1" Chiselled "d" on S.E. Cor. P.T.BC under Blue
Path just S. of K-96, right of W. Cor. Property
City Datum: 182.975
N.G.V.D.: 1370.375

**MINIMUM PAD ELEVATIONS (LOWEST
OPENING) SHALL BE AS FOLLOWS:**

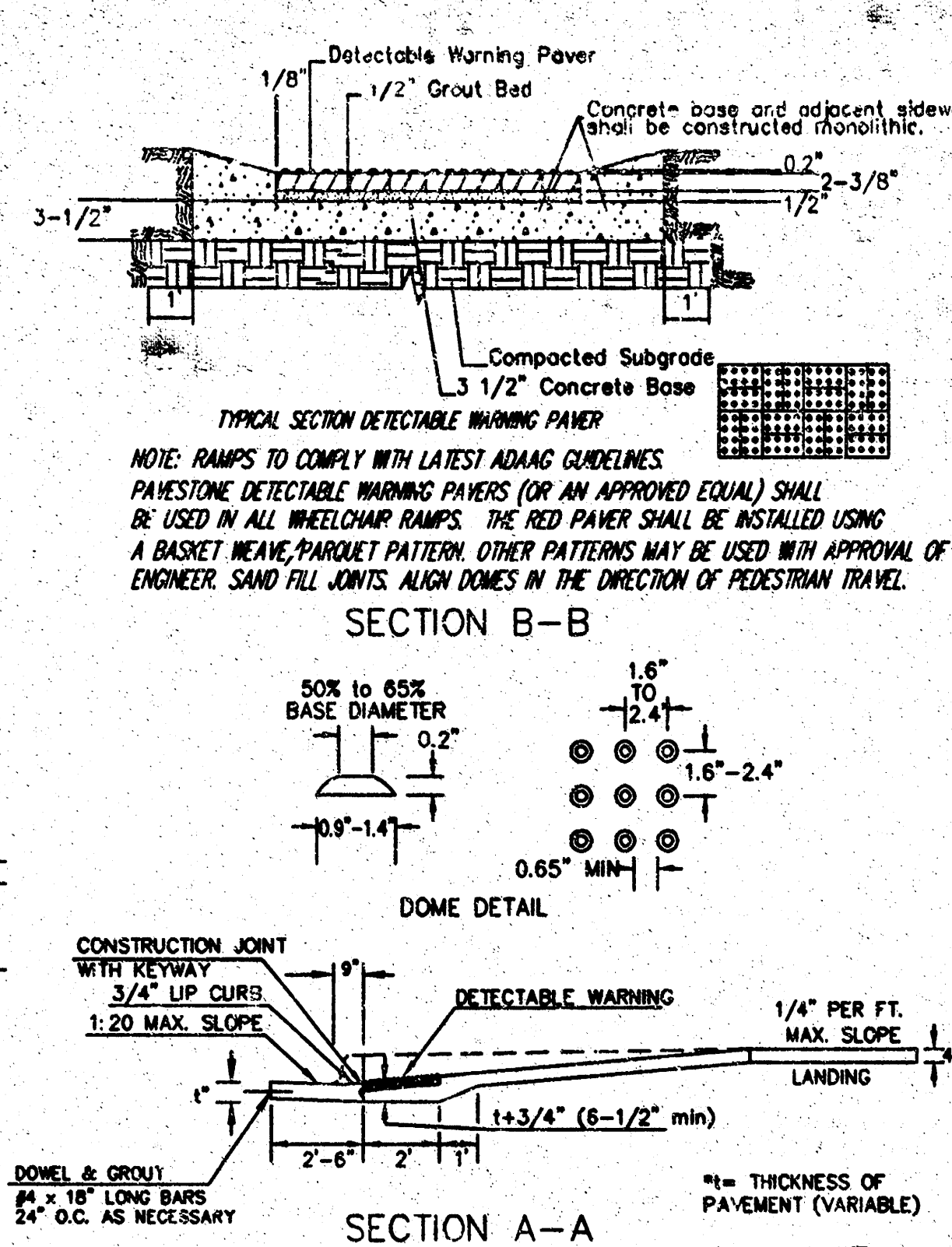
BLOCK	CITY DATUM	N.G.V.D.
LOTS 1-3	180.6	1368.0
LOTS 4-11	181.1	1368.5
LOT 12	180.6	1368.0



No.	Revision	By	Date
CITY OF WICHITA, KANSAS JAMES L. ARMOUR, P.E. - ACTING CITY ENGINEER 21ST STREET NORTH AND REGENCY LAKES BENEFIT DISTRICT CITY OF WICHITA PROJECT NO. 472-83954 Professional Engineering Consultants, P.A. 303 S. TOPEKA - WICHITA, KANSAS 67202 316-262-2091 • FAX 316-262-3003			
Designed by	BER	Job No.	04106-001
Drawn by	SAW	Date	MARCH 2004
		SH.	2 of 8



(TYPE A) STANDARD WHEELCHAIR RAMP WITH DETECTABLE WARNING CONSTRUCTION DETAIL FOR STREETS WITH COMBINED CURB & GUTTER



Sta. 119+73.16 @ 21st St. N. =

Sta. 119+19.13 Install Traffic Signal Pole, 51.5' Lt. w/48" Mast Arm, See Sheet No. 4

Sta. 119+68.20 Install Traffic Signal Pole, 64.0' Rt. w/24" Mast Arm, See Sheet No. 4

Sta. 119+56.95 @ 21st St. N. = Sta. 50+00 @ Entrance

Coordinate Wheelchair Ramp construction with site contractor. Existing Sidewalk removal by site contractor. Wheelchair Ramp construction to be considered subsidiary to Traffic Signal installation.

Sta. 120+20.03 Install Traffic Signal Pole, 58.5' Lt. w/32" Mast Arm, See Sheet No. 4

Sta. 120+28.02 Install Traffic Signal Pole, 53.5' Rt. w/50" Mast Arm, See Sheet No. 4

SCALE: 1" = 20'

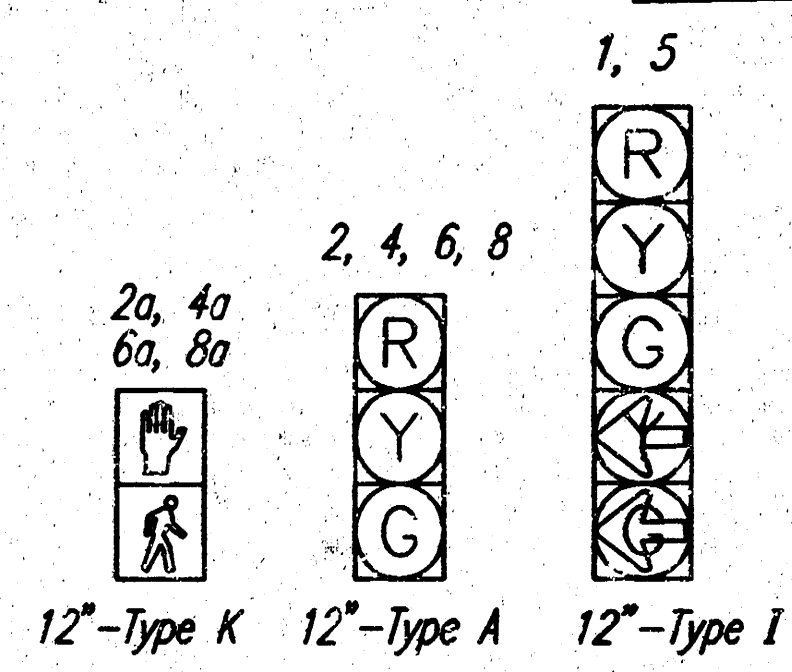
CONTROLLER DESCRIPTION

The Traffic Signal Controller shall comply with the requirements defined in the Specifications for a type 170E Controller with 412b2 prom module and a 400 modem. It shall be furnished and installed with a Model 332 cabinet, 3-type 242 isolator units, 1 video detection unit, 10 switch packs, 2-type 204 flashers, 4 flash transfer relay, and a Model 210P conflict monitor MS or or ECL. The Controller shall also be furnished with WAITS Version 58 or latest version of software developed by WAPITI MICRO SYSTEMS.

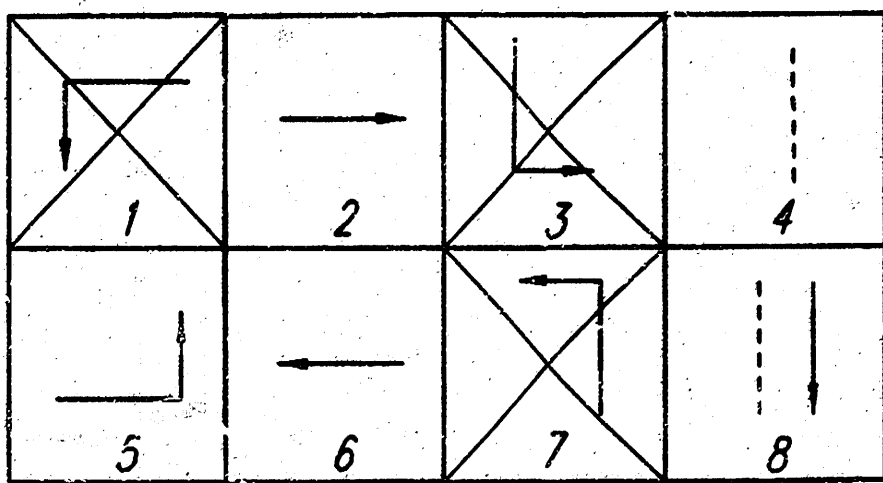
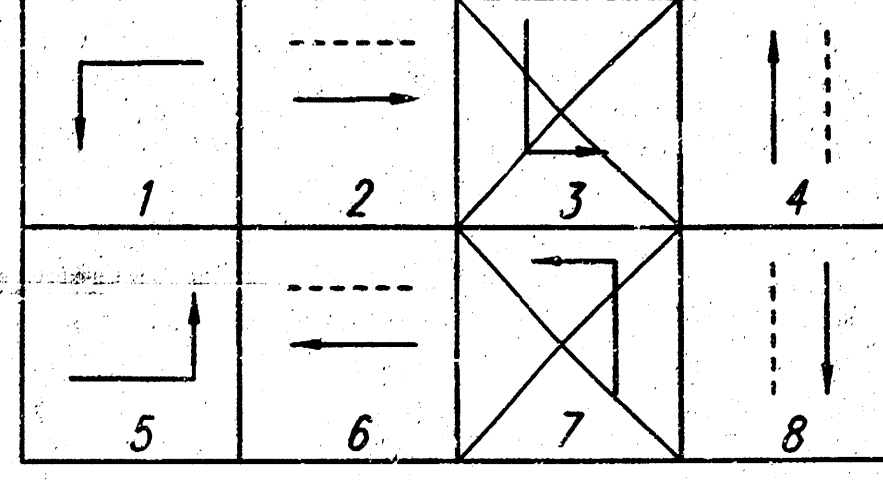
D2-1

D2-2

116+51.95



SIGNAL HEAD ARRANGEMENT



21ST STREET NORTH & REGENCY LAKES								
	1	2	3	4	5	6	7	8
MAX. I	80	30	30	80	30	30	80	30
MAX. II/HFW	80	30	30	80	30	30	80	30
WALK	8	8	8	8	8	8	8	8
FLASH DW	20	20	20	20	20	20	20	20
MAX. INITIAL	8.0	8.0	6.0	8.0	8.0	6.0	8.0	8.0
MIN. GREEN	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
T B R	25	25	1.0	25	25	1.0	25	25
T T R	15	15	1.0	15	15	1.0	15	15
OBSERVE GAP	-	-	-	-	-	-	-	-
PASSAGE	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0
MIN. GAP	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
ADDED ACTUATION	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
YELLOW	4.0	3.5	3.0	4.0	3.5	3.0	4.0	3.5
RED CLEAR	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
RED REVERT	-	-	-	-	-	-	-	-
WALK II	-	-	-	-	-	-	-	-

The signal shall dwell green in #4 & #8.

FUNCTION TABLE								
FUNCTION	PHASE							
	1	2	3	4	5	6	7	8
VEHICLE RECALL	-	X	-	-	-	-	-	-
PED RECALL	-	-	-	-	-	-	-	-
RED LOCK	-	-	-	-	-	-	-	-
YELLOW LOCK	X	-	X	X	X	-	X	-
PERMIT	-	X	-	X	X	X	-	X
PED PHASES	-	X	-	X	-	X	-	X
LEAD PHASES	X	-	X	-	X	-	X	-
DOUBLE ENTRY	-	X	-	X	-	X	-	X
SEQUENTIAL TIMING	-	-	-	-	-	-	-	-
START-UP YELLOW	-	-	-	X	-	-	-	X
OVERLAP A	-	-	-	-	-	-	-	-
OVERLAP B	-	-	-	-	-	-	-	-
OVERLAP C	-	-	-	-	-	-	-	-
OVERLAP D	-	-	-	-	-	-	-	-
EXCLUSIVE	-	-	-	-	-	-	-	-
SIMULTANEOUS GAP	-	-	-	-	-	-	-	-

Function table reflects initial operation.

