

TINGLEY SURGE POND

Table TP - Tingley Surge Pond

(Plans and as-builts included)

TINGLEY SURGE POND**Mid-Valley Drainage Management Plan****1 of 2****Hydraulic Assumptions for Orifice Flow and Weir Flow
(12 ft x 12 ft Steel Nearly Vertical Grate Principal Spillway)**SWMM Model Dynamic Routing

An elevation – discharge – storage rating curve is required to simulate a detention pond routing. Basic initial assumptions regarding orifice or weir flow for various outfall structures are required. However, during a model simulation, the hydraulics and hydraulic grade line of the outfall storm drain may limit the discharge from the pond as defined by the rating curve. Therefore, weir flow assuming free un-submerged discharge may be valid for small storms and most of the hydrograph of a larger storm, but could become submerged for some time during a large storm hydrograph and again become un-submerged during the receding hydrograph limb.

Therefore, the flow type is most likely variable and complex, and an assumption is required to develop an initial rating curve, based on what type of flow may be predominant for the given situation and storm return period simulated.

This analysis has assumed that the predominant flow for the 12 ft. x 12 ft. nearly vertical principal spillway is un-submerged weir flow.

Orifice Flow

Storm drain pipes and small water quality pipes (slanted small pipes in concrete walls) are computed with the orifice equation using partial pipe areas for a given water depth until pipe is submerged, then the full pipe area is applied until the maximum pond water depth to obtain the rating curve upper limit. Table TP attached defines the orifice equation(s), coefficient and presents the computation results.

Weir Flow (Principal Spillway Grate and Top of Pond Embankment)

A weir operates as a function of head on the weir and weir length perpendicular to flow, and for this analysis a free fall discharge is assumed. Velocity after the water fall is therefore not a factor for the free fall assumption. As described previously, an assumption of weir submergence should be considered for the weir free fall assumption to remain valid. Depending on the structure configuration, a submerged weir could act as an orifice.

Top of Pond Elevation	=	4946.66 ft
Top of Concrete Elevation	=	4941.66 ft
Difference	=	5.0 ft

Water will immediately gravity fall from one side of the concrete wall into the box below before the water would intersect water falling from the adjacent walls. Some inefficiency of the weir flow would occur at each corner, as the flow from adjacent walls will intersect during the fall. Therefore, adjustment for weir flow inefficiency due to flow intersection may be simulated through the weir coefficient.

In addition, the nearly vertical bars (principal spillway) will have some impedence to flow and will therefore slightly reduce the effective weir length. Therefore the width of the bars on each side of the grate were subtracted from the concrete weir width (each side) to reduce the effective weir length. The data and computed adjusted weir length follow:

Bar widths = 0.5 inches

No. of bars per side = 47

Total bar width per side = 1.95 feet

Concrete wall weir length per side = 12 feet.

Computed effective weir length per side = 12 feet – 1.95 = 10.0 feet

Weir Coefficient

The vertical concrete walls and flat top of walls (1 – foot wide = breadth of weir crest) that hold the 12 ft. x 12 ft. grate are assumed to act as broad crested weirs. The weir coefficient for 1-foot broad and 3 feet of head is 3.32 as presented in Table 5-3 from "Handbook of Hydraulics", Sixth Edition, by Brater & King, 1976. Smith Engineering Company assumed a reduced weir coefficient of 3.0 to account for weir inefficiency as described above. Table TP attached defines the weir equation, coefficient and presents the computation results.

Conclusion – Assume the principal spillway grate structure will act as a free fall weir.

See Table TP and as-builts / plans attached for more information.

TINGLEY SURGE POND**DATA and POND ROUTING DATA / COMPUTAIONS**

Pond Annotated Photographs: 5 Pages attached

Elevation-Storage-Discharge: Data table for SWMM model attached

Pond Design Report or Pond Routing Model Available to adopt the Pond Elevation – Area – Discharge Rating Curve Data:

COA stated: Not Available

Pond As-Built Plans Available:

COA stated: Yes Available

Pond Construction Plans Available if no As-Built Plans :

COA stated: Yes Available

***Elevation is datum 1929 NGVD from construction docs - Benchmark "1-K13"**

Conversion Factor from 29 datum to 88 datum = 2.66 feet (see attached)

SEC Assumed Elevations for Principal and Emergency Spillways based on:
2007 Lidar Elevations, No

Was Pond Designed as a Surge Pond ? Yes

Pond Plan and Profile Schematic View Sketch:
Attached: Yes Vertical Datum 88 1 Page attached

Public: Yes

Pond has Retention ? No

Pond has surface Inflows? Yes
Surface rundown into pond?: Yes

Pond has how many storm drain inflows? 1 (see plans and schematic attached)

Emergency Spillway:

Actual Emergency Spillway: No (see schematic attached for dimensions)

If No SEC assumed an emergency spillway

(see schematic attached or Table of Elevation – Storage – Discharge Data for assumed dimensions)

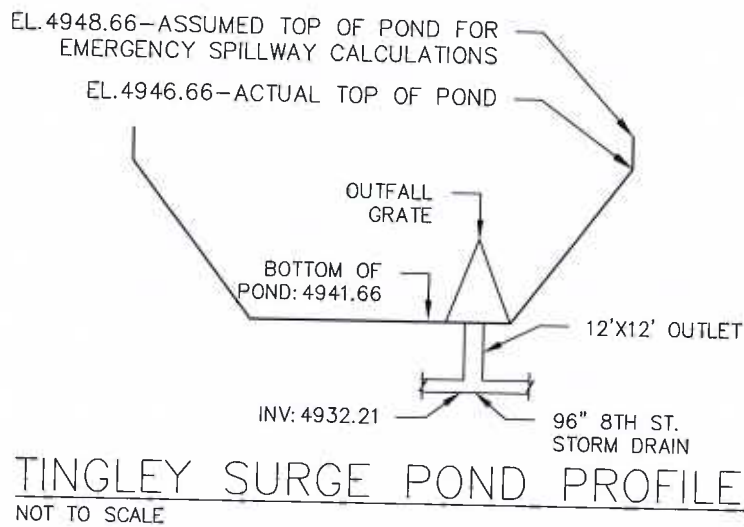
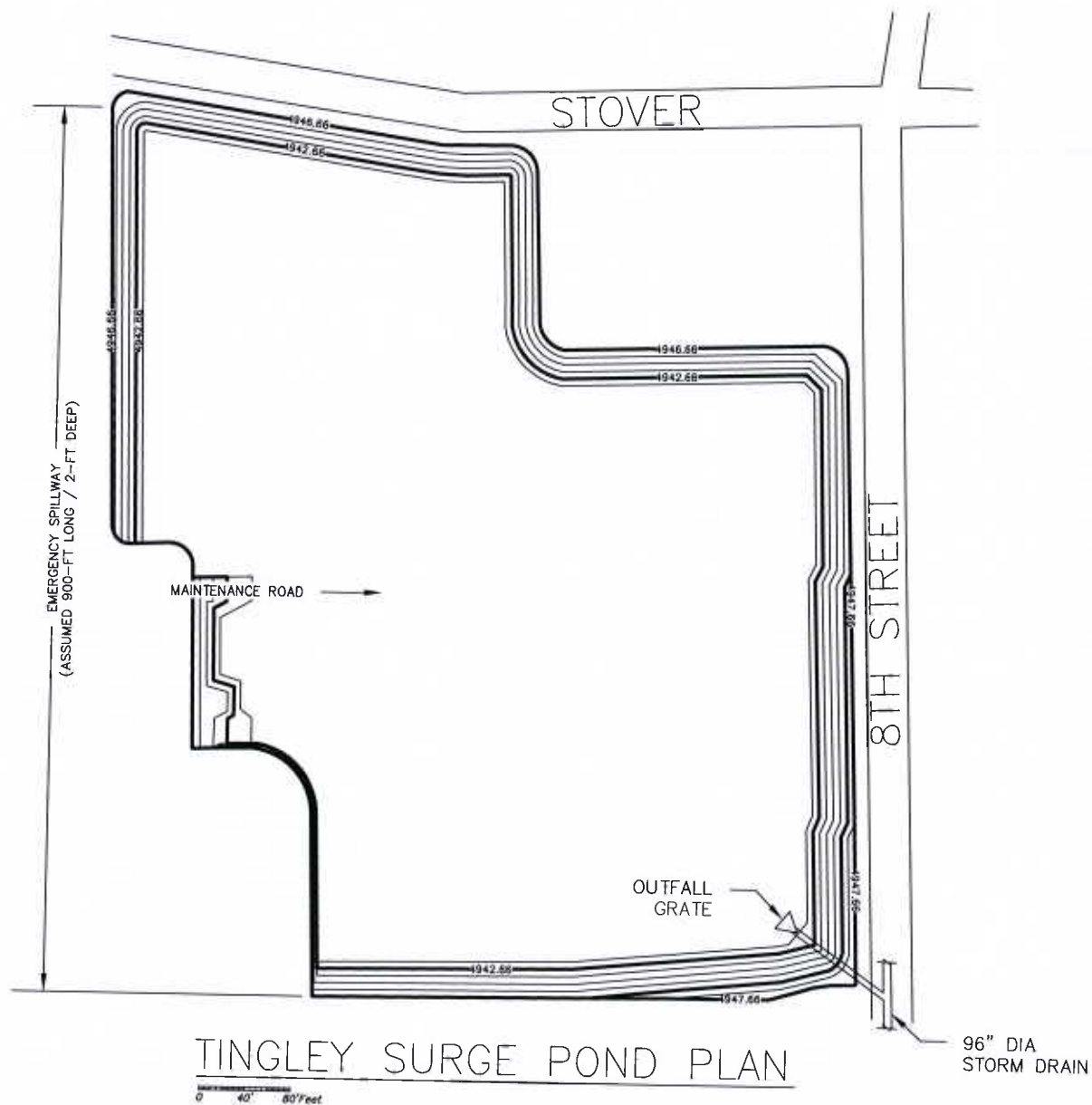
Principal Spillway:

Pipe at invert of pond: No (if above invert then there is retention)

Vertical Riser Pipe or Structure: No

See plans and photos

Q:\SEC\---PROJECTS\2010 PROJECTS\110112 COA MID VALLEY DMP\APPENDICES VOLUME 3\APPENDIX 7 SWMM EXISTING CONDITIONS\SWMM DATA\POND PLAN AND PROFILE SCHEMATICS.DWG



NAVD 88 DATUM
MID-VALLEY DRAINAGE MANAGEMENT PLAN
FOR THE CITY OF ALBUQUERQUE & ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY
August - 2011
SEC PROJECT NO. 110112
TINGLEY SURGE POND P&P SCHEMATIC
FIGURE TSP

TABLE TP
TINGLEY SURGE POND revision 2
ELEVATION-STORAGE-DISCHARGE DATA (c)

grey box means must input data

Contour Elevation NGVD 1929	Contour Elevation NAVD 1988	Depth SWMM	Contour Area SWMM	Incremental Volume	Incremental Volume	Cumulative Volume	Riser Weir Discharge (12x12' concrete/riser)	Principal Spillway Discharge	Emergency Spillway Discharge	Total Discharge Principal + Emergency Spillway SWMM	Comment
Principal Spillway Orifice Diameter (inches)											
Number of Orifices											
(ft)	(ft)	(ft)	(sq ft)	(cu ft)	(ac-ft)	(ac-ft)	(cfs)	(a) (e)	(b)	(cfs) (d)	
								96			
								(a) (e)	(b)	(cfs) (d)	
4929.55	4932.21	0	144	0	0.0000	0.0000	0.0	0.0	0.0	0.0	Drop intake structure bottom
4931	4933.66	1.45	144.0	209	0.0048	0.0048	0.0	35.5	0.0	35.5	
4933	4935.66	3.45	144.24	288	0.0066	0.0114	0.0	182.8	0.0	182.8	
4935	4937.66	5.45	144.48	289	0.0066	0.0180	0.0	403.8	0.0	403.8	
4937	4939.66	7.45	144.72	289	0.0066	0.0247	0.0	631.2	0.0	631.2	Begins pond bottom at edge of 12x12 ft. grate
4937.55	4940.41	8.0	144.96	80	0.0018	0.0265	0.0	674.3	0.0	674.3	
4939	4941.66	9.45	307447	223004	5.1195	5.1460	0.0	732.9	0.0	732.9	
4940	4942.66	10.45	321481	314464	7.2191	12.3651	120.0	770.7	0.0	770.7	
4941	4943.66	11.45	335088	328285	7.5364	19.9015	339.4	806.7	0.0	806.7	Emergency spillway invert elevation (f)
4942	4944.66	12.45	349745	342417	7.8608	27.7623	623.5	841.2	0.0	841.2	
4943	4945.66	13.45	363808	356777	8.1905	35.9527	960.0	874.3	0.0	874.3	
4944	4946.66	14.45	376180	369994	8.4939	44.4466	1,341.6	906.2	0.0	906.2	
			Total Volume (ft³) =		1936094						
			Total Volume (ac-ft) =		44.45						

Office flows were obtained from the use of Equation 4-10 and Table 4-3 from "Handbook of Hydraulics, Sixth Edition, by Brater & King, 1976."

$$Q = C a \sqrt{2gh}$$

$$C = 0.591$$

$$g = 32.2 \text{ ft/sec}^2, a = \text{area (sq ft)} \quad h = \text{head (ft)}$$

$$a = \pi D^2 / 4$$

$$\text{(full area formula)}$$

$$a = \frac{1}{2} r^2 \left\{ \left[2 \cos^{-1} \left(\frac{r-d}{r} \right) \right] \frac{\pi}{180} - \sin \left[\left[2 \cos^{-1} \left(\frac{r-d}{r} \right) \right] \frac{\pi}{180} \right] \right\}$$

(partial area formula)

Principal Spillway Orifice radius r in feet = 4
 d = depth of water in the pipe in feet

Emergency Spillway flows were computed based on the following data used in the weir equation

$Q = CLH^{1.5}$ C = discharge coefficient, L = spillway length perp. To flow in ft, H = head (ft) L = Length assumed along top of pond and elevations extended above emergency spillway to allow for rating curve to function if flow spills over the top

$$C = 3$$

$$L \text{ (ft)} = 900$$

$$L \text{ (ft)} = 40$$

Data Source: As-Built and plans provided by the City of Albuquerque included in Appendix 2.66

(d) NGVD 1929 to NAVD 1988 Conversion Factor

(e) The weir (12 x 12) concrete around riser will not govern the discharge as it will pass more discharge per foot of head than the 96-inch pipe, therefore the 96-inch pipe governs the discharge - the weir discharge is not used in this case.

VERTICAL DATUM CONVERSION -
NGVD 1929 to NAVD 1988

Benchmark "1-K13"

Std. Acs Brass Tablet Stamped "1-K13"
Set In Top Of A Concrete Post, Approx. 0.2-Ft Below Turf.
The Station Is Then 0.7-Ft West Of The West Curb On 8th Street,
And Is Approx. 225' South Of Stover Ave.
Elevation = 4944.03-Ft.

Questions Concerning the VERTCON process may be mailed to NGS:

Latitude: 35 04 44.0

Longitude: 106 39 27.0

NGVD Height: 4950.0 FT

Datum Shift (NAVD 88 minus NGVD 29): 2.664 feet

Converted to NAVD 88 height: 4952.664 feet

Conversion Data From:

http://www.ngs.noaa.gov/cgi-bin/VERTCON/vert_con2.prl



(1) Looking at northwest corner



(2) Looking east on the north side of the park



(3) Looking north on east side of the park



(4) Looking south on east side of the park



(5) Looking south on the west side of the park



(6) Outlet structure



(7) Outlet structure - 12 inch north outlet



(8) Outlet structure - 12 inch south outlet

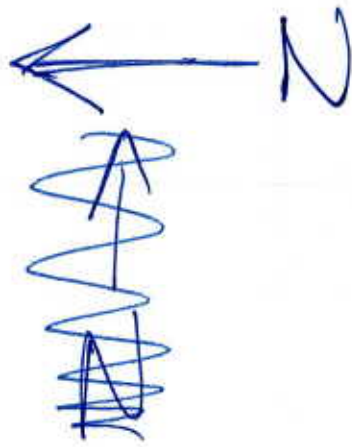
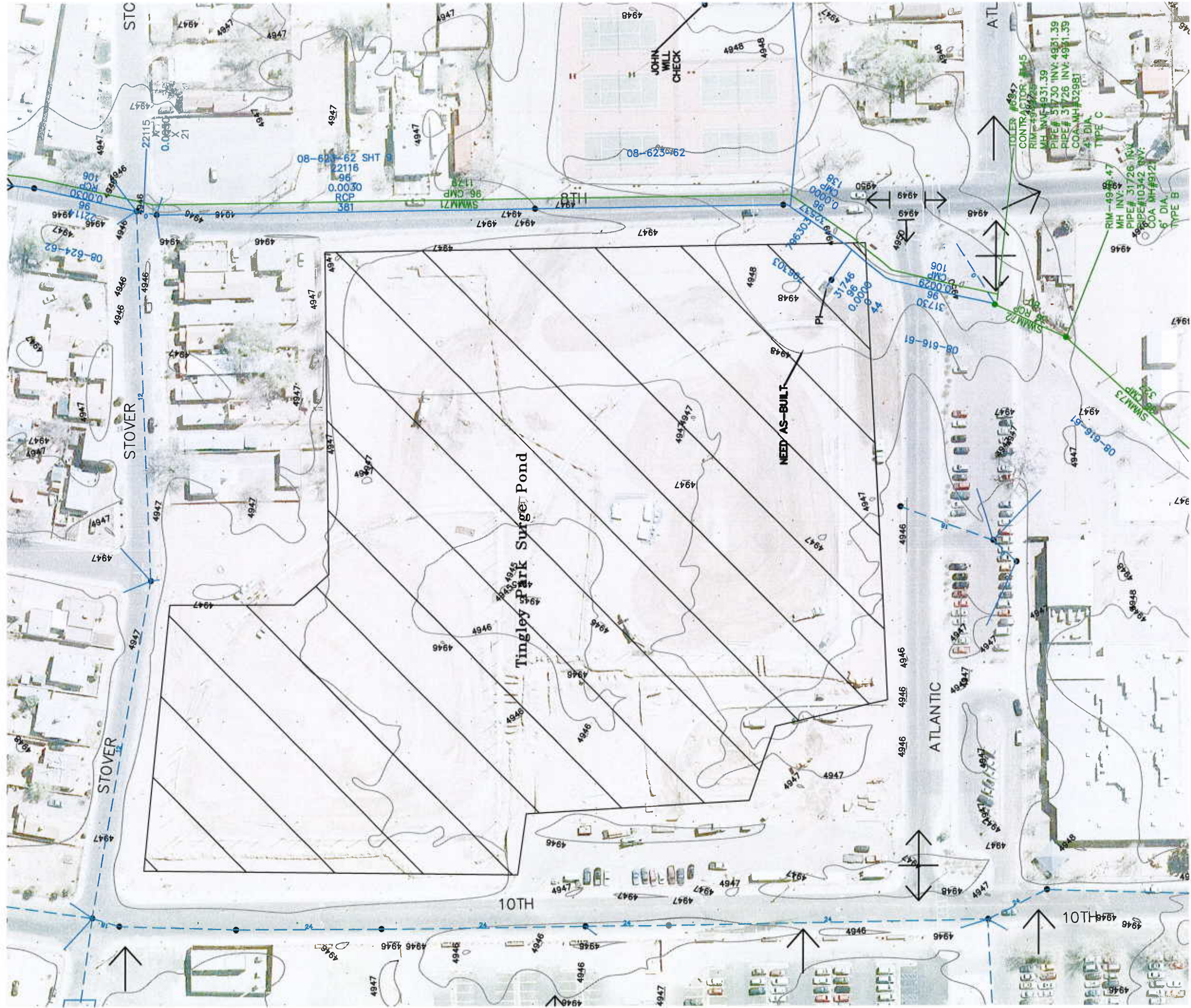