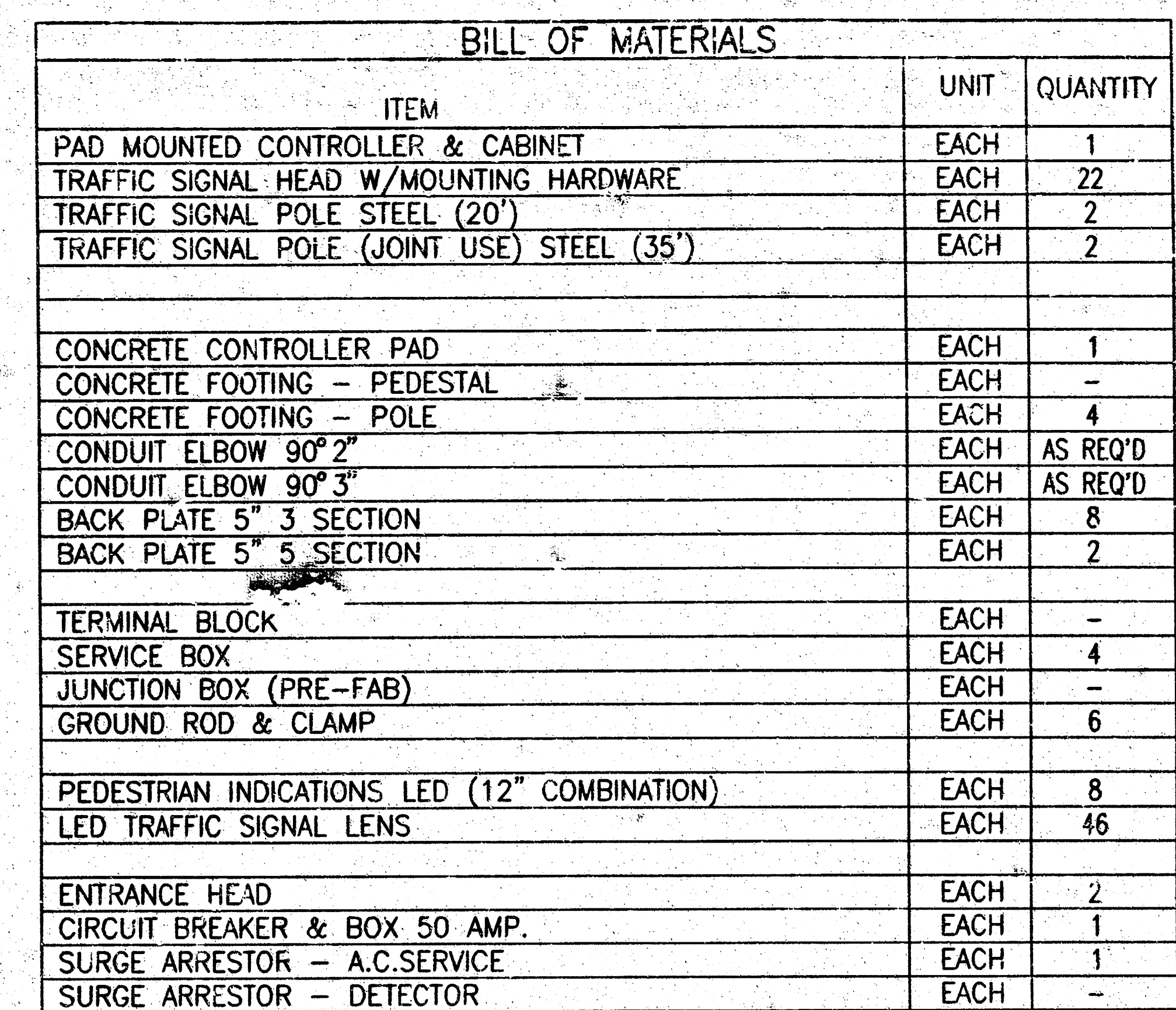
DETECTOR SUMMARY							
CAMERA NO.	DETECTION ZONE	MODE	SIZE (LxW)	PHASE CALLED	PHASE EXTENDED	DELAY/STRETCH TIMER	INITIAL SETTING (SEC.)
2	D6-1	PRESENCE	60x6	5	5	-	-
2	D2-1&2	PULSE	6x6	2	2	5	1.0
2	D2-3&4	PULSE	6x6	2	2	5	1.0
2	D2-5&6	PRESENCE	60x6	2	2	-	-
3	D3-1	PRESENCE	60x6	3	3	5	5.0
3	D3-2	PRESENCE	60x6	8	8	5	5.0
4	D1-1	PRESENCE	60x6	1	1	-	-
4	D6-1&2	PULSE	6x6	6	6	5	1.0
4	D6-3&4	PULSE	6x6	6	6	5	1.0
4	D6-5&6	PRESENCE	60x6	6	6	-	-

FOR INITIAL OPERATION

- LEGEND**
- Traffic Signal Pole with Mast Arm
 - Traffic Signal Pedestal
 - Traffic Signal Camera
 - Luminaire with Arm
 - Traffic Signal Head
 - Traffic Signal Head with Backplate
 - Pedestrian Signal Head
 - Controller with pod
 - Service Box
 - D(PHASE) Detector Zone
 - Detector Zone
 - R10-12 Sign
 - R12-12 Sign
 - Conduit
 - Signal Phase
 - Signal Pole Reference Number
 - Street Name Sign

SEE SHEET NO. 4 FOR WIRING DIAGRAM

Revision		By	Date
CITY OF WICHITA, KANSAS JAMES L. ARMOUR, P.E. - ACTING CITY ENGINEER 21ST STREET NORTH AND REGENCY LAKES			
TRAFFIC SIGNAL PLAN			
CITY OF WICHITA PROJECT NO. 472-83954			
Professional Engineering Consultants, P.A. 303 S. TOPEKA - WICHITA, KANSAS 67202 316-262-2691 • FAX 316-262-3003			
Designed by	BER	Job No.	04106-001
Drawn by	SAW	Date	MARCH 2004
		Shl.	3 of 8



① A-10' Pedestal (Alum.)
B-20' Steel with Mast Arm(s)
C-35' Steel (Joint Use) with Mast Arm(s)
D-40' Steel with Mast Arm

Top Coat Finish for Traffic Signal Poles & Controller Cabinet
All visually exposed exterior surfaces shall be coated with a urethane or triglycidyl isocyanurate (TGIC) polyester powder to a minimum dry film thickness (DFT) of 2.0 mils. Prior to application of the top coat, the surface shall be mechanically etched and pre-heated to 150 degrees F for a minimum of one hour. The coating shall be electro-statically applied and cured at a minimum temperature of 400 degrees F. The finished color for the poles shall be black and approved by the Engineer prior to application on the basis of color chip submittals.

Special Finish for Traffic Signal Equipment.
The traffic signal, mounting brackets, signal head backs, sign backs, meter box, disconnect box, and miscellaneous hardware shall be shop painted with an aerosol lacquer cellulose ester to match the traffic signal pole color. The Contractor shall submit two copies of the proposed coating system to the Engineer for approval prior to application. In addition to the requirements stipulated in the Standard Specifications, banding material shall be coated with ethylene-vinyl-alcohol (EVA) copolymer. The color shall be black.

NOTE:
The contractor shall supply and install all necessary materials and equipment for the complete installation and operation of the traffic signal system whether specifically mentioned or not.

SERVICE BOX SUMMARY	
STATION	DIST.—SIDE
119+32	51' LT.
119+32	53.37' RT.
120+10	52.52' RT.
120+30	47.39' LT.

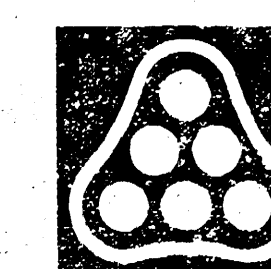
RECAPITULATION OF TRAFFIC SIGNAL QUANTITIES		
ITEM	UNIT	QUANTITY
TRAFFIC SIGNAL INSTALLATION (21st St. N. & REGENCY LAKES)	LUMP SUM	LUMP SUM
	1	1

PEDESTRIAN PUSHBUTTON W/SIGN	EACH	8
6 PR. COMMUNICATION CABLE	LIN.FT.	-
DETECTOR LOOP WIRE NO. 14 AWG 1/c	LIN.FT.	-
LEAD-IN WIRE NO.6 AWG 1/c	LIN.FT.	200
MULTI-CONDUCTOR CABLE NO.14 AWG 7/c	LIN.FT.	1900
MULTI-CONDUCTOR CABLE NO.14 AWG 5/c	LIN.FT.	3250
MULTI-CONDUCTOR CABLE NO.14 AWG 3/c	LIN.FT.	150
SHIELDED DETECTOR LEAD-IN NO.14 AWG 2/c	LIN.FT.	-
CONDUIT 1"(PVC)	LIN.FT.	-
CONDUIT 1 1/2"(RGC)	LIN.FT.	70
CONDUIT 2"(PVC)	LIN.FT.	666
CONDUIT 2"(RGC)	LIN.FT.	142
CONDUIT 3"(RGC)	LIN.FT.	561
#8 AWG GROUND (GREEN)	LIN.FT.	1000
STREET NAME SIGN	EACH	4
VIDEO DETECTION CAMERA (VANTAGE 02Z), MOUNTING HARDWARE	EACH	4
VIDEO DETECTION UNIT (VANTAGE EDGE MODULE)	EACH	1
VIDEO POWER CABLE #16 A.W.G. 3/C	LIN.FT.	2000
VIDEO CABLE 75 OHM COAXIAL (BELDON #8281 OR APPROVED EQUAL)	LIN.FT.	2000
TV MONITOR	EACH	1
ITERIS LENS ADJUSTMENT UNIT	EACH	1
VIDEO SYSTEM PROGRAMMING UNIT	EACH	1

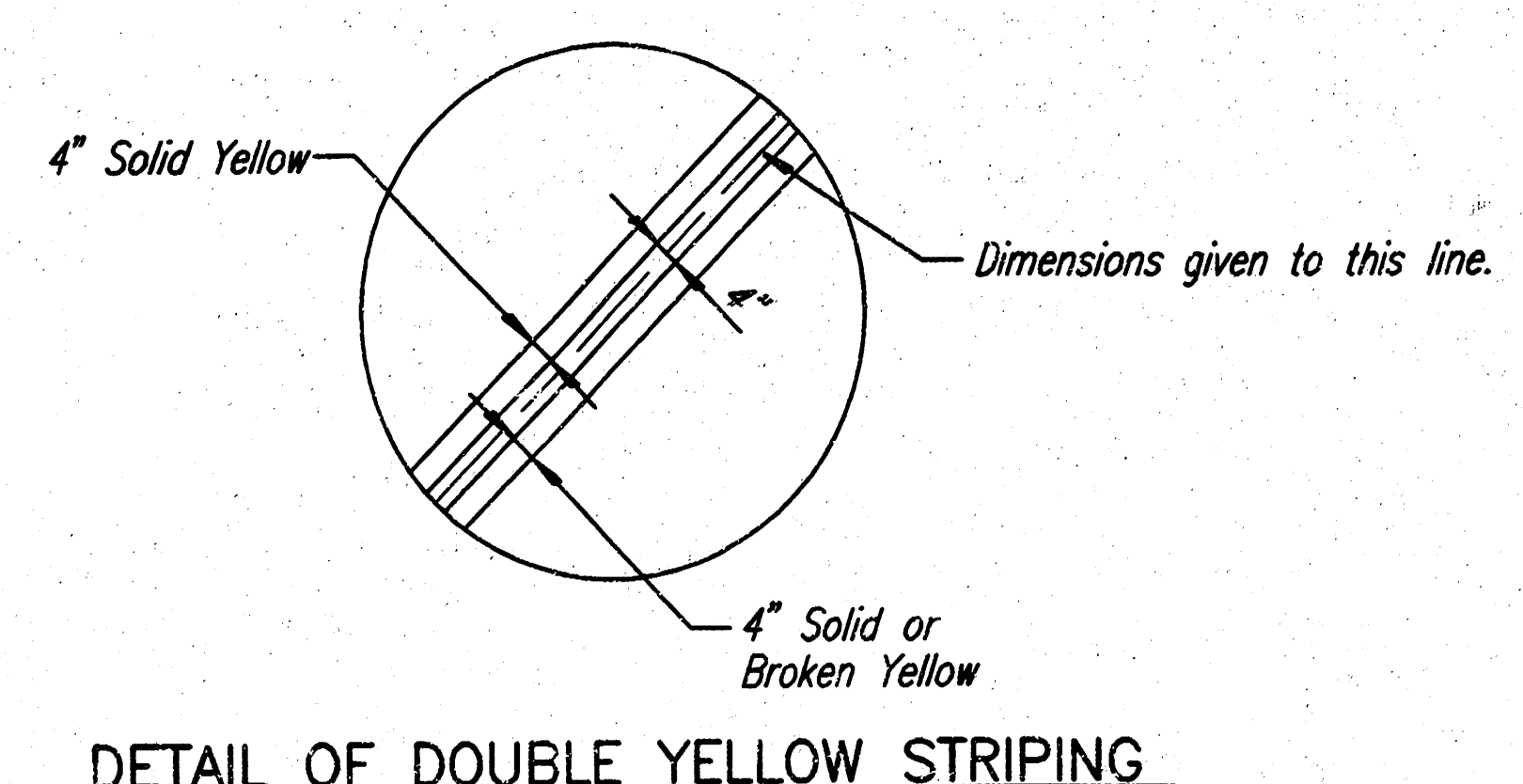
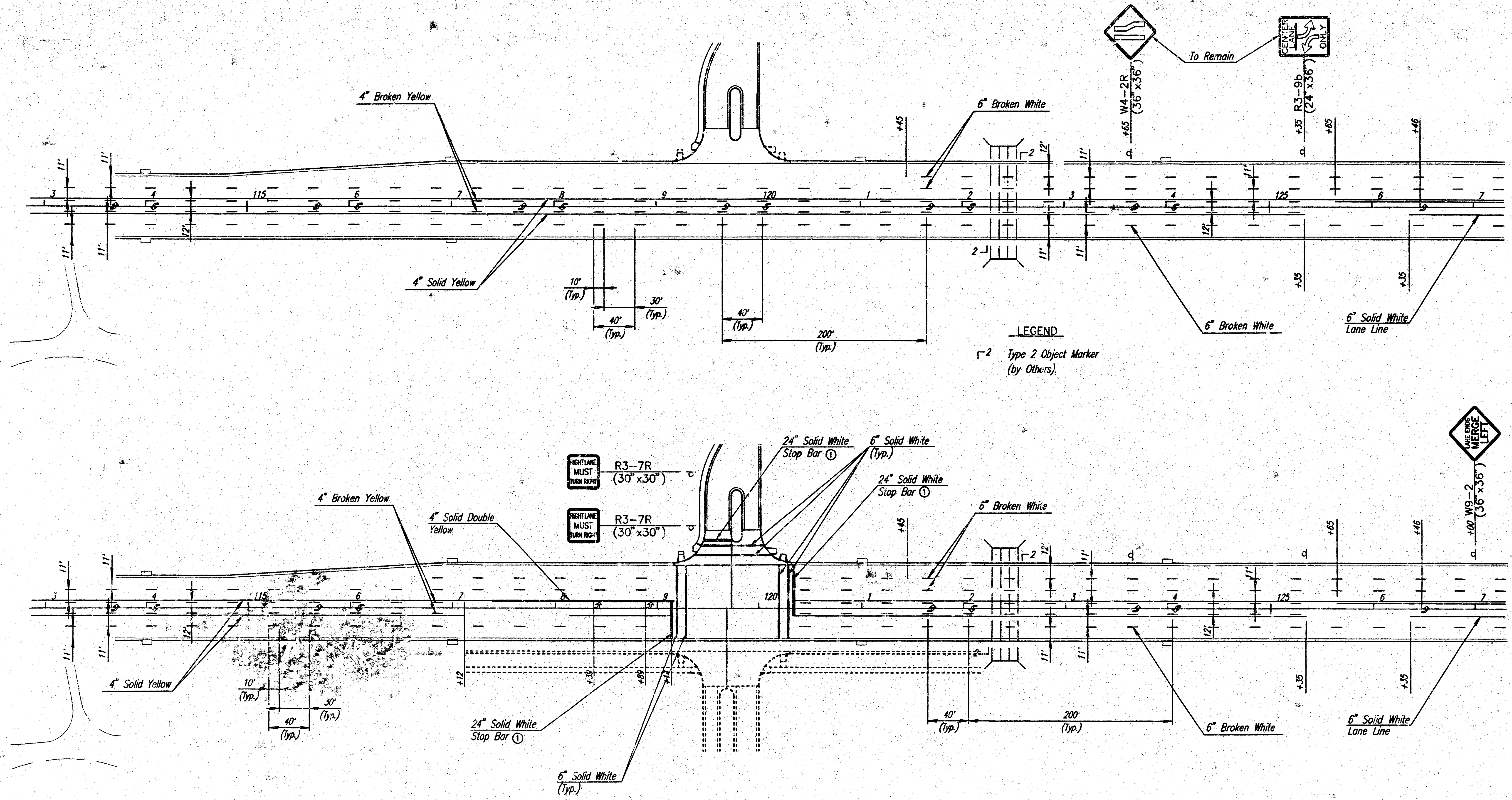
4 Modules required

-QUANTITIES FOR INFORMATION ONLY-

NOTE: The traffic signal system shall be complete and the contractor shall furnish and install all equipment and materials necessary for the satisfactory operation of electrical apparatus and for the complete operation of the traffic signal system whether specifically mentioned or not.



No.	Revision	By	Date
CITY OF WICHITA, KANSAS JAMES L. ARMOUR, P.E. - ACTING CITY ENGINEER 21ST STREET NORTH AND REGENCY LAKES TRAFFIC SIGNAL WIRING AND QUANTITIES CITY OF WICHITA PROJECT NO. 472-83954			
Professional Engineering Consultants, P.A. 303 S. TOPEKA • WICHITA, KANSAS 67202 316-262-3691 • FAX 316-262-3003			
Designed by BER	Job No. 04106-001	SN. 4 of 8	
Drawn by SAW	Date MARCH 2004		



SUMMARY OF PAVEMENT MARKINGS		
ITEMS	TOTAL	UNITS
PAVEMENT MARKING (THERMOPLASTIC) (WHITE) (6")	—	LIN. FT.
PAVEMENT MARKING (THERMOPLASTIC) (YELLOW) (4")	354	LIN. FT.
PAVEMENT MARKING (THERMOPLASTIC) (YELLOW) (12")	—	LIN. FT.
PAVEMENT MARKING SYMBOL (THERMOPLASTIC) (WHITE LEFT ARROWS)	2	EACH
PAVEMENT MARKING (THERMOPLASTIC) (WHITE) (12")	320	LIN. FT.
PAVEMENT MARKING (THERMOPLASTIC) (WHITE) (24")	94	LIN. FT.

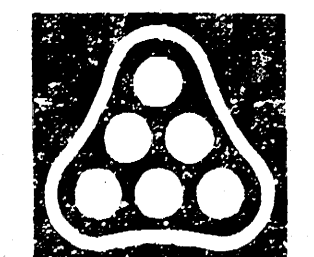
FOR INFORMATION ONLY - TO BE CONSIDERED SUBSIDIARY TO TRAFFIC SIGNAL INSTALLATION.

① THE CONTRACTOR SHALL COORDINATE THE PLACEMENT OF THE 24" WHITE STOP BARS WITH THE TRAFFIC SIGNAL CONTRACTOR. THE 24" WHITE STOP BARS SHALL NOT BE PLACED UNTIL THE TRAFFIC SIGNAL IS INSTALLED AND FUNCTIONING.

GENERAL NOTES

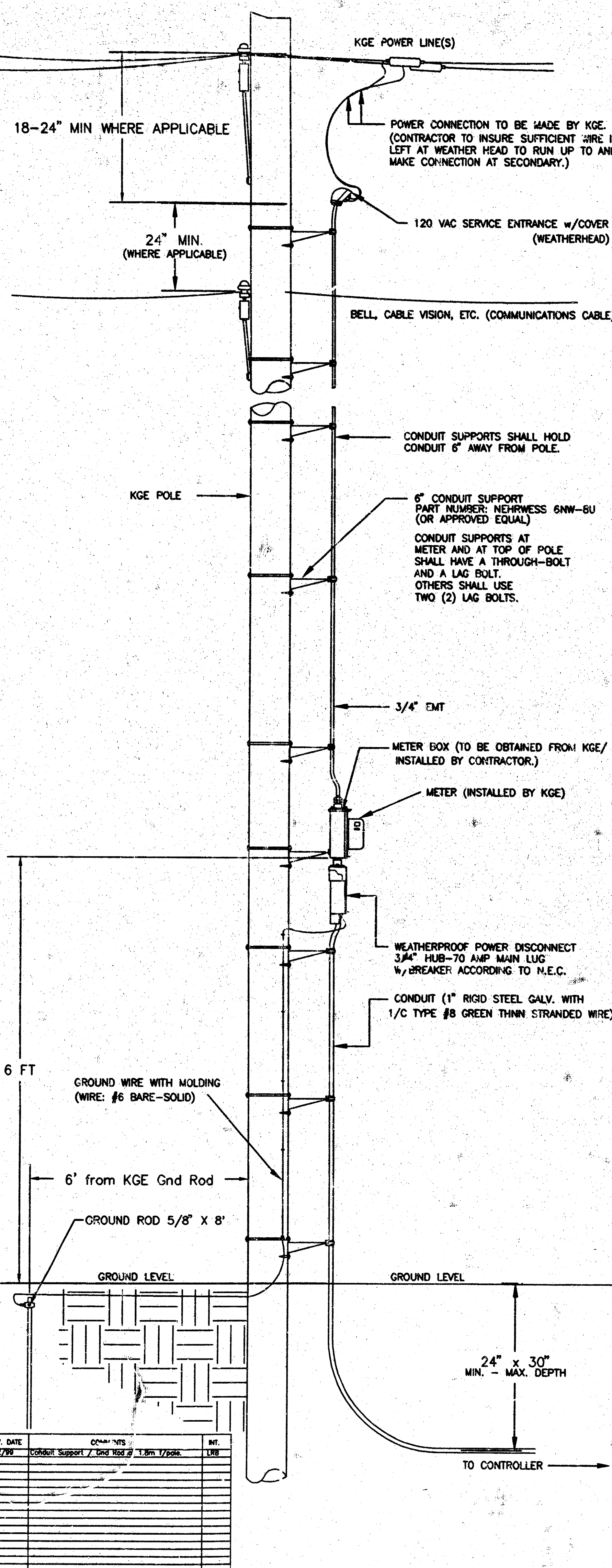
- Striping dimensions are from centerline of stripe to centerline of stripe.
- All single line dimensions are to centerline of stripe.
- All double line dimensions are to center of space between stripes. (See Detail)
- Existing marking shall be completely removed in all areas designated to receive new markings. Removal methods shall be approved by the Engineer. Removal of existing markings shall be subsidiary.
- * All markings on Bituminous Pavement shall be Thermoplastic Pavement Marking except as noted below.
- ** All symbols and all markings on Concrete Pavement shall be Heat-fused Preformed Thermoplastic Pavement Marking.
- Heat-fused Preformed Thermoplastic Pavement Marking placed over a joint line in concrete pavement shall be sliced and removed along the joint edges after placement.

No.		Revision		By		Date	
CITY OF WICHITA, KANSAS JAMES L. ARMOUR, P.E. - ACTING CITY ENGINEER 21ST STREET NORTH AND REGENCY LAKES MARKING PLAN CITY OF WICHITA PROJECT NO. 472-83954 Professional Engineering Consultants, P.A. 303 S. TOPEKA • WICHITA, KANSAS 67202 316-262-2691 • FAX 316-262-3003							
Designed by		BER		Job No.		04106-001	
Drawn by		SAW		Date		MARCH 2004	
						Sht. 5 of 8	



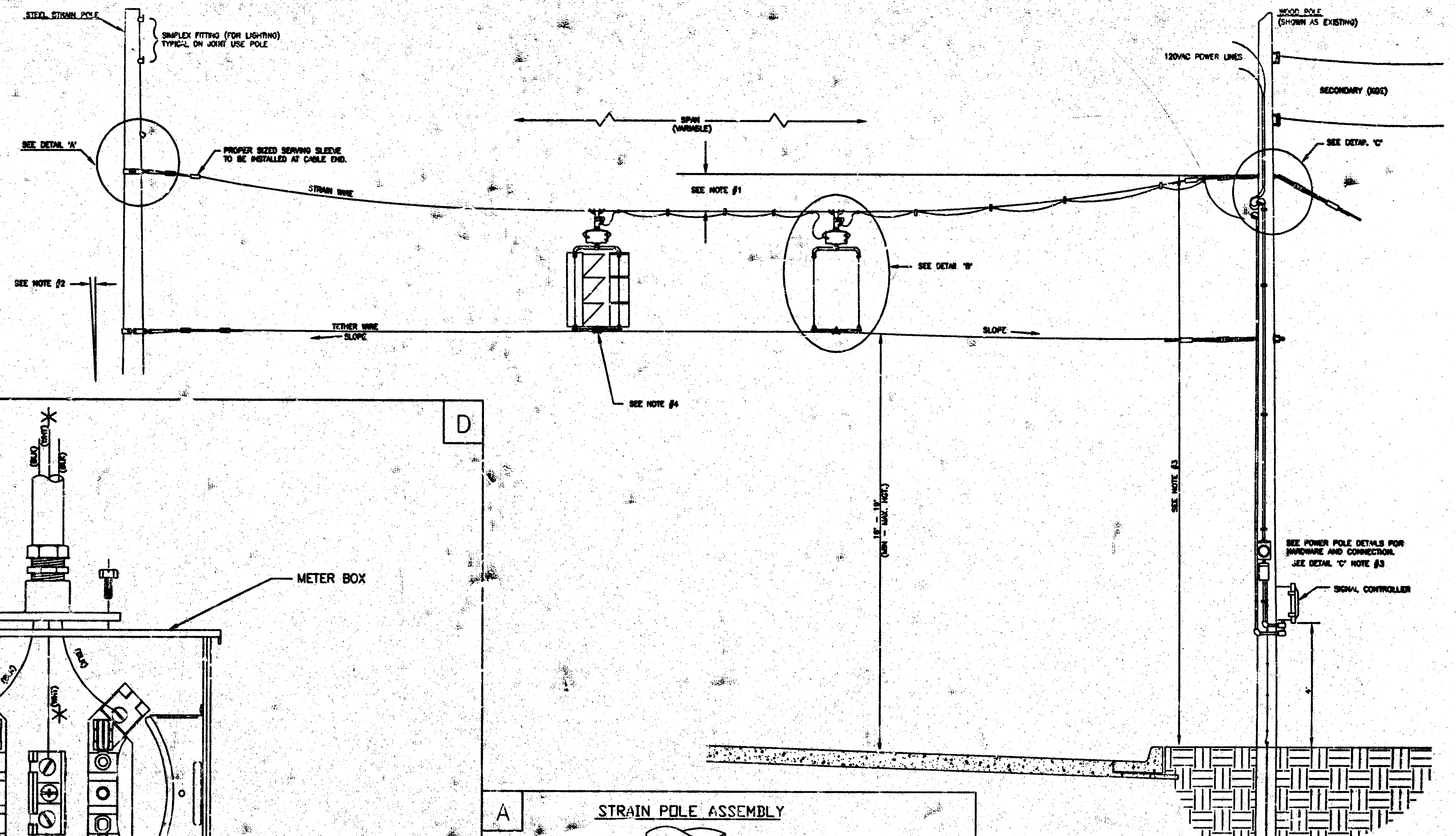
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POWER POLE DETAILS