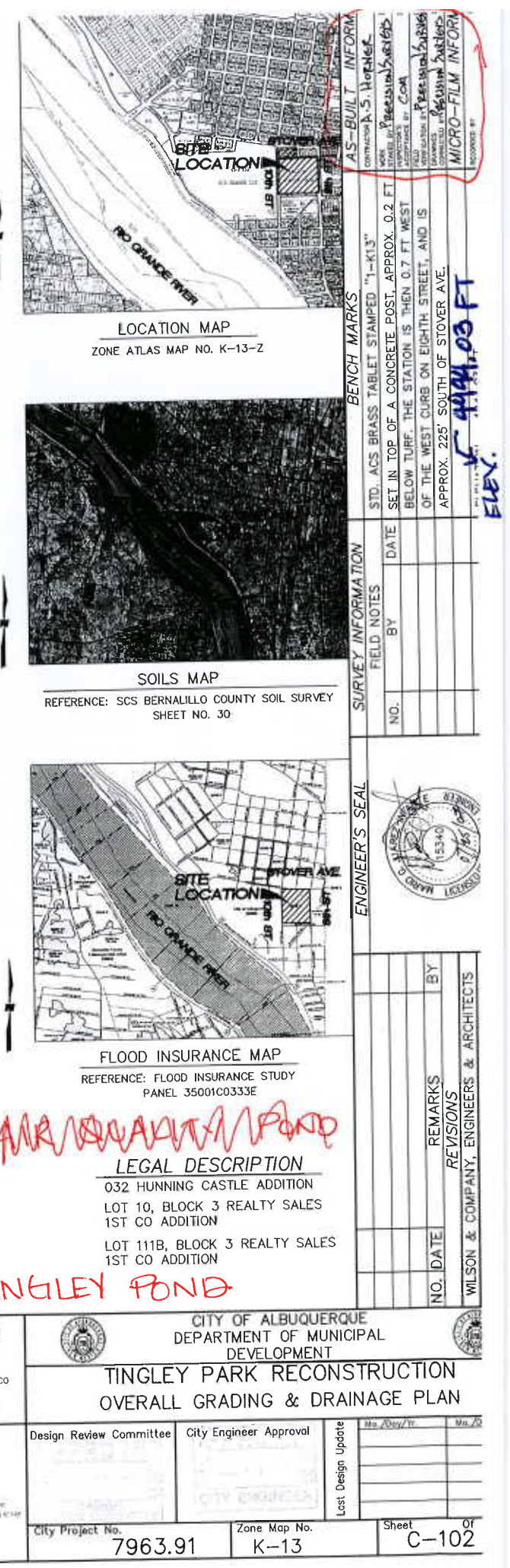
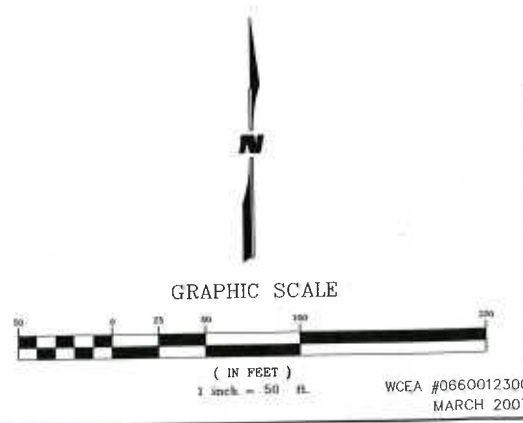
(9) Outlet structure - 12 inch west outlet



(10) Outlet structure - 96 inch east outlet







1. THE CONTRACTOR SHALL NOTIFY THE ALBUQUERQUE TRAFFIC ENGINEERING DIVISION THREE (3) WORKING DAYS IN ADVANCE OF ANY WORK REQUIRED REGARDING ALL EXISTING REGULATORY SIGNS AND SIGNALS THAT NEED TO BE REMOVED, RELOCATED, OR REINSTALLED. CALL 857-8680. REFER TO SECTION 18.4.4 OF THE SPECIFICATIONS.

3. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE AND ADEQUATE MEANS OF CHANNELING PEDESTRIAN TRAFFIC AROUND ALL WORK AREAS THROUGHOUT THE CONSTRUCTION PERIOD.

5. CONTRACTOR TO CAREFULLY FIELD REVIEW SITE TO ASSESS EXTENT OF TRASH REMOVAL. TRASH REMOVAL SHALL BE INCLUDED IN BID ITEM "CLEARING & GRUBBING".

7. UNLESS OTHERWISE SHOWN, ALL DIMENSIONS ARE TO FACE OF CURB, INCLUDING RADII OF CURB RETURNS.

9. CURB AND GUTTER SHOWN AS EXISTING AND NOT TO BE REMOVED UNDER THIS CONTRACT WHICH IS DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED PER STD DWG 2415 BY THE CONTRACTOR AT HIS EXPENSE.

11. WHEN ABUTTING NEW PAVEMENT TO EXISTING PAVEMENT, SAW CUT EXISTING PAVEMENT IN A STRAIGHT LINE AS REQUIRED TO REMOVE ANY BROKEN OR CRACKED PAVEMENT. PRIOR TO LAYING NEW PAVEMENT, THE EXPOSED EXISTING ASPHALT EDGE SHALL BE TACK-COATED.

13. ALL WHEELCHAIR RAMP APPROACH SLOPES SHOWN ON STD DWG 2441 SHALL BE INCREASED IN LENGTH TO MAINTAIN 12:1 MAX SLOPE WHEN GRADE IS RISING FROM RAMP. SEE TABLE BELOW.

14. CONTRACTOR IS TO EXERCISE DUE CARE TO AVOID DISTURBING ANY EXISTING UTILITIES. IT SHALL BE HIS RESPONSIBILITY TO COORDINATE WITH THE UTILITY COMPANIES IN ORDER TO PREVENT ANY SERVICE DISRUPTION THAT MIGHT RESULT FROM PROJECT CONSTRUCTION. IT SHALL BE HIS RESPONSIBILITY TO PROTECT AND PRESERVE UTILITY EQUIPMENT AFFECTED BY PROJECT CONSTRUCTION. SHOULD HE BREAK AN EXISTING UTILITY LINE DURING CONSTRUCTION ACTIVITIES HE SHALL BE RESPONSIBLE FOR UTILITY REPAIR COSTS.

16. CONTRACTOR SHALL FIELD VERIFY LOCATION AND TYPE OF EXISTING UTILITIES TO BE ADJUSTED OR EXTENDED.

18. CONTRACTOR TO VERIFY ALL EXISTING FIRE HYDRANT FLANGES, PADS, VALVE BOXES, MANHOLE RIMS AND TOP OF PIPE ELEVATIONS IN THE FIELD. ELEVATIONS SHALL BE ADJUSTED TO COMPLY WITH THE REQUIREMENTS OF STANDARD CITY DETAILS.

20. ALL WATER VALVE BOXES AND SEWER MANHOLES IN THE CONSTRUCTION AREA ARE TO BE ADJUSTED TO FINISH GRADE UNDER THIS CONTRACT, AND WILL BE PAID FOR AT CONTRACT UNIT PRICES.

22. ALL WATER SERVICES LISTED AS "DOUBLE" REFER TO DOUBLE METER BOX. A SEPARATE SERVICE LINE TO EACH METER IS REQUIRED. REFERENCE C.O.A. STD. DRAWINGS 2361, 2362.

24. WHERE PULL BOXES ABUT BACK OF CURB OR ARE LOCATED IN A CONCRETE PAVED AREA, PROVIDE 3/4" EXPANSION MATERIAL AROUND THE PULL BOX. ALL PULL BOXES TO BE FLUSH WITH SURFACE OF CONCRETE.

26. THE CONTRACTOR SHALL COORDINATE WITH PRIVATE UTILITY ENTITIES AS NEEDED FOR RELOCATION AND INSTALLATION OF PRIVATE UTILITIES. ENGINEER HAS NOTIFIED THE PRIVATE UTILITIES OF THIS PROJECT.

27. TEMPORARY EROSION FENCING (OR PERMANENT WALLS OR FENCING) SHALL BE USED TO PROTECT EXISTING RESIDENTIAL PROPERTY, STREETS LANDSCAPING AND THE DRAINAGE SYSTEMS FROM THE DEPOSITION OF ERODED MATERIAL.

28. CONSTRUCTION AREA SHALL BE CONTROLLED TO PREVENT TRESPASS USE BY 4WD'S, ORV'S AND MOTORCYCLES TO MINIMIZE NOISE, DUST, DESTRUCTION OF VEGETATION, WIND AND WATER EROSION.

29. PROPOSED WATERLINE INSTALLATION SHALL HAVE RESTRAINED JOINTS AT ALL WATERLINE VALVES, TEES, CROSSES, BENDS, AND FIRE HYDRANTS, UNLESS OTHERWISE NOTED. SEE "THRUST RESTRAINT REQUIREMENTS" BELOW.

COMPANY	PHONE	MOBILE	CONTACT
CITY of ALBUQUERQUE	768-2729		NANCY MUSINSKI
PNM - ELECTRIC	241-3398		ART CHAVEZ
PNM - GAS	241-7771		JOE DUNLOP
QWEST	245-6374		ROSA KNIFFIN
COMCAST	761-6221		ROBERT MARTINEZ

	PAVED ROAD
	UNPAVED ROAD
	TRAIL
	FENCE
	BUILDING
	LIGHT POLE
	UTILITY POLES
	GUY WIRE
	TREE
	TREE
	TREE
	TREE & BRUSH LINE
	MANHOLE
	FIRE HYDRANT
	VAULT
	BLOW-OFF VALVE
	WATER VALVE
	WATER METER
	FIRE HYDRANT
	SPRINKLER CONTROL BOX
	ELECTRICAL, PULL BOX
	ELECTRICAL, JUNCTION BOX
	UTILITY, SANITARY MANHOLE
	UTILITY, STORM DRAINAGE MANHOLE
	UTILITY, UNKNOWN MANHOLE
	TV PEDESTAL
	TELEPHONE PEDESTAL
	PROPERTY CORNER, EXISTING
	TRAFFIC SIGNAL
	WATER LINE, UNDERGROUND
	GAS LINE, UNDERGROUND
	TELEVISION LINE, UNDERGROUND
	ELECTRIC LINE, UNDERGROUND
	AREA OF DEMOLITION
	PROPOSED CONCRETE
	PROPOSED ASPHALT
	PROPOSED SEAL COAT
	PROPOSED RETAINING WALL
	PROPOSED RIDGE LINE

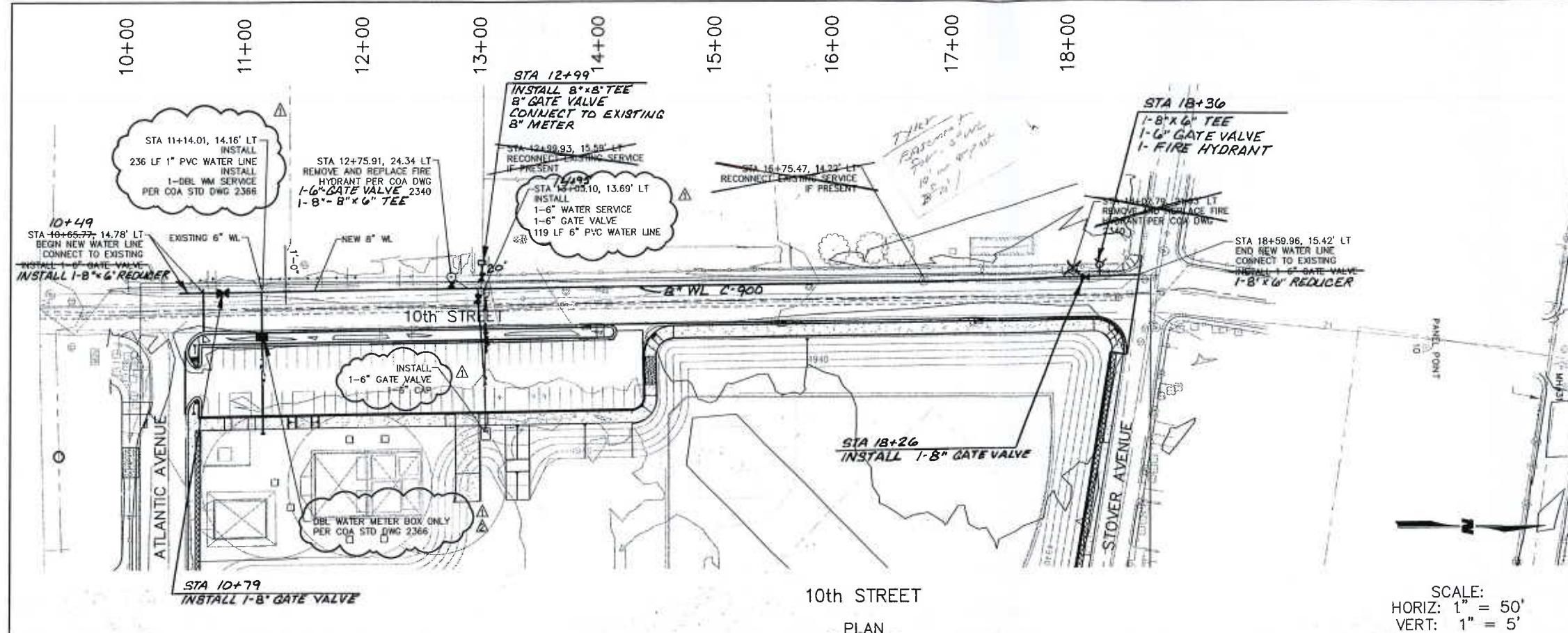
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MARCH 2007

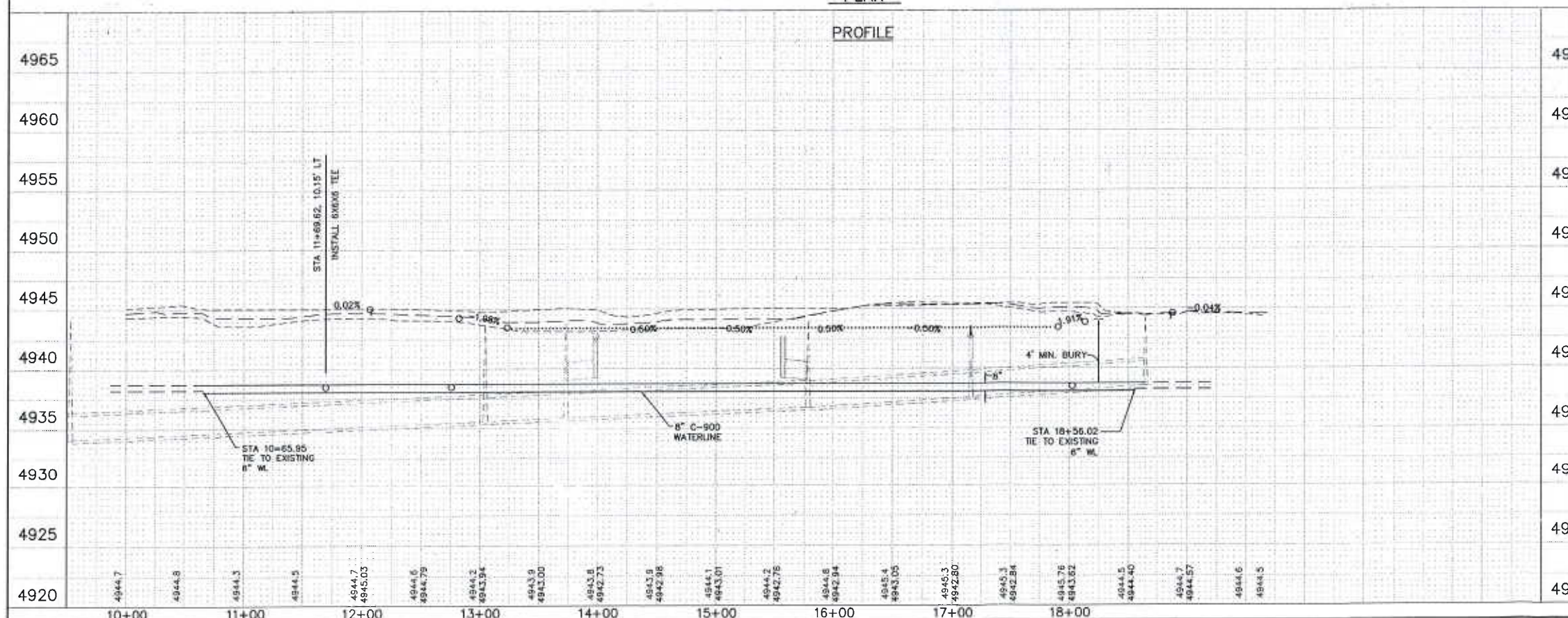
**WILSON
& COMPANY**
4900 LAND AVE. N.E.
SUITE 100
ALBUQUERQUE, NEW MEX.
87100
(505) 348-4000
FAX (505) 348-4072
www.wilsonco.com

		CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP			
FLOOD CONTROL ON-CALL CONTRACT GENERAL NOTES					
Design Review Committee		City Engineer Approval		Last Design Update	Mo./Day/Yr.
					Mo./Day/Yr.
					Mo./Day/Yr.
					Mo./Day/Yr.
					Mo./Day/Yr.
City Project No.		Zone Map No.		Sheet	Of
7963.03		K-13		2	24





10th STREET
PLAN



PROFILE

LEGEND



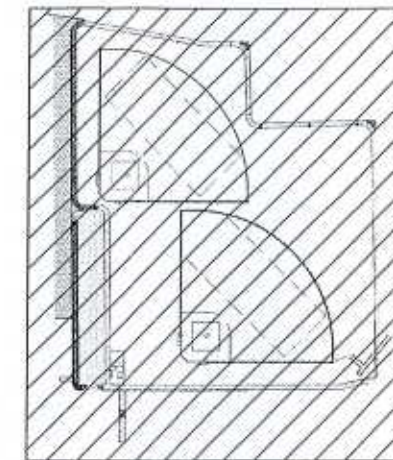
FLEXIBLE PAVEMENT
SECTION

SCALE:
HORIZ: 1" = 50'
VERT: 1" = 5'