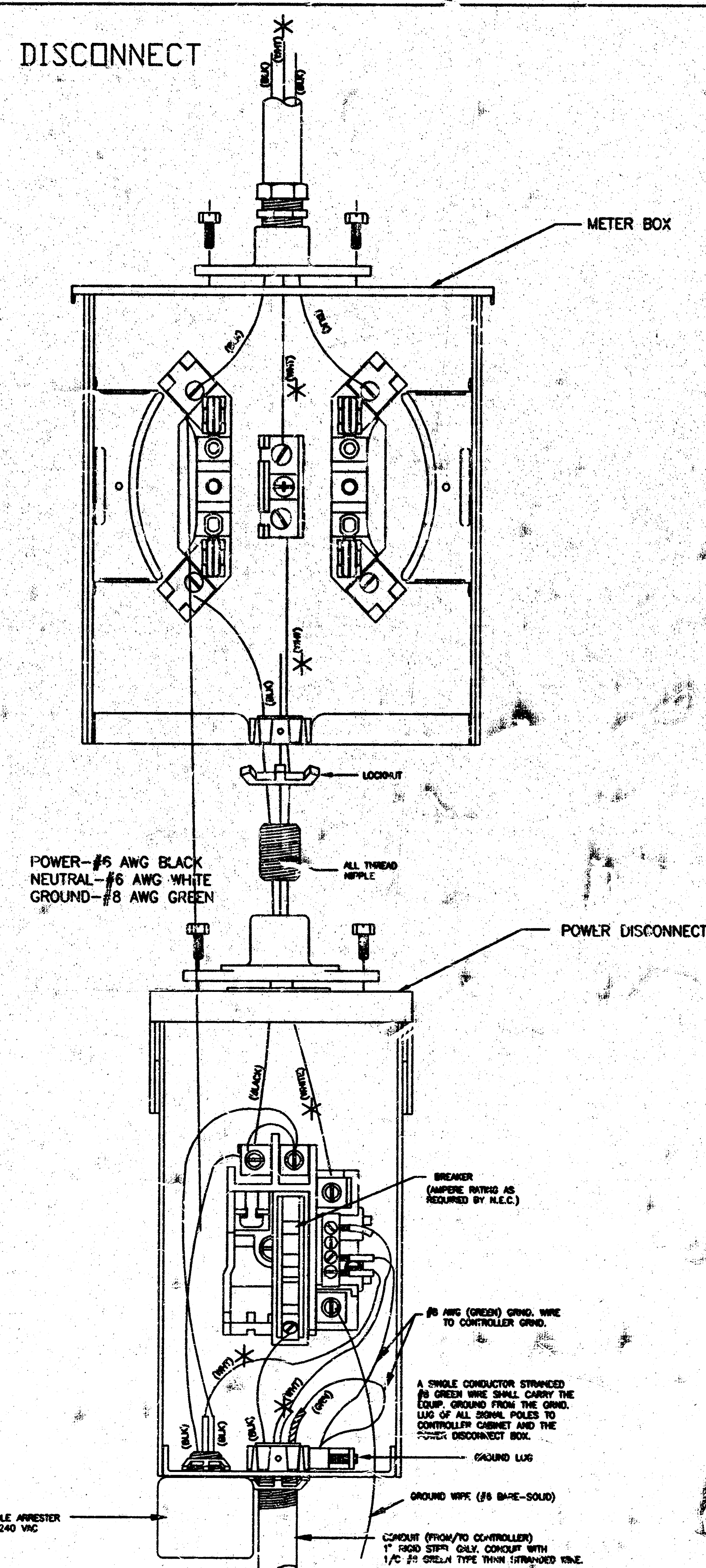
SPANWIRE ASSEMBLY DETAILS

1. MAX. SAG = 5% OF SPAN.
2. STANDARD BACKRAKE = 1.5E
3. HEIGHT OF STRAIN WIRE HOOK-UP TO BE DETERMINED BY FIELD ENGINEER. TRAFFIC SIGNAL CABLE TO BE SECURED TO STRAIN (SPAN) WIRE WEATHERABLE NYLON CABLE HANGERS (12" CTR.) DETAIL 'B'
4. TETHER CLAMP TO BE DESIGNED TO RELEASE UNDER 'HIGH WIND LOAD' TO PERMIT SIGNAL 'FREE' SWING.