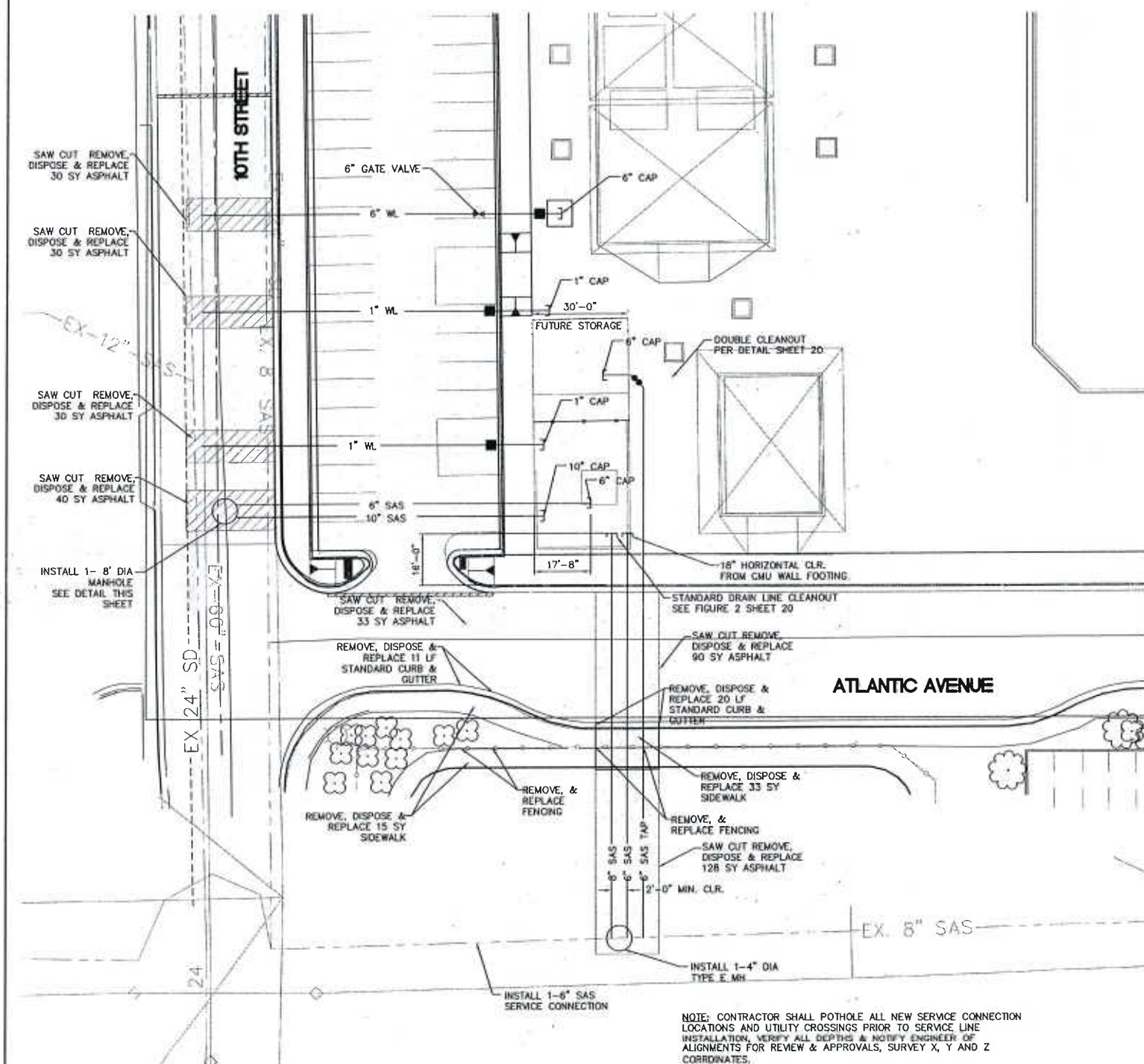
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DATE: 11/02	BY: N.M.U.C.	
DATE: 11/02	BY: T.E.R.A. S.A.V.E.R.	
DATE: 11/02	BY: C.O.A.	
DATE: 11/02	BY: C.O.A.	
DATE: 11/02	BY: W.C.T.	
DATE: 11/02	BY: W.C.T.	
MICRO-FILM INFORMATION		
RECORDED BY: []		
DATE: []		
ELEVATION = 4944.03 FT.		
BENCH MARKS		
STD. ACS BRASS TABLE MARKED "1-K13"		
SET IN TIP OF A CONCRETE POST, APPROX. 0.3 FT. BELOW TURF. THE STATION IS THEN 0.7 FT. WEST OF THE WEST CURB ON EIGHTH STREET, AND IS APPROX. 225' SOUTH OF STOVER AVE.		
SURVEY INFORMATION		
NO.	DATE	
BY		
ENGINEER'S SEAL		
REVISIONS		
NO.	DATE	REMARKS
1	4/07	RELOCATED DBL WATER METER BOX
2	4/07	ADDED NEW WATER SERVICES
WILSON & COMPANY, ENGINEERS & ARCHITECTS		
DESIGNED BY	TJA	DATE MAR 07
DRAWN BY	STAFF	DATE MAR 07
CHECKED BY	MJI	DATE MAR 07
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP		
FLOOD CONTROL ON-CALL CONTRACT 10th ST ROADWAY PLAN & PROFILE		
Design Review Committee	City Engineer Approval	Last Design Update
City Project No. 7963.03	Zone Map No. K-13	Sheet 01

WCEA #06600123
MARCH 2007

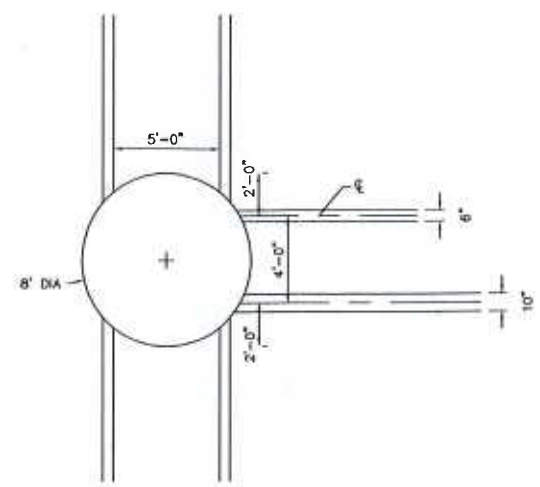
WILSON
& COMPANY



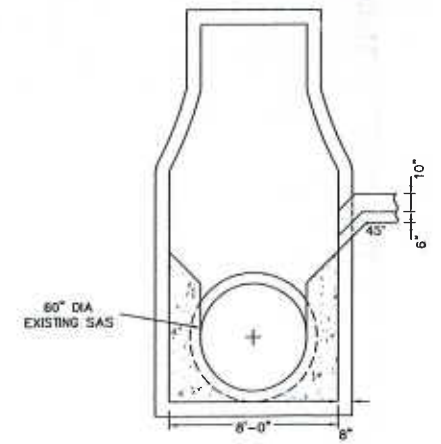
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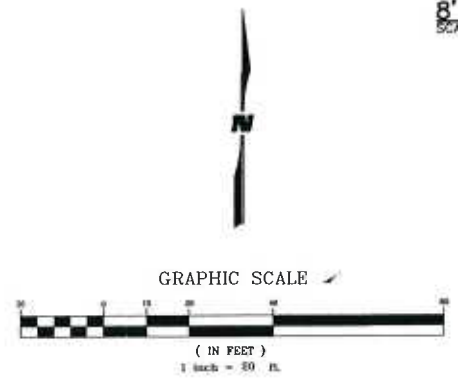
NOTE: CONTRACTOR SHALL POTHOLE ALL NEW SERVICE CONNECTION LOCATIONS AND UTILITY CROSSINGS PRIOR TO SERVICE LINE INSTALLATION. VERIFY ALL DEPTHS & NOTIFY ENGINEER OF ALIGNMENTS FOR REVIEW & APPROVALS, SURVEY X, Y AND Z COORDINATES.
 NOTE: CONTRACTOR TO SUBMIT WATER SHUTOFF PLAN PRIOR TO ANY WATERLINE WORK.



MANHOLE DETAIL
SCALE: 1"=4'



8' SAS MANHOLE ELEVATION
SCALE: 1"=4'

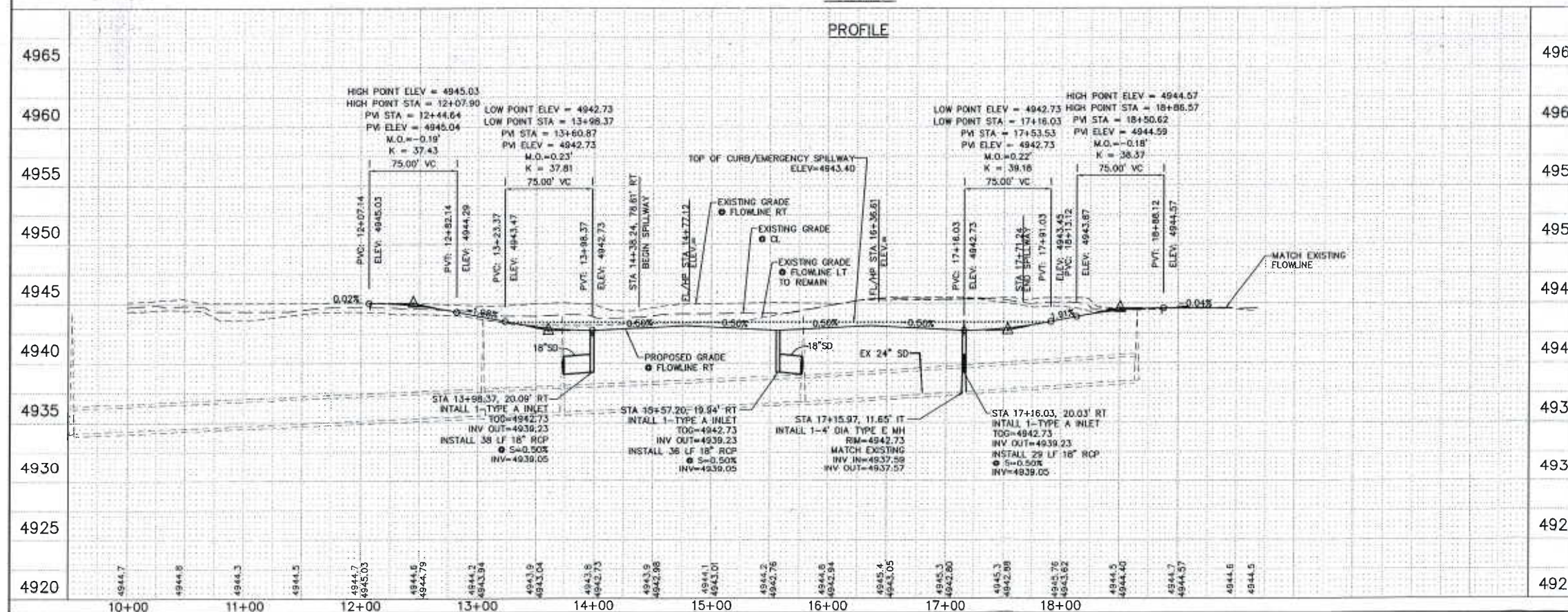
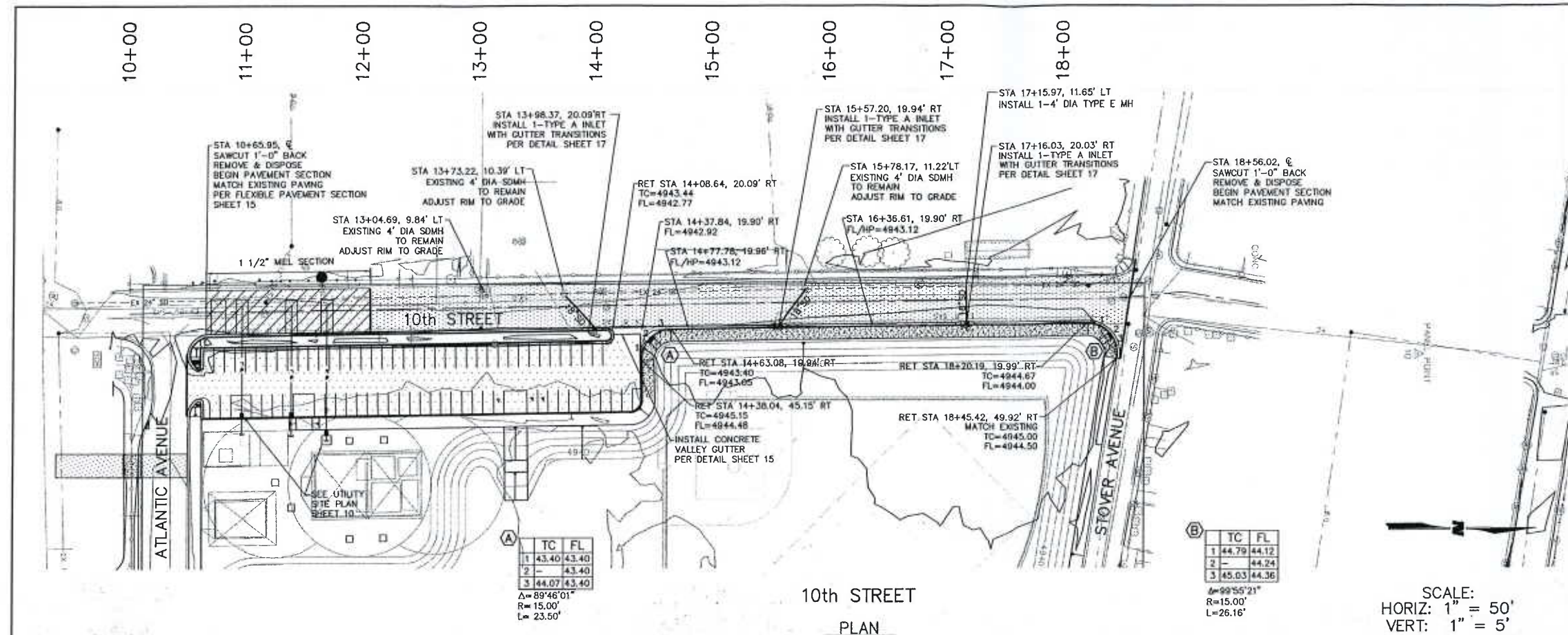


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MARCH 2007

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CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP	
FLOOD CONTROL ON-CALL CONTRACT UTILITY SITE PLAN	
Design Review Committee 	City Engineer Approval
City Project No. 7963.03	Zone Map No. K-13
Sheet 10	Of 24

BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL		REVISIONS		AS-BUILT INFORMATION	
NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE
STD. ACS BRASS TABLET STAMPED "1-K13" SET IN TOP OF A CONCRETE POST APPROX. 0.2 FT BELOW TURF. THE STATION IS THEN 0.7 FT WEST OF THE WEST CURB ON EIGHTH STREET AND IS APPROX. 225' SOUTH OF STOVER AVE. ELEVATION = 4944.03 FT.		FIELD NOTES NO. BY DATE 				REMARKS REVISIONS WILSON & COMPANY, ENGINEERS & ARCHITECTS DESIGNED BY TJA DRAWN BY STAFF CHECKED BY MJ		CONTRACTOR N M U I DATE 10/7 ACCEPTED BY COA DATE 10/7 CORRECTED BY WCI DATE 2/08 MICRO-FILM INFORMATION RECORDED BY DATE	



LEGEND

The diagram shows a cross-section of a road. The top layer is labeled 'FLEXIBLE PAVEMENT SECTION'. Below it, a section is labeled 'MILL & INLAY'. The diagram illustrates the process of removing the old pavement and replacing it with new material.

[illegible]

BENCH MARKS

STD. ACS BRASS TABLET STAMPED "1-K13"
SET IN TOP OF A CONCRETE POST, APPROX. 0.2 FT
BELOW SURFACE OF GRADE.
OF THE WEST CURB ON EIGHTH STREET, AND IS
APPROX. 225' SOUTH OF STOVER AVE.
ELEVATION = 4944.03 FT.

[illegible][illegible]

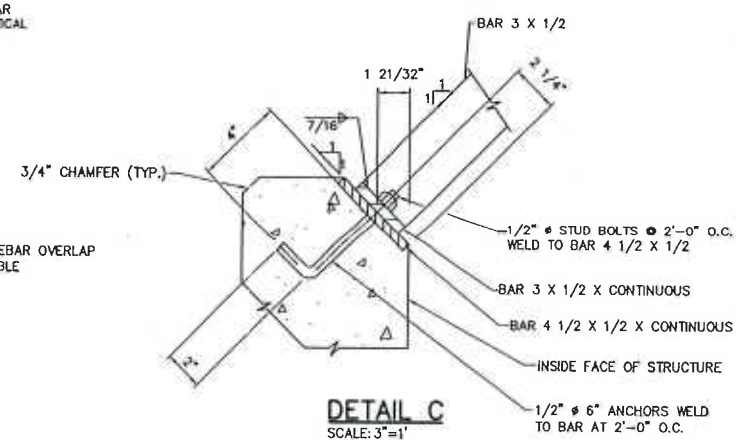
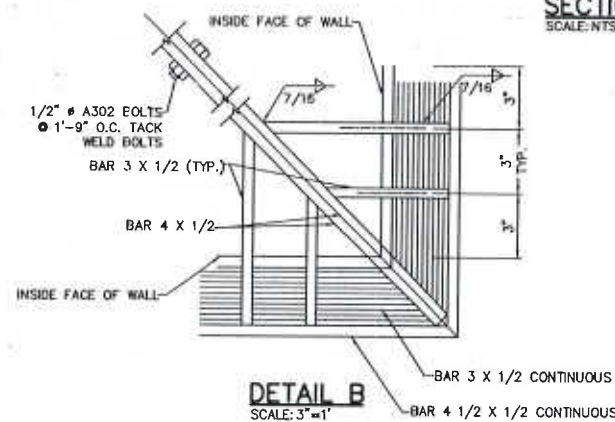
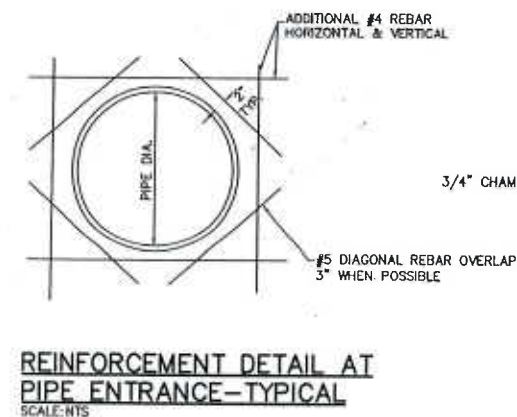
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

FLOOD CONTROL ON-CALL CONTRACT
10th ST
ROADWAY PLAN & PROFILE

[illegible]

WCEA #06600123 MARCH 2007	City Project No. 7963.03	Zone Map No. K-13	Sheet 12	Of 24
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WILSON
& COMPANY



2-08-08

DETAIL D
SCALE: 3"=1'

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WCEA #0660012300
MARCH 2007

		CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP			
FLOOD CONTROL ON-CALL CONTRACT SURGE STRUCTURE DETAILS					
Design Review Committee		City Engineer Approval		Last Design Update	Mo./Day/Yr.
City Project No. 7963.03		Zone Map No. K-13		Sheet 13 Of 24	

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STEPPED RETAINING WALL DETAIL
N.T.S.

The image contains two technical drawings of joint details for a concrete slab.

EXPANSION JOINT DETAIL: This drawing shows a cross-section of a concrete slab with a key joint. The joint is labeled "2\" x 4\" KEY JOINT @ 30' O.C.". The joint is filled with a material labeled "1\"/2\" TYP.". The concrete has a strength of "3000 PSI MIN.". The joint is shown as a vertical crack in the slab.

CONTRACTION JOINT DETAIL: This drawing shows a cross-section of a concrete slab with a saw cut contraction joint. The joint is labeled "SAW CUT CONTRACTION JOINT @ 10' O.C.". The joint is shown as a vertical crack in the slab.

HEADER CURB
N.T.S.

CONNECTION DETAIL

DETAIL A
PLAN
N.T.S.

Figure 10 illustrates the connection detail of a precast concrete beam to a wall. The diagram shows two cross-sections of a beam (2'-6" wide) being cast into a wall (4" thick). The beam is reinforced with top bars (P) and bottom bars (Q). The wall is reinforced with vertical bars (A, B, C) and horizontal bars (D). A diagonal crack is shown passing through the beam and wall. Dimensions include 2'-6" for the beam width, 4" for the wall thickness, and 1'-0" for the embedment length. A note indicates "SEE DETAILS A & B FOR SHEET".

GENERAL NOTES:

1. FOR SLEEVE, USE GATES NO. 37 W WATER HOSE DISCHARGE HOSE OR EQUIVALENT. I.D. 6.625" O.D. 7.29", 6 PLY WITH BLACK NEOPRENE COVER.
2. WELDS ARE TO BE GROUND SMOOTH.
3. EXPOSED STEEL AND SLEEVE TO BE PAINTED WITH AN OIL BASE ALKYD PRIMER AND AN OIL BASE ALKYD ENAMEL TOP COAT. COLOR TO BE BRIGHT YELLOW.

CONSTRUCTION NOTES:

- A. 4" NOMINAL DIA. SCHEDULE 40 GALV. STEEL PIPE, 5'-2" TO BE FILLED W/CONC. PAINT PIPE BRIGHT YELLOW ABOVE FINISHED GRADE.
- B. PAVEMENT OR FINISHED GRADE.
- C. CONC. COLLAR, 3000 PSI AT 28 DAYS, W/SMOOTH OR BROOM FINISH WHERE PAVEMENT IS ADJACENT.
- D. 5" NOMINAL DIA. SCHEDULE 40 GALV. STEEL PIPE, 3'-0" TO BE FILLED W/CONC. TO LEVEL SHOW.
- E. 3.6" NOMINAL DIA. SCHEDULE 40 GALV. STEEL PIPE, 12'-8" PAINT PIPE BRIGHT YELLOW (REMOVABLE).
- F. 6" NOMINAL DIA. SCHEDULE 40 GALV. STEEL PIPE, 2'-0" (REMOVABLE).
- G. SLEEVE 12" X 2" PAINT BRIGHT YELLOW, SEE NOTE NO. 1 THIS SHEET.
- H. 2" WIDE REFLECTIVE TAPE, AS SPECIFIED BY ENGINEER, LOCATED AROUND PIPE AS SHOWN.
1 1/4" THICK STEEL SAFETY GUARD BOX. OPEN ON ONE SIDE & BOTTOM. WELD ALL SEAMS.
- K. 3/4" X 8" GALV. HEX. BOLT W/A 3/8" DIA. HOLE FOR PADLOCK. (PADLOCK FURNISHED BY CITY).
- L. 1 1/4" X 6 5/8" DIA. GALV. STEEL PLATE COVER, WELDED TO PIPE.
- M. PLACEMENT OF POSTS SHOULD BE WELL AWAY FROM TRAFFIC ON MAJOR ROADWAYS & PREFERABLY AT THE R.O.W. LINE. TRAFFIC ENGINEERING SHOULD BE CONSULTED ON LOCATION WHEN NEAR TRAFFIC.
- N. ALIGN WITH TRAFFIC FLOW IN EASEMENTS OR BIKE PATH TO AVOID TRIPPING HAZARDS WITH BOX.
- P. PIPES ARE NOT TO BE FILLED W/CONC. WHEN PIPES ARE LOCATED WITHIN 15' OF STREET FLOWLINE. USE WELDED STEEL CAP INSTEAD.
- Q. WHERE CONNECTING BOLLARDS ARE SPECIFIED, WELD 1 1/4" NOM. SCH. 40 PIPE BETWEEN BOLLARDS.

EXPANSION JOINT DETAIL

2"x4" KEY JOINT
● 30' O.C.
1/2" TYP

CONTRACTION JOINT DETAIL

SAW CUT CONTRACTION JOINT
● 10' O.C.

RETAINING WALL DETAIL

3/4" CHAMFER (TYP.)
8"
1
6
TW EL.
SEE GRADING
DETAIL SHEET XX
4'-0" MAX
#4 BARS 12" O.C.
#4 BAR
1'-6"
2"x4" KEYWAY
#4 BARS 12" O.C.
#4 BAR
12" (TYP.)
f'c = 3000 PSI ● 28 DAYS
SCALE: 1" = 1'

12
1
2
6
6x6x6 GA WMM
3000 PSI MIN. ● 28 DAYS
ASPHALT PARKING LOT

MIN. THICKNESS 7/8"

2 - #4 BARS CONTINUOUS

SLOPE

GROUT SOLID

SPLIT FACE CMU

#5 BAR @ 48" O.C.

EXTERIOR

INTERIOR

8'-0"

4'-0"

FINISHED GRADE

EXISTING GRADE SEE GRADING & DRAINAGE PLAN

8"x 8"x 16" CMU W/ HORIZONTAL DUN-D-WALL TRUSS TYPE REINFORCEMENT AT EVERY OTHER COURSE AND #4 VERT. AT 32" O.C. GROUT SOLID AT REINFORCED CELLS.

COMPACTED SUB-GRADE-TYP.

#5 BARS @ 48" O.C. (ALTERNATE HOOK)

3000 PSI CONCRETE FOOTING WITH #5 BARS CONTINUOUS

#5 BARS @ 48" O.C.

Diagram of a concrete curb cross-section. The curb is 2'-0" wide at the top and 2'-7 1/2" wide at the base. The height is 1'-0" on the left and 7 1/2" on the right. The curb is made of 3000 PSI CONCRETE MIN. and is 28 DAYS old. The theoretical face of the curb or flowline is shown with a radius of R. 1 1/2". The curb is 2" thick at the top and 2'-0" wide at the base. The curb is 2'-7 1/2" wide at the base. The curb is 1'-0" high on the left and 7 1/2" high on the right. The curb is made of 3000 PSI CONCRETE MIN. and is 28 DAYS old.

SECTION D
CONCRETE CHANNEL ACCESS MAINTENANCE RAMP DETAIL

SCALE: 1" = 1'

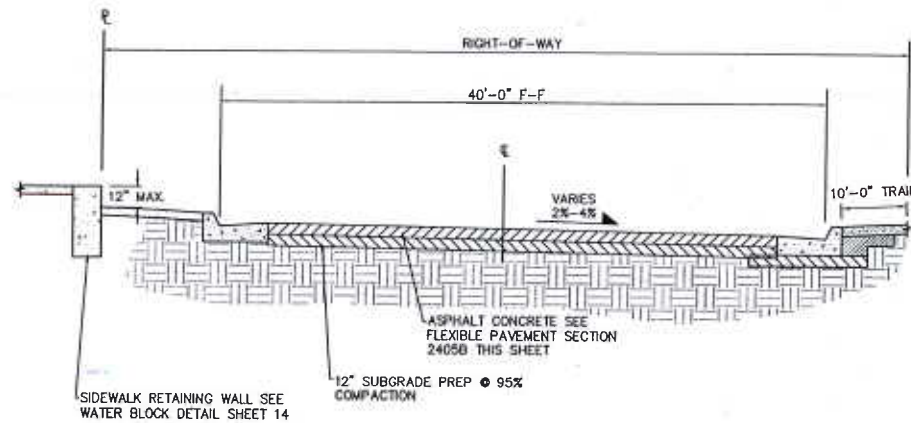
NOTE:
ASPHALT ACCESS ROAD WILL BE INSTALLED AS
PART OF LANDSCAPE TRAIL PLAN
(SEPARATE CONTRACT).

ODOR CONTROL ENCLOSURE CMU WALL

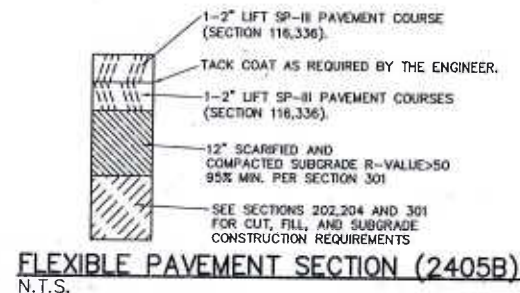
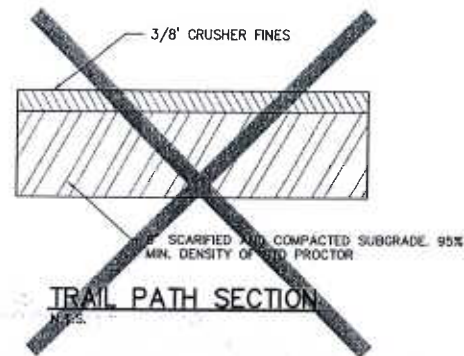
**WILSON
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MARCH 2007

		CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP			
FLOOD CONTROL ON-CALL CONTRACT WALL DETAILS					
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City Project No. 7963.03		Zone Map No. K-13		Sheet Of 14 24	



10th STREET TYPICAL SECTION
N.T.S.

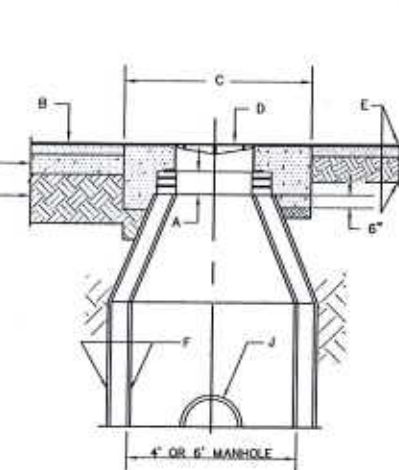


GENERAL NOTES:

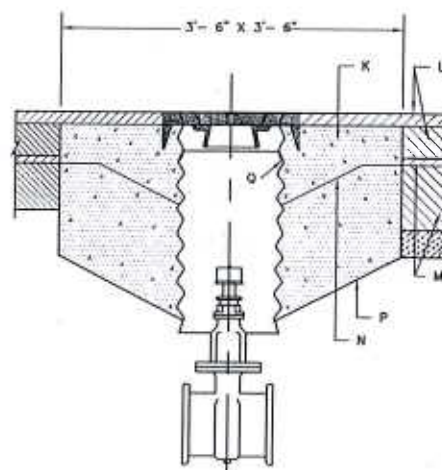
- ADJUSTMENT TO GRADE OF FRAME AND COVER SHALL BE MADE BY VARYING BRICK COURSES DIRECTLY UNDER FRAME, USING FOUR COURSE MAX. IF LESS THAN ONE COURSE IS REQUIRED, GROUT ONLY SHALL BE USED. IF ADJUSTMENT WOULD REQUIRE GREATER THAN FOUR COURSES, THE CONE SHALL BE REMOVED, BARREL HEIGHT ADJUSTED AND CONE REPLACED. ADJUSTMENT RINGS MAY BE USED FOR MINOR ADJUSTMENT REQUIREMENTS.
- FOR SMALL ADJUSTMENTS WATER VALVE EXTENSION COLLAR & INSERT MAY BE USED. SEE DWG. 2332.

CONSTRUCTION NOTES:

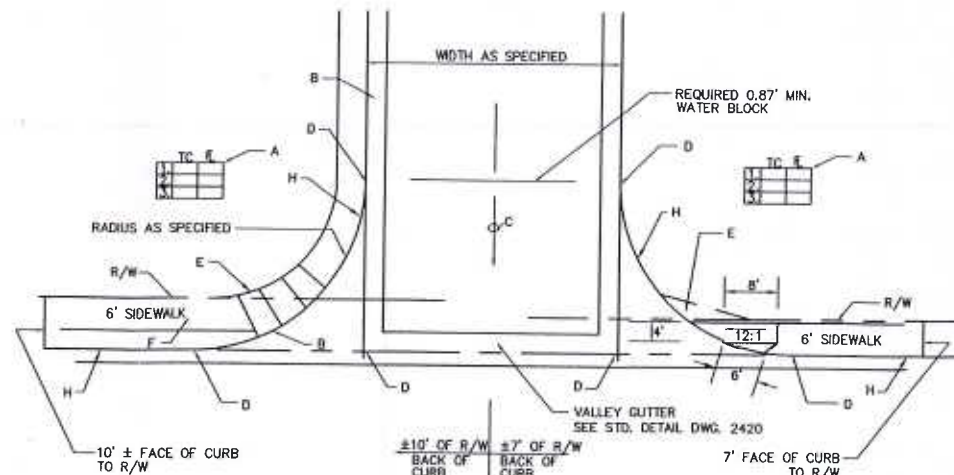
- FOUR BRICK COURSES MAX.
- OVERLAY.
- USE A CONC. PAD 5'x5' IN ALL AREAS.
- M.H. FRAME & COVER.
- STD. PAVING SECT.
- 1/2" PLASTER INSIDE & OUTSIDE EXCEPT ON PRE-CAST UNITS.
- A.T.B. OR C.T.B.
- SUBGRADE.
- SEWER LINE.
- NEW PORTLAND CEMENT CONC.
- NEW PAVING MATERIAL.
- EXIST. PAVEMENT.
- CUT LINE.
- EXIST. CONC.
- VALVE BOX EXTENSION, SEE DWG. 2325.



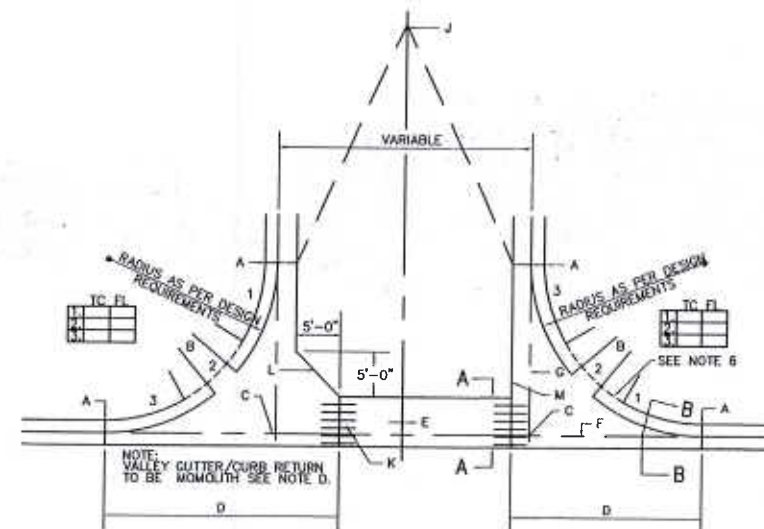
MANHOLE REGRADING DETAIL
N.T.S.



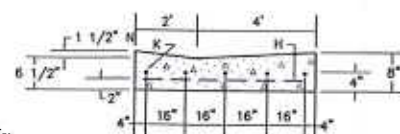
VALVE BOX REGRADING DETAIL
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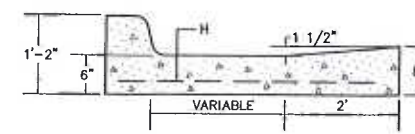
PRIVATE ENTRANCE N.T.S.



PLAN
N.T.S.



SECTION A-A
N.T.S.



SECTION B-B
N.T.S.

CONCRETE VALLEY GUTTER N.T.S.

2-08-08

GENERAL NOTES:

- THESE DETAILS ARE PROVIDED FOR HIGH TRAFFIC VOLUME PRIVATE ENTRANCES TO COMMERCIAL SITES AND THE LIKE, IN LIEU OF STANDARD DRIVEWAYS.

CONSTRUCTION NOTES:

- INCLUDE QUARTER POINT ELEVATIONS. SEE STD. DETAIL DWG. 2420.
- WHERE INTERIOR SIDEWALK CONNECTION IS TO BE PROVIDED - CONSTRUCT CURB ACCESS RAMPS AS PER STD. DETAIL DWG. 2418 & 2441.
- INITIAL GRADE TO BE 4% OR LESS WHEN CONNECTING TO COLLECTOR OR ARTERIAL STREETS. 0% OR LESS WHEN CONNECTING TO LOCAL STREETS.
- INCLUDE ELEVATIONS AT EACH END OF CURB RETURN AND INTERSECTIONS OF PROJECTED FLOWLINES. SEE STD DWG 2420
- AT PROPERTY LINE CONSTRUCT HEADER CURB SEE STD DWG 2415
- IF SIDEWALK IS AGAINST CURB THE SIDEWALK ACCESS RAMP IN THE LOCATION SHOWN.
- 1/2" EXPANSION JOINT MATERIAL
- THEORETICAL FACE OF CURB OR FLOWLINE

GENERAL NOTES:

- DESIGN ELEVATIONS TO BE GIVEN AT EACH END OF THE CURB RETURN (TOP OF CURB ELEV.) AND AT INTERSECTIONS OF PROJECTED FLOWLINES (FLOWLINE ELEV.).
- ON UPSTREAM AND DOWNSTREAM ENDS OF THE INTERSECTION, VALLEY GUTTER CONSTRUCTION SHALL EXTEND TO THE END OF RETURNS.
- THE VALLEY GUTTER TO BE REINFORCED WITH 6" X 6" X NO. 6 GA. WIRE MESH.
- INVERT OF VALLEY GUTTER TO EXTEND FROM FLOWLINE OF UPSTREAM CURB RETURN TO FLOWLINE OF DOWNSTREAM CURB RETURN.
- CURB FLOWLINE AND TOP OF CURB ELEV. SHOWN IN THE BOX CORRESPOND TO QUARTERPOINTS INDICATED ON THE CURB RETURN IN THE CLOCKWISE DIRECTION.
- DENOTES 1/2" EXPANSION JOINT.
- FOR NEW CONSTRUCTION, VALLEY GUTTER SHALL BE CONSTRUCTED PRIOR TO ADJACENT PAVEMENT. ASPHALT CONC. SHALL BE INSTALLED MONOLITHICALLY TO MEET NEW VALLEY GUTTER.
- PRIOR TO CONSTRUCTION OF NEW VALLEY GUTTER ON EXISTING ACCEPTED PAVEMENT SHALL BE REMOVED AS SHOWN ON PLANS.