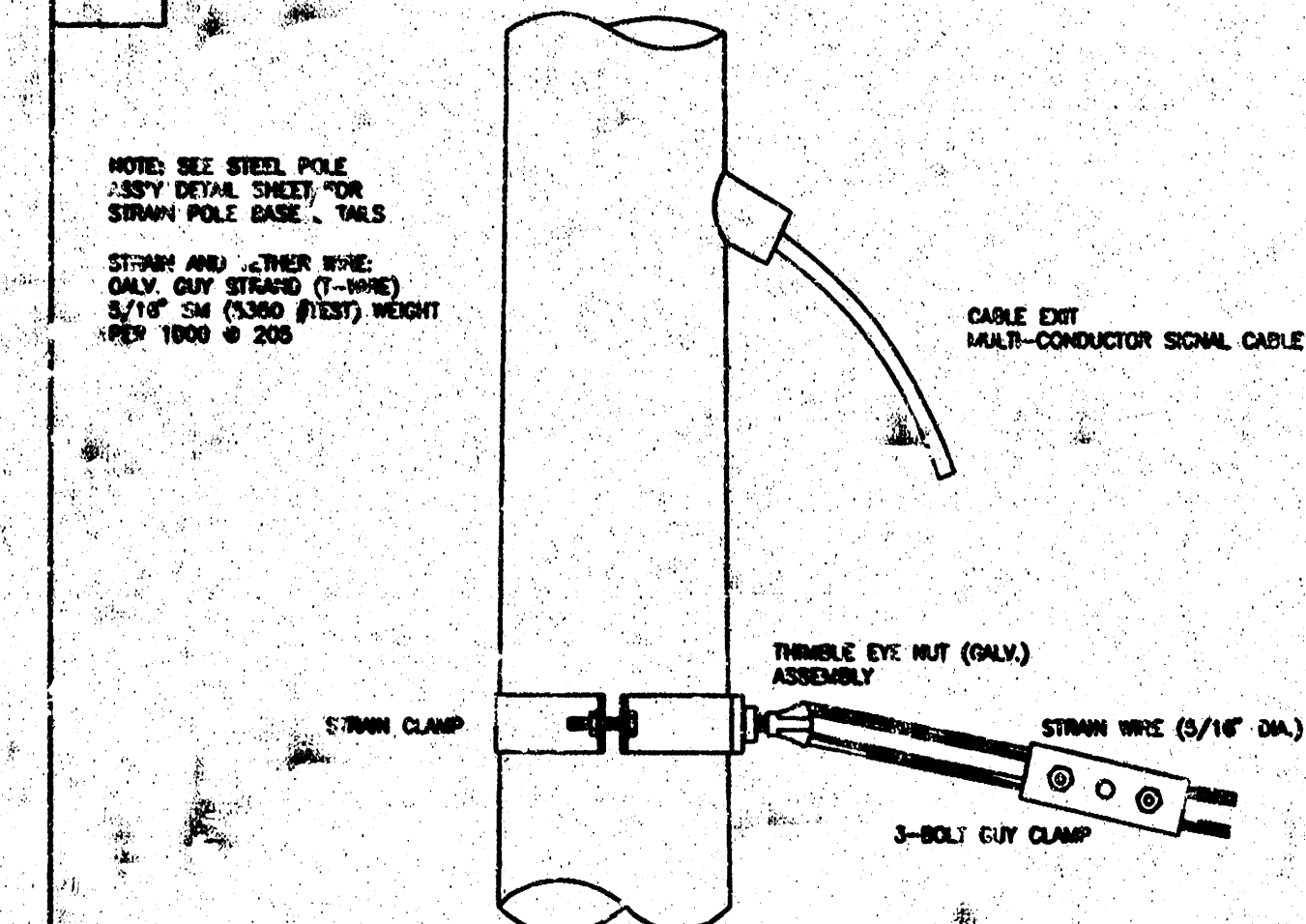


METER BOX & POWER DISCONNECT DETAILS

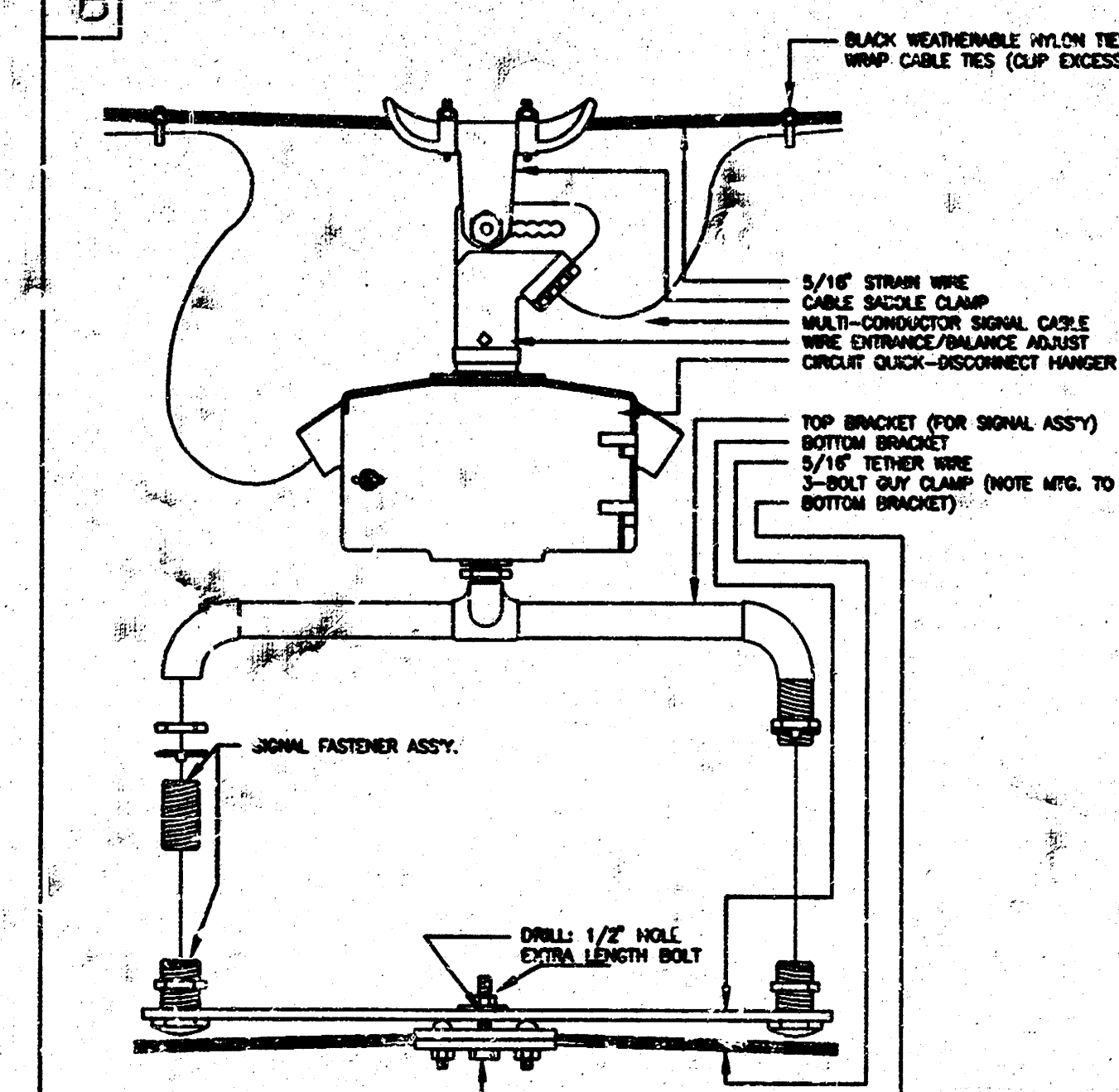
NOTE:
* TO BE MARKED WITH WHITE TAPE



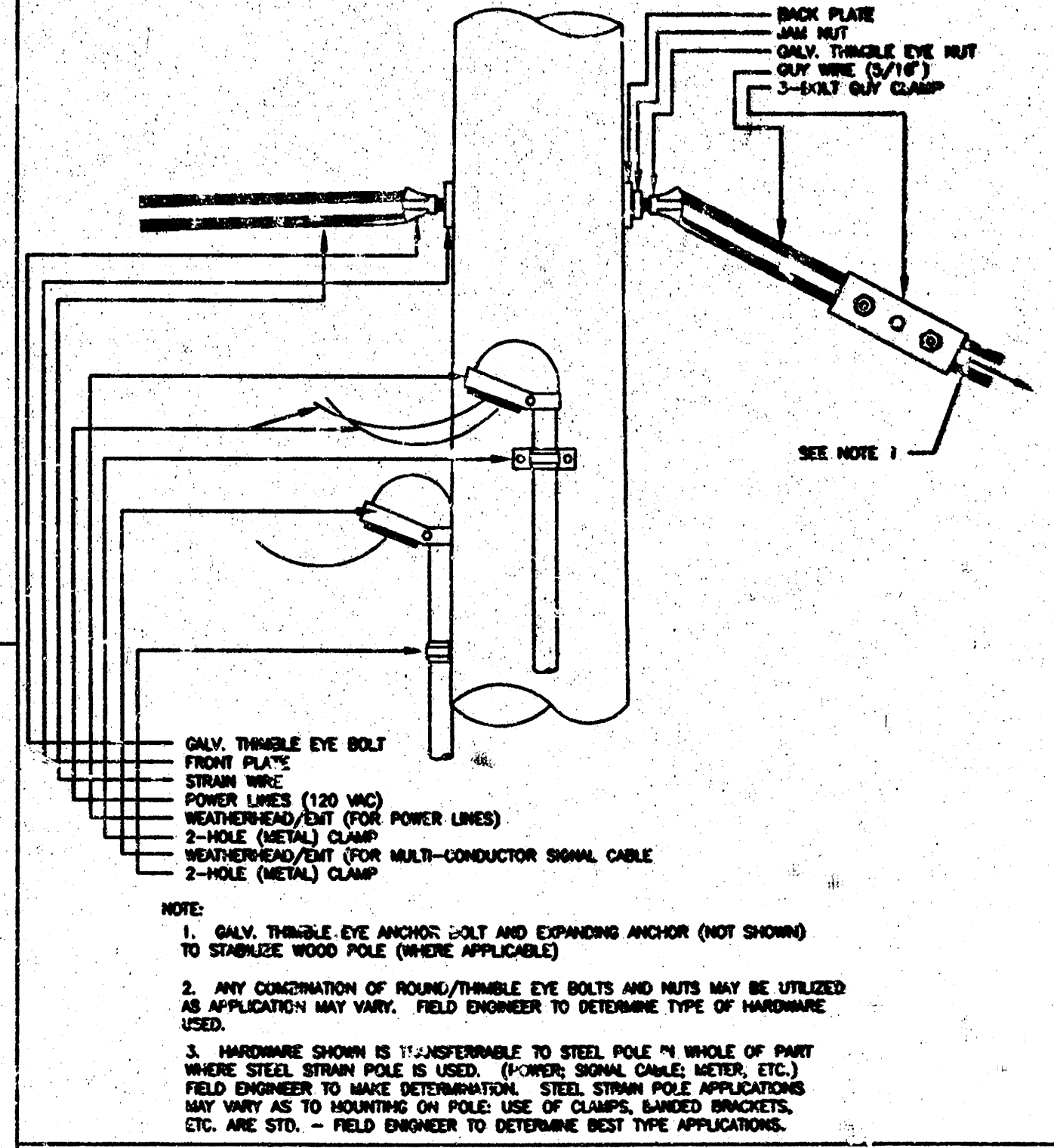
A STRAIN POLE ASSEMBLY



B SIGNAL BRACKET ASSEMBLY DETAILS



C WOOD POLE ASSEMBLY DETAILS KGE POLE EXCLUDED



POWER POLE AND SPAN POLE ASSEMBLY DETAILS

21ST STREET NORTH AND REGENCY LANE

PROJECT NUMBER 472-83954

SCALE NO SCALE

REVISOR: L. B.