CONSTRUCTION NOTES:

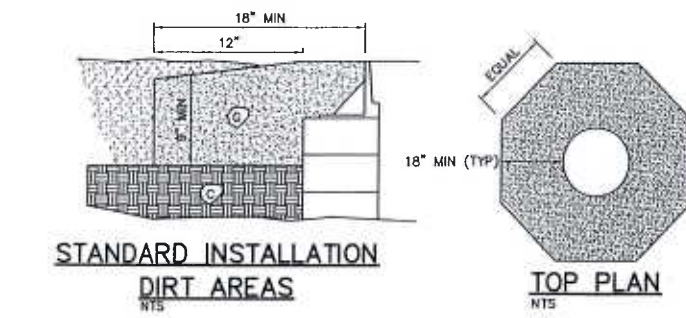
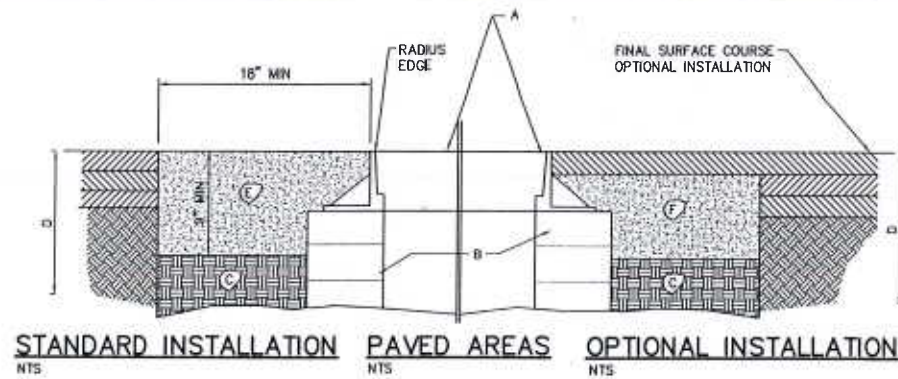
- END OF CURB RETURN, SEE NOTE 1.
- FOR RAMP DETAILS, SEE DWGS. 2418, 2440, 2441.
- INTERSECTION OF FLOWLINES, SEE NOTE 1.
- SURFACE AND CURB TO BE MONOLITHIC.
- DIRECTION OF FLOW.
- FLOWLINE.
- PROJECTED FLOWLINE OF 1 1/2" INVERT, SEE NOTE 2.
- 6" X 6" NO. 6 GA. WIRE MESH.
- BEGIN CROWN WARP TO NO CROWN SECTION AS PER DWGS. 2401 OR AS SPECIFIED ON PLANS OR INDICATED BY THE ENGINEER.
- NO. 4 BARS 3'-0" LONG AT 16" O.C.
- ALTERNATE A, WITH FILLET AS PER PLANS.
- ALTERNATE B, NO FILLET AS PER PLANS.
- THE 1 1/2" INVERT DEPTH MAY BE REDUCED TO IMPROVE RIDE ABILITY WITH APPROVAL OF ENGINEER.

AS-BUILT INFORMATION				SURVEY INFORMATION				ENGINEER'S SEAL			
STANDARD	DATE	BY	NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
11/1/07	11/1/07	11/1/07	11/1/07	11/1/07	11/1/07	11/1/07	11/1/07	11/1/07	11/1/07	11/1/07	11/1/07
BENCH MARKS				FIELD NOTES				REVISIONS			
STD. ACS BRASS TABLET STAMPED "1-K13"				SET IN TOP OF A CONCRETE POST, APPROX. 0.2 FT. BELOW SURF. THE STATION IS THEN 0.7 FT. WEST OF THE WEST CURB ON 80TH STREET, AND IS APPROX. 225' SOUTH OF STOVER AVE.				WILSON & COMPANY, ENGINEERS & ARCHITECTS			
ELEVATION = 4944.03 FT.								DESIGNED BY: TAA DATE: MAR 07			
								DRAWN BY: STAFF DATE: MAR 07			
								CHECKED BY: MAJ DATE: MAR 07			

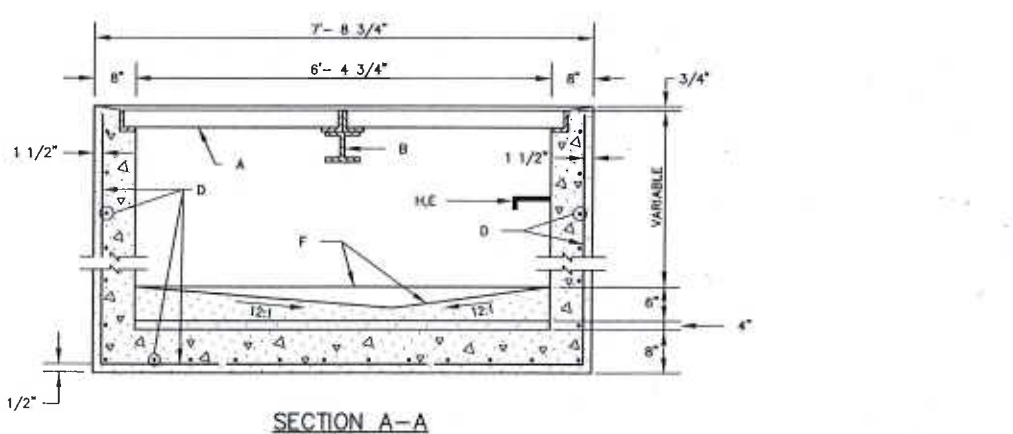
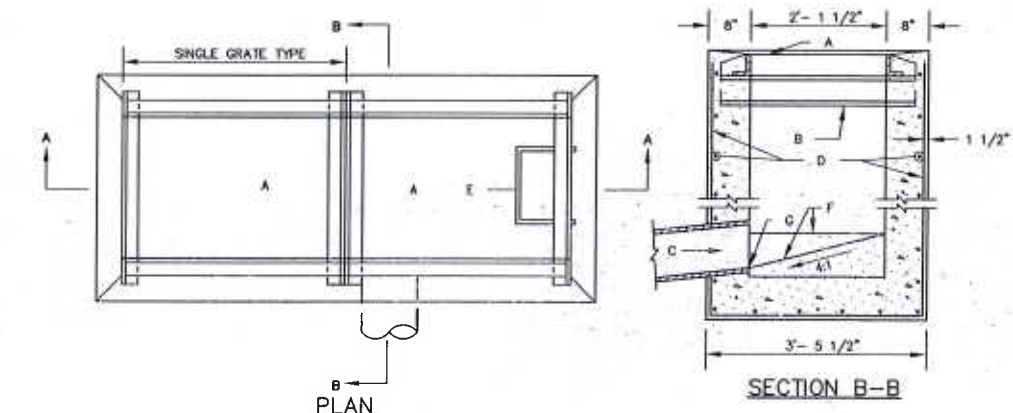
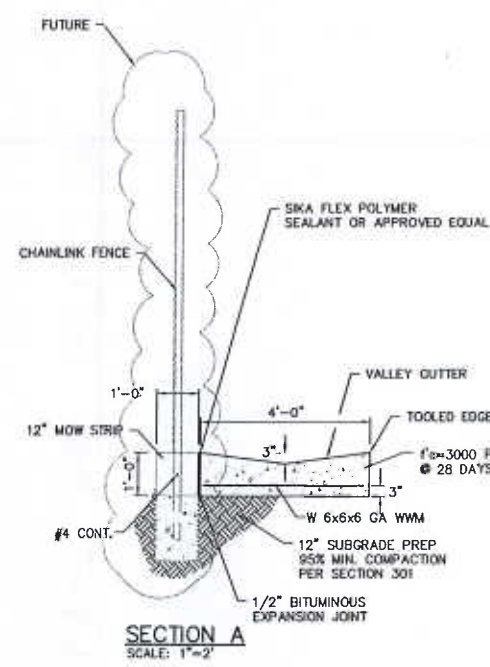
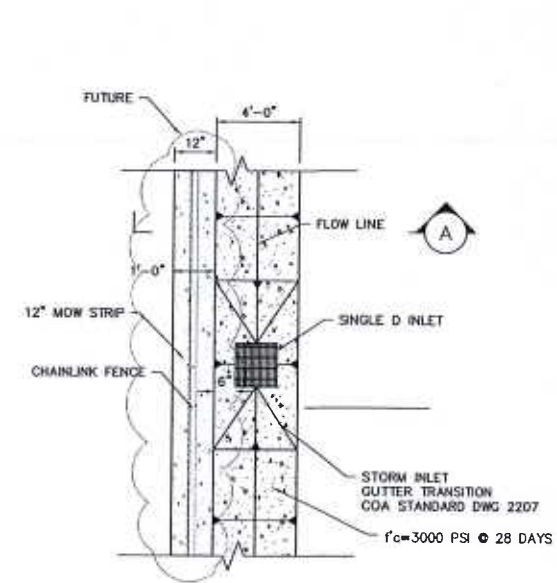
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP			
FLOOD CONTROL ON-CALL CONTRACT ENTRANCE DETAILS			
Design Review Committee	City Engineer Approval	Mo./Coop./Yr.	Mo./Yr./Yr.
City Project No.	Zone Map No.	Sheet	Of
7963.03	K-13	15	24

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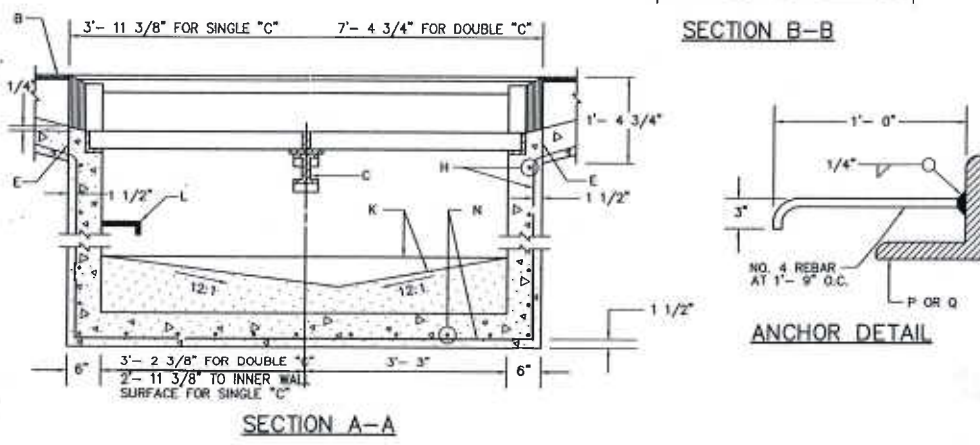
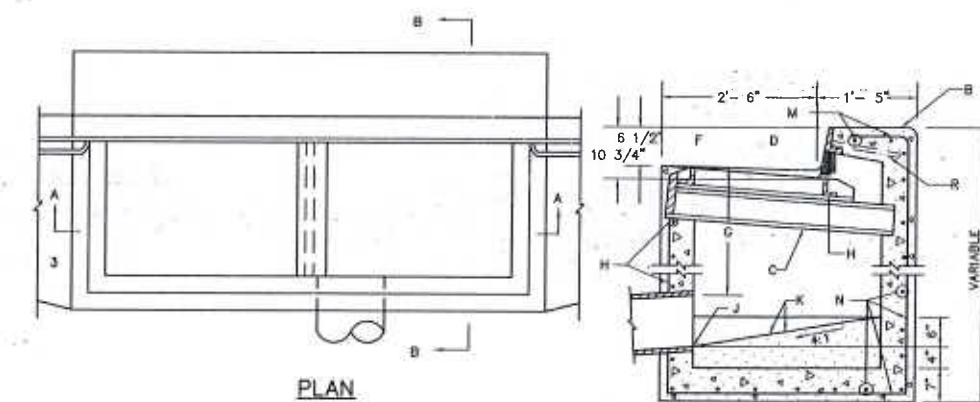
WCEA #0660012300
MARCH 2007

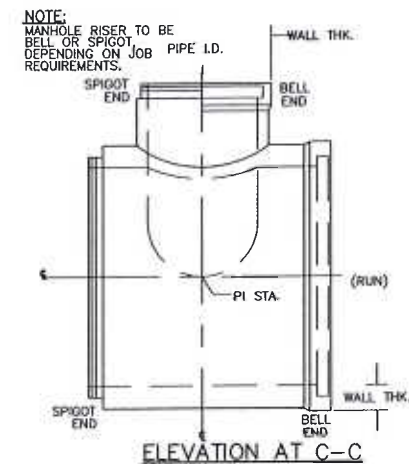
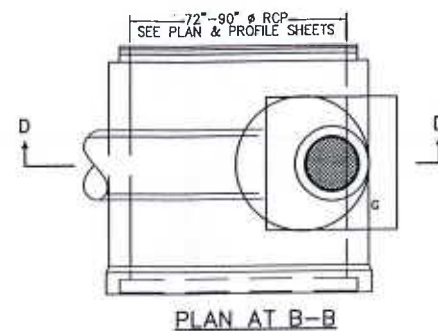
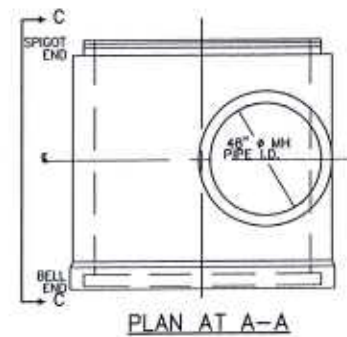


- GENERAL NOTES:**
- MANHOLE OR VALVE BOX RING AND COVER PER CITY STANDARDS
 - MANHOLE CONE/EXTENSION OR VALVE PIPE PER CITY STANDARDS. PIPE WITH SMOOTH INTERIOR.
 - 12" SUBGRADE, 95% COMPACTION (ASTM).
 - PAVING SECTION PER APPROVED DRAWINGS.
 - CONCRETE COLLAR IN PAVED AREAS—TYPICAL INSTALLATION.
 - CONCRETE COLLAR IN PAVED AREAS WITH ASPHALT CAP. TO BE USED WHEN CALLED FOR ON PLANS OR AS DIRECTED BY THE ENGINEER.
 - CONCRETE COLLAR IN DIRT AREAS—SET RING 1" ABOVE GRADE AND SLOPE CONCRETE DOWN AS SHOWN TO 1" BELOW GRADE.
 - WATER VALVE INSTALLATIONS SHALL HAVE SURFACE STAMPED WITH LINE INFORMATION PER CITY STANDARD DWG 2326.



- GENERAL NOTES:**
- FOR SINGLE GRATE TYPE STORM INLET, DELETE CENTER SUPPORT AND MOVE ONE END WALL TO FORM NEW SINGLE GRATE INLET.
 - STORM INLET GUTTER TRANSITION WILL BE SHOWN ON THE CONSTRUCTION PLANS.
 - OUTLET PIPE SIZE, PER DESIGN REQUIREMENT.
 - FOR FRAME & GRATING, SEE DWG. 2216, 2220 & 2221.
 - FOR CENTER SUPPORT ASSEMBLY, SEE DWG. 2215.
- CONSTRUCTION NOTES:**
- FRAME & GRATE.
 - CENTER SUPPORT ASSEMBLY.
 - CUT ONE HORIZONTAL AND ONE VERTICAL BAR MAX. AT PIPE OPENING.
 - NO. 4 BARS AT 6" O.C. EACH WAY.
 - USE STANDARD STEPS, SEE DRW. 2229.
 - CONC. FILL, SEE NOTE C DWG. 2201.
 - INVERT PER DESIGN.
 - INSTALL STEPS ON DOWNSTREAM FACE.



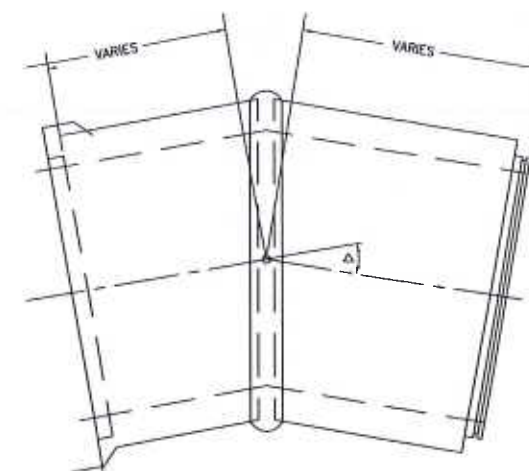
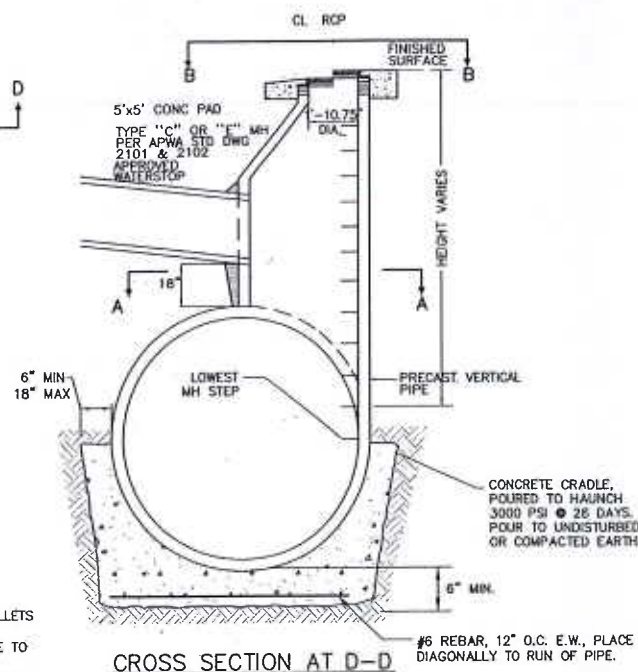


NOTE:
MANHOLE RISER TO BE
BELL OR SPIGOT,
DEPENDENT ON JOB PIPE I.D.
REQUIREMENTS.

TEE MANHOLE
GENERAL NOTES

1. THE OFFSET MANHOLE TEE ASSEMBLY SHALL CONSIST OF THE FOLLOWING:
 - A. STANDARD MH FRAME AND COVER
 - B. GRADE RINGS
 - C. CONCENTRIC CONE
 - D. RISERS AS REQUIRED
 - E. OFFSET TEE
 - F. MANHOLE STEPS.
2. THE RISER SHALL BE MANUFACTURED WITH AN OPENING TO ACCOMMODATE AN 18" RCP OR OTHER PIPE AS REQUIRED. SEE PLANS FOR PIPE SIZES.
3. USE NON-SHRINK GROUT FOR JOINTS, FILLETS AND PIPE PENETRATIONS.
4. COMPACT ALL BACKFILL AROUND MANHOLE TO 95% PER COA STD. SPECIFICATIONS.
5. REFER TO DETAIL 2110, 2229 FOR ADDITIONAL STEP AND FOUNDATION DETAILS.

TEE PIPE MANHOLE DETAIL
N.T.S.



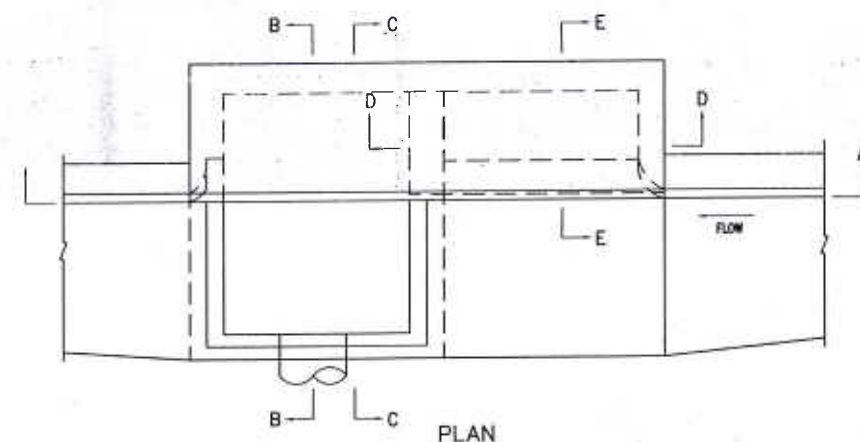
MORTAR—THREE PARTS SAND TO ONE PART CEMENT

STEEL REINFORCING EQUAL TO OR GREATER THAN ADJACENT PIPE

THICK

GENERAL NOTES:

1. GENERAL SPECIFICATIONS. ASTM C 76, C 361.
2. STEEL AREA IN ELBOW CONNECTION EXCEEDS THAT REQUIRED IN ADJACENT PIPE BARREL.
3. THIS DRAWING IS NOT INTENDED TO SHOW REINFORCEMENT DESIGN EITHER AS TO PLACEMENT OR STEEL AREA. ACTUAL PROJECT SPECIFICATION WILL GOVERN.
4. CONTACT CSR HYDRO CONDUIT FOR FURTHER DETAILS NOT LISTED.

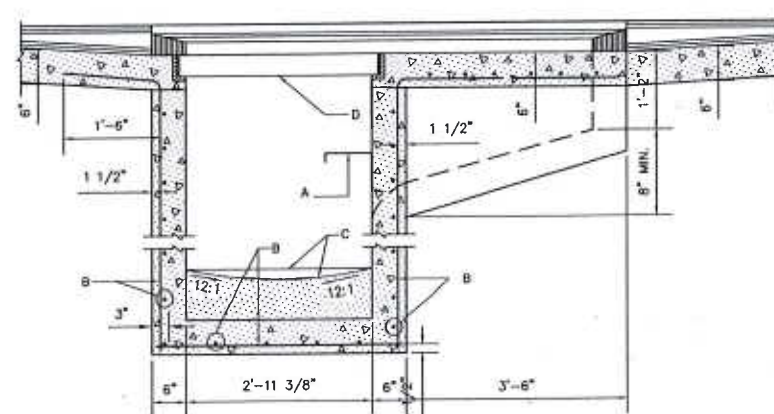


GENERAL NOTES:

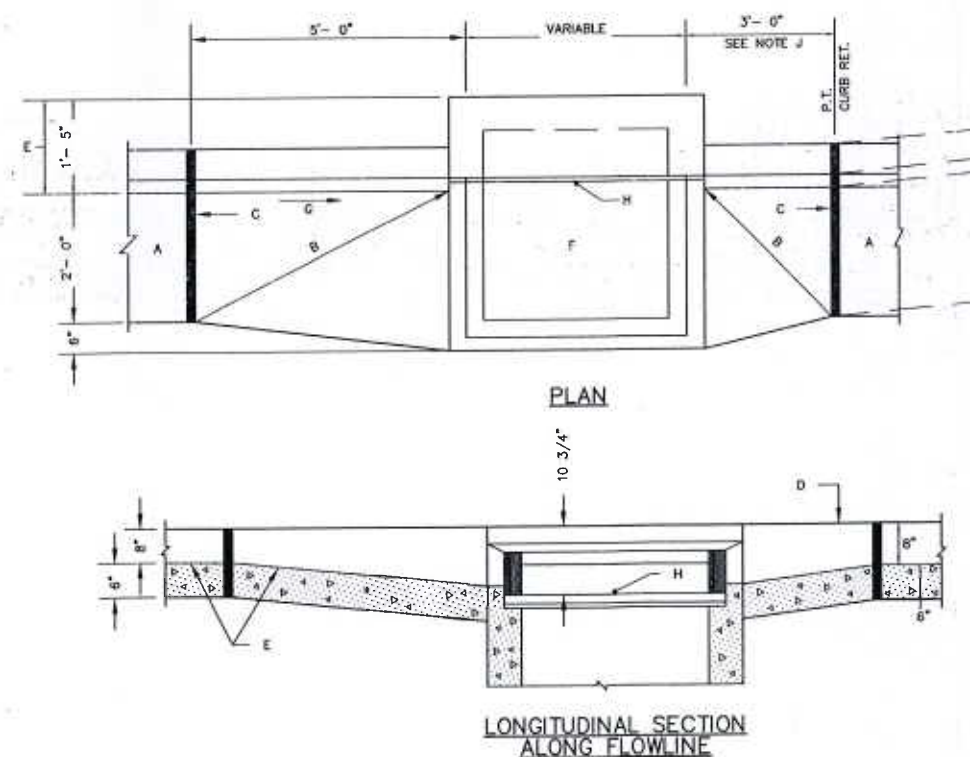
1. SEE DWG. 2202 FOR TYPE "A" INLET SECTIONS.
2. FOR STORM INLET: GUTTER TRANSITION, SEE DWG. 2207.
3. OUTLET PIPE SIZE, PER DESIGN REQUIREMENT.
4. FOR FRAME & GRATING, SEE DWG. 2216, 2220 & 2221.

CONSTRUCTION NOTES:

- A. FOR STORM INLET DEPTHS GREATER THAN 4", INSTALL STD. STEPS, SEE DWG. 2229. STEPS ARE TO BE INSTALLED ON DOWN-STREAM FACE OF INLET.
- B. NO. 4 BARS AT 6" O.C. EACH WAY.
- C. CONCRETE FILL, MINIMUM SLOPE SHOWN IN SECTION A-A.
- D. GRATE



TYPE "A" STORM INLET



GENERAL NOTES:

1. DETAILS FOR PLACING CATCH BASINS.
STANDARD CURB AND GUTTER.

CONSTRUCTION NOTES:

- A. STANDARD CURB AND GUTTER.
- B. STRAIGHT GRADE.
- C. EXPANSION JOINT.
- D. TOP OF CURB.
- E. FLOWLINE.
- F. FOR FRAME & GRATE SEE DWG. 2216, 2220 & 2221.
- G. DIRECTION OF FLOW.
- H. POINT OF MEASUREMENT FOR TOP OF GRATE ELEVATION.
- J. PROVIDE 5' FEET TRANSITION EACH SIDE OF PATCH BASIN, WHEN INSTALLING AT SAG POINT IN INSTALLATIONS OTHER THAN AT CURB RETURN.

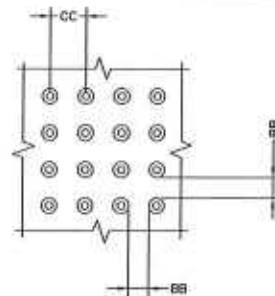
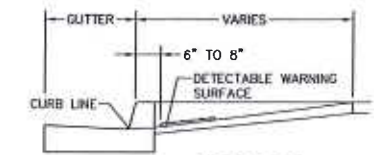
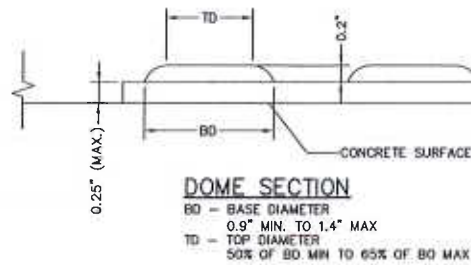
STORM INLET GUTTER TRANSITION
N.T.S.

2-08-08

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NO.		DATE	REMARKS	BY
<u>REVISIONS</u>				
WILSON & COMPANY, ENGINEERS & ARCHITECTS				
DESIGNED BY TJA			DATE	MAR 07
DRAWN BY STAFF			DATE	MAR 07

		CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP			
FLOOD CONTROL ON-CALL CONTRACT STORM DRAIN DETAILS					
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NEW CONSTRUCTION - GENERAL NOTES:

- 1.1 THESE DRAWINGS PROVIDE GUIDANCE FOR COMPLIANCE WITH THE CURRENT AMERICANS WITH DISABILITIES ACT (ADA) AND STATE CODE. THESE STANDARDS SHALL APPLY TO ALL NEW AND ALTERED SIDEWALKS.
- 2.1 ANY DESIGN DEVIATION FROM THESE STANDARDS SHALL BE APPROVED BY THE NMDOT ADA COMPLIANCE COMMITTEE.
- 3.1 SURFACES SHALL BE STABLE, FIRM, AND SLIP RESISTANT. SIDEWALK AND CURB RAMP SURFACES SHALL PROVIDE CONSISTENT SLOPES WITHIN EACH SECTION.
- 4.1 ALL BROOM FINISHES SHALL BE PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.
- 5.1 A VERTICAL CHANGE OF 1/8 INCH (3mm) OR LESS IS ALLOWED. IF BETWEEN 1/8 INCH AND 1/4 INCH (6mm AND 13mm), THEN IT NEEDS TO BE BEVELED 2:1. CHANGES GREATER THAN 1/4 INCH SHALL BE RAMPED.
- 6.1 OPENING OR CRACKS IN SIDEWALK SURFACES SHALL NOT EXCEED 1/8 INCH (3mm). ELONGATED OPENING SHOULD BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR OR DIAGONAL TO THE DOMINANT DIRECTION OF TRAVEL.
- 7.1 SIDEWALKS, CURB AND GUTTER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SERIAL BSCG-001. (SWCG-001).
- 8.1 THE LEAST POSSIBLE SLOPES SHALL BE USED FOR SIDEWALKS, SIDEWALK RUNNING SLOPE SHALL NOT EXCEED 5% (20:1). AT LOCATIONS WHERE THE RIGHT-OF-WAY IS RESTRICTIVE, THE SIDEWALK RUNNING SLOPE MAY FOLLOW THE ROAD PROFILE.
- 9.1 SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% (50:1).
- 10.1 SIDEWALKS SHALL HAVE A MINIMUM WIDTH OF 60", EXCLUDING THE CURB. EXCEPTION: A 36" WIDE SIDEWALK MAY BE USED WHERE THE RIGHT-OF-WAY IS RESTRICTED, WHERE THE SIDEWALK IS LESS THAN 60" WIDE. A PASSING SPACE SHALL BE PROVIDED EVERY 20 LINEAR FEET, WHEREVER FEASIBLE. PASSING SPACES SHALL BE A MINIMUM OF 60"x60" WITH 45 DEGREE TRANSITION TAPERS, 5% (20:1) MAXIMUM RUNNING SLOPES, AND 2% (50:1) MAXIMUM CROSS SLOPES.
- 11.1 ANY SIGN POSTS, UTILITY POLES, FIRE HYDRANTS, TRAFFIC SIGNAL STANDARDS, LIGHT POLES, ETC. IN THE SIDEWALK SHALL NOT REDUCE THE CLEAR WIDTH TO LESS THAN 32" FOR MORE THAN 24" LENGTH.
- 12.1 THE LEAST POSSIBLE CURB RAMP SLOPE SHALL BE USED, FOR COMPLIANCE WITH NMDOT PEDESTRIAN ACCESS DETAILS, CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 6.7% (15:1), WHERE EXISTING TERRAIN IS STEEP. CURB RAMP NEED NOT EXCEED 15 FEET IN LENGTH.
- 13.1 PROVIDE A FLUSH TRANSITION BETWEEN RAMPS, SIDEWALKS, GUTTER, AND EDGE OF PAVEMENT, FREE OF DRAINAGE LIP. ABRUPT GRADE CHANGES, DROP-OFFS, OR ANY SURFACE IRREGULARITIES. A 5% (20:1) OR FLATTER TRANSITION TAPER SHALL BE PROVIDED FROM THE STREET TO THE GUTTER FOR CURB RAMP LOCATION (THIS MAY REQUIRE SPECIAL TREATMENT OF THE EDGE OF O.G.F.C.) WHEN DIAGONAL (NOT IN LINE WITH CROSSWALKS) RAMPS ARE NECESSARY. A 2% (50:1) TRANSITION OR "LOWER LANDING" SHALL BE PROVIDED. THE GUTTER RUNNING SLOPE (FLOW LINE) SHALL NOT EXCEED 2% MEASURED ALONG THE BOTTOM OF THE RAMP.

DEFINITIONS:

DETECTABLE WARNINGS - A SURFACE FEATURE BUILT IN OR APPLIED TO WALKING SURFACES OR OTHER ELEMENTS TO WARN OF HAZARDS ON A CIRCULATION PATH TO AID PERSONS WITH VISUAL IMPAIRMENTS

CURB LINE - A LINE AT THE FACE OF THE CURB THAT MARKS THE TRANSITION BETWEEN THE SIDEWALK AND THE GUTTER OR ROADWAY

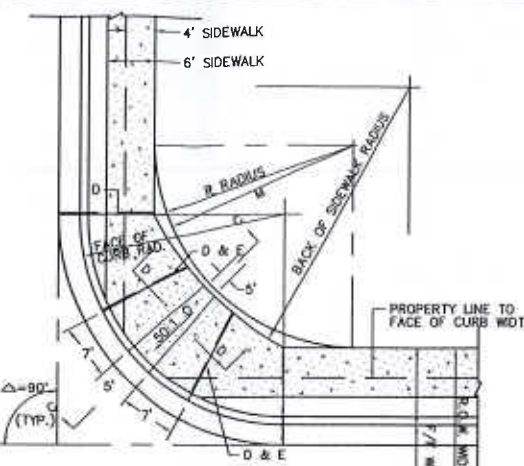
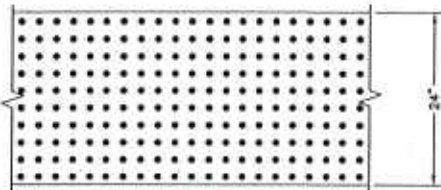
LOCATION:

1. DETECTABLE WARNING SURFACES SHALL BE PROVIDED WHERE A CURB RAMP OR LANDING CONNECTS TO A CROSSWALK AND OR PEDESTRIAN ROUTE CROSSING A ROADWAY.
2. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6" (150 MM) MINIMUM AND 8" (205 MM) MAXIMUM FROM THE CURB LINE.
3. MEDIAN AND REFUGE ISLANDS SHALL HAVE DETECTABLE WARNINGS. DETECTABLE WARNINGS AT CUT THROUGH ISLAND SHALL BE SEPARATED BY A 24" (610 MM) MINIMUM LENGTH OF WALKWAY WITHOUT WARNINGS

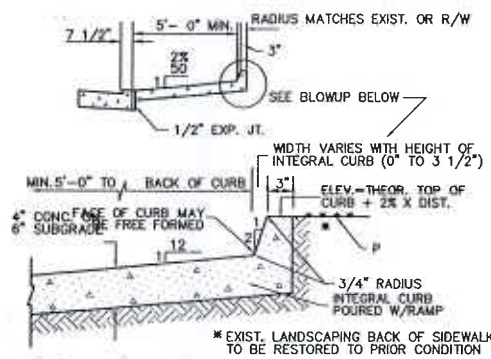
EXCEPTION: DETECTABLE WARNINGS SHALL NOT BE REQUIRED ON CUT THROUGH ISLANDS WHERE THE CROSSINGS ARE CONTROLLED BY SIGNALS AND ARE TIMED FOR FULL CROSSING ON MEDIANS LESS THAN 7' WIDE

NOTES:

1. DETAILS SPECIFIED ON THIS PLAN APPLY TO ALL CONSTRUCTION OR RECONSTRUCTION OF STREETS, CURBS, OR SIDEWALKS BY ALL PUBLIC AGENCIES AND BY ALL PRIVATE ORGANIZATIONS CONSTRUCTING FACILITIES FOR PUBLIC USE.
2. SIDEWALK RAMPS ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
3. THE TOP OF THE JOINT FILLER FOR ALL RAMP TYPES SHALL BE FLUSH WITH THE ADJACENT CONCRETE.
4. ALL PRODUCTS USED FOR THE DETECTABLE WARNING SURFACES SHALL BE ON THE DEPARTMENT'S APPROVED PRODUCT LIST.
5. PRODUCTS SHALL BE CAST-IN-TACT AND RED IN COLOR.