DATE: FEB. 96

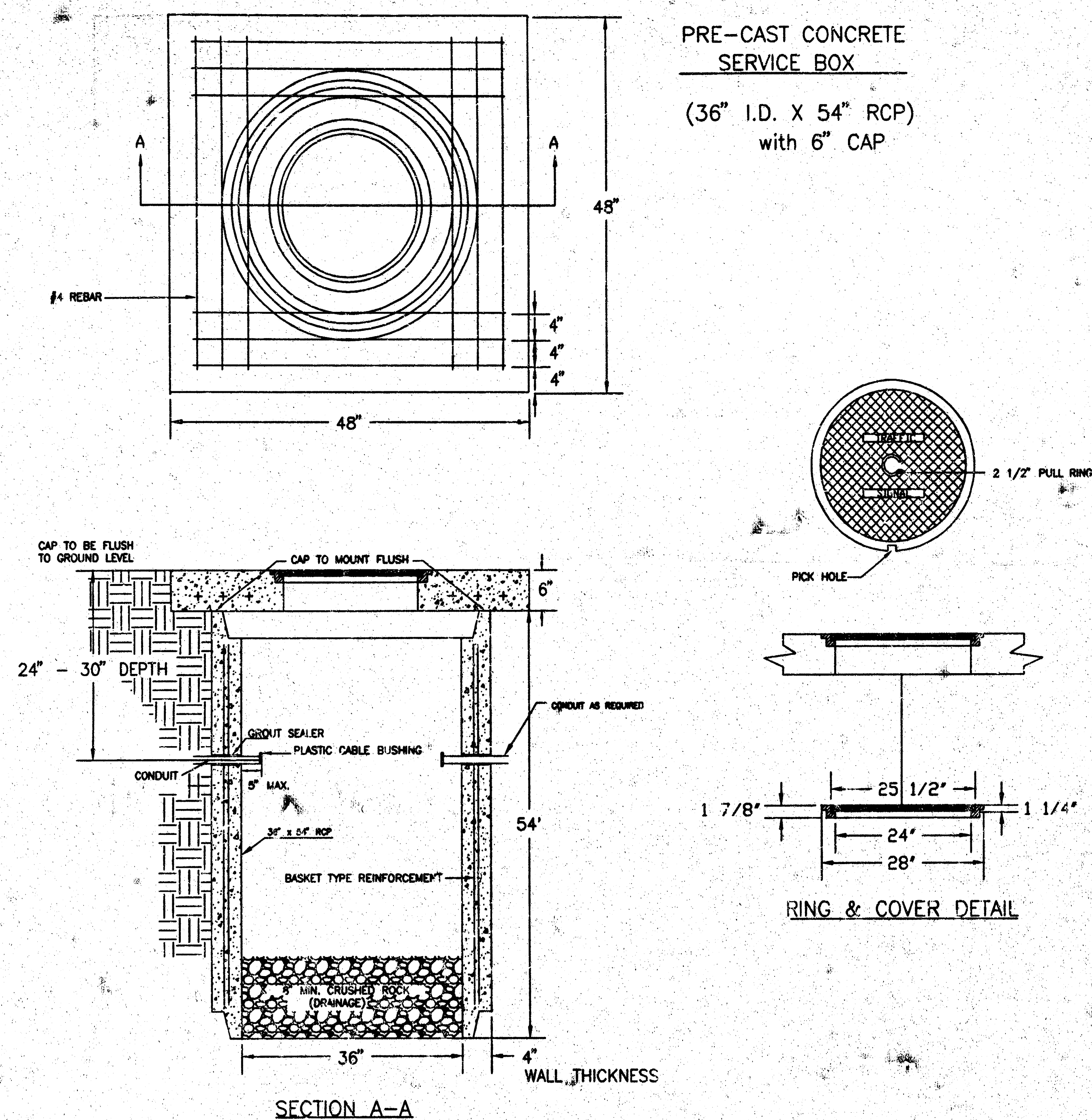
CITY OF WICHITA DEPARTMENT OF PUBLIC WORKS

DIVISION OF TRAFFIC ENGINEERING

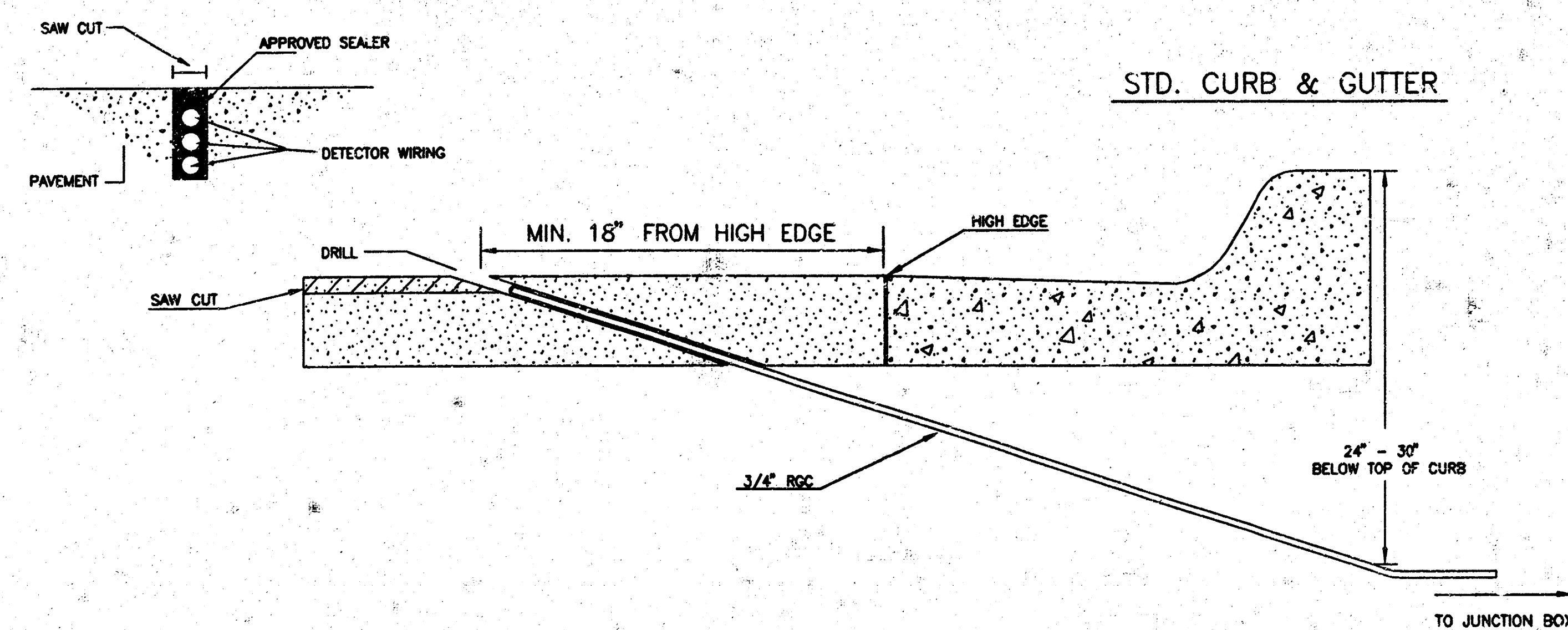
WM. G. MCINLEY P.E. TRAFFIC ENGINEER

SHEET 6 OF 8

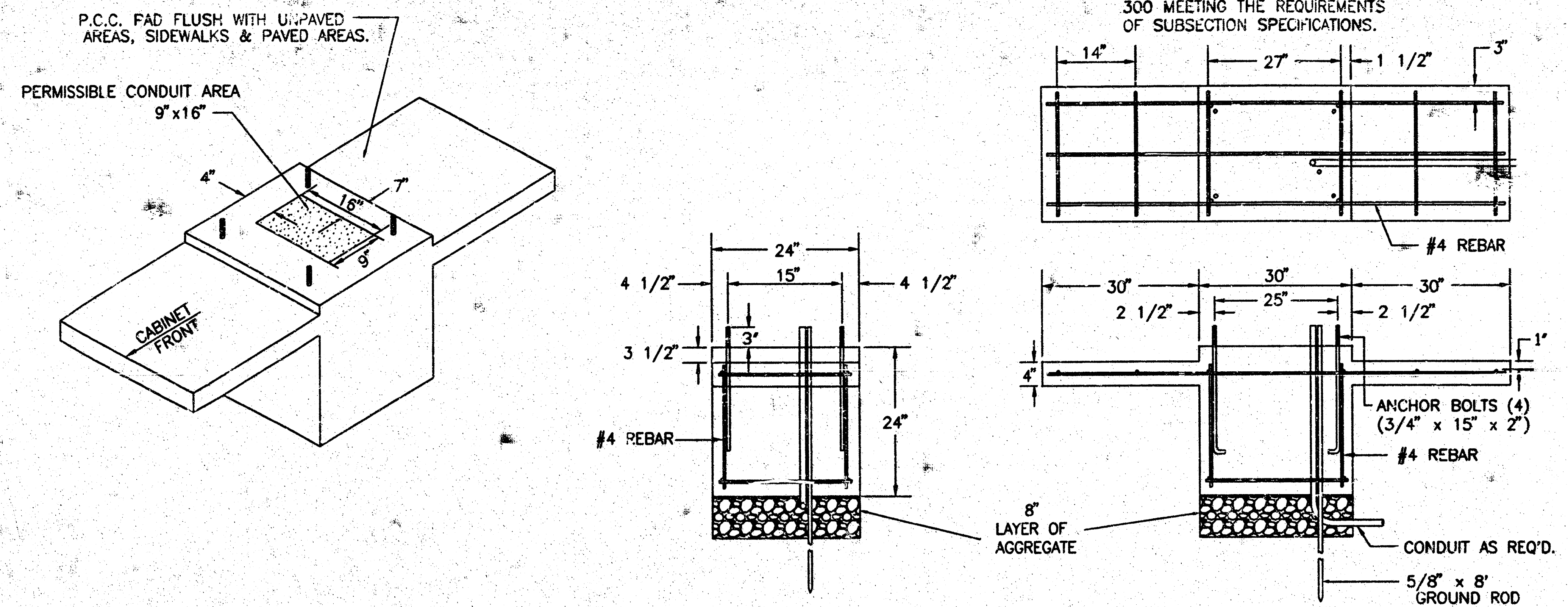
SERVICE BOX CONSTRUCTION/INSTALLATION DETAILS



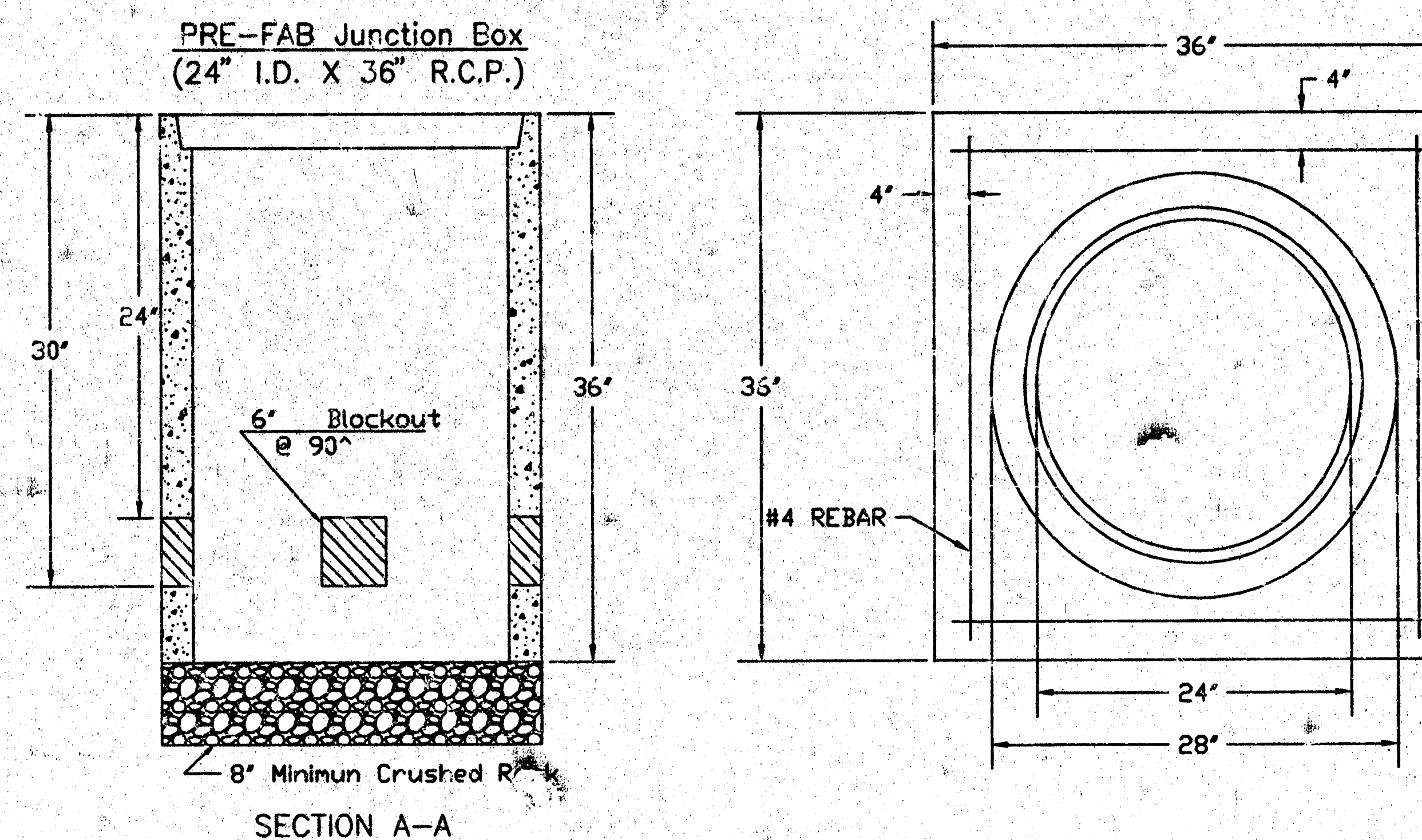
CONDUIT/DETECTOR WIRE INSTALLATION DETAILS



170 CONTROLLER PAD DETAILS



JUNCTION BOX DETAILS



JUNCTION BOX CAP

36" x 36" x 6"
TOP OF CAP TO BE FLUSH WITH
GROUND LEVEL.

**SEE SERVICE BOX INSTALLATION
FOR RING & COVER DETAILS.

[illegible]

NOTES:

SERVICE & JUNCTION BOX:

1. CONDUIT CONNECTION TO BE FLUSH TO WITHIN 125 mm OF INSIDE FACE OF SIDE WALL, CONDUIT TO DRAIN INTO SERVICE BOX.
2. CONDUIT CONNECTIONS TO SERVICE BOX SHALL BE TERMINATED WITH PLASTIC CABLE BUSHING.
3. CONDUIT SHALL BE SEALED WITH APPROVED SEALER AT INSIDE WALL FACE.
4. ALL SERVICE & JUNCTION BOXES TO HAVE 200 mm OF CRUSHED ROCK.

TRENCHING:

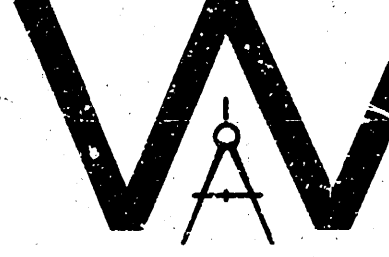
1. DEPTH TO BE 30" MINIMUM WITH ROCK & STUBBLE FREE BACKFILL TO SERVE AS BEDDING MATERIAL. MAINTAIN MINIMUM CONDUIT DEPTH IN TRENCH.
2. BACKFILL TO BE COMPACTED IN 6" LOOSE LIFTS BY HAND OR MECHANICAL TAMPING TO A 95% STANDARD DENSITY.

CONDUIT:

1. SLOPE CONDUIT TO DRAIN AS DIRECTED BY THE ENGINEER.
2. 3" RIGID STEEL CONDUIT BTWN. SERVICE BOXES.
- | | | | | |
|--------|---|---|---|--|
| 1 1/4" | " | " | " | BTWN. SERVICE & JUNCTION BOXES. |
| 3/4" | " | " | " | BTWN. JUNCTION BOXES. |
| 3/4" | " | " | " | BTWN. JUNCTION BOX & DETECTOR LOOP SAW CUT |

SERVICE/JUNCTION BOX, CONTROLLER PAD CONSTRUCTION/INSTALLATION DETAILS

THE CITY OF WICHITA

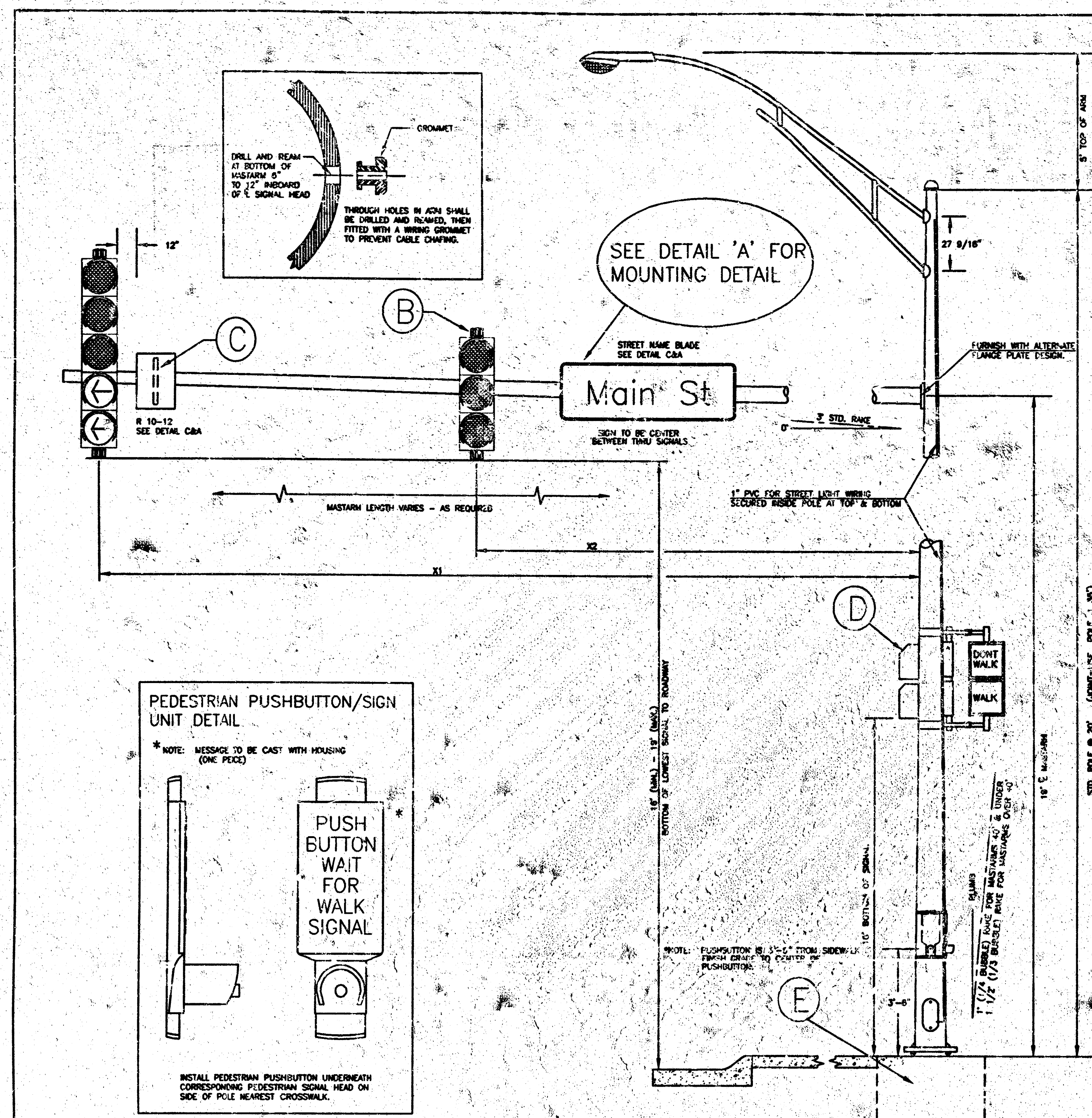


CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4501
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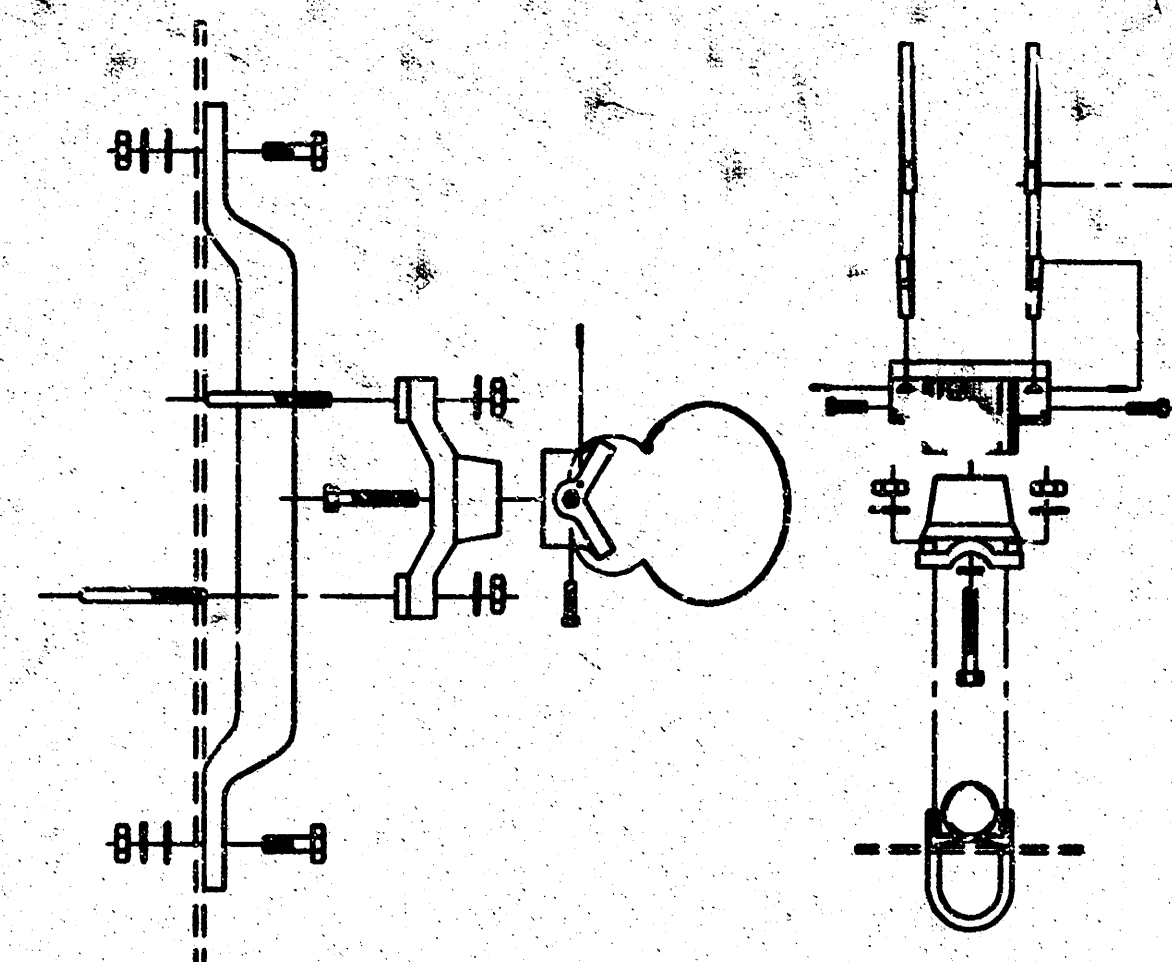
21ST STREET NORTH AND REGENCY LAKES
SERVICE/JUNCTION BOX, CONTROLLER PAD
CONSTRUCTION/INSTALLATION DETAILS