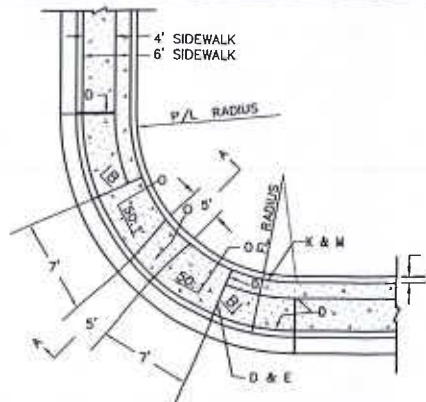
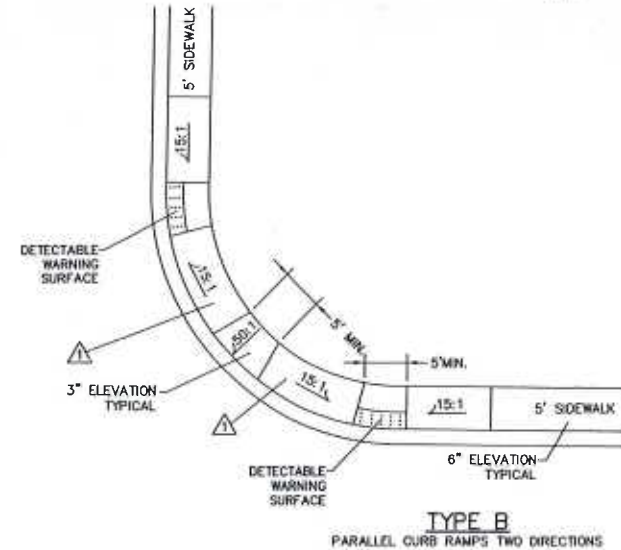


CASE II ADEQUATE R.O.W. FOR SETBACK SDWK ADJACENT TO PL

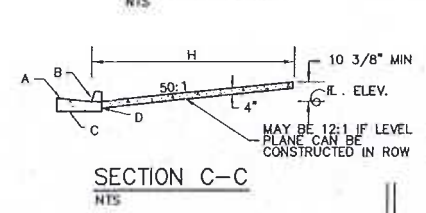
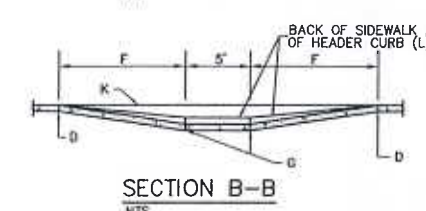
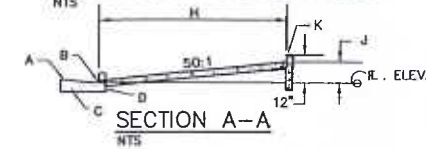


ALTERNATE SECTION A-A

NTS



CASE I INSUFFICIENT R.O.W. FOR FULL LENGTH RAMP

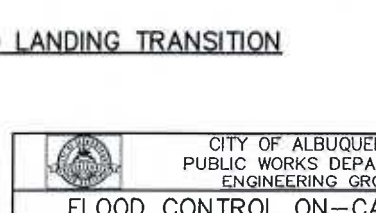
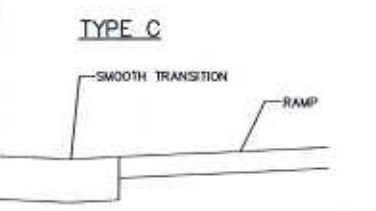
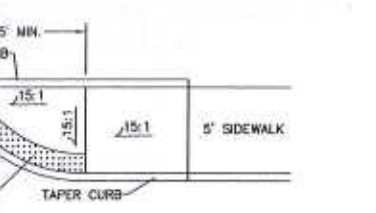
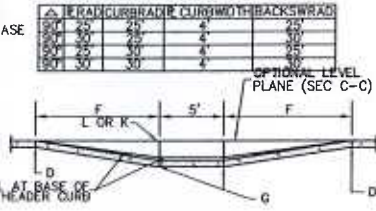


GENERAL NOTES:

1. CURB ACCESS RAMPS ARE NORMALLY TO BE LOCATED AT THE CENTER OF THE RETURN OR AS DIRECTED BY THE CITY TRAFFIC ENGINEER.
2. SURFACE TEXTURE OF CURB ACCESS RAMPS SHALL BE OBTAINED BY HEAVY BROOMING (TEXTURE DEPTH .035"), TRANSVERSE TO THE SLOPE OF THE RAMP.
3. GUTTER FLOWLINE PROFILE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP. DRAINAGE CATCH BASIN STRUCTURES SHALL NOT BE PLACED IN LINE WITH THE RAMPS.
4. WIDTH OF SIDEWALK AND RAMP MUST BE MAINTAINED AT A MINIMUM OF 5'-0" THROUGH ENTIRE RAMP LENGTH.

CONSTRUCTION NOTES:

- A. SLOPE OF GUTTER DEPENDENT ON REQUIREMENTS FOR VALLEY GUTTER.
- B. 1/4" LIP ABOVE FLOW LINE (VERTICAL), SEE STD DWG 2415.
- C. CURB GUTTER (SEE STD DWG 2415 GUTTER AT CURB ACCESS RAMP).
- D. 1/2" EXPANSION JOINT.
- E. PARALLEL LINES TOP AND BOTTOM OF RAMP 7' AT FACE OF CURB (SEE STD DWG 2418).
- F. CONTRACTION (GUTTER) JOINT.
- G. VARIES WITH AVAILABLE R.O.W.
- H. VARIABLE.
- I. HEADER CURB, SEE DWG. 2415.
- J. BACK OF SIDEWALK.
- K. BACK OF SIDEWALK RADIUS TO BE ESTABLISHED SO AS TO MAINTAIN A 5'-0" RAMP WIDTH (MINIMUM) OR NONE THROUGHOUT SEE STD. DWG 2440 (NOTE 5) IF LESS THAN 5'-0" IS AVAILABLE DUE TO UNTIMELY UNESOL WHILE IN CONSTRAINTS.
- L. 4 1/2" MAX.
- M. 12:1 SLOPE MAXIMUM ON RAMP.
- N. ANY PRIVATE LANDSCAPING OR IRRIGATION SHALL BE RESTORED TO A 5'-0" RAMP WIDTH (MINIMUM) OR ORIGINAL CONDITION. SHOULD ANY PRIVATE IMPROVEMENT NEED TO BE REMOVED, OWNER MUST BE NOTIFIED.



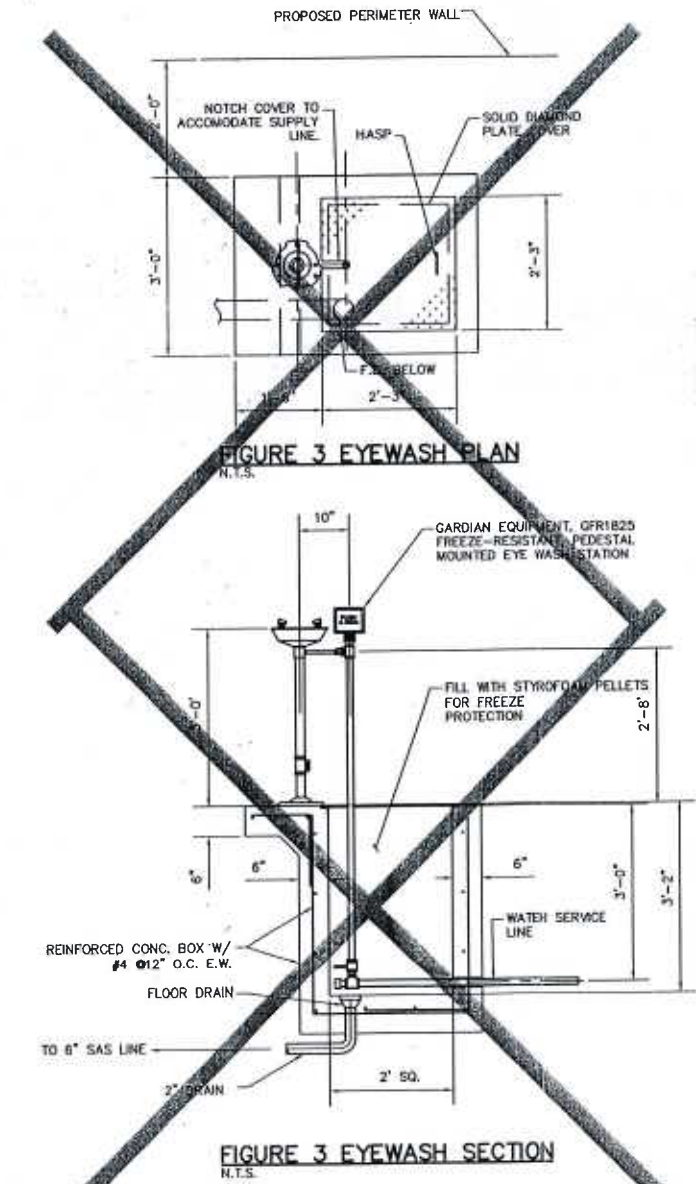
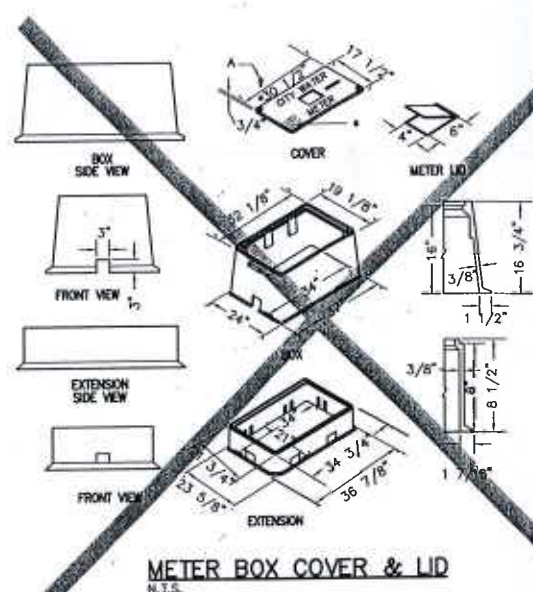
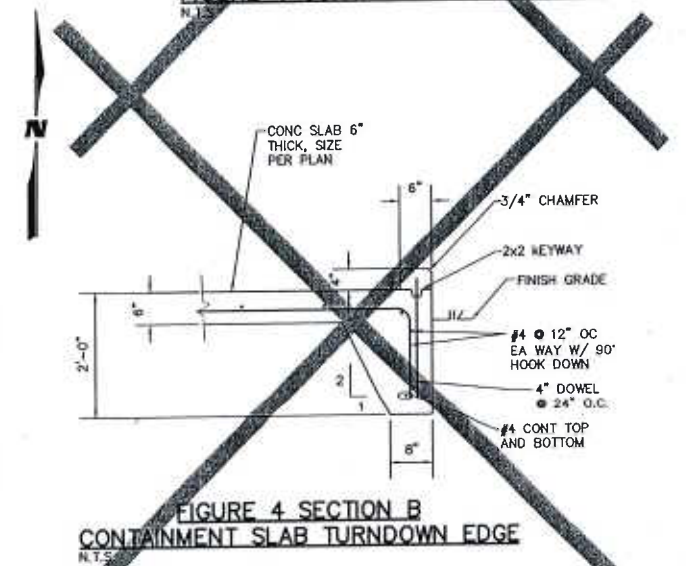
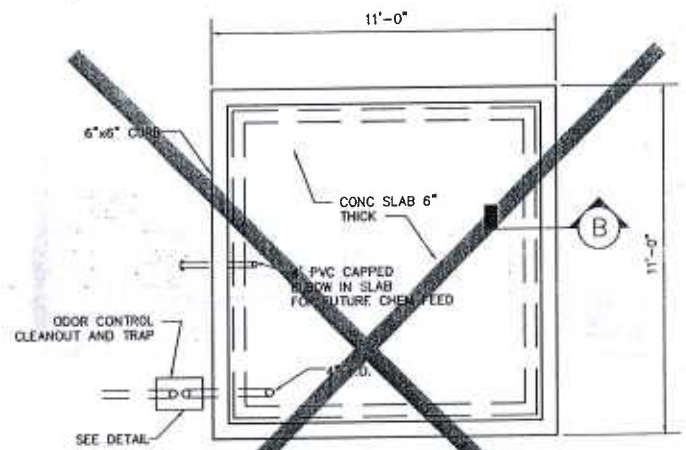
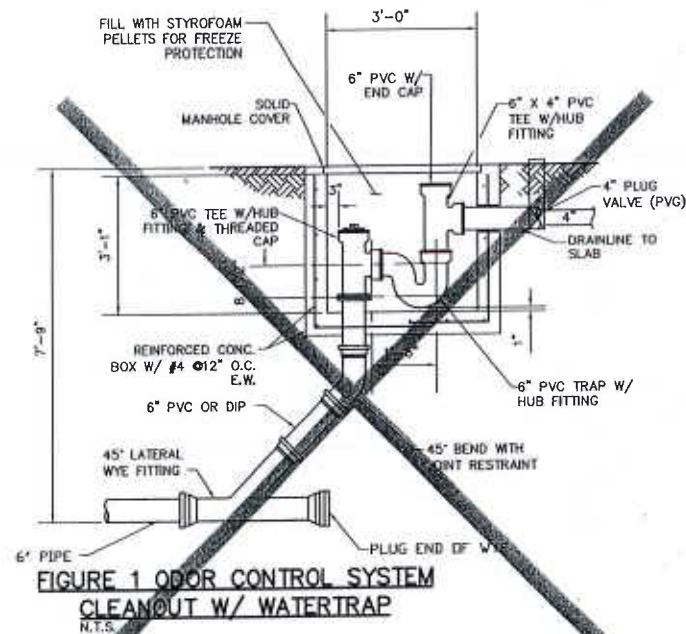
AS-BUILT INFORMATION				BENCH MARKS				SURVEY INFORMATION				ENGINEER'S SEAL				
DATE	BY	NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
10/17	WJ	1	10/17	WJ	1	10/17	WJ	1	10/17	WJ	1	10/17	WJ	1	10/17	WJ
STANDARD: ACS BRASS TABLE STAMPED "1-K13"				SET IN TOP OF A CONCRETE POST, APPROX. 0.2 FT BELOW TOP OF A STATION IS THEN 0.7 FT WEST OF THE WEST CURB ON EIGHTH STREET, AND IS APPROX. 225' SOUTH OF STOVER AVE.				ELEVATION = 4944.03 FT.								
REVISIONS				REVISIONS				REVISIONS				REVISIONS				
NO. DATE				NO. DATE				NO. DATE				NO. DATE				
1 10/17				1 10/17				1 10/17				1 10/17				
WILSON & COMPANY, ENGINEERS & ARCHITECTS				WILSON & COMPANY, ENGINEERS & ARCHITECTS				WILSON & COMPANY, ENGINEERS & ARCHITECTS				WILSON & COMPANY, ENGINEERS & ARCHITECTS				
DESIGNED BY TJA				DESIGNED BY TJA				DESIGNED BY TJA				DESIGNED BY TJA				
DRAWN BY STAFF				DRAWN BY STAFF				DRAWN BY STAFF				DRAWN BY STAFF				
CHECKED BY WJ				CHECKED BY WJ				CHECKED BY WJ				CHECKED BY WJ				

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP			
FLOOD CONTROL ON-CALL CONTRACT WHEELCHAIR RAMP DETAILS			
Design Review Committee	City Engineer Approval	Min./Days/Wk.	Min./Days/Wk.
City Project No. 7963.03	Zone Map No. K-13	Sheet 18	Of 24

2-08-08

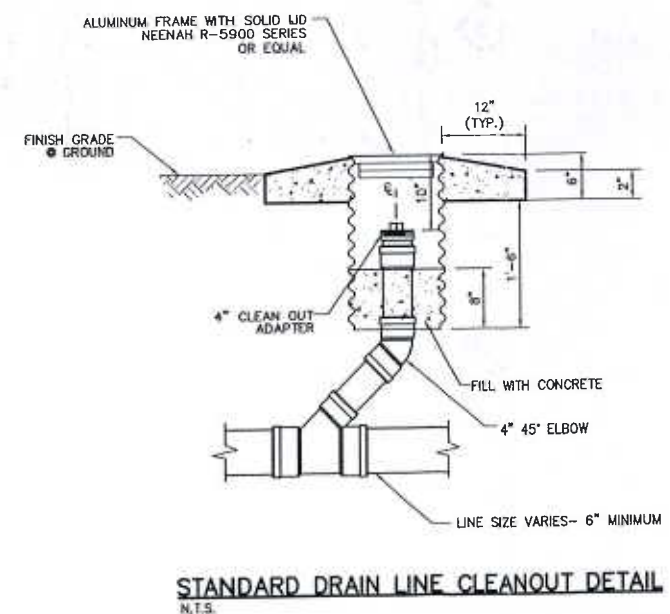
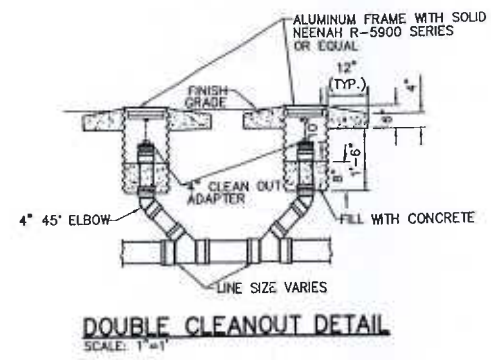
WILSON & COMPANY
 4800 LANG AVE. N.E.
 SUITE 100
 ALBUQUERQUE, NEW MEXICO 87109
 (505) 348-4000
 FAX (505) 348-4072
 www.wilsonco.com

WCEA #0660012300
 MARCH 2007



GENERAL NOTES:
1. METER BOX W/COVER & LID FOR 1 1/2" & 2" METERS.
QUANTE COMPOSITE MODEL BOX PX1730B
EXTENSION PX1730E
COVER W/LID PX1730CM OR APPROVED EQUAL.

CONSTRUCTION NOTES:
A. 3/8" - 16NC HEX. HD. BOLT, 2 REQUIRED WITH WASHERS.
B. SKID RESISTANT SURFACE.
C. 3" X 3" PIPE HOLE AT EACH END.



2-08-08

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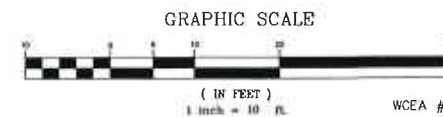
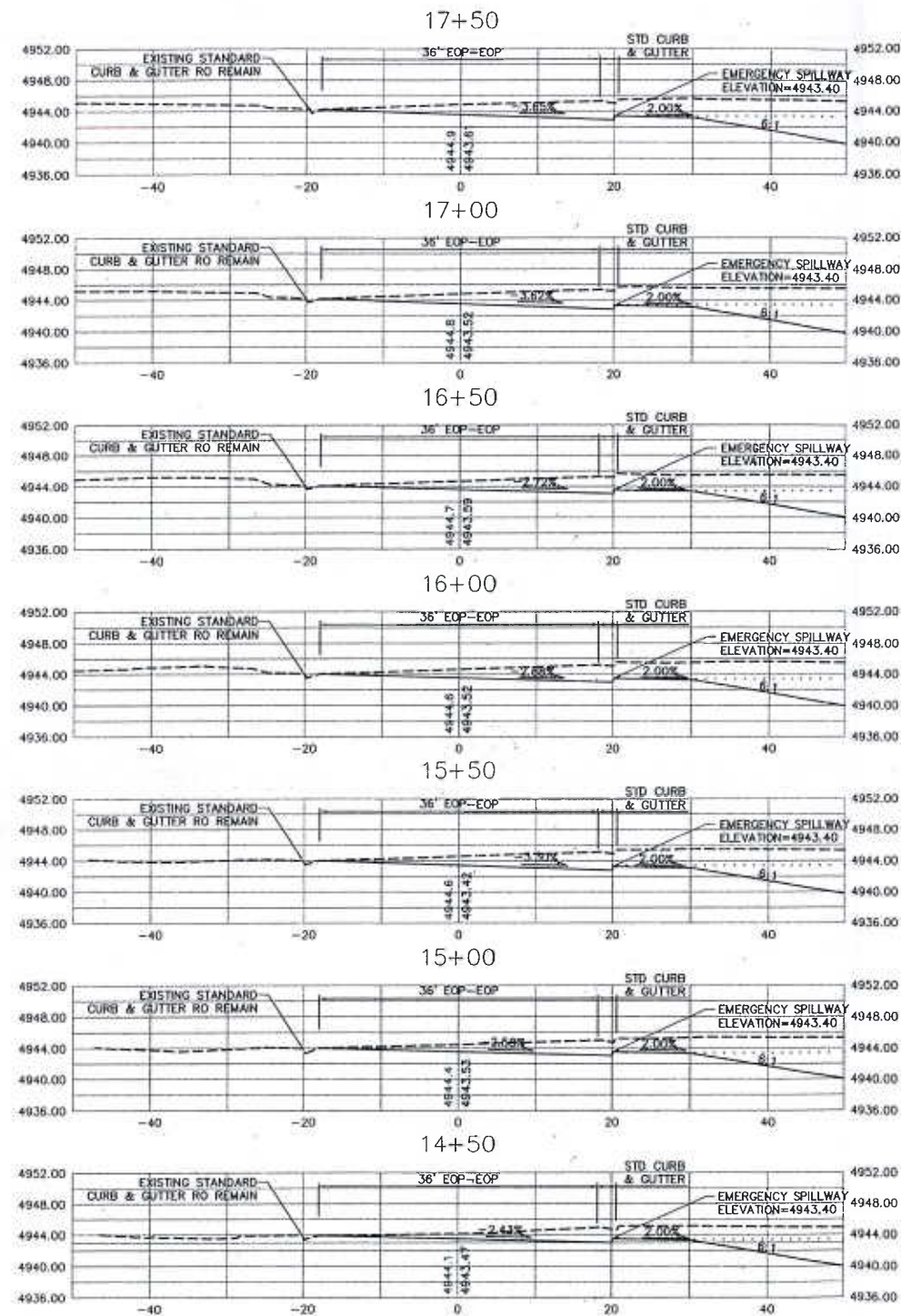
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