PROJECT NUMBER 472-83954		
DRAWN BY: T.M.	SCALE	REVISED BY:
DATE: MAY 97	NO SCALE	DATE:
CITY OF WICHITA DEPARTMENT OF PUBLIC WORKS		
DIVISION OF TRAFFIC ENGINEERING WM. G. MCKINLEY P.E. TRAFFIC ENGINEER		SHEET 7 OF 8

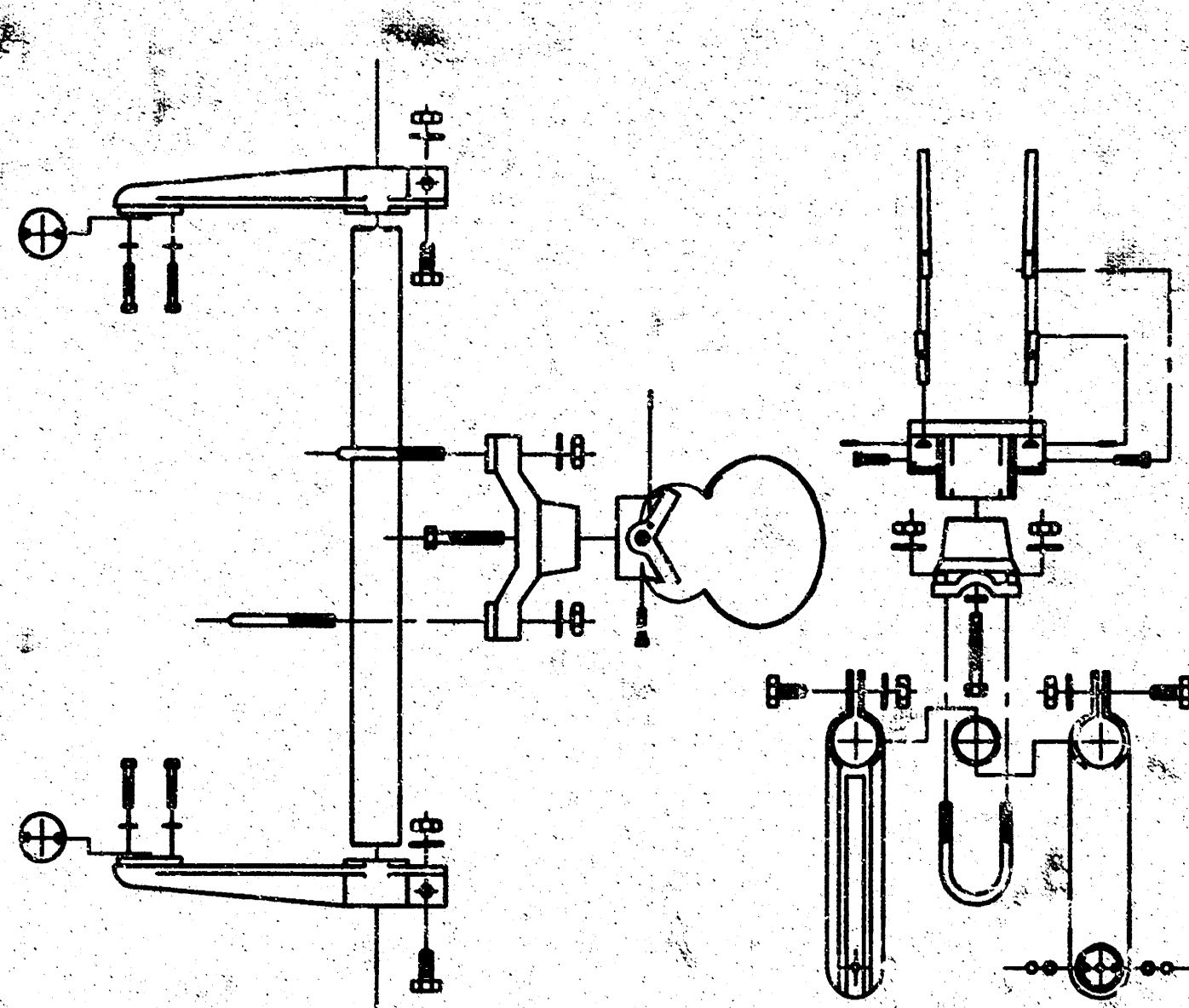
DSNR: BBR OPER. SAW SCALE: 1"=1'-00"
4/15/2004 04:06:00 03-26-2004 11:23:16 am