FLOOD CONTROL ON-CALL CONTRACT
MISCELLANEOUS UTILITY DETAILS

Design Review Committee	City Engineer Approval	Mr. [Name]	Mr. [Name]
City Project No. 7963.03	Zone Map No. K-13	Sheet 20	Of 24

WCEA #0660012300
MARCH 2007

AS-BUILT INFORMATION			
CONTRACT NO.	DATE	DATE	DATE
REVISIONS	BY	DATE	DATE
NO.	BY	DATE	DATE
SURVEY INFORMATION			
FIELD NOTES	NO.	BY	DATE
ENGINEER'S SEAL			
REMARKS			
NO.	DATE	BY	DATE
DESIGNED BY	DATE	DESIGNED BY	DATE
DRAWN BY	DATE	DRAWN BY	DATE
CHECKED BY	DATE	CHECKED BY	DATE



WCEA #0660012300
MARCH 2007

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CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP		FLOOD CONTROL ON-CALL CONTRACT 10th STREET CROSS SECTIONS	
Design Review Committee	City Engineer Approval	Last Design Update	Ms. /10/07/11 Ms. /11/07/11
City Project No. 7963.03	Zone Map No. K-13	Sheet 21	OR 24

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS-BUILT INFORMATION	
		FIELD NOTES		STD. ACS BRASS TABLET STAMPED "1-K13"		CONTRACT NO. NMU11	
		NO. BY DATE		SET IN TOP OF A CONCRETE POST, APPROX. 0.2 FT BELOW TURF. THE STATION IS THEN 0.7 FT WEST OF THE WEST CURB ON EIGHTH STREET, AND IS APPROX. 225' SOUTH OF STOVER AVE.		WORK CLASS BY TERA LAPP DATE 11/07	
REVISIONS		NO. DATE		BY		DRAWN BY CDA DATE 11/07	
WILSON & COMPANY, ENGINEERS & ARCHITECTS		DESIGNED BY TJA		DATE MAR 07		CHECKED BY MJA	
DATE MAR 07		DATE MAR 07		DATE MAR 07		MICRO-FILM INFORMATION	
						RECORDED BY	
						ELEVATION = 4944.03 FT.	

1. CONTRACTOR MUST OBTAIN FROM CONSTRUCTION COORDINATION AN EXCAVATION/BARRICADING PERMIT BEFORE ENGAGING IN ANY CONSTRUCTION, MAINTENANCE OR REPAIR WORK IN ANY OF THE CITY OF ALBUQUERQUE'S RIGHTS-OF-WAY. EMERGENCY WORK THAT WOULD PRESERVE LIFE OR PROPERTY IS EXCLUDED WITHIN THE UNDERSTANDING, THAT A PERMIT SHALL BE OBTAINED WITHIN 24 TO 48 HOURS.

2. CONTRACTOR SHALL AT THE TIME OF PERMIT REQUEST, SUBMIT FOR APPROVAL BY CONSTRUCTION COORDINATION, A TRAFFIC CONTROL PLAN DETAILING ALL EXISTING TOPOGRAPHY SUCH AS LANE WIDTHS, DRIVEWAYS, BUSINESS/RESIDENTIAL ACCESSES, THE TRAFFIC CONTROL PLAN SHALL INCLUDE ALL PHASES OF WORK AND SCHEDULES INVOLVED IN THE CONSTRUCTION PROJECT. ANY SEPARATE PHASES OF A CONSTRUCTION PROJECT SHALL BE GIVEN AN INDIVIDUAL PERMIT EACH. BLANKET PERMITS WILL NOT BE ISSUED.

3. THESE TYPICAL TRAFFIC CONTROL PLANS DO NOT REFLECT THE EXISTING TOPOGRAPHY SUCH AS DRIVEWAYS, LANE WIDTHS, AND BUSINESS/RESIDENTIAL ACCESSSES. EVERY LOCATION THAT REQUIRES CONSTRUCTION TRAFFIC CONTROL SHALL HAVE A DETAILED TRAFFIC CONTROL PLAN SHOWING ALL EXISTING TOPOGRAPHY.

4. CONSTRUCTION SHALL NOT BEGIN UNLESS A TRAFFIC CONTROL PLAN HAS BEEN APPROVED AND VERIFIED BY CONSTRUCTION COORDINATION & NMSHTD.

5. CONSTRUCTION COORDINATION & NMSHD SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY TRAFFIC CONTROL CHANGES NEEDED BY CONTRACTOR, THAT WERE NOT PREVIOUSLY APPROVED. THESE TRAFFIC CONTROL CHANGES SHALL BE REQUESTED IN WRITING ACCOMPANIED WITH A TRAFFIC CONTROL PLAN REFLECTING SUCH CHANGES.

6. ALL CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL COMPLY TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL, SERVICE AND MAINTAIN ALL TRAFFIC CONTROL DEVICES. TRAFFIC CONTROL DEVICES SHALL NOT BE REMOVED OR ALTERED IN ANY WAY WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION, PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.

7. THE CONSTRUCTION TRAFFIC CONTROL INITIAL SET-UP SHALL BE BY AN AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED WORK SITE TRAFFIC SUPERVISOR. THE MAINTENANCE AND SERVICING SHALL ALSO BE DONE BY AN ATSSA CERTIFIED WORKSITE TRAFFIC SUPERVISOR OR EQUIVALENT.

8. CONTRACTOR IS RESPONSIBLE TO MAINTAIN AND SERVICE ALL TRAFFIC CONTROL DEVICES 24 HOURS A DAY, 7 DAYS A WEEK THROUGHOUT LENGTH OF PROJECT. CONTRACTOR IS RESPONSIBLE THAT ALL TRAFFIC CONTROL DEVICES COMPLY WITH THE MUTCD, LATEST EDITION.

9. ALL ADVANCE WARNING SIGNS SHALL BE DOUBLE INDICATED WHENEVER THERE ARE MULTI-LANE TRAFFIC IN ANY ONE GIVEN DIRECTION AND THERE IS SUFFICIENT MEDIAN SPACE.

10. ALL BARRICADES IN ALL TAPERS AND TANGENTS SHALL BE PLACED APART, A DISTANCE MEASURED IN FEET, EQUAL TO THAT OF THE POSTED SPEED LIMIT. NO EXCEPTIONS UNLESS APPROVED BY CONSTRUCTION COORDINATION PER MUTCD SECTION 6A-4.

11. ALL WORK IN ARTERIAL ROADWAYS, INCLUDING ALAMEDA RD. AND COORS BLVD., WILL REQUIRE CONTINUOUS, 24-HOUR PER DAY CONSTRUCTION WHEN TRAFFIC LANES ARE CLOSED.

12. CONTRACTOR IS RESPONSIBLE TO PROVIDE CONSTRUCTION COORDINATION, A WEEKLY LOG OF DAILY INSPECTIONS OF BARRICADE AND MAINTENANCE SCHEDULES ON PROJECTS THAT ARE OVER ONE WEEK DURATION.

13. EQUIPMENT OR MATERIALS SHALL NOT BE STORED WITHIN 15 FEET OF A TRAVELED TRAFFIC LANE DURING NON-WORKING HOURS.

14. CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE AND ADEQUATE MEANS OF CHANNELIZING PEDESTRIAN TRAFFIC AROUND AND THROUGH THE CONSTRUCTION AREA.

15. CONTRACTOR IS RESPONSIBLE FOR OBLITERATION OF ANY CONFLICTING STRIPING AND RESPONSIBLE FOR ALL TEMPORARY STRIPING.

16. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL FACILITIES, BUSINESSES AND/OR RESIDENTS AT ALL TIMES.

17. CONTRACTOR SHALL PROVIDE ACCESS SIGNS FOR BUSINESSES LOCATED WITHIN THE CONSTRUCTION AREA UNDER THE SUPERVISION OF CONSTRUCTION COORDINATION. EACH ACCESS SIGN SHALL HAVE 5 INCH, WHITE OPAQUE LETTERING ON BLUE REFLECTORIZED BACKGROUND. ACCESS SIGNS SHALL BE CONSIDERED INCIDENTAL TO THE BID AND NOT PART OF THE CONTRACT UNLESS OTHERWISE STATED. NO MORE THAN 3 BUSINESSES SHALL BE LISTED ON AN ACCESS SIGN. SHOPPING CENTERS AND MALLS SHALL BE LISTED AS SUCH.

18. ALL ADVANCE WARNING SIGNS SHALL MEET THE MINIMUM REFLECTIVE INTENSITY REQUIREMENTS SET FORTH BY THE CITY OF ALBUQUERQUE. CONSTRUCTION COORDINATION SHALL DETERMINE ALL REQUIREMENTS AND APPROVE OR DISAPPROVE ANY ADVANCE WARNING SIGN PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.

19. 24 HOURS PRIOR TO OCCUPYING OR CLOSING OF A RIGHT-OF-WAY, CONTRACTOR SHALL NOTIFY: POLICE, FIRE DEPARTMENT, SCHOOLS, HOSPITALS, TRANSIT AUTHORITY, BUSINESSES AND/OR RESIDENTS THAT WILL BE AFFECTED BY THE CONSTRUCTION.

20. ANY FIELD ADJUSTMENTS SHALL BE APPROVED BY CONSTRUCTION COORDINATION.

21. EXCAVATIONS SHALL BE PLATED, TEMPORARILY PATCHED OR RESURFACED PRIOR TO OPENING OF TRAFFIC. A MINIMUM OF 11 FEET SHALL BE PROVIDED FOR TRAFFIC IN ANY GIVEN DIRECTION. CONTRACTOR IS RESPONSIBLE FOR ANY WORK INVOLVED IN SATISFYING THESE REQUIREMENTS.

22. CONTRACTOR SHALL AT ALL TIMES COMPLY WITH THE FOLLOWING:

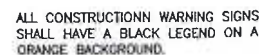
1. STANDARDS AND REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
2. THE CITY OF ALBUQUERQUE TRAFFIC CODE, LATEST EDITION.
3. SECTION 19 OF THE CITY OF ALBUQUERQUE'S STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION, AS WELL AS OTHER SECTIONS.
4. NMSHD STANDARD SPECIFICATION FOR HIGHWAY AND BRIDGE CONSTRUCTION.

23. FAILURE TO COMPLY WITH ANY OF THE ABOVE MENTIONED, WILL BE ADEQUATE CAUSE TO CEASE ALL WORK ON ANY CONSTRUCTION PROJECT. WORK WILL NOT RESUME UNTIL ALL REQUIREMENTS ARE ADDRESSED AND APPROVED BY CONSTRUCTION COORDINATION.

24. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN NEW-CLEAN CONDITION, WASHING OF EQUIPMENT IS INCIDENTAL TO IT'S PLACEMENT AND MAINTENANCE.

25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.

26. ADVANCE WARNING SIGNS SHALL BE 36"x36" WITH SUPER ENGINEERING GRADE SHEETING OR BETTER.



	WORK AREA
•	BARRICADE - TYPE I, TYPE II, OR BARREL
•	BARRICADE - TYPE III
X	VERTICAL PANEL
D	WARNING SIGN
D	DISTANCE BETWEEN SIGNS - A DISTANCE MEASURED IN FEET EQUAL TO A VALUE OF TEN TIMES THE SPEED LIMIT OF THE STREET
	FLAGMAN POSITION
S	SPACING BETWEEN BARRICADES - A DISTANCE MEASURED IN FEET EQUAL TO THE SPEED LIMIT OF THE STREET
L	TAPER LENGTH - SEE CHART BELOW

THE TANGENT LENGTH IS EQUAL TO THE TAPER LENGTH FOR A GIVEN STREET.

SPEED LIMIT (MPH)	TAPER LENGTH(L) (FEET)			MINIMUM NUMBER OF DEVICES FOR TAPER	MAXIMUM DEVICE SPACING IN FEET	
	10' LANE	11' LANE	12' LANE		ALONG TAPER	AFTER TAPER
20	70	75	80	5	20	20
25	105	115	125	6	25	25
30	150	165	180	7	30	30
35	205	225	245	8	35	35
40	270	295	320	9	40	40
45	450	495	540	13	45	45
50	500	550	600	13	50	50
55	550	605	660	13	55	55

SPEED MILES PER HOUR	MINIMUM DISTANCE IN FEET	
	BETWEEN SIGNS	FROM LAST SIGN TO TAPER
0-20	10 X SPEED LIMIT	10 X SPEED LIMIT
25-30	10 X SPEED LIMIT	10 X SPEED LIMIT
30-35	10 X SPEED LIMIT	10 X SPEED LIMIT
40-45	10 X SPEED LIMIT	10 X SPEED LIMIT
50-60	10 X SPEED LIMIT	10 X SPEED LIMIT

TYPE OF TAPER	TAPER LENGTH
UPSTREAM TAPER:	
MERGING TAPER	L MINIMUM
SHIFTING TAPER	1/2 L MINIMUM
SHOULDER TAPER	1/2 L MINIMUM
TWO-WAY TRAFFIC TAPER	100 FEET MAXIMUM
DOWNSTREAM TAPERS	100 FEET PER LANE

SPEED LIMIT

40 MPH OR LESS	$L = \frac{WS^2}{60}$
40 MPH OR GREATER	$L = W \times S$

L = TAPER LENGTH
W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED OR OFF-PEAK 85-PERCENTILE SPEED IN MPH

7-08-08

		CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP			
FLOOD CONTROL ON-CALL CONTRACT SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS					

Design Review Committee	City Engineer Approval	Last Design Update Mo./Day/Yr. _____ _____ _____ _____ _____	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of	
7963.03	K-13	22	24	

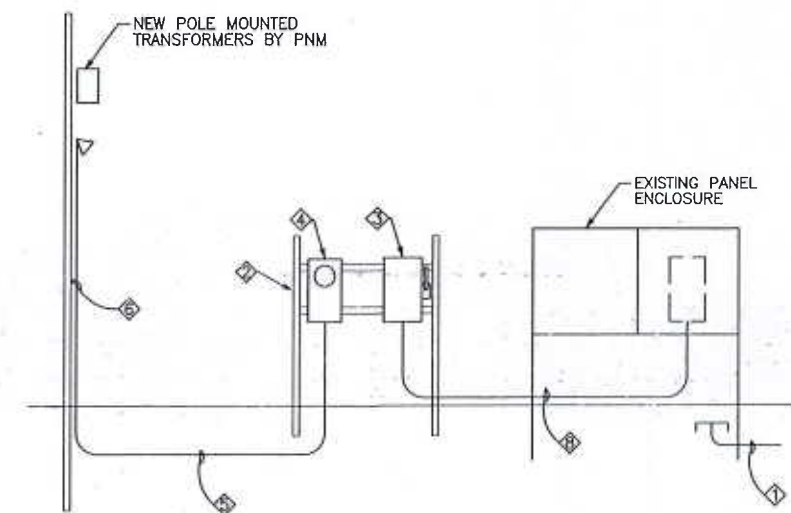
WCEA #0660012300
MARCH 2007

ALL CONTRACT UCTION STANDARDS	Seal of the State of Illinois Professional Engineer No. 005776 Exp. 12/31/20	DATE TIME PLACE	NO. DATE REMARKS BY	ENGINEER'S SEAL	SURVEY INFORMATION			BENCH MARKS			AS-BUILT INFORMATION		
					FIELD NOTES			STD. ACS BRASS TABLET STAMPED "1-K13"			CONTRACTOR NAME		
					NO.	BY	DATE	SET IN TOP OF A CONCRETE POST, APPROX. 0.2 FT BELOW TURF. THE STATION IS THEN 0.7 FT WEST OF THE WEST CURB ON EIGHTH STREET, AND IS APPROX. 225' SOUTH OF STOVER AVE.			NO.	DATE	TIME
											CONTRACTOR ADDRESS		
											CONTRACTOR CITY		
											CONTRACTOR STATE		
											CONTRACTOR ZIP		
											CONTRACTOR PHONE		
											CONTRACTOR FAX		
											CONTRACTOR E-MAIL		



SCALE: 1" = 10'

1. DISCONNECT EXISTING CONDUIT AND CONDUCTORS FROM THE EXISTING PANEL AND ENCLOSURE. REMOVE CONDUCTORS FROM CONDUIT. REMOVE CONDUIT TO BELOW GRADE, CAP AND ABANDON IN PLACE.
2. INSTALL UNISTRUT FOR DISCONNECT SWITCH AND METER PER PNM STANDARD DRAWING MS-5-3.0.
3. INSTALL 100 AMP, 3 PHASE, 4 WIRE, 600 VOLT, NEMA-3R, NON-FUSED DISCONNECT SWITCH ON UNISTRUT RACK.
4. INSTALL METER BASE ON UNISTRUT RACK AS APPROVED ON PNM STANDARD DRAWING MS-2-6.0.
5. INSTALL 2" CONDUIT WITH 4 #2 AND 1 #8 FROM METER BASE TO POLE MOUNTED TRANSFORMERS BY PNM. TRENCH AND BACKFILL ACROSS PARKING LOT PER PNM STANDARD DRAWING DS-10-8.0. MINIMUM BURY 24".
6. INSTALL 2" RISER ON EXISTING 40' POLE PER PNM STANDARD DRAWING DS-4-9.5.
7. INSTALL 4" CONCRETE FILLED BOLLARDS IN FRONT OF METER/ DISCONNECT UNISTRUT RACK AS INDICATED. SEE PNM STANDARD DRAWING DS-7-16.10.
8. INSTALL 2" CONDUIT WITH 4 #2 AND 1 #8 GROUND FROM DISCONNECT SWITCH TO EXISTING PANEL ENCLOSURE. MAKE CONNECTIONS TO EXISTING 100 AMP CIRCUIT BREAKER IN PANEL.



NOT TO SCALE

**MECHANICAL & ELECTRICAL
ENGINEERING, INC.**
PROJECT #07033

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& COMPANY**
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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

FLOOD CONTROL ON-CALL CONTRACT

Design Review Committee

City Engineer Approval

Cost Design Update

Mo./Day/Yr.	Mo./Day/Yr.
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City Project No.	7963.03
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Zone Map No.
K-13

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