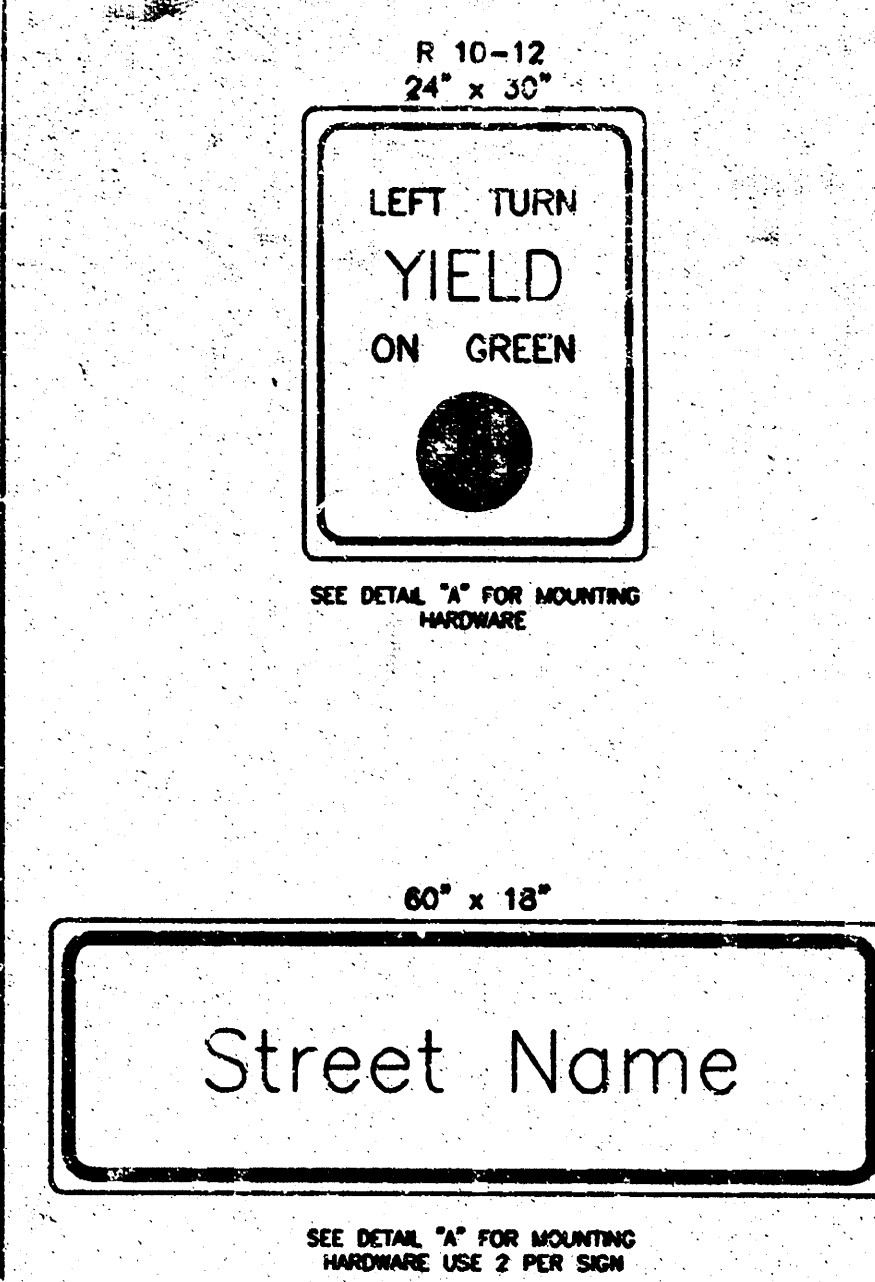
BANDED SIGN MOUNTING BRACKET DETAIL



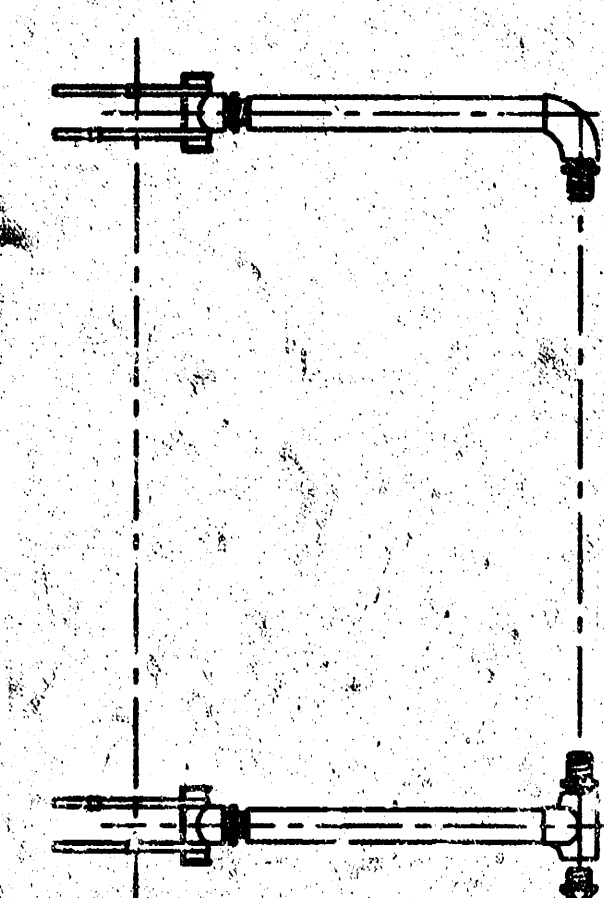
TYPE I SIGNAL MOUNTING BRACKET ASSEMBLY DETAIL



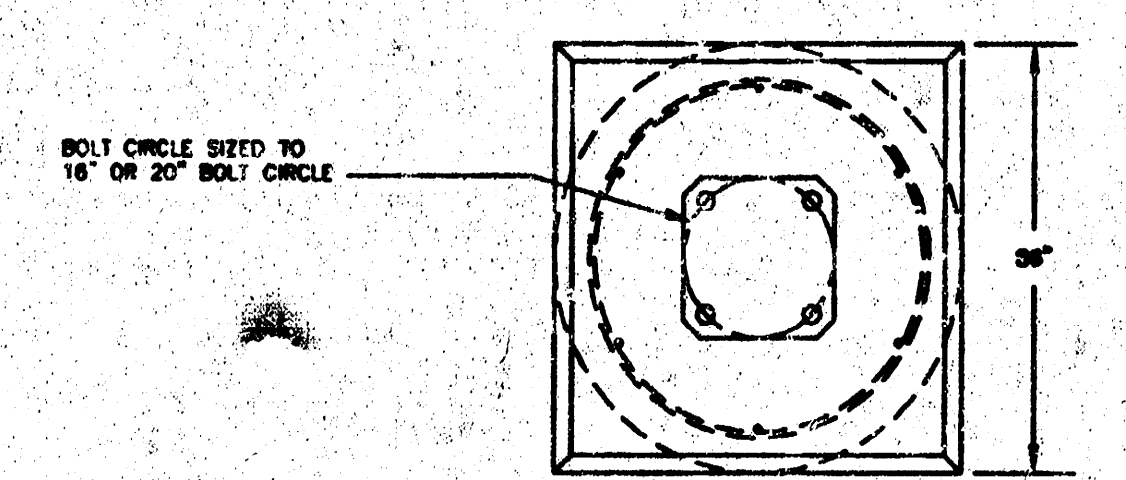
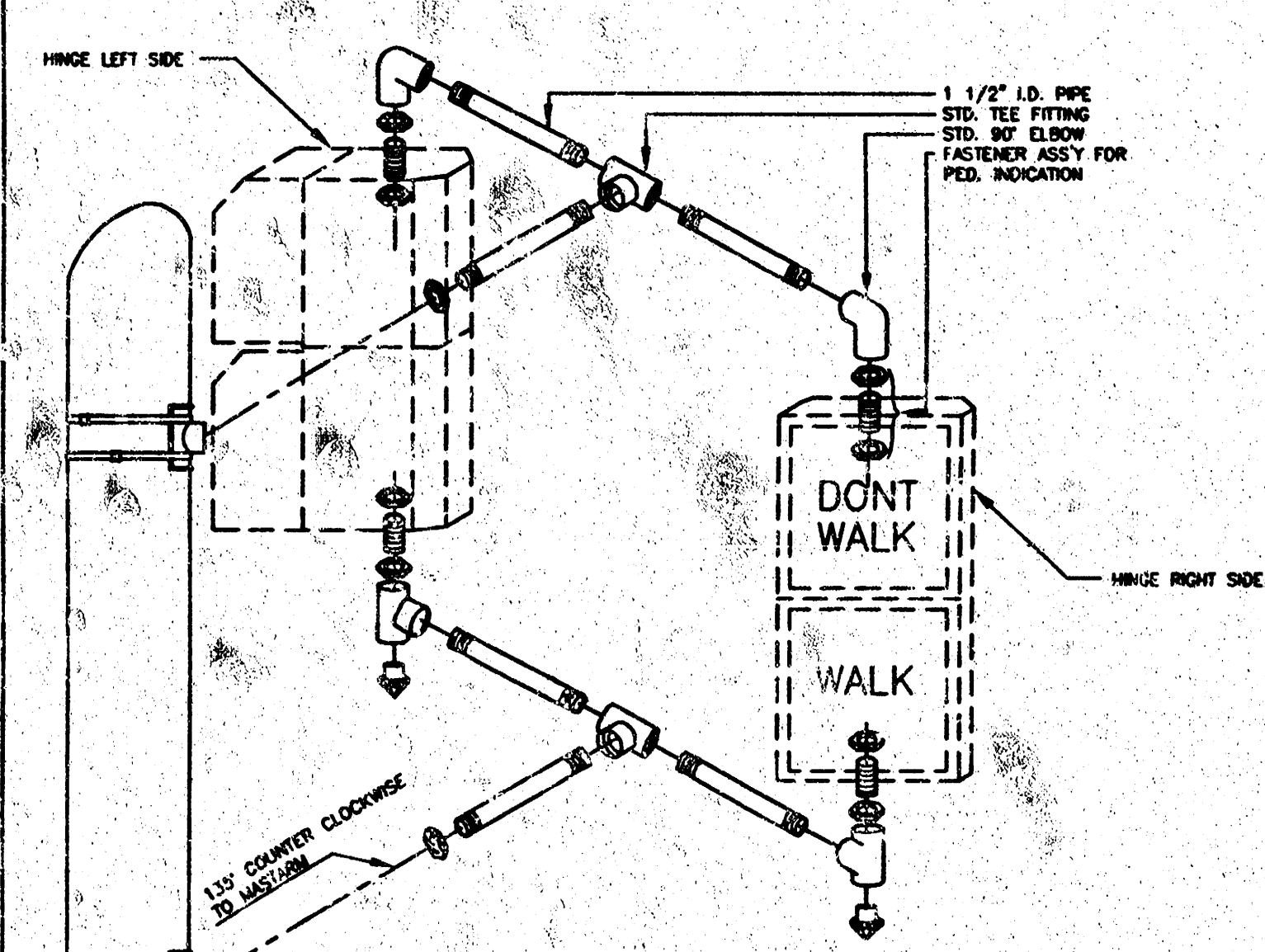
STANDARD SIGNING



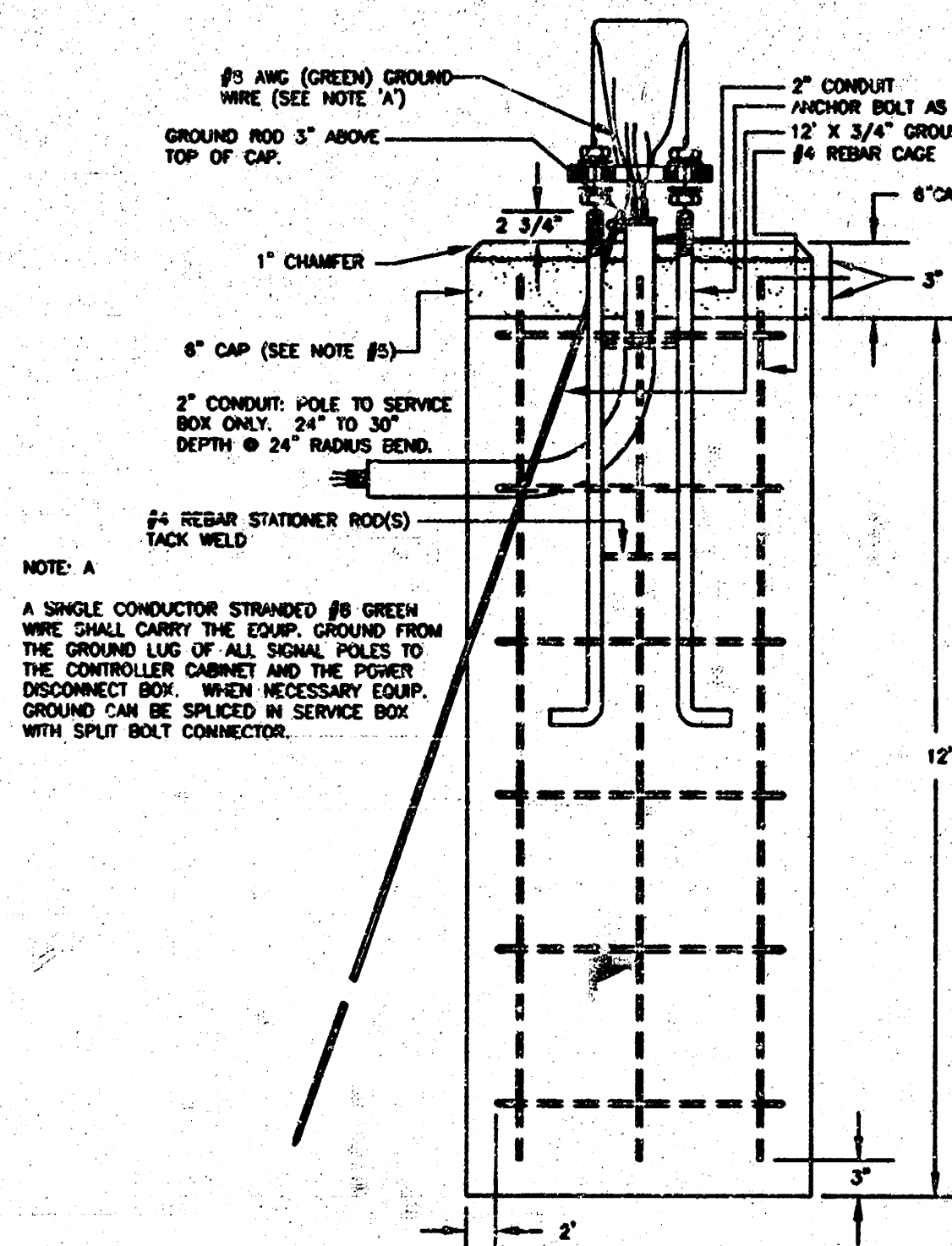
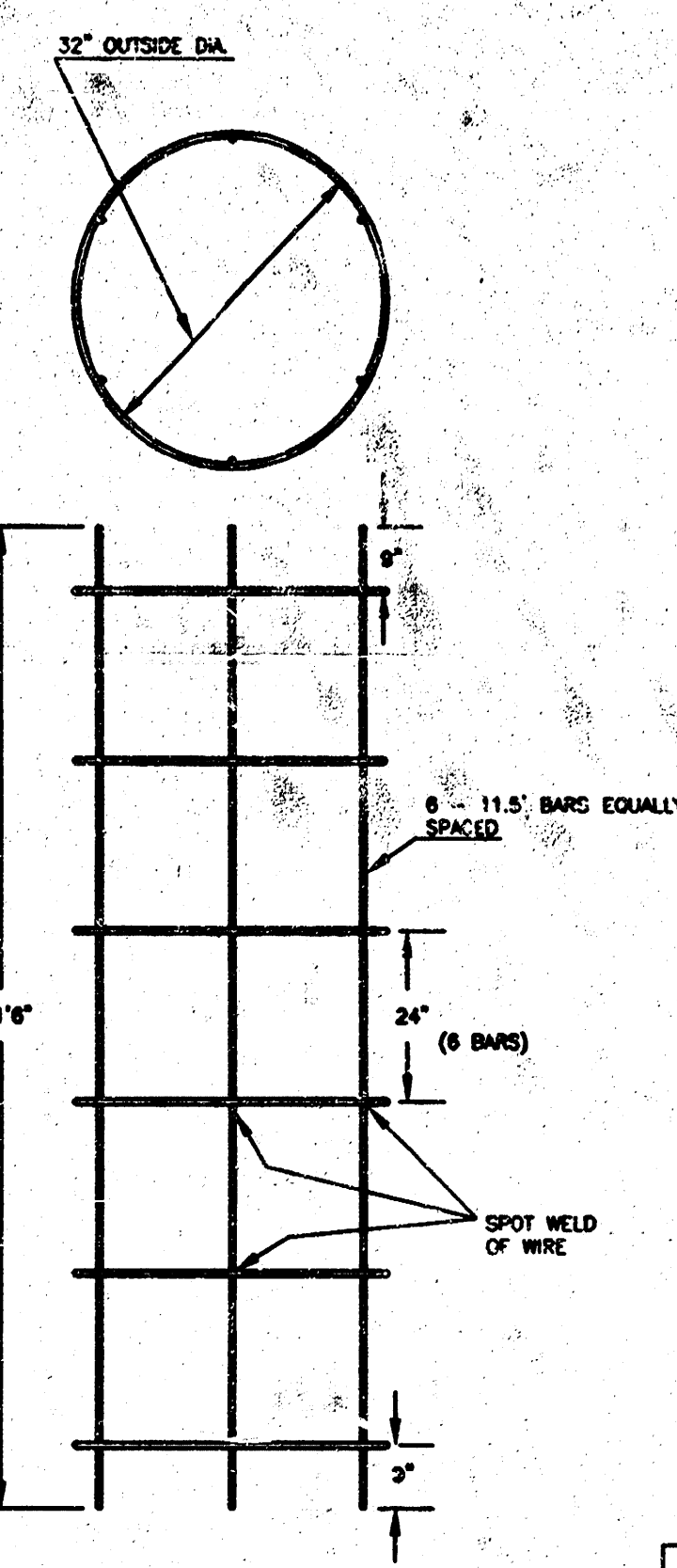
TYPE III SIDE-OF-POLE MOUNTING BRACKET ASSEMBLY



TYPE II SIGNAL MOUNTING BRACKET ASSEMBLY (SIDE-OF-POLE)



REBAR CAGE



- NOTE:
1. THE ANCHOR BOLTS FOR THE SIGNAL POLE SHALL BE TACK WELDED TOGETHER IN A 14" OR 20" DIA. BOLT PATTERN (ON COVERS AS SHOWN) TO MAINTAIN REQUIRED BOLT CONFIGURATION PATTERN AND TO 40 IN VERTICAL POSITIONING WHILE CONCRETE BASE IS POURED.
 2. USE ANTI-SEIZE COMPOUND ON ALL THREADS.
 3. 12" x 3/4" GROUND ROD TO BE POSITIONED BEFORE POURING BASE.
 4. CLASS 'A' CONCRETE SHALL BE USED TO CONSTRUCT BASE.
 5. CONSTRUCT A 4" THICK x 36" SQUARE CONCRETE CAP AFTER POLE HAS BEEN ERECTED & PLUMBED. CHAMFER SIDE 1" MUST BE APPROVED BY ENG. BEFORE POURING.
 6. CONDUIT SHALL HAVE PLASTIC (OR OTHER) BUSHING (ABOVE BASE) TO PREVENT CABLE CHAFING.
 7. USE #4 BARE COPPER GROUND CONDUCTOR FROM CLAMP TO GROUND BOLT IN ACCESS HOLE.

21ST STREET NORTH AND REGENCY LAKES			
STEEL SIGNAL POLE ASSEMBLY DETAILS			
PROJECT NUMBER 472-83954			
DRAWN BY: T.M.	SCALE NO SCALE	REVISED BY: L.B.	DATE: 2/26/99
CITY OF WICHITA DEPARTMENT OF PUBLIC WORKS			
DIVISION OF TRAFFIC ENGINEERING WM. G. MCKINLEY P.E. TRAFFIC ENGINEER			
SHEET 8 OF 8			

14-09-03-